

PAR533

Retractable bollard for high performance UNDERGROUND INSTALLATION

PAR533 is a retractable bollard for high performance designed to contain the energy generated by the impact with a vehicle. The series (oleodynamic, pneumatic or mechanical one) is available in the following versions:

-140/3:	D=140,7 mm,	T= 4 mm,	H= 500 o 700 mm	Fe 360
-140/12:	D=140,7 mm,	T= 12,5 mm,	H= 500 o 700 mm	Fe 510
-200/3:	D= 194,7mm,	T= 4,2 mm,	H= 500 o 700 mm	Fe 360
-200/12:	D= 204 mm,	T=12,5 mm,	H= 500 o 700 mm	Fe 510

The automation is made up of:

- **a mechanical pipe** in Fe360 o Fe510 (mechanical pipe in INOX304 on request) treated in two ways that protect it from the atmospherical agents:
 - Hot galvanizing in depth.
 - Anti-scratch painting in silicone, colour Anthraxite (other colours available on request).
- **A hot galvanizing extractable structure** containing a hydraulic, pneumatic or mechanical system.
 - A unique body structure composed of guides that ensure linearity and resistance to impact. The extractable structure makes every test, maintenance and regulation easy and possible.
 - Reinforced hydraulic system:
 - o Hydraulic piston
 - o Hydraulic board, oil bathed motor and hydraulic distributor with bidirectional electronic valves and safety valves.
 - Pneumatic system:
 - o pneumatic piston ISO
 - o solenoid control valve
 - o safety valve
 - o air tank located inside the bollard (optional)
- **A hot galvanizing formwork** with holes for the passage of the electrical pipes.
- **A manifold with manual release of emergency patented** activated through a personalized device (only in the hydraulic version). All bollards are supplied with "SBLOCCO SMALL" manifold (device for manual release).

The release manifold CSA(TI021) has the predisposition to easily add:

 - The hydraulic electrical valve for the going down of the bollard in case of breakdown or lack of tension.
 - The manostat
 - A box for the electrical connections
 - 2 "FAST CLIP": multipolar connectors with quick graft IP67 for a fast and safe connection of the bright and sensitive head.

These connectors:

 - o allow you to customize the length of the installation cables
 - o allow you the fast release of the bollard from the control board
 - o allow you an easy maintenance
 - The armoured pump locking with personal key to ensure total safety even in case of tampering or vandalism.
 - Acoustic signaller 230 Vac.
- **LIGHT DIFFUSER** installed in the sensitive head; this allow you to see the bollard although fully lowered.
- **Magnetic limit switches IP67** installed both in opening and in closing to regulate the maximum stroke of the bollard.
- **A retro-reflective adhesive stripe** with bright response, that allows the visibility of the bollard during the night.

There are optional that can be installed together with the basic bollard:

- **SAFETY SENSITIVE HEAD (patented):**

It is approved as safety device for the detection of the obstacles by the counterweight movement of the aluminium cover that, in presence of an obstacle(CABI140: minimum 3,7 kg CABI200: minimum 4 kg) inverts the movement ensuring the maximum safety. Inside the safety device are used redundant limit switches with positive opening (for the interruption of the signal) and multipolar connector with quick graft IP67 for a fast and safe connection of the bright and sensitive head. The sensitive head belongs to the values of the limitation of the allowed forces of the law EN12453.
- **CONTROL BOARD:**

It is dedicated to the management of: four (4) bollards, bright head, electrical valve, safety devices and safety sensitive head.
Unique for the respect of the current rules.
Certified because it passed tests of electro-magnetical compatibility and electrical safety, among which the law EN60204-1.
r.e.m. redundancy system. It ensures the good working of the bollard even in presence of a breakdown, avoiding unexpectedly starting or missing stop.
Traffic lights this output is managed to let the bollard rise only after a scrupulous internal control.
- **SOUND RECOGNIZER**
- **MAGNETIC TRACER**
- **PHOTOCELLS**
- **SELF REGULATING RESISTANCE WITH SINK IN ALUMINIUM.**

CHECK-UP: Every bollard is given with an initial check up that foresees a continuous cycle of four (4) days to validate quality and functionality.

FULL OPTIONAL: The basic bollard thanks to its versatility has the possibility of transforming itself in a FULL optional bollard.

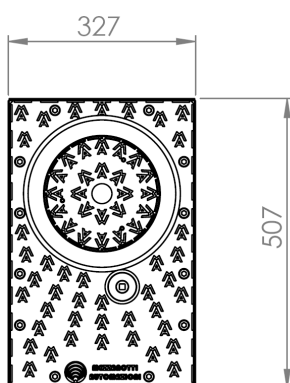
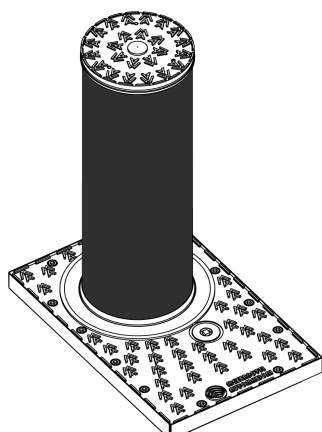
EASY MAINTENANCE: equipped with a system that makes the substitution and the maintenance easy in a few and simple steps.

Available, on request, other kind of accessories.

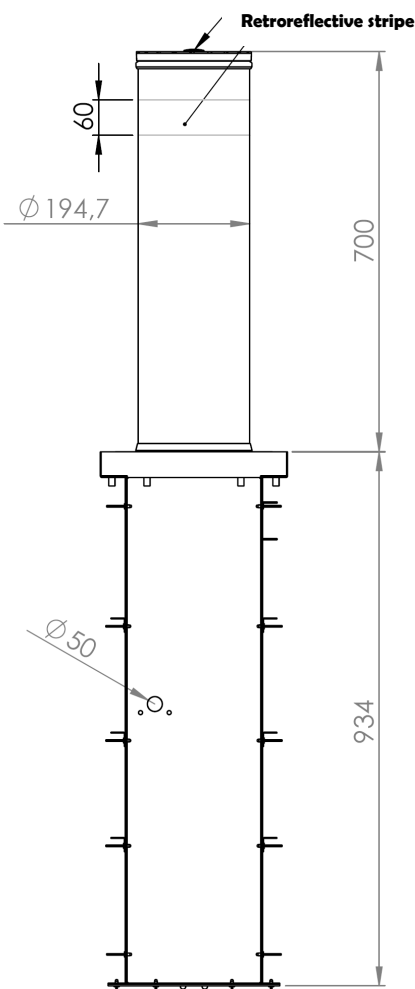


PAR533

GENERAL VIEW



LED light



TECHNICAL DATAS

HYDRAULIC 200/XX		PNEUMATIC 200/4P
THICKNESS 4	THICKNESS 13.5	THICKNESS 4

HYDRAULIC BOARD

Hydraulic pump	P 30	-
Hydraulic capacity	5,27 litres/M	-
Working pressure	15 bar	-
Maximum pressure	30 bar	-
Static weight	12 Kg	-
Protection rating	IP 54	-
Working temperature	0°C ÷ +60°C	-
Antifreeze system	Temperature < 1°C	-
Hydraulic oil	ATF DEXRON ISO VG32	-

HYDRAULIC PISTON

Piston diameter	40 mm	53 mm
Diameter of stalk	16 mm	16 mm
Shaft stroke	500 mm/700 mm	500 mm/700 mm
Time of exit of shaft	4/6 sec	1 / 2 sec
Working temperature	0°C ÷ +60°C	0°C ÷ +60°C
Antifreeze system	Temperature < 1°C	Temperature < 1°C

ELECTRICAL ENGINE

Absorbed power	350 Watt	-
Power supply	230Vac ± 10% - 50hz	-
Rotation speed	2.800 RPM	-
Absorbed current	2,1 A	-
Capacitor (to add)	16-20 µF	-
Lubrication	Hydraulic oil	-

PERFORMANCE

Cycle of service	6s opening - 30s pause - 6s closing	Adjustable speed
Time of complete cycle	42 seconds	
Complete cycles	N° 85/hours	
Opening-pause-closing		
Annual cycles (with 12 working hours per day)	N°372.300	
Going down of the column in lack of tension	Yes	Yes
		Adjustable

EQUIPMENT CHARACTERISTICS

Total weight	70 kg / 81 kg	98 Kg / 117 kg	70 kg / 81 kg
Mechanical pipe material	Fe360	Fe510	Fe360
Resistance to IMPACT (guesstimate)	5000 J	15000 J	5000 J
MECHANICAL PIPE COLOUR	Anthracite gray		Anthracite gray
LED power	24 Vcc		24 Vcc
Magnetic LIMIT SWITCHES (NC) (contact characteristics V150-W10-A0,5)			

FURTHER ACCESSORIES

Armoured lock to protect the release	-
Acoustic signaller 230Vac	
OBSTACLE DETECTION high reliability (sensitive head) minimum sensitiveness 3.5 Kg	
LIMIT SWITCH with positive opening AC15 (250V 5A)	
Heating resistance for low temperature	
Electrical valve	
Connection box (different cable measures available 5,10,15,20 mt.)	
Connection box with plugs IP67 installed and wired	
Connection box with plugs IP67 installed and wired + Sockets IP67 with cables (customizable length).	
-	Additional air tank
Fixing plates for formwork	Fixing plates

The above mentioned article is without control board included.