

IEC Ex Installation Instructions

F244-XE -
F273-XE

XE Megablock Series



Product manufactured after 2014 have been updated to use 'Ex e' certified (and marked) connectors. The previous pluggable connectors CANNOT be used with these newer units. Swapping an older XE Megablock for a newer one REQUIRES that the Pluggable connectors on the new XE Megablock are used. The reason for this requirement is that the connectors used in product manufactured in 2014 or earlier do not conform to the change in the Increased Safety standard (EN 60079-7).

1010.1 Equipment Information

Equipment Class III, Pollution Degree 1, Installation Category I

Maximum Altitude: 2000m

Humidity: 0 to 90% (non-condensing)

Operating Temperature: -45°C to 70°C

For Indoor Use Only (IP 54 minimum enclosure)

Electrical Ratings (see Drawing for connection information and certified devices)

Area Classification

Ex eb mb IIC T4 Gb (Class I Zone 1)

Ratings

30VDC, 1.5A

Drawing

Below

Agency

DEKRA

Installation

Refer to the drawing that is appropriate for the area in which the Megablock series device will be installed. These drawings represent typical installations and are intended to address the safety aspects of the area for which they are drawn. Actual segment connections may vary depending on factors such as the required number of Fieldbus devices to be connected to the segment (determines the specific models and quantities of Megablocks used).

IMPORTANT: For SpurGuards to work properly, the Fieldbus Segment MUST be isolated from ground.

The standard Screw Terminal Connectors are used as follows: Make sure the screw is loosened to accept the wire. Insert the wire making sure that all strands enter the wire clamping area. Also ensure that no insulation will be clamped and that bare wire does not extend beyond the edge of the plastic connector. Tighten the screw to the specified torque on the drawing. For the optional Spring Clamp Connectors (models with '-PC' suffix), the procedure is similar except that the wire is inserted into the connector while the spring loaded button is pressed with a screwdriver. Releasing the button secures the wire to the connector.

Mounting

Megablocks are designed to be mounted on 35 mm DIN rail using the clip mechanism on the back of each unit. Mounting can be vertical or horizontal. Use of DIN rail end stops is recommended.

Megablocks must be installed inside of an enclosure with a minimum rating of IP 54.

Once all wiring connections have been made, the retaining screws on each pluggable cable connector should be securely fastened.

Testing/Troubleshooting

Once DC power has been connected to the Fieldbus segment, the green power LED on the Megablock should be lit, indicating that a minimum of 9.5VDC is present on the segment trunk. **If the green LED is not lit**, verify the integrity and polarity of the trunk cable connections to the Megablock, that the voltage measured at the trunk connection to the Megablock is greater than 9.5VDC, that there are no shorts in the trunk cable, and that the power supply is operating properly.

On Megablock models with SpurGuard™ current limiters, verify that none of the red short circuit LED's are lit. **If any of the red LED's are lit**, remove the three-conductor plug from the affected spur connection. Locate and repair the short circuit on the spur cable before reconnecting.



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Operation

During normal operation, the green power LED should be lit. If the green LED is not lit, follow the instructions in the testing/troubleshooting section above.

A lit red LED indicates a short in a spur cable or in the Fieldbus device connected to the spur cable. The LED will cease to be lit once the short has been repaired.

Maintenance Requirements

Megablocks contain no user serviceable parts. Non-functioning units should be returned to the manufacturer for replacement or repair. No regular cleaning is required. Visible dirt may be removed with a damp cloth.

Schedule of Limitations

When installed in potentially explosive atmospheres, the Fieldbus XE Megablock and Terminator shall be installed into an enclosure which meets the requirements of a recognized type of protection in accordance with IEC 60079-0.

For Further Information

Contact your local Eaton/MTL representative or Relcom Inc. as listed at the bottom of this page.

