

Industrial price list 18-22.1

Valid from 01.06.2022

Perimeter protection systems, power supply stations

Barriers, barrier systems, pay station systems

Bollard

Road blockers

Tyre killers

Aboveground power supply stations (utility towers)

Underground power supply stations (underground utilities)

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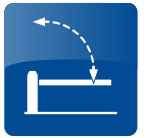
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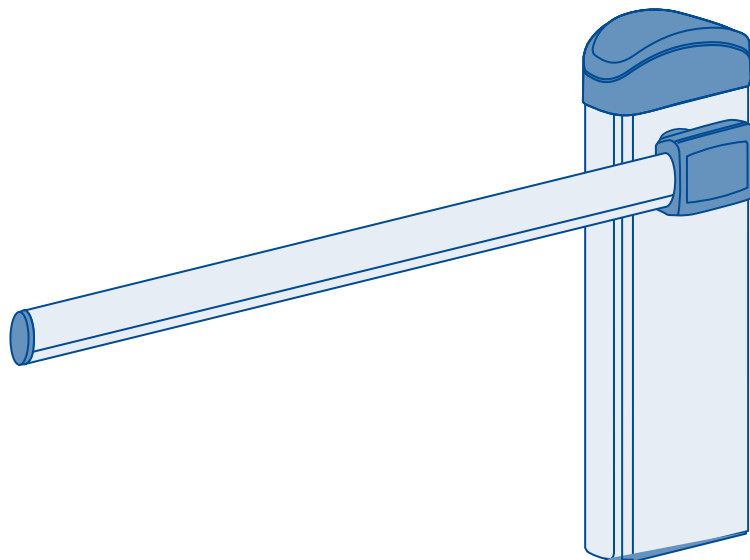
Automatic barrier

Oval boom

SH 50



Product description	
Max. barrier width	4710 mm
Opening / closing phase	Approx. 3 to 6 seconds depending on version
Cycles per day	Up to 500
Overall cycles (service life)	Up to 1000000
Cycles per hour	Up to 250
Motor	24 V DC
Mains voltage	230 V (1~) ± 10 %, 50 Hz
Standby	< 2.5 W
Temperature range	-25°C to +50°C
Protection category	IP 54
Weight	Barrier 50 kg + oval barrier boom 1.32 kg/m
Housing	<ul style="list-style-type: none">• Housing with detachable front door and barrier cover made of phosphated steel and powder-coated• Barrier cover with illumination• Barrier door with locking and barrier door switch• Dimensions (W × H × D): 220 × 1170 × 360 mm <p>Standard colour is housing in RAL 9006 White aluminium, barrier cover in RAL 7016 Anthracite grey. No colour change possible</p>
Barrier boom	<ul style="list-style-type: none">• Oval boom (W × H) 50 × 100 mm (120 mm incl. impact protection)• Barrier boom holder for left and right operation• Made of aluminium, powder-coated in RAL 9016 Traffic white, with red reflecting strips and cover cap• Bottom side with impact protection and groove to hold the (optional) barrier boom illumination
Control	<ul style="list-style-type: none">• Micro-processor barrier control• Operation time monitoring of barrier operation• Integrated barrier cover switch: prevents the automated movement of mechanical components when the barrier housing door is open• Impact protection by intelligent obstacle detection• Status message signalled by diagnostic LED• 7-segment display for status display and control buttons on the control• Impulse control with automatic timer (optionally with protective device)• Option of connecting external components via four relay switch outputs• Option of synchronous barrier operation



Automatic barrier SH 50 with oval boom		Article no.	€
Barrier SH 50 With 24 V DC motor and control	Barrier boom holder for left and right operation	4835559	1795
	Boom length 3 m	4835560	149
Barrier oval boom for barrier SH 50 / SH 100	Boom length 4 m	4835561	199
	Boom length 5 m	4835562	249

Optional extra LED lighting strip for oval boom		Article no.	€
LED lighting strip for barrier oval boom	For boom length 3 m	Surcharge 4837335	104
	For boom length 4 m	Surcharge 4837336	113
	For boom length 5 m	Surcharge 4835566	122
Power supply unit for LED lighting strip for barrier oval boom		Surcharge 4835565	72


Recommended accessories for barriers		Article no.	€
Photocell with battery LM-LB SH 50 *		Surcharge 4835567	95
Wired photocell LM-L SH 50 *		Surcharge 4835568	54

*** Note:**

Only these two photocells work with the SH 50. There are no fitting points on the housing

Detector VEK MNH1-R24-A 1-channel (for evaluation of an induction loop)	Surcharge	4835441	222
Detector VEK MNH2-R24-A 2-channel (for evaluation of two induction loops)	Surcharge	4835442	285
Rigid pre-fabricated induction loops			See page 32

Optional extras for barriers		Article no.	€
STAP 50 – key switch (surface-mounted, impulse Open / Close, with 2 m connecting lead, 2-wire)		Surcharge 4511650	61
Hörmann LED warning light SLK, yellow, 24 V		Surcharge 436515	32
Support post for barrier with oval boom		Surcharge 4835564	124

Radio receiver 868 MHz		Article no.	€
HET/S 24 BS 	HET/S 24 BS 2-channel receiver For switching light on and off or for controlling (impulse) operators of other makes, with 2 volt-free relays; protection category: IP 44; temperature range: –20°C to +40°C; operating voltage: 12–24 V DC, 12 V AC; switch power: 30 V DC / 2.5 A (resistive load); function: on / off, impulse (0.5 s), status feedback of relay statuses; dimensions (W x H x D): 110 x 45 x 40 mm; with power supply unit with 1 m connecting lead	436727	68
	Fitting set for radio receiver HET / S 24 BS Consisting of two hat rail adapters for fitting the radio receiver in the housing and a pre-assembled cable for connection to the control.		
Fitting set		4837381	39

Recommended hand transmitter		Article no.	€
HSE 4 BS	4-button micro hand transmitter, impulse, incl. key ring and battery, with plastic caps in the same colour as the hand transmitter, black (textured surface)	4511736	66
Further hand transmitters			See page 34

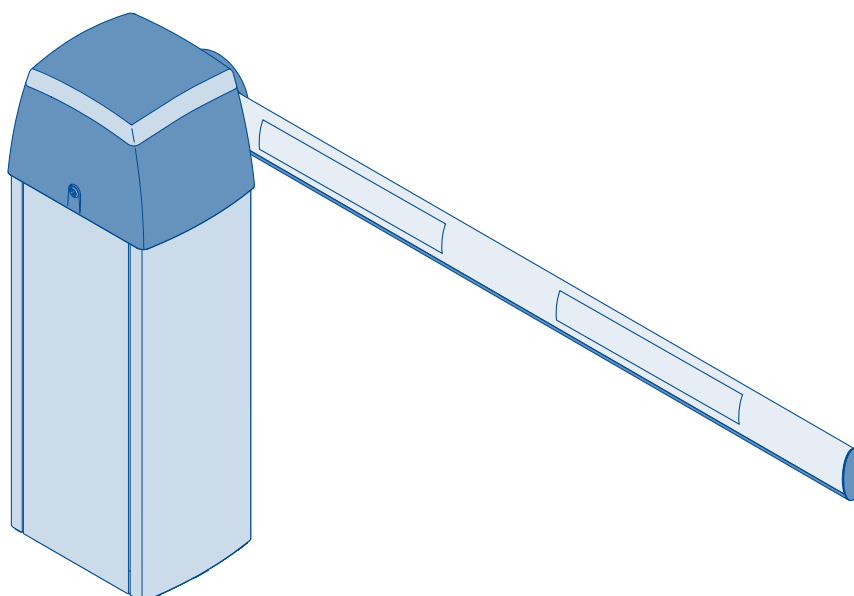
Automatic barrier

Oval boom

SH 100



Product description	
Max. barrier width	3750 mm (5750 mm from 4th quarter / 2022)
Opening / closing phase	Approx. 3 to 6 seconds depending on version
Cycles per day	Up to 1000
Overall cycles (service life)	Up to 2000000
Cycles per hour	Up to 250
Motor	24 V DC
Mains voltage	230 V (1~) ±10 %, 50 Hz
Standby	< 1 W
Temperature range	-25°C to +60°C
Protection category	IP44 (housing), IP65 (encapsulated control)
Weight	Barrier 50 kg + oval barrier boom 1.32 kg/m
Housing	<ul style="list-style-type: none"> Housing with detachable steel front door, galvanized and powder-coated Barrier cover with illumination Barrier cover made of plastic with locking and barrier cover switch Dimensions (W × H × D): 320 × 1120 × 405 mm <p>Standard colour is housing in RAL 9006 White aluminium, barrier cover in RAL 7016 Anthracite grey</p>
Barrier boom	<ul style="list-style-type: none"> Oval boom (W × H) 50 × 100 mm (120 mm incl. impact protection) Barrier boom holder for left and right operation Made of aluminium, powder-coated in RAL 9016 Traffic white, with red reflecting strips and cover cap Bottom side with impact protection and groove to hold the (optional) barrier boom illumination
Control	<ul style="list-style-type: none"> Micro-processor barrier control BiSecur radio receiver integrated Operation time monitoring of barrier operation Integrated barrier cover switch: prevents the automated movement of mechanical components when the barrier is open Impact protection by intelligent obstacle detection Status message signalled by diagnostic LED 7-segment display for status display and control buttons on the control Impulse control with automatic timer (optionally with protective device) Option of connection of external components via UAP (optional) Option of synchronous barrier operation

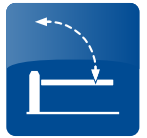


Automatic barrier SH 100 with oval boom – basis			Article no.	€
Barrier SH 100 With 24 V DC operator, BiSecur radio receiver and basis control housing (with loop detector extension option)		Barrier boom holder For left and right operation	4837558	2363
Automatic barrier SH 100 with oval boom – extended			Article no.	€
Barrier SH 100 With 24 V DC operator, BiSecur radio receiver and large control housing incl. extension options (necessary for induction loop detector)		Barrier boom holder For left and right operation	4837559	2573
Automatic barrier SH 100 with oval boom – synchronous			Article no.	€
Additional barrier SH 100 for synchronous operation With 24 V DC operator – without control		Barrier boom holder For left and right operation	4837560	1963
Notes: <ul style="list-style-type: none">• Can only be operated with SH 100 – extended!• A control cable 10 × 2 × 0.8 mm² between the barriers is required!				
Barrier oval boom			Article no.	€
Barrier oval boom for barrier SH50 / SH 100	Boom length 3 m		4835560	149
	Boom length 4 m		4835561	199
Optional extra LED lighting strip for barrier oval boom			Article no.	€
LED lighting strip for barrier oval boom	For boom length 3 m	Surcharge	4837335	104
	For boom length 4 m	Surcharge	4837336	113
Optional extra for automatic barrier SH 100 with oval boom – extended			Article no.	€
Detector VEK MNH1-R24-A 1-channel (for evaluation of an induction loop) The 24 V power supply unit (article no. 4548491) is required.		Surcharge	4835441	222
Detector VEK MNH2-R24-A 2-channel (for evaluation of two induction loops) The 24 V power supply unit (article no. 4548491) is required.		Surcharge	4835442	285
24 V Meanwell hat rail power supply unit (required with detector or synchronous operation)		Surcharge	4548491	60
Preparation for SH 100 accessories (detector)		Surcharge	4837563	49
Preparation for SH 100 accessories (power supply unit)		Surcharge	4837563	49
Induction loops			See page 32	
Photocells / light buttons for barriers			Article no.	€
Photocell EL 401 (one-way photocell with transmitter / receiver)		Surcharge	4835135	71
Post for EL 401 (required for receiver, not required for synchronous barrier)		Surcharge	635029	52
Light button TOF Spot, operation up to 6 m width (No receiver required, restricted recommendation for outdoor use, inspection every six months recommended)		Surcharge	4835206	340
Optional extras for barriers			Article no.	€
Barrier door variant 2, prepared for key and fire brigade switch (article no. 4835366 and 437523)		Surcharge	4837310	43
Fire brigade switch, triangular lock 15 mm, Open push-to-lock, Close press-and-hold For fitting in barrier door variant 2 (article no. 4837310)		Surcharge	4835366	483
Key switch ESU 40, press-and-hold (no permanent open) For fitting in barrier door variant 2 (article no. 4837310)		Surcharge	437523	47
Preparation for SH 100 accessories (fire brigade / key switch)		Surcharge	4837563	49
UAP additional print	Basis (in additional housing)	Surcharge	436295	78
With the help of the UAP, the cover lighting can be used as a caution light (orange) independently of the LED boom lighting (not needed without LED boom lighting).	Extended (integrated in large barrier control housing)	Surcharge	4552398	68
Preparation for SH 100 accessories (UAP)		Surcharge	4837563	49
Junction box for rigid underground cables, incl. fixing plate To make fitting easier with large cross-sections		Surcharge	4837561	23
Preparation for SH 100 accessories (connecting socket)		Surcharge	4837563	49
Cover lock type 0857, 2 × keys As standard, the barrier is fitted with a triangular sash lock		Surcharge	4511928	52
Clamp lever Tool for spring tension		Surcharge	4837352	17
Combi tool Tool for spring lock / motor release		Surcharge	4837351	10
BiSecur hand transmitters			See page 34	

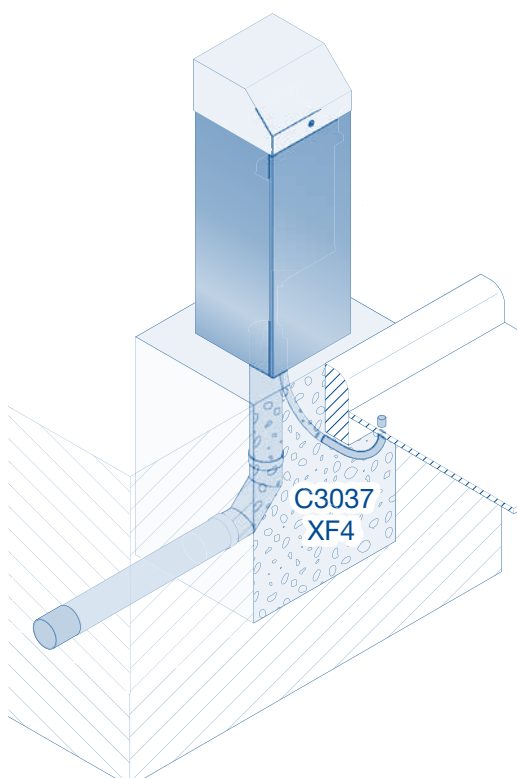
Automatic barrier

Flat boom, folding boom or round boom

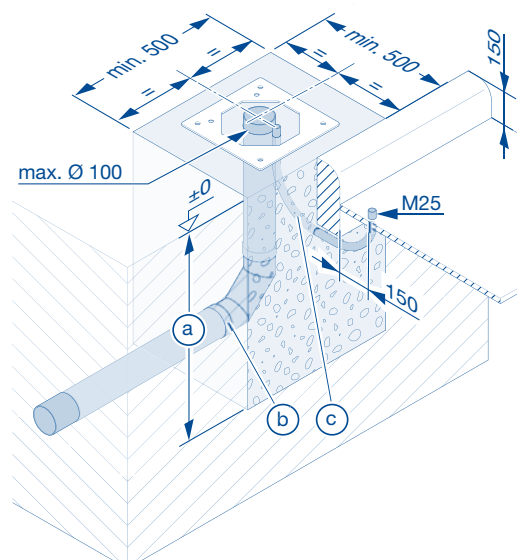
SH 300




Product description	
Max. barrier width	3750 mm
Opening / closing phase	2.4 to 3.5 seconds depending on version
Cycles per day	Up to 5000
Overall cycles (service life)	Up to 10000000
Motor	24 V DC brushless motor with planetary gear
Mains voltage	230 V (1~) ± 10 %, 50 Hz
Nominal torque	65 Nm
Maximum torque	120 Nm
Maximum idle speed	Approx. 13 rpm
Standby	35 W / 0.15 A
Temperature range	-25°C to +65°C
Protection category	IP 54
Weight	Barrier 47 kg + barrier boom "flat" approx. 1.2 kg/m Barrier 47 kg + barrier boom "round" approx. 1.0 kg/m
Housing	<ul style="list-style-type: none"> Stainless steel housing (AISI 304) with detachable front door, powder-coated Barrier cover made of stainless steel (AISI 304) with locking and barrier cover switch, powder-coated Housing dimensions (W × H × D): 360 × 1130 × 360 mm <p>For orders with no surcharge in RAL to choose, the standard colour is housing in RAL 7016 Anthracite grey, barrier cover in RAL 9006 White aluminium.</p>
Barrier boom	<ul style="list-style-type: none"> Flat or folding boom 20 × 100 mm / round boom with 80 mm diameter Fitting of the barrier boom as standard one-sided on the right, optionally left Made of aluminium, powder-coated in RAL 9010 Pure white, with red reflecting strips and cover cap Flat boom version with T groove: On the bottom side with inserted impact protection and on the top side with a holder for the barrier boom illumination
Control	<ul style="list-style-type: none"> Micro-processor barrier control Impulse and operation time monitoring during barrier operation Integrated barrier cover switch: prevents the automated movement of mechanical components when the barrier housing is open Automatic opening of the barrier boom in the event of power failure Impact and vandalism protection through intelligent obstacle recognition with limited impact power Boom break reporting only when fastening with plastic screws under consideration of the wind load. 2 slots for 2-channel induction loop detector with 4 sensitivity and 2 frequency levels for each loop Status report signalled by LEDs With screen for status display and control buttons OPEN, CLOSE and PERMANENT OPEN on the print Impulse control with adjustable automatic timer Choice of different operating modes Fully wired control in the barrier housing



- (a) Depth – frost-free depth (in Germany = 800 mm)
- (b) Tube for supply and connection cables. Implement the 90° angle with two 45° couplings to facilitate the passage of the cables.
- (c) Tube M25 for the induction loop. The tube must be accessible from the road surface.

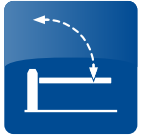


Automatic barrier SH 300 with flat boom			Article no.	€
Barrier SH 300 With 24 V DC motor and control	Right-hand hinged (standard)		4831000	4458
	Left-hand hinged (special version)		4831001	4458
Additional barrier SH 300 for synchronous operation With 24 V DC motor <u>without</u> control	Right-hand hinged (special version)		4831029	3960
	Left-hand hinged (standard)		4831030	3960
Flat boom for barrier SH 300	Available lengths 2 m, 3 m and 4 m	Per m	4831002	195
Surcharge for barrier SH 300 with folding boom (only for flat boom)			Article no.	€
Folding boom version		Surcharge	4831003	535
Optional extra LED lighting strip for flat boom			Article no.	€
LED illumination for barrier boom (minimum calculation 3 m)		Surcharge per m	4831004	275
LED illumination for barrier boom as folding boom version (minimum calculation 3 m)		Surcharge per m	4831005	350
Automatic barrier SH 300 with round boom			Article no.	€
Barrier SH 300 With 24 V DC motor and control	Right-hand hinged (standard)		4831011	4458
	Left-hand hinged (special version)		4831012	4458
Additional barrier SH 300 for synchronous operation With 24 V DC motor <u>without</u> control	Right-hand hinged (special version)		4831031	3960
	Left-hand hinged (standard)		4831032	3960
Barrier round boom for barrier SH 300	Available lengths 2 m, 3 m and 4 m	Per m	4831013	174
Recommended accessories for barriers			Article no.	€
Plug-in print 2-channel induction loop detector (Only in combination with barrier control / maximum 2 per barrier control)		Surcharge	4831006	347
Optional extras for barriers			Article no.	€
Fire brigade switch Triangular lock 15 mm, pre-assembled on the housing		Surcharge	4831007	532
Fire brigade switch Key switches, each with 3 keys, pre-assembled on the housing		Surcharge	4831094	557
Cut-out in the housing / front panel for on-site control element or an additional connection element		Surcharge per cut-out	4831047	216
Note:				
<ul style="list-style-type: none">• For on-site control elements without fitting and initial start-up at the factory.• Required for control housing KGM / KGG with intercom.				
LED warning lights on both sides, permanent RED, pre-assembled on the barrier housing		Surcharge	4831008	478
Barrier housing painted in RAL to choose		Surcharge	4831009	405
Barrier cover painted in RAL to choose		Surcharge	4831010	121
Support post for barrier SH 300 with flat boom			4831079	446
Support post for barrier SH 300 / SH 600 with round boom			4831017	419
Support post with magnet for barrier SH 300 / SH 600 with round boom			4831018	760
Photocells / light buttons for barriers			See page 36	
Radio receiver 868 MHz			Article no.	€
 HET-E2 MCX BS	HET-E2 MCX BS with external PUK antenna, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (OPEN and CLOSE) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC		4831093	291
	OnlineControl Web application for operation of the station / system			
Accessories for barriers, barrier systems and pay station systems			See from page 24	

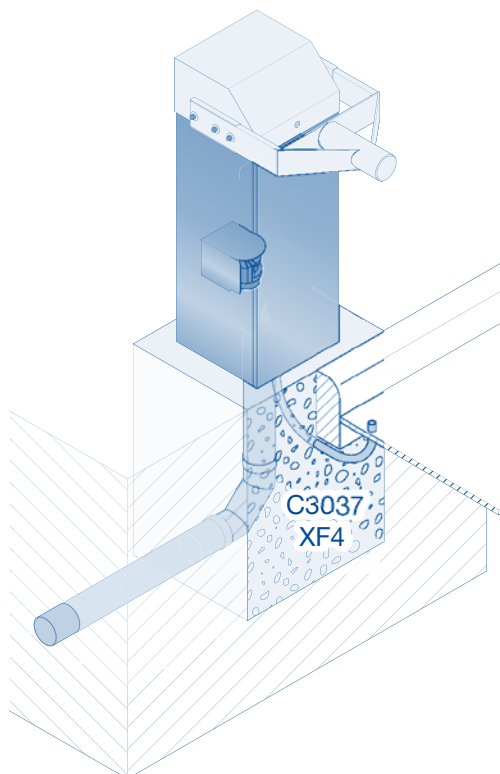
Automatic barrier

Round boom with holders on two sides

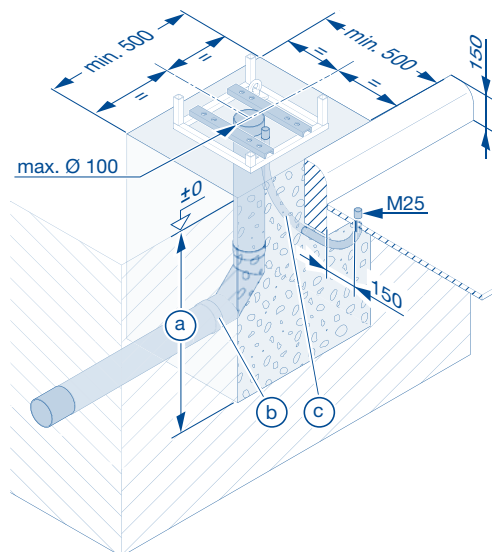
SH 600




Product description	
Max. barrier width	Max. 6140 mm
Opening / closing phase	7.8 seconds
Cycles per day	Up to 1600
Overall cycles (service life)	Up to 4000000
Motor	230 V single-phase capacitor motor
Mains voltage	230 V (1~) $\pm 10\%$, 50/60 Hz
Nominal torque	91 Nm
Maximum torque	470 Nm
Maximum idle speed	Approx. 3.7 rpm
Standby	20 W / 0.085 A
Temperature range	-25°C to +65°C
Protection category	IP 54
Weight	Barrier 86 kg + barrier boom "round" approx. 1.0 kg/m
Housing	<ul style="list-style-type: none"> Stainless steel housing (AISI 304) with detachable front door, powder-coated Barrier cover made of stainless steel (AISI 304) with locking and barrier cover switch, powder-coated Housing dimensions (W x H x D): 360 x 1130 x 360 mm <p>For orders with no surcharge in RAL to choose, the standard colour is housing in RAL 7016 Anthracite grey, barrier cover in RAL 9006 White aluminium.</p>
Barrier boom	<ul style="list-style-type: none"> Round boom with 80 mm diameter Barrier boom with holders on two sides Made of aluminium, powder-coated in RAL 9010 Pure white, with red reflecting strips and cover cap
Control	<ul style="list-style-type: none"> Micro-processor barrier control Integrated barrier cover switch: prevents the automated movement of mechanical components when the barrier cover is open Impact and vandalism protection through safety clutch and operation time monitoring during barrier operation 2 slots for 2-channel induction loop detector with 4 sensitivity and 2 frequency levels for each loop Status report signalled by LEDs With screen for status display and control buttons OPEN, CLOSE and PERMANENT OPEN on the print Impulse control with adjustable automatic timer Choice of different operating modes Fully wired control in the barrier housing Integrated mechanical end stop



- (a) Depth – frost-free depth (in Germany = 800 mm)
- (b) Tube for supply and connection cables. Implement the 90° angle with two 45° couplings to facilitate the passage of the cables.
- (c) Tube M25 for the induction loop. The tube must be accessible from the road surface.

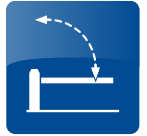


Automatic barrier SH 600 with round boom			Article no.	€
Barrier SH 600 With 230 V motor and control	Barrier boom with holders on two sides		4831014	4491
Additional barrier SH 600 for synchronous operation With 230 V motor <u>without</u> control	Barrier boom with holders on two sides		4831265	3778
Barrier round boom for barrier SH 600	Available lengths 2 m, 3 m, 4 m, 5 m and 6 m	Per m	4831015	174
Optional extra LED lighting strip for barrier round boom			Article no.	€
LED illumination for barrier round boom Only possible for barriers with support post for barrier boom length 6 m. (minimum calculation 4 m)		Surcharge per m	4831418	378
Recommended accessories for barriers			Article no.	€
Note: From a barrier boom length of 4 m, we recommend the use of a stabiliser link or a support post.				
Stabiliser link for round or octagonal boom			4831016	519
Support post for barriers SH 300 / SH 600 with round boom			4831017	419
Support post with magnet for barriers SH 300 / SH 600 with round boom			4831018	760
Plug-in print 2-channel induction loop detector (Only in combination with barrier control / maximum 2 per barrier control)		Surcharge	4831006	347
Laser scanner for barrier monitoring, pre-assembled on the barrier housing Number of detection levels: 4, detection area: max. 9900 × 9900 mm, protection category: IP 65, IR laser: class 1 / 905 nm, visible laser: class 2 / 635 nm		Surcharge	4831259	2762
Remote control for laser scanner		Surcharge	4831260	176
Laser scanner protective housing, standard "right", pre-assembled on the barrier housing		Surcharge	4831261	516
Laser scanner protective housing, standard "left", pre-assembled on the barrier housing		Surcharge	4831262	516
Laser scanner protective housing, long "right", pre-assembled on the barrier housing		Surcharge	4831263	835
Laser scanner protective housing, long "left", pre-assembled on the barrier housing		Surcharge	4831426	835
Optional extras for barriers			Article no.	€
Fire brigade switch		Surcharge	4831007	532
Triangular lock 15 mm, pre-assembled on the housing				
Fire brigade switch		Surcharge	4831094	557
Key switches, each with 3 keys, pre-assembled on the housing				
Cut-out in the housing / front panel for on-site control element or an additional connection element		Surcharge per cut-out	4831047	216
Note: For on-site control elements without fitting and initial start-up at the factory.				
LED warning lights on both sides, permanent RED, pre-assembled on the barrier housing		Surcharge	4831008	478
Barrier housing painted in RAL to choose		Surcharge	4831009	405
Barrier cover painted in RAL to choose		Surcharge	4831010	121
Radio receiver 868 MHz			Article no.	€
 HET-E2 MCX BS with external PUK antenna, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (OPEN and CLOSE) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC			4831093	291
OnlineControl Web application for operation of the station / system				See page 30
Accessories for barriers, barrier systems and pay station systems			See from page 24	

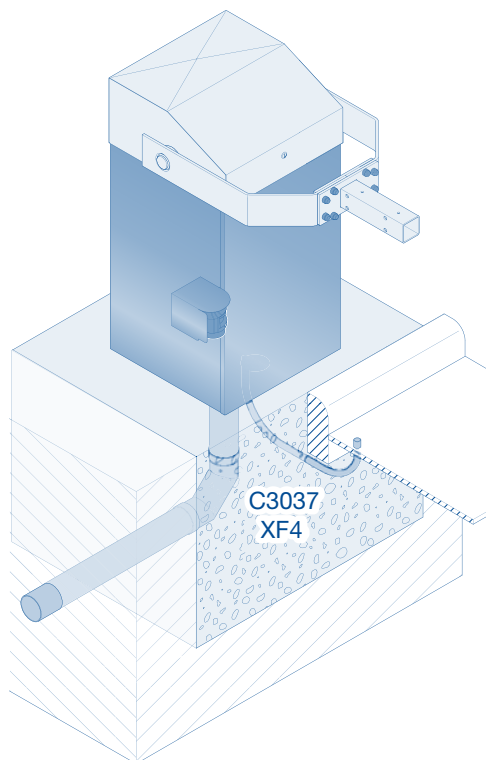
Automatic barrier

Octagonal boom with holders on two sides

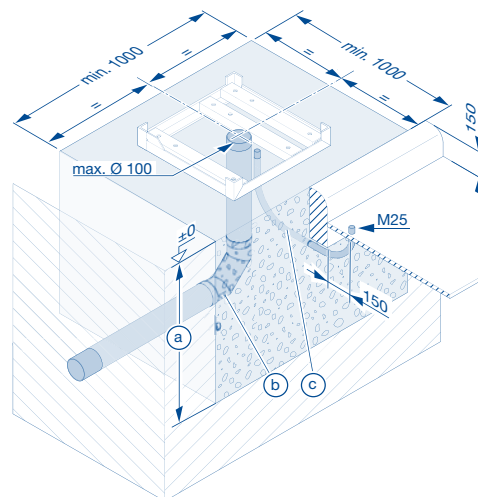
SH 800




Product description	
Max. barrier width	Max. 10440 mm
Opening / closing phase	12 seconds
Cycles per day	Up to 240
Overall cycles (service life)	Up to 600000
Motor	230 V single-phase capacitor motor
Mains voltage	230 V (1~) ± 10 %, 50 / 60 Hz
Nominal torque	250 Nm
Maximum torque	600 Nm
Maximum idle speed	Approx. 2.33 rpm
Standby	20 W / 0.085 A
Temperature range	-25°C to +65°C
Protection category	IP 54
Weight	Barrier 220 kg + barrier boom "octagonal" approx. 2.5 kg/m
Housing	<ul style="list-style-type: none"> Stainless steel housing (AISI 304) with detachable front door, powder-coated Barrier cover made of stainless steel (AISI 304) with locking and barrier cover switch, powder-coated Housing dimensions (W × H × D): 550 × 1160 × 550 mm <p>For orders with no surcharge in RAL to choose, the standard colour is housing in RAL 7016 Anthracite grey, barrier cover in RAL 9006 White aluminium.</p>
Barrier boom	<ul style="list-style-type: none"> Octagonal boom two-part, insertable into each other, 86 × 120 mm and 80 × 113 mm Barrier boom with holders on two sides Made of aluminium, powder-coated in RAL 9010 Pure white, with red reflecting strips and cover cap
Control	<ul style="list-style-type: none"> Micro-processor barrier control Integrated barrier cover switch: prevents the automated movement of mechanical components when the barrier cover is open Impact and vandalism protection through safety clutch and operation time monitoring during barrier operation 2 slots for 2-channel induction loop detector with 4 sensitivity and 2 frequency levels for each loop Status report signalled by LEDs With screen for status display and control buttons OPEN, CLOSE and PERMANENT OPEN on the print Impulse control with adjustable automatic timer Choice of different operating modes Fully wired control in the barrier housing Integrated mechanical end stop



- (a) Depth – frost-free depth (in Germany = 800 mm)
- (b) Tube for supply and connection cables.
Implement the 90° angle with two 45° couplings to facilitate the passage of the cables.
- (c) Tube M25 for the induction loop.
The tube must be accessible from the road surface.



Automatic barrier SH 800 with octagonal boom			Article no.	€
Barrier SH 800 With 230 V motor and control	Barrier boom with holders on two sides and integrated mechanical end stop		4831022	13100
Additional barrier SH 800 for synchronous operation With 230 V motor <u>without</u> control	Barrier boom with holders on two sides and integrated mechanical end stop		4831266	10873
Barrier octagonal boom for barrier SH 800	Available lengths 6 m, 7 m, 8 m, 9 m and 10 m	Per m	4831023	215
Optional extra LED lighting strip for barrier octagonal boom			Article no.	€
LED lighting for barrier octagonal boom Only possible for barriers with support post for barrier boom length 10 m.		Surcharge per m	4831421	378
Recommended accessories for barriers			Article no.	€
Note: From a barrier boom length of 4 m, we recommend the use of a stabiliser link or a support post.				
Stabiliser link for round or octagonal boom			4831016	519
Support post for barrier SH 800 with octagonal boom			4831080	691
Support post with magnet for barrier SH 800 with octagonal boom			4831081	1083
Plug-in print 2-channel induction loop detector (only in combination with barrier control / maximum 2 per barrier control)		Surcharge	4831006	347
Laser scanner for barrier monitoring, pre-assembled on the barrier housing Number of detection levels: 4, detection area: max. 9900 × 9900 mm, protection category: IP 65, IR laser: class 1 / 905 nm, visible laser: class 2 / 635 nm		Surcharge	4831259	2762
Remote control for laser scanner		Surcharge	4831260	176
Laser scanner protective housing, standard "right", pre-assembled on the barrier housing		Surcharge	4831261	516
Laser scanner protective housing, standard "left", pre-assembled on the barrier housing		Surcharge	4831262	516
Laser scanner protective housing, long "right", pre-assembled on the barrier housing		Surcharge	4831263	835
Laser scanner protective housing, long "left", pre-assembled on the barrier housing		Surcharge	4831426	835
Optional extras for barriers			Article no.	€
Fire brigade switch		Surcharge	4831007	532
Triangular lock 15 mm, pre-assembled on the housing				
Fire brigade switch		Surcharge	4831094	557
Key switches, each with 3 keys, pre-assembled on the housing				
Cut-out in the housing / front panel for on-site control element or an additional connection element		Surcharge per cut-out	4831047	216
Note: For on-site control elements without fitting and initial start-up at the factory.				
LED warning lights on both sides, permanent RED		Surcharge	4831008	478
Barrier housing painted in RAL to choose		Surcharge	4831026	557
Barrier cover painted in RAL to choose		Surcharge	4831027	169
Suspended grille for octagonal barrier boom		Surcharge per m	4831024	282
Note: • Only possible for barrier boom length 7 m maximum. • Suspended grille and LED lighting only possible for barriers with support posts, maximum boom length with lighting 6.5 m.				
Radio receiver 868 MHz			Article no.	€
HET-E2 MCX BS with external PUK antenna, pre-assembled in the control housing				
HET-E2 MCX BS 	2-channel relay receiver with status feedback, for choosing direction (OPEN and CLOSE) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC		4831093	291
OnlineControl	Web application for operation of the station / system			See page 30
Accessories for barriers, barrier systems and pay station systems			See from page 24	

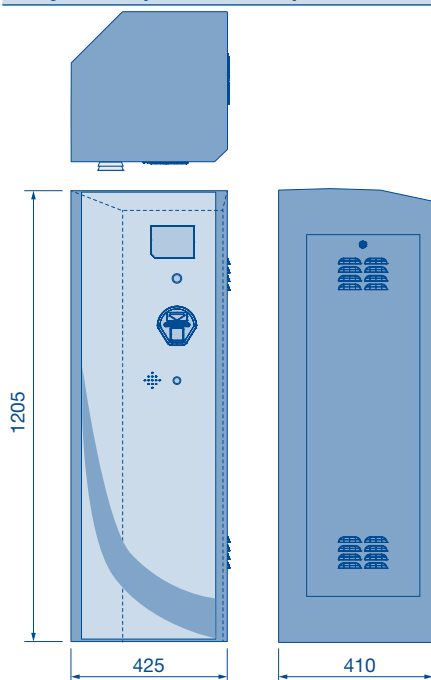
Pay station systems

Entry station

With barrier SH 300 (flat boom, folding boom or round boom)



Entry station product description




Hörmann entry station with output unit for coded barcode tickets (max. 130 g paper) and barcode reading unit for short- and long-term users

- Control housing KGU made of stainless steel (AISI 304), 2-colour powder-coated *
- Large, lockable and detachable side door, right
- Dimensions: W x H x D (mm) 425 x 1205 x 410
- 5.7" TFT colour display, operator-controlled
- Animated LED ticket request button
- 2-channel induction loop detector
- Integrated heating
- Integrated barrier control
- Prepared for secondary intercom

* For orders with no surcharge in RAL to choose, the standard colour is housing in RAL 7016 Anthracite grey, front panel in RAL 9006 White aluminium.

Entry station	Article no.	€
Hörmann entry station with output unit for coded barcode tickets (max. 130 g paper) and barcode reading unit for short- and long-term users	4831168	7437
Additional function for entry station	Article no.	€
Wrong-way driver detection with presence and closing loop.	4831171	520
Note: The ticket is automatically locked for payment at the automatic pay station.		
Optional extras for entry and exit stations	Article no.	€
Intercom , analogue, pre-installed Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. For max. 2 call buttons and a cable length up to 800 metres.	4831056	738
Note: Base required for intercom, see accessories on page 31.		
Secondary intercom TCP / IP Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. Connection to an on-site SIP-enabled telephone system.		
Function description: A secondary intercom is installed in each of the desired corresponding devices. The programmed phone number is called after pressing the call button. After establishing a connection, the voice contact is established and the barrier can be controlled remotely (via telephone button 7).	4831193	2145
Note: If a SIP-capable telephone system is not available, a SIP-capable Fritz Box can be used as a telephone system.		
Additional bell button for intercom for selecting a second target phone number	4831169	239
RFID transponder reader (short range), pre-installed	4831436	649
RFID far range reader	4831292	5455
RFID transponder for windscreen , adhesive, minimum quantity: 25 pieces	4831258	13
Camera for number plate recognition	4831059	8106
Free-standing housing for camera / number plate recognition	4831401	1169
Post incl. adapter for mast fitting for RFID far range reader or camera / number plate recognition	4831060	396
QR code reader Suitable for fitting in entry and exit station for non-contact processing of special / market / business cards with QR code on the front of the card. Suitable for cards in accordance with ISO / IEC 7810 ID-1 or max. 86 mm card length and max. 60 mm card width. With RS232 interface to connect the TE-CON board. QR code can be read by holding up the ticket, hard plastic card, smartphone or print@home ticket.	4831054	2603
Control housing painted in RAL to choose	4831045	405
Front panel of control device painted in RAL to choose	4831046	140

Optional extras for entry and exit stations		Article no.	€
Cut-out in the housing / front panel for on-site control element or an additional connection element			
Note:		Surcharge per cut-out	
<ul style="list-style-type: none"> For on-site control elements without fitting and initial start-up at the factory. Required for control housing KGM / KGG with intercom. 		4831047	216
Accessories for entry station		Article no.	€
Barcode tickets as a roll with approx. 3500 tickets per roll, white		4831033	92
Leporello tickets , box of 6000 tickets, white			
Attention:		4831170	279
Thermal paper should be stored at a constant temperature of 23 ± 5°C and a relative humidity of 50 ± 10 %. Avoid any heavy exposure to sun or light or effects of aggressive chemicals. It can generally be stored for 1 year.			
RFID transponder (long range)		Each	
For windscreen, adhesive, minimum quantity: 25 pieces		4831258	13
Long-term user ID transponder HITAG 1 (short-range)			
Non-contact plastic card in cheque card format. White card in transponder / RFID technology HITAG 1.			
Attention:		4831051	13,30
<ul style="list-style-type: none"> Please protect the card from heavy exposure to sun or light and the effects of aggressive chemicals. Minimum quantity 25 pieces Customer-specific imprint invoiced at cost. 			
Barcode card (short range)			
Non-contact plastic card in cheque card format. White card, with printed barcode.			
Attention:		4831049	7,40
<ul style="list-style-type: none"> Please protect the card from heavy exposure to sun or light and the effects of aggressive chemicals. Minimum quantity 25 pieces Customer-specific imprint invoiced at cost. 			
Automatic barrier SH 300 with flat boom for entry and exit stations		Article no.	€
Barrier SH 300		Right-hand hinged (standard)	4831029 3960
With 24 V DC motor <u>without</u> control *		Left-hand hinged (special version)	4831030 3960
Flat boom for barrier SH 300		Available lengths 2 m, 3 m and 4 m	Per m 4831002 195
Barrier boom as folding boom version (only for flat boom)		Surcharge	4831003 535
* The control is integrated in the entry and exit station. Note: barrier version only in conjunction with pay station system. Product description for barrier SH 300 with flat boom or folding boom, see page 8			
Optional extra LED lighting strip for flat boom		Article no.	€
LED illumination for barrier boom (minimum calculation 3 m)		Surcharge per m	4831004 275
LED illumination for barrier boom as folding boom version (minimum calculation 3 m)		Surcharge per m	4831005 350
Automatic barrier SH 300 with round boom for entry and exit stations		Article no.	€
Barrier SH 300		Right-hand hinged (standard)	4831031 3960
With 24 V DC motor <u>without</u> control *		Left-hand hinged (special version)	4831032 3960
Barrier round boom for barrier SH 300		Available lengths 2 m, 3 m and 4 m	Per m 4831013 174
* The control is integrated in the entry and exit station. Note: barrier version only in conjunction with pay station system. Product description for barrier SH 300 with flat boom or folding boom, see page 8			
Optional extras for barriers		Article no.	€
Fire brigade switch		Surcharge	4831007 532
Triangular lock 15 mm, pre-assembled on the housing			
Fire brigade switch		Surcharge	4831094 557
Key switches, each with 3 keys, pre-assembled on the housing			
LED warning lights on both sides, permanent RED, pre-assembled on the barrier housing (required in Austria, other countries on request)		Surcharge	4831008 478
Barrier housing painted in RAL to choose		Surcharge	4831009 405
Barrier cover painted in RAL to choose		Surcharge	4831010 121
Support post for barrier SH 300 with flat boom		Surcharge	4831079 446
Support post for barrier SH 300 / SH 600 with round boom		Surcharge	4831017 419
Support post with magnet for barrier SH 300 / SH 600 with round boom		Surcharge	4831018 760
Radio receiver 868 MHz		Article no.	€
HET-E2 MCX BS with external PUK antenna, pre-assembled in the control housing			
HET-E2 MCX BS 2-channel relay receiver with status feedback, for choosing direction (OPEN and CLOSE) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC		4831093	291
			
Accessories for barriers, barrier systems and pay station systems		See from page 24	

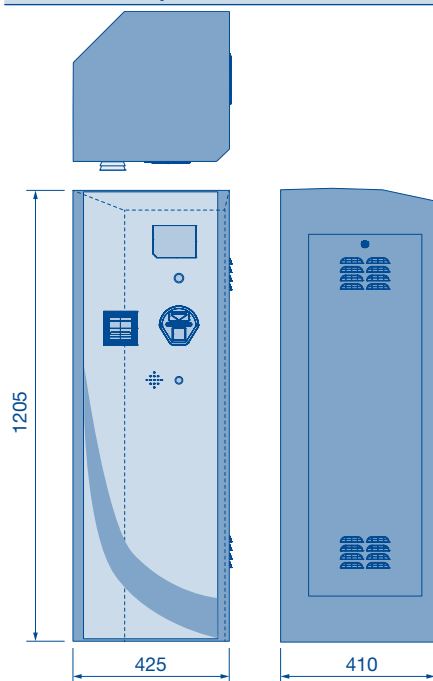
Pay station systems

Exit station

With barrier SH 300 (flat boom, folding boom or round boom)



Product description exit station



Hörmann exit station with barcode reader and collection unit for short- and long-term users

- Control housing KGU made of stainless steel (AISI 304), 2-colour powder-coated *
- Large, lockable and detachable side door, right
- Dimensions: W x H x D (mm) 425 x 1205 x 410
- 5.7" TFT colour display, operator-controlled
- Animated LED ticket collection
- Integrated barrier control
- 2-channel induction loop detector
- Integrated heating
- Integrated barrier control
- Prepared for secondary intercom

* For orders with no surcharge in RAL to choose, the standard colour is housing in RAL 7016 Anthracite grey, front panel in RAL 9006 White aluminium.

Exit station	Article no.	€
Hörmann exit station with barcode reader and collection unit for short- and long-term users	4831172	6634

Optional extras for entry and exit stations	Article no.	€
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Intercom, analogue, pre-installed

Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. For max. 2 call buttons and a cable length up to 800 metres.

4831056 738

Note:

Base required for intercom, see accessories on page 31.

Secondary intercom TCP/IP

Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. Connection to an on-site SIP-enabled telephone system.

Function description:

A secondary intercom is installed in each of the desired corresponding devices. The programmed phone number is called after pressing the call button. After establishing a connection, the voice contact is established and the barrier can be controlled remotely (via telephone button 7).

4831193 2145

Note:

If a SIP-capable telephone system is not available, a SIP-capable Fritz Box can be used as a telephone system.

Additional bell button for intercom for selecting a second target phone number

4831169 239

RFID transponder reader (short range), pre-installed

4831436 649

RFID far range reader

4831292 5455

RFID transponder for windscreen, adhesive, minimum quantity: 25 pieces

4831258 13

Camera for number plate recognition

4831059 8106

Free-standing housing for camera / number plate recognition

4831401 1169

Post incl. adapter for mast fitting for RFID far range reader or camera / number plate recognition

4831060 396

QR code reader

Suitable for fitting in entry and exit station for non-contact processing of special / market / business cards with QR code on the front of the card.

4831054 2603

Suitable for cards in accordance with ISO/IEC 7810 ID-1 or max. 86 mm card length and max. 60 mm card width.

With RS232 interface to connect the TE-CON board.

QR code can be read by holding up the ticket, hard plastic card, smartphone or print@home ticket.

Ticket punch detection at the exit (for punch remuneration)

4831173 935

Barcode reading unit retrofit (for offline remuneration printer)

For reading short-term parking tickets with up to 2 additional remuneration barcodes – printed by the "offline remuneration printer". Only "full reimbursement" should be used in the system so that parking customers can exit without having to make an additional payment. Use with "partial reimbursements" may result in additional payments, which cause traffic back-up at the exit.


4831174 1497

Control housing painted in RAL to choose

4831045 405

Front panel of control device painted in RAL to choose

4831046 140

Optional extras for entry and exit stations			Article no.	€	
Cut-out in the housing / front panel for on-site control element or an additional connection element					
Note:			Surcharge per cut-out	4831047	216
<ul style="list-style-type: none">For on-site control elements without fitting and initial start-up at the factory.Required for control housing KGM / KGG with intercom.					
Automatic barrier SH 300 with flat boom for entry and exit stations			Article no.	€	
Barrier SH 300	Right-hand hinged (standard)		4831029	3960	
With 24 V DC motor <u>without</u> control *	Left-hand hinged (special version)		4831030	3960	
Flat boom for barrier SH 300	Available lengths 2 m, 3 m and 4 m	Per m	4831002	195	
Barrier boom as folding boom version (only for flat boom)		Surcharge	4831003	535	
<p>* The control is integrated in the entry and exit station. Note: barrier version only in conjunction with pay station system. Product description for barrier SH 300 with flat boom or folding boom, see page 8</p>					
Optional extra LED lighting strip for flat boom			Article no.	€	
LED illumination for barrier boom (minimum calculation 3 m)		Surcharge per m	4831004	275	
LED illumination for barrier boom as folding boom version (minimum calculation 3 m)		Surcharge per m	4831005	350	
Automatic barrier SH 300 with round boom for entry and exit stations			Article no.	€	
Barrier SH 300	Right-hand hinged (standard)		4831031	3960	
With 24 V DC motor <u>without</u> control *	Left-hand hinged (special version)		4831032	3960	
Barrier round boom for barrier SH 300	Available lengths 2 m, 3 m and 4 m	Per m	4831013	174	
<p>* The control is integrated in the entry and exit station. Note: barrier version only in conjunction with pay station system. Product description for barrier SH 300 with flat boom or folding boom, see page 8</p>					
Optional extras for barriers			Article no.	€	
Fire brigade switch		Surcharge	4831007	532	
Triangular lock 15 mm, pre-assembled on the housing					
Fire brigade switch		Surcharge	4831094	557	
Key switches, each with 3 keys, pre-assembled on the housing					
LED warning lights on both sides, permanent RED, pre-assembled on the barrier housing (required in Austria, other countries on request)		Surcharge	4831008	478	
Barrier housing painted in RAL to choose		Surcharge	4831009	405	
Barrier cover painted in RAL to choose		Surcharge	4831010	121	
Support post for barrier SH 300 with flat boom		Surcharge	4831079	446	
Support post for barrier SH 300 / SH 600 with round boom		Surcharge	4831017	419	
Support post with magnet for barrier SH 300 / SH 600 with round boom		Surcharge	4831018	760	
Radio receiver 868 MHz			Article no.	€	
HET-E2 MCX BS with external PUK antenna, pre-assembled in the control housing					
HET-E2 MCX BS	2-channel relay receiver with status feedback, for choosing direction (OPEN and CLOSE) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC			4831093	291
					
Accessories for barriers, barrier systems and pay station systems				See from page 24	

Pay station systems

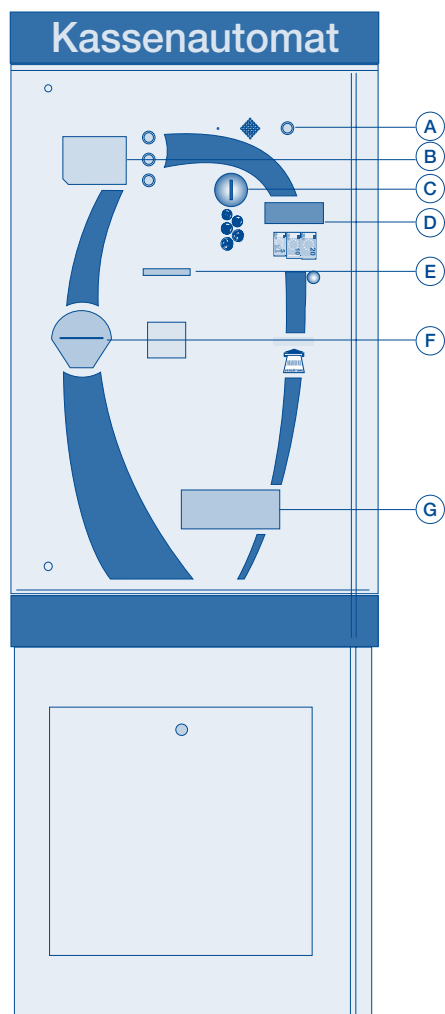
In combination with entry and exit stations

Automatic pay station HK 300



Product description automatic pay station

Hörmann automatic pay station with barcode reading unit for settling parking fees for short-term users with barcode ticket



- Housing HKA 1 made of stainless steel (AISI 304), 2-colour powder-coated
- Dimensions (W x H x D): 650 x 1780 x 300 mm
- Weight: approx. 132 kg
- Bank note processing VEGA-300 for 4 different bank notes (€5, €10, €20, €50) accepted in all 4 directions, as well as a staple cash box for 300 notes
- 5.7" TFT colour display, operator-controlled
- Trouble-free to maintain as individual components can be exchanged with almost no tools
- 3 control buttons
- Animated LED ticket collection
- Coin slot with locking
- Coin validator for up to 8 different types of coins
- Change storage for 4 types of coins of 200 coins each, automatic refill
- Coin storage self-locking upon removal of change
- Issuing of receipts, invoices incl. 1x receipt paper roll for approx. 1100 receipts per roll, white
- Computer unit with inputs and outputs to control the entire automatic pay station
- Integrated heating with thermostatic control
- Mounting plate for the automatic pay station base
- Automatic pay station base
- Labelling set (automatic pay station + number)
- Connecting voltage: 230 V ±10 %, 50 / 60 Hz

Note:

If the automatic pay station is set up outdoors, we recommend installing a roof over it, as the adverse effects of the weather (rain / humidity) can lead to damage.

Individual equipment variations available on request.

- A** Call button
- B** Customer display and button
- C** Coin slot
- D** Bank note slot
- E** Receipt printer
- F** Parking ticket or parking chip reader
- G** Coin return

Hörmann automatic pay station HK 300

Article no. €

Hörmann automatic pay station with barcode reading unit for settling parking fees for short-term users with barcode ticket

4831175 26214

Optional extras for automatic pay stations

Article no. €

Lighting

4831176 576

Automatic pay station base for type HK 300

Stainless steel housing, powder-coated, dimensions (W x H x D): 630 x 660 x 280 mm, with service access

4831267 805

Barrier-free base for type HK 300

Barrier-free, stainless steel housing, powder-coated, dimensions (W x H x D): 630 x 500 x 280 mm, with service access.

4831185 1122

Software for connecting an automatic pay station to the Technical Security Equipment (TSE)

Article no. €

This software is recommended for every automatic pay station in Germany with the option of cash payment.

4831403 1393

In the course of fiscalisation, pay station systems in Germany with the option of cash payment should be equipped with technical security equipment (TSE) to protect payment data against manipulation.

TSE software for connection of the automatic pay station or control panel, the TSE is required for each device.

Fiscal system hardware and software in other countries on request.

Optional extras for automatic pay station HK 300

See page 20

Pay station systems

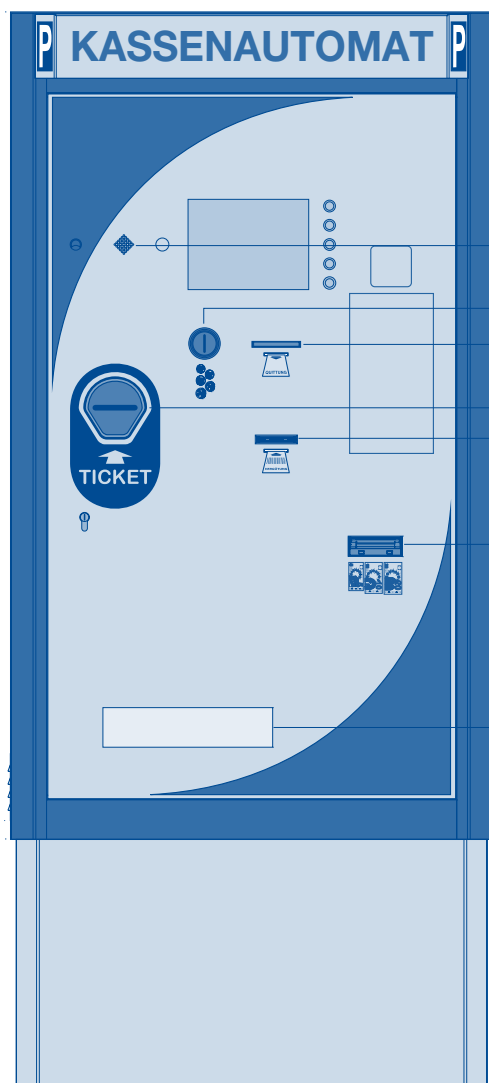
In combination with entry and exit stations

Automatic pay station HK 500



Product description automatic pay station

Hörmann automatic pay station with barcode reading unit for settling parking fees for short-term users with barcode ticket



- Housing HKA 1 made of stainless steel (AISI 304), 2-colour powder-coated
- Dimensions (W x H x D): 860 x 1905 x 500 mm
- Weight: approx. 260 kg
- Bank note processing VEGA-300 for 4 different bank notes (€5, €10, €20, €50) accepted in all 4 directions, as well as a staple cash box for 300 notes
- 10.4" TFT colour display, operator-controlled
- Trouble-free to maintain as individual components can be exchanged with almost no tools
- 3 control buttons
- Animated LED ticket collection
- Coin slot with locking
- Coin validator for up to 8 different types of coins
- Change storage for 4 types of coins of 400 coins each, automatic refill
- Coin storage self-locking upon removal of change
- Issuing of receipts, invoices incl. 1x receipt paper roll for approx. 1100 receipts per roll, white
- Computer unit with inputs and outputs to control the entire automatic pay station
- Integrated heating with thermostatic control
- Mounting plate for the automatic pay station base
- Automatic pay station base
- Labelling set (automatic pay station + number)
- Connecting voltage: 230 V ± 10 %, 50 / 60 Hz

Note:

If the automatic pay station is set up outdoors, we recommend installing a roof over it, as the adverse effects of the weather (rain / humidity) can lead to damage.

Individual equipment variations available on request.

Differences compared with automatic pay station HK 300

- Larger display
- Direct integration of credit card unit
- Larger change storage
- Optional closing strip lock (door)
- Other bank note processing can be used

- A** Customer display with control buttons and intercom
- B** Coin slot
- C** Receipt printer
- D** Parking ticket or parking chip reader
- E** Remuneration ticket reader
- F** Bank note slot
- G** Coin return

Hörmann automatic pay station HK 500	Article no.	€
Hörmann automatic pay station with barcode reading unit for settling parking fees for short-term users with barcode ticket	4831177	31859
Optional extras for automatic pay stations	Article no.	€
Barrier-free base for type HK 500 Barrier-free, stainless steel housing, powder-coated, dimensions (W x H x D): 832 x 300 x 382 mm, without service access.	4831186	1122
Software for connecting an automatic pay station to the Technical Security Equipment (TSE)	Article no.	€
This software is recommended for every automatic pay station in Germany with the option of cash payment. In the course of fiscalisation, pay station systems in Germany with the option of cash payment should be equipped with technical security equipment (TSE) to protect payment data against manipulation. TSE software for connection of the automatic pay station or control panel, the TSE is required for each device. Fiscal system hardware and software in other countries on request.	4831403	1393

Optional extras for automatic pay station HK 500

See page 20

Pay station systems

In combination with entry and exit stations

Optional extras for automatic pay station HK 300 and HK 500



Optional extras for automatic pay stations	Article no.	€
Receipt paper roll White	4831040	19,40
Banknote return VEGA	4831178	1196
Exchange cash box for bank notes	4831309	583
Exchange cash box for coins	4831427	727
Surface-mounted housing for credit/ debit card terminal	4831179	1560
Credit/ debit card reader fitting kit	4831180	535
Note: The surface-mounted housing (article no. 4831179) is required in combination with HK300.		
Credit card and debit card reader	4831181	7274
Note: The surface-mounted housing (article no. 4831179) is required in combination with HK300.		
Software module "credit + debit card" administration Required for credit card and debit card reader Park-B/C/L LIVA.	4831182	4034
Transponder reader RFID short range (for users of long-term or prepaid cards) Suitable for fitting in the automatic pay station door for non-contact processing of long-term and / or prepaid cards in transponder technology (RFID). With RS232 interface to connect the electronic unit. The following RFID transponder types can be processed: <ul style="list-style-type: none"> • HITAG 1 (125 kHz) • Mifare "Plus", "Classic", "Ultralight", "DESfire" (13.56 MHz) When using on-site cards, these have to be tested / verified by us before commissioning an order.	4831194	832
Explanations: <ul style="list-style-type: none"> – Long-term cards are for users that lease a parking space for a flat rate, contractually and by debit. – Cards are prepaid cards. They can be charged at the automatic pay station and used up. – They enable users to exit without having to go to the automatic pay station. 		
Retrofitting a barcode reader on the automatic pay station For processing of short-term parking tickets with up to 2 additional remuneration barcodes – printed by the "offline remuneration printer"	4831195	1560
Ticket punch hole detection For detecting ticket punches on the automatic pay station for short-term user barcode or Leporello tickets. This position is required per automatic pay station. Detection is only possible with a tariff change.	4831196	935
QR code reader Suitable for fitting in the automatic pay station for non-contact processing of special and business cards with QR code on the front of the card. Suitable for cards in accordance with ISO / IEC 7810 ID-1 or max. 86 mm card length and max. 60 mm card width. With RS232 interface to connect the electronic unit.	4831183	1794
Barcode remuneration ticket reader Suitable for fitting in the automatic pay station for non-contact processing of terminal bonus and / or insert tickets in barcode technology. With RS232 interface to connect the electronic unit.	4831184	3212
Intercom, analogue, pre-installed Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. For max. 2 call buttons and a cable length up to 800 metres.	4831056	738
Note: Base required for intercom, see accessories on page 31.		
Secondary intercom TCP / IP Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. Connection to an on-site SIP-enabled telephone system.	4831193	2145
Function description: A secondary intercom is installed in each of the desired corresponding devices. The programmed phone number is called after pressing the call button. After establishing a connection, the voice contact is established and the barrier can be controlled remotely (via telephone button 7).		
Note: If a SIP-capable telephone system is not available, a SIP-capable Fritz Box can be used as a telephone system.		
Additional mechanical safety equipment for automatic pay station protecting against break-in (anti-vandalism strap) Only available for automatic pay station HK 300 without mounted housing (article no. 4831179). Consisting of: <ul style="list-style-type: none"> • Door frame, hinges and fastening straps, fixing material (completely in stainless steel) • 2 security locks (keys to differ) 	4831187	1813
Break-in protection Only available for automatic pay station HK 300 without mounted housing (article no. 4831179). Vertical bar attached to the lock side of the automatic pay station to secure it against forced opening.	4831188	1096

Optional extras for automatic pay stations	Article no.	€
Break-in alarm contact Key switch installed in the automatic pay station and potential-free output on the relay card in the automatic pay station. <u>Function:</u> After opening the automatic pay station door, the user has 10 seconds to activate the key switch and switch off the signal contact. If this time is exceeded, a potential-free contact is switched on the I/O card. It can switch max. 12 V, 2 A. This switching contact can be used, for example, for alarm forwarding.	4831189	559
Further additional functions for automatic pay stations	Article no.	€
Reprinting of lost tickets at the automatic pay station Surcharge for hardware and software in the automatic pay station for creating lost tickets at the automatic pay station with 100 g paper.	4831197	1092
Prepaid coin administration at the automatic pay station Software for prepaid coin administration at the automatic pay station. Prepaid coin for complete or partial remuneration	4831190	538
Prepaid card top-up at the automatic pay station Software for central computer CCU-104 / automatic pay station for prepaid card top-up at the automatic pay station.	4831222	520
Week ticket "Week ticket" software module on the automatic pay station, Software for creating week tickets on the automatic pay station. The entry ticket can be converted into a week ticket for a flat rate. The customer simply has to insert the entry ticket into the ID card reader on the automatic pay station. After paying the total for the week ticket, the customer receives a receipt indicating the date the week ticket loses its validity. Tickets can only be converted into a week ticket within 24 hours of entry.	4831199	909
Month ticket Software for creating month tickets on the automatic pay station. The entry ticket can be converted into a month ticket for a flat rate. The customer simply has to insert the entry ticket into the ID card reader on the automatic pay station. After paying the total for the month ticket, the customer receives a receipt indicating the date the month ticket loses its validity. Tickets can only be converted into a month ticket within 24 hours of entry.	4831200	909
Remuneration ticket reader administration Software for central computer CCU-104 and control panel for managing bonus tickets on the automatic pay station. For 4 bonus groups (additional bonus groups possible at a surcharge).	4831191	727

Pay station systems

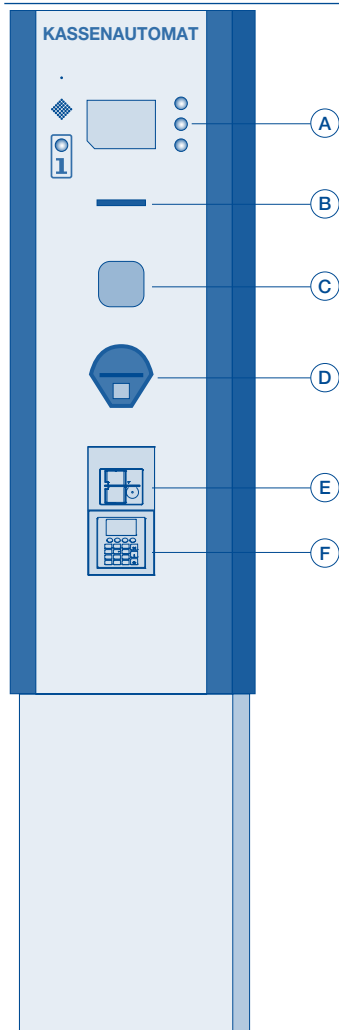
In combination with entry and exit stations

Automatic pay station HK 200



Product description of automatic pay station for completely cashless payment

Hörmann automatic pay station with barcode reading unit for coded barcode tickets for settling parking fees for short-term users via chip and PIN pay terminal



- Housing made of stainless steel (AISI 304), 2-colour powder-coated* housing and door
- Dimensions (W x H x D): 425 x 1805 x 415 mm
- Weight: approx. 70 kg
- Trouble-free to maintain as individual components can be exchanged with almost no tools
- Fast processing of payments
- Incl. credit card terminal
- 5.7" TFT colour display, operator-controlled
- 3 control buttons
- Ticket collection area animated by flashing arrow
- Secured against access with cylinder lock
- Issue of receipts and invoices
- Computer unit with inputs and outputs to control the entire automatic pay station with data connection to central computer CCU-104 via ARCNET or ETHERNET
- Service socket
- Connecting voltage: 230 V \pm 10 %, 50 / 60 Hz
- Integrated fan unit and heating with thermostatic control
- Base and base fastening
- Labelling set (automatic pay station + number)

Prepared for secondary intercom with call button.

Note:

If the automatic pay station is set up outdoors, we recommend installing a roof over it, as the adverse effects of the weather (rain / humidity) can lead to damage.

Please note!

For processing credit and debit cards, an Internet connection must be made available on site at the automatic pay station. The system operator must also conclude a contract with the network provider.

Individual equipment variations available on request.

* For orders with no surcharge in RAL to choose, the standard colour is housing in RAL 7016 Anthracite grey, front panel in RAL 9006 White aluminium.

- A** Customer display with control buttons and intercom
- B** Receipt printer
- C** NFC reader
- D** Parking ticket or parking chip reader
- E** Card reader
- F** PIN pad

Hörmann automatic pay station HK 200

Article no.

€

Hörmann automatic pay station with barcode reading unit for settling parking fees for short-term users with barcode ticket via chip and PIN pay terminal

4831192

22947

Pay station systems

In combination with entry and exit stations

Optional extras for automatic pay station HK 200



Accessories for automatic pay stations	Article no.	€
Receipt paper roll White	4831040	19,40
Intercom, analogue, pre-installed Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. For max. 2 call buttons and a cable length up to 800 metres.	4831056	738
Note: Base required for intercom, see accessories on page 31.		
Secondary intercom TCP / IP Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. Connection to an on-site SIP-enabled telephone system.	4831193	2145
Function description: A secondary intercom is installed in each of the desired corresponding devices. The programmed phone number is called after pressing the call button. After establishing a connection, the voice contact is established and the barrier can be controlled remotely (via telephone button 7).		
Note: If a SIP-capable telephone system is not available, a SIP-capable Fritz Box can be used as a telephone system.		
Transponder reader RFID short range (for users of long-term or prepaid cards) Suitable for fitting in the automatic pay station door for non-contact processing of long-term and / or prepaid cards in transponder technology (RFID). With RS232 interface to connect the electronic unit. The following RFID transponder types can be processed: <ul style="list-style-type: none"> • HITAG 1 (125 kHz) • Mifare "Plus", "Classic", "Ultralight", "DESfire" (13.56 MHz) When using on-site cards, these have to be tested / verified by us before commissioning an order.	4831194	832
Explanations: <ul style="list-style-type: none"> – Long-term cards are for users that lease a parking space for a flat rate, contractually and by debit. – Prepaid cards can be charged at the automatic pay station and used up. – They enable users to exit without having to go to the automatic pay station. 		
Retrofitting a barcode reader on the automatic pay station For processing of short-term parking tickets with up to 2 additional remuneration barcodes – printed by the "offline remuneration printer"	4831195	1560
Ticket punch hole detection For detecting ticket punches on the automatic pay station for short-term user barcode or Leporello tickets. This position is required per automatic pay station. Punch hole detection is only possible with a tariff change	4831196	935
Further additional functions for automatic pay stations	Article no.	€
Reprinting of lost tickets at the automatic pay station Surcharge for hardware and software in the automatic pay station for creating lost tickets at the automatic pay station with 100 g paper.	4831197	1092
Prepaid card top-up at the automatic pay station Software for central computer CCU-104 / automatic pay station for prepaid card top-up at the automatic pay station.	4831222	520
Week ticket "Week ticket" software module on the automatic pay station, Park-B/C/L LIVA Software for creating week tickets on the automatic pay station. The entry ticket can be converted into a week ticket for a flat rate. The customer simply has to insert the entry ticket into the ID card reader on the automatic pay station. After paying the total for the week ticket, the customer receives a receipt indicating the date the week ticket loses its validity. Tickets can only be converted into a week ticket within 24 hours of entry.	4831199	909
Month ticket Software for creating month tickets on the automatic pay station. The entry ticket can be converted into a month ticket for a flat rate. The customer simply has to insert the entry ticket into the ID card reader on the automatic pay station. After paying the total for the month ticket, the customer receives a receipt indicating the date the month ticket loses its validity. Tickets can only be converted into a month ticket within 24 hours of entry.	4831200	909

Pay station systems

In combination with entry / exit stations

Ticket readers for doors and gates



Hörmann door and gate reader	Article no.	€
Door and gate reader with online connection to control centre (without housing) to open the entrance door. Membership to the parking facility is checked here. The door opener magnet must be provided on-site. Power supply for door strike magnet 8 – 12 V.		
Door reader with barcode technology for long-term users and short-term users with barcode ticket	4831201	2594
Door reader with transponder technology for long-term users and short-term users with parking chip	4831202	2594
Surcharge for additional transponder reader (for door reader in barcode technology)	4831203	1282
Surcharge for additional barcode reader (for door reader in transponder technology)	4831204	1282
Optional extras for door / gate reader		
Door / gate reader housing (wall fitting)		
<ul style="list-style-type: none"> • Suitable for fitting the door reader in barcode and / or in transponder technology as well as a secondary intercom. • Modern octagon housing design in RAL 7016 • Front plate can be detached completely • Service-friendly access to installed components • Wall fitting 	4831205	534
Empty housing KGM		
<ul style="list-style-type: none"> • Suitable for fitting in different terminal and on-site components (readers, intercoms etc.) • Weather-resistant, durable and elegant version incl. weather protection • Large detachable and lockable front door • Secured against access with cylinder lock • Quick and easy housing assembly • Incl. fitted hat rail for trouble-free fastening of fitted parts • Housing made of stainless steel, two-colour powder-coated * • Large cable recess in the bottom plate W x D 90 x 55 mm • Housing dimensions: W x H x D 180 x 1100 x 120 mm • Control housing weight: 10 kg <p>* For orders with no surcharge in RAL to choose, the standard colour is housing in RAL 7016 Anthracite grey, front panel in RAL 9006 White aluminium.</p>	4831206	849
For more technical documentation and cut-out dimensions, see the technical manual.		
Intercom, analogue, pre-installed	4831056	738
<ul style="list-style-type: none"> • Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. • For max. 2 call buttons and a cable length up to 800 metres. 		
Note: Base required for intercom, see accessories on page 31.		
Secondary intercom TCP/IP	4831193	2145
<ul style="list-style-type: none"> • Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. • Connection to an on-site SIP-enabled telephone system. 		
Function description: A secondary intercom is installed in each of the desired corresponding devices. The programmed phone number is called after pressing the call button. After establishing a connection, the voice contact is established and the barrier can be controlled remotely (via telephone button 7).		
Cut-out in the housing / front panel for on-site control element or an additional connection element	4831047	216
Note: For on-site control elements without fitting and initial start-up at the factory.		
Barcode tickets as a roll with approx. 3500 tickets per roll, white	4831033	92



Management

Hörmann central computer	Article no.	€
Hörmann central computer for managing all stations The system is autonomous and does not require a constant connection to a control panel. Consisting of: <ul style="list-style-type: none"> • Computer unit CCU-104 with software for the control, monitoring, parking fee calculation for short-term users and administration of all parking processes for short-term and long-term users as well as terminal system tickets. • Memory for parking and manipulation messages • 5.7" TFT colour display for service-related use • Keyboard with PS 2 connection • Interface for connecting the individual system components (entry and exit, automatic pay station, door reader, etc.) • Integrated Ethernet network interface, connection plug RJ 45 (Ethernet with TCP/IP protocol 10/100 Base-T) remote maintenance access for HA • Interface to connect remote control • Interface to connect a control panel • Connection for Arcnet HUB for signal processing • Size of the control box (W x H x D) 600 x 760 x 210 mm • Remote maintenance / remote control / WebControl requires permanent Internet access / Internet connection on the central computer to be provided on-site. 	4831207	7169
Software administration Software for the control, monitoring, parking fee calculation for short-term users and administration of all parking processes for short-term users. <ul style="list-style-type: none"> • Memory for parking and manipulation messages • Interface for connecting the individual system components (entry and exit, automatic pay station, door reader, etc.) • Interface to connect remote control • Interface to connect a control panel • Connection for Arcnet HUB for signal processing Remote maintenance / remote control / web control requires Internet access / an Internet connection on the central computer CCU-104 in the automatic pay station.	4831208	4172
TSE hardware and software Technical security equipment (TSE) for parking systems in Germany with the option of cash payment. In the course of fiscalisation, pay station systems in Germany with the option of cash payment should be equipped with technical security equipment (TSE) to protect payment data against manipulation. TSE hardware for connection to a central computer or software management of the parking system - the TSE is required 1 x per system / parking system. Fiscal system hardware and software in other countries on request.	4831402	1393
Device communication	Article no.	€
Arcnet HUB 5 x Arcnet HUB for signal preparation and data distribution to the individual external devices (entry and exit stations, automatic pay station Park-LIVA). Power supply 5-volt. 1 input, 4 outputs.	4831209	1016
RS 485-HUB 4 x RS 485 HUB for signal preparation and data distribution to the individual external devices, such as: transparent parking facility display, door reader and long-term user entry and exit readers, barrier with control. Power supply 5-volt. 1 input RS 232, 4 outputs RS 485.	4831210	989
Optional extras	Article no.	€
I/O card CAN-BUS With 8 inputs and 8 outputs for controlling different system components. Fitted in the control box, connected to central computer CCU-104.	4831211	2621



Management

Additional functions	Article no.	€
Long-term user administration Software for central computer CCU-104 with number lock system and anti-pass-back function. For 4 long-term user groups (additional long-term user groups are possible at a surcharge).	4831212	520
Hotel ticket Software for central computer CCU-104 and control panel. To create (print) a hotel ticket on the control panel. The validity date of the hotel ticket can be set on the control panel (e.g. 3 days). In this validity period, the user can enter and exit with the hotel ticket as often as desired. Once this period expires, the hotel ticket is blocked for entry and exit. The tickets can be created separately for direct issue or as stock for later issue.	4831213	520
Congress ticket Software for central computer CCU-104 and control panel. To create (print) a congress ticket on the control panel. The tickets can be created separately for direct issue to the parking customer or printed on the control panel printer as stock for later issue to the parking customer. The user can select the number of tickets to be printed and the validity period. On request, congress tickets can also be printed in advance on perforated DIN A4 paper (9 tickets per sheet) and included with the system.	4831214	520
Exhibition ticket Software for central computer CCU-104 with number lock system. Users can enter and exit once with this ticket. The card is drawn in by the exit control unit. The software contains 10 ticket numbers.	4831215	520
Event ticket Software for central computer CCU-104 and automatic pay stations for pre-paying parking fees on the automatic pay station. Entry tickets can be prepaid at the automatic pay station for an event for a fixed flat rate. The customer simply has to insert the entry ticket into the ID card reader on the automatic pay station. Once the total has been paid in full, the parking customer can exit until the configured time. Pre-payment of the "event rate" can only be made within a set time after entry.	4831216	1062
Pool cards Software for central computer CCU-104 for managing 5 pool card groups with number lock system and anti-pass-back function.	4831217	520
Calendar function Configuration of a calendar function in the central computer CCU-104 of the parking system. The calendar function can be used to realise the following functions at defined times, e.g. after business hours: <ul style="list-style-type: none"> • Permanent OPEN switch for individual or all barriers • Close individual or all barriers • Lock ticket / chip issue at the entrance • Correct count (parking spot counting) • Switch manual occupied indication ON / OFF • Create interim settlement • Create backup Configuration and parameterisation are only performed by HERMANN Automation and cannot be changed or customised by the operator.	4831218	520
Additional long-term users Surcharge for each 4 additional long-term user groups in the parking system. e.g.: groups 5 to 8, groups 9 to 12 etc., up to a max. of 32 long-term user groups.	4831219	260
Single exit ticket Software for central computer CCU-104 for creating and managing single-use exit tickets. The tickets can be created separately for direct issue to the parking customer or printed on the control panel printer as stock for later issue to the parking customer. The user can select the number of tickets to be printed and the validity period. On request, single exit tickets can also be printed in advance on perforated DIN A4 paper (9 tickets per sheet) and included with the system.	4831220	520
Prepaid card Software for central computer CCU-104 for prepaid card management at the entrance and exit with parking fee settlement at the exit.	4831221	520
Prepaid card top-up at the automatic pay station Software for central computer CCU-104 / automatic pay station for prepaid card top-up at the automatic pay station.	4831222	520
Parking zone Software for central computer CCU-104 for managing parking zones for short-term and long-term users.	4831223	520
Time zone Software for central computer CCU-104 for managing time zones for short-term and long-term users.	4831224	520
Entrance time control Software for central computer CCU-104 for managing time zones for short-term and / or long-term users, entrance time control in separate parking areas.	4831225	520
Remuneration station For central computer CCU-104 in the car park.	4831226	1299
Remuneration printer "offline" For the central computer CCU-104 in the car park and statistics form for settling parking time remuneration. Software for processing and managing remunerated short-term user tickets at the automatic pay station. For 4 bonus groups (additional bonus groups possible at a surcharge). In combination with "offline" remuneration printer. Storage of all remunerations in the central computer CCU-104 to be able to create statistics and invoices for the operator. These can then be used to create group-specific / business-specific invoices.	4831227	1092



Management

Additional functions	Article no.	€
QR code reader For central computer CCU-104 in the car park. Software module for processing and managing QR codes on the parking system as well as in the central computer CCU-104. In combination with QR code reader on entrances / exits or automatic pay station. <ul style="list-style-type: none"> All QR codes stored in the central computer CCU-104. Issue of QR codes on pre-defined interface / protocol on an interface of the central computer for further processing / use by operator. 	4831228	1481
ID import Import ID table into the parking system central computer CCU-104. The ID table must be created by the parking facility operator in Excel format, in accordance with HERMANN Automation specifications. Table contents: (example) First name / Last name / Company / ID card number / ID no. 1 RFID / ID no. 2 RFID far range	4831229	649
Ticket punch hole detection Software for central computer CCU-104 for processing punched short-term user barcode or Leporello tickets at the automatic pay station and / or at the exit with special tariff change. Detection is only possible with a tariff change or full reimbursement.	4831230	1274
Software module "bonus ticket" on the control panel Software for central computer CCU-104 and control panel for managing bonus tickets on the control panel. For 4 bonus groups (additional bonus groups possible at a surcharge). For this, separate hard plastic remuneration cards / barcodes are required, which are entered / used at the control panel. We recommend 2 remuneration cards for each group / remuneration value so that a spare card is available if the card is lost. 4 different groups with amount remuneration or 3 groups with amount remuneration and one group with full remuneration can be created.	4831231	520
Additional remuneration group Surcharge for each 4 additional remuneration groups in the parking system. e.g.: groups 5 to 8, groups 9 to 12 etc., up to a max. of 32 long-term user groups.	4831232	260



Payment

Remuneration station "online"	Article no.	€
Remuneration station for barcode or Leporello tickets (short-term user tickets) <ul style="list-style-type: none"> • With barcode reading unit for barcode / Leporello tickets (short-term users). • Control unit for entire remuneration station • Software for controlling the barcode reading unit • Online data connection for the central computer CCU-104 for parking fee remuneration • Storage of all remunerations in the central computer CCU-104 to be able to create statistics and invoices for the operator. These can then be used to create group-specific / business-specific invoices. • Pictogram with user instructions as well as visual and acoustic signals • Modern aluminium surface-mounted housing • Front plate can be detached completely • Service-friendly access to installed components • With power supply unit, 12 V • Surface-mounted housing, dimensions 204 x 185 x (45) 73 mm (W x D x H) 	4831233	1818
Remuneration printer "offline"	Article no.	€
Remuneration printer for barcode or Leporello tickets (short-term user tickets) <ul style="list-style-type: none"> • For reimbursement of the parking fee by printing up to 2 additional barcodes on the short-term parking ticket. • Function buttons to select up to 4 different types of reimbursement (partial / full reimbursement) e.g. F1: €1.00, F2: €2.00, F3: €3.00 and F4: full reimbursement • Version: tabletop unit with power supply unit 230 V / 24 V 	4831234	1871
Parking coin	Article no.	€
Parking coin with hole, Ø 26 mm	4831253	2,40
Bonus ticket	Article no.	€
Bonus ticket with printed barcode and notice after consultation. One-sided printing (front), black 9 pre-punched tickets on paper 210 x 297 mm (DIN A4) Paper ticket dimensions: 86 x 60 mm with printed barcode Minimum quantity: 504 pieces	Price per ticket 4831235	0,20
Ticket punch	Article no.	€
Mechanical punch for punching short-term user barcode or Leporello barcode tickets with a hole. Surface-mounted housing in a modern design.	4831236	635



Control panel

Control panel (control PC)	Article no.	€
Control panel consisting of: <ul style="list-style-type: none"> • Computer unit with hard drive • Windows software license • Dialog monitor 21.5" • Keypad + mouse • Operator software LIVA-Control and LIVA-Report with Windows operating system for operating / managing the entire system • Data connection to central unit CCU 104 • Connection for barcode reading unit (RFID or barcode) • Connection for report printer 	4831237	7569

Software for control panel	Article no.	€
Consisting of: <ul style="list-style-type: none"> • Operator software LIVA-Control and LIVA-Report with Windows operating system for operating / managing the entire system • Software for the control, monitoring, parking fee calculation for short-term users and administration of all parking processes 	4831238	4052

Note:

PC, monitor, mouse, DIN-A4 printer and keypad must be provided on-site!

RFID multi-reader	Article no.	€
Consisting of: <ul style="list-style-type: none"> • Cradle incl. non-contact barcode reading unit for processing terminal parking chips (HITAG 1), long-term tickets and / or prepaid cards in transponder technology (HITAG 1 or Mifare). • Software for control panel <p>The following RFID transponder types can be processed:</p> <ul style="list-style-type: none"> • HITAG 1 (125 kHz) • Mifare "Plus", "Classic", "Ultralight", "DESfire" (13.56 MHz) 	4831239	776

Barcode reader	Article no.	€
Non-contact barcode reader incl. support foot for processing system internal: <ul style="list-style-type: none"> • Barcode tickets • Long-term tickets and / or prepaid cards (hard plastic cards) • Congress / hotel / exhibition / single exit / insert / bonus and / or special tickets in barcode technology. incl. software for control panel.	4831240	803

Ticket printer	Article no.	€
(Barcode) – thermal printer incl. power supply unit for connection to the control panel. Suitable for 60 and 100 g paper. <p>For printing terminal:</p> <ul style="list-style-type: none"> • Long-term tickets and / or prepaid cards, paper • Congress / hotel / exhibition / single exit / insert / bonus and / or special tickets in barcode technology. 	4831241	1097

Ticket printer Leporello – desktop version Park-B/L	Article no.	€
Incl. software, connection cable, power supply unit and setup box for Leporello tickets. Suitable for serial printing of single exit tickets, congress tickets and bonus tickets on Leporello paper. Max. print job 100 tickets in a row. <p>For an efficient / cost-optimised operation, the standard boxes with Leporello tickets (content 6000 pieces) can be used directly on entry.</p>	4831242	3960



Services

OnlineControl			Article no.	€
<p>Web application for operation of the station / system. After the access data is entered, the system can be controlled remotely from any Internet-capable end device, such as a smartphone, tablet and / or PC / Mac, regardless of your location. Internet access via a network cable must be available on-site at the system control. The price and term of contract are annual. The user fees for OnlineControl are settled annually, in advance, via a service agreement. No discount is available for this item!</p>	Basic (for operation of the station / system)	Annual usage fees	4831437	180
	Plus (for operation of the station / system and the option of ID card management)	Annual usage fees	4831438	264

WebControl			Article no.	€
<p>After the access data is entered, the system can be controlled remotely from any Internet-capable end device, such as a smartphone, tablet and / or PC / Mac, regardless of their location. Service messages can also be sent by e-mail and the following parking system evaluations / statistics provided as an Excel file at the end of every month.</p> <ul style="list-style-type: none"> • Number of entries / exits per month and day • Number of payments and turnover per month and day • Average parking time per month <p>The evaluations / statistics are automatically e-mailed to a configured operator e-mail address. (Example: operator accounting). Incl. service / operational information e-mails to a configured operator e-mail address. (Example: service technician with a smartphone). The parking system messages (including parking facility ID, station number and time) are automatically e-mailed to the configured e-mail address immediately after the event: permanent Internet access / an Internet connection must be available for the parking system (service and WEBControl) for e-mail delivery of the evaluations / statistics.</p> <p>The monthly WebControl user fees are settled quarterly, in advance, via a service agreement.</p> <p>The WEBControl usage agreement is limited to 3 users.</p>		Price per month	4831245	117

Accessories for pay station systems



Connection and control elements

Barcode (short range)			
	Barcode tickets as a roll with approx. 3500 tickets per roll, white	4831033	92
	Leporello tickets, box of 6000 tickets, white	4831170	279
	Barcode card (short range) Non-contact plastic card in cheque card format. White card, with printed barcode. Minimum quantity 25 pieces Customer-specific imprint invoiced at cost.	4831049	7,40
	Attention: Please protect the card from heavy exposure to sun or light and the effects of aggressive chemicals.		
RFID transponder (short range)			
	Long-term user ID transponder HITAG 1 Non-contact plastic card in cheque card format. White card in transponder / RFID technology HITAG 1. Minimum quantity 25 pieces Customer-specific imprint invoiced at cost.	4831051	13,30
	Attention: Please protect the card from heavy exposure to sun or light and the effects of aggressive chemicals.		
RFID transponder (long range)			
	RFID transponder for windscreen, adhesive. Minimum quantity: 25 pieces	4831258	13
	Post for RFID far range reader or camera / number plate recognition	4831060	396
Base for analogue intercom			
	Interface for integration into a telecommunications system	4831057	1380
Control centre if there is no SIP-capable intercom on-site			
	SIP-Fritz Box for 10 intercoms	4831243	801
	Mini-PC for remote maintenance	4831244	1274
Accessories for automatic pay station HK 200 / HK 300 / HK 500			
	Receipt paper roll, white	4831040	19,40
Key switches, each with 3 keys			
ESU 30	Key switch (recessed, impulse Open / Close, without connecting lead)	436110	49
STAP 50	Key switch (surface-mounted, impulse Open / Close, with 2 m connecting lead, 2-wire)	4511650	61
Cylinders with keys to pass for Hörmann key switches			
	Profile half cylinder 30.5 + 10 mm, closing angle 0°, adjustable, 2 pieces with keys to pass	436120	40
	Profile half cylinder 30.5 + 10 mm, closing angle 0°, adjustable, 3 pieces with keys to pass	436121	52
	Profile half cylinders with keys to pass in quantities larger than 3	On request	
Key switch each with 3 keys			
	Key switch (recessed, impulse Open (push-to-lock) / Close (press-and-hold)	4831257	321
Cylinders with keys to pass for key switches			
	Profile half cylinder keys to pass for key switches (article no. 4831257)	4832570	70

Accessories for pay station systems

Connection and control elements



Rigid pre-fabricated induction loops for laying in screed / concrete and underneath paving stones			
Pre-fabricated induction loop, rigid, dimensions 2 m x 1 m, connecting cable to control: 10 m	4831067		396
Pre-fabricated induction loop, rigid, dimensions 3 m x 1 m, connecting cable to control: 10 m	4831068		528
Pre-fabricated induction loop, rigid, dimensions 4 m x 1 m, connecting cable to control: 10 m	4831069		660
Pre-fabricated induction loop, rigid, dimensions 5 m x 1 m, connecting cable to control: 10 m	4831070		792
Pre-fabricated induction loop, rigid, dimensions 6 m x 1 m, connecting cable to control: 10 m	4831071		924
Pre-fabricated induction loop, rigid, dimensions 7 m x 1 m, connecting cable to control: 10 m	4831072		1056
Pre-fabricated induction loop, rigid, dimensions 8 m x 1 m, connecting cable to control: 10 m	4831073		1188
Pre-fabricated induction loop, rigid, dimensions 9 m x 1 m, connecting cable to control: 10 m	4831074		1320
Pre-fabricated induction loop, rigid, incl. 10 m connecting cable to control Specify loop width and loop depth	Per m	4831166	66
Line extension for rigid pre-fabricated induction loop (max. 40 m)	Per m	4831075	6,50
Rigid high-temperature pre-fabricated induction loops for laying in asphalt			
Pre-fabricated induction loop, rigid, dimensions 2 m x 1 m, connecting cable to control: 10 m	4831083		426
Pre-fabricated induction loop, rigid, dimensions 3 m x 1 m, connecting cable to control: 10 m	4831084		568
Pre-fabricated induction loop, rigid, dimensions 4 m x 1 m, connecting cable to control: 10 m	4831085		710
Pre-fabricated induction loop, rigid, dimensions 5 m x 1 m, connecting cable to control: 10 m	4831086		852
Pre-fabricated induction loop, rigid, dimensions 6 m x 1 m, connecting cable to control: 10 m	4831087		994
Pre-fabricated induction loop, rigid, dimensions 7 m x 1 m, connecting cable to control: 10 m	4831088		1136
Pre-fabricated induction loop, rigid, dimensions 8 m x 1 m, connecting cable to control: 10 m	4831089		1278
Pre-fabricated induction loop, rigid, dimensions 9 m x 1 m, connecting cable to control: 10 m	4831090		1420
Pre-fabricated induction loop, rigid, incl. 10 m connecting cable to control Specify loop width and loop depth	Per m	4831167	71
Line extension for rigid pre-fabricated induction loop (max. 40 m)	Per m	4831075	6,50

Example calculation for induction loop length:

Length of induction loop (m) = 2 x (loop width in metres + loop depth in metres)

Recommended:

- The vehicle dampens the loop.
- The loop width is less than the road width.
- The loop depth is based on the vehicle to be detected.

Vehicle type	Loop width	Loop depth (in the road direction)
Car	Road width – 2 m	1 m
Car with trailer	Road width – 2 m	2 to 3 m
Lorry	Road width – 2 m	2 to 4 m or 2 loops per 1.5 m with 1.5 m distance, plus photocell
Lorry with trailer	Road width – 2 m	3 to 4 m or 2 loops per 1.5 m with 1.5 m distance, plus photocell












Accessories for barriers, barrier systems and pay station systems

Control housing, connection and control elements

Short designation	Description	Article no.	€/ each
	Control housings		
	Control housing KGM made of stainless steel (AISI 304), for fitting a command unit, maximum cut-out area for on-site devices 90 mm × 400 mm (W × H)	4831206	849
	Control housing KGG made of stainless steel (AISI 304), for fitting two command units maximum, maximum cut-out area for on-site devices 205 mm × 400 mm (W × H)	4831042	1037
	Control housing KGU made of stainless steel (AISI 304), for fitting three command units maximum, maximum cut-out area for on-site devices 300 mm × 530 mm (W × H)	4831043	1323
	Control housing passenger vehicle / lorry made of stainless steel (AISI 304), for fitting three command units maximum, maximum area of the two cut-out sections for on-site devices 300 mm × 415 mm (W × H)	4831044	2478
	Heating 150 W for housing KGM / KGG incl. thermostat and plug	4831255	456
	Heating 400 W for housing KGU / car / lorry incl. thermostat and plug	4831256	456
	Ticket printer for housing KGU / car / lorry	4831264	6663
	Contact duplication (e.g. additional command to open the gate)	4831247	216
	Coin validator, electronic, for euros / and parking coins	4831251	1195
	Coin validator Ø 26 mm, mechanical, for housing KGG / KGU / car / lorry	4831249	530
	Control housing / entry station or exit station painted in RAL to choose	4831045	405
	Front panel of the control housing / entry station or exit station painted in RAL to choose	4831046	140
	Passenger vehicle / lorry control housing painted in RAL to choose	4831082	557
	Cut-out in the housing / front panel for on-site control element or an additional connection element	4831047	216
	Note: <ul style="list-style-type: none"> For on-site control elements without fitting and initial start-up at the factory. Required for control housing KGM / KGG with intercom. 	Surcharge per cut-out	
	Barcode reader (short range) for fitting into the control housing		
	Barcode reader (short range), pre-installed	4831048	744
	Barcode card (short range), 1 unit	4831049	7,40
	RFID transponder reader (short range) for fitting into the control housing		
	RFID transponder reader (short range), pre-installed	4831436	649
	RFID transponder card (short range), 1 unit	4831051	13,30
	QR code reader (short range) for fitting into the control housing		
	QR code reader (short range), pre-installed	4831054	2603
	Intercom for fitting into the control housing		
	Intercom, analogue, pre-installed Suitable for fitting in entry and exit stations, door and gate reader stations and automatic pay stations. For max. 2 call buttons and a cable length up to 800 metres.	4831056	738
	Note: Base required for intercom, see accessories on page 31.		
	RFID reader (long range)		
	RFID reader (long range)	4831292	5455
	RFID transponder for windscreen, adhesive, minimum quantity: 25 pieces	4831258	13
	Camera for number plate recognition	4831059	8106
	Free-standing housing for camera / number plate recognition	4831401	1169
	Post for RFID reader (long range) or camera for number plate recognition	4831060	396
	POE ethernet switch for connection of RFID readers or cameras to the barrier control	4831410	250
	Network modules for barriers		
	WiFi module for barriers, for control of the barrier via WEBServer / WEBBrowser		
	Note: <ul style="list-style-type: none"> Only for servicing purposes! Not suitable for integration of the barrier in an existing network. The WiFi module cannot be used if the barrier is connected via the (Ethernet) network. 	4831061	257
	Software for ID card management	4831063	1042
	Control panel for barriers		
	Control panel for a barrier (push button panel), pre-installed	4831064	824
	Surcharge for the extension of the control panel, for each additional barrier (up to 4, additional barriers on request)	4831065	214



Accessories for barriers, barrier systems and pay station systems

Connection and control elements

Short designation	Description	Article no.	€/each
Receiver 868 MHz			
HET-E2 MCX BS 	HET-E2 MCX BS with external PUK antenna, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (OPEN and CLOSE) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC	4831093	291
868 MHz hand transmitters – only in conjunction with a receiver BiSecur hand transmitters are downward compatible with 868 MHz fixed code receivers			
HS 1 BS 	1-button hand transmitter, impulse, incl. battery, with chrome-plated zinc die-cast caps	Black (textured surface) 4511720	73
HS 4 BS 	4-button hand transmitter, impulse, incl. battery, with chrome-plated zinc die-cast caps	Black (textured surface) 4511724	73
HS 5 BS 	5-button hand transmitter, impulse, incl. battery, with chrome-plated zinc die-cast caps	Black (high-gloss)	86
		White (high-gloss)	86
		Black (textured surface)	86
HSE 1 BS 	1-button micro hand transmitter, impulse, incl. key ring and battery, with chrome-plated zinc diecast caps	Black (textured surface) 4511728	73
HSE 4 BS 	4-button micro hand transmitter, impulse, incl. key ring and battery, with chrome-plated zinc diecast caps	Black (textured surface) 4511732	73
HSE 4 BS 	4-button micro hand transmitter, impulse, incl. key ring and battery, with plastic caps in the same colour as the hand transmitter	Black (textured surface) 4511736	66
HSS 4 BS 	4-button security hand transmitter, impulse, incl. battery, additional function: copy protection for hand transmitter coding (cannot be taught in)	Red (high gloss) 436756	117
	Hand transmitter station for BiSecur hand transmitters HS 1 BS, HS 4 BS and HS 5 BS	Black (high-gloss) 436691	9,50
	Hand transmitter holder incl. visor clip for BiSecur hand transmitters HS 1 BS, HS 4 BS and HS 5 BS	436698	8,50
	Hand transmitter holder incl. visor clip for BiSecur hand transmitters HSE 1 BS and HSE 2 BS	437006	8,50
	Hand transmitter sleeve, black, for BiSecur hand transmitter HSE	4510869	7,40
868 MHz industrial hand transmitters – only in conjunction with a receiver			
HSI BS 	Industrial hand transmitter for controlling up to 1000 receivers	436789	204
	Wall holder for industrial hand transmitter HSI / HSI BS, including fixing material	637635	15,50
	Protective bag for industrial hand transmitter HSI / HSI BS, including clip	637636	39
	Copy cable with software, for coding industrial hand transmitters HSI / HSI BS or saving data on a PC	637637	26
	USB adapter on Com port	637634	35
	Connection cable for industrial hand transmitters HSI / HSI BS, for external voltage supply, for connecting to a forklift or another external power supply	637638	8,50
HSI 6 BS 	Industrial hand transmitter for controlling up to 6 receivers	4511801	114
	Hand transmitter holder for HSI 6 BS, incl. fitting kit for fitting to wall or box frame	437383	8,50
HSI 15 BS 	Industrial hand transmitter for controlling up to 15 receivers	4511802	164
	Hand transmitter holder for HSI 15 BS, incl. fitting kit for fitting to wall or box frame	437384	11,90
Key switches, each with 3 keys			
ESU 30	Key switch (recessed, impulse Open / Close, without connecting lead)	436110	49
STAP 50	Key switch (surface-mounted, impulse Open / Close, with 2 m connecting lead, 2-wire)	4511650	61
Cylinders with keys to pass for Hörmann key switches			
	Profile half cylinder 30.5 + 10 mm, closing angle 0°, adjustable, 2 pieces with keys to pass	436120	40
	Profile half cylinder 30.5 + 10 mm, closing angle 0°, adjustable, 3 pieces with keys to pass	436121	52
	Profile half cylinders with keys to pass in quantities larger than 3	On request	

Accessories for barriers, barrier systems and pay station systems

Connection and control elements

Short designation	Description	Article no.	€/ each
	Hörmann homee		
Hörmann homee Brain	<p>Smart Home control centre Hörmann homee Brain with BiSecur radio system for operating Hörmann garage door and entrance gate operators, entrance door locks and electronic devices with BiSecur radio; only in conjunction with HET-E2 SL / MCX BS for barriers and road blockers.</p> <p>Protection category: for dry rooms only</p> <p>Power supply: 100–240 V AC, 50/60 Hz, 200 mA, secondary voltage: 5 V DC / 1.2 A, temperature range: -20°C to +60°C, operating voltage: 24 V DC</p> <p>Housing: plastic, colour Pure white RAL 9010, dimensions (W x H x D): 51 x 51 x 53 mm</p> <p>Scope of delivery: power supply unit 100–240 V AC</p> <p>Administration via Hörmann homee app (iOS, Android) and web app</p> <p>System requirements:</p> <ul style="list-style-type: none"> – iOS devices from version 10.0 or higher – Android devices from software version 5.0 or higher – Web interface (current version), Internet Explorer, Safari, Google Chrome or Mozilla Firefox <p>WLAN (802.11b/g/n)</p> <p>LAN possible via LAN adapter</p> <p>Hörmann homee app</p> <ul style="list-style-type: none"> – Operation via the home network or globally via the Internet – Control of individual devices, device groups or via programmable “homeegram” scenarios – Supports all BiSecur devices – Expandable by various standard radio protocols (cubes) for additional elements (light, alarm system, heating etc.), such as ZigBee, Z-Wave, EnOcean – Weather with forecast can be used in homeegrams (scenarios) – Voice assistants Alexa, Google Assistant and Siri (shortcuts) 	4510101	273
	Bluetooth® receivers		
HET/S 24 BLE	<p>Receiver for the control of external consumers via Bluetooth®, to control (impulse) Hörmann operators / operators of other makes, with 2 volt-free relays, with 7 m connecting lead, 4-wire, protection category: IP 44, temperature range: -20°C to +40°C, operating voltage: 12–24 V DC, 12 V AC, switching capacity: 30 V DC / 2.5 A (resistive load)</p> <p>Function: On / off, impulse (0.5 s), dimensions (W x H x D): 110 x 45 x 40 mm</p> <p>System requirements:</p> <ul style="list-style-type: none"> – iOS devices from version 9.0 – Android devices from version 5.0 – Bluetooth 4.0 <p>* Function and availability depend on the respective end device and the app version (note the description text in the App Store)</p>	4511827	102
Bluetooth® Antenna BTA 800	External antenna for receiver HET / S 24 BLE to increase the range, with 0.8 m connecting lead, protection category: IP 54, dimensions (W x H x D): 80 x 80 x 35 mm	4511829	70
	Hörmann GSM Control		
GSM Control	<p>Opening of the system via telephone call, receipt of status messages via SMS, no limits regarding the distance, easy parameterisation with the enclosed software or SMS commands, up to 1000 authorised users (telephone numbers) can be stored, telephone calls are free of charge for the users, 100–240 V AC, 50/60 Hz, 2 volt-free normally open contacts (max. switching capacity 5 A), 4 digital inputs (freely configurable), temperature range -20°C to +60°C, protection category IP 65, transmission channel 4G/3G/2G/GSM, frequency range UMTS 900/1200 MHz, GSM/GPRS 900/1800 MHz</p>	639782	543
	Code switches		
	BiSecur radio code switches are downward compatible with 868 MHz fixed code receivers		
CTR 1b-1	Code switch with 1 relay output, impulse to control one operator, illuminated keypad, 230 V AC or 24 V DC, without connecting lead	4511631	175
CTV 3-1	Code switch with keypad protected against vandalism, with 3 separate relay outputs, impulse to control two operators and / or outdoor lighting, 230 V AC or 24 V DC, without connecting lead	4511633	240
CTP 3-1	Code switch with illuminated capacitive keypad, with 3 separate relay outputs, impulse to control two operators and / or outdoor lighting, 230 V AC or 24 V DC, without connecting lead	4511634	240
CTR 1d	Code switch with 1 relay output, impulse to control one operator, keypad protected by a hinged panel, 230 V AC or 24 V DC, without connecting lead Note: Use a mains adapter (article no. 436109) for power supply of 230 V AC.	436355	117
CTR 3d	Code switch with 3 separate relay outputs, impulse to control two operators and / or outdoor lighting, keypad protected by a hinged panel, 230 V AC or 24 V DC, without connecting lead	436390	154
FCT 3-1 BS	 Radio code switch for controlling up to 3 operators, illuminated keypad, protection category: IP 54, housing: plastic, colour Light grey RAL 7040, incl. battery	4511856	95
FCT 10-1 BS	 Radio code switch for controlling up to 10 operators, illuminated keypad, hinged cover, protection category: IP 54, housing: plastic, painted White aluminium RAL 9006, incl. battery	4511861	143

Accessories for barriers, barrier systems and pay station systems

Connection and control elements

Short designation	Description	Article no.	€/each
Transponder key switches			
TTR 1000-1	Transponder key switch (impulse, non-contact to control one operator, operating voltage either 100–240 V AC or 10–24 V AC/DC, without mains lead) incl. 1 transponder key and 1 transponder card	4511643	240
TTRE-1	Additional input unit for extension of the transponder key switch TTR 1000-1	4511644	119
TS	Transponder key for transponder key switches TTR 1000-1 and TTRE-1	4510023	16,70
TL 1000	Transponder card for transponder key switches TTR 1000-1 and TTRE-1	437011	16,70
ZBG 1-1	Spacer bracket (required for fitting of transponder key switches TTR 100, TTR 1000 and TRE to metal)	4511694	46
Finger-scans			
BiSecur radio finger-scans are downward compatible with 868 MHz fixed code receivers			
FFL 25 BS	Radio finger-scan BiSecur, impulse for controlling 2 operators by means of fingerprint, up to 25 fingerprints can be taught in, cannot be deleted individually, hinged cover, activation by opening the cover or by pressing the "ON" button; protection category: IP 54, housing: plastic, painted White aluminium RAL 9006, incl. battery	4511870	189
FL 150	Finger-scan, impulse, with two relays to control 2 operators with a fingerprint, memory for up to 150 fingerprints, can be deleted individually, connecting voltage 230 V, power supply unit plug and surface-mounted housing included in scope of delivery	4511640	514
Photocells / light buttons for barriers			
	Photocell with transmitter and receiver Incl. housing and fixing material Range: 1 m to max. 8 m, protection category IP 65 Note: <ul style="list-style-type: none">For barrier SH 300 with functional safety.A cable connection is required between the transmitter and receiver units of the photocell!	4831457	593
	Counter-post / fitting post for photocell Material aluminium, powder-coated in RAL 9006, tube dimensions (W × H × D) 120 × 810 × 60 mm, incl. base plate (W × D) 180 × 120 mm for screw fastening	4831078	207
	Photocell TOF / spot light button Incl. housing and fixing material Range: can be set from 0.2 m to 6 m, voltage: 10–30 V DC, protection category: IP 65, temperature range: –40°C to +60°C Note: <ul style="list-style-type: none">Please note that adverse weather conditions such as fog can affect the light button.When using this photocell, the barrier must be maintained / inspected every six months!	4831469	1061
Timers			
ZSU 2	Digital weekly timer in semi-housing, incl. data key	637061	298
ZSU 2	Digital weekly timer without semi-housing, incl. data key	637501	164
ZSJ 2	Yearly timer, 2-channel, in semi-housing, incl. data key	637079	464
ZSJ 2	Yearly timer, 2-channel, without semi-housing, incl. data key	637502	443
	Software and USB adapter for timers ZSU 2 and ZSJ 2 for the parameterisation of the data keys enclosed with the timers	637507	171
LED traffic lights			
TL40Srd	LED traffic light, red (230 V / 50 Hz)	637534	124
TL40Sye	Yellow LED traffic light (230 V / 50 Hz)	637536	112
TL40Sgn	Green LED traffic light (230 V / 50 Hz)	637535	124
TL40Srd/gn	Red / green LED traffic light (230 V / 50 Hz)	637537	208
TL40Srd/ye/gn	Red / green LED traffic light (24 V DC), single-headed	637896	195
Traffic light	Traffic light, LED version for wall and post fitting, 100 mm – 1 × red / 1 × green	4515019	507

Accessories for barriers, barrier systems and pay station systems

Connection and control elements

Short designation	Description	Article no.	€/ each
	Induction loop cable		
DI 1 Pro	Induction loop detector without semi-housing and loop cable	637545	453
DI 2 Pro	Induction loop detector without semi-housing and loop cable	637546	579
	Flexible pre-fabricated induction loops for inserting into the driveway Note: max. laying depth 70 mm		
	Pre-fabricated induction loop, flexible, length 7.60 m, connecting cable to control: 15 m	4515022	257
	Pre-fabricated induction loop, flexible, length 7.60 m, connecting cable to control: 30 m	4515023	297
	Pre-fabricated induction loop, flexible, length 9.60 m, connecting cable to control: 15 m	4515024	269
	Pre-fabricated induction loop, flexible, length 9.60 m, connecting cable to control: 30 m	4515025	309
	Pre-fabricated induction loop, flexible, length 12.60 m, connecting cable to control: 15 m	4515026	285
	Pre-fabricated induction loop, flexible, length 12.60 m, connecting cable to control: 30 m	4515027	321
	Line extension for flexible pre-fabricated induction loop (max. 80 m) Per m	4515162	9,40
	Rigid pre-fabricated induction loops for laying in screed / concrete and underneath paving stones		
	Pre-fabricated induction loop, rigid, dimensions 2 m × 1 m, connecting cable to control: 10 m	4831067	396
	Pre-fabricated induction loop, rigid, dimensions 3 m × 1 m, connecting cable to control: 10 m	4831068	528
	Pre-fabricated induction loop, rigid, dimensions 4 m × 1 m, connecting cable to control: 10 m	4831069	660
	Pre-fabricated induction loop, rigid, dimensions 5 m × 1 m, connecting cable to control: 10 m	4831070	792
	Pre-fabricated induction loop, rigid, dimensions 6 m × 1 m, connecting cable to control: 10 m	4831071	924
	Pre-fabricated induction loop, rigid, dimensions 7 m × 1 m, connecting cable to control: 10 m	4831072	1056
	Pre-fabricated induction loop, rigid, dimensions 8 m × 1 m, connecting cable to control: 10 m	4831073	1188
	Pre-fabricated induction loop, rigid, dimensions 9 m × 1 m, connecting cable to control: 10 m	4831074	1320
	Pre-fabricated induction loop, rigid, incl. 10 m connecting cable to control Per m	4831166	66
	Line extension for rigid pre-fabricated induction loop (max. 40 m) Per m	4831075	6,50
	Rigid high-temperature pre-fabricated induction loops for laying in asphalt		
	Pre-fabricated induction loop, rigid, dimensions 2 m × 1 m, connecting cable to control: 10 m	4831083	426
	Pre-fabricated induction loop, rigid, dimensions 3 m × 1 m, connecting cable to control: 10 m	4831084	568
	Pre-fabricated induction loop, rigid, dimensions 4 m × 1 m, connecting cable to control: 10 m	4831085	710
	Pre-fabricated induction loop, rigid, dimensions 5 m × 1 m, connecting cable to control: 10 m	4831086	852
	Pre-fabricated induction loop, rigid, dimensions 6 m × 1 m, connecting cable to control: 10 m	4831087	994
	Pre-fabricated induction loop, rigid, dimensions 7 m × 1 m, connecting cable to control: 10 m	4831088	1136
	Pre-fabricated induction loop, rigid, dimensions 8 m × 1 m, connecting cable to control: 10 m	4831089	1278
	Pre-fabricated induction loop, rigid, dimensions 9 m × 1 m, connecting cable to control: 10 m	4831090	1420
	Pre-fabricated induction loop, rigid, incl. 10 m connecting cable to control Per m	4831167	71
	Line extension for rigid pre-fabricated induction loop (max. 40 m) Per m	4831075	6,50

Example calculation for induction loop length:

Length of induction loop (m) = 2 × (loop width in metres + loop depth in metres)

Recommended:

- The vehicle dampens the loop.
- The loop width is less than the road width.
- The loop depth is based on the vehicle to be detected.

Vehicle type	Loop width	Loop depth (in the road direction)	
Car	Road width – 2 m	1 m	
Car with trailer	Road width – 2 m	2 to 3 m	
Lorry	Road width – 2 m	2 to 4 m	or 2 loops per 1.5 m with 1.5 m distance, plus photocell
Lorry with trailer	Road width – 2 m	3 to 4 m	or 2 loops per 1.5 m with 1.5 m distance, plus photocell

Automatic bollards E

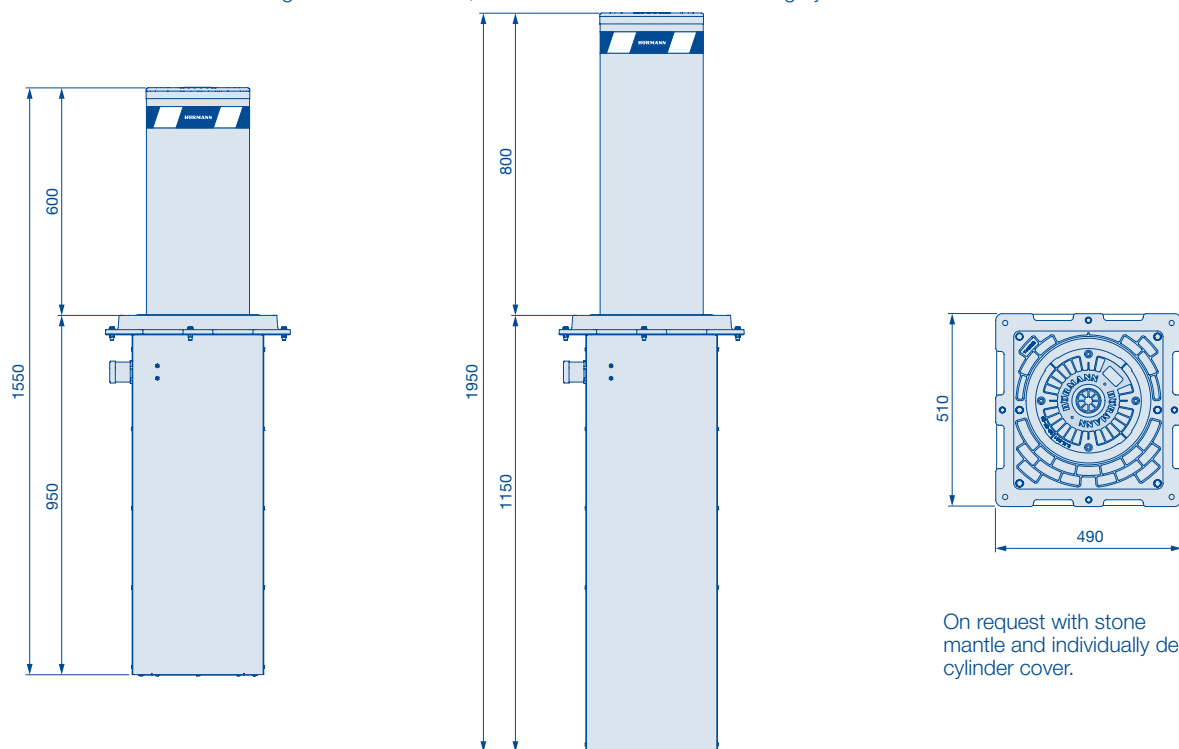
With integrated electromechanical operator

A 275-600 E / A 275-800 E



Product description			
Automatic bollards E		A 275-600 E	A 275-800 E
Movable cylinder	Height	600 mm	800 mm
	Diameter	273 mm	
	Material thickness	4 mm	
	Material	Steel S235JR – stainless steel V2A (AISI 304)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting* Stainless steel version: standard painting* or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Lifting speed	9.5 cm/s	11 cm/s
	Lowering speed	12 cm/s	14 cm/s
Automatic emergency lowering in case of power failure		Yes (emergency batteries included in the scope of delivery)	
Automatic safety cut-out		Yes – as standard	
Connecting cable to control unit		Standard 10 m (max. 30 m)	
Control unit voltage		230/400 V AC (± 10 %) 50/60 Hz	
Electromechanical operator		Integrated in bollard	
Electromechanical operator power consumption		140 W (max. 250 W) – 0.6 A (max. 1.1 A)	
Protection category		IP 67	
Cycles per day		100	
Overall cycles (service life)		200000	
Impact energy without destruction		20000 J (approved by TÜV Rheinland)	
Impact energy with destruction		150000 J	
Load rating acc. to EN 124		D400 Regulation	
Temperature range		From –40°C to +70°C (for low temperatures, see heating element)	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



On request with stone mantle and individually designed cylinder cover.

Automatic bollards A 275-600/800 E with integrated electromechanical operator		A 275-600 E		A 275-800 E	
		Article no.	€	Article no.	€
Automatic bollard A 275-600 / 800 E	Painted steel	4515000	2803	4515834	3506
	Painted stainless steel	4515002	3060	4515836	4110
	Brushed stainless steel V2A (AISI 304)	4515004	3344	4515838	4516
Automatic bollard A 275-600 / 800 E + Lighting strip with 25 LEDs	Painted steel	4515001	3328	4515835	4016
	Painted stainless steel	4515003	3571	4515837	4727
	Brushed stainless steel V2A (AISI 304)	4515005	3863	4515839	5002

Foundation box for automatic bollards		Article no.	€
Steel foundation box with aluminium zinc coating – installation frame and ground anchors	A 275-600 E	4515006	522
	A 275-800 E	4515840	559
Stainless steel foundation box, water-tight version – installation frame and ground anchors	A 275-600 E	4516229	1749
	A 275-800 E	4516231	1994
Stainless steel foundation box, water-tight version – immersion pump, installation frame and ground anchors	A 275-600 E	4516230	2276
	A 275-800 E	4516232	2532
Metal cover cap for foundation box (with screws)		4515007	206
Pavement frame for laying paving stones	Stainless steel standard coating, anti-slip	4516046	358
	Brushed stainless steel	4516044	358
Bollard inserted in foundation box (not fully fitted / to reduce transport costs)		4515008	80
Controls for automatic bollards		Article no.	€
Control for systems with max. 3 bollards A 275-600 / 800 E – 2 batteries 12 V 7 Ah		4515011	1076
Optional extras for automatic bollards		Article no.	€
Surcharge for painting the cylinder in RAL to choose	Cylinder 275-600	4515013	231
	Cylinder 275-800	4515118	269
Acoustic warning signal (for bollards only in combination with LED lighting strip)		4515012	68
Anti-corrosion coating for bollard frame (recommended for saline ambient conditions)	A 275-600 E	4515098	399
	A 275-800 E	4515120	449
Anti-corrosion coating for steel cylinders (recommended for saline ambient conditions)	A 275-600 E	4515097	192
	A 275-800 E	4515119	244
Protection against corrosion for the upper installation frame (recommended for saline ambient conditions)		4516141	192
Heating element incl. transformer and thermostat 80 W, connecting lead 10 m		4515014	656
Extended connecting cable from bollard A 275-600 E to control (max. 30 m total – including 10 m standard length) supplied in 5 m increments	Per m	4515015	13
Bottom magnetic contact with support brackets – for traffic light control and status feedback		4515016	227
Stainless steel control box with ground fitting, max. 1 control – foundation anchors Dimensions (W x D x H) 330 x 280 x 967 mm, protection category IP 40		4515154	528
Control box made of fibreglass with ground fitting, max. 2 controls – foundation anchors Dimensions (W x D x H) 580 x 280 x 940 mm, protection category IP 55		4515378	1311
Heating element for control – 20 W		4515018	436
Traffic light, LED version, 100 mm – 1 x red / 1 x green (Attention: for A 275-600 E and A 275-800 E the bottom magnetic contact, article no. 4515016, is required)		4515019	507
Painted post (diameter 105 mm) for traffic lights – length 3.55 m		4515020	321
Up / down signal kit to display bollard position (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 / 800 E)		4515021	269
Push button panel – 1 up / down push button module		4515163	110
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation (Attention: Bottom magnetic contact required for A 275-600 E)		4515164	186
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version		4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo	On request		
// NEW Adjustment of the bollard to the driveway inclination		4516392	2444
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)		4516393	3858
Radio receiver		Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)		4515833	291
HAC perimeter protection system Hörmann Access Control Control for the management of perimeter protection systems via the Online Control web interface			See page 70
Online Control			
Accessories for operators and controls			See from page 112

Automatic bollards H

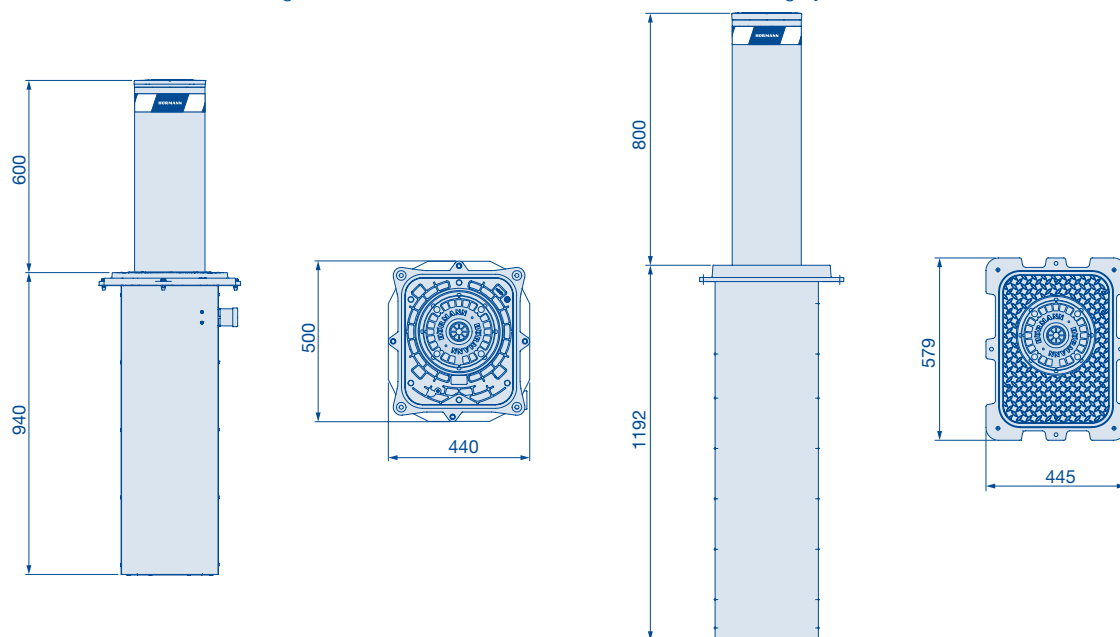
With integrated hydraulic operator

A 220-600 H / A 220-800 H



Product description			
Automatic bollards H		A 220-600 H	A 220-800 H
Movable cylinder	Height	600 mm	800 mm
	Diameter	220 mm	
	Material thickness	4 mm	
	Material	Steel S235JR Stainless steel V2 A (AISI 304)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Lifting speed	15 cm/s	15 cm/s
	Lowering speed	30 cm/s	25 cm/s
Automatic safety cut-out		Yes	
Manual emergency lowering		Yes (on request for version with automatic lowering in the event of power failure)	
Connecting cable to control unit		Standard 10 m – (max. 80 m – with heating element max. 50 m)	
Control unit voltage		230 / 400 V AC (± 10 %) 50 / 60 Hz	
Hydraulic pump		Integrated in bollard	
Protection category		IP 67	
Cycles per day		2000	
Overall cycles (service life)		Approx. 3000000	
Impact energy without destruction		30000 J	
Impact energy with destruction		150000 J	
Load rating acc. to EN 124		D400 Regulation	
Temperature range		From –40°C to +70°C (for low temperatures, see heating element)	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Automatic bollard A 220-600 / 800 H with integrated hydraulic operator		A 220-600 H		A 220-800 H	
		Article no.	€	Article no.	€
Automatic bollard A 220-600 / 800 H	Painted steel	4515030	3870	4515061	4667
	Painted stainless steel	4515034	4424	4515065	5363
	Brushed stainless steel V2A (AISI 304)	4515038	4552	4515069	5633
Automatic bollard A 220-600 / 800 H + Lighting strip with 8 LEDs	Painted steel	4515031	4404	4515062	5209
	Painted stainless steel	4515035	4963	4515066	5902
	Brushed stainless steel V2A (AISI 304)	4515039	5091	4515070	6031
Automatic bollard A 220-600 / 800 H + Automatic lowering in the event of power failure	Painted steel	4515032	4404	4515063	5209
	Painted stainless steel	4515036	4963	4515067	5902
	Brushed stainless steel V2A (AISI 304)	4515040	5091	4515071	6031
Automatic bollard A 220-600 / 800 H + Lighting strip with 8 LEDs + Automatic lowering in the event of power failure	Painted steel	4515033	5015	4515064	5825
	Painted stainless steel	4515037	5581	4515068	6507
	Brushed stainless steel V2A (AISI 304)	4515041	5709	4515072	6778

Foundation box for automatic bollards						Article no.	€				
Steel foundation box with aluminium zinc coating – installation frame and ground anchors		A 220-600 H				4515042	436				
		A 220-800 H				4515073	578				
Metal cover cap for foundation box (with screws)						4515043	174				
Pavement frame for laying paving stones	Stainless steel standard coating, anti-slip	A 220-600 H				4516034	302				
	Brushed stainless steel	A 220-600 H				4516032	302				
	Stainless steel standard coating, anti-slip	A 220-800 H				4516027	302				
	Brushed stainless steel	A 220-800 H				4516029	302				
Bollard inserted in foundation box (not fully fitted / to reduce transport costs)						4515008	80				
Controls for automatic bollards											
The specified prices are valid only when the control is supplied in combination with the bollard system.											
Controls for bollards A 220/275-600/800 H and A 275-RI-600/800 H											
Controls for:	1 bollard	2 bollards	3 bollards	4 bollards	5 bollards	6 bollards	7 bollards	8 bollards	9 bollards	10 bollards	11 to 15 bollards
Article no.	4515044	4515045	4515046	4515047	4515048	4515049	4515050	4515051	4515052	4515053	4515054
€	1067	1067	1067	1067	1067	1338	1338	1338	1338	1338	1878
Controls for more than 15 bollards on request.											
Optional extras for automatic bollards										Article no.	€
Acoustic warning signal (for bollards only in combination with LED lighting strip)									4515012	68	
Anti-corrosion coating for bollard frame (recommended for saline ambient conditions)								A 220-600 H	4515056	348	
								A 220-800 H	4515078	425	
Anti-corrosion coating for steel cylinders (recommended for saline ambient conditions)								A 220-600 H	4515055	167	
								A 220-800 H	4515077	244	
Protection against corrosion for the upper installation frame (recommended for saline ambient conditions)									4516140	192	
Biodegradable oil in the hydraulic pump									4515058	Standard	
Heating element incl. transformer and thermostat 80 W, connecting lead 10 m, for bollards with max. cylinder height 900 mm									4515014	656	
UPS device 3.0 kW – 3 kVA for max. 3 bollards of type H / RI / M30									4515060	2379	
For bridging power outages up to 1 hour max. and approx. 10 actuations											
Extended connecting cable from bollard to control (max. 80 m total) supplied in 5 m increments								Per m	4515059	22	
Surcharge for painting the cylinder in RAL to choose								Cylinder 220-600	4515057	231	
								Cylinder 220-800	4515189	257	
Stainless steel control box with ground fitting, max. 1 control – foundation anchors									4515154	528	
Dimensions (W × D × H) 330 × 280 × 967 mm, protection category IP 40											
Control box made of fibreglass with ground fitting, max. 2 controls – foundation anchors									4515155	1311	
Dimensions (W × D × H) 580 × 330 × 940 mm, protection category IP 55											
Heating element for control – 20 W									4515018	436	
Traffic light, LED version, 100 mm – 1 × red / 1 × green									4515019	507	
(Attention: Up / down signal kit not required)											
Painted post (diameter 105 mm) for traffic lights – length 3.55 m									4515020	321	
Up / down signal kit to display bollard position									4515021	269	
Alarm kit – 1 status contact for bollard top – 1 status contact for bottom plate									4515160	617	
Control conversion to a press-and-hold control									4515161	167	
Push button panel – 1 up / down push button module									4515163	110	
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation									4515164	186	
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure									4515167	694	
// NEW Adjustment of the bollard to the driveway inclination									4516392	2444	
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)									4516393	3858	
Radio receiver										Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing											
2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)										4515833	291
HAC perimeter protection system Hörmann Access Control											
Control for the management of perimeter protection systems via the Online Control web interface										See page 70	
Online Control											
Accessories for operators and controls										See from page 112	

Automatic bollards H

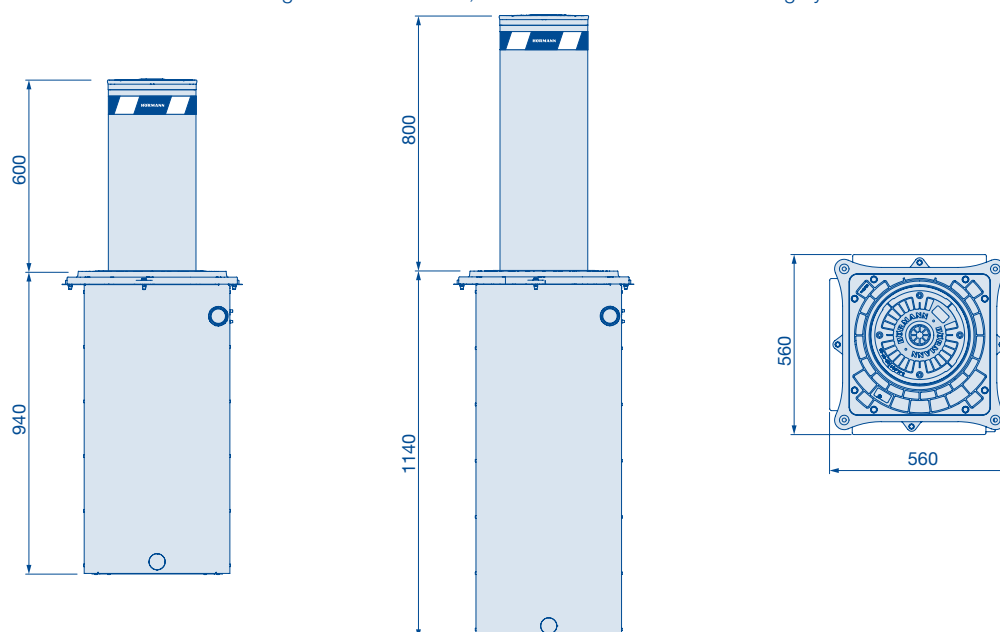
With integrated hydraulic operator

A 275-600 H / A 275-800 H



Product description			
Automatic bollards H		A 275-600 H	A 275-800 H
Movable cylinder	Height	600 mm	800 mm
	Diameter	273 mm	
	Material thickness	6 mm steel and stainless steel V2 A (AISI 304) / 4 mm stainless steel V4 A (AISI 316)	
	Material	Steel S235JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Lifting speed	16 cm/s	17 cm/s
	Lowering speed	30 cm/s	32 cm/s
Automatic safety cut-out		Yes	
Manual emergency lowering		Yes (on request for version with automatic lowering in the event of power failure)	
Connecting cable to control unit		Standard 10 m – (max. 80 m – with heating element max. 50 m)	
Control unit voltage		230 / 400 V AC (± 10 %) 50 / 60 Hz	
Hydraulic pump		Integrated in bollard	
Protection category		IP 67	
Cycles per day		2000	
Overall cycles (service life)		Approx. 3000000	
Impact energy without destruction		40000 J (approved by TÜV Rheinland)	
Impact energy with destruction		250000 J	
Load rating acc. to EN 124		D400 Regulation	
Temperature range		From –40°C to +70°C (for low temperatures, see heating element)	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



On request with stone mantle and individually designed cylinder cover.

Automatic bollard A 275-600 / 800 H with integrated hydraulic operator		A 275-600 H		A 275-800 H	
		Article no.	€	Article no.	€
Automatic bollard A 275-600 / 800 H	Painted steel	4515079	4269	4515103	4811
	Painted stainless steel	4515083	4823	4515107	5490
	Brushed stainless steel V2A (AISI 304)	4515087	5091	4515111	5762
Automatic bollard A 275-600 / 800 H + Lighting strip with 25 LEDs	Painted steel	4515080	4811	4515104	5337
	Painted stainless steel	4515084	5028	4515108	6006
	Brushed stainless steel V2A (AISI 304)	4515088	5633	4515112	6301
Automatic bollard A 275-600 / 800 H + Automatic lowering in the event of power failure	Painted steel	4515081	4811	4515105	5337
	Painted stainless steel	4515085	5028	4515109	6006
	Brushed stainless steel V2A (AISI 304)	4515089	5633	4515113	6301
Automatic bollard A 275-600 / 800 H + Lighting strip with 25 LEDs + Automatic lowering in the event of power failure	Painted steel	4515082	5427	4515106	5954
	Painted stainless steel	4515086	5981	4515110	6649
	Brushed stainless steel V2A (AISI 304)	4515090	6250	4515114	6918

Foundation box for automatic bollards										Article no.	€		
Steel foundation box with aluminium zinc coating – installation frame and ground anchors						A 275-600 H		4515091		565			
						A 275-800 H		4515115		578			
Stainless steel foundation box, water-tight version – installation frame and ground anchors						A 275-600 H		4515092		1749			
						A 275-800 H		4515116		1994			
Stainless steel foundation box, water-tight version – immersion pump, installation frame and ground anchors						A 275-600 H		4515093		2276			
						A 275-800 H		4515117		2532			
Metal cover cap for foundation box (with screws)								4515095		213			
Pavement frame for laying paving stones				Stainless steel standard coating, anti-slip				4516038		417			
				Brushed stainless steel				4516036		417			
Installation frame cover made of stainless steel AISI 316								4516142		244			
Bollard inserted in foundation box (not fully fitted / to reduce transport costs)								4515008		80			
Controls for automatic bollards													
The specified prices are valid only when the control is supplied in combination with the bollard system.													
Controls for bollards A 220/275-600/800 H and A 275-RI-600/800 H													
Controls for:	1 bollard	2 bollards	3 bollards	4 bollards	5 bollards	6 bollards	7 bollards	8 bollards	9 bollards	10 bollards	11 to 15 bollards		
Article no.	4515044	4515045	4515046	4515047	4515048	4515049	4515050	4515051	4515052	4515053	4515054		
€	1067	1067	1067	1067	1067	1338	1338	1338	1338	1338	1878		
Controls for more than 15 bollards on request.													
Optional extras for automatic bollards										Article no.	€		
Acoustic warning signal (for bollards only in combination with LED lighting strip)								4515012		68			
Anti-corrosion coating for bollard frame (recommended for saline ambient conditions)								A 275-600 H		4515098		399	
								A 275-800 H		4515120		449	
Anti-corrosion coating for steel cylinders (recommended for saline ambient conditions)								A 275-600 H		4515097		192	
								A 275-800 H		4515119		244	
Protection against corrosion for the upper installation frame (recommended for saline ambient conditions)								4516141		192			
Biodegradable oil in the hydraulic pump								4515058		Standard			
Heating element incl. transformer and thermostat 80 W, connecting lead 10 m, for bollards with max. cylinder height 900 mm								4515014		656			
Emergency manual operation for A 275-600/800 H and A 275-RI-600/800 H in the event of a power failure								4515102		2109			
Safety screws for bottom plate – incl. dismantling key								4515100		103			
UPS device 3.0 kW – 3 kVA for max. 3 bollards of type H/RI/M30 For bridging power outages up to 1 hour max. and approx. 10 actuations								4515060		2379			
Extended connecting cable from bollard to control (max. 80 m total) supplied in 5 m increments								Per m		4515059		22	
Surcharge for painting the cylinder in RAL to choose								Cylinder 275-600		4515013		231	
								Cylinder 275-800		4515118		269	
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316) (material thickness: 4 mm)								Cylinder 275-600		4515099		269	
								Cylinder 275-800		4515121		321	
// NEW Full Inox Kit, all housing parts, holders, cylinder covers, hydraulic lines and connecting parts made of stainless steel V2A (AISI 304); lifting piston treated with corrosion protection								A 275-600 H		4516346		1947	
								A 275-800 H		4516347		2024	
Note:													
Cylinder version in stainless steel V4A (AISI 316) to be ordered separately!													
Stainless steel control box with ground fitting, max. 1 control – foundation anchors Dimensions (W x D x H) 330 x 280 x 967 mm, protection category IP 40										4515154		528	
Control box made of fibreglass with ground fitting, max. 2 controls – foundation anchors Dimensions (W x D x H) 580 x 330 x 940 mm, protection category IP 55										4515155		1311	
Heating element for control – 20 W										4515018		436	
Traffic light, LED version, 100 mm – 1 x red / 1 x green (Attention: Up / down signal kit not required)										4515019		507	
Painted post (diameter 105 mm) for traffic lights – length 3.55 m										4515020		321	
Up / down signal kit to display bollard position										4515021		269	
Alarm kit – 1 status contact for bollard top – 1 status contact for bottom plate										4515160		617	
Control conversion to a press-and-hold control										4515161		167	
Push button panel – 1 up / down push button module										4515163		110	
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation										4515164		186	
Push button panel – 1 up / down push button module – 1 lock module for EFO actuation										4515165		186	
Push button panel – 1 up / down push button module – 1 lock module for EFO actuation – 1 red / green LED module to show traffic light operation										4515166		244	
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure										4515167		694	
Impact sensor for cylinder with clamps										4516270		411	
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version										4516091		373	
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo										On request			
// NEW Adjustment of the bollard to the driveway inclination										4516392		2444	
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)										4516393		3858	
Radio receiver													

See page 46

Automatic bollards RI-H

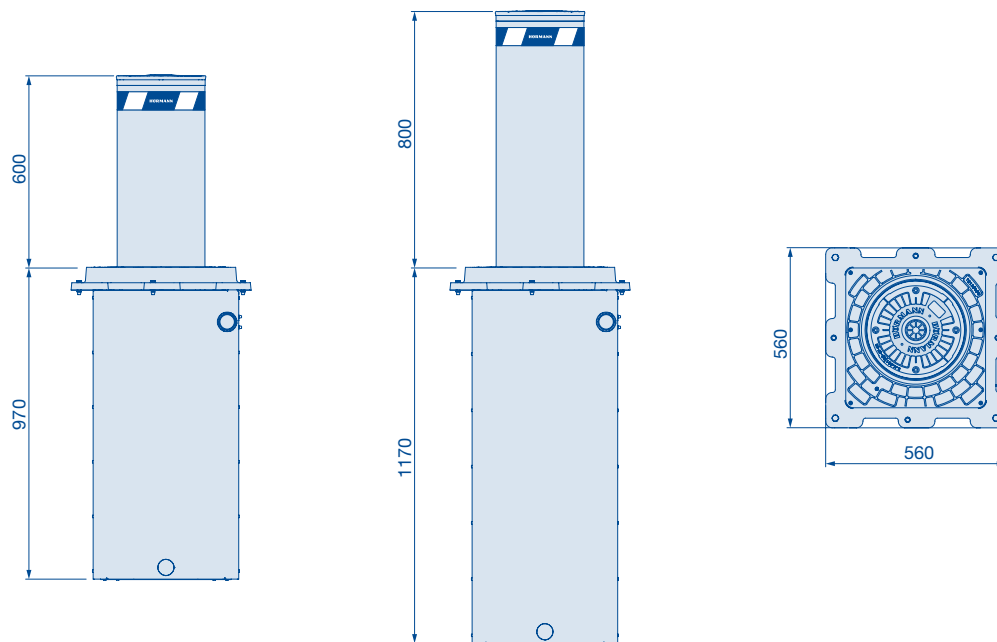
With integrated hydraulic operator

A 275-RI-600 H / A 275-RI-800 H



Product description			
Automatic bollards RI-H		A 275-RI-600 H	A 275-RI-800 H
Movable cylinder	Height	600 mm	800 mm
	Diameter	273 mm	
	Material thickness	10 mm	
	Material	Steel S235JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Lifting speed	15 cm/s	13 cm/s
	Lowering speed	30 cm/s	32 cm/s
Automatic safety cut-out		Yes	
Manual emergency lowering		Yes (on request for version with automatic lowering in the event of power failure)	
Connecting cable to control unit		Standard 10 m – (max. 80 m – with heating element max. 50 m)	
Control unit voltage		230 / 400 V AC (± 10 %) 50 / 60 Hz	
Hydraulic pump		Integrated in bollard	
Protection category		IP 67	
Cycles per day		2000	
Overall cycles (service life)		Approx. 3000000	
Impact energy without destruction		40000 J (approved by TÜV Rheinland)	
Impact energy with destruction		400000 J	
Load rating acc. to EN 124		D400 Regulation	
Temperature range		From -40°C to +70°C (for low temperatures, see heating element)	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Automatic bollards A 275-RI-600 / 800 H with integrated hydraulic operator			A 275-RI-600 H		A 275-RI-800 H	
			Article no.	€	Article no.	€
Automatic bollard A 275-RI-600 / 800 H	Painted steel		4515122	5209	4515138	5915
	Painted stainless steel		4515126	5902	4515142	6842
	Brushed stainless steel V2A (AISI 304)		4515130	6288	4515146	7240
Automatic bollard A 275-RI-600 / 800 H + Lighting strip with 25 LEDs	Painted steel		4515123	5742	4515139	6442
	Painted stainless steel		4515127	6430	4515143	7369
	Brushed stainless steel V2A (AISI 304)		4515131	6815	4515147	7768
Automatic bollard A 275-RI-600 / 800 H + Automatic lowering in the event of power failure	Painted steel		4515124	5742	4515140	6442
	Painted stainless steel		4515128	6430	4515144	7369
	Brushed stainless steel V2A (AISI 304)		4515132	6815	4515148	7768
Automatic bollard A 275-RI-600 / 800 H + Lighting strip with 25 LEDs + Automatic lowering in the event of power failure	Painted steel		4515125	6353	4515141	7073
	Painted stainless steel		4515129	7047	4515145	7999
	Brushed stainless steel V2A (AISI 304)		4515133	7432	4515149	8397

Foundation box for automatic bollards										Article no.	€
Steel foundation box with aluminium zinc coating – installation frame and reinforced ground anchors						A 275-RI-600 H		4515134		643	
						A 275-RI-800 H		4515150		656	
Stainless steel foundation box, water-tight version – installation frame and reinforced anchors						A 275-RI-600 H		4515135		1826	
						A 275-RI-800 H		4515151		2072	
Stainless steel foundation box, water-tight version – immersion pump, installation frame and reinforced anchors						A 275-RI-600 H		4515136		2352	
						A 275-RI-800 H		4515152		2610	
Metal cover cap for foundation box (with screws)								4515841		213	
Pavement frame for laying paving stones				Stainless steel standard coating, anti-slip				4516042		417	
				Brushed stainless steel				4516040		417	
Installation frame cover made of stainless steel AISI 316								4516142		244	
Bollard inserted in foundation box (not fully fitted / to reduce transport costs)								4515008		80	
Controls for automatic bollards											
The specified prices are valid only when the control is supplied in combination with the bollard system.											
Controls for bollards A 220/275-600/800 H and A 275-RI-600/800 H											
Controls for:	1 bollard	2 bollards	3 bollards	4 bollards	5 bollards	6 bollards	7 bollards	8 bollards	9 bollards	10 bollards	11 to 15 bollards
Article no.	4515044	4515045	4515046	4515047	4515048	4515049	4515050	4515051	4515052	4515053	4515054
€	1067	1067	1067	1067	1067	1338	1338	1338	1338	1338	1878
Controls for more than 15 bollards on request.											
Optional extras for automatic bollards										Article no.	€
Acoustic warning signal (for bollards only in combination with LED lighting strip)								4515012		68	
Anti-corrosion coating for bollard frame (recommended for saline ambient conditions)						A 275-RI-600 H		4515137		427	
						A 275-RI-800 H		4515153		487	
Anti-corrosion coating for steel cylinders (recommended for saline ambient conditions)						A 275-RI-600 H		4515097		192	
						A 275-RI-800 H		4515119		244	
Protection against corrosion for the upper installation frame (recommended for saline ambient conditions)								4516141		192	
Biodegradable oil in the hydraulic pump								4515058		Standard	
EFO emergency function to quickly raise the bollard in approx. 1.5 s								4515101		2532	
Attention! Regular maintenance of the EFO system is required! The pressure testing / filling kit for the EFO emergency function is required for maintenance (article no. 4516269). See page 71.											
Heating element incl. transformer and thermostat 80 W, connecting lead 10 m								4515014		656	
Emergency manual operation for A 275-600 / 800 H and A 275-RI-600 / 800 H in the event of a power failure								4515102		2109	
Safety screws for bottom plate – incl. dismantling key								4515100		103	
UPS device 3.0 kW – 3 kVA for max. 3 bollards of type H / RI / M30								4515060		2379	
For bridging power outages up to 1 hour max. and approx. 10 actuations											
Extended connecting cable from bollard to control (max. 80 m total) supplied in 5 m increments						Per m		4515059		22	
						Cylinder 275-600		4515013		231	
Surcharge for painting the cylinder in RAL to choose						Cylinder 275-800		4515118		269	
						Cylinder 275-600		4515587		297	
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)						Cylinder 275-800		4515588		348	
								4515154		528	
Stainless steel control box with ground fitting, max. 1 control – foundation anchors Dimensions (W x D x H) 330 x 280 x 967 mm, protection category IP 40											
Control box made of fibreglass with ground fitting, max. 2 controls – foundation anchors Dimensions (W x D x H) 580 x 330 x 940 mm, protection category IP 55								4515155		1311	
Heating element for control – 20 W								4515018		436	
Traffic light, LED version, 100 mm – 1 x red / 1 x green (Attention: Up / down signal kit not required)								4515019		507	
Painted post (diameter 105 mm) for traffic lights – length 3.55 m								4515020		321	
Up / down signal kit to display bollard position								4515021		269	
Alarm kit – 1 status contact for bollard top – 1 status contact for bottom plate								4515160		617	
Control conversion to a press-and-hold control								4515161		167	
Push button panel – 1 up / down push button module								4515163		110	
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation								4515164		186	
Push button panel – 1 up / down push button module – 1 lock module for EFO actuation								4515165		186	
Push button panel – 1 up / down push button module – 1 lock module for EFO actuation – 1 red / green LED module to show traffic light operation								4515166		244	
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure								4515167		694	
Impact sensor for cylinder with clamps								4516270		411	
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version								4516091		373	
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo								On request			
// NEW Adjustment of the bollard to the driveway inclination								4516392		2444	
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)								4516393		3858	
Radio receiver											
See page 46											



Radio receiver	Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing		
2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)		
	4515833	291
HAC perimeter protection system Hörmann Access Control		
Control for the management of perimeter protection systems via the Online Control web interface		See page 70
Online Control		
Accessories for operators and controls		See page 112

Notes and sketches

Semi-automatic bollards G

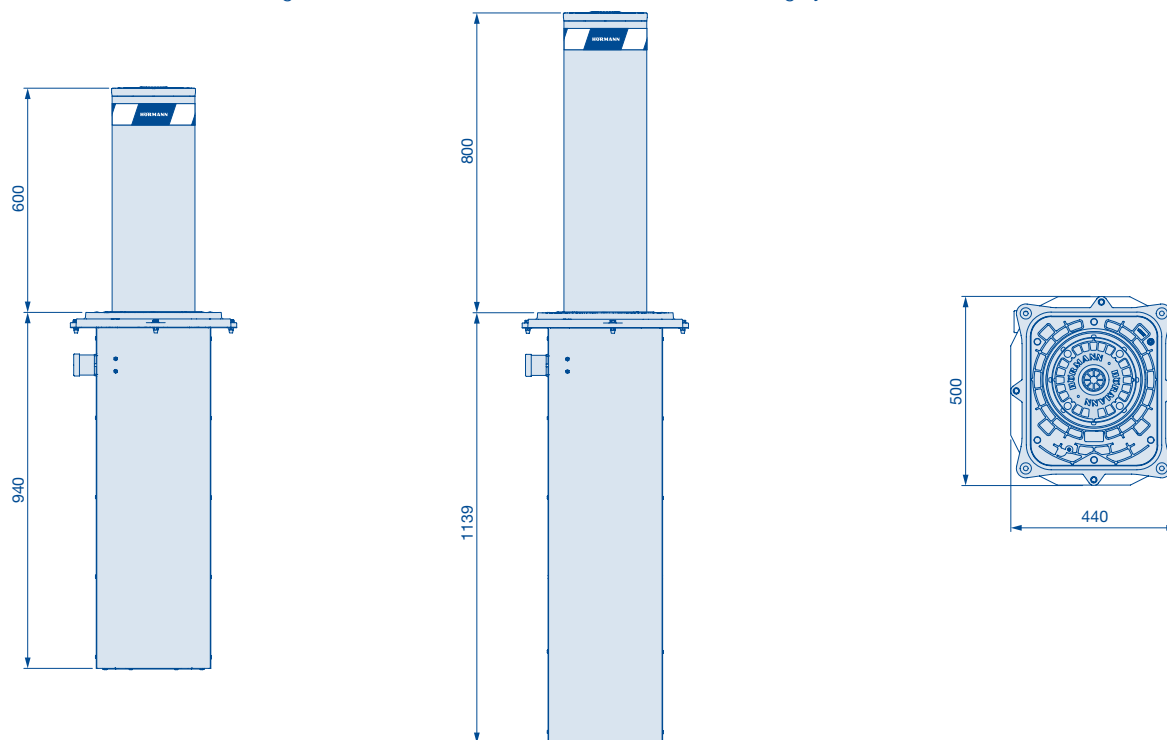
With integrated gas spring

S 220-600 G / S 220-800 G



Product description		
Semi-automatic bollards G		
	S 220-600 G	S 220-800 G
Movable cylinder	Height	600 mm
	Diameter	220 mm
	Material thickness	4 mm
	Material	Steel S235JR Stainless steel V2 A (AISI 304)
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed
	Reflecting strips (height 55 mm)	Yes
	Lifting speed	20 cm/s
	Lowering speed	Manually (by pushing down with foot)
Protection category		IP 67
Impact energy without destruction		30000 J
Impact energy with destruction		150000 J
Load rating acc. to EN 124		D400 Regulation
Temperature range		From -40°C to +70°C (for low temperatures, see heating element)
Connecting lead for LED lighting strip / heating element (optional)		Standard 10 m – (max. 80 m – with heating element max. 50 m)

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Semi-automatic bollard S 220-600 / 800 G with integrated gas spring		S 220-600 G		S 220-800 G	
		Article no.	€	Article no.	€
Semi-automatic bollard S 220-600 / 800 G + Triangular lock standard 11 mm with 2 keys	Painted steel	4515168	2276	4515181	2957
	Painted stainless steel	4515170	2700	4515183	3344
	Brushed stainless steel V2A (AISI 304)	4515172	2957	4515185	3600
Semi-automatic bollard S 220-600 / 800 G + Triangular lock standard 11 mm with 2 keys + Lighting strip with 8 LEDs	Painted steel	4515169	3086	4515182	3473
	Painted stainless steel	4515171	3228	4515184	3909
	Brushed stainless steel V2A (AISI 304)	4515173	3498	4515186	4154

Foundation box for semi-automatic bollards		Article no.	€
Steel foundation box with aluminium zinc coating for bollard – installation frame and ground anchors	S 220-600 G	4515174	436
	S 220-800 G	4515187	578
Steel foundation box with aluminium zinc coating for bollard with LED lighting strip – installation frame and ground anchors	S 220-600 G	4515175	436
	S 220-800 G	4515188	578
Metal cover cap for foundation box (with screws)		4515043	174
Pavement frame for laying paving stones	Stainless steel standard coating, anti-slip	4516034	302
	Brushed stainless steel	4516032	302
Bollard inserted in foundation box (not fully fitted / to reduce transport costs)		4515008	80
Optional extras for semi-automatic bollards		Article no.	€
Surcharge for painting the cylinder in RAL to choose	S 220-600 G	4515057	231
	S 220-800 G	4515189	257
Anti-corrosion coating for bollard frame (recommended for saline ambient conditions)	S 220-600 G	4515056	348
	S 220-800 G	4515078	425
Anti-corrosion coating for steel cylinders (recommended for saline ambient conditions)	S 220-600 G	4515055	167
	S 220-800 G	4515077	244
Protection against corrosion for the upper installation frame (recommended for saline ambient conditions)		4516140	192
9 mm triangular lock – without keys – as alternative to standard lock		4515178	123
Set of 5 triangular keys, 11 mm, for semi-automatic bollard		4515180	134
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments	Per m	4516083	9,40
Heating element incl. transformer and thermostat 80 W, connecting lead 10 m		4515014	656
Heating element line extension (50 m max.), supplied in 5 m increments	Per m	4516154	9,40
Housing for fitting to wall – required when heating element is ordered (State number of heating elements to be operated when placing the order)		4515589	559
// NEW Adjustment of the bollard to the driveway inclination		4516392	2444
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)		4516393	3858

Semi-automatic bollards G

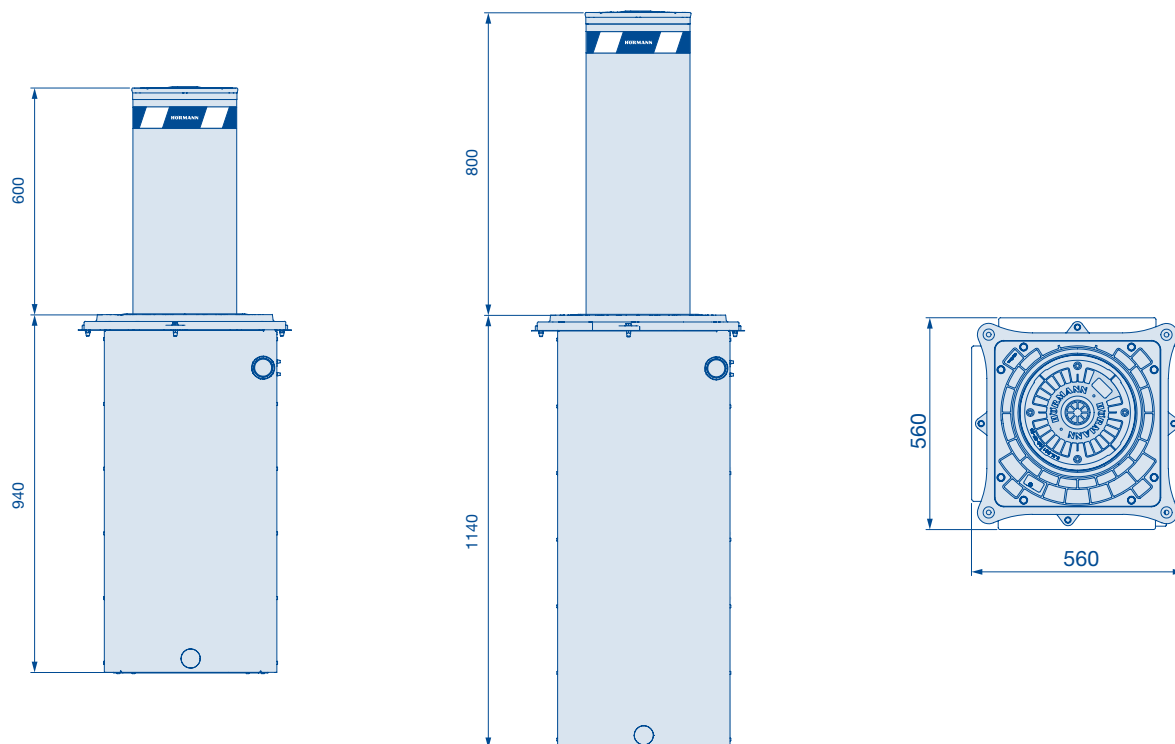
With integrated gas spring

S 275-600 G / S 275-800 G



Product description		
Semi-automatic bollards G		
	S 275-600 G	S 275-800 G
Movable cylinder	Height	600 mm
	Diameter	273 mm
	Material thickness	6 mm
	Material	Steel S235JR Stainless steel V2 A (AISI 304)
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed
	Reflecting strips (height 55 mm)	Yes
	Lifting speed	20 cm/s
	Lowering speed	Manually (by pushing down with foot)
Protection category		IP 67
Impact energy without destruction		30000 J (approved by TÜV Rheinland)
Impact energy with destruction		250000 J
Load rating acc. to EN 124		D400 Regulation
Temperature range		From -40°C to +70°C (for low temperatures, see heating element)
Connecting lead for LED lighting strip / heating element (optional)		Standard 10 m – (max. 80 m – with heating element max. 50 m)

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Semi-automatic bollards S 275-600 / 800 G with integrated gas spring		S 275-600 G		S 275-800 G	
		Article no.	€	Article no.	€
Semi-automatic bollard S 275-600 / 800 G + Standard lock with 2 keys	Painted steel	4515190	3473	4515208	4137
	Painted stainless steel	4515195	3883	4515212	4540
	Brushed stainless steel V2A (AISI 304)	4515199	4154	4515217	4823
Semi-automatic bollard S 275-600 / 800 G + Standard lock with 2 keys + Lighting strip with 25 LEDs	Painted steel	4515191	3858	4515209	4673
	Painted stainless steel	4515196	4283	4515214	5067
	Brushed stainless steel V2A (AISI 304)	4515200	4552	4515219	5348
Semi-automatic bollard S 275-600 / 800 G + Standard lock with 2 keys + Profile half cylinder lock with 2 keys	Painted steel	4515192	4141	4515210	4805
	Painted stainless steel	4515197	4552	4515215	5209
	Brushed stainless steel V2A (AISI 304)	4515201	5156	4515220	5490
Semi-automatic bollard S 275-600 / 800 G + Standard lock with 2 keys + Profile half cylinder lock with 2 keys + Lighting strip with 25 LEDs	Painted steel	4515193	4540	4515211	5341
	Painted stainless steel	4515198	4951	4515216	5736
	Brushed stainless steel V2A (AISI 304)	4515202	5556	4515221	6044
Profile half cylinder lock with keys to pass	Surcharge per bollard	4515194	38	4515194	38
Foundation box for semi-automatic bollards		Article no.		€	
Steel foundation box with aluminium zinc coating for bollard – installation frame and ground anchors		S 275-600 G		4515203	565
		S 275-800 G		4515222	578
Steel foundation box with aluminium zinc coating for bollard with LED lighting strip – installation frame and ground anchors		S 275-600 G		4515204	565
		S 275-800 G		4515223	578
Metal cover cap for foundation box (with screws)				4515095	213
Pavement frame for laying paving stones	Stainless steel standard coating, anti-slip			4516038	417
	Brushed stainless steel			4516036	417
Bollard inserted in foundation box (not fully fitted / to reduce transport costs)				4515008	80
Optional extras for semi-automatic bollards		Article no.		€	
11 mm standard triangular lock – 2 keys – as alternative to standard lock				4515177	174
9 mm triangular lock – without keys – as alternative to standard lock				4515178	123
16 mm triangular lock – without keys – as alternative to standard lock				4515205	161
19 mm triangular lock – without keys – as alternative to standard lock				4515206	161
Set of 5 triangular keys, 11 mm, for semi-automatic bollard				4515180	134
Set of 5 standard keys for semi-automatic bollard				4515179	80
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)				4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments	Per m			4516083	9,40
Additional security key for profile half cylinders				4516233	17,60
Surcharge for painting the cylinder in RAL to choose	Cylinder 275-600			4515013	231
	Cylinder 275-800			4515118	269
Anti-corrosion coating for bollard frame (recommended for saline ambient conditions)	S 275-600 G			4515098	399
	S 275-800 G			4515120	449
Anti-corrosion coating for steel cylinders (recommended for saline ambient conditions)	S 275-600 G			4515097	192
	S 275-800 G			4515119	244
Protection against corrosion for the upper installation frame (recommended for saline ambient conditions)				4516141	192
Heating element incl. transformer and thermostat 80 W, connection cable 10 m, for bollards with max. cylinder height 900 mm (Note: Not in combination with A 275-M50-900 / 1200)				4515014	656
Heating element line extension (50 m max.), supplied in 5 m increments	Per m			4516154	9,40
Housing for fitting to wall – required when heating element is ordered (State number of heating elements to be operated when placing the order)				4515589	559
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version				4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo				On request	
// NEW Adjustment of the bollard to the driveway inclination				4516392	2444
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)				4516393	3858

Notes and sketches

Removable bollards

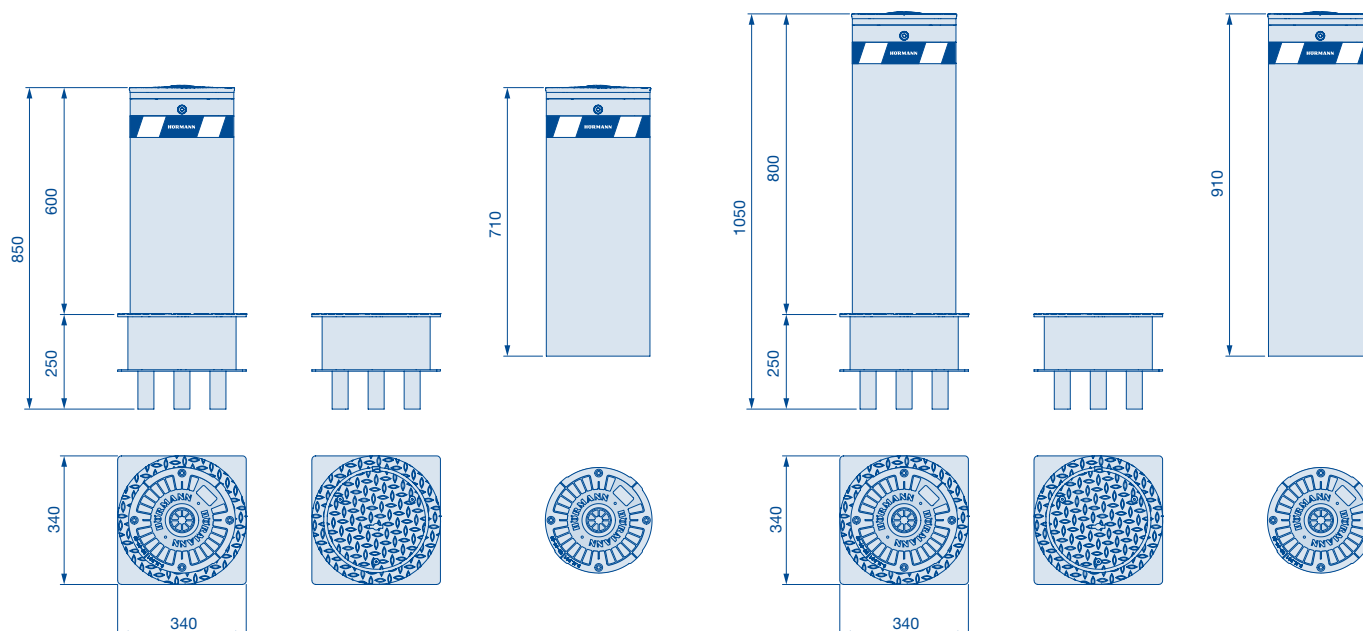
With closed base

R 275-600 / R 275-800



Product description			
		R 275-600	R 275-800
Movable cylinder	Height	600 mm	800 mm
	Diameter	273 mm	
	Material thickness	4 mm	
	Material	Steel S235JR Stainless steel V2 A (AISI 304)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting* Stainless steel version: standard painting* or brushed	
	Weight	22 kg	28 kg
	Reflecting strips (height 55 mm)	Yes	
	Impact energy without destruction	40000 J	
	Impact energy with destruction	200000 J	
	Load rating acc. to EN 124	D250 Regulation	
	Temperature range	From -40°C to +70°C	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Removable bollards R 275-600 / R 275-800 with closed base		R 275-600		R 275-800	
		Article no.	€	Article no.	€
Removable bollard R 275-600/800	Painted steel	4515225	1865	4516144	2482
+ Profile half cylinder lock with 2 keys	Painted stainless steel	4515227	2305	4516146	3024
	Brushed stainless steel V2A (AISI 304)	4515229	2547	4516148	3394
Ground fitting, article no. 4515230, required.					
Ground fitting with cylinder bearing for R 275-600/800 made of painted steel, with round bottom plate		4515230	321	4515230	321
Profile half cylinder lock with keys to pass	Surcharge per bollard	4515194	38	4515194	38
Optional extras for removable bollards		Article no.		€	
Surcharge for painting the cylinder in RAL to choose		4515013		231	
Additional profile half cylinder lock		4516233		17,60	
// NEW Adjustment of the bollard to the driveway inclination		4516392		2444	
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)		4516393		3858	

Fixed bollards CF

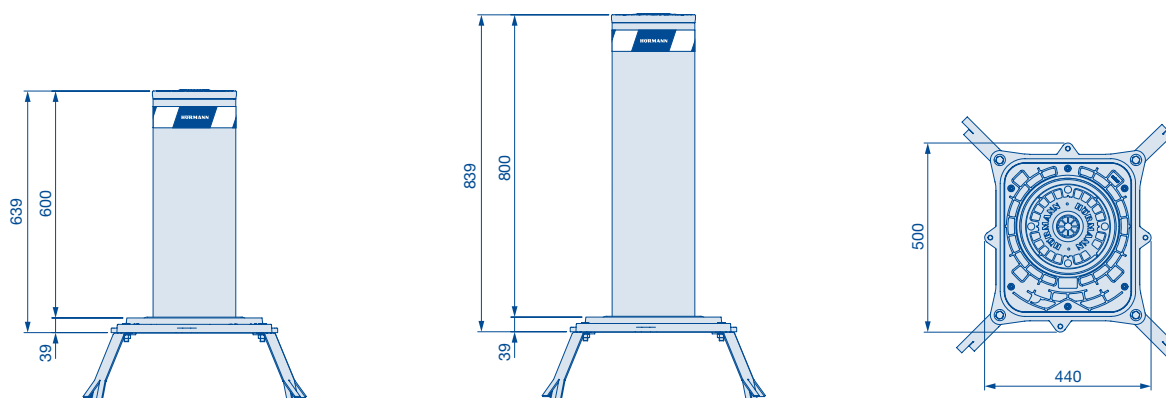
With bottom plate

F 220-600 CF / F 220-800 CF



Product description			
Fixed bollards CF		F 220-600 CF	F 220-800 CF
Fixed cylinder	Height	600 mm	800 mm
	Diameter	220 mm	
	Material thickness	4 mm	
	Material	Steel S235JR Stainless steel V2 A (AISI 304)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		30000 J	
Impact energy with destruction		150000 J	
Load rating acc. to EN 124			
Installation frame for ground fitting		Yes – complete with 4 anchors for ground fitting	
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Fixed bollards F 220-600 CF / F 220-800 CF with bottom plate		F 220-600 CF		F 220-800 CF	
		Article no.	€	Article no.	€
Fixed bollard F 220-600/800 CF + Installation frame and ground anchors	Painted steel	4515232	1326	4515245	1518
	Painted stainless steel	4515234	1569	4515247	1775
	Brushed stainless steel V2A (AISI 304)	4515236	1813	4515249	2031
Fixed bollard F 220-600/800 CF + Installation frame and ground anchors + Lighting strip with 8 LEDs	Painted steel	4515233	1800	4515246	2005
	Painted stainless steel	4515235	2058	4515248	2264
	Brushed stainless steel V2A (AISI 304)	4515237	2276	4515250	2521

Optional extras for fixed bollards		Article no.	€
Surcharge for painting the cylinder in RAL to choose	F 220-600 CF	4515057	231
	F 220-800 CF	4515189	257
Metal cover cap for foundation box (with screws)		4515043	174
Pavement frame for laying paving stones	Stainless steel standard coating, anti-slip	4516034	302
	Brushed stainless steel	4516032	302
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments		Per m	4516083 9,40

Fixed bollards CF

With bottom plate

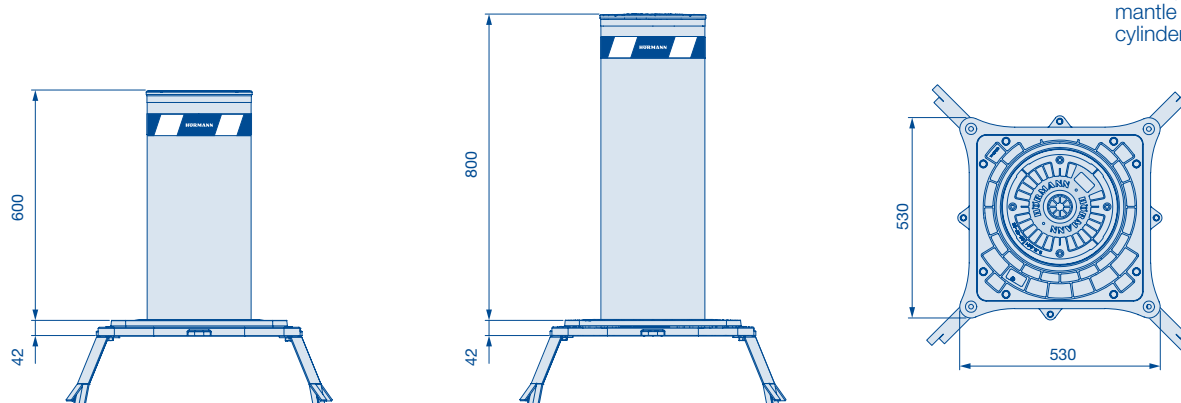
F 275-600 CF / F 275-800 CF



Product description			
Fixed bollards CF		F 275-600 CF	F 275-800 CF
Fixed cylinder	Height	600 mm	800 mm
	Diameter	273 mm	
	Material thickness	6 mm	
	Material	Steel S235JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting* Stainless steel version: standard painting* or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		40000 J (approved by TÜV Rheinland)	
Impact energy with destruction		250000 J	
Load rating acc. to EN 124			
Installation frame for ground fitting		Yes – complete with 4 anchors for ground fitting	
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

On request with stone mantle and individually designed cylinder cover.



Fixed bollards F 275-600 CF / F 275-800 CF with bottom plate		F 275-600 CF		F 275-800 CF	
		Article no.	€	Article no.	€
Fixed bollard F 275-600 / 800 CF + Installation frame and ground anchors	Painted steel	4515257	1685	4515270	1929
	Painted stainless steel	4515259	1929	4515272	2173
	Brushed stainless steel V2A (AISI 304)	4515261	2173	4515274	2547
Fixed bollard F 275-600 / 800 CF + Installation frame and ground anchors + Lighting strip with 25 LEDs	Painted steel	4515258	2200	4515271	2444
	Painted stainless steel	4515260	2444	4515273	2688
	Brushed stainless steel V2A (AISI 304)	4515262	2688	4515275	3060
Adjustment of the bottom plate for automatic hydraulic bollards If the fixed bollards are to be combined with automatic hydraulic bollards, this article must also be ordered.		4516397	No surcharge	4516397	No surcharge

Optional extras for fixed bollards		Article no.	€
Surcharge for painting the cylinder in RAL to choose	F 275-600 CF	4515013	231
	F 275-800 CF	4515118	269
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316) (material thickness: 4 mm)	F 275-600 CF	4515263	269
	F 275-800 CF	4515157	321
Metal cover cap for foundation box (with screws)		4515043	174
Pavement frame for laying paving stones	Stainless steel standard coating, anti-slip	4516046	358
	Brushed stainless steel	4516044	358
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments		Per m	4516083 9,40
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version		4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo		On request	

Fixed bollards BR

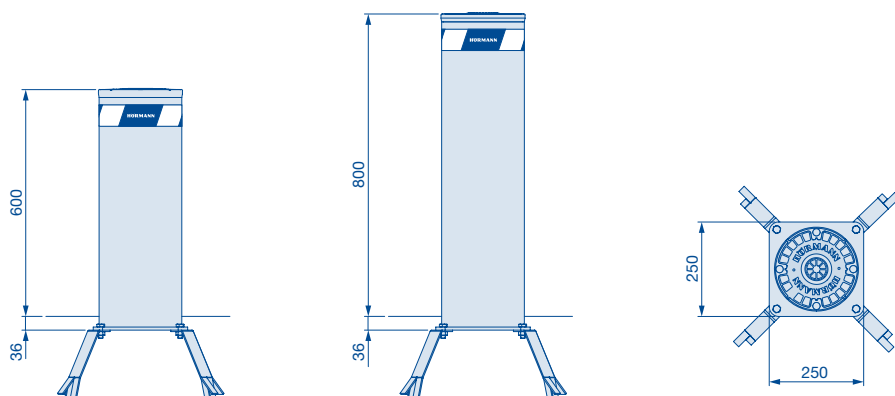
With ground anchor

F 220-600 BR / F 220-800 BR



Product description			
Fixed bollards BR		F 220-600 BR	F 220-800 BR
Fixed cylinder	Height	600 mm	800 mm
	Diameter	220 mm	
	Material thickness	4 mm	
	Material	Steel S235JR Stainless steel V2 A (AISI 304)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		30000 J	
Impact energy with destruction		150000 J	
Load rating acc. to EN 124			
Ground anchors		Yes – 4 anchors	
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Fixed bollards F 220-600 / 800 BR with ground anchors			F 220-600 BR		F 220-800 BR	
			Article no.	€	Article no.	€
Fixed bollard F 220-600 / 800 BR + Ground anchors for fitting to the ground	Painted steel		4515238	835	4515251	1019
	Painted stainless steel		4515240	1093	4515253	1254
	Brushed stainless steel V2A (AISI 304)		4515242	1326	4515255	1489
Fixed bollard F 220-600 / 800 BR + Ground anchors for fitting to the ground + Lighting strip with 8 LEDs	Painted steel		4515239	1326	4515252	1489
	Painted stainless steel		4515241	1569	4515254	1726
	Brushed stainless steel V2A (AISI 304)		4515243	1800	4515256	1968

Optional extras for fixed bollards		Article no.	€
Surcharge for painting the cylinder in RAL to choose	F 220-600 BR	4515057	231
	F 220-800 BR	4515189	257
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments		4516083	9,40
Safety screws for bottom plate – incl. dismantling key		4515100	103

Fixed bollards BR

With ground anchor

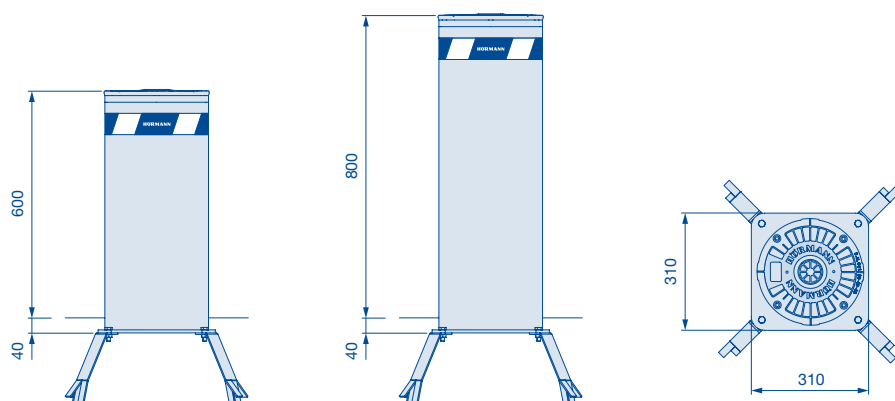
F 275-600 BR / F 275-800 BR



Product description			
Fixed bollards BR		F 275-600 BR	F 275-800 BR
Fixed cylinder	Height	600 mm	800 mm
	Diameter	273 mm	
	Material thickness	6 mm	
	Material	Steel S235JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting* Stainless steel version: standard painting* or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		40000 J (approved by TÜV Rheinland)	
Impact energy with destruction		250000 J	
Load rating acc. to EN 124			
Ground anchors		Yes – 4 anchors	
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

On request with stone mantle and individually designed cylinder cover.



Fixed bollards F 275-600 / 800 BR with ground anchors			F 275-600 BR		F 275-800 BR	
			Article no.	€	Article no.	€
Fixed bollard F 275-600 / 800 BR + Ground anchors for fitting to the ground	Painted steel		4515264	1209	4515276	1440
	Painted stainless steel		4515266	1446	4515278	1685
	Brushed stainless steel V2A (AISI 304)		4515268	1685	4515280	1929
Fixed bollard F 275-600 / 800 BR + Ground anchors for fitting to the ground + Lighting strip with 25 LEDs	Painted steel		4515265	1724	4515277	1954
	Painted stainless steel		4515267	1962	4515279	2200
	Brushed stainless steel V2A (AISI 304)		4515269	2200	4515281	2444

Optional extras for fixed bollards		Article no.	€
Surcharge for painting the cylinder in RAL to choose	F 275-600 BR	4515013	231
	F 275-800 BR	4515118	269
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316) (material thickness: 4 mm)	F 275-600 BR	4515263	269
	F 275-800 BR	4515157	321
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments		Per m	4516083 9,40
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version		4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo		On request	

Fixed bollards RI-FF

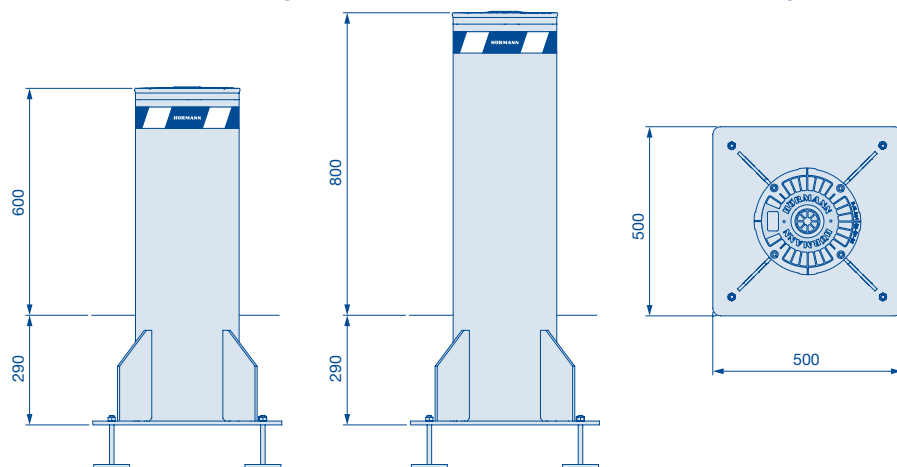
With reinforced ground fitting

F 275-RI-600 FF / F 275-RI-800 FF



Product description			
Fixed bollards RI-FF		F 275-RI-600 FF	F 275-RI-800 FF
Fixed cylinder	Height	600 mm	800 mm
	Diameter	273 mm	
	Material thickness	10 mm	
	Material	Steel S235JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		40000 J (approved by TÜV Rheinland)	
Impact energy with destruction		400000 J	
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Fixed bollards F 275-RI-600 / 800 FF with ground anchors		F 275-RI-600 FF		F 275-RI-800 FF	
		Article no.	€	Article no.	€
Fixed bollards F 275-RI-600 / 800 FF + Reinforced ground fitting	Painted steel	4515282	2041	4515288	2379
	Painted stainless steel	4515284	2280	4515290	2637
	Brushed stainless steel V2A (AISI 304)	4515286	2520	4515292	2868
Fixed bollards F 275-RI-600 / 800 FF + Reinforced ground fitting + Lighting strip with 25 LEDs	Painted steel	4515283	2545	4515289	2894
	Painted stainless steel	4515285	2784	4515291	3150
	Brushed stainless steel V2A (AISI 304)	4515287	3024	4515293	3381

Optional extras for fixed bollards	Article no.	€
Surcharge for painting the cylinder in RAL to choose	F 275-RI-600 BR	4515013 231
	F 275-RI-800 BR	4515118 269
Surcharge for version in brushed stainless steel V4A (AISI 316) (material thickness: 10 mm)	F 275-RI-600 BR	4515244 352
	F 275-RI-800 BR	4515340 469
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)	4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments	Per m	4516083 9,40
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version	4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo	On request	

Notes and sketches

Fixed design bollards

With ground fitting to set in concrete or screw connect

F 102-900 / F 140-900 / F 168-900

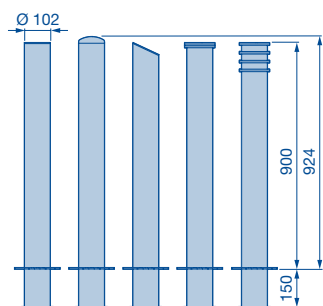
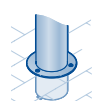


Product description				
Fixed design bollards		F 102-900	F 140-900	F 168-900
Fixed cylinder	Diameter	102 mm	140 mm	168 mm
	Height	900 mm	900 mm	900 mm
	Material thickness	2 mm	2 mm	2 mm
	Fitting depth for ground fitting to set in concrete	150 mm	150 mm	250 mm
	Material	Steel S235JR Stainless steel V2 A (AISI 304)		
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: brushed		

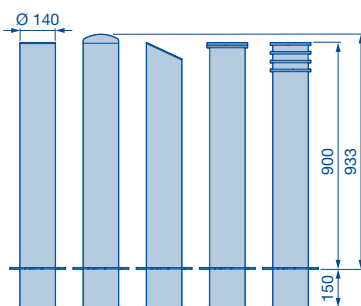
* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

Version with ground fitting to set in concrete

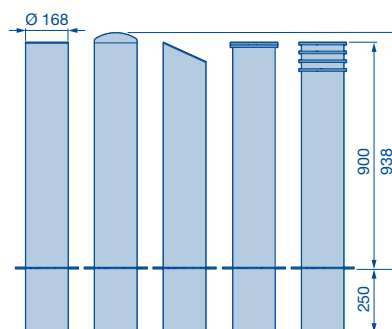
Version with screw-on flange (optional)



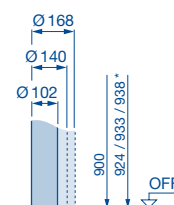
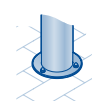
F 102-900



F 140-900



F 168-900



* Information for curved cover

Fixed design bollards F 102-900 / F 140-900 / F 168-900 + ground fitting to set in concrete (standard)		F 102-900		F 140-900		F 168-900	
		Article no.	€	Article no.	€	Article no.	€
Version with straight cover	Painted steel	4516190	141	4516198	220	4516206	317
	Brushed stainless steel V2A (AISI 304)	4516191	316	4516199	373	4516207	544
Version with concave cover	Painted steel	4516192	158	4516200	240	4516208	339
	Brushed stainless steel V2A (AISI 304)	4516193	334	4516201	446	4516209	565
Version with chamfered cover	Painted steel	4516194	164	4516202	249	4516210	348
	Brushed stainless steel V2A (AISI 304)	4516195	339	4516203	454	4516211	575
Version with straight cover and wide ring	Brushed stainless steel V2A (AISI 304)	4516196	443	4516204	579	4516212	731
Version with straight cover and quadruple ring	Brushed stainless steel V2A (AISI 304)	4516197	530	4516205	692	4516213	878

Surcharges for optional extras		F 102-900		F 140-900		F 168-900	
		Article no.	€	Article no.	€	Article no.	€
Version with screw-on flange for screw fastening	For steel version	4516214	14,10	4516220	23	4516224	34
	For stainless steel version	4516216	18,80	4516222	33	4516226	48
Cylinder extension per 100 mm (max. possible height from FFL 1200 mm)	For steel version	4516215	23	4516221	53	4516225	71
	For stainless steel version	4516217	57	4516223	98	4516227	121
Painted in RAL to choose	For steel version	4516219	49	4516219	49	4516219	49
Reinforced cylinder and reinforced ground fitting Impact energy with destruction: 200000 J		4516218	541	4516218	541	4516218	541
Set with 3 threaded rods M10 galvanized steel, with plain washers and blind nuts made of V2A steel (AISI 304) for screw fastening to asphalt, concrete or stone (only in connection with the version with screw-on flange)		4516188	46	4516188	46	4516188	46
Chemical heavy-duty fastener for threaded rods, allows fixing of approx. 12 threaded rods (caulking gun required is not included in the scope of delivery)		4516189	23	4516189	23	4516189	23

Automatic bollards E

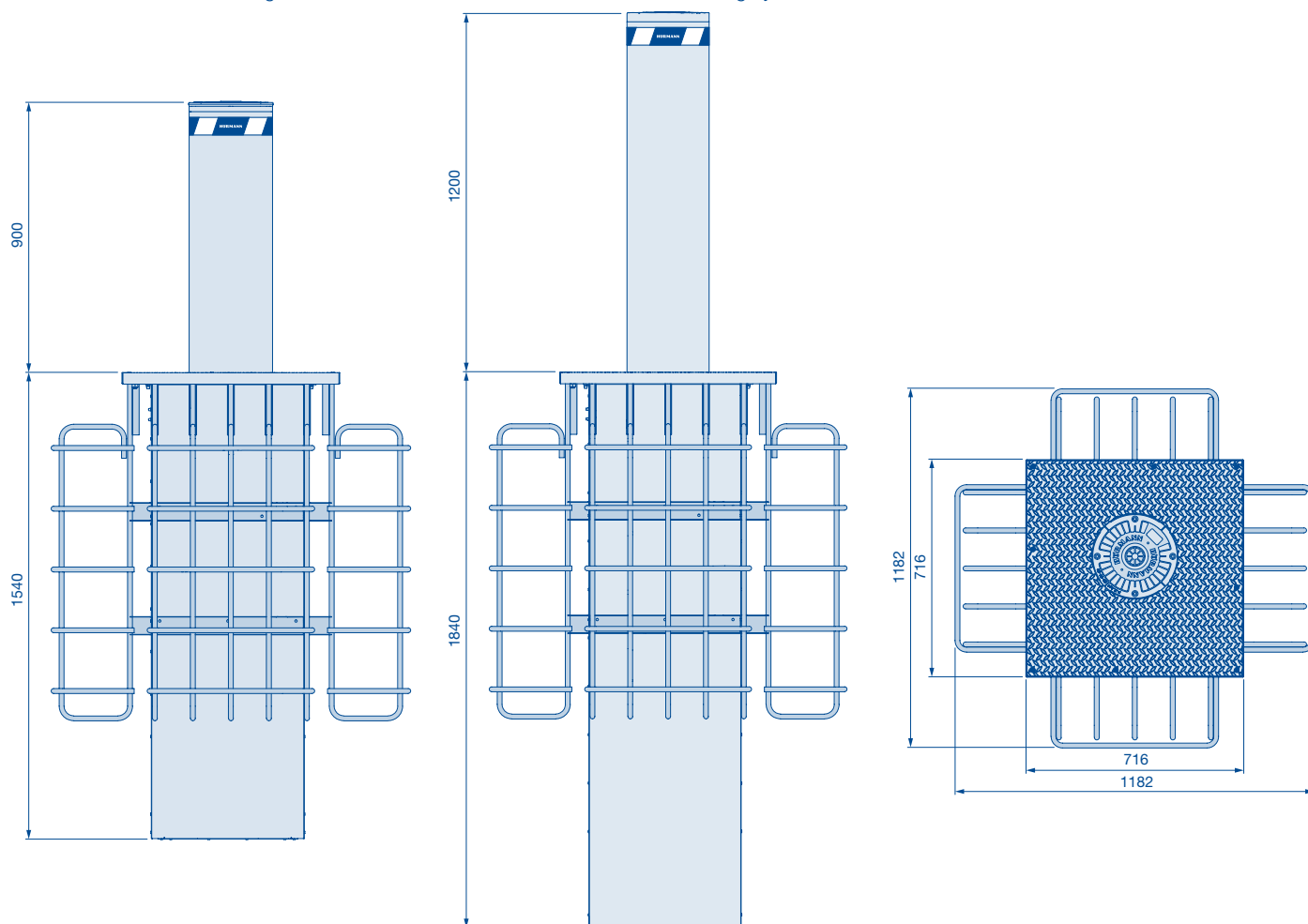
With integrated electromechanical operator

A 275-M30-900 E / A 275-M30-1200 E



Product description		
Automatic bollards E	A 275-M30-900 E	A 275-M30-1200 E
Movable cylinder	Height	900 mm
	Diameter	273 mm
	Material thickness	10 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed
	Reflecting strips (height 55 mm)	Yes
	Lifting speed	22 cm/s
	Lowering speed	22 cm/s
Manual emergency lowering		Yes
Connecting cable to control unit		Standard 10 m – (max. 50 m)
Control unit voltage		230 / 400 V AC (± 10 %) 50 / 60 Hz
Protection category		IP 67
Cycles per day		2000
Overall cycles (service life)		Approx. 3000000
Impact energy without destruction		250000 J
Impact energy with destruction		750000 J
Load rating acc. to EN 124		D400 Regulation
Temperature range		From –40°C to +70°C (for low temperatures, see heating element)
Certified acc. to		PAS68, IWA14-1
Conforming with		M30, K4
		PAS68, IWA14-1

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Automatic bollard A 275-M30-900 / 1200 E with integrated electromechanical operator		A 275-M30-900 E		A 275-M30-1200 E				
		Article no.	€	Article no.	€			
Automatic bollard A 275-M30-900 / 1200 E	Painted steel	4515860	11831	4515873	13888			
	Painted stainless steel	4515863	13335	4515876	15688			
	Brushed stainless steel V2A (AISI 304)	4515866	13593	4515879	16074			
Automatic bollard A 275-M30-900 / 1200 E + Lighting strip with 25 LEDs	Painted steel	4515861	12345	4515874	14403			
	Painted stainless steel	4515864	13849	4515877	16203			
	Brushed stainless steel V2A (AISI 304)	4515867	14106	4515880	16588			
Automatic bollard A 275-M30-900 / 1200 E + Lighting strip with 25 LEDs + EFO emergency function to quickly raise the bollard (in approx. 1.5 s)	Painted steel	4515862	13760	4515875	15816			
	Painted stainless steel	4515865	15263	4515878	17618			
	Brushed stainless steel V2A (AISI 304)	4515868	15520	4515881	18004			
Foundation box for automatic bollards				Article no.	€			
Steel foundation box with aluminium zinc coating, with installation frame and reinforcement rods		A 275-M30-900 E	4515869	2200				
		A 275-M30-1200 E	4515882	2559				
Stainless steel foundation box, water-tight version, with immersion pump, counterframe, and reinforcement rods		A 275-M30-900 E	4515871	3640				
		A 275-M30-1200 E	4515884	4449				
Surcharge for upper installation frame made of stainless steel V2A (AISI 304)			4516139	276				
Metal cover cap for foundation box (with screws)		A 275-M30-900 / 1200 E	4515307	348				
Controls for automatic bollards								
The specified prices are valid only when the control is supplied in combination with the bollard system.								
Controls for bollards			for 1 bollard	for 2 bollards	for 3 bollards	for 4 bollards	for 5 bollards	for 6 to 10 bollards
A 275-M30-900/1200 E		Article no.	4515912	4515913	4515914	4515915	4515916	4515917
		€	4779	4779	4779	4779	4779	5050
Controls for bollards with EFO emergency function			for 1 bollard	for 2 bollards	for 3 bollards	for 4 bollards	for 5 bollards	for 6 to 10 bollards
A 275-M30-900/1200 E		Article no.	4515918	4515919	4515920	4515921	4515922	4515923
		€	5050	5050	5050	5050	5050	5706
Controls for more than 10 bollards without / with EFO emergency function on request.								
Optional extras for automatic bollards				Article no.	€			
Emergency lowering in case of power failure		per control		4515929	694			
Acoustic warning signal (for bollards only in combination with LED lighting strip)				4515012	68			
Anti-corrosion coating for painted steel bollards (recommended for saline ambient conditions)		A 275-M30-900 E		4515845	1158			
		A 275-M30-1200 E		4515849	1286			
Anti-corrosion coating for painted stainless steel bollards (recommended for saline ambient conditions)		A 275-M30-900 E		4515846	1158			
		A 275-M30-1200 E		4515850	1286			
Anti-corrosion coating for brushed stainless steel bollards (recommended for saline ambient conditions)		A 275-M30-900 E		4515847	822			
		A 275-M30-1200 E		4515851	901			
Heating element incl. transformer and thermostat 80 W, connecting lead 10 m		A 275-M30-900 E		4515014	656			
Heating element incl. transformer and thermostat 150 W, connecting lead 10 m		A 275-M30-1200 E		4515342	1029			
UPS device 3.0 kW – 3 kVA for further operation of max. 3 bollards of type H / E / RI / M30-900 For bridging power outages up to 1 hour max. and approx. 10 actuations				4515060	2379			
Extended connecting cable from bollard A 275-M30 / M50 E for control (max. 50 m total) supplied in 5 m increments		Per m		4515928	22			
Surcharge for stainless steel base plate (corrugated sheet) V2A (AISI 304)				4516136	449			
Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version				4516091	373			
Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo				On request				
Surcharge for painting the cylinder in RAL to choose				4515322	297			
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)		A 275-M30-900 E		4515590	843			
		A 275-M30-1200 E		4515338	1065			
// NEW Adjustment of the bollard to the driveway inclination				4516394	4084			
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)				4516395	4824			
Further optional extras						See page 70		
Radio receiver				Article no.	€			
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)				4515833	291			
HAC perimeter protection system Hörmann Access Control Control for the management of perimeter protection systems via the Online Control web interface						See page 70		
Online Control								
Accessories for operators and controls						See from page 112		

Automatic bollards E

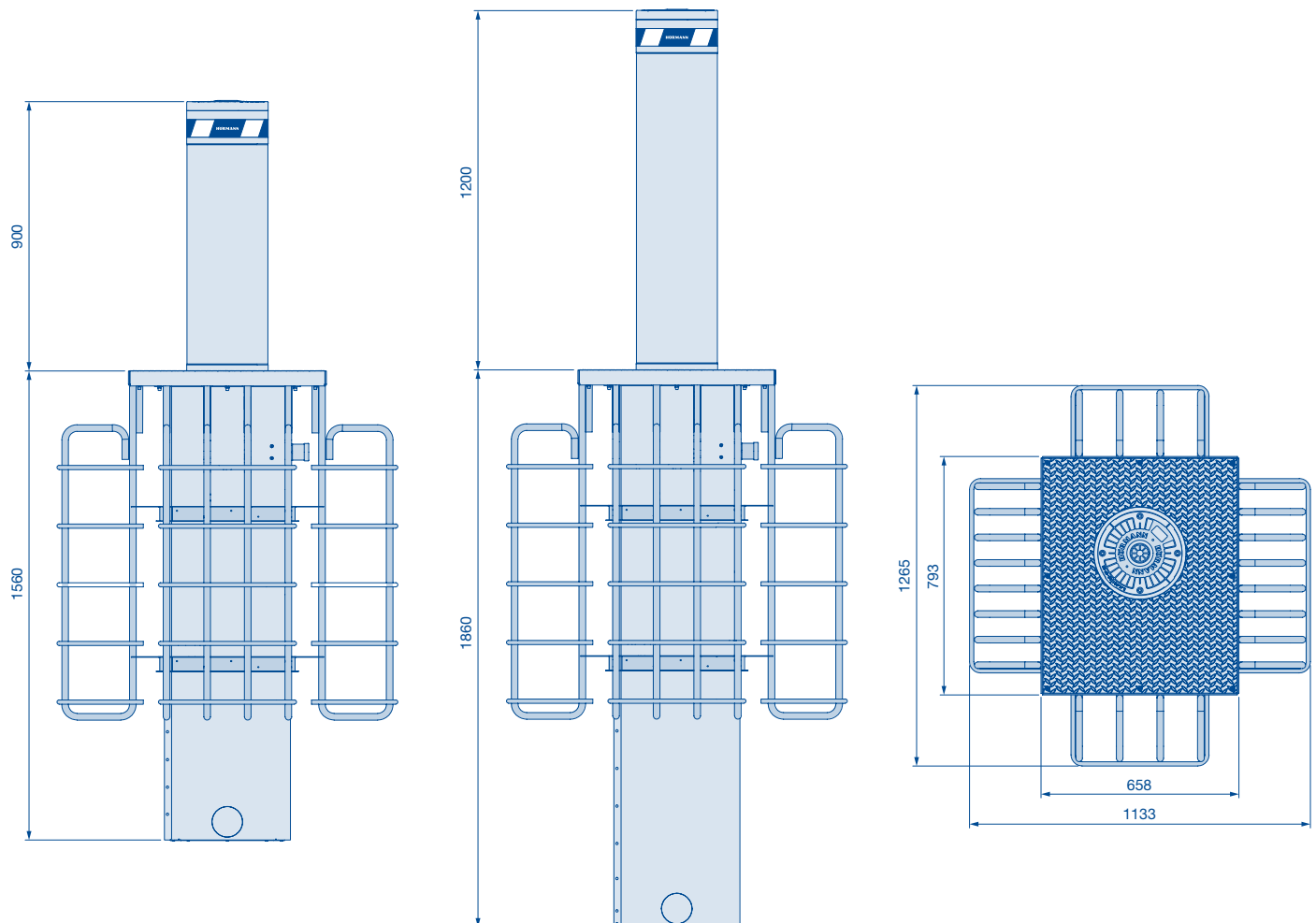
With integrated electromechanical operator

A 275-M50-900 E / A 275-M50-1200 E



Product description			
Automatic bollards E		A 275-M50-900 E	A 275-M50-1200 E
Movable cylinder	Height	900 mm	1200 mm
	Diameter	271 mm	
	Material thickness	23 mm	
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Lifting speed	22 cm/s	22 cm/s
	Lowering speed	22 cm/s	22 cm/s
Manual emergency lowering		Yes	
Connecting cable to control unit		Standard 10 m – (max. 50 m)	
Control unit voltage		230 / 400 V AC (± 10 %) 50 / 60 Hz	
Protection category		IP 67	
Cycles per day		2000	
Overall cycles (service life)		Approx. 3000000	
Impact energy without destruction		700000 J	
Impact energy with destruction		2000000 J	
Load rating acc. to EN 124		D400 Regulation	
Temperature range		From –40°C to +70°C (for low temperatures, see heating element article no. 4515342)	
Certified acc. to		M50, K12	PAS68
Conforming with		PAS68, IWA14-1	IWA14-1, M50, K12

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Automatic bollard A 275-M50-900 / 1200 E with integrated electromechanical operator		A 275-M50-900 E		A 275-M50-1200 E				
		Article no.	€	Article no.	€			
Automatic bollard A 275-M50-900 / 1200 E	Painted steel	4515886	20319	4515899	22633			
	Painted stainless steel	4515889	22375	4515902	24690			
	Brushed stainless steel V2A (AISI 304)	4515892	22633	4515905	25076			
Automatic bollard A 275-M50-900 / 1200 E + Lighting strip with 25 LEDs	Painted steel	4515887	20833	4515900	23147			
	Painted stainless steel	4515890	22889	4515903	25204			
	Brushed stainless steel V2A (AISI 304)	4515893	23147	4515906	25590			
Automatic bollard A 275-M50-900 / 1200 E + Lighting strip with 25 LEDs + EFO emergency function to quickly raise the bollard (in approx. 1.5 s)	Painted steel	4515888	22505	4515901	24818			
	Painted stainless steel	4515891	24562	4515904	26877			
	Brushed stainless steel V2A (AISI 304)	4515894	24818	4515907	27263			
Foundation box for automatic bollards				Article no.	€			
Steel foundation box with aluminium zinc coating, with installation frame and reinforcement rods		A 275-M50-900 E		4515895	2894			
		A 275-M50-1200 E		4515908	3407			
Stainless steel foundation box, water-tight version, with immersion pump, counterframe, and reinforcement rods		A 275-M50-900 E		4515897	4888			
		A 275-M50-1200 E		4515910	5465			
Surcharge for upper stainless steel installation frame (AISI 304)				4516138	476			
Metal cover cap for foundation box (with screws)				4515356	449			
Controls for automatic bollards								
The specified prices are valid only when the control is supplied in combination with the bollard system.								
Controls for bollards			for 1 bollard	for 2 bollards	for 3 bollards	for 4 bollards	for 5 bollards	for 6 to 10 bollards
A 275-M50-900/1200 E		Article no.	4515912	4515913	4515914	4515915	4515916	4515917
		€	4779	4779	4779	4779	4779	5050
Controls for bollards with EFO emergency function			for 1 bollard	for 2 bollards	for 3 bollards	for 4 bollards	for 5 bollards	for 6 to 10 bollards
A 275-M50-900/1200 E		Article no.	4515918	4515919	4515920	4515921	4515922	4515923
		€	5050	5050	5050	5050	5050	5706
Controls for more than 10 bollards without / with EFO emergency function on request.								
Optional extras for automatic bollards				Article no.		€		
Emergency lowering in case of power failure		per control		4515929		694		
Acoustic warning signal in housing for exterior fastening, including 10 m connecting lead (to be installed on-site)				4515853		174		
Anti-corrosion coating for painted steel bollards (recommended for saline ambient conditions)		A 275-M50-900 E		4515854		1274		
		A 275-M50-1200 E		4515857		1350		
Anti-corrosion coating for painted stainless steel bollards (recommended for saline ambient conditions)		A 275-M50-900 E		4515855		1274		
		A 275-M50-1200 E		4515858		1350		
Anti-corrosion coating for brushed stainless steel bollards (recommended for saline ambient conditions)		A 275-M50-900 E		4515856		885		
		A 275-M50-1200 E		4515859		964		
Heating element incl. transformer and thermostat 150 W, connecting lead 10 m				4515342		1029		
UPS device 3.0 kW – 3 kVA for further operation of 1 bollard of type M30-1200 and M50-900 / 1200 for bridging power outages up to 1 hour max. and approx. 10 actuations				4515341		2379		
Extended connecting cable from bollard A 275-M30 / M50 E for control (max. 50 m total) supplied in 5 m increments		Per m		4515928		22		
Surcharge for stainless steel base plate (corrugated sheet) V2A (AISI 304)				4516137		476		
Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version				4516091		373		
Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo				On request				
Surcharge for painting the cylinder in RAL to choose				4515359		373		
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)		A 275-M50-900 E		4515357		5326		
		A 275-M50-1200 E		4515413		6655		
// NEW Adjustment of the bollard to the driveway inclination				4516394		4084		
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)				4516395		4824		
Further optional extras						See page 70		
Radio receiver				Article no.		€		
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing								
2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)				4515833		291		
HAC perimeter protection system Hörmann Access Control								
Control for the management of perimeter protection systems via the Online Control web interface						See page 70		
Online Control								
Accessories for operators and controls						See from page 112		

Automatic bollards H

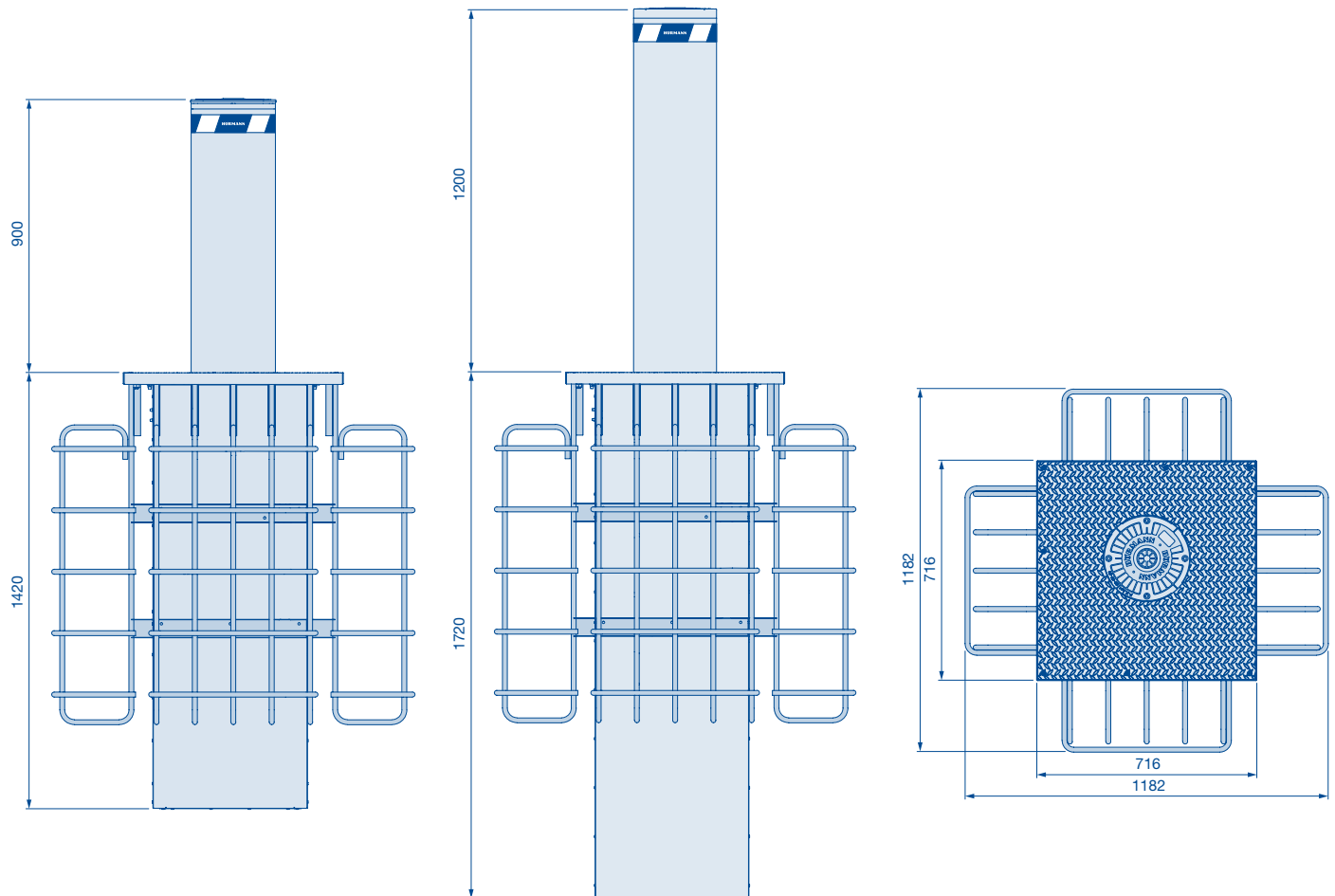
With integrated hydraulic operator

A 275-M30-900 H / A 275-M30-1200 H



Product description			
Automatic bollards H		A 275-M30-900 H	A 275-M30-1200 H
Movable cylinder	Height	900 mm	1200 mm
	Diameter	273 mm	273 mm
	Material thickness	10 mm	16 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting* Stainless steel version: standard painting* or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Lifting speed	12.5 cm/s	22 cm/s
	Lowering speed	26 cm/s	30 cm/s
Manual emergency lowering		Yes	
Connecting cable to control unit		Standard 10 m – (max. 80 m – with heating element max. 50 m)	
Control unit voltage		230 / 400 V AC (± 10 %) 50 / 60 Hz	
Hydraulic pump		Integrated in bollard	
Protection category		IP 67	
Cycles per day		2000	
Overall cycles (service life)		Approx. 3000000	
Impact energy without destruction		250000 J	700000 J
Impact energy with destruction		750000 J	1200000 J
Load rating acc. to EN 124		D400 Regulation	
Temperature range		From –40°C to +70°C (for low temperatures, see heating element)	
Certified acc. to		PAS68, IWA14-1	M30, K4
Conforming with		M30, K4	PAS68, IWA14-1

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Radio receiver	Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing	4515833	291
For a product description, see page 70.		
HAC perimeter protection system and OnlineControl		See page 70

Automatic bollard A 275-M30-900 / 1200 H with integrated hydraulic operator			A 275-M30-900 H		A 275-M30-1200 H		
			Article no.	€	Article no.	€	
Automatic bollard A 275-M30-900 / 1200 H	Painted steel		4515294	11831	4515325	13888	
	Painted stainless steel		4515297	13062	4515328	15688	
	Brushed stainless steel V2A (AISI 304)		4515300	13335	4515331	16074	
Automatic bollard A 275-M30-900 / 1200 H + Lighting strip with 25 LEDs	Painted steel		4515295	12345	4515326	14403	
	Painted stainless steel		4515298	13564	4515329	16203	
	Brushed stainless steel V2A (AISI 304)		4515301	13849	4515332	16588	
Automatic bollard A 275-M30-900 / 1200 H + Lighting strip with 25 LEDs + EFO emergency function to quickly raise the bollard (in approx. 1.5 s)	Painted steel		4515296	15302	4515327	17630	
	Painted stainless steel		4515299	16462	4515330	19418	
	Brushed stainless steel V2A (AISI 304)		4515302	16807	4515333	19803	
Attention! Regular maintenance of the EFO system is required! The pressure testing / filling kit for the EFO emergency function is required for maintenance (article no. 4516269). See page 71.							
Foundation box for automatic bollards			Article no.		€		
Steel foundation box with aluminium zinc coating, with installation frame and reinforcement rods			A 275-M30-900 H	4515303	2083		
			A 275-M30-1200 H	4515334	2444		
Stainless steel foundation box, water-tight version, with immersion pump, counterframe, and reinforcement rods			A 275-M30-900 H	4515305	3498		
			A 275-M30-1200 H	4515336	4307		
Surcharge for upper installation frame made of stainless steel V2A (AISI 304)				4516139	276		
Metal cover cap for foundation box (with screws)			A 275-M30-900 / 1200 H	4515307	348		
Controls for automatic bollards The specified prices are valid only when the control is supplied in combination with the bollard system.							
Controls for bollards		for 1 bollard	for 2 bollards	for 3 bollards	for 4 bollards	for 5 bollards	for 6 to 10 bollards
	Article no.	4515308	4515309	4515310	4515311	4515312	4515313
A 275-M30-900/1200 H	€	1209	1209	1209	1209	1209	1865
Controls for bollards with EFO emergency function		for 1 bollard	for 2 bollards	for 3 bollards	for 4 bollards	for 5 bollards	for 6 to 10 bollards
	Article no.	4515314	4515315	4515316	4515317	4515318	4515319
A 275-M30-900/1200 H	€	1480	1480	1480	1480	1480	2134
Controls for more than 10 bollards without / with EFO emergency function on request.							
Optional extras for automatic bollards			Article no.		€		
Acoustic warning signal (for bollards only in combination with LED lighting strip)					4515012	68	
Anti-corrosion coating for painted steel bollards (recommended for saline ambient conditions)			A 275-M30-900 H	4515845	1158		
			A 275-M30-1200 H	4515849	1286		
Anti-corrosion coating for painted stainless steel bollards (recommended for saline ambient conditions)			A 275-M30-900 H	4515846	1158		
			A 275-M30-1200 H	4515850	1286		
Anti-corrosion coating for brushed stainless steel bollards (recommended for saline ambient conditions)			A 275-M30-900 H	4515847	822		
			A 275-M30-1200 H	4515851	901		
Biodegradable oil in the hydraulic pump					4515058	Standard	
Heating element incl. transformer and thermostat 80 W, connecting lead 10 m			A 275-M30-900 H		4515014	656	
Heating element incl. transformer and thermostat 150 W, connecting lead 10 m			A 275-M30-1200 H		4515342	1029	
Emergency manual operation for bollard in the event of a power failure					4515324	2109	
Normally open solenoid valve for automatic lowering in case of power failure					4515323	244	
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure					4515167	694	
UPS device 3.0 kW – 3 kVA for further operation of max. 3 bollards For bridging power outages up to 1 hour max. and approx. 10 actuations			A 275-M30-900 H		4515060	2379	
UPS device 3.0 kW – 3 kVA for further operation of 1 bollard For bridging power outages up to 1 hour max. and approx. 10 actuations			A 275-M30-1200 H		4515341	2379	
Extended connecting cable from bollard to control (max. 80 m total) supplied in 5 m increments			Per m		4515059	22	
Surcharge for stainless steel base plate (corrugated sheet) V2A (AISI 304)					4516136	449	
Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version					4516091	373	
Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo					On request		
Surcharge for painting the cylinder in RAL to choose					4515322	297	
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)			A 275-M30-900 H	4515590	843		
			A 275-M30-1200 H	4515338	1065		
// NEW Adjustment of the bollard to the driveway inclination					4516394	4084	
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)					4516395	4824	
Further optional extras			See page 70				
Accessories for operators and controls			See from page 112				

Automatic bollards H

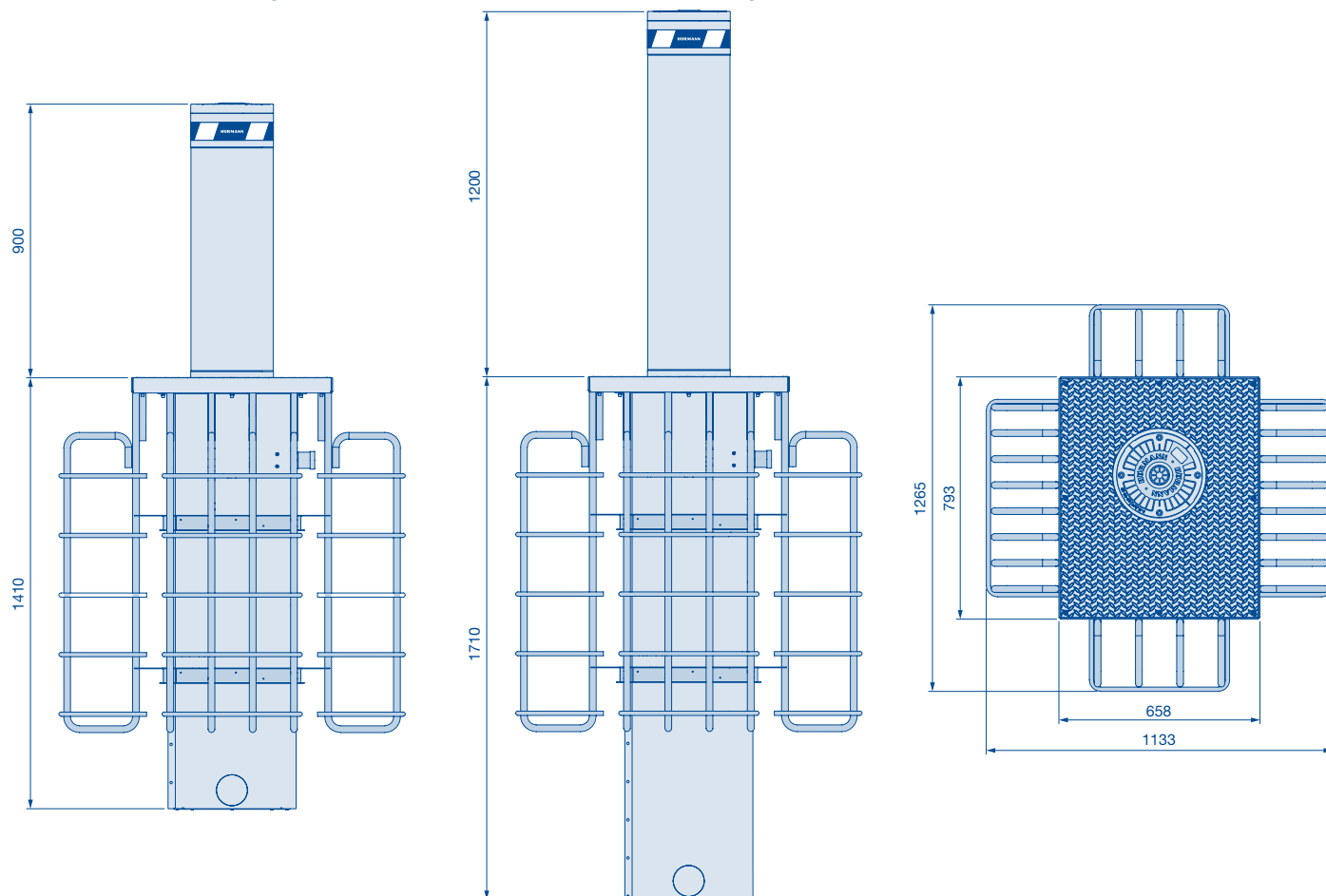
With integrated hydraulic operator

A 275-M50-900 H / A 275-M50-1200 H



Product description			
Automatic bollards H		A 275-M50-900 H	A 275-M50-1200 H
Movable cylinder	Height	900 mm	1200 mm
	Diameter	271 mm	271 mm
	Material thickness	23 mm	23 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting* Stainless steel version: standard painting* or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Lifting speed	22 cm/s	22 cm/s
	Lowering speed	22.5 cm/s	30 cm/s
Manual emergency lowering		Yes	
Connecting cable to control unit		Standard 10 m – (max. 80 m – with heating element max. 50 m)	
Control unit voltage		230 / 400 V AC (± 10 %) 50 / 60 Hz	
Hydraulic pump		Integrated in bollard	
Protection category		IP 67	
Cycles per day		2000	
Overall cycles (service life)		Approx. 3000000	
Impact energy without destruction		700000 J	
Impact energy with destruction		2000000 J	
Load rating acc. to EN 124		D400 Regulation	
Temperature range		From –40°C to +70°C (for low temperatures, see heating element article no. 4515342)	
Certified acc. to		M50, K12	M50, K12, PAS68
Conforming with		PAS68, IWA14-1	IWA14-1

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Automatic bollard A 275-M50-900 / 1200 H with integrated hydraulic operator		A 275-M50-900 H		A 275-M50-1200 H			
		Article no.	€	Article no.	€		
Automatic bollard A 275-M50-900 / 1200 H	Painted steel	4515343	20319	4515364	22633		
	Painted stainless steel	4515346	22375	4515367	24690		
	Brushed stainless steel V2A (AISI 304)	4515349	22633	4515370	25076		
Automatic bollard A 275-M50-900 / 1200 H + Lighting strip with 25 LEDs	Painted steel	4515344	20833	4515365	23147		
	Painted stainless steel	4515347	22889	4515368	25204		
	Brushed stainless steel V2A (AISI 304)	4515350	23147	4515371	25590		
Automatic bollard A 275-M50-900 / 1200 H + Lighting strip with 25 LEDs + EFO emergency function to quickly raise the bollard (in approx. 1.5 s)	Painted steel	4515345	24305	4515366	26619		
	Painted stainless steel	4515348	26362	4515369	28676		
	Brushed stainless steel V2A (AISI 304)	4515351	26619	4515372	29062		
Attention! Regular maintenance of the EFO system is required! The pressure testing / filling kit for the EFO emergency function is required for maintenance (article no. 4516269). See page 71.							
Foundation box for automatic bollards				Article no.	€		
Steel foundation box with aluminium zinc coating With installation frame and reinforcement rods		A 275-M50-900 H		4515352	2700		
		A 275-M50-1200 H		4515373	3216		
Stainless steel foundation box, water-tight version With immersion pump, installation frame and reinforcement rods		A 275-M50-900 H		4515354	4565		
		A 275-M50-1200 H		4515375	5143		
Surcharge for upper stainless steel installation frame (AISI 304)				4516138	476		
Metal cover cap for foundation box A 275-M50-900 / 1200 H (with screws)				4515356	449		
Controls for automatic bollards							
The specified prices are valid only when the control is supplied in combination with the bollard system.							
Controls for bollards		for 1 bollard	for 2 bollards	for 3 bollards	for 4 bollards	for 5 bollards	for 6 to 10 bollards
Article no.		4515632	4515633	4515634	4515635	4515636	4515625
A 275-M50-900/1200 H		€ 1865	1865	1865	1865	1865	2957
Controls for bollards with EFO emergency function		for 1 bollard	for 2 bollards	for 3 bollards	for 4 bollards	for 5 bollards	for 6 to 10 bollards
Article no.		4515626	4515627	4515628	4515629	4515630	4515631
A 275-M50-900/1200 H		€ 2186	2186	2186	2186	2186	3344
Controls for more than 10 bollards without / with EFO emergency function on request.							
Optional extras for automatic bollards				Article no.	€		
Acoustic warning signal in housing for exterior fastening, including 10 m connecting lead (to be installed on-site)				4515853	174		
Anti-corrosion coating for painted steel bollards (recommended for saline ambient conditions)		A 275-M50-900 H		4515854	1274		
		A 275-M50-1200 H		4515857	1350		
Anti-corrosion coating for painted stainless steel bollards (recommended for saline ambient conditions)		A 275-M50-900 H		4515855	1274		
		A 275-M50-1200 H		4515858	1350		
Anti-corrosion coating for brushed stainless steel bollards (recommended for saline ambient conditions)		A 275-M50-900 H		4515856	885		
		A 275-M50-1200 H		4515859	964		
Biodegradable oil in the hydraulic pump				4515360	Standard		
Heating element incl. transformer and thermostat 150 W, connecting lead 10 m				4515342	1029		
Emergency manual operation for bollard A 275-M50-900 / 1200 H in the event of a power failure				4515363	2547		
Normally open solenoid valve for automatic lowering in case of power failure				4515323	244		
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure				4515167	694		
UPS device 3.0 kW – 3 kVA for further operation of 1 bollard of type M30-1200 and M50-900 / 1200 For bridging power outages up to 1 hour max. and approx. 10 actuations				4515341	2379		
Extended connecting cable from bollard A 275-M50-900 / 1200 H to control (max. 80 m total) supplied in 5 m increments		Per m		4515361	22		
Surcharge for stainless steel base plate (corrugated sheet) (AISI 304)				4516137	476		
Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version				4516091	373		
Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo				On request			
Surcharge for painting the cylinder in RAL to choose				4515359	373		
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)		A 275-M50-900 H		4515357	5326		
		A 275-M50-1200 H		4515413	6655		
// NEW Adjustment of the bollard to the driveway inclination				4516394	4084		
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)				4516395	4824		
Further optional extras						See page 70	
Radio receiver				Article no.	€		
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)				4515833	291		
HAC perimeter protection system Hörmann Access Control						See page 70	
Control for the management of perimeter protection systems via the Online Control web interface							
Online Control							
Accessories for operators and controls						See from page 112	

Automatic bollards H

With integrated hydraulic operator

Optional extras



Optional extras for bollard A 275-M30-900 / 1200 H / E and A 275-M50-900 / 1200 H / E			Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing				
2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)			4515833	291
HAC perimeter protection system			4831466	2879
Pre-assembled in the control housing of the automatic bollards				
Hörmann Access Control (HAC) is the control, which allows the operation and management of perimeter protection systems via the Online Control web interface.				
For bollards, pre-assembled in the control housing for access regulation and management in combination with:				
<ul style="list-style-type: none">Barcode reader (short range)QR code reader (short range)RFID transponder reader (short range)RFID reader (long range)Camera for number plate recognition				
Note:				
Only possible in conjunction with OnlineControl, article no. 4831437 or 4831438!				
Use without OnlineControl is only possible via a local connection.				
HAC perimeter protection system			4831467	3435
In housing for retrofitting on existing automatic bollards				
See HAC perimeter protection system for product description				
Note:				
Only possible in conjunction with OnlineControl, article no. 4831437 or 4831438!				
Use without OnlineControl is only possible via a local connection.				
OnlineControl Web application for operation of the station / system. After the access data is entered, the system can be controlled remotely from any Internet-capable end device, such as a smartphone, tablet and / or PC / Mac, regardless of your location. Internet access via a network cable must be available on-site at the system control. The price and term of contract are annual. The user fees for OnlineControl are settled annually, in advance, via a service agreement. No discount is available for this item!	Basic (for operation of the system)	Annual usage fees	4831437	180
	Plus (for operation of the system and the option of ID card management)	Annual usage fees	4831438	264
Stainless steel control box with ground fitting, max. 1 control – foundation anchors Dimensions (W x D x H) 330 x 280 x 967 mm, protection category IP 40			4515377	522
Control box made of fibreglass with ground fitting, max. 2 controls – foundation anchors Dimensions (W x D x H) 580 x 280 x 940 mm, protection category IP 55			4515378	1311
Heating element for control – 20 W			4515018	436
Traffic light, LED version, 100 mm – 1 x red / 1 x green (Attention: Up / down signal kit not required)			4515019	507
Painted post (diameter 105 mm) for traffic lights – length 3.55 m			4515020	321
Up / down signal kit to display bollard position			4515021	269
Alarm kit – 1 status contact for bollard top – 1 status contact for bottom plate			4515160	617
Control conversion for press-and-hold control			4515161	167
Push button panel – 1 up / down push button module			4515163	110
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation			4515164	186
Push button panel – 1 up / down push button module – 1 lock module for EFO actuation			4515165	186
Push button panel – 1 up / down push button module – 1 lock module for EFO actuation – 1 red / green LED module to show traffic light operation			4515166	244
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure			4515167	694
DI 1 Pro – induction loop detector, without semi-housing and loop cable			637545	453
DI 2 Pro – induction loop detector, without semi-housing and loop cable			637546	579

Automatic bollards H

With integrated hydraulic operator

Optional extras



Optional extras for bollard A 275-M30-900 / 1200 H / E and A 275-M50-900 / 1200 H / E	Article no.	€
RFID transponder reader for HITAG 1 and Mifare ID cards (short range), pre-installed	4831050	1221
RFID far range reader	4831292	5455
RFID transponder for windscreen , adhesive, minimum quantity: 25 pieces	4831258	13
Camera for number plate recognition	4831059	8106
Free-standing housing for camera / number plate recognition	4831401	1169
Post incl. adapter for mast fitting for RFID far range reader or camera / number plate recognition	4831060	396
QR code reader Suitable for fitting in entry and exit station for non-contact processing of special / market / business cards with QR code on the front of the card. Suitable for cards in accordance with ISO / IEC 7810 ID-1 or max. 86 mm card length and max. 60 mm card width. With RS232 interface to connect the TE-CON board. QR code can be read by holding up the ticket, hard plastic card, smartphone or print@home ticket.	4831054	2603
Pressure testing / filling kit for EFO emergency function (nitrogen cylinder not included)	4516269	1182

Semi-automatic bollards H

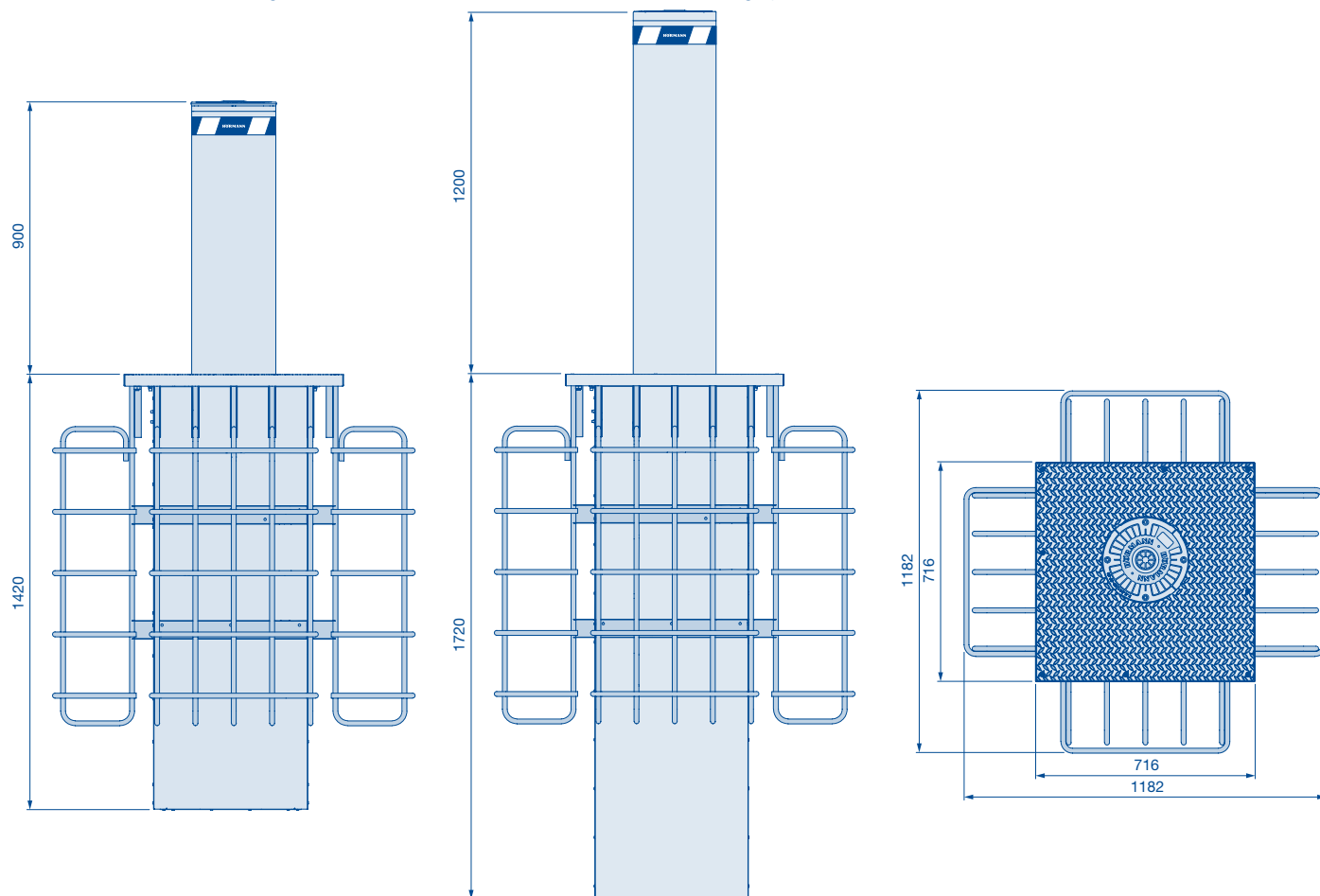
With integrated hydraulic pump

S 275-M30-900 H / S 275-M30-1200 H



Product description			
Semi-automatic bollards H		S 275-M30-900 H	S 275-M30-1200 H
Movable cylinder	Height	900 mm	1200 mm
	Diameter	273 mm	273 mm
	Material thickness	10 mm	16 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Lifting and lowering actuation	Turning movement with a cordless screwdriver (adapter for lifting / lowering using a cordless screwdriver included in the scope of delivery) A commercially available cordless screwdriver with a power of at least 31 Nm / 5.0 Ah is suitable.	
	Lifting speed	8 cm/s	8 cm/s
	Lowering speed	20 cm/s	20 cm/s
	Impact energy without destruction	250000 J	700000 J
		Impact energy with destruction	750000 J
		Connecting lead for LED lighting strip (optional)	Standard 10 m (max. 80 m)
		Connecting lead for heating element (optional)	Standard 10 m (max. 50 m)
		Temperature range	From -40°C to +70°C (for low temperatures, see heating element article no. 4515342)
		Certified acc. to	PAS68, IWA14-1
		Conforming with	M30, K4
		Load rating acc. to EN 124	D400 Regulation

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Semi-automatic bollard S 275-M30-900 / 1200 H with integrated hydraulic pump		S 275-M30-900 H		S 275-M30-1200 H	
		Article no.	€	Article no.	€
Semi-automatic bollard S 275-M30-900 / 1200 H	Painted steel	4516086	8681	4516093	10030
	Painted stainless steel	4516087	10249	4516094	11831
	Brushed stainless steel V2A (AISI 304)	4516088	10507	4516095	12217
Semi-automatic bollard S 275-M30-900 / 1200 H + Lighting strip with 25 LEDs	Painted steel	4516234	9131	4516237	10479
	Painted stainless steel	4516235	10699	4516238	12281
	Brushed stainless steel V2A (AISI 304)	4516236	10957	4516239	12670
Foundation box for semi-automatic bollards				Article no.	€
Steel foundation box with aluminium zinc coating		S 275-M30-900 H	4516089	2083	
With installation frame and reinforcement rods		S 275-M30-1200 H	4516096	2444	
Surcharge for upper installation frame made of stainless steel V2A (AISI 304)				4516139	276
Metal cover cap for foundation box S 275-M30-900 / 1200 H (with screws)				4515307	348
Optional extras for semi-automatic bollards				Article no.	€
Additional lock incl. 2 keys, profile half cylinder				4516092	1579
Anti-corrosion coating for painted steel bollards (recommended for saline ambient conditions)		S 275-M30-900 H	4515845	1158	
		S 275-M30-1200 H	4515849	1286	
Anti-corrosion coating for painted stainless steel bollards (recommended for saline ambient conditions)		S 275-M30-900 H	4515846	1158	
		S 275-M30-1200 H	4515850	1286	
Anti-corrosion coating for brushed stainless steel bollards (recommended for saline ambient conditions)		S 275-M30-900 H	4515847	822	
		S 275-M30-1200 H	4515851	901	
Biodegradable oil in the hydraulic pump				4515058	Standard
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)				4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments		Per m	4516083	9,40	
Heating element incl. transformer and thermostat 80 W, connecting lead 10 m		S 275-M30-900 H	4515014	656	
Heating element incl. transformer and thermostat 150 W, connecting lead 10 m		S 275-M30-1200 H	4515342	1029	
Heating element line extension (50 m max.), supplied in 5 m increments		Per m	4516154	9,40	
Housing for fitting to wall – required when heating element is ordered (State number of heating elements to be operated when placing the order)				4515589	559
Surcharge for stainless steel base plate (running plate) V2A (AISI 304)				4516136	449
Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version				4516091	373
Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo				On request	
Surcharge for painting the cylinder in RAL to choose				4515322	297
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)		S 275-M30-900 H	4515590	843	
		S 275-M30-1200 H	4515338	1065	
// NEW Adjustment of the bollard to the driveway inclination				4516394	4084
// NEW Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)				4516395	4824
Additional screw insert for lifting / lowering the bollard using a cordless screwdriver				4516131	156
Further optional extras					

See page 70

Semi-automatic bollards H

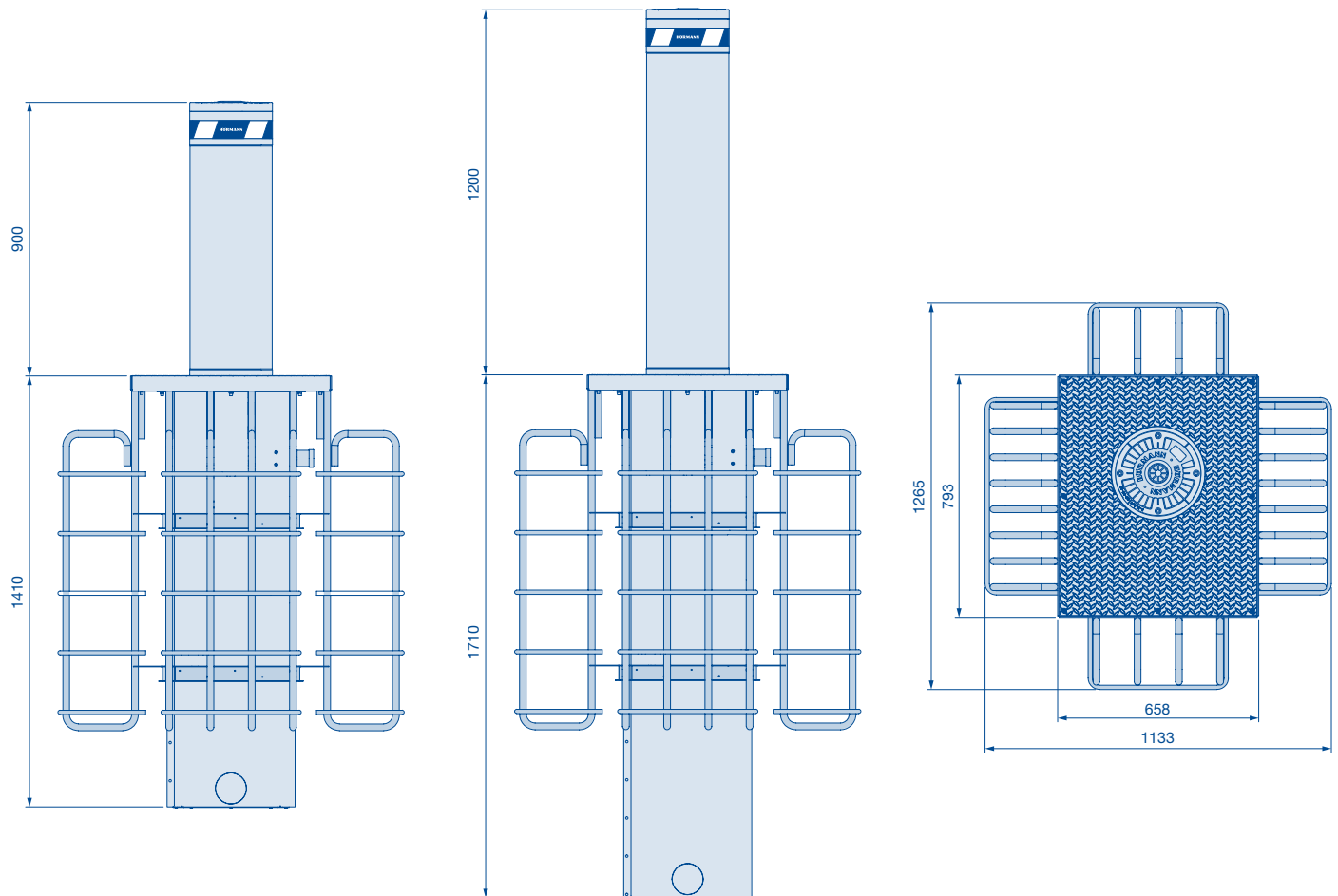
With integrated hydraulic pump

S 275-M50-900 H / S 275-M50-1200 H



Product description			
Semi-automatic bollards H		S 275-M50-900 H	S 275-M50-1200 H
Movable cylinder	Height	900 mm	1200 mm
	Diameter	271 mm	271 mm
	Material thickness	23 mm	23 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Lifting and lowering actuation	Turning movement with a cordless screwdriver (adapter for lifting / lowering using a cordless screwdriver included in the scope of delivery) A commercially available cordless screwdriver with a power of at least 31 Nm / 5.0 Ah is suitable.	
	Lifting speed	8 cm/s	8 cm/s
	Lowering speed	20 cm/s	20 cm/s
	Impact energy without destruction	700000 J	700000 J
		Impact energy with destruction	2000000 J
		Connecting lead for LED lighting strip (optional)	Standard 10 m (max. 80 m)
		Connecting lead for heating element (optional)	Standard 10 m (max. 50 m)
		Temperature range	From -40°C to +70°C (for low temperatures, see heating element article no. 4515342)
		Certified acc. to	M50, K12 PAS68, IWA14-1
		Conforming with	PAS68, IWA14-1 M50, K12
		Load rating acc. to EN 124	D400 Regulation

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Semi-automatic bollard S 275-M50-900 / 1200 H with integrated hydraulic pump		S 275-M50-900 H		S 275-M50-1200 H	
		Article no.	€	Article no.	€
Semi-automatic bollard S 275-M50-900 / 1200 H	Painted steel	4516098	15174	4516103	17490
	Painted stainless steel	4516099	17231	4516104	19546
	Brushed stainless steel V2A (AISI 304)	4516100	17490	4516105	19932
Semi-automatic bollard S 275-M50-900 / 1200 H + Lighting strip with 25 LEDs	Painted steel	4516240	15624	4516243	17935
	Painted stainless steel	4516241	17684	4516244	19993
	Brushed stainless steel V2A (AISI 304)	4516242	17935	4516245	20378
Foundation box for semi-automatic bollards		Article no.		€	
Steel foundation box with aluminium zinc coating		S 275-M50-900 H	4516101	2700	
With installation frame and reinforcement rods		S 275-M50-1200 H	4516106	3216	
Surcharge for upper installation frame made of stainless steel AISI 304			4516138	476	
Metal cover cap for foundation box S 275-M50-900 / 1200 H (with screws)			4515356	449	
Optional extras for semi-automatic bollards		Article no.		€	
Additional lock incl. 2 keys, profile half cylinder			4516092	1579	
Anti-corrosion coating for painted steel bollards (recommended for saline ambient conditions)	S 275-M50-900 H	4515854	1274		
	S 275-M50-1200 H	4515857	1350		
Anti-corrosion coating for painted stainless steel bollards (recommended for saline ambient conditions)	S 275-M50-900 H	4515855	1274		
	S 275-M50-1200 H	4515858	1350		
Anti-corrosion coating for brushed stainless steel bollards (recommended for saline ambient conditions)	S 275-M50-900 H	4515856	885		
	S 275-M50-1200 H	4515859	964		
Biodegradable oil in the hydraulic pump			4515058	Standard	
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)			4515176	560	
LED lighting strip line extension (80 m max.), supplied in 5 m increments		Per m	4516083	9,40	
Heating element incl. transformer and thermostat 150 W, connecting lead 10 m			4515342	1029	
Heating element line extension (50 m max.), supplied in 5 m increments		Per m	4516154	9,40	
Housing for fitting to wall – required when heating element is ordered (State number of heating elements to be operated when placing the order)			4515589	559	
Surcharge for stainless steel base plate (running plate) (AISI 304)			4516137	476	
Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version			4516091	373	
Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo			On request		
Surcharge for painting the cylinder in RAL to choose			4515359	373	
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)	S 275-M50-900 H	4515357	5326		
	S 275-M50-1200 H	4515413	6655		
Adjustment of the bollard to the driveway inclination			4516394	4084	
Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)			4516395	4824	
Additional screw insert for lifting / lowering the bollard			4516131	156	
Further optional extras		See page 70			

Removable bollards

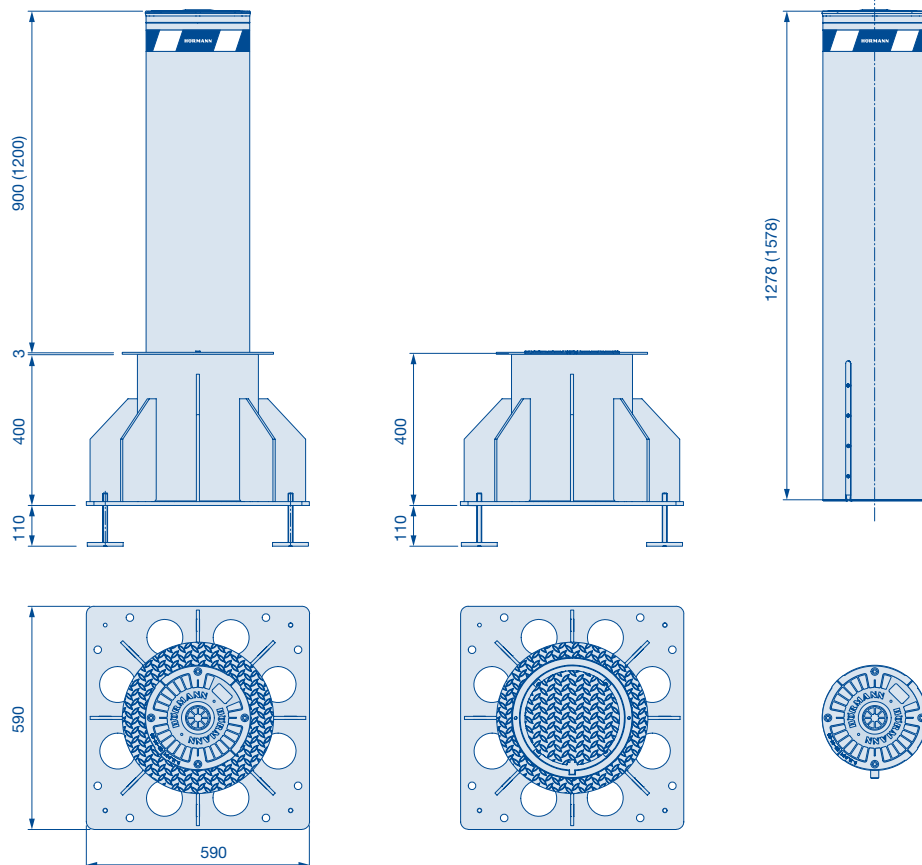
with base

R 275-M30-900 / R 275-M30-1200



Product description		R 275-M30-900	R 275-M30-1200
Removable cylinder	Height	900 mm	1200 mm
	Diameter	273 mm	273 mm
	Material thickness	10 mm	10 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304)	
	Cylinder weight	73 kg	150 kg
	Surface treatment	Steel version: anti-corrosion treatment – standard painting* Stainless steel version: standard painting* or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		100000 J	
Impact energy with destruction		750000 J	
Security lock		Yes – profile half cylinder lock incl. 2 keys	
Conforming with		M30, K4, PAS68, IWA14-1	
Load rating acc. to EN 124		D400 Regulation	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Removable bollards R 275-M30-900 / 1200		R 275-M30-900		R 275-M30-1200	
		Article no.	€	Article no.	€
Removable bollard R 275-M30-900 / 1200	Painted steel	4515379	3858	4516109	5105
+ Security lock with profile half cylinder, including 2 keys	Painted stainless steel	4515380	5080	4516110	6751
	Brushed stainless steel V2A (AISI 304)	4515381	5337	4516111	7265
Removable bollard R 275-M30-900 / 1200	Painted steel	4515941	4693	4516112	5940
+ Security lock with profile half cylinder, including 2 keys	Painted stainless steel	4515942	5915	4516113	7587
+ Lighting strip with 25 LEDs *	Brushed stainless steel V2A (AISI 304)	4515943	6173	4516114	7974
Ground fitting with cylinder bearing for R 275-M30 without LED made of painted steel, with round bottom plate		4515382	2379	4515382	2379
Ground fitting with cylinder bearing for R 275-M30 with LED made of painted steel, with round bottom plate		4516108	2700	4516108	2700
Security lock with keys to pass with profile half cylinder	Surcharge per bollard	4515194	38	4515194	38

* For removable bollards with LED lighting strip, a cap for base R 275-M30-900 / 1200 (article no. 4515383) must also be ordered.

Optional extras for removable bollards		Article no.	€
Cap for base R 275-M30-900 / 1200		4515383	895
Rectangular bottom plate with cylinder bearing, made of steel		4516150	476
Rectangular bottom plate with cylinder bearing, made of stainless steel (AISI 304)		4516246	885
Protection against corrosion for ground fitting (recommended for saline ambient conditions)		4516247	352
Protection against corrosion for removable bollard (recommended for saline ambient conditions)	R 275-M30-900	4515946	335
	R 275-M30-1200	4515947	411
Surcharge for painting the cylinder in RAL to choose	R 275-M30-900	4515384	309
	R 275-M30-1200	4516152	309
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)	R 275-M30-900	4515590	843
	R 275-M30-1200	4515338	1065
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments	Per m	4516083	9,40
Additional security key for removable bollard		4516233	17,60
Adjustment of the bollard to the driveway inclination		4516394	4084
Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)		4516395	4824

Removable bollards

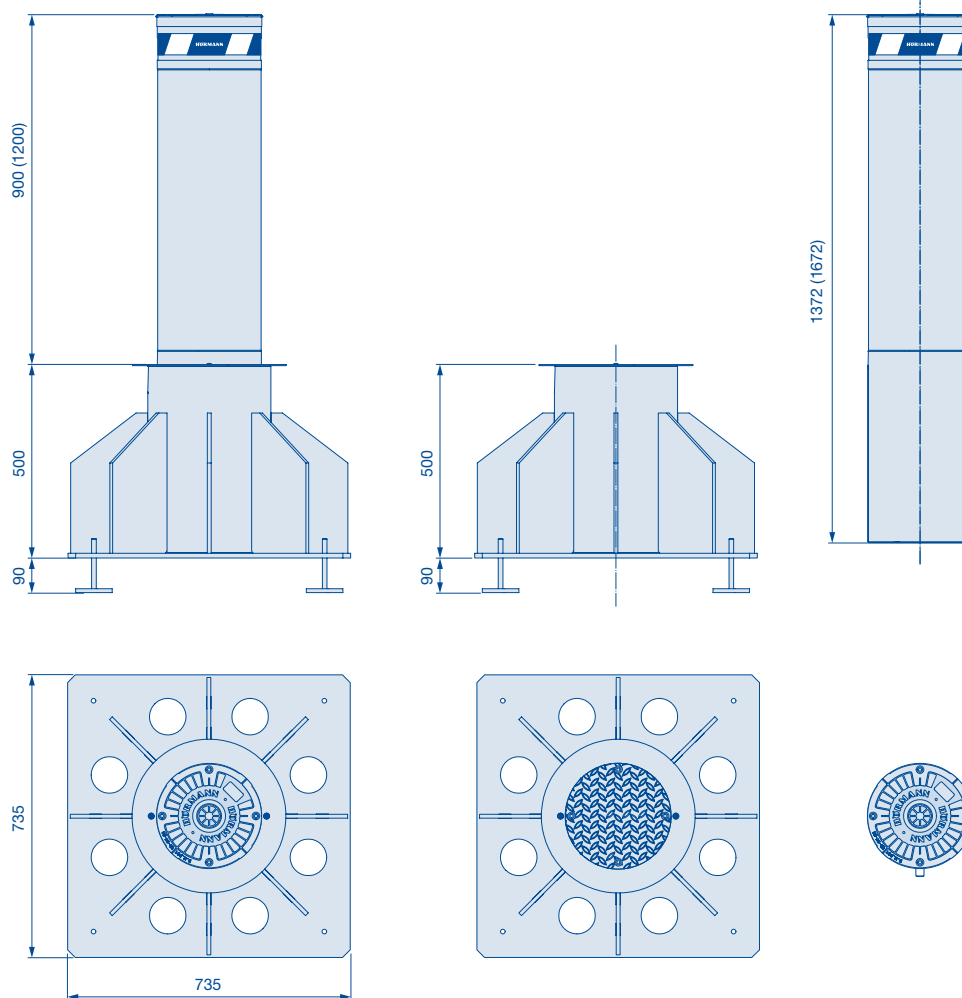
with base

R 275-M50-900 / R 275-M50-1200



Product description		R 275-M50-900	R 275-M50-1200
Removable cylinder	Height	900 mm	1200 mm
	Diameter	271 mm	271 mm
	Material thickness	23 mm	23 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304)	
	Cylinder weight	167 kg	200 kg
	Surface treatment	Steel version: anti-corrosion treatment – standard painting* Stainless steel version: standard painting* or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		250000 J	
Impact energy with destruction		2000000 J	
Security lock		Yes – profile half cylinder lock incl. 2 keys	
Conforming with		M50, K12	
Load rating acc. to EN 124		D400 Regulation	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Removable bollards R 275-M50-900 / 1200		R 275-M50-900		R 275-M50-1200	
		Article no.	€	Article no.	€
Removable bollard R 275-M50-900 / 1200	Painted steel	4516116	7330	4516125	7974
+ Security lock with profile half cylinder, including 2 keys	Painted stainless steel	4516117	8872	4516126	9644
	Brushed stainless steel V2A (AISI 304)	4516118	9130	4516127	10030
Removable bollard R 275-M50-900 / 1200	Painted steel	4516119	8166	4516128	8809
+ Security lock with profile half cylinder, including 2 keys	Painted stainless steel	4516120	9710	4516129	10480
+ Lighting strip with 25 LEDs *	Brushed stainless steel V2A (AISI 304)	4516121	9966	4516130	10865
Ground fitting with cylinder bearing for R 275-M50 without LED made of painted steel, with round bottom plate		4516123	3536	4516123	3536
Ground fitting with cylinder bearing for R 275-M50 with LED made of painted steel, with round bottom plate		4516124	3858	4516124	3858
Security lock with keys to pass with profile half cylinder	Surcharge per bollard	4515194	38	4515194	38

* For removable bollards with LED lighting strip, a cap for base R 275-M50-900 / 1200 (article no. 4516135) must also be ordered.

Optional extras for removable bollards		Article no.	€
Cap for base R 275-M50-900 / 1200		4516135	895
Rectangular bottom plate with cylinder bearing, made of steel		4516151	502
Rectangular bottom plate with cylinder bearing, made of stainless steel (AISI 304)		4516250	913
Protection against corrosion for ground fitting (recommended for saline ambient conditions)		4516251	467
Protection against corrosion for removable bollard (recommended for saline ambient conditions)	R 275-M50-900	4515948	643
	R 275-M50-1200	4515949	849
Surcharge for painting the cylinder in RAL to choose	R 275-M50-900	4516134	385
	R 275-M50-1200	4516153	385
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)	R 275-M50-900	4515357	5326
	R 275-M50-1200	4515413	6655
Adjustment of the bollard to the driveway inclination		4516394	4084
Project planning costs for adjustment of the bollard to the driveway inclination (in case of first-time implementation)		4516395	4824
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
LED lighting strip line extension (80 m max.), supplied in 5 m increments	Per m	4516083	9,40
Additional security key for removable bollard		4516233	17,60

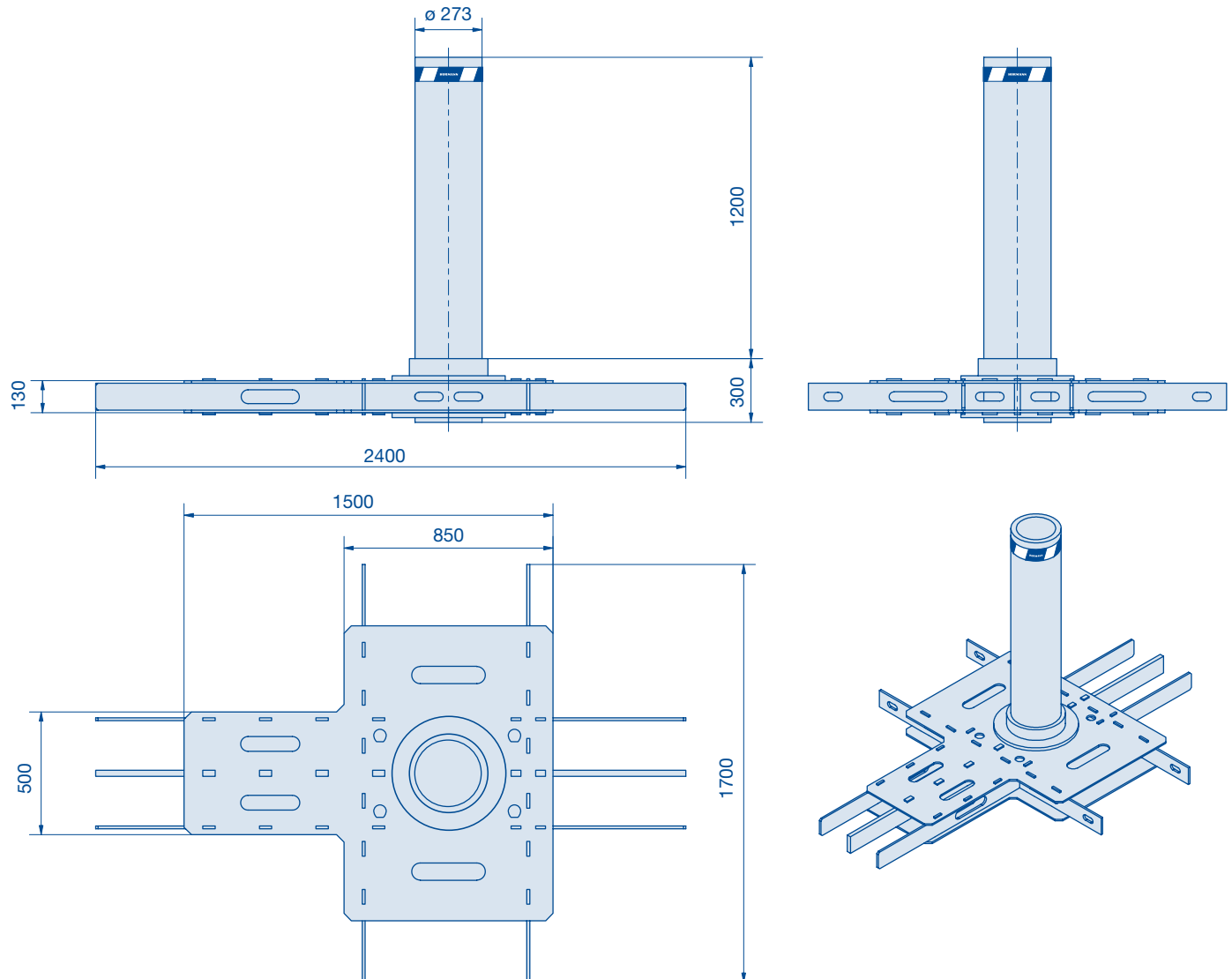
Removable bollard SF

With flat ground fitting

R 275-M50-900 SF / R 275-M50-1200 SF

Product description		R 275-M50-900 SF	R 275-M50-1200 SF
Removable cylinder	Height	900 mm	1200 mm
	Diameter	271 mm	271 mm
	Material thickness	25 mm	25 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Cylinder weight	183 kg	229 kg
	Surface treatment	Steel version: anti-corrosion treatment – standard painting* Stainless steel version: solid cylinder made of stainless steel or replaceable stainless steel sleeve, standard painting* or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		700000 J	
Impact energy with destruction		2000000 J	
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	
Certified acc. to (Prerequisite: foundations consisting of at least 3 connected ground fittings)		M50, K12, PAS68, IWA14-1	
Load rating acc. to EN 124		D400 Regulation	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Removable bollards R 275-M50-900 / 1200 SF		R 275-M50-900 SF		R 275-M50-1200 SF	
		Article no.	€	Article no.	€
Removable bollard R 275-M50-900 / 1200 SF + Welded cover	Painted steel	4516348	10036	4516351	10645
	Painted steel with replaceable painted stainless steel sleeve	4516349	11174	4516352	12083
	Painted steel with replaceable brushed stainless steel sleeve	4516350	11566	4516353	12611
Removable bollard R 275-M50-900 / 1200 SF + Standard cover	Painted steel	4516354	10364	4516359	10973
	Painted steel with replaceable painted stainless steel sleeve	4516355	11502	4516360	12411
	Painted steel with replaceable brushed stainless steel sleeve	4516356	11895	4516361	12939
	Painted stainless steel	4516357	14147	4516362	15801
	Brushed stainless steel V2A (AISI 304)	4516358	14539	4516363	16329
Optional extras specifically for removable bollards R 275-M50-900 / 1200 SF with flat ground fitting		Article no.		€	
Surcharge for removable bollards R 275-M50-900 / 1200 SF for exterior corners > 60°				4516380	432
Ground fitting without cylinder (Prerequisite for certification is foundations consisting of at least 3 connected ground fittings)				4516381	7116
Rectangular bottom plate with cylinder bearing, made of steel				4516151	502
Rectangular bottom plate with cylinder bearing, made of stainless steel V2A (AISI 304)				4516250	913
Surcharge for cylinder version in brushed stainless steel V4A (AISI 316)	R 275-M50-900 SF	4515357	5326		
	R 275-M50-1200 SF	4515413	6655		
Surcharge for painting the cylinder in RAL to choose	R 275-M50-900 SF	4516134	385		
	R 275-M50-1200 SF	4516153	385		
Anti-corrosion coating for ground fitting with cylinder bearing (recommended for saline ambient conditions)				4516251	467
Anti-corrosion coating for removable bollard (recommended for saline ambient conditions)	R 275-M50-900 SF	4516134	385		
	R 275-M50-1200 SF	4516153	385		
Fitting set for connecting two ground fittings				4516385	65
Surcharge for LED lighting strip for standard cover, incl. connecting lead, 10 m *				4515081	514
LED lighting strip power supply for fixed bollards and removable bollards (max. 8)				4515176	560
Line extension for LED lighting strip (max. 80 m)	Per m	4516083	9,40		
Version for fixed bollards R 275-M50-900 / 1200 SF with 300 mm fitting depth (e.g. for using paving stones)		Article no.		€	
Surcharge for 100 mm longer steel cylinder				4516382	203
Surcharge for 100 mm longer steel cylinder with stainless steel sleeve				4516383	303
Surcharge for 100 mm longer stainless steel cylinder				4516384	551

Fixed bollards FF

With reinforced ground fitting

F 275-M30-900 FF / F 275-M30-1200 FF

NEW
With replaceable stainless steel sleeve V2A (AISI 304), painted or brushed, with welded or standard cover



Product description			
Fixed bollards FF		F 275-M30-900 FF	F 275-M30-1200 FF
Fixed cylinder	Height	900 mm	1200 mm
	Diameter	273 mm	273 mm
	Material thickness	10 mm	16 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: solid cylinder made of stainless steel or replaceable stainless steel sleeve, standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		250000 J	700000 J
Impact energy with destruction		750000 J	1200000 J
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	
Certified acc. to		M30, K4, PAS68, IWA14-1	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

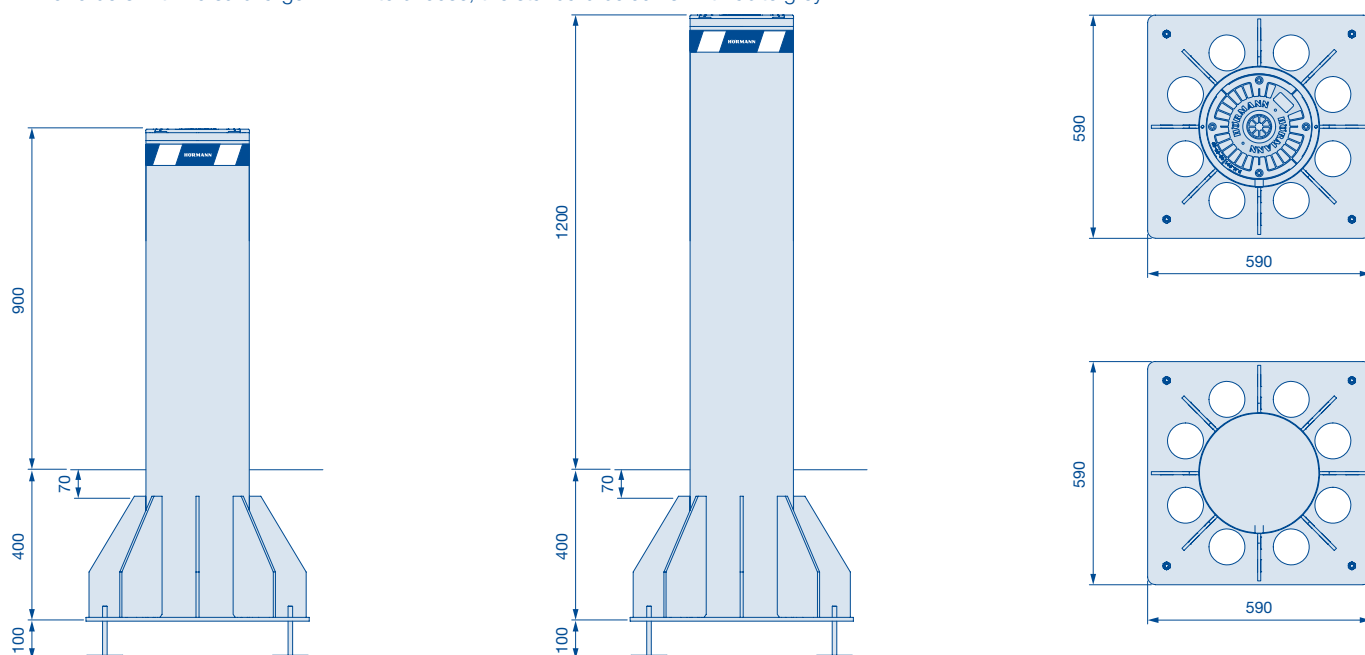


Fig. top: standard cover screw-connected

Fig. below: cover welded // **NEW**

Fixed bollards F 275-M30-900 / 1200 FF with reinforced ground fitting		F 275-M30-900 FF		F 275-M30-1200 FF	
		Article no.	€	Article no.	€
Fixed bollard F 275-M30-900 / 1200 FF + Reinforced ground fitting + Welded cover	Painted steel with replaceable painted stainless steel sleeve	4516315	3467	4516321	4863
	Painted steel with replaceable brushed stainless steel sleeve	4516318	3700	4516324	5097
Fixed bollard F 275-M30-900 / 1200 FF + Reinforced ground fitting + Standard cover	Painted steel	4515386	3413	4515393	4663
	Painted steel with replaceable painted stainless steel sleeve	4516316	3795	4516322	5192
	Painted steel with replaceable brushed stainless steel sleeve	4516319	4029	4516325	5425
	Painted stainless steel	4515388	4759	4515395	6713
	Brushed stainless steel V2A (AISI 304)	4515390	5015	4515397	6985
Fixed bollard F 275-M30-900 / 1200 FF + Reinforced ground fitting + Standard cover with lighting strip with 25 LEDs	Painted steel	4515387	3927	4515394	5176
	Painted steel with replaceable painted stainless steel sleeve	4516317	4308	4516323	5705
	Painted steel with replaceable brushed stainless steel sleeve	4516320	4542	4516326	5938
	Painted stainless steel	4515389	5272	4515396	7226
	Brushed stainless steel V2A (AISI 304)	4515391	5529	4515398	7499

Note:

Electro-welded metal grille for foundations of bollard F 275-M30-900 FF / F 275-M30-1200 FF – to be supplied on-site.

Optional extras for fixed bollards		Article no.	€
Surcharge for painting in RAL to choose		4515322	297
Surcharge for version in brushed stainless steel V4A (AISI 316)	F 275-M30-900 FF	4515590	843
	F 275-M30-1200 FF	4515338	1065
Anti-corrosion coating (recommended for saline ambient conditions)	F 275-M30-900 FF	4515946	335
	F 275-M30-1200 FF	4515947	411
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version		4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo		On request	
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
Line extension for LED lighting strip (80 m max.)	Per m	4516083	9,40
Rectangular bottom plate with cylinder bearing, made of steel with plug kit for fixing		4515392	476
Rectangular bottom plate with cylinder bearing, made of stainless steel with plug kit for fixing		4515399	885

Fixed bollards FF

With reinforced ground fitting

F 275-M50-900 FF / F 275-M50-1200 FF

NEW
With replaceable stainless steel sleeve V2A (AISI 304), painted or brushed, with welded or standard cover



Product description			
Fixed bollards FF		F 275-M50-900 FF	F 275-M50-1200 FF
Fixed cylinder	Height	900 mm	1200 mm
	Diameter	271 mm	271 mm
	Material thickness	23 mm	23 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: solid cylinder made of stainless steel or replaceable stainless steel sleeve, standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		700000 J	
Impact energy with destruction		2000000 J	
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	
Certified acc. to		M50, K12, PAS68, IWA14-1	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

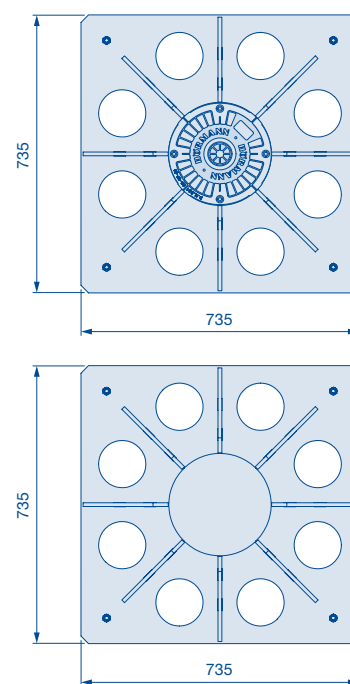
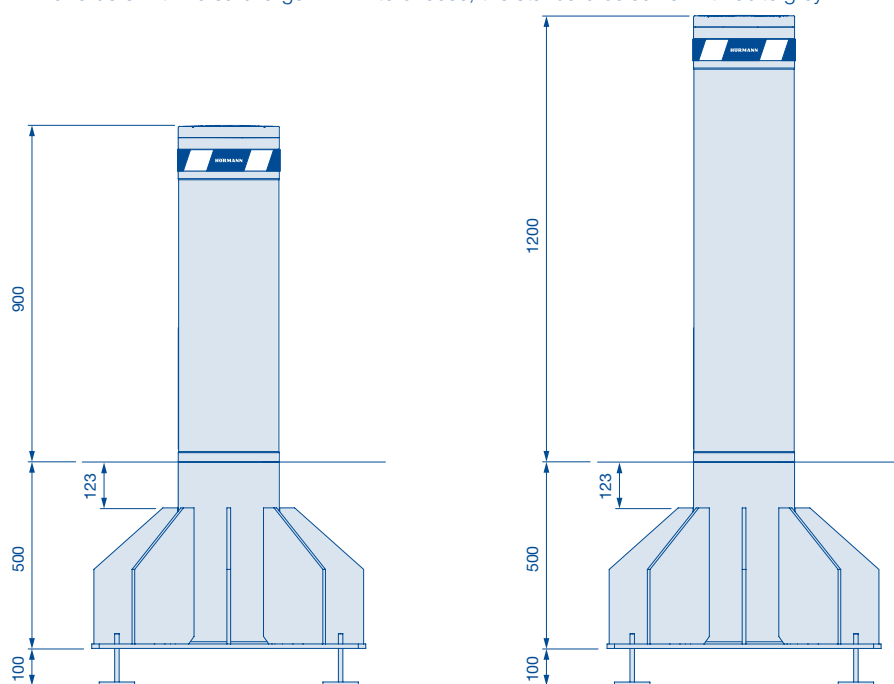


Fig. top: standard cover screw-connected

Fig. below: cover welded // **NEW**

Fixed bollards F 275-M50-900 / 1200 FF with reinforced ground fitting		F 275-M50-900 FF		F 275-M50-1200 FF	
		Article no.	€	Article no.	€
Fixed bollard F 275-M50-900 / 1200 FF + Reinforced ground fitting + Welded cover	Painted steel with replaceable painted stainless steel sleeve	4516327	6872	4516333	7633
	Painted steel with replaceable brushed stainless steel sleeve	4516330	6993	4516336	7853
Fixed bollard F 275-M50-900 / 1200 FF + Reinforced ground fitting + Standard cover	Painted steel	4515400	6490	4515407	7166
	Painted steel with replaceable painted stainless steel sleeve	4516328	7200	4516334	7962
	Painted steel with replaceable brushed stainless steel sleeve	4516331	7322	4516337	8182
	Painted stainless steel	4515402	9315	4515409	10283
	Brushed stainless steel V2A (AISI 304)	4515404	9373	4515411	10338
Fixed bollard F 275-M50-900 / 1200 FF + Reinforced ground fitting + Standard cover with lighting strip with 25 LEDs	Painted steel	4515401	7003	4515408	7679
	Painted steel with replaceable painted stainless steel sleeve	4516329	7713	4516335	8475
	Painted steel with replaceable brushed stainless steel sleeve	4516332	7835	4516338	8695
	Painted stainless steel	4515403	9829	4515410	10796
	Brushed stainless steel V2A (AISI 304)	4515405	9887	4515412	10853

Note:

Electro-welded metal grille for foundations of bollard F 275-M50-900 FF / F 275-M50-1200 FF – to be supplied on-site.

Optional extras for fixed bollards	Article no.	€
Surcharge for painting in RAL to choose	4515359	373
Surcharge for version in brushed stainless steel V4A (AISI 316)	F 275-M50-900 FF	4515357 5326
	F 275-M50-1200 FF	4515413 6655
Anti-corrosion coating (recommended for saline ambient conditions)	F 275-M50-900 FF	4515948 643
	F 275-M50-1200 FF	4515949 849
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version	4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo	On request	
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)	4515176	560
Line extension for LED lighting strip (80 m max.)	Per m	4516083 9,40
Rectangular bottom plate with cylinder bearing, made of steel with plug kit for fixing	4515406	502
Rectangular bottom plate with cylinder bearing, made of stainless steel with plug kit for fixing	4516277	913

Fixed bollards ST

Simple style

F 275-M30-900 ST / F 275-M30-1200 ST



NEW

With replaceable stainless steel sleeve V2A (AISI 304), painted or brushed, with welded or standard cover



HIGH SECURITY

Product description			
Fixed bollards ST		F 275-M30-900 ST	F 275-M30-1200 ST
Fixed cylinder	Height	900 mm	1200 mm
	Diameter	273 mm	273 mm
	Material thickness	10 mm	16 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: solid cylinder made of stainless steel or replaceable stainless steel sleeve, standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		250000 J	700000 J
Impact energy with destruction		750000 J	1200000 J
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	
Certified acc. to		M30, K4, PAS68, IWA14-1	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

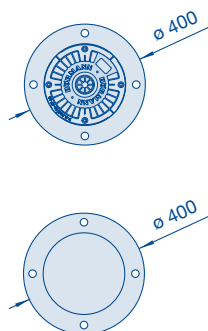
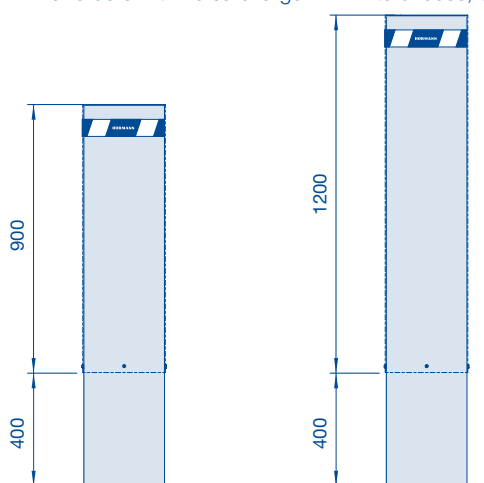


Fig. top: standard cover screw-connected

Fig. below: cover welded // **NEW**

Fixed bollards F 275-M30-900 / 1200 ST		F 275-M30-900 ST		F 275-M30-1200 ST	
		Article no.	€	Article no.	€
Fixed bollard F 275-M30-900 / 1200 ST + Welded cover	Painted steel	4516280	2390	4516289	3411
	Painted steel with replaceable painted stainless steel sleeve	4516283	2720	4516292	3840
	Painted steel with replaceable brushed stainless steel sleeve	4516286	2879	4516295	4061
Fixed bollard F 275-M30-900 / 1200 ST + Standard cover	Painted steel	4516281	2719	4516290	3740
	Painted steel with replaceable painted stainless steel sleeve	4516284	3049	4516293	4169
	Painted steel with replaceable brushed stainless steel sleeve	4516287	3208	4516296	4389
Fixed bollard F 275-M30-900 / 1200 ST + Standard cover with lighting strip with 25 LEDs	Painted steel	4516282	3232	4516291	4253
	Painted steel with replaceable painted stainless steel sleeve	4516285	3562	4516294	4682
	Painted steel with replaceable brushed stainless steel sleeve	4516288	3721	4516297	4903

Note:

Electro-welded metal grille for foundations of bollard F 275-M30-900 ST / F 275-M30-1200 ST – to be supplied on-site.

Optional extras for fixed bollards		Article no.	€
Surcharge for painting in RAL to choose		4515322	297
Surcharge for version in brushed stainless steel V4A (AISI 316)	Cylinder 275-900	4516388	1012
	Cylinder 275-1200	4516389	1234
Anti-corrosion coating (recommended for saline ambient conditions)	F 275-M30-900 ST	4515946	335
	F 275-M30-1200 ST	4515947	411
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version		4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo		On request	
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
Line extension for LED lighting strip (80 m max.)	Per m	4516083	9,40
Rectangular bottom plate with cylinder bearing, made of steel with plug kit for fixing		4515392	476
Rectangular bottom plate with cylinder bearing, made of stainless steel with plug kit for fixing		4515399	885

Fixed bollards ST

Simple style

F 275-M50-900 ST / F 275-M50-1200 ST



NEW

With replaceable stainless steel sleeve V2A (AISI 304), painted or brushed, with welded or standard cover



HIGH SECURITY

Product description			
Fixed bollards ST		F 275-M50-900 ST	F 275-M50-1200 ST
Fixed cylinder	Height	900 mm	1200 mm
	Diameter	271 mm	271 mm
	Material thickness	23 mm	23 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: solid cylinder made of stainless steel or replaceable stainless steel sleeve, standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
Impact energy without destruction		700000 J	
Impact energy with destruction		2000000 J	
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	
Certified acc. to		M50, K12, PAS68, IWA14-1	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

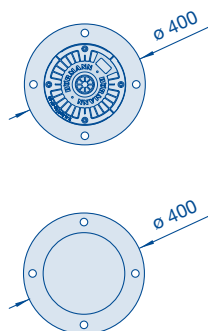
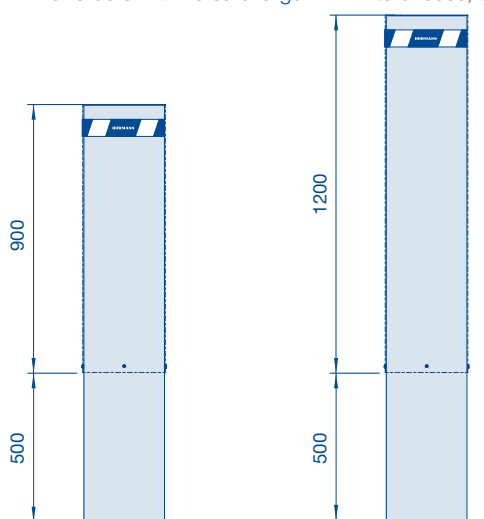


Fig. top: standard cover screw-connected

Fig. below: cover welded // **NEW**

Fixed bollards F 275-M50-900 / 1200 ST		F 275-M50-900 ST		F 275-M50-1200 ST	
		Article no.	€	Article no.	€
Fixed bollard F 275-M50-900 / 1200 ST + Welded cover	Painted steel	4516298	4827	4516306	5394
	Painted steel with replaceable painted stainless steel sleeve	4516300	5452	4516309	5967
	Painted steel with replaceable brushed stainless steel sleeve	4516303	5533	4516312	6199
Fixed bollard F 275-M50-900 / 1200 ST + Standard cover	Painted steel	4516345	5155	4516307	5723
	Painted steel with replaceable painted stainless steel sleeve	4516301	5780	4516310	6296
	Painted steel with replaceable brushed stainless steel sleeve	4516304	5862	4516313	6527
Fixed bollard F 275-M50-900 / 1200 ST + Standard cover with lighting strip with 25 LEDs	Painted steel	4516299	5668	4516308	6236
	Painted steel with replaceable painted stainless steel sleeve	4516302	6294	4516311	6809
	Painted steel with replaceable brushed stainless steel sleeve	4516305	6375	4516314	7040

Note:

Electro-welded metal grille for foundations of bollard F 275-M50-900 ST / F 275-M50-1200 ST – to be supplied on-site.

Optional extras for fixed bollards		Article no.	€
Surcharge for painting in RAL to choose		4515359	373
Surcharge for version in brushed stainless steel V4A (AISI 316)	Cylinder 275-900	4516390	6135
	Cylinder 275-1200	4516391	7361
Anti-corrosion coating (recommended for saline ambient conditions)	F 275-M50-900 ST	4515948	643
	F 275-M50-1200 ST	4515949	849
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version		4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo		On request	
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
Line extension for LED lighting strip (80 m max.)	Per m	4516083	9,40
Rectangular bottom plate with cylinder bearing, made of steel with plug kit for fixing		4515406	502
Rectangular bottom plate with cylinder bearing, made of stainless steel with plug kit for fixing		4516277	913

Fixed bollards SF

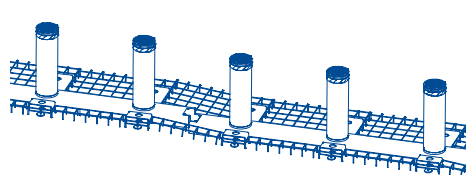
With flat ground fitting

F 275-M30-900 SF



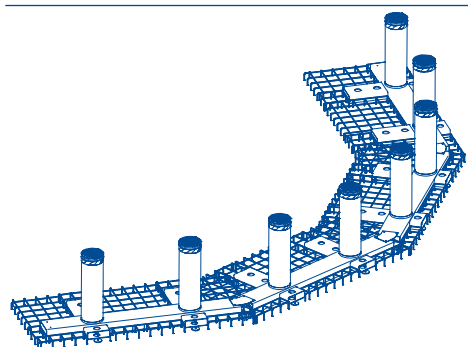
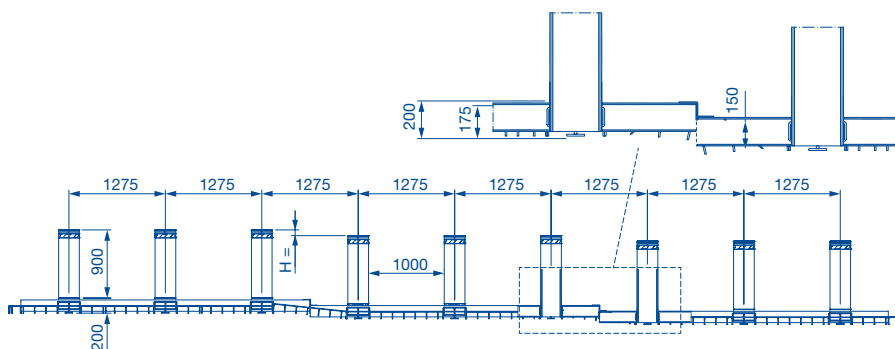
Product description	
Fixed bollards SF	F 275-M30-900 SF
Height	900 mm
Diameter	273 mm
Material thickness	10 mm
Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)
Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed
Reflecting strips (height 55 mm)	Yes
Fitting depth	<ul style="list-style-type: none"> 200 mm (incl. approx. 30 mm for finished floor covering) Optional 300 mm (incl. approx. 130 mm for finished floor covering, e.g. for using paving stones)
Impact energy without destruction	250000 J
Impact energy with destruction	750000 J
Connecting lead for LED lighting strip (optional)	Standard 10 m (max. 80 m)
Certified acc. to (requires standard ground fitting for 3 fixed cylinders)	M30, K4, PAS68, IWA14-1

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



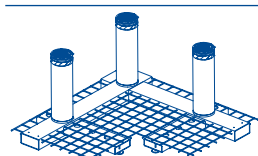
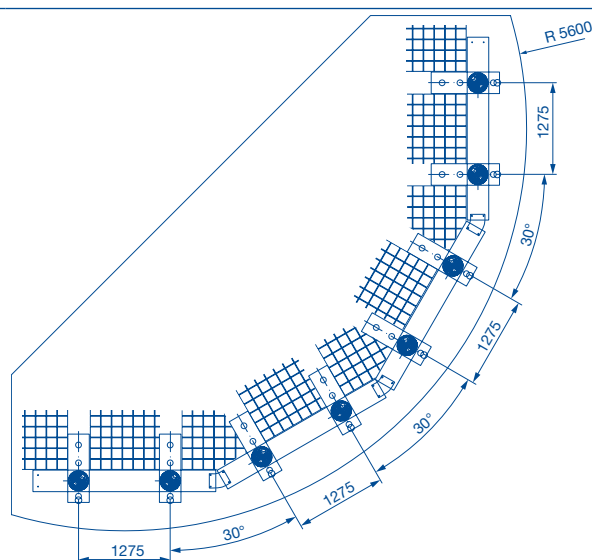
Example laying at gradients

Elements with 3 fixed bollards F 275-M30-900 SF with flat ground fitting



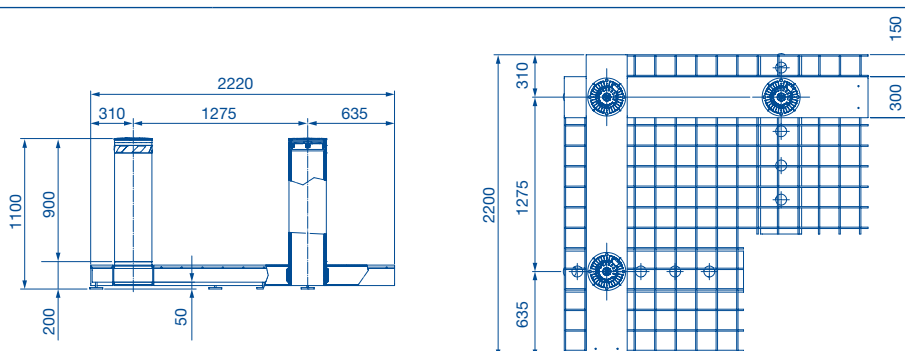
Example for angled arrangement (curve)

Elements with 2 fixed bollards F 275-M30-900 SF with flat ground fitting



Example for angled arrangement (90° angle)

Element with 3 fixed bollards F 275-M30-900 SF with flat ground fitting



Fixed bollard F 275-M30-900 SF with 200 mm fitting depth		F 275-M30-900 SF	
		Article no.	€
1 fixed bollard F 275-M30-900 SF with flat ground fitting (Arrangement in direction of travel to centre) + Standard ground fitting for 3 fixed cylinders, incl. reinforcement	Painted steel	4516056	5543
	Painted stainless steel	4516057	6765
	Brushed stainless steel V2A (AISI 304)	4516058	7022
2 fixed bollards F 275-M30-900 SF with flat ground fitting (Arrangement in direction of travel to centre / left) + Standard ground fitting for 3 fixed cylinders, incl. reinforcement	Painted steel	4516050	9079
	Painted stainless steel	4516051	11521
	Brushed stainless steel V2A (AISI 304)	4516052	12036
2 fixed bollards F 275-M30-900 SF with flat ground fitting (Arrangement in direction of travel to centre / right) + Standard ground fitting for 3 fixed cylinders, incl. reinforcement	Painted steel	4516053	9079
	Painted stainless steel	4516054	11521
	Brushed stainless steel V2A (AISI 304)	4516055	12036
3 fixed bollards F 275-M30-900 SF with flat ground fitting + Standard ground fitting for 3 fixed cylinders, incl. reinforcement	Painted steel	4516047	12615
	Painted stainless steel	4516048	16281
	Brushed stainless steel V2A (AISI 304)	4516049	17051
1 additional fixed bollard F 275-M30-900 SF with flat ground fitting + Ground fitting for 1 fixed cylinder, incl. reinforcement	Painted steel	4516062	4206
	Painted stainless steel	4516063	5427
	Brushed stainless steel V2A (AISI 304)	4516064	5684
2 additional fixed bollards F 275-M30-900 SF with flat ground fitting + Ground fitting for 2 fixed cylinders, incl. reinforcement	Painted steel	4516059	8410
	Painted stainless steel	4516060	10854
	Brushed stainless steel V2A (AISI 304)	4516061	11367
3 additional fixed bollards F 275-M30-900 SF with flat ground fitting (Right-angle arrangement) + Ground fitting for 3 fixed cylinders, incl. reinforcement	Painted steel	4516065	13773
	Painted stainless steel	4516066	17437
	Brushed stainless steel V2A (AISI 304)	4516067	18208
Optional extras specifically for bollard F 275-M30-900 SF with flat ground fitting		Article no.	€
Fitting set for connecting two ground fittings for a level subsurface	Fitting set	4516068	89
	Fitting set 30°	4516069	103
	Fitting set 45°	4516070	103
Fitting set for connecting two ground fittings for rising / falling subsurfaces Maximum gradient up to approx. 2.4° possible (corresponds to approx. 4.2 cm at 1 m length)	Fitting set	4516071	156
	Fitting set 30°	4516072	167
	Fitting set 45°	4516073	167
Surcharge for painting in RAL to choose for fixed bollards with flat ground fitting	1 bollard	4516077	309
	2 bollards	4516076	605
	3 bollards	4516075	901
Anti-corrosion coating (recommended for saline ambient conditions) For fixed bollards with flat ground fitting	1 bollard	4516080	348
	2 bollards	4516079	683
	3 bollards	4516078	1015
Surcharge for version in brushed stainless steel V4A (AISI 316), as an alternative to V2A (AISI 304)	per cylinder	4516074	411
Surcharge for lighting strip with 25 LEDs, incl. connecting lead, 10 m	per cylinder	4516081	514
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)		4515176	560
Line extension for LED lighting strip (80 m max.)	Per m	4516083	9,40
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version		4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo		On request	
Version for fixed bollard F 275-M30-900 SF with 300 mm fitting depth e.g. for using paving stones		Article no.	€
Surcharge for 100 mm longer steel cylinder (fitting depth approx. 300 mm)	per cylinder	4516084	63
Surcharge for 100 mm longer stainless steel cylinder (fitting depth approx. 300 mm)	per cylinder	4516085	101

Fixed bollards SF

With flat ground fitting

F 275-M50-900 SF / F 275-M50-1200 SF



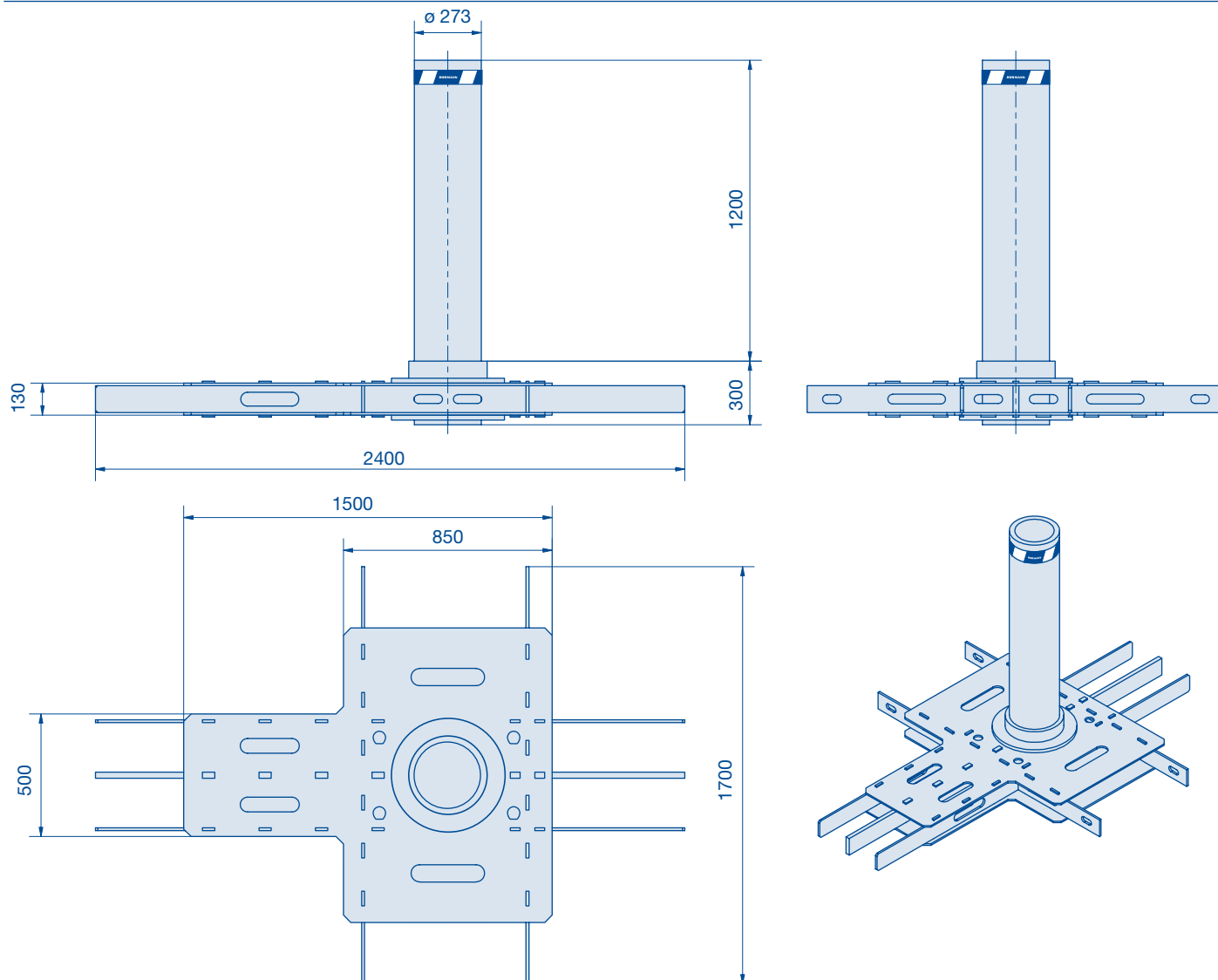
NEW

With replaceable stainless steel sleeve V2A (AISI 304), painted or brushed, with welded or standard cover



HIGH SECURITY

Product description			
Fixed bollards SF		F 275-M50-900 SF	F 275-M50-1200 SF
Fixed cylinder	Height	900 mm	1200 mm
	Diameter	271 mm	271 mm
	Material thickness	25 mm	25 mm
	Material	Steel S355JR Stainless steel V2 A (AISI 304) / V4 A (AISI 316)	
	Surface treatment	Steel version: anti-corrosion treatment – standard painting * Stainless steel version: standard painting * or brushed	
	Reflecting strips (height 55 mm)	Yes	
	Fitting depth	<ul style="list-style-type: none">• 200 mm• Optional 300 mm (incl. approx. 100 mm for finished floor covering, e.g. for using paving stones)	
Impact energy without destruction		700000 J	
Impact energy with destruction		2000000 J	
Connecting lead for LED lighting strip (optional)		Standard 10 m (max. 80 m)	
Certified acc. to (requires standard ground fitting for 3 fixed cylinders)		M50, K12, PAS68, IWA14-1	
* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.			

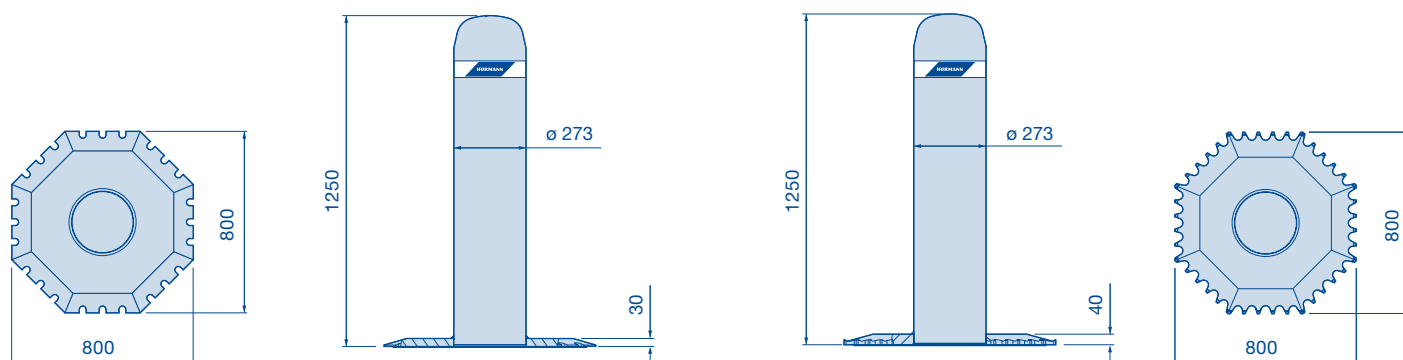


Fixed bollards F 275-M50-900 / 1200 SF		F 275-M50-900 SF		F 275-M50-1200 SF	
		Article no.	€	Article no.	€
Fixed bollard F 275-M50-900 / 1200 SF With flat ground fitting + Welded cover	Painted steel	4516364	9315	4516367	9925
	Painted steel with replaceable painted stainless steel sleeve	4516365	10454	4516368	11362
	Painted steel with replaceable brushed stainless steel sleeve	4516366	10846	4516369	11891
Fixed bollard F 275-M50-900 / 1200 SF With flat ground fitting + Standard cover	Painted steel	4516370	9644	4516375	10253
	Painted steel with replaceable painted stainless steel sleeve	4516371	10782	4516376	11691
	Painted steel with replaceable brushed stainless steel sleeve	4516372	11175	4516377	12219
	Painted stainless steel	4516373	13427	4516378	15081
	Brushed stainless steel V2A (AISI 304)	4516374	13819	4516379	15609
Optional extras specifically for bollards F 275-M50-900 / 1200 SF with flat ground fitting				Article no.	€
Surcharge for fixed bollard F 275-M50-900 / 1200 SF for exterior corners > 60°				4516380	432
Ground fitting without cylinder (Prerequisite for certification is foundations consisting of at least 3 connected ground fittings)				4516381	7116
Surcharge for version in brushed stainless steel V4A (AISI 316), as an alternative to V2A (AISI 304)	F 275-M50-900 SF	4515357	5326		
	F 275-M50-1200 SF	4515413	6655		
Surcharge for painting in RAL to choose for fixed bollards with flat ground fitting	F 275-M50-900 / 1200 SF	4515359	373		
Anti-corrosion coating (recommended for saline ambient conditions) For fixed bollards with flat ground fitting	F 275-M50-900 SF	4515948	643		
	F 275-M50-1200 SF	4515949	849		
// NEW Surcharge for V2A stainless steel bollard cover (AISI 304), neutral version				4516091	373
// NEW Individualisation of the bollard cover stainless steel surface (article no. 4516091), e.g. with a town's coat of arms or a logo				On request	
Fitting set for connecting two ground fittings				4516385	65
Surcharge for LED lighting strip for standard cover, incl. connecting lead, 10 m				4515081	514
LED lighting strip power supply for semi-automatic / fixed bollards (max. 8)				4515176	560
Line extension for LED lighting strip (80 m max.)		Per m		4516083	9,40
Version for fixed bollards F 275-M50-900 / 1200 SF with 300 mm fitting depth e.g. for using paving stones				Article no.	€
Surcharge for 100 mm longer steel cylinder		per cylinder		4516382	203
Surcharge for 100 mm longer steel cylinder with replaceable stainless steel sleeve		per cylinder		4516383	303
Surcharge for 100 mm longer stainless steel cylinder		per cylinder		4516384	551

Product description			
		OktaBlock	OktaBlock TR
Removable cylinder	Dimensions of the base plate (W × H × D)	800 × 30 × 800 mm	800 × 40 × 800 mm
	Height	1250 mm	1250 mm
	Diameter	273 mm	
	Material thickness	16 mm	
	Material	Steel S 355	
	Cylinder infill	Concrete	Steel concrete
	Surface treatment	Standard painting *, optionally RAL to choose	
	Weight	Approx. 350 kg	Approx. 450 kg
	Reflecting strips (height 55 mm)	Yes	
Impact energy		750000 J	986000 J
Certified acc. to		M30, K4, PAS68:2013, IWA-14-1:2013	SK1B, TR Pol **
Transport aid for lifting the OktaBlock		Eyebolt M20, incl. sling rope included in the scope of delivery	

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

** According to the technical guidelines of the German police for mobile vehicle blockers, version 0.8



Mobile vehicle barrier OktaBlock / OktaBlock TR		Article no.	€
Mobile vehicle barrier OktaBlock	Painted steel	4600901	8887
Mobile vehicle barrier OktaBlock TR	Painted steel	4600903	9959
Surcharge for painting in RAL to choose	Surcharge per OktaBlock / OktaBlock TR	4600902	521
Optional extras for mobile vehicle barriers OktaBlock / OktaBlock TR		Article no.	€
Placement case			
Contains e.g. useful tools for marking setup positions, compensating for uneven subsurfaces and additional spare screw plugs.		4601493	457
Maintenance case			
Contains e.g. spare warning marks, sling rope and spray paint for repairing surface damage.		4601494	443
OktaMover			
Transport aid for OktaBlock / OktaBlock TR, for easy placement and relocation of OktaBlock vehicle barriers without a forklift, crane or similar.		7601959	5266
Universal adapter for fastening standard construction site lights			
Adapter for fastening all conventional construction site lights with mounting bracket (58–64 mm screw spacing) on the head of the OktaBlock / OktaBlock TR. Max. weight of light 1.2 kg. Lights are to be provided by the customer.		4601982	112
Expansion set to fulfil the British VADS standard (CPNI)			
With the set consisting of special connecting loops and an anti-slip cover mats, the OktaBlock PAS / IWA fulfils the additional requirements of the British Centre for the Protection of National Infrastructure (CPNI) according to the Vehicle Attack Delay Standard (VADS) for vehicles up to 2.5 t. The bollards must be installed in accordance with the tested configurations.			On request

Notes and sketches

Road blockers

To secure passages up to 5.5 m wide

Road Blocker 500 SF



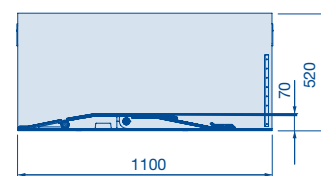
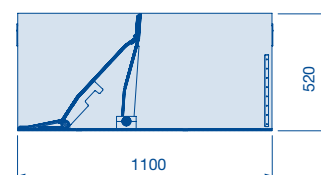
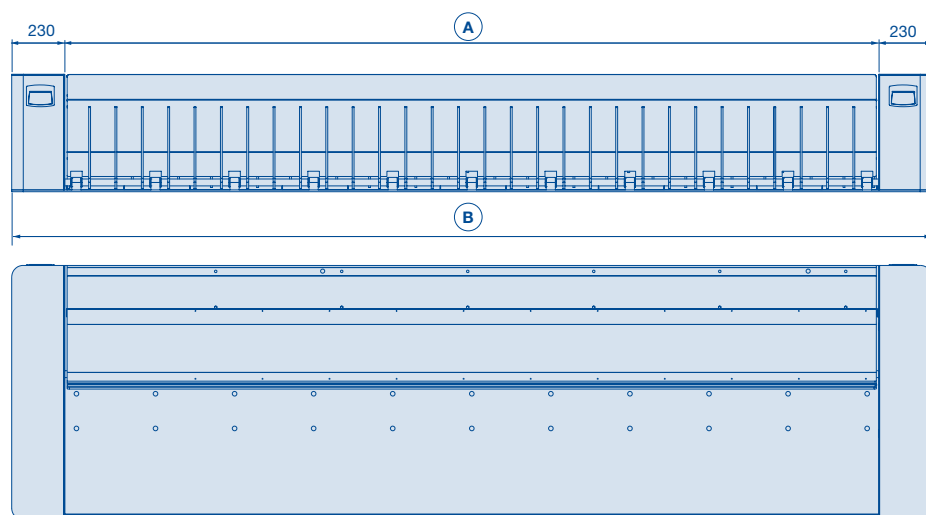
Product description			
Ramp height above ground level	500 mm		
Ramp length	3520 mm	4520 mm	5520 mm
Overall dimensions	3980 × 1100 × 520 mm	4980 × 1100 × 520 mm	5980 × 1100 × 520 mm
Ramp surface treatment, steel version	Anti-corrosion treatment, standard painting		
Metal plate surface finish	Corrugated steel sheet, painted		
Side post surface treatment, steel version	Anti-corrosion treatment, standard painting in yellow		
Lifting speed	9.1 cm/s		
Lowering speed	7.1 cm/s		
Reflecting strips (height 55 mm)	Yes		
Load rating	According to EN 124 class D400		
Cycles per day	2000		
Overall cycles (service life)	Approx. 3000000		
Control unit voltage	230 / 400 V AC (± 10 %) 50 / 60 Hz		
Photocell	Yes		
Manual emergency lowering	Yes		
2-way warning light	Warning light integrated all-round in both side housings (Road Blocker down: green – Road Blocker moving: flashing red – Road Blocker up: permanent red)		
Impact energy with destruction **	140000 J		
Temperature range	From -40°C to +70°C (for low temperatures, see heating element)		
Chemical fitting anchors, 32 units – 36 units – 46 units	Yes (optional)		
Certified acc. to:	PAS 68 – vehicle weight 3500 kg, speed 32 km/h IWA 14-1 – vehicle weight 3500 kg, speed 32 km/h		

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

** The information for impact energy with destruction (breakout resistance) refers to fitting of the road blocker to solid ground that ensures stable installation of the chemical anchors (e.g. concrete floor).

Versions

MODEL	A	B
Road Blocker 500 SF – 3500	3520	3980
Road Blocker 500 SF – 4500	4520	4980
Road Blocker 500 SF – 5500	5520	5980



Road Blocker 500 SF		Article no.	€
Road Blocker 500 SF <ul style="list-style-type: none"> • Height 500 mm • Two side posts • Hydraulic operator • Photocell • Warning light on two sides for passage control • Acoustic warning signal 	Length 3500 mm	4515447	26817
	Length 4500 mm	4515448	30304
	Length 5500 mm	4515449	33637
Optional extras for Road Blocker 500 SF		Article no.	€
Alarm sensors for detection:		4515450	1093
<ul style="list-style-type: none"> • of manual emergency lowering • of control cover removal • of ramp lowering 			
Set – chemical anchors for ground fitting of Road Blocker 500 SF	Length 3500 mm	4515584	964
	Length 4500 mm	4515585	1221
	Length 5500 mm	4515586	1414
Heating element for Road Blocker 500 SF, incl. transformer and thermostat	Length 3500 mm	4515592	1929
	Length 4500 mm	4515593	2186
	Length 5500 mm	4515594	2444
UPS device 3.0 kW – 3 kVA for further operation of one Road Blocker 500 SF / 1000 SF / 500 / 1000 or one Tyre Killer H		4515451	2392
For bridging power outages up to 1 hour max. and approx. 10 actuations			
Optional extras for road blockers and tyre killers		Article no.	€
Heating element for control – 20 W		4515018	436
Biodegradable oil in the hydraulic pump		4515360	Standard
Traffic light, LED version, 100 mm – 1 × red / 1 × green (Attention: Up / down signal kit not required)		4515019	507
Painted post (diameter 105 mm) for traffic lights – length 3.55 m		4515020	321
Both side housings painted in RAL to choose		4516255	592
Platform painted in RAL to choose		4516256	1274
Top / bottom signal kit to display position		4515021	269
Control conversion for press-and-hold control		4515161	167
Push button panel – 1 up / down push button module		4515163	110
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation		4515164	186
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure		4515167	694
Radio receiver		Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)		4515833	291
Accessories for operators and controls		See from page 112	

Road blockers

To secure passages up to 5.5 m wide

Road Blocker 1000 SF



NEW
With press-and-hold control or semi-automatic operation by cordless drill



Product description			
Ramp height above ground level	1000 mm		
Ramp length	3500 mm	4500 mm	5500 mm
Overall dimensions	4200 × 1700 × 1300 mm	5200 × 1700 × 1300 mm	6200 × 1700 × 1300 mm
Ramp surface treatment, steel version	Anti-corrosion treatment, standard painting *		
Surface treatment of metal plate	Corrugated steel sheet, painted		
Side post surface treatment, steel version	Anti-corrosion treatment, standard painting in yellow		
Lifting speed	14.2 cm/s **		
Lowering speed	14.2 cm/s **		
Reflecting strips (height 55 mm)	Yes		
Load rating acc. to EN 124	D400 Regulation		
Cycles per day	2000		
Overall cycles (service life)	Approx. 3000000		
Control unit voltage	230 / 400 V AC (± 10 %) 50 / 60 Hz **		
Photocell	Yes **		
Manual emergency lowering	Yes **		
2-way warning light	Warning light all-round integrated in both side housings ** (Road Blocker down: green – Road Blocker moving: flashing red – Road Blocker up: permanent red)		
Impact energy without destruction	250000 J		
Impact energy with destruction ***	750000 J		
Temperature range	From -40°C to +70°C (for low temperatures, see heating element)		
Chemical fitting anchors, 32 units – 36 units – 46 units	Yes (optional)		
Certified acc. to:	PAS 68 – vehicle weight 7500 kg, speed 50 km/h IWA 14-1 – vehicle weight 7200 kg, speed 50 km/h ASTM M30 / DOS K4 – vehicle weight 6800 kg, speed 50 km/h		

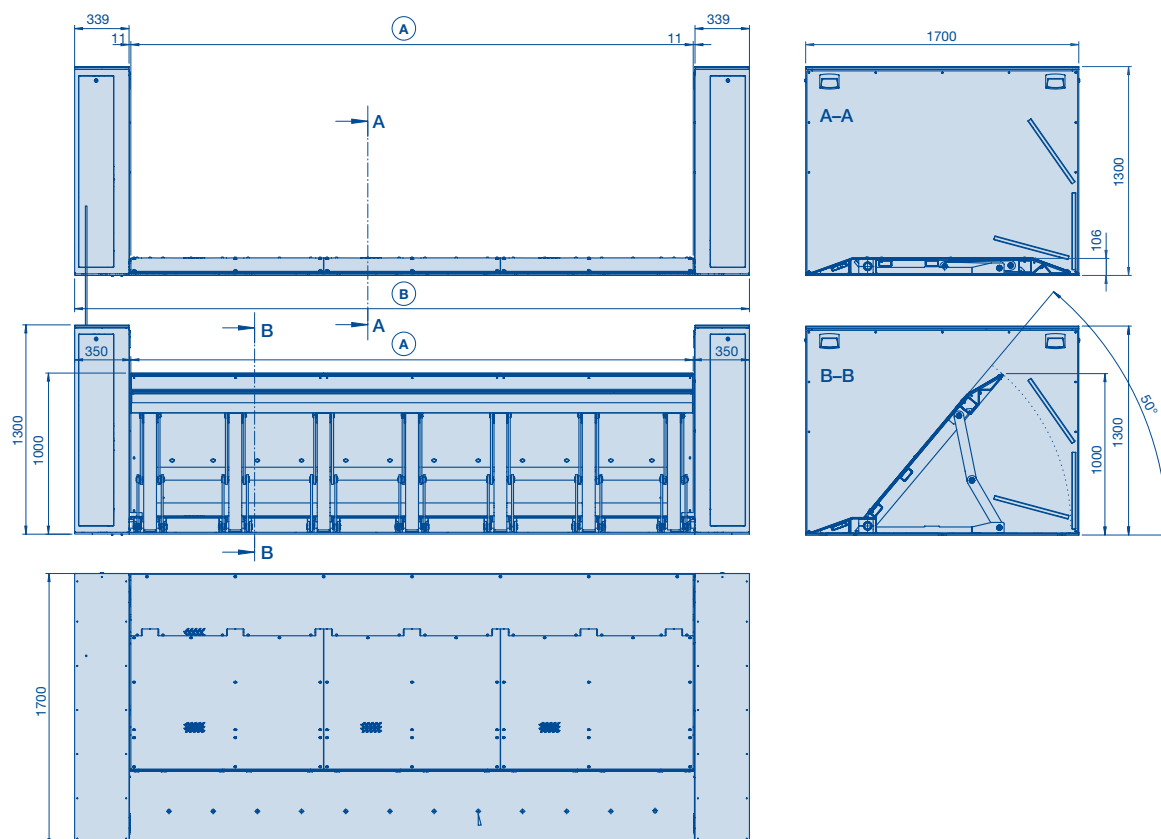
* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

** Only for the versions “automatic” and “press-and-hold control”.

*** The information for impact energy with destruction (breakout resistance) refers to fitting of the road blocker to solid ground that ensures stable installation of the chemical anchors (e.g. concrete floor).

Versions

MODEL	A	B
Road Blocker 1000 SF – 3500	3500	4200
Road Blocker 1000 SF – 4500	4500	5200
Road Blocker 1000 SF – 5500	5500	6200



Road Blocker 1000 SF		Article no.	€
Road Blocker 1000 SF – automatic			
<ul style="list-style-type: none"> Height 1000 mm Two side posts Hydraulic operator Photocell Warning light on two sides for passage control Acoustic warning signal 	Length 3500 mm	4516257	79061
	Length 4500 mm	4516258	89338
	Length 5500 mm	4516259	98272
Road Blocker 1000 SF – press-and-hold control // NEW			
<ul style="list-style-type: none"> Height 1000 mm Two side posts Hydraulic operator Photocell Warning light on two sides for passage control Acoustic warning signal 	Length 3500 mm	4516339	64800
	Length 4500 mm	4516340	74495
	Length 5500 mm	4516341	84190
Road Blocker 1000 SF – semi-automatic // NEW			
<ul style="list-style-type: none"> Height 1000 mm Two side posts Hydraulic operator for actuation using a cordless drill 	Length 3500 mm	4516342	55819
	Length 4500 mm	4516343	65515
	Length 5500 mm	4516344	75210
Lighting strip			
(With 30 LEDs per m)	Length 3500 mm	4516260	843
	Length 4500 mm	4516261	1084
	Length 5500 mm	4516262	1324
Optional extras for Road Blocker 1000 SF		Article no.	€
Alarm sensors for detection:		4515450	1093
<ul style="list-style-type: none"> of manual emergency lowering of control cover removal of ramp lowering 			
Set – chemical anchors for ground fitting of Road Blocker 1000 SF	Length 3500 mm	4516263	1632
	Length 4500 mm	4516264	1995
	Length 5500 mm	4516265	2357
UPS device 3.0 kW – 3 kVA for further operation of one Road Blocker 500 SF / 1000 SF / 500 / 1000 or one Tyre Killer H		4515451	2392
For bridging power outages up to 1 hour max. and approx. 10 actuations			
EFO emergency function to quickly raise the Road Blocker 1000 in approx. 2 s		4515486	7741
Attention! Regular maintenance of the EFO system is required!			
The pressure testing / filling kit for the EFO emergency function is required for maintenance (article no. 4516269). See page 113.			
Emergency manual operation for Road Blocker 1000 SF in case of power failure (only for the versions “automatic” and “press-and-hold control”)		4515487	2623
Additional screw insert for lifting / lowering the Road Blocker (only for the semi-automatic version)		4516131	156
Optional extras for road blockers and tyre killers		Article no.	€
Heating element for control – 20 W		4515018	436
Biodegradable oil in the hydraulic pump		4515360	Standard
Traffic light, LED version, 100 mm – 1 × red / 1 × green (Attention: Up / down signal kit not required)		4515019	507
Painted post (diameter 105 mm) for traffic lights – length 3.55 m		4515020	321
Both side housings painted in RAL to choose		4516266	887
Platform painted in RAL to choose		4516267	1915
Top / bottom signal kit to display position		4515021	269
Control conversion for press-and-hold control (for automatic version)		4515161	167
Push button panel – 1 up / down push button module		4515163	110
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation		4515164	186
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure		4515167	694
Radio receiver		Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing			
2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC		4515833	291
(Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)			
Accessories for operators and controls			See from page 112

Road blockers

To secure passages up to 6 m wide

Road Blocker 500

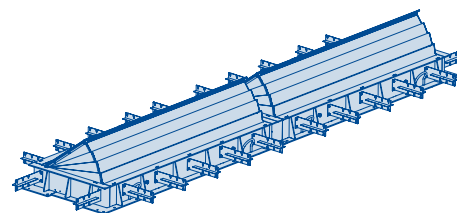
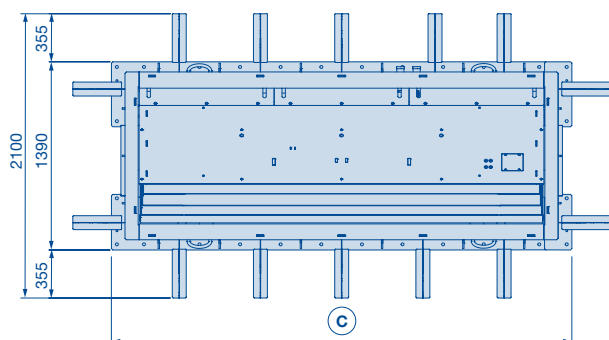
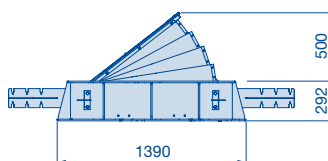
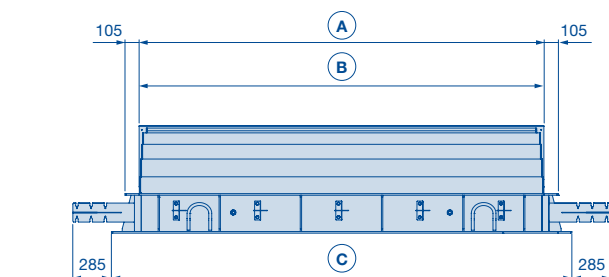


Product description	
Ramp height above ground level	500 mm
Ramp length	Standard: 2 m – 3 m – 4 m – 5 m – 6 m
Fitting depth	300 mm
Ramp surface treatment, steel version	Anti-corrosion treatment – standard painting *
Metal plate surface finish	Corrugated sheet with painted steel Optional: embossed stainless steel sheet V2A (AISI 304), anti-slip
Load rating	According to EN 124 class D400
Reflecting strips (height 55 mm)	Yes
Lifting speed	10 cm/s at ramp length 2 m, 3 and 4 m; 11.1 cm/s at ramp length 5 m and 6 m
Lowering speed	10 cm/s at ramp length 2 m, 3 and 4 m; 11.1 cm/s at ramp length 5 m and 6 m
Cycles per day	2000
Overall cycles (service life)	Approx. 3000000
Metal cladding for front and sides of road blocker	Yes – standard color: white/red
EFO emergency function for emergency barrier raising	Yes (optional) – raising time 1.5 s
Manual handling device	Yes (optional)
LED lighting strip (30 LEDs per metre)	Yes (optional)
Connecting cable to control unit	Standard 10 m (max. 30 m) – (longer line on request)
Control unit voltage	230 / 400 V AC (± 10 %) 50 / 60 Hz
Protection category	IP 67
Impact energy with destruction	750000 J
Temperature range	From –40°C to +70°C (for low temperatures, see heating element)
Conforming with	M30, K4, PAS68, IWA14-1

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

Versions

MODEL	A	B	C
Road Blocker 500 – 2000	2190	1990	2400
Road Blocker 500 – 3000	3190	2990	3400
Road Blocker 500 – 4000	4190	3990	4400
Road Blocker 500 – 5000	5190	4990	5400
Road Blocker 500 – 6000 *	6400	5980	6600



* For Road Blocker 500–6000 mm, 2 modules are connected.

Road Blocker 500		Article no.	€
Road Blocker 500 <ul style="list-style-type: none"> Height 500 mm Control with hydraulic operator Metal cladding white/red Connecting lead 10 m 	Length 2000 mm	4515452	24690
	Length 3000 mm	4515455	27390
	Length 4000 mm	4515458	30091
	Length 5000 mm	4515461	35234
	Length 6000 mm *	4515464	48994
* For Road Blocker 500 – 6000 mm, 2 modules are connected.			
Lighting strip (With 30 LEDs per m)	Length 2000 mm	4515453	487
	Length 3000 mm	4515456	721
	Length 4000 mm	4515459	964
	Length 5000 mm	4515462	1209
	Length 6000 mm	4515465	1453
Optional extras for Road Blocker 500		Article no.	€
Acoustic warning signal in exterior housing		4516271	174
EFO emergency function to quickly raise the Road Blocker 500 in approx. 1.5 s		4515467	4811
Attention! Regular maintenance of the EFO system is required! The pressure testing / filling kit for the EFO emergency function is required for maintenance (article no. 4516269). See page 113.			
Emergency manual operation for Road Blocker 500 in case of power failure		4515468	2109
Extended connecting lines (electric cable – hydraulic line) to connect Road Blocker 500 to control (max. 30 m) – available in 5 m increments		4515469	Per m 63
Bottom section for control housing	Made of steel	4515470	927
	Made of stainless steel V2A (AISI 304)	4516386	2065
Note: The bottom section is essential if the Road Blocker 500 is equipped with a manual handling device.			
Surcharge for control housing made of stainless steel V2A (AISI 304), brushed		4516387	1387
Embossed stainless steel sheet V2A (AISI 304) – anti-slip for Road Blocker 500 (Alternative to standard version)	Length 2000 mm	4515454	861
	Length 3000 mm	4515457	1286
	Length 4000 mm	4515460	1724
	Length 5000 mm	4515463	2160
	Length 6000 mm	4515466	2572
Heating element for Road Blocker 500, incl. transformer and thermostat	Length 2000 mm	4515595	1980
	Length 3000 mm	4515596	2777
	Length 4000 mm	4515597	3600
	Length 5000 mm	4515598	4371
	Length 6000 mm	4515599	5183
Anti-corrosion coating for RB 500 / Tyre Killer H (recommended for saline ambient conditions)	Length 2000 mm	4515950	938
	Length 3000 mm	4515951	1273
	Length 4000 mm	4515952	1875
	Length 5000 mm	4515953	2344
	Length 6000 mm	4515954	2813
UPS device 3.0 kW – 3 kVA for further operation of one Road Blocker 500 SF / 500 / 1000 SF / 1000 or one Tyre Killer H		4515451	2392
For bridging power outages up to 1 hour max. and approx. 10 actuations			
Safety locking in upper position in case of power outage		4516273	3266
Auxiliary pump (approx. 20 cycles per hour) – for power failure equipped with 2 rechargeable 24 V batteries		4516396	4506
Optional extras for road blockers and tyre killers		Article no.	€
Heating element for control – 20 W		4515018	436
Traffic light, LED version, 100 mm – 1 × red / 1 × green (Attention: Up / down signal kit not required)		4515019	507
Painted post (diameter 105 mm) for traffic lights – length 3.55 m		4515020	321
Top / bottom signal kit to display position		4515021	269
Control conversion for press-and-hold control		4515161	167
Push button panel – 1 up / down push button module		4515163	110
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation		4515164	186
Push button panel – 1 up / down push button module – 1 lock module for EFO emergency function actuation		4515165	186
Push button panel – 1 up / down push button module – 1 lock module for EFO emergency function actuation – 1 red / green LED module to show traffic light operation		4515166	244
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure		4515167	694
Radio receiver		Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)		4515833	291
Accessories for operators and controls		See from page 112	

Road blockers

To secure passages up to 6 m wide

Road Blocker 1000

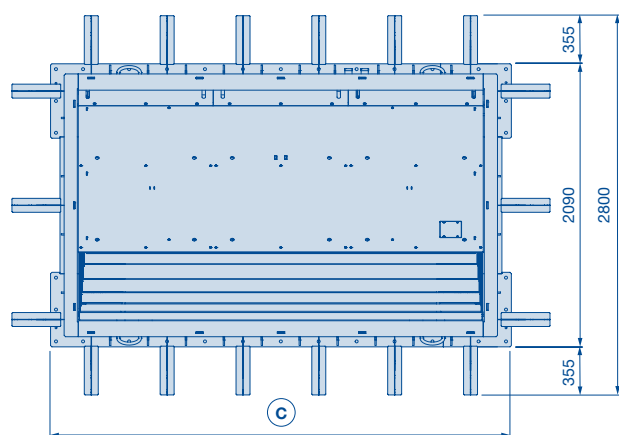
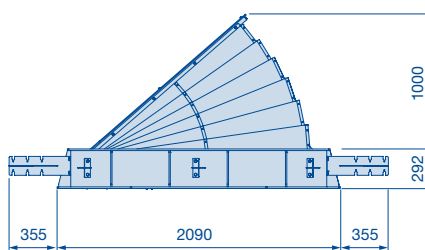
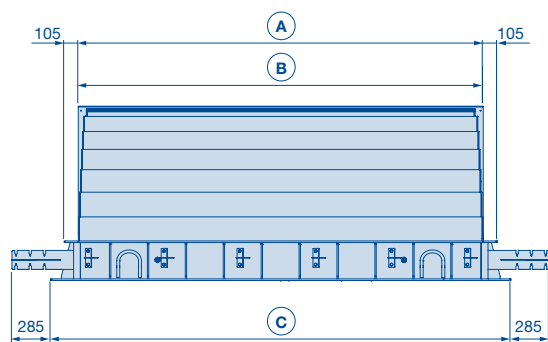


Product description	
Ramp height above ground level	1000 mm
Ramp length	Standard: 2 m – 3 m – 4 m – 5 m – 6 m
Fitting depth	300 mm
Ramp surface treatment, steel version	Anti-corrosion treatment – standard painting *
Metal plate surface finish	Corrugated sheet with painted steel Optional: embossed stainless steel sheet V2A (AISI 304), anti-slip
Load rating	According to EN 124 class D400
Reflecting strips (height 55 mm)	Yes
Lifting speed	14.2 cm/s
Lowering speed	14.2 cm/s
Cycles per day	2000
Overall cycles (service life)	Approx. 3000000
Metal cladding for front and sides of road blocker	Yes – standard color: white/red
EFO emergency function for emergency barrier raising	Yes (optional) – raising time 2 s
Manual handling device	Yes (optional)
LED lighting strip (30 LEDs per metre)	Yes (optional)
Connecting cable to control unit	Standard 10 m (max. 30 m) – (longer line on request)
Control unit voltage	230 / 400 V AC (± 10 %) 50 / 60 Hz
Protection category	IP 67
Impact energy with destruction	2000000 J
Temperature range	From –40°C to +70°C (for low temperatures, see heating element)
Certified acc. to	PAS68
Conforming with	M50, K12, IWA14-1

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

Versions

MODEL	A	B	C
Road Blocker 1000 – 2000	2190	1990	2400
Road Blocker 1000 – 3000	3190	2990	3400
Road Blocker 1000 – 4000	4190	3990	4400
Road Blocker 1000 – 5000	5190	4990	5400
Road Blocker 1000 – 6000 *	6400	5980	6600



* For Road Blocker 1000 – 6000 mm, 2 modules are connected.

Road Blocker 1000		Article no.	€
Road Blocker 1000 • Height 1000 mm • Control with hydraulic operator • Metal cladding white/red • Connecting lead 10 m	Length 2000 mm	4515471	42307
	Length 3000 mm	4515474	46551
	Length 4000 mm	4515477	50796
	Length 5000 mm	4515480	58640
	Length 6000 mm *	4515483	75065
* For Road Blocker 1000–6000 mm, 2 modules are connected.			
Lighting strip (With 30 LEDs per m)	Length 2000 mm	4515472	487
	Length 3000 mm	4515475	721
	Length 4000 mm	4515478	964
	Length 5000 mm	4515481	1209
	Length 6000 mm	4515484	1453
Optional extras for Road Blocker 1000		Article no.	€
Acoustic warning signal in exterior housing		4516271	174
EFO emergency function to quickly raise the Road Blocker 1000 in approx. 2 s		4515486	7741
Attention! Regular maintenance of the EFO system is required! The pressure testing / filling kit for the EFO emergency function is required for maintenance (article no. 4516269). See page 113.			
Emergency manual operation for Road Blocker 1000 in case of power failure		4515487	2623
Extended connecting lines (electric cable – hydraulic line) to connect Road Blocker 1000 to control (max. 30 m) – available in 5 m increments		4515488	Per m 63
Bottom section for control housing	Made of steel	4515470	927
	Made of stainless steel V2A (AISI 304)	4516386	2065
Note: The bottom section is required if the Road Blocker 1000 is equipped with a manual handling device.			
Surcharge for control housing made of stainless steel V2A (AISI 304), brushed		4516387	1387
Embossed stainless steel sheet V2A (AISI 304) – anti-slip for Road Blocker 1000 (Alternative to standard version)	Length 2000 mm	4515473	1724
	Length 3000 mm	4515476	2572
	Length 4000 mm	4515479	3422
	Length 5000 mm	4515482	4295
	Length 6000 mm	4515485	5143
Heating element for Road Blocker 1000, incl. transformer and thermostat	Length 2000 mm	4515600	2700
	Length 3000 mm	4515601	3511
	Length 4000 mm	4515602	4307
	Length 5000 mm	4515603	5118
	Length 6000 mm	4515604	5529
Anti-corrosion coating for RB 1000 (recommended for saline ambient conditions)	Length 2000 mm	4515955	1406
	Length 3000 mm	4515956	2112
	Length 4000 mm	4515957	2824
	Length 5000 mm	4515958	3530
	Length 6000 mm	4515959	4224
UPS device 3.0 kW – 3 kVA for further operation of one Road Blocker 500 SF / 1000 SF / 500 / 1000 or one Tyre Killer H		4515451	2392
For bridging power outages up to 1 hour max. and approx. 10 actuations			
Safety locking in upper position in case of power outage		4516273	3266
Auxiliary pump (approx. 20 cycles per hour) – for power failure equipped with 2 rechargeable 24 V batteries		4516396	4506
Optional extras for road blockers and tyre killers		Article no.	€
Heating element for control – 20 W		4515018	436
Traffic light, LED version, 100 mm – 1 × red / 1 × green (Attention: Up / down signal kit not required)		4515019	507
Painted post (diameter 105 mm) for traffic lights – length 3.55 m		4515020	321
Top / bottom signal kit to display position		4515021	269
Control conversion for press-and-hold control		4515161	167
Push button panel – 1 up / down push button module		4515163	110
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation		4515164	186
Push button panel – 1 up / down push button module – 1 lock module for EFO emergency function actuation		4515165	186
Push button panel – 1 up / down push button module – 1 lock module for EFO emergency function actuation – 1 red / green LED module to show traffic light operation		4515166	244
Power supply unit / battery pack for emergency lowering via push button panel in case of power failure		4515167	694
Radio receiver		Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)		4515833	291
Accessories for operators and controls		See from page 112	

Tyre killers

To secure passages in one direction

Tyre Killer M



Product description

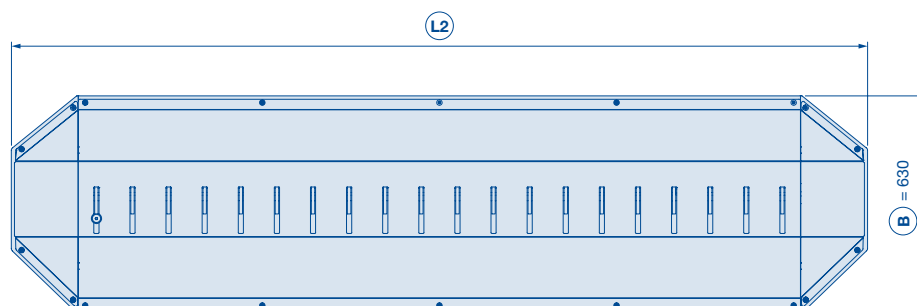
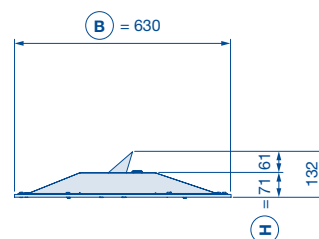
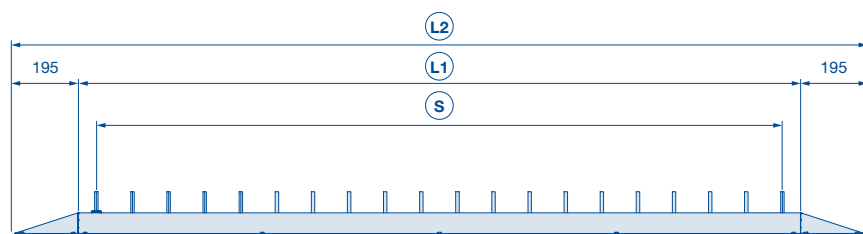
Height of spikes above ground level	61 mm
Length	Standard: 2 m – 3 m – 4 m – 5 m – 6 m
Spacing between spikes	105 mm (example: Tyre Killer M, length 2 m = 20 spikes)
Thickness of spikes	10 mm
Frame surface finish	Anti-corrosion treatment – standard painting*
Spikes surface finish	Anti-corrosion treatment – standard painting*
Load rating	According to EN 124 class C250
Type of use	For intensive use
Locking in retracted position for free passage	Yes – manual (optionally electric)
Set with 2 semi-circular termination modules	Yes (optional)

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

Versions and dimensions

- L1** Length
L2 Length with 2 flattened end pieces
S Length of the area with spikes
B Width
H Height

MODEL	L1	L2	S	B	H
Tyre Killer M – 2000	2100	2490	1995	630	71
Tyre Killer M – 3000	3150	3540	3045		
Tyre Killer M – 4000	4200	4590	4095		
Tyre Killer M – 5000	5250	5640	5145		
Tyre Killer M – 6000	6300	6690	6195		



Tyre killers		Article no.	€
Tyre Killer M (Modules can be combined)	Length 2000 mm	4515960	5876
	Length 3000 mm	4515961	8809
	Length 4000 mm	4515962	11740
	Length 5000 mm	4515963	14685
	Length 6000 mm	4515964	17618
Set with 2 flattened end pieces		4515492	1132
Optional extras for Tyre Killer M		Article no.	€
Set – chemical anchors for ground fitting of Tyre Killer M	Length 2000 mm	4515965	385
	Length 3000 mm	4515966	578
	Length 4000 mm	4515967	772
	Length 5000 mm	4515968	964
	Length 6000 mm	4515969	1158
	For two end pieces	4515970	129
Electric cylinder for locking the spikes in the retracted position to enable two-way passage – operating console – control		4515493	1544
Electric cylinder in position 0 = spikes locked in the “down” position for two-way passage			
Electric cylinder in position 1 = spikes enable passage in one direction only			
Attention:			
Set with 2 flattened end pieces required!			
Additional sleeve for Tyre Killer M for passage in both directions		4516276	78
Emergency battery consisting of 2 batteries 12 V 7 Ah for temporary operation of the electric cylinder in the event of a power failure		4515494	219

Tyre killers

To secure passages in one direction

Tyre Killer H



Product description

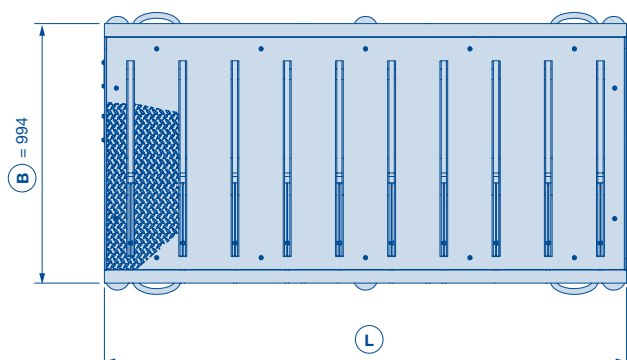
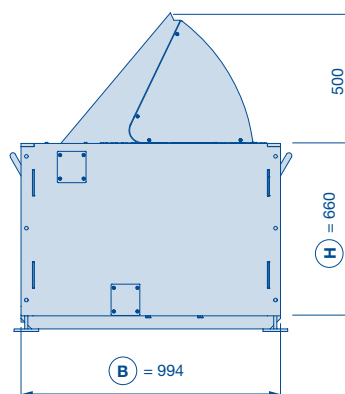
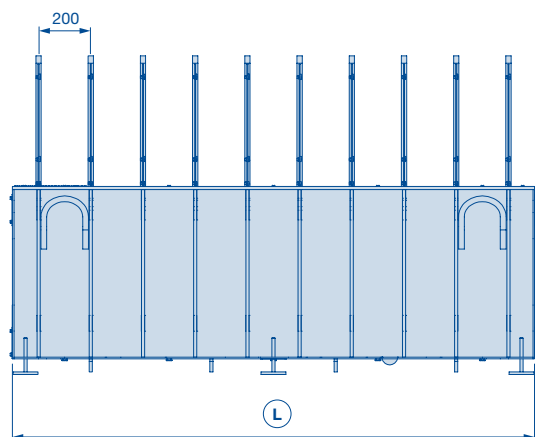
Height of spikes above ground level	500 mm
Length	Standard: 2 m – 3 m – 4 m – 5 m – 6 m
Spacing between spikes	200 mm (example: Tyre Killer L, length 2 m = 10 spikes)
Thickness of spikes	20 mm
Lifting speed	12.5 cm/s
Lowering speed	12.5 cm/s
Cycles per day	2000
Overall cycles (service life)	Approx. 3000000
Frame surface finish	Protection against corrosion – standard painting *
Spikes surface finish	Protection against corrosion – standard painting *
Load rating	According to EN 124 class D400
Connecting cable to control unit	Standard 10 m (max. 30 m)
Control unit voltage	230 / 400 V AC (± 10 %) 50 / 60 Hz
Temperature range	From –40°C to +70°C (for low temperatures, see heating element)
Manual emergency lowering	Yes
EFO emergency function for emergency barrier raising	Yes (optional) – raising time 1.5 s
Manual handling device	Yes (optional)

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

Versions and dimensions

- L** Length
W Width
H Height

MODEL	Foundation box (Dimensions in mm)		
	L	W	H
Tyre Killer H – 2000	2000	994	660
Tyre Killer H – 3000	3000		
Tyre Killer H – 4000	4000		
Tyre Killer H – 5000	5000		
Tyre Killer H – 6000	6000		



Tyre killers		Article no.	€
Tyre Killer H	Length 2000 mm	4515495	22633
• Control with hydraulic operator	Length 3000 mm	4515496	24048
• Connecting lead 10 m	Length 4000 mm	4515497	25526
	Length 5000 mm	4515498	28419
	Length 6000 mm	4515499	31376
Optional extras for Tyre Killer H		Article no.	€
Acoustic warning signal in exterior housing		4516271	174
EFO emergency function to quickly raise Tyre Killer H in approx. 1.5 s		4515500	4811
Attention! Regular maintenance of the EFO system is required! The pressure testing / filling kit for the EFO emergency function is required for maintenance (article no. 4516269). See page 113.			
Emergency manual operation for Tyre Killer H in the event of a power failure		4515501	2109
Extended connecting lines (electric cable – hydraulic line) to connect Tyre Killer H to control (max. 30 m distance) – available in 5 m increments		4515502	Per m 63
Bottom section for control housing	Made of steel	4515470	927
	Made of stainless steel V2A (AISI 304)	4516386	2065
Note: The bottom section is essential if the Tyre Killer H is equipped with a manual handling device.			
Surcharge for control housing made of stainless steel V2A (AISI 304), brushed		4516387	1387
Heating element for Tyre Killer H, incl. transformer and thermostat	Length 2000 mm	4515595	1980
	Length 3000 mm	4515596	2777
	Length 4000 mm	4515597	3600
	Length 5000 mm	4515598	4371
	Length 6000 mm	4515599	5183
Anti-corrosion coating for RB 500 / Tyre Killer H (recommended for saline ambient conditions)	Length 2000 mm	4515950	938
	Length 3000 mm	4515951	1273
	Length 4000 mm	4515952	1875
	Length 5000 mm	4515953	2344
	Length 6000 mm	4515954	2813
UPS device 3.0 kW – 3 kVA for further operation of one Road Blocker 500 SF / 1000 SF / 500 / 1000 or one Tyre Killer H For bridging power outages up to 1 hour max. and approx. 10 actuations		4515451	2392
Auxiliary pump (approx. 20 cycles per hour) – for power failure equipped with 2 rechargeable 24 V batteries		4516396	4506
Optional extras for road blockers and tyre killers		Article no.	€
Heating element for control – 20 W		4515018	436
Traffic light, LED version, 100 mm – 1 × red / 1 × green (Attention: Up / down signal kit not required)		4515019	507
Painted post (diameter 105 mm) for traffic lights – length 3.55 m		4515020	321
Control conversion for press-and-hold control		4515161	167
Push button panel – 1 up / down push button module		4515163	110
Push button panel – 1 up / down push button module – 1 red / green LED module to show traffic light operation		4515164	186
Push button panel – 1 up / down push button module – 1 lock module for EFO emergency function actuation		4515165	186
Push button panel – 1 up / down push button module – 1 lock module for EFO emergency function actuation – 1 red / green LED module to show traffic light operation		4515166	244
Radio receiver		Article no.	€
HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC (Attention: Bottom magnetic contact, art. no. 4515016, additionally required for A 275-600 E)		4515833	291
Accessories for operators and controls			See from page 112

Key switch posts

For access control and access regulation

Diameter 170 mm

Fixed posts		Article no.	€
Post	Stainless steel, painted*	4515414	1197
• On one side, for 1 warning light	Brushed stainless steel V2A (AISI 304)	4515420	1467
• Complete with ground anchors			
• Diameter 170 mm – height 1500 mm			
Post	Stainless steel, painted*	4515415	1414
• On two sides, for 2 warning lights	Brushed stainless steel V2A (AISI 304)	4515421	1672
• Complete with ground anchors			
• Diameter 170 mm – height 1500 mm			
Post	Stainless steel, painted*	4515416	1414
• On one side, for 1 command unit	Brushed stainless steel V2A (AISI 304)	4515422	1658
• Complete with ground anchors			
• Diameter 170 mm – height 1500 mm			
Post	Stainless steel, painted*	4515417	1736
• On one side, for 1 command unit – 1 warning light	Brushed stainless steel V2A (AISI 304)	4515423	2005
• Complete with ground anchors			
• Diameter 170 mm – height 1800 mm			
Post	Stainless steel, painted*	4515418	1954
• On two sides, for 1 command unit – 2 warning lights	Brushed stainless steel V2A (AISI 304)	4515424	2224
• Complete with ground anchors			
• Diameter 170 mm – height 1800 mm			
Post diameter 170 mm, painted in RAL to choose		4515419	269

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

Note:

- Posts can be manufactured with different specifications (e.g. different heights).
- Fitted devices (warning lights, controls, switches, readers, etc.) are not included in the stated prices.

Key switch posts

For access control and access regulation

Diameter 275 mm

Fixed post to hold max. 4 bollard controls, with lockable flap		Article no.	€
Post	Stainless steel, painted*	4515435	7022
• Complete with ground anchors	Brushed stainless steel V2A (AISI 304)	4515441	7587
• Diameter 275 mm – height 1500 mm			
Post	Stainless steel, painted*	4515436	7291
• On one side, for 1 warning light	Brushed stainless steel V2A (AISI 304)	4515442	7845
• Complete with ground anchors			
• Diameter 275 mm – height 1500 mm			
Post	Stainless steel, painted*	4515437	7575
• On two sides, for 2 warning lights	Brushed stainless steel V2A (AISI 304)	4515443	8102
• Complete with ground anchors			
• Diameter 275 mm – height 1500 mm			
Post	Stainless steel, painted*	4515438	7549
• On one side, for 1 command unit	Brushed stainless steel V2A (AISI 304)	4515444	8102
• Complete with ground anchors			
• Diameter 275 mm – height 1500 mm			
Post	Stainless steel, painted*	4515439	7909
• On one side, for 1 command unit – 1 warning light	Brushed stainless steel V2A (AISI 304)	4515445	8488
• Complete with ground anchors			
• Diameter 275 mm – height 1800 mm			
Post	Stainless steel, painted*	4515440	8178
• On two sides, for 1 command unit – 2 warning lights	Brushed stainless steel V2A (AISI 304)	4515446	8745
• Complete with ground anchors			
• Diameter 275 mm – height 1800 mm			
Post diameter 275 mm, painted in RAL to choose		4515637	411

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

Note:

- For orders together with bollards, the control can be installed into the post.
- Posts can be manufactured with different specifications (e.g. different heights).
- Fitted devices (warning lights, controls, switches, readers, etc.) are not included in the stated prices.
- In connection with the control for bollard A 275-600/800 E, system with only 3 bollards max. possible.
- Protection category IP 55

Key switch posts, opening upwards with gas spring

For controls

Diameter 170 mm

Fixed post to hold max. 2 bollard controls		Article no.	€
Post opening upwards (easy to fit) <ul style="list-style-type: none">• On one side, for 1 warning light• Complete with ground anchors• Diameter 170 mm – height 1500 mm	Stainless steel, painted*	4515425	4424
	Brushed stainless steel V2A (AISI 304)	4515430	4693
Post opening upwards (easy to fit) <ul style="list-style-type: none">• On two sides, for 2 warning lights• Complete with ground anchors• Diameter 170 mm – height 1500 mm	Stainless steel, painted*	4515426	4642
	Brushed stainless steel V2A (AISI 304)	4515431	4912
Post opening upwards (easy to fit) <ul style="list-style-type: none">• On one side, for 1 command unit• Complete with ground anchors• Diameter 170 mm – height 1500 mm	Stainless steel, painted*	4515427	4631
	Brushed stainless steel V2A (AISI 304)	4515432	4888
Post opening upwards (easy to fit) <ul style="list-style-type: none">• On one side, for 1 command unit – 1 warning light• Complete with ground anchors• Diameter 170 mm – height 1800 mm	Stainless steel, painted*	4515428	4963
	Brushed stainless steel V2A (AISI 304)	4515433	5233
Post opening upwards (easy to fit) <ul style="list-style-type: none">• On two sides, for 1 command unit – 2 warning lights• Complete with ground anchors• Diameter 170 mm – height 1800 mm	Stainless steel, painted*	4515429	5183
	Brushed stainless steel V2A (AISI 304)	4515434	5453
Post diameter 170 mm, painted in RAL to choose		4515419	269

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.

Note:

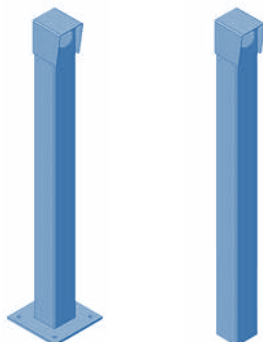
- For orders together with bollards, the control can be installed into the post.
- Fitted devices (warning lights, controls, switches, readers, etc.) are not included in the stated prices.
- In connection with the control for bollard A 275-600 / 800 E, system with only 3 bollards max. possible.
- Protection category IP 55

Key switch posts STN

For access control and access regulation

Key switch posts STN

STN Key switch posts



- Key switch post to hold 1 command unit *
- Surface finish in RAL 9006 (White aluminium)
- Dimensions:
 - Height 1050 mm
 - Tube 90 × 90 mm

STN 1:

- Key switch post with screw base for fitting to the surface

STN 1-B:

- Key switch post to set in concrete (set-in-concrete version)

* e.g.:
Code switch CTR 1-1b, CTR 3-1b, CTV 3-1, CTP 3 (see page 115)
Finger-scan FL 150 (see page 115) or key switch STUP 50 (see page 113)

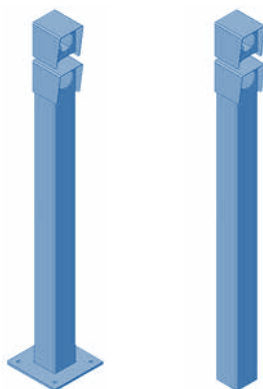
Note:

- Application depending on the applied command units.
- Command units are not included in the scope of delivery.

	STN 1	STN 1-B
Art. no.	638975	638976
€	235	235

► Please order command units separately!

STN Key switch posts



- Key switch post to hold 2 command units * or 1 command unit * and 1 warning light
- Surface finish in RAL 9006 (White aluminium)
- Dimensions:
 - Height 1200 mm
 - Tube 90 × 90 mm

STN 1-1:

- Key switch post with screw base for fitting to the surface

STN 1-1 B:

- Key switch post to set in concrete (set-in-concrete version)

* e.g.:
Code switch CTR 1-1b, CTR 3-1b, CTV 3-1, CTP 3 (see page 115)
Finger-scan FL 150 (see page 115) or key switch STUP 50 (see page 113)

Note:

- Application depending on the applied command units.
- Command units are not included in the scope of delivery.

	STN 1-1	STN 1-1 B
Art. no.	638977	638978
€	292	292

► Please order command units separately!

Accessories

For key switch posts STN



- Red / green double LED, 230 V AC

	Double LED warning light
Art. no.	638979
€	138

Notes and sketches











Accessories for perimeter protection systems

Security Line and High Security Line

Description			Article no.	€/ each
HAC perimeter protection system Pre-assembled in the control housing of the automatic bollards Hörmann Access Control (HAC) is the control, which allows the operation and management of perimeter protection systems via the Online Control web interface. For bollards, pre-assembled in the control housing for access regulation and management in combination with: <ul style="list-style-type: none">Barcode reader (short range)QR code reader (short range)RFID transponder reader (short range)RFID reader (long range)Camera for number plate recognition Note: Only possible in conjunction with OnlineControl, article no. 4831437 or 4831438! Use without OnlineControl is only possible via a local connection.			4831466	2879
HAC perimeter protection system In housing for retrofitting on existing automatic bollards See HAC perimeter protection system for product description Note: Only possible in conjunction with OnlineControl, article no. 4831437 or 4831438! Use without OnlineControl is only possible via a local connection.			4831467	3435
OnlineControl Web application for operation of the system. After the access data is entered, the system can be controlled remotely from any Internet-capable end device, such as a smartphone, tablet and / or PC / Mac, regardless of your location. Internet access via a network cable must be available on-site at the system control. The price and term of contract are annual. The user fees for OnlineControl are settled annually, in advance, via a service agreement. No discount is available for this item!	Basic (for operation of the system)	Annual usage fees	4831437	180
	Plus (for operation of the system and the option of ID card management)	Annual usage fees	4831438	264
RFID transponder reader for HITAG 1 and Mifare ID cards (short range), pre-installed			4831050	1221
RFID far range reader			4831292	5455
RFID transponder for windscreen, adhesive, minimum quantity: 25 pieces			4831258	13
Camera for number plate recognition			4831059	8106
Free-standing housing for camera/ number plate recognition			4831401	1169
Post incl. adapter for mast fitting for RFID far range reader or camera/ number plate recognition			4831060	396
QR code reader Suitable for fitting in entry and exit station for non-contact processing of special/ market/ business cards with QR code on the front of the card. Suitable for cards in accordance with ISO/IEC 7810 ID-1 or max. 86 mm card length and max. 60 mm card width. With RS232 interface to connect the TE-CON board. QR code can be read by holding up the ticket, hard plastic card, smartphone or print@home ticket.			4831054	2603


Accessories for perimeter protection systems

Security Line and High Security Line

Short designation	Description	Article no.	€/ each
	Impact sensor		
	Impact sensor for cylinder with clamps	4516270	411
	Pressure testing / filling kit for EFO emergency function		
	Pressure testing / filling kit for EFO emergency function (nitrogen cylinder not included)	4516269	1182
	Receivers 868 MHz for perimeter protection systems		
HET-E2 SL BS Pre-assembled in the control housing	 HET-E2 SL BS for bollards, road blockers, tyre killers, pre-assembled in the control housing 2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC	4515833	291
HET-E2 SL BS In semi-housing	 HET-E2 SL BS for bollards, road blockers and tyre killers, pre-assembled in semi-housing 2-channel relay receiver with status feedback, for choosing direction (lifting and lowering) and limit switch reporting (can be connected to volt-free inputs on the HET). The up / down signal kit is required for the display of the limit switch reporting position via HS 5 BS or optionally via app (Hörmann homee Brain required). Frequency 868 MHz, operating voltage: 24 V DC	4515096	215
	868 MHz hand transmitters – only in conjunction with a receiver BiSecur hand transmitters are downward compatible with 868 MHz fixed code receivers		
HS 1 BS	 1-button hand transmitter, impulse, incl. battery, with chrome-plated zinc die-cast caps	Black (textured surface) 4511720	73
HS 4 BS	 4-button hand transmitter, impulse, incl. battery, with chrome-plated zinc die-cast caps	Black (textured surface) 4511724	73
HS 5 BS	 5-button hand transmitter, impulse, incl. battery, with chrome-plated zinc die-cast caps	Black (high-gloss)	86
		White (high-gloss)	86
		Black (textured surface)	86
HSE 1 BS	 1-button micro hand transmitter, impulse, incl. key ring and battery, with chrome-plated zinc diecast caps	Black (textured surface) 4511728	73
HSE 4 BS	 4-button micro hand transmitter, impulse, incl. key ring and battery, with chrome-plated zinc diecast caps	Black (textured surface) 4511732	73
HSE 4 BS	 4-button micro hand transmitter, impulse, incl. key ring and battery, with plastic caps in the same colour as the hand transmitter	Black (textured surface) 4511736	66
HSS 4 BS	 4-button security hand transmitter, impulse, incl. battery, additional function: copy protection for hand transmitter coding (cannot be taught in)	Red (high gloss) 436756	117
	Hand transmitter station for BiSecur hand transmitters HS 1 BS, HS 4 BS and HS 5 BS	Black (high-gloss)	9,50
		White (high-gloss)	9,50
		Black (textured surface)	9,50
	Hand transmitter holder incl. visor clip for BiSecur hand transmitters HS 1 BS, HS 4 BS and HS 5 BS	436698	8,50
	Hand transmitter holder incl. visor clip for BiSecur hand transmitters HSE 1 BS and HSE 2 BS	437006	8,50
	Hand transmitter sleeve, black, for BiSecur hand transmitter HSE	4510869	7,40
	868 MHz industrial hand transmitters – only in conjunction with a receiver		
HSI BS	 Industrial hand transmitter for controlling up to 1000 receivers	436789	204
	Wall holder for industrial hand transmitter HSI / HSI BS, including fixing material	637635	15,50
	Protective bag for industrial hand transmitter HSI / HSI BS, including clip	637636	39
	Copy cable with software, for coding industrial hand transmitters HSI / HSI BS or saving data on a PC	637637	26
	USB adapter on Com port	637634	35
	Connection cable for industrial hand transmitters HSI / HSI BS, for external voltage supply, for connecting to a forklift or another external power supply	637638	8,50
HSI 6 BS	Industrial hand transmitter for controlling up to 6 receivers	4511801	114
	Hand transmitter holder for HSI 6 BS, incl. fitting kit for fitting to wall or box frame	437383	8,50
HSI 15 BS	Industrial hand transmitter for controlling up to 15 receivers	4511802	164
	Hand transmitter holder for HSI 15 BS, incl. fitting kit for fitting to wall or box frame	437384	11,90
	Key switches, each with 3 keys		
ESU 30	Key switch (recessed, impulse Open / Close, without connecting lead)	436110	49
ESA 30	Key switch (surface mounted, impulse Open / Close, without connecting lead)	436111	52
STUP 50	Key switch (recessed, impulse Open / Close, with 2 m connecting lead, 2-wire)	4511648	58
STAP 50	Key switch (surface-mounted, impulse Open / Close, with 2 m connecting lead, 2-wire)	4511650	61




Accessories for perimeter protection systems

Security Line and High Security Line

Short designation	Description	Article no.	€/each
	Fire brigade switch		
	Triangular lock, pre-assembled on the housing	4831007	532
	Key switches, each with 3 keys, pre-assembled on the housing	4831094	557
	Cylinders with keys to pass for Hörmann key switches		
	Profile half cylinder 30.5 + 10 mm, closing angle 0°, adjustable, 2 pieces with keys to pass	436120	40
	Profile half cylinder 30.5 + 10 mm, closing angle 0°, adjustable, 3 pieces with keys to pass	436121	52
	Profile half cylinders with keys to pass in quantities larger than 3	On request	
	Hörmann homee		
Hörmann homee Brain 	<p>Hörmann homee Brain Smart Home control centre with BiSecur radio system for operating Hörmann garage door and entrance gate operators, entrance door locks, bollards and electric devices with BiSecur radio</p> <p>Protection category: for dry rooms only</p> <p>Power supply: 100–240 V AC, 50/60 Hz, 200 mA, secondary voltage: 5 V DC / 1.2 A, temperature range: -20°C to +60°C, operating voltage: 24 V DC</p> <p>Housing: plastic, colour Pure white RAL 9010, dimensions (W x H x D): 51 x 51 x 53 mm</p> <p>Scope of delivery: power supply unit 100–240 V AC</p> <p>Administration via Hörmann homee app (iOS, Android) and web app</p> <p>System requirements:</p> <ul style="list-style-type: none"> – iOS devices from version 10.0 or higher – Android devices from software version 5.0 or higher – Web interface (current version), Internet Explorer, Safari, Google Chrome or Mozilla Firefox <p>WLAN (802.11b/g/n)</p> <p>LAN possible via LAN adapter</p> <p>Hörmann homee app</p> <ul style="list-style-type: none"> – Operation via the home network or globally via the Internet – Control of individual devices, device groups or via programmable “homeegram” scenarios – Supports all BiSecur devices – Expandable by various standard radio protocols (cubes) for additional elements (light, alarm system, heating etc.), such as ZigBee, Z-Wave, EnOcean – Weather with forecast can be used in homeegram (scenarios) – Voice assistants Alexa, Google Assistant and Siri (shortcuts) 	4510101	273
	Bluetooth® receivers		
HET/S 24 BLE	<p>Receiver for the control of external consumers via Bluetooth®, to control (impulse) Hörmann operators / operators of other makes, with 2 volt-free relays, with 7 m connecting lead, 4-wire, protection category: IP 44, temperature range: -20°C to +40°C, operating voltage: 12–24 V DC, 12 V AC, switching capacity: 30 V DC / 2.5 A (resistive load)</p> <p>Function: On / off, impulse (0.5 s), dimensions (W x H x D): 110 x 45 x 40 mm</p> <p>System requirements:</p> <ul style="list-style-type: none"> – iOS devices from version 9.0 – Android devices from version 5.0 – Bluetooth 4.0 <p>* Function and availability depend on the respective end device and the app version (note the description text in the App Store)</p>	4511827	102
Bluetooth® antenna BTA 800	External antenna for receiver HET/S 24 BLE to increase the range, with 0.8 m connecting lead, protection category: IP 54, dimensions (W x H x D): 80 x 80 x 35 mm	4511829	70
	Hörmann GSM Control		
GSM Control	<p>Opening of the system via telephone call, receipt of status messages via SMS, no limits regarding the distance, easy parameterisation with the enclosed software or SMS commands, up to 1000 authorised users (telephone numbers) can be stored, telephone calls are free of charge for the users, 100–240 V AC, 50/60 Hz, 2 volt-free normally open contacts (max. switching capacity 5 A), 4 digital inputs (freely configurable), temperature range -20°C to +60°C, protection category IP 65, transmission channel 4G/3G/2G/GSM, frequency range UMTS 900 / 1200 MHz, GSM / GPRS 900 / 1800 MHz</p>	639782	543

Accessories for perimeter protection systems

Security Line and High Security Line

Short designation		Description	Article no.	€/ each
Code switches				
BiSecur radio code switches are downward compatible with 868 MHz fixed code receivers				
CTR 1b-1		Code switch with 1 relay output, impulse to control one operator, illuminated keypad, 230 V AC or 24 V DC, without connecting lead	4511631	175
CTR 3b-1		Code switch with 3 separate relay outputs, impulse to control two operators and/or outdoor lighting, illuminated keypad, 230 V AC or 24 V DC, without connecting lead	4511632	201
CTV 3-1		Code switch with keypad protected against vandalism, with 3 separate relay outputs, impulse to control two operators and/or outdoor lighting, 230 V AC or 24 V DC, without connecting lead	4511633	240
CTP 3-1		Code switch with illuminated capacitive keypad, with 3 separate relay outputs, impulse to control two operators and/or outdoor lighting, 230 V AC or 24 V DC, without connecting lead	4511634	240
CTR 1d		Code switch with 1 relay output, impulse to control one operator, keypad protected by a hinged panel, 230 V AC or 24 V DC, without connecting lead Note: Use a mains adapter (article no. 436109) for power supply of 230 V AC.	436355	117
CTR 3d		Code switch with 3 separate relay outputs, impulse to control two operators and/or outdoor lighting, keypad protected by a hinged panel, 230 V AC or 24 V DC, without connecting lead	436390	154
FCT 3-1 BS		Radio code switch for controlling up to 3 operators, illuminated keypad, protection category: IP 54, housing: plastic, colour Light grey RAL 7040, incl. battery	4511856	95
FCT 10-1 BS		Radio code switch for controlling up to 10 operators, illuminated keypad, hinged cover, protection category: IP 54, housing: plastic, painted White aluminium RAL 9006, incl. battery	4511861	143
Transponder key switches				
TTR 1000-1		Transponder key switch (impulse, non-contact to control one operator, operating voltage either 100–240 V AC or 10–24 V AC/DC, without mains lead) incl. 1 transponder key and 1 transponder card	4511643	240
TTRE-1		Additional input unit for extension of the transponder key switch TTR 1000-1	4511644	119
TS		Transponder key for transponder key switches TTR 1000-1 and TTRE-1	4510023	16,70
TL 1000		Transponder card for transponder key switches TTR 1000-1 and TTRE-1	437011	16,70
ZBG 1-1		Spacer bracket (required for fitting the input unit of the transponder key switch TTR 1000-1 on metal)	4511694	46
Finger-scans				
BiSecur radio finger-scans are downward compatible with 868 MHz fixed code receivers				
FFL 25 BS		Radio finger-scan BiSecur, impulse for controlling 2 operators by means of fingerprint, up to 25 fingerprints can be taught in, cannot be deleted individually, hinged cover, activation by opening the cover or by pressing the "ON" button; protection category: IP 54, housing: plastic, painted White aluminium RAL 9006, incl. battery	4511870	189
FL 150		Finger-scan, impulse, with two relays to control 2 operators with a fingerprint, memory for up to 150 fingerprints, can be deleted individually, connecting voltage 230 V, power supply unit plug and surface-mounted housing included in scope of delivery	4511640	514
Timers				
ZSU 2		Digital weekly timer in semi-housing, incl. data key	637061	298
ZSJ 2		Yearly timer, 2-channel, in semi-housing, incl. data key	637079	464
		Software and USB adapter for timers ZSU 2 and ZSJ 2 for the parameterisation of the data keys enclosed with the timers	637507	171
LED traffic lights				
TL40Srd		Red LED traffic light (230 V / 50 Hz)	637534	124
TL40Sye		Yellow LED traffic light (230 V / 50 Hz)	637536	112
TL40Sgn		Green LED traffic light (230 V / 50 Hz)	637535	124
TL40Srd/gn		Red / green LED traffic light (230 V / 50 Hz)	637537	208
TL40Srd/ye/gn		LED traffic light, red / green (24 V DC), single-headed, multi-function or traffic control circuit board required!	637896	195
Traffic light		Traffic light, LED version for wall and post fitting, 100 mm – 1 x red / 1 x green Note: For A 275-600 E and A 275-800 E, the bottom magnetic contact (article no. 4515016) is required!	4515019	507

Accessories for perimeter protection systems

Security Line and High Security Line

Short designation	Description	Article no.	€/each
	Induction loop detector		
DI 1 Pro	Induction loop detector without semi-housing and loop cable	637545	453
DI 2 Pro	Induction loop detector without semi-housing and loop cable	637546	579
	Flexible pre-fabricated induction loop for inserting into the driveway Note: max. laying depth 70 mm		
	Pre-fabricated induction loop, flexible, length 7.60 m, connecting cable to control: 15 m	4515022	257
	Pre-fabricated induction loop, flexible, length 7.60 m, connecting cable to control: 30 m	4515023	297
	Pre-fabricated induction loop, flexible, length 9.60 m, connecting cable to control: 15 m	4515024	269
	Pre-fabricated induction loop, flexible, length 9.60 m, connecting cable to control: 30 m	4515025	309
	Pre-fabricated induction loop, flexible, length 12.60 m, connecting cable to control: 15 m	4515026	285
	Pre-fabricated induction loop, flexible, length 12.60 m, connecting cable to control: 30 m	4515027	321
	Line extension for flexible pre-assembled induction loop (max. 80 m) Per m	4515162	9,40
	Rigid standard pre-fabricated induction loop for laying in screed / concrete and underneath paving stones		
	Pre-fabricated induction loop, rigid, dimensions 2 m x 1 m, connecting cable to control: 10 m	4831067	396
	Pre-fabricated induction loop, rigid, dimensions 3 m x 1 m, connecting cable to control: 10 m	4831068	528
	Pre-fabricated induction loop, rigid, dimensions 4 m x 1 m, connecting cable to control: 10 m	4831069	660
	Pre-fabricated induction loop, rigid, dimensions 5 m x 1 m, connecting cable to control: 10 m	4831070	792
	Pre-fabricated induction loop, rigid, dimensions 6 m x 1 m, connecting cable to control: 10 m	4831071	924
	Pre-fabricated induction loop, rigid, dimensions 7 m x 1 m, connecting cable to control: 10 m	4831072	1056
	Pre-fabricated induction loop, rigid, dimensions 8 m x 1 m, connecting cable to control: 10 m	4831073	1188
	Pre-fabricated induction loop, rigid, dimensions 9 m x 1 m, connecting cable to control: 10 m	4831074	1320
	Pre-fabricated induction loop, rigid, incl. 10 m connecting cable to control Per m	4831166	66
	Line extension for rigid pre-fabricated induction loop (max. 40 m) Per m	4831075	6,50
	Rigid high-temperature pre-fabricated induction loop for laying in asphalt		
	Pre-fabricated induction loop, rigid, dimensions 2 m x 1 m, connecting cable to control: 10 m	4831083	426
	Pre-fabricated induction loop, rigid, dimensions 3 m x 1 m, connecting cable to control: 10 m	4831084	568
	Pre-fabricated induction loop, rigid, dimensions 4 m x 1 m, connecting cable to control: 10 m	4831085	710
	Pre-fabricated induction loop, rigid, dimensions 5 m x 1 m, connecting cable to control: 10 m	4831086	852
	Pre-fabricated induction loop, rigid, dimensions 6 m x 1 m, connecting cable to control: 10 m	4831087	994
	Pre-fabricated induction loop, rigid, dimensions 7 m x 1 m, connecting cable to control: 10 m	4831088	1136
	Pre-fabricated induction loop, rigid, dimensions 8 m x 1 m, connecting cable to control: 10 m	4831089	1278
	Pre-fabricated induction loop, rigid, dimensions 9 m x 1 m, connecting cable to control: 10 m	4831090	1420
	Pre-fabricated induction loop, rigid, incl. 10 m connecting cable to control Per m	4831167	71
	Line extension for rigid pre-fabricated induction loop (max. 40 m) Per m	4831075	6,50
	Key switch posts (cable extension may be required)		
	Fixed key switch posts – diameter 170 mm	See page 108	
	Fixed key switch posts – diameter 275 mm	See page 108	
	Fixed key switch posts with gas spring – diameter 170 mm	See page 109	

Example calculation for induction loop length:

Length of induction loop (m) = 2 x (loop width in metres + loop depth in metres)

Recommended:

- The vehicle dampens the loop.
- The loop width is less than the road width.
- The loop depth is based on the vehicle to be detected.

Vehicle type	Loop width	Loop depth (in the road direction)	
Car	Road width – 2 m	1 m	
Car with trailer	Road width – 2 m	2 to 3 m	
Lorry	Road width – 2 m	2 to 4 m	or 2 loops per 1.5 m with 1.5 m distance, plus photocell
Lorry with trailer	Road width – 2 m	3 to 4 m	or 2 loops per 1.5 m with 1.5 m distance, plus photocell

Notes and sketches

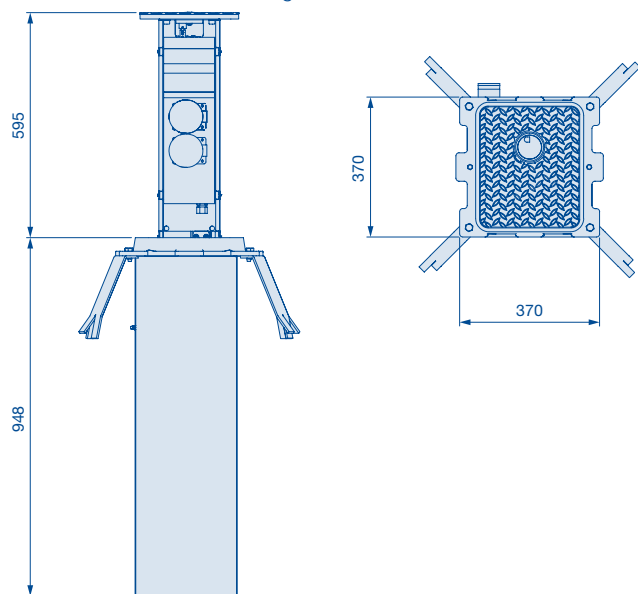
Aboveground power supply stations

Supply with extended connections

Utility Tower M

Product description		
Movable post	Dimensions	300 × 200 mm
	Height	600 mm
	Material	Steel FE 370
	Surface treatment	Anti-corrosion coating, standard painting*
Protection category of electrical components		IP 66
Load rating		According to EN 124 class C250
Optional infill of cover plate corresponding to the road surface		No

* For orders with no surcharge in RAL to choose, the standard colour of the post is RAL 1021 Rape yellow, cover plate in black.



Utility Tower M painted steel (standard colour: yellow)	Article no.	€
Utility Tower M – with 25 kg cover plate	4515530	2005

Foundation box for Utility Tower M	Article no.	€
Steel foundation box with aluminium-zinc coating for Utility Tower M – counterframe	4515531	309

Configurable components in Utility Tower M		Article no.	€
A2	Protective earth socket – 230 V 16 A 1P/N/PE With residual current circuit breaker (RCD) and line protection switch, 1P + N, 6 kA – 30 mA / C 16 A	4515613	156
A1	Socket IEC 309 (CEE blue) – 230 V 16 A 1P/N/PE With residual current circuit breaker (RCD) and line protection switch, 1P + N, 6 kA – 30 mA / C 16 A	4515532	244
C1a	Socket IEC 309 (CEE blue) – 230 V 16 A 2P/N/PE with all-pole main switch With residual current circuit breaker (RCD) and line protection switch, 1P + N, 6 kA – 30 mA / C 16 A	4515533	321
C1b	Socket IEC 309 (CEE blue) – 230 V 32 A 2P/N/PE with all-pole main switch With residual current circuit breaker (RCD) and line protection switch, 1P + N, 6 kA – 30 mA / C 32 A	4515534	425
B	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE With residual current circuit breaker (RCD) and line protection switch, 4P, 6 kA – 30 mA / C 16 A	4515535	315
C2a	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE with all-pole main switch With residual current circuit breaker (RCD) and line protection switch, 4P, 6 kA – 30 mA / C 16 A	4515536	385
C2b	Socket IEC 309 (CEE red) – 400 V 32 A 3P/N/PE with all-pole main switch With residual current circuit breaker (RCD) and line protection switch, 4P, 6 kA – 30 mA / C 32 A	4515537	514
Connection cable 5G4 installed in Utility Tower M – 3 m (can only be ordered if the power supply station is supplied without configurable components)		4515538	453

Configuration options					
Each configuration is the maximum possible combination of the listed elements. Each configuration can only be reduced with regard to the number of the listed elements.					

3 × A	1 × A 1 × B	2 × C1a	1 × C1a 1 × C2a	1 × C1b	2 × C2b
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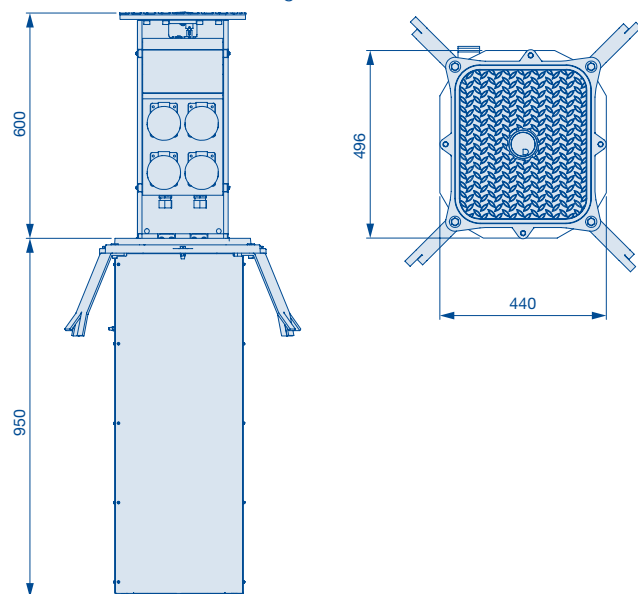
Aboveground power supply stations

Supply with extended connections

Utility Tower L

Product description		
Movable post	Dimensions	400 x 300 mm
	Height	600 mm
	Material	Steel FE 370
	Surface treatment	Anti-corrosion coating, standard painting *
Protection category of electrical components		IP 66
Load rating		According to EN 124 class C250
Optional infill of cover plate corresponding to the road surface		No

* For orders with no surcharge in RAL to choose, the standard colour of the post is RAL 1021 Rape yellow, cover plate in black.



Utility Tower L painted steel (standard colour: yellow)		Article no.	€
Utility Tower L – with 25 kg cover plate		4515539	2547
Foundation box for Utility Tower L		Article no.	€
Steel foundation box with aluminium-zinc coating for Utility Tower L – counterframe		4515540	348
Configurable components in Utility Tower L		Article no.	€
Basic configuration 30 kW With universal residual current circuit breaker (RCD), 4-pin, 40 A–30 mA, housing IP 66, with cable 5G6, length 3 m		4515541	734
A2	Protective earth socket – 230 V 16 A 1P/N/PE With line protection switch, 1P+N, 6 kA/C 16 A	4515613	156
A1	Socket IEC 309 (CEE blue) – 230 V 16 A 1P/N/PE With line protection switch, 1P+N, 6 kA/C 16 A	4515542	156
C1a	Socket IEC 309 (CEE blue) – 230 V 16 A 1P/N/PE with all-pole main switch With line protection switch, 1P+N, 6 kA/C 16 A	4515543	231
C1b	Socket IEC 309 (CEE blue) – 230 V 32 A 1P/N/PE with all-pole main switch With line protection switch, 1P+N, 6 kA/C 32 A	4515544	321
B	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE With line protection switch, 4P, 6 kA/C 16 A	4515545	192
C2a	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE with all-pole main switch With line protection switch, 4P, 6 kA/C 16 A	4515546	269
C2b	Socket IEC 309 (CEE red) – 400 V 32 A 3P/N/PE with all-pole main switch With line protection switch, 4P, 6 kA/C 32 A	4515547	361
Connection cable 5G6 installed in Utility Tower L – 3 m (can only be ordered if the power supply station is supplied without configurable components)		4515548	490
Additional cable 5G6 (above 3m standard)		4515566	25

Configuration options

Each configuration is the maximum possible combination of the listed elements.
Each configuration can only be reduced with regard to the number of the listed elements.

8 x A	7 x A 1 x B	6 x A 2 x B	5 x A 2 x B	4 x A 3 x B	4 x A 2 x C	3 x A 3 x B	2 x A 3 x B	2 x A 1 x B 2 x C	1 x A 3 x B
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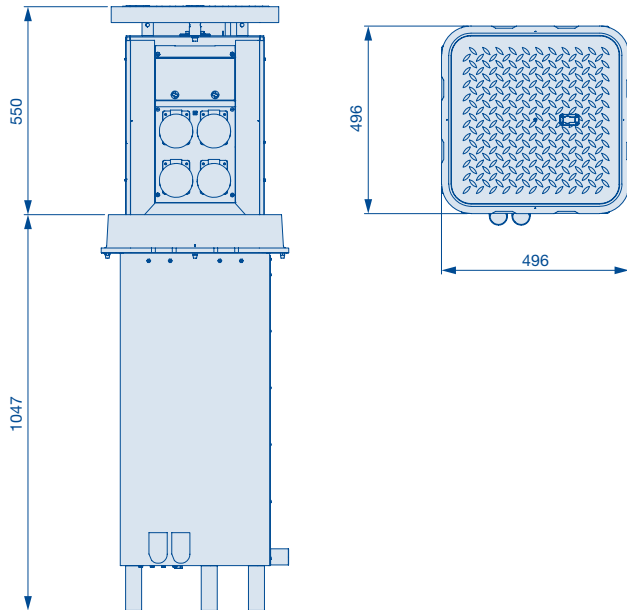
Aboveground power supply stations

Supply with extended connections

Utility Tower XL

Product description		
Movable post	Dimensions	400 × 400 mm
	Height	550 mm
	Material	Steel S235JR Stainless steel V2 A (AISI 304)
	Surface treatment	Anti-corrosion coating, standard painting*
Protection category of electrical components		IP 66 / IP 67
Load rating		According to EN 124 class D400
Optional cover plate for on-site infill		Yes – 40 mm

* For orders with no surcharge in RAL to choose, the standard colour of the post is RAL 1021 Rape yellow, cover plate in black.



Utility Tower XL		Article no.	€
Utility Tower XL – with 40 kg cover plate	Painted steel	4515549	3511
	Painted stainless steel	4515551	4412
Utility Tower XL – with 40 kg cover plate to be filled	Painted steel	4515550	4823
	Painted stainless steel	4515552	4951

Foundation box for Utility Tower XL		Article no.	€
Foundation box made of steel FE 370 for Utility Tower XL – anti-corrosion treatment		4515553	321
Foundation box made of stainless steel V2A (AISI 304) for Utility Tower XL		4515554	605
Foundation box made of stainless steel V2A (AISI 304) for Utility Tower XL, water-tight version		4515555	926
Foundation box made of stainless steel V2A (AISI 304) for Utility Tower XL, water-tight version – immersion pump		4515556	1994

Optional extras for Utility Tower XL		Article no.	€
Cable extension 5G6 (in addition to standard length of 3 m)		4515566	Per m 25
Cable extension 5G10 (in addition to standard length of 3 m)		4515567	Per m 29
Cable extension 5G16 (in addition to standard length of 3 m)		4515568	Per m 32
Connection cable 5G6 installed in power supply station Utility Tower XL – length 3 m (can only be ordered if the power supply station is supplied without configurable components)		4515569	487
Connection cable 5G10 installed in power supply station Utility Tower XL – length 3 m (can only be ordered if the power supply station is supplied without configurable components)		4515570	528
Connection cable 5G16 installed in power supply station Utility Tower XL – length 3 m (can only be ordered if the power supply station is supplied without configurable components)		4515571	565
Set of 5 standard keys for power supply station		4515572	89

Configurable components in Utility Tower XL			Article no.	€
	Basic configuration 30 kW With universal residual current circuit breaker (RCD), 4-pin, 40 A–30 mA, with cable 5G6, length 3 m	Components IP 66	4515541	734
		Components IP 67	4516026	1182
	Basic configuration 40 kW With universal residual current circuit breaker (RCD), 4-pin, 63 A–30 mA, with cable 5G10, length 3 m	Components IP 66	4515557	885
		Components IP 67	4516028	1350
	Basic configuration 50 kW With universal residual current circuit breaker (RCD), 4-pin, 80 A–30 mA, with cable 5G16, length 3 m	Components IP 66	4515558	990
		Components IP 67	4516030	1440
A2	Protective earth socket – 230 V 16 A 1P/N/PE With line protection switch, 1P+N, 6 kA/C 16 A		4515613	156
A1	Socket IEC 309 (CEE blue) – 230 V 16 A 1P/N/PE With line protection switch, 1P+N, 6 kA/C 16 A		4515542	156
B	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE With line protection switch, 4P, 6 kA/C 16 A		4515545	192
C1a	Socket IEC 309 (CEE blue) – 230 V 16 A 1P/N/PE with all-pole main switch With line protection switch, 1P+N, 6 kA/C 16 A		4515543	231
C1b	Socket IEC 309 (CEE blue) – 230 V 32 A 1P/N/PE with all-pole main switch With line protection switch, 1P+N, 6 kA/C 32 A		4515544	321
C3a	Socket IEC 309 (CEE blue) – 230 V 63 A 1P/N/PE with all-pole main switch With line protection switch, 1P+N, 6 kA/C 63 A		4515559	487
C2a	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE with all-pole main switch With line protection switch, 4P, 6 kA/C 16 A		4515546	269
C2b	Socket IEC 309 (CEE red) – 400 V 32 A 3P/N/PE with all-pole main switch With line protection switch, 4P, 6 kA/C 32 A		4515547	361
C3b	Socket IEC 309 (CEE red) – 400 V 63 A 3P/N/PE with all-pole main switch With line protection switch, 4P, 6 kA/C 63 A Socket protection category IP 67		4515560	554
	Electrical configuration for Utility Tower XL with an upstream line protection switch and residual current circuit breaker (RCD) for every socket		4515562	Price/ socket 180
T	Configuration with Internet/telephone socket RJ45 in housing IP 55 – connecting lead (CAT 6) length 3 m		4515563	206
B	Water connection with tap with quick connector – hose length 3 m		4515564	285
cA	Compressed air connection with quick-lock coupling – hose length 3 m		4515565	285

Configuration options – IP 66

Each configuration is the maximum possible combination of the listed elements.
Each configuration can only be reduced with regard to the number of the listed elements.

Each configuration shall only be loaded with regard to the number of the listed disk drive.																							
8 x A	7 x A 1 x B	6 x A 2 x B	5 x A 3 x B	2 x A 1 x C3	6 x C1	5 x C1 1 x C2	4 x C1 2 x C2	3 x C1 3 x C2	3 x C1 1 x C3	2 x C1 4 x C2	1 x C1 5 x C2		3 x C1	2 x C1 1 x C2	1 x C1 2 x C2	3 x C2	3 x A 1 x B 3 x C1	3 x A 1 x B 2 x C1 1 x C2	3 x A 1 x B 1 x C1 2 x C2	3 x A 1 x B 3 x C2	2 x A 2 x B 3 x C1	2 x A 2 x B 1 x C2	2 x A 2 x B 1 x C1 2 x C2

Configuration options – IP 67

Each configuration is the maximum possible combination of the listed elements.
Each configuration can only be reduced with regard to the number of the listed elements.

12 × A	11 × A 1 × B	10 × A 2 × B	9 × A 3 × B	8 × A 4 × B	6 × A 5 × B	6 × A	6 × A	6 × A	6 × A	6 × A	5 × A 1 × B	5 × A 1 × B	5 × A 1 × B	5 × A 1 × B	4 × A 2 × B	4 × A 2 × B	4 × A 2 × B	3 × A 3 × B	3 × A 3 × B	3 × A 3 × B	3 × A 2 × B	2 × A 1 × B	2 × A
						3 × C1	2 × C1 1 × C2	1 × C1 2 × C2	3 × C2	1 × C3	3 × C1	2 × C1 1 × C2	1 × C1 2 × C2	3 × C2	3 × C1	2 × C1 1 × C2	1 × C1 2 × C2	3 × C1	2 × C1 1 × C2	1 × C1 2 × C2	3 × C2	1 × C3	1 × C2 1 × C3
6 × C1	5 × C1 1 × C2	4 × C1 2 × C2	3 × C1 3 × C2	3 × C1 1 × C3	2 × C1 4 × C2	2 × C1 1 × C3	1 × C1 5 × C2																

Configuration options – telephone / water / compressed air

All of the above configurations can be additionally combined with one of the following utility configurations
Each configuration is the maximum possible combination of the listed elements.
Each configuration can only be reduced with regard to the number of the listed elements.

4 × t	2 × T 1 × cA	2 × T	2 × cA	1 × cA 1 × W*
		1 × W*		

* Not in conjunction with C3B socket

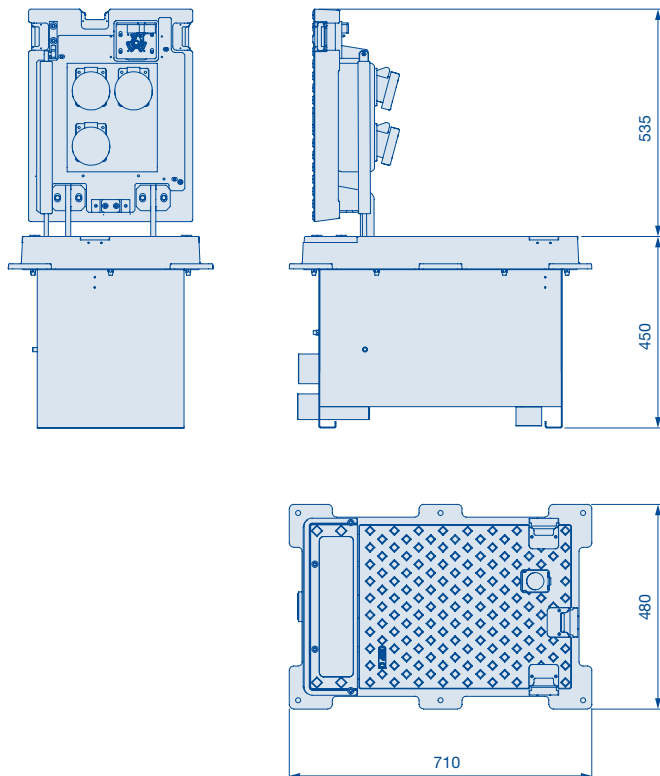
Underground power supply stations

Supply with closed cover plate

Utility Underground M

Product description	
Material of movable part	Steel S235JR/ cast iron
Dimensions of movable part	700 × 480 × 450 mm
Height of movable post	535 mm
Surface finish of movable post	Anti-corrosion coating – standard painting*
Protection category of electrical components	IP 66
Load rating	According to EN 124 class D400
Optional cover plate for on-site infill	No

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Utility Underground M		Article no.	€
Utility Underground M		4515573	3242

Foundation box for Utility Underground M		Article no.	€
Foundation box made of stainless steel V2A (AISI 304) for Utility Underground M		4515574	528

Optional extras for Utility Underground M		Article no.	€
Cable extension 5G6 (in addition to standard length of 3 m)	4515566	Per m	25
Cable extension 5G10 (in addition to standard length of 3 m)	4515567	Per m	29
Connection cable 5G6 installed in power supply station Utility Underground M – length 3 m (can only be ordered if the power supply station is supplied without configurable components)	4515576		373
Connection cable 5G10 installed in power supply station Utility Underground M – length 3 m (can only be ordered if the power supply station is supplied without configurable components)	4515577		411
Set of 5 standard keys for power supply station	4515572		89

Configurable components in Utility Underground M			Article no.	€
	Basic configuration 30 kW With universal residual current circuit breaker (RCD), 4-pin, 40 A–30 mA, with cable 5G6, length 3 m	Components IP 66	4515541	734
	Basic configuration 40 kW With universal residual current circuit breaker (RCD), 4-pin, 63 A–30 mA, with cable 5G10, length 3 m	Components IP 66	4515557	885
C1c	Protective earth socket – 230 V 16 A 1P/N/PE With line protection switch, 1P+N, 6 kA/C 16 A		4515613	156
A	Socket IEC 309 (CEE blue) – 230 V 16 A 1P/N/PE With line protection switch, 1P+N, 6 kA/C 16 A		4515542	156
C1a	Socket IEC 309 (CEE blue) – 230 V 16 A 1P/N/PE with all-pole main switch With line protection switch, 1P+N, 6 kA/C 16 A		4515543	231
C1b	Socket IEC 309 (CEE blue) – 230 V 32 A 1P/N/PE with all-pole main switch With line protection switch, 1P+N, 6 kA/C 32 A		4515544	321
B	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE With line protection switch, 4P, 6 kA/C 16 A		4515545	192
C2a	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE with all-pole main switch With line protection switch, 4P, 6 kA/C 16 A		4515546	269
C2b	Socket IEC 309 (CEE red) – 400 V 32 A 3P/N/PE with all-pole main switch With line protection switch, 4P, 6 kA/C 32 A		4515547	361
	Electrical configuration for Utility Underground combined with an upstream line protection switch and residual current circuit breaker (RCD) for every socket (Note: Reduces the maximum configuration options presented below)		4515562	Price / socket 180
T	Configuration with Internet / telephone socket RJ45 in housing IP 55 – connecting lead (CAT 6) length 3 m		4515563	206
B	Water connection with tap with quick connector – hose length 3 m		4515564	285
cA	Compressed air connection with quick-lock coupling – hose length 3 m		4515565	285

Configuration options – IP 66

Each configuration is the maximum possible combination of the listed elements.
Each configuration can only be reduced with regard to the number of the listed elements.

Energy – telephone – compressed air				Energy – compressed air				Compressed air – water
3 × A	2 × A 1 × B	2 × C1	1 × C1 1 × C2	2 × A 1 × C	1 × A 2 × B	3 × B	1 × B 1 × C	
2 × T	2 × T	2 × T	2 × T					
3 × cA	3 × cA	3 × cA	3 × cA	3 × cA	3 × cA	3 × cA	3 × cA	3 × cA 3 × W

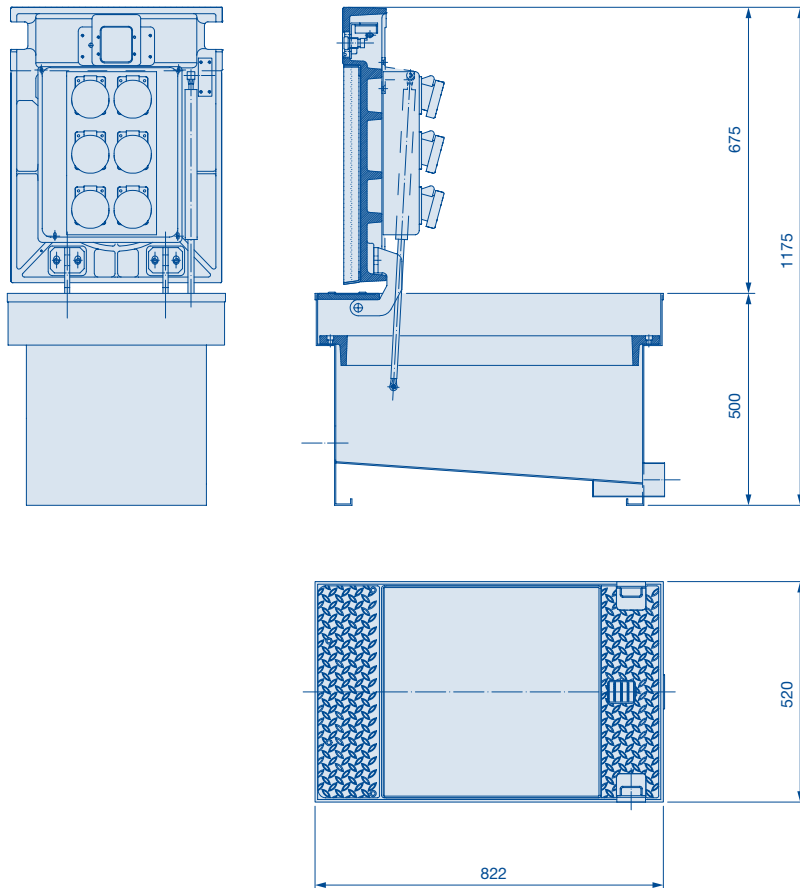
Underground power supply stations

Supply with closed cover plate

Utility Underground L

Product description	
Material of movable part	Steel S235JR/ cast iron
Dimensions of movable part	820 × 520 × 500 mm
Height of movable post	675 mm
Surface finish of movable post	Anti-corrosion coating – standard painting*
Protection category of electrical components	IP 66/IP 67
Load rating	According to EN 124 class D400
Infill of cover plate corresponding to the road surface	Standard

* For orders with no surcharge in RAL to choose, the standard colour is Anthracite grey.



Utility Underground L		Article no.	€
Utility Underground L		4515578	3921

Foundation box for Utility Underground L		Article no.	€
Foundation box made of stainless steel V2A (AISI 304) for Utility Underground L		4515579	668

Optional extras for Utility Underground L		Article no.	€
Cover sheet made of stainless steel for infill surface		4515074	285
Cable extension 5G6 (in addition to standard length of 3 m)		4515566	Per m 25
Cable extension 5G10 (in addition to standard length of 3 m)		4515567	Per m 29
Connection cable 5G6 installed in power supply station Utility Underground L – length 3 m (can only be ordered if the power supply station is supplied without configurable components)		4515576	373
Connection cable 5G10 installed in power supply station Utility Underground L – length 3 m (can only be ordered if the power supply station is supplied without configurable components)		4515577	411
Set of 5 standard keys for power supply station		4515572	89

Configurable components in Utility Underground L			Article no.	€
	Basic configuration 30 kW With universal residual current circuit breaker (RCD), 4-pin, 40 A–30 mA, with cable 5G6, length 3 m	Components IP 66	4515541	734
		Components IP 67	4516026	1182
	Basic configuration 40 kW With universal residual current circuit breaker (RCD), 4-pin, 63 A–30 mA, with cable 5G10, length 3 m	Components IP 66	4515557	885
		Components IP 67	4516028	1350
A2	Protective earth socket – 230 V 16 A 1P/N/PE With line protection switch, 1P+N, 6 kA/C 16 A		4515613	156
A1	Socket IEC 309 (CEE blue) – 230 V 16 A 1P/N/PE With line protection switch, 1P+N, 6 kA/C 16 A		4515542	156
C1a	Socket IEC 309 (CEE blue) – 230 V 16 A 1P/N/PE with all-pole main switch With line protection switch, 1P+N, 6 kA/C 16 A		4515543	231
C1b	Socket IEC 309 (CEE blue) – 230 V 32 A 1P/N/PE with all-pole main switch With line protection switch, 1P+N, 6 kA/C 32 A		4515544	321
B	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE With line protection switch, 4P, 6 kA/C 16 A		4515545	192
C2a	Socket IEC 309 (CEE red) – 400 V 16 A 3P/N/PE with all-pole main switch With line protection switch, 4P, 6 kA/C 16 A		4515546	269
C2b	Socket IEC 309 (CEE red) – 400 V 32 A 3P/N/PE with all-pole main switch With line protection switch, 4P, 6 kA/C 32 A		4515547	361
Electrical configuration for Utility Underground combined with an upstream line protection switch and residual current circuit breaker (RCD) for every socket (Note: Reduces the maximum configuration options presented below)			4515562	Price/ socket 180
T	Configuration with Internet / telephone socket RJ45 in housing IP 55 – connecting lead (CAT 6) length 3 m		4515563	206
B	Water connection with tap with quick connector – hose length 3 m		4515564	285
cA	Compressed air connection with quick-lock coupling – hose length 3 m		4515565	285

Configuration options – IP 66

Each configuration is the maximum possible combination of the listed elements.
Each configuration can only be reduced with regard to the number of the listed elements.

Energy – telephone – compressed air										Compressed air – water
4 × A	3 × A 1 × B	3 × A 1 × C1	3 × A 1 × C2	1 × A 2 × B	1 × A 3 × C1	1 × A 2 × C2	4 × C1	3 × C1 1 × C2	1 × C1 2 × C2	
2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	
4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA 4 × W

Configuration options – IP 67

Each configuration is the maximum possible combination of the listed elements.
Each configuration can only be reduced with regard to the number of the listed elements.

Energy – telephone – compressed air										Compressed air – water
6 × A	5 × A 1 × B	4 × A 1 × C1	4 × A 1 × C2	3 × A 2 × B	3 × A 1 × B 1 × C2	2 × A 2 × C1 2 × C2	2 × A	3 × C1	2 × C1 1 × C2	1 × C1 2 × C2
2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	2 × T	2 × T
4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA	4 × cA 4 × W

Security certifications

Explanations

Crash tests create optimum prerequisites for official inspections by authorised test centres for official approvals. Certification of bollards and road blockers requires realistic crash tests with particularly high loads. In this test, for example, a 7.5 tonne lorry (remote-controlled) drives into a road blocker at a speed of 80 km/h. The various certificates from the USA and Europe are recognised as being equivalent internationally, provided they fulfil the same requirements.

K12

Crash test – K12 rating

American Certification DOS SD-SDT - 02.01 Performed at Texas Transportation Institute
The Texas A&M University System, Texas U.S.A.

Test method

Vehicle weight: 6.8 t
Speed: 80 km/h
Impact energy: 1,679,012 J

M50

Crash test – M50 rating

Certification ASTM F2656-07
Performed at Karco Engineering, LLC.
Automotive Research Center,
Adelanto, CA, U.S.A.

Test method

Vehicle weight: 6.8 t
Speed: 80 km/h
Impact energy: 1,679,012 J

M30

Crash test – M30 rating

Certification ASTM F2656-07
Performed at Karco Engineering, LLC.
Automotive Research Center,
Adelanto, CA, U.S.A.

Test method

Vehicle weight: 6.8 t
Speed: 50 km/h
Impact energy: 655,864 J

PAS68

Crash test – rating PAS68:2013

Certification PAS68:2013
Performed at Aisico srl.
Crash Test Center, Pereto (Aq) – Italy

Test methods

Vehicle weight: 7.5 t
Speed: 50 km/h
Impact energy: 723,380 J

Vehicle weight: 7.5 t
Speed: 80 km/h
Impact energy: 1,851,852 J

IWA14

Crash test – IWA14-1:2013 rating

Certification IWA14-1:2013
Performed at Aisico S.r.l.
Crash Test Center, Pereto (Aq) – Italy

Test methods

Vehicle weight: 7.2 t
Speed: 50 km/h
Impact energy: 694,444 J

Vehicle weight: 7.2 t
Speed: 80 km/h
Impact energy: 1,777,778 J

SK1B

Technical guidelines of the German police for mobile vehicle barriers
Version 0.8

Test methods

Vehicle weight: 7.5 t
Speed: 53 km/h
Impact energy: 986000 J

VADS

Vehicle Attack Delay Standard of the British Centre for the Protection of National Infrastructure (CPNI)

Test methods

A skilled driver must be prevented from getting past the vehicle barrier for a defined period of time with a defined vehicle.

Notes and sketches

Notes and sketches

Brand quality for residential and commercial construction

The family-owned company Hörmann offers all important construction components for building and renovating projects from a single source. We manufacture in highly-specialised factories using state-of-the-art production technologies. Furthermore, our employees work intensively on new products, continual further developments and improvements to details. The results are patents and one-of-a-kind products you can depend on.

