

Procurement Specification for an EX750 Rising Arm Barrier

A. Requirement

This document is to be used to specify the physical and operational requirements of the EX750 Rising Arm Barrier.

The EX750 Barrier is to be certified to EU standards EN 80079-36:2016 and EN 80079-37:2016.

The product is to have an ATEX classification of II 2G IIB c T3 and / or an IECEx classification of Ex h IIB T3 Gb:

Zone 1
Category 2G
Gas Group IIB (all gases excluding acetylene, hydrogen & Carbon disulphide).
Temperature classification T3 (maximum surface temperature 200°C)
Equipment Protection Level (EPL) of Gb.

This product is to be installed in maximum Zone 1 / Category 2.

B. Barrier Unit

B.1 Barrier Construction

The steel cabinet is shot blasted, painted finish with zinc rich primer and surface finish with INVER S.P.A. 40496 NP ESD Rosso 3001 (red), thickness 80 microns (anti-static paint).

All electrical controls are housed within an ATEX / IECEx Ex d explosion proof certified enclosure, the enclosure should also be IP66 rated.

All electronic / electrical components that cannot be contained within the certified control housing are to be ATEX / IECEx certified to the match the protection level of the product as a whole.

The controller will accept inputs from an access control system.

Barrier Arms shall be of rectangular extruded aluminium 76 x 38mm white powder coated with red fascal strips, Max length 5m.

B.2 Barrier Height

The height of the Barrier Arm when in the closed (lowered) position, as measured from the top of the Arm frame to the road surface, will be a minimum of 910mm.

B.3 Barrier Width

The width of the Barrier Arm will be between 3,000mm and 5,000mm to suit site conditions.

C. Technical Details

C.1 Motor

The heavy duty motor used will be a single ph, 230v unit with a power rating sufficiently sized to allow for continuous operation (100% duty cycling).

The motor should be protected by a thermal overload cut out device.

C.2 Power fail conditions

A winding handle will be provided to enable the manual raising and lowering of the Barrier Arm in the event of electrical power failure.

D. Control System

D.1 Voltage

The main system input voltage is to be 230v 1phase 50Hz supply (other options available) with the control system operating at 24V SELV provided from an internally mounted power supply.

E. Access Control

E.1 System Interfacing

The control system will be capable of accepting inputs from every major type of access control including but not limited to – Push buttons to raise, lower and emergency stop, swipe card readers, proximity card readers, inductive loop systems, RF transmitter equipment and biometric readers

Please note that any access control systems / push buttons etc. must be fully compliant with the same ATEX / IECEx classifications if mounted on the equipment.

F. Performance

F.1 Manufacturers Experience

The manufacturer of the EX750 will have a minimum of 25 years' experience in the manufacture, installation and maintenance of this type of equipment and must be a member of a recognised Professional Trade Association.

Manufacturers of IECEx products must be certified to manufacture and supply IECEx certified products.

F.2 Speed of operation

Standard operation speed will be 4.2 seconds for either raising or lowering.

In normal operation the Rising Arm Barrier shall be capable of 100% duty cycling and must have been satisfactorily factory tested in a single continuous run of 1,200 cycles.

F.3 Testing

The EX750 design must fully comply with CE regulations.

G. QA

G.1 Equipment Testing

The manufacturer will have fully tested the EX750 and Control System prior to despatch. These tests will be fully traceable to each unit despatched and must be transparent.

The QA testing will include dimensional checks, workmanship quality and finish as well as full operational testing. Once fully tested, the EX750 will be fitted with a nameplate bearing the manufacturers details, product model number, ambient range, serial number, ATEX / IECEx certificate number, protection level and year of manufacture.

The manufacturer's quality system must be certified to ISO 9001.

G.2 Despatch

The EX750 will be suitably packed ready for despatch & shipping.

Two full sets of operation and maintenance manuals will be provided with the equipment to include site specific program, wiring and installation drawings.

A full technical file will be provided for each project.

H. Disclaimer

This type of equipment is designed for high security use and while it is possible to integrate a number of safety features into the system design, it is strongly recommended that a safety / security risk assessment is carried out prior to specifying the product and any necessary safety systems.

Avon Barrier Corporation Ltd can provide information on safety systems to suit most sites / applications on request.

I. Procurement Source

The EX750 Rising Arm Barrier can be purchased from the following sources:

Avon Barrier Corporation Ltd
149 South Liberty Lane
Ashton Vale
Bristol
BS3 2TL UK
Tel +44 117 9535252
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