



The new **ARMIS automatic high-security bollards** with integrated hydraulic pump (aggregate) are used both for passageways with increased passage frequency and for simple high-security barriers. They are suitable for access control in city centers or for sensitive areas such as company and industrial entrances, research centers, embassies, police facilities, military bases and many more.

Automatic ARMIS high security bollards convince by:

- certified safety
- high operational safety
- durability due to very high corrosion resistance
- Intelligent control with optional remote monitoring
- attractive, timeless design
- identical design as fixed and manual bollards
- optimal visibility

Design

The timeless design, reduced to a minimum, fits architecturally into all urban areas. The innovative LED bollard head lighting ensures optimal visibility by day and night.

Thanks to identical design, fixed, manual and automatic retractable bollards of the ARMIS series can be seamlessly combined with each other.

Quality and durability

Both the bollard itself and the integrated hydraulic drive are designed for an extremely long service life. High-quality materials and components guarantee this. All parts are made of hot-dip galvanized steel, stainless steel or other non-corrosive materials.

Certification

IWA 14-1:2013 Bollard V/7200[N2A]/48/90:1.8
 PAS 68:2013 Bollard V/7500[N2]/48/90:1.6/1.7



Bollard control unit

Different types of control units in control columns, wall distributions or floor standing booths allow a simple and **intelligent control** with different operating modes. The new smart bollard control enables continuous self-monitoring through various sensors. The advantages of the new control system:

- Self-monitoring bollard / system
- detailed error analysis, shown on the control display
- automatic manual emergency lowering (option)
- automatic emergency lowering in case of malfunction or power failure (programmable)
- visual indication in case of malfunction
- special flashing sequence of the head lighting for fault indication

- brightness adjustment / acoustic pre-warning
- automatic adjustment of the brightness of the head lighting and deactivation of the acoustic pre-warning (at night) by means of geo-coordinates
- data logging and storage
- simplified fault analysis or investigation of evidence in case of incidents (accidents/collisions)

Remote monitoring and remote control (optional)

Optionally, we offer remote monitoring and control via a cloud platform (web-based). The advantages:

- real-time status display of the plant
- web-based control of the plant
- automatic error messages via e-mail / SMS

Options

Adaptation to road inclination

The bollards can be individually adapted to the road inclination. The covers are available in stainless steel or different colors. In addition, the covers can be adapted so that they can be filled with stone slabs or asphalt. Thus, they fit perfectly into any environment.

Heating

In higher areas it is advisable to include a bollard heater. This is automatically controlled with temperature sensors.

Customized bollards

We manufacture the bollard of your choice:

- Surface painted in desired RAL color or sleeve made of stainless steel ground or corten steel.
- laser engraving with logo and/or lettering
- different head illumination
- warning markings

Control columns / terminals

We manufacture suitable operating columns and control elements in individual design.

Advantages at a glance

- attractive design with stainless steel cover
- hot-dip galvanized steel cylinder coated in RAL color or stainless steel sleeve (optional)
- vandal- and operation-proof
- powerful, energy-efficient and durable hydraulic drive with bio-oil
- pump built into the bollard for decentralized functionality
- intelligent control with self-monitoring
- excellent visibility thanks to double reflector foils and 360° top-view LED head for advance warning of lifting in lowered condition
- low installation depth of 113 cm with a blocking height of 80 cm
- EFO circuit for emergency rising in 1.5 s (optional)
- maintenance-free brushless motor, without hydraulics (optional)
- manual lowering in case of malfunction by unlocking at the bollard

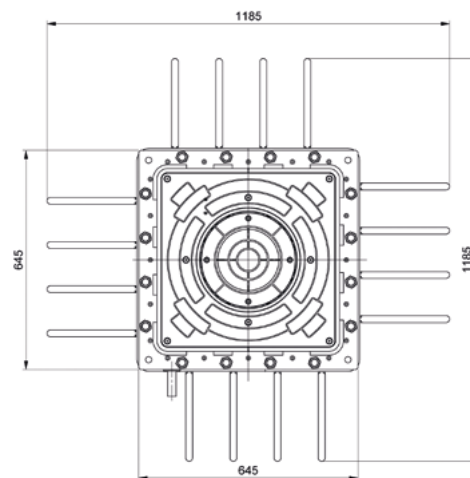
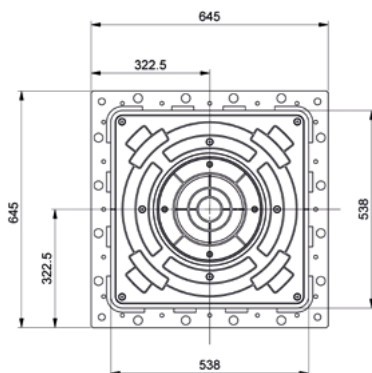
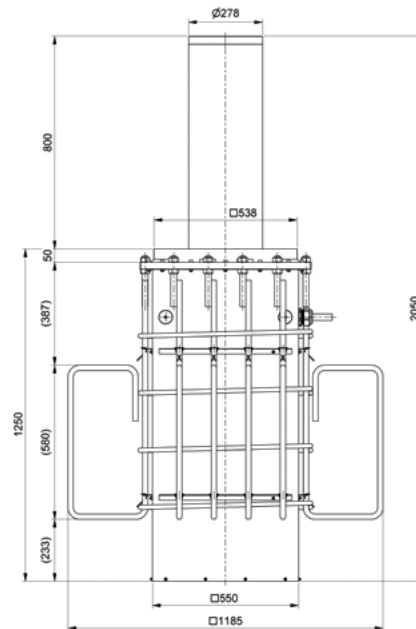
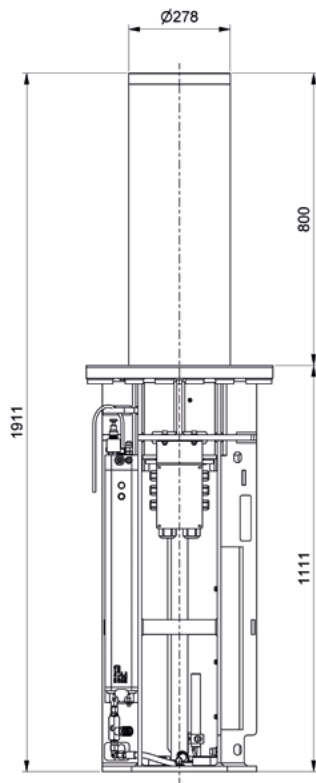
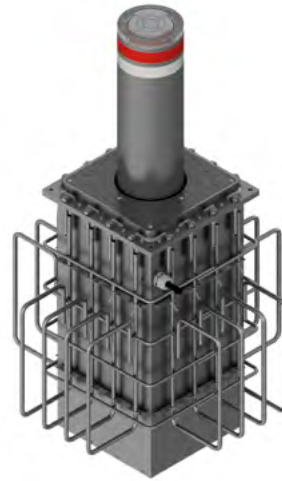
Impact resistance

CIR*	15 30	25 40	35 30	72 30	72 40	72 50	75 30	75 40	75 50	120 30	120 40	300 30	300 40
Speed km/h (kph)	48	64	48	48	64	80	48	64	80	48	64	48	64
Speed m/h (mph)	30	40	30	30	40	50	30	40	50	30	40	30	40
Vehicle weight (kg)	1500	2500	3500	7200	7200	7200	7500	7500	7500	12000	12000	30000	30000
Kinetic energy (kJ)	133	395	311	640	1138	1778	667	1185	1852	1067	1897	2667	4741

* Consel Impact Rating (strength classes high-security products)

Technical specifications

Design	High-security bollard made of high-strength steel in compact design with low installation depth and with integrated hydraulic pump. Connection of the bollard via normal control cables to the external control distribution.
Substructure	compact, extremely strong bollard frame made of hot galvanized steel with color coating
Blocking element	cylindrical bollard with diameter 278 mm (including mantle) and height from the ground of 800 mm
Cylinder material	high-strength, hot-dip galvanized steel painted in RAL7016; optionally other RAL colors or stainless steel sleeve
Corrosion protection	all components made of hot-dip galvanized steel or non-corrosive materials.
Lost casing	pin in aluzinc with hot-dip galvanized steel frame and integrated reinforcement cage for setting in concrete - for a simple and inexpensive foundation design.
Drive (aggregate)	integrated electro-hydraulic pump with bio-oil (Plantohyd S22). Optionally with brushless electric drive.
Driving power	550 W (per bollard)
Controls and cables	control for 1 - 4 bollards installed in control box or cabin. Standard cable with cable length max. 80 m
Bollard head	cast aluminum with acrylic glass ring for illumination (illumination around the perimeter and to the top)
Bollard head illumination	Multi-LED strip protected with continuous light or flashing adjustable (red/white/blue/green or RGB)
Lowering speed	4,5 seconds
Rising speed	6,5 seconds (approx. 1,5 seconds with EFO)
EFO (Emergency fast operation)	optional
Bollard control unit	in separate wall-mounted distributor or cabin
Bollard protection class	IP 65
Load class (ISO EN124)	D400 (40 t); wheel load 25 t
Frequency of use / duty cycle	intensive use (> 2'500 cycles / day)
Reflector tapes	double reflector tape white/red (2 x 55 mm)
Operating temperature	-15° C to +70° C / -40° C to +70° C (with optional heating)
Heating for winter operation (optional)	80 W with thermostatic control (built into the bollard)
Force limitation during lifting	none; optionally available
Acoustic warning (optional)	built into the bollard; can be switched off
Emergency operation / emergency lowering	manual unlocking, bollard remains up in case of power failure. Optional: battery-assisted remote lowering
Impact resistance / shock resistance	maximum resistance strength: 850 kJ Impact resistance: without deformation 500'000 J / breakout resistance: 850'000 J
Certification / Performance Rating	IWA 14-1:2013 Bollard V/7200[N2A]/48/90:1.8 PAS68:2013 Bollard V/7500[N2]/48/90:1.6/1.7 (equals DOS K4)
Weight of bollard system	steel cylinder: 310 kg / Stainless steel sleeve: 315 kg
Weight of shaft incl. reinforcement (without cover)	222 kg
Foundation mass	1800 x 1800 x T:1550 mm



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