



FAAC SECURITY BOLLARD J355 HA M30-P1

PROCUREMENT SPECIFICATION



FAAC S.p.A.
Via Calari, 10
40069 Zola Predosa
Bologna - Italy
Tel. +39 051 61724
Fax +39 051 75 85 18
www.faacgroup.com

S.p.a. - Capitale Sociale Euro 774.000,00 i.v.
Codice Fiscale 02169920374
Partita IVA 00555751205
Partita IVA Comunitaria IT00555751205

Registro Imprese (BO) 02169920374
R.E.A. (BO) 253956
Comm. Estero Posiz. R.E.A. Bologna M 008038

Hydraulic Automatic retractable HIGH SECURITY BOLLARD M30 rated (former K4 rated) for intensive usage, certified and crash tested in accordance to ASTM F2656-07 M30 standard ("Standard Test Method for Vehicle Crash Testing of Perimeter Barriers").

APPLICATIONS:

Sensitive areas, like: military sites, airports, embassies, consulates, banks, marine zones, prisons, sensitive industrial sites or wherever is required an high security level in terms of perimeter protection.

PRODUCT FEATURES:

The bollard is made by a steel cylinder height 1000mm off ground, diameter 355mm, thickness 16mm, with built-in reinforcement disks and surface treatment in cataphoresis and polyester powder painted, or with additional jacket AISI 316 satin stainless steel.

The support structure is made with reinforced steel and the bollard and the support structure drop into a pit unit that sits in the foundation.

J355 M30-p1 Bollard is designed to stop a vehicle weighing 6.800 Kg, running at 50Km/hour and having capability to adsorb at least an energy of 656.000Joules and a max penetration range of P1 ($\leq 1m$) as defined in accordance to ASTM F2656-07 standards.

An optional mechanic release to lower bollard at any time in any circumstance is accessible after removing the roadway plate frame that is protected by tamper proof screws.

All internal fixing frames for cables, sensors, etc., are realized in stainless steel, to avoid corrosion.

Global bollard protection rate is IP66, as well as internal electric connectors and junction box.

Bollard speed on normal duty:

Rising time 6.0 sec. / Lowering time 2.0 sec.

The above operation time must be kept constant on defined duty cycle.

Bollard equipped with the EFO unit –Emergency Fast Operation- (option) speed on emergency conditions:

Rising time 1.5 sec. / Lowering time 2.0 sec.

Bollard cannot be lowered until the EFO emergency is reset.

Cylinder above ground is visible on all environment conditions, having a reflecting strip at least at 55mm height all around the cylinder itself, as well as LED lights that flash when bollard moves and stay permanently ON when upraised.

HYDRAULIC DRIVE UNIT-

Hydraulic drive unit is integrated into the bollard structure and consist of a double pump unit, powered by two electric motors (voltage 230AC) able to grant suitable operation.

In case of power failure, while the cylinder is upraised, it must remain in high position. To lower the cylinder, an electric source has to supply the unit to get normal operations.

CONTROL BOARD:

It's supplied with 230VAC voltage – 50/60Hz.

The control board is external and must manage each individual bollard, equipped with a built-in dual loop detector and includes programmable logic and provides all commands for normal operation.

To link the bollard and the control board, a 16+1 conductors -min 1,5mm section- cable shall be employed.

OPERATING TEMPERATURE AND WEATHER CONDITIONS:

Bollard shall be fully operational within following conditions:

Operating temperature	-15 °C / +55 °C
Operating temperature with heater (accessory)	-40 °C / +55 °C

OPTIONS:

An auxiliary Emergency Fast Operation circuit option is available. EFO is a distinct hydraulic circuit, consisting of a pressure reserve source and interconnected lines and valves. This circuit shall provide the power to operate the Bollard(s) at emergency fast speed (as below specified).

The cylinder finishing can be:

- Cathaphoresis and polyester powder painted Dark grey metallised
- Stainless steel satin finishing

ACCESSORIES:

A Pit heater can be added, to enlarge the operation temperature range to extreme low temperatures (as below specified).

A manual release safety kit can be added to lower the cylinder in case of blackout.

TECHNICAL SPECIFICATIONS

J Series Model	J355 M30-P1 HA H1.000	J355 M30-P1 HA H1.000 INOX	J355 M30-P1 HA EFO H1.000	J355 M30-P1 HA EFO H1.000 INOX
Drive	Hydraulic unit	Hydraulic unit	Hydraulic unit	Hydraulic unit
Cylinder height from ground [mm]	1.000	1.000	1.000	1.000
Cylinder diameter [mm]	355	355	355	355
Cylinder material	Steel S355JR EN 10210 (16mm thick)	Steel S355JR EN 10210 (16mm thick)	Steel S355JR EN 10210 (16mm thick)	Steel S355JR EN 10210 (16mm thick)
Cylinder surface	Cataphoresis and polyester powder painted Dark grey metallized RAL 7021	Satin finishing	Cataphoresis and polyester powder painted Dark grey metallized RAL 7021	Satin finishing
Head	Aluminium painted case RAL 9006	Aluminium painted case RAL 9006	Aluminium painted case RAL 9006	Aluminium painted case RAL 9006
Rising time [s]	~6	~6	~6	~6
Emergency fast rising	NO	NO	YES (E.F.O)	YES (E.F.O)
Emergency fast rising time [s]	-	-	~1,5	~1,5
Lowering time [s]	~2	~2	~2	~2
Emergency manual lowering	YES (Option)	YES (Option)	YES (Option)	YES (Option)
Power supply	230V ~ 50(60Hz)	230V ~ 50(60Hz)	230V ~ 50(60Hz)	230V ~ 50(60Hz)
Max power consumption [W]	2.500	2.500	2.500	2.500
Max pushing force [N]	5.000	5.000	5.000	5.000
Hydraulic unit protection Index	IP67	IP67	IP67	IP67
Suggested Usage	Perimeter protection	Perimeter protection	Perimeter protection	Perimeter protection
Reflective strip height [mm]	55	55	55	55
Reflective strip colour	White	White	White	White
Impact resistance [J]	150.000	150.000	150.000	150.000
Break in resistance [J]	656.000	656.000	656.000	656.000
Total weight [Kg]	740	740	740	740
Pit weight [Kg]	250	250	250	250
Bollard weight [Kg]	490	490	490	490
Operating temperature	-15 °C / +55 °C	-15 °C / +55 °C	-15 °C / +55 °C	-15 °C / +55 °C
Operating temperature with heater (accessory)	-40 °C / +55 °C	-40 °C / +55 °C	-40 °C / +55 °C	-40 °C / +55 °C
Underground product dimensions WxDxH [mm]	570 x 690 x 1.665	570 x 690 x 1.665	570 x 690 x 1.665	570 x 690 x 1.665
Required excavation dimensions WxDxH [mm]	3.200 x 1.600 x 1.800	3.200 x 1.600 x 1.800	3.200 x 1.600 x 1.800	3.200 x 1.600 x 1.800
Supply cable	16+1 conductors – min. section 1,5mm (not supplied)	16+1 conductors – min. section 1,5mm (not supplied)	16+1 conductors – min. section 1,5mm (not supplied)	16+1 conductors – min. section 1,5mm (not supplied)
Max cable length [m]	50	50	50	50

PIT:

Dimensions	590 x 670 x 1665 mm
Material	Steel sheet alloy, thickness 2mm (+frame to be walled in)
Main frame	Ductile casted iron GS400, treated with cataphoresis

FOUNDATION:

Concrete Specifications:	<p>Class C25/30 Concrete with 10-30 aggregate according to UNI EN 12620 standard</p> <p>Bollard shall be installed after at least 7 days of concrete setting</p>
Surrounding ground compacting index	≥ 90% of the “Proctor” optimum curve, according to UNI EN 13286-2:2005 standard
Reinforcing foundation bars	≥Ø12mm iron bars B450C Class, according to ASTM A615 - Grade 60