



The **ARMIS 72|50 automatic high-security bollards** with integrated hydraulic drive provide reliable protection against vehicle attacks. They are suitable for access control in city centres or for high-security barriers at particularly sensitive facilities such as research centres, embassies, police facilities, military bases and many more.

ARMIS automatic high-security bollards impress with their

- certified security
- high operational reliability
- durability due to high corrosion resistance (optional additional treatment)
- intelligent control with optional remote monitoring
- attractive, timeless design
- optimum visibility

Design

The timeless, minimalist design blends in architecturally with all urban areas. The LED bollard head lighting ensures optimum visibility by day and night.

Both the bollard itself and the integrated hydraulic drive are designed for a long service life. This is guaranteed by high-quality materials and components. As an option, all parts can be made of galvanised steel, stainless steel or other non-corrosive materials.

Certifications

PAS68:2013V/7500(N3)/80/90:9.3/29.1

IWA14-1:2013V/7200(N3C)/80/90:9.6

ASTM F2656/F2656M-20 C750/7200 P3



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 fault messages by 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

- Galvanised steel cylinder coated in RAL colour or stainless steel casing (optional)
- Vandal and operationally safe
- Powerful, energy-efficient and durable hydraulic drive with bio-oil
- Drive built into the bollard for decentralised functionality
- Intelligent control with self-monitoring
- Good visibility thanks to reflector foils and LED head
- Installation depth of 141 cm with a blocking height of 90 cm
- E.F.O. drive: emergency fast operation (optional)
- Manual lowering in the event of a malfunction by unlocking 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 a compact design and with integrated hydraulic drive. 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 271 mm and height from the ground of 900 mm
Cylinder material	Galvanised steel painted, stainless steel AISI 304 or AISI 316 ground
Corrosion protection	All components made of galvanised steel or rustproof 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 drive with bio-oil
Driving power	230/400 VAC +/-10%, 8,5 A (max. 9 A)
Controls and cables	Control unit for 1 - 4 bollards installed in control box or cabin. Standard cable (10m) with cable length max. 80 m.
Bollard head	Cast aluminium with acrylic glass ring for peripheral illumination
Bollard head illumination (optional)	Multi-LED strip protected with continuous light or flashing adjustable (red/white/blue/green or RGB)
Lowering speed	4 seconds
Rising speed	4,2 seconds
E.F.O. (Emergency fast operation)	Optional
Bollard control unit	In separate wall distribution or cabins
Bollard protection class	IP 67
Load class (ISO EN124)	D400 (40 t); wheel load 25 t
Frequency of use / duty cycle	Intensive use (2'000 cycles / day)
Reflector tapes	Reflector tape white/red (55 mm)
Operating temperature	-15° C to +70° C / -40° C to +70° C (with optional heating)
Heating for winter operation (optional)	100 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 strenght: 2'000 kJ Impact resistance: 700'000 J / breakout resistance: 2'000'000 J
Certification / Performance rating	PAS68:2013V/7500(N3)/80/90:9.3/29.1, IWA14-1:2013V/7200(N3C)/80/90:9.6, ASTM F2656/F2656M-20 C750/7200 P3
Weight of bollard system	883 kg
Weight of shaft incl. reinforcement (without cover)	295 kg
Foundation mass	1800 x 1500 x T:1700 mm

