

SYSTEMATIC QUALITY



Retractable bollards



GIFAS
ELECTRIC

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Restricted access overbuilding

Introduction

The demands on today's modern traffic management systems are increasingly challenging and can include regulating traffic flow, establishing traffic-free areas, protection of pedestrians and access limitation at specific locations: the fact is, the demands and needs are increasingly complex and diversified.

GIFAS has developed a retractable bollard system for these types of situations, which can satisfy the most diverse needs of our customers. The retractable bollard can be used to prevent through traffic or parked vehicles on private premises, on pedestrian or bicycle paths, in pedestrian zones, on private properties or parking spaces, while still offering free access to pedestrians.

Our service

- individual consultation, also onsite
- tried and tested product line and systems
- tailor made, customer-specific solutions
- production of single and mass produced series
- spare part availability is guaranteed for entire lifespan
- knowledgeable consultation during installation and start of operation
- sample systems can be viewed (Switzerland, Germany and Austria)
- detailed offers and overall solutions

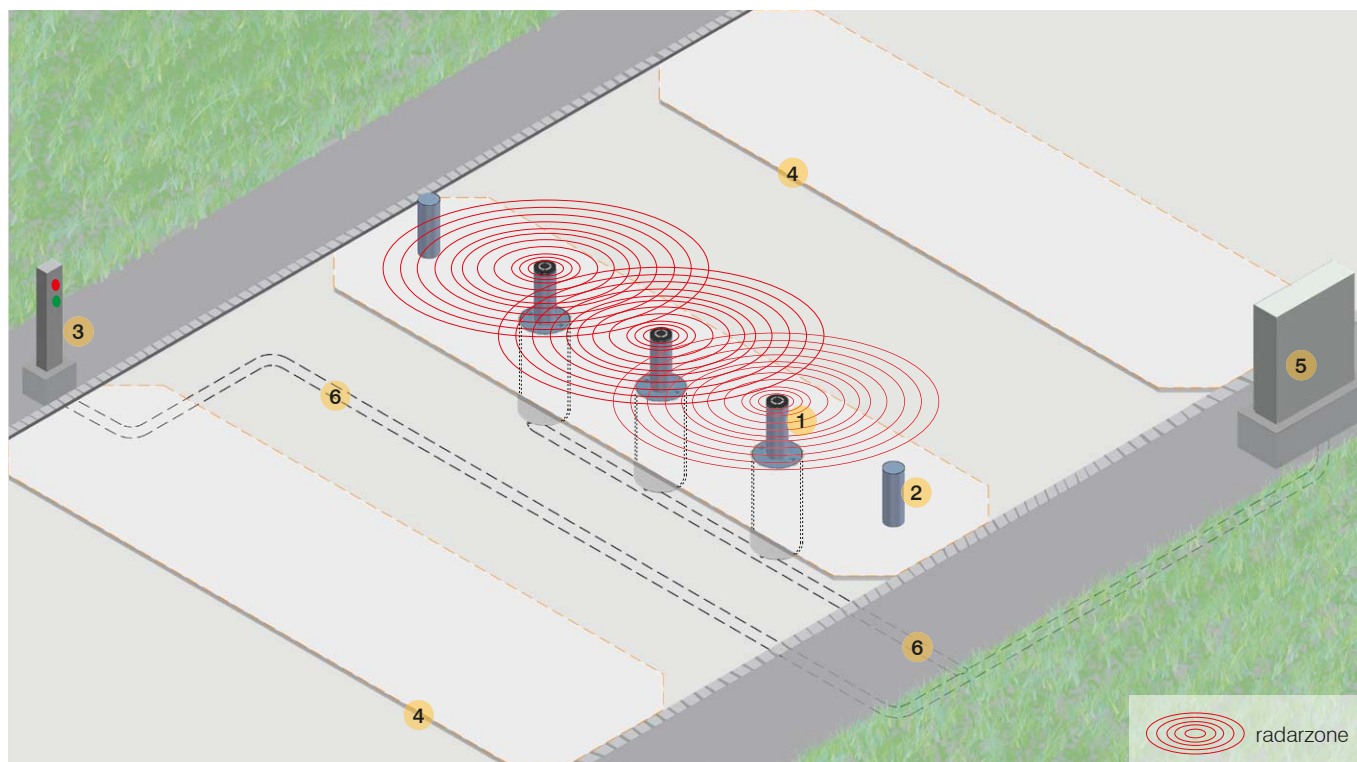
We only use our own high-quality, tried and tested components in order to ensure many years of trouble-free operation.

In the following pages, you will find an overview of the functioning principles and benefits of GIFAS retractable bollards, as well as detailed information about the individual components.

We are always very happy to answer any of your questions.



Access in Caslano



In general

Varied location-specific circumstances and differing needs have resulted in customized systems made up of various components!

A complete system, as shown above, can be made up of the following individual products:

1. Automatic retractable bollards
2. Fixed bollards
3. Intercom column/stoplight system
4. Induction loop
5. Central control
6. Connection lines

2 types of bollards:

We have 2 different types of bollards available for various applications:

Retractable bollard 2:

Automatic retractable bollard «electric»

Fixed bollard:

Fixed bollard (without retracting/extending feature)



3x Retractable bollards 2.0, Office building

Overview of retractable bollard systems

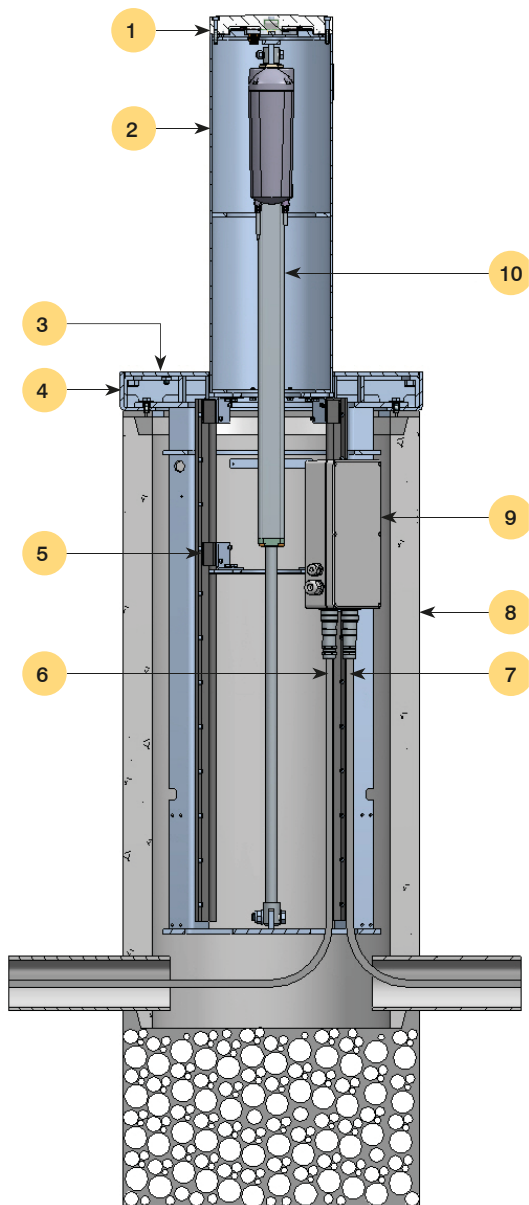


ProTECT «E» Automatic
Electromotor-driven



Fixed bollard
Permanently mounted

Technical Data	Retractable bollard 2 (electric)	Fixed bollard (fixed)
Strain class/ max. load capacity	C250	–
Material/quality	Rust proof stainless steel V2A (tube 1.4301), satin brushed finish	Rust proof stainless steel (1.4301), satin brushed finish
Type of drive	Electromechanical (geared motor on spindle)	–
Speed	approx. 12cm/sec.	–
Operating voltage	24VDC motor	–
Protection type	IP67	–
Extension height	600mm	600mm
LED light strip	48×SideLED RGB 0.08W/24×TopLED RGB 0.2W	–
Radar	Close range to 2m (24GHz)	–
Integrated heating	✓	–
Quick installation	✓	✓
Spare parts for entire life- span	✓	✓
GIFAS support with planning	✓	✓
GIFAS service team	✓	✓
For details, see	Pages 6 – 9	Page 13



1. LED operating light including radar sensor
2. Retractable/extendable bollard column
3. Cover V4A anti-slip R13
4. Telaio a incasso V2A
5. Sliding guide
6. Connection cable 12-pin
7. Loop-through cable 12-pin for further bollards
8. Standard concrete tube
9. Connection / Control casing
10. Linear actuator

RGB LED light strip with integrated radar



Circumferential RGB LED light strip and head illumination

The heart of every system is the retractable bollard itself. This consists of the reinforced frame with three linear guides, the electric linear drive, the control unit and the innovative bollard head.

An external control is no longer necessary for basic functions. Only one movement command is required.

To prevent accidents, the head is equipped with a surrounding RGB LED lighting and two radar sensors.

A standard concrete pipe with the dimensions diam. 40 cm, depth 100 cm is provided for installation in the ground. To finish up with the installation site an Inox V2A STAINLESS steel frame with cover is installed over the pipe, to which the retractable bollard is screwed. Installation and removal can thus be guaranteed within a few minutes, which saves time during a service call.

The retractable bollard is connected by means of a pre-assembled cable, which is simply plugged in. There is an open cable end for connection on the supply side. Further retractable bollards, can simply be looped from one to the next by a plug connection.

The bollard head with programmable RGB LED's guarantees best visibility in every situation. Three different colour states can be defined for the positions:

- downs: e.g green
- ups: e.g red
- when moving: e.g flashing orange

The RGB LED technology allows practically any colour to be chosen. In addition to visual safety, a radar sensor is also installed, which covers the movements in the bollard area and triggers a descent during upward movement until the danger is over.

Electrical connection

The first retractable bollard is connected to the control unit with a pre-assembled cable. On the side of the retractable bollard a plug is already pre-assembled and on the other side an open end for direct connection. The additional retractable bollards are looped from one to the next. The pre-assembled connect cables are simply plugged together.

The following signals can be exchanged by the 12-core cable:
Cores 1 - 4 and PE are required for operation.
The cores 5 - 10 can be used for feedback and signalling if required.

PE: Earth

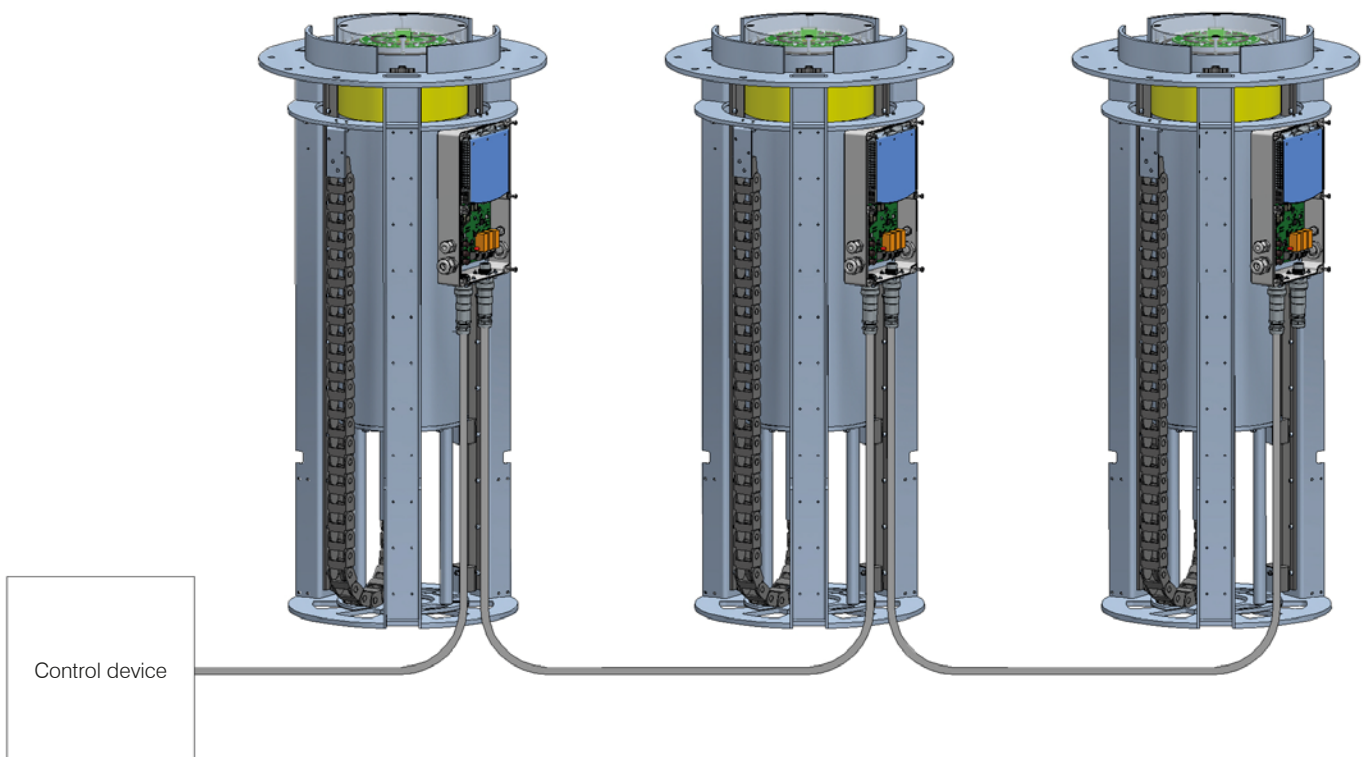
1/2: Power supply (230 VAC)

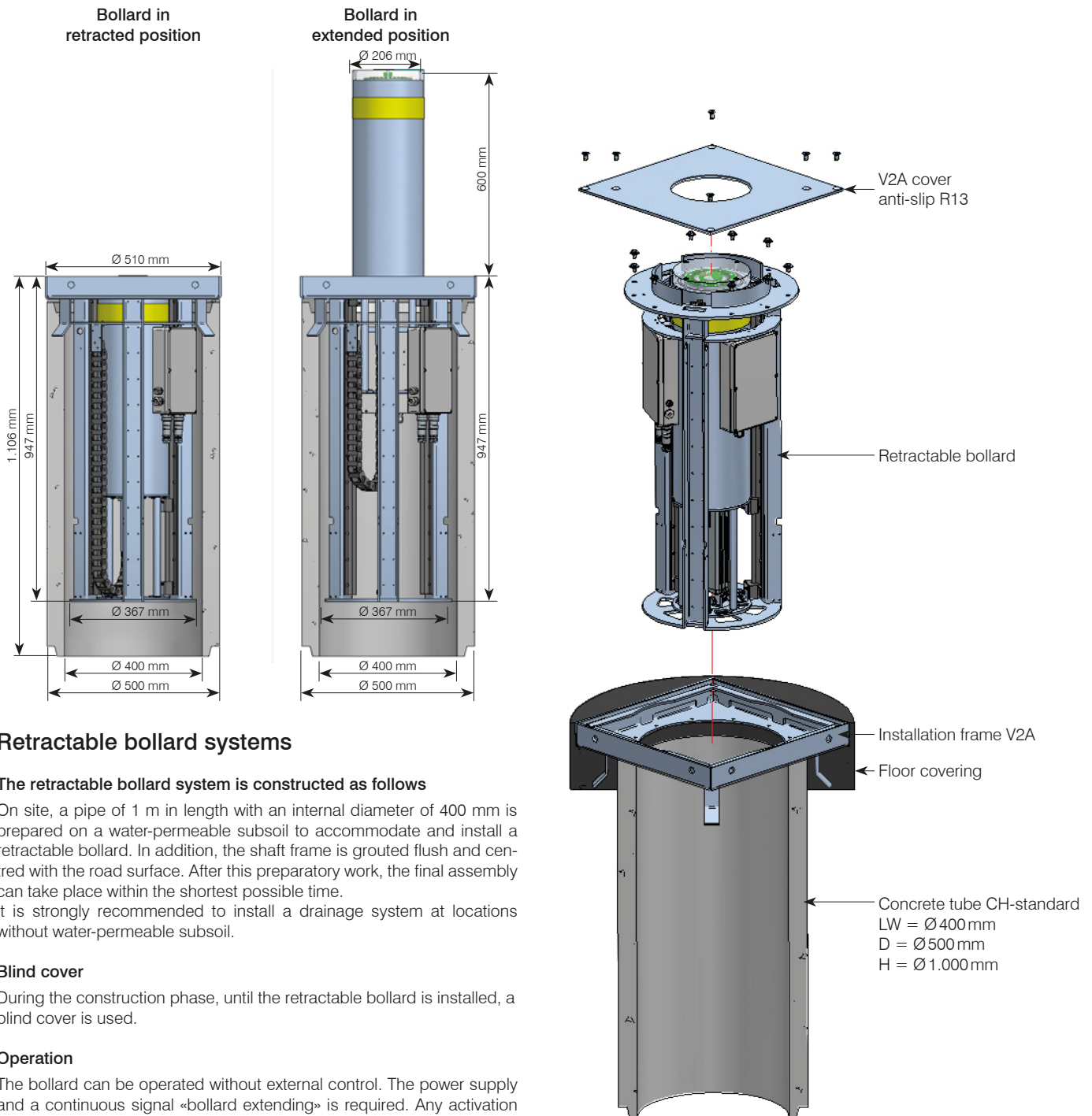
3/4: Retractable bollards – extended (12 - 230 VUC)

5/6: Retractable bollard – potential-free fault (12 - 230 VUC / 3A)

7/8: Retractable bollard – lower end position potential-free
(12 - 230 VUC / 3A)

9/10: Retractable bollard – upper end position potential-free
(12 - 230 VUC / 3A)





Retractable bollard systems

The retractable bollard system is constructed as follows

On site, a pipe of 1 m in length with an internal diameter of 400 mm is prepared on a water-permeable subsoil to accommodate and install a retractable bollard. In addition, the shaft frame is grouted flush and centred with the road surface. After this preparatory work, the final assembly can take place within the shortest possible time.

It is strongly recommended to install a drainage system at locations without water-permeable subsoil.

Blind cover

During the construction phase, until the retractable bollard is installed, a blind cover is used.

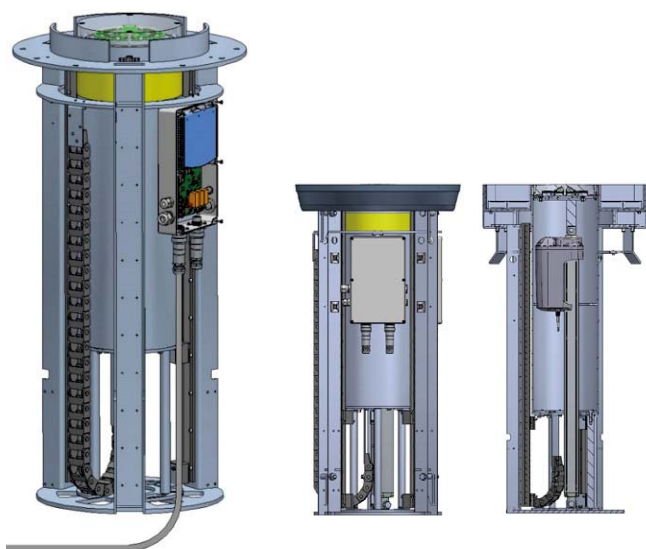
Operation

The bollard can be operated without external control. The power supply and a continuous signal «bollard extending» is required. Any activation can be easily achieved using a radio receiver or a switch.

If additional functions are required, these can be integrated easily into a small optional controller. The control system can be implemented by the on-site electrician or by GIFAS according to customer requirements.

Retractable bollards 2 – Assortment

Retractable bollard



EDP No.	Product-ID-No.	Description
860622	SENKPOLLER2.0. KOMPLETT.INKL. RAHMEN.UND.DECKEL	Retractable bollard 2, incl. guide cage, junction box, mounting frame with stainless steel cover and electric drive, without concrete pipe
CH-860762		Retractable bollard 2, incl. guide cage, junction box and electric drive, without installation frame, stainless steel cover and concrete pipe
860720	SENKPOLLER2.0. ANSCHLUSSKABEL. 10M.12X1,5QMM	Connection cable with connector 12x1.5 mm ² PUR, casing grey with cable length 10 m
CH-860721		Connection cable with connector 12x1.5 mm ² PUR, casing grey with cable length 20 m
860722	SENKPOLLER2.0.ANS CHLUSSKABEL.30M.1 2X1,5QMM	Connection cable with connector 12x1.5 mm ² PUR, casing grey with cable length 30 m
CH-860723		Connection cable bollard to bollard 12x1.5 mm ² , 5 m length with connector and plug pre-assembled
860785	SENKPOLLER2.0. ABSCHLUSSSTECKER. IP68.IP69K	Loop-through cable retractable bollards 2 IP68 / 69 K 1 piece required per supply line
CH-011728		Earthing flex PVC 1x6 mm ² yellow-green
860784	SENKPOLLER2.0.BG. USV.MODUL	UPS emergency lowering*, maintenance-free, without battery

* In the event of a power failure, the retractable bollard retracts automatically and remains in this position until the energy is available again.

Retrofit bollards

For the conversion from the old GIFAS bollard system to the new system. Caution: The old control system and the access cables must be adapted.

EDP No.	Product-ID-No.	Description
CH-189073		Retrofit bollard with electric drive and lateral connection device H 600 mm, including linear guide, excluding retrofit cover and concrete pipe/shaft frame
CH-101491		Blind cover Inox V2A, Ø230 mm complete to cast cover round
CH-186357		Retrofit cover V2A, round, is required for cast cover variant

Concrete tube

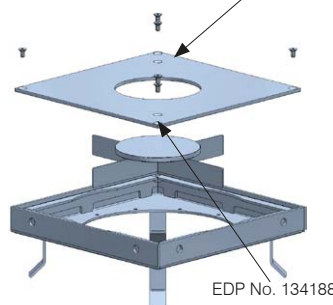
Concrete tube D400, on water-permeable subsoil, (see installation instructions).



EDP No.	Product-ID-No.	Description
CH-103552		Concrete tube 1.000 mm (D=500 mm / NW=400 mm)
860786	SENKPOLLER2.0. KUNSTSTOFFROHR	Plastic pipe 1.000 mm (NW=400 mm)

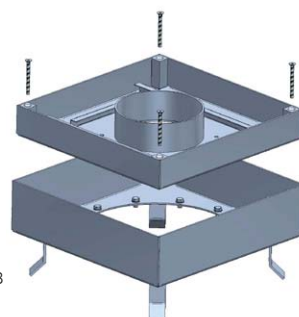
Installation frame standard

EDP No. 185777



EDP No. 134188

Installation frame fillable



Installation frame standard

EDP No.	Product-ID-No.	Description
CH-207788		Stainless steel Installation frame with cover V2A, square 510x510x66 mm, complete assembly kit
CH-185777		Cover V2A 494x494x8 mm for installation frame (185776) Retractable bollards 2
CH-220052		Blind cover Inox A2, rund Ø 222 mm complete to cast cover square

Installation frame fillable

EDP No.	Product-ID-No.	Description
CH-214149		Stainless steel Installation frame with cover V2A without pipe extension, square 510x510x136 mm complete assembly kit
CH-860908		Retractable bollard 2, incl. guide cage, junction box and electric drive, without installation frame, stainless steel cover and concrete pipe

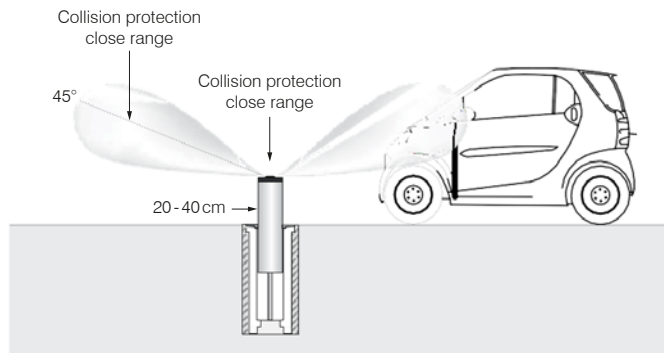


LED strip light

To increase visibility, the retractable bollard 2 is equipped with an RGB LED light strip. The colour of the three states can be freely selected. The brightness as well as the flashing can also be individually adjusted to the customer's needs. A distinction is made between the three states «retracted», «extended» and the state «in motion».

Radar sensors

Retractable bollard with an integrated radar for protection against collisions with persons/vehicles, such as those who are positioned above the bollard or in close proximity.



Integrated heating

For smooth operation in winter, the retractable bollard drive is fitted with an integrated heating system.

Low weight / small dimensions

The retractable bollard can be installed by two persons as soon as the underground construction is finished.

Quick installation

The time required for the installation of each retractable bollard is approx. 30 minutes after completion of the underground construction work, thus ensuring cost-efficient installation.

Easy maintenance

The bollard unit can be easily removed from the concrete pipe, maintained and reinstalled without long interruptions in operation (simple, fast, practical and cheap).

Spare parts available for entire lifespan

Each system component can be purchased from GIFAS as a spare part.

Planning / consulting

We assist all parties involved in the conceptual design and planning of their own system.

Please ask us for an appointment for a visit on site.

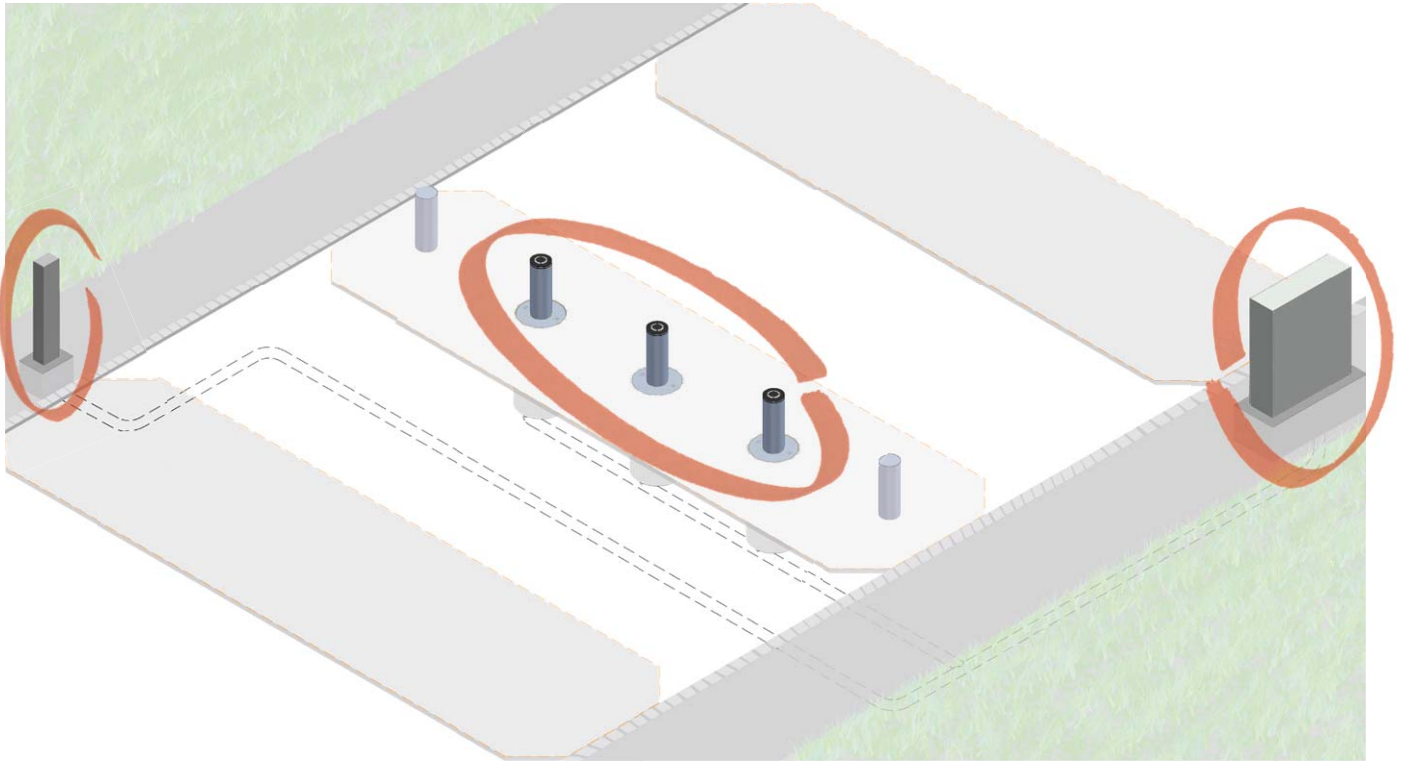
We are happy to work out a customer-specific solution together with you.

Service team

GIFAS has their own service team which gets involved in bollard projects, and actively supports customers onsite (with start of operation, revisions, etc.).



Retractable bollards 2 – Control unit

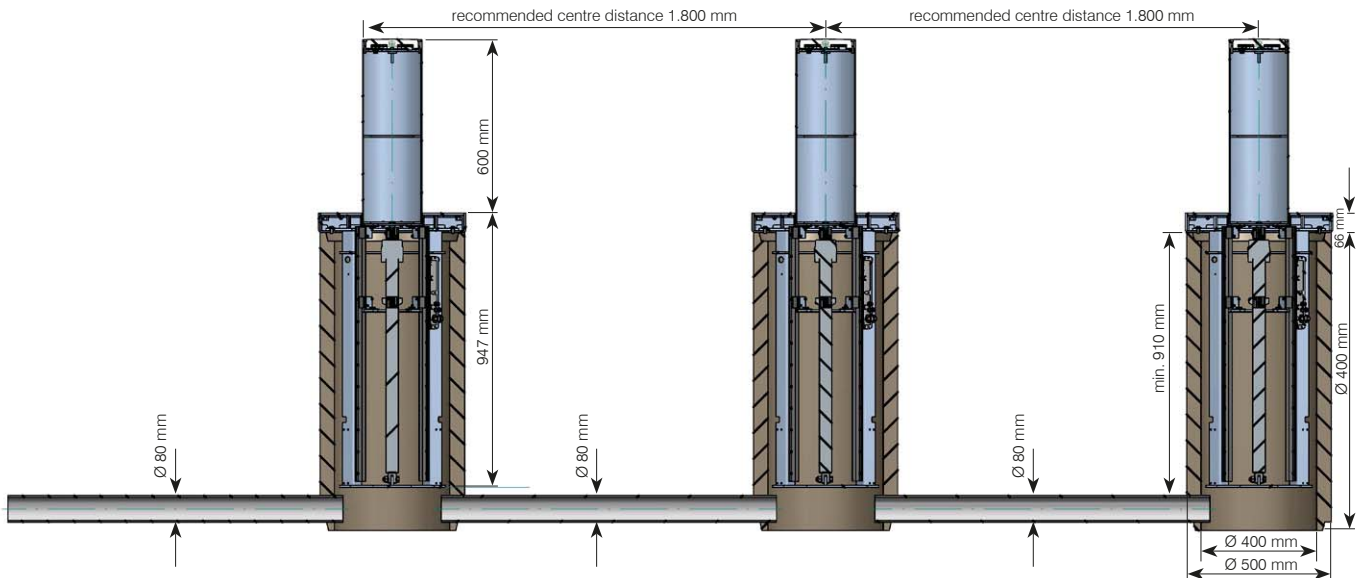


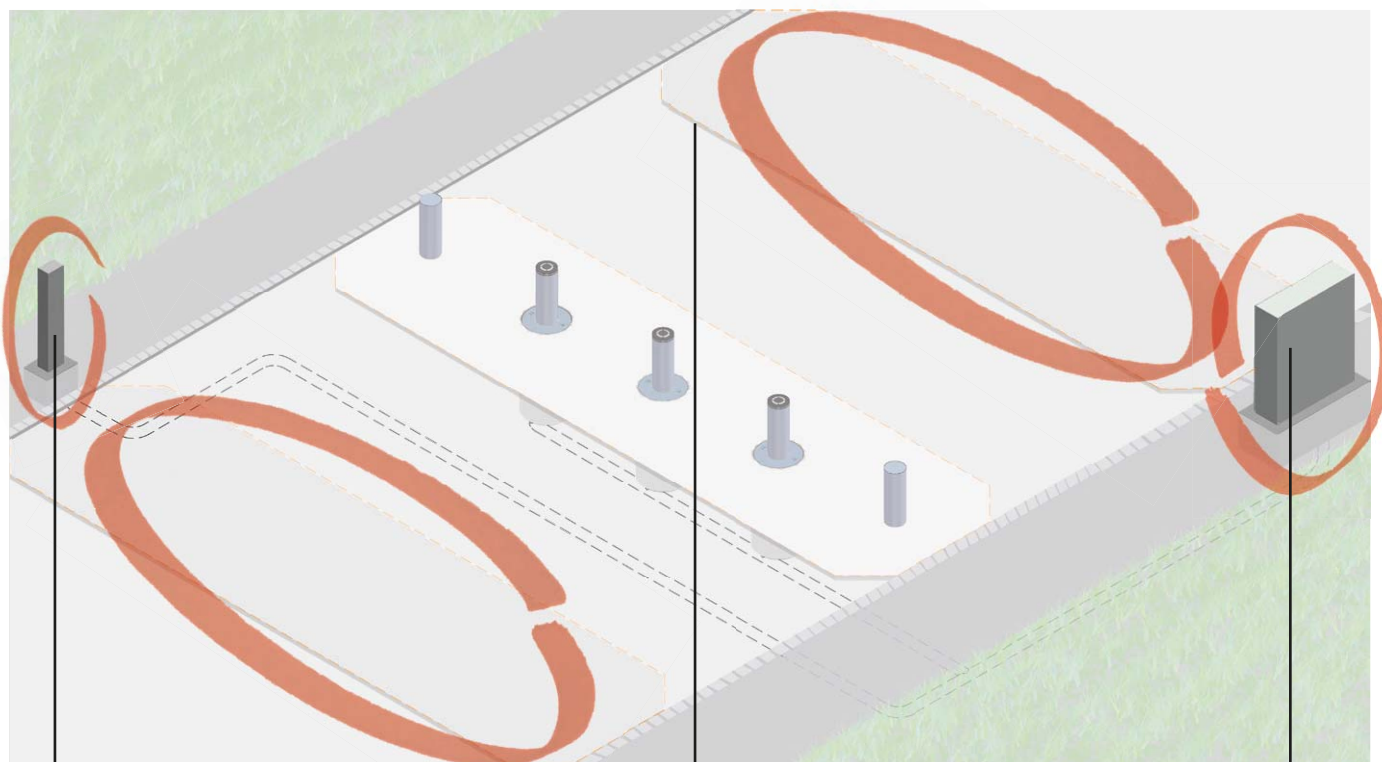
Basic control – Retractable Bollard 2

With the retractable bollard 2 system, all commands are processed directly in the retractable bollard. No external control is required for the basic function. Thus, a very efficient installation can be achieved. Up to six retractable bollards can be connected to each other in one group. It is also possible to install very long supply lines up to the first bollard. Only one continuous signal is required for lifting and lowering. This can be achieved by a switch, a radio receiver or any other control. A power supply in the range of 110 to 240 VAC and the lifting signal is required. Three feedback signals are available in the basic equipment, such as for a traffic light or a higher-level control system. The signals are provided by means of potential-free contacts. The states «retracted», «extended» and «fault» are output.

Extended control functions

If more extensive operating and control functions are required, we can also offer a tailor-made, customer-specific optional control system. If automatic operation is required, additional safety relevant precautions must be taken. Thus, it may be necessary to use induction loops or area radar modules. It may also be necessary to control the access visually by means of traffic light (optional with hazard or information sign). Personalised access control is also possible by means of batch, key switch or other media. We will be happy to advise you individually. With our many years of experience, we are convinced that we can offer an optimal solution for you.





Logout via the access control feature
Code/batch scanning device or fingerprint



Radio transmitter with hand-held transmitter



Transmission via an intercom



Manual operation with a key switch



GSM/Mobile phone-controlled access system



Traffic light



Acoustic signal (horn, etc.)



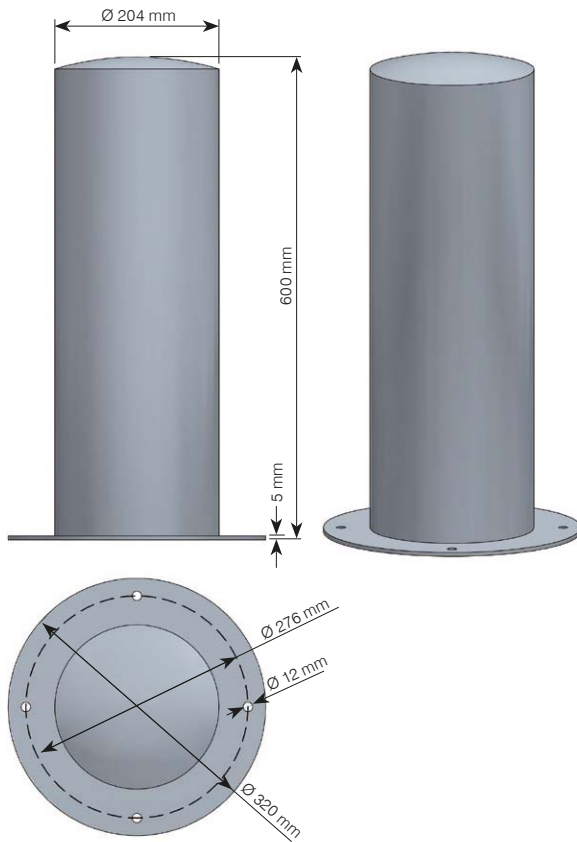
Timer function



Login/logout and security via detector loop



EDP No.	Product-ID-No.	Description
CH-138973		SVS 3-channel receiver SHR-7 L3 in housing for surface mounting 130×85×37 mm
CH-173543		SVS Handheld transmitter 3-channel SHT-7
CH-138975		SVS Alkaline batteries 12V to hand-held transmitter 3-channel



can be attached to flange

With large areas and driveways, it is often unnecessary, or unwise to place retractable bollards across the entire width, but instead, using fixed bollards for the remaining width along with several retractable bollards. For these cases we have developed the fixed bollard, which can be used according to requirements.

Fixed bollard assembly, solid

With these bollards, which are similar in appearance to the standard electromotor-driven model, areas and places can be blocked without major effort and outlay – both in terms of construction and finances. The fixed bollard is usually used as a supplement to the automatic bollards. The fixed model is bolted directly to the ground! Material V2A.



Fixed bollard Wien



Fixed bollard Abtwil



Fixed bollards and Retractable bollard school Thal

EDP No.	Product-ID-No.	Description
CH-135483		Fixed bollard set Ø 204 mm, H 600 mm, with flange



Retractable bollards 2 Schaan



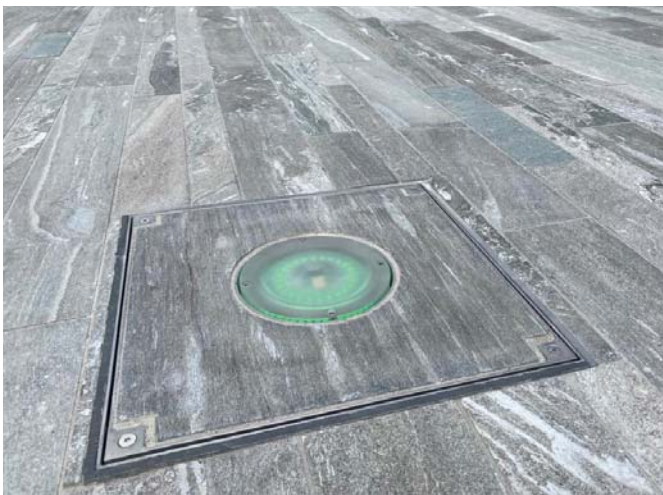
Retractable bollards 2 Caslano



Retractable bollards 2 Schaan



Retractable bollard 2 Caslano



Retractable bollard 2 Schaan



Retractable bollards 2 Caslano

Detailed installation instructions can be found at www.gifas.ch



Retractable bollard 2 Amriswil



Retractable bollards 2 Adliswil



Retractable bollard 2 Amriswil



Retractable bollard 2 Adliswil



Retractable bollard 2 Amriswil



Retractable bollards 2 Adliswil

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