

Schneider Service Manual

FBM242

1. Description

FBM242

3. Product Information

FBM242 | Foxboro (by Schneider Electric) | Externally Sourced, Discrete Output Interface Module

Foxboro (by Schneider Electric)

Product No. : FBM242

Product Type : Externally Sourced, Discrete Output Interface Module

Features : Sixteen discrete outputs, Supports discrete output signals at voltages of 15 to 60 V dc ,120 V ac/125 V dc , 240 V ac , Each input and output is galvanically isolated , group isolated when used with external excitation , Compact, rugged design suitable for enclosure in Class G3 (harsh) environments, Executes the Discrete I/O or Ladder Logic program, with the following configurable options Input Filter Time, Fail Safe Configuration, Fail , Safe Fail-Back, and Sustained or Momentary Outputs

Input Voltage Range (Redundant) : 24 V dc +5%, -10%

Consumption (Maximum) : 3 W (maximum) at 24 V dc

Heat Dissipation : 6.5 W (maximum) at 24 V dc (with all outputs at 1.5 A each)

Calibration Requirements : The module and termination assemblies require no calibration.

Temperature Module : -20 to +70°C (-4 to +158°F)

Termination Assembly PVC : -20 to +50°C (-4 to +122°F)

Relative Humidity : 5 to 95% (noncondensing)

Dimensions (L x W x H) : 10.4 cm x 4.5 cm x 11.4 cm

Weight : 0.284 kg

Output Channels Sixteen isolated channels.

Applied Voltage 15 to 60 VDC (maximum)

Load Current 2.25 A (maximum) per channel

Load Current-In-Rush 8 A (maximum) for 20 ms per channel at 30°C.

6.4 A (maximum) for 20 ms per channel at 70°C.

On-State Voltage Drop 0.2 V (maximum) at 2.25 A

Off-State Leakage

Current

0.1 mA (maximum)

Inductive Loads Module output may require a protective diode or metal oxide varistor (MOV) connected across the inductive load.

Output Channel

Isolation

Each channel is galvanically isolated from all other channels and earth (ground). The module withstands, without damage, a potential of 600 VAC applied for one minute between any channel and ground, or between a given channel and any other channel.

Communication Communicates with its associated FCM or FCP via the redundant 2 Mbps module

Fieldbus

Power Requirements • Input Voltage Range (Redundant):

24 VDC +5%, -10%

• Consumption (Maximum)

3 W (maximum) at 24 VDC

• Heat Dissipation (Maximum)

2.5 W (maximum) at 24 VDC (with all outputs at 1.5 A each)

Calibration

Requirements

Calibration of the module and termination assembly is not required.

RoHS Compliance Complies with European RoHS Directive 2011/65/EU, including amending Directives

2015/863 and 2017/2102

IECEX Certification IECEX Certified

Operating Temperature: Module:

-20 to +60°C (-4 to +140°F)

Termination Assembly:

-20 to +70°C (-4 to +158°F)

Storage Temperature: -40 to +70°C (-40 to +158°F)

Operating Relative Humidity: 5 to 95% (noncondensing)

Storage Relative Humidity: 5 to 95% (noncondensing)

Operating Altitude: -300 to +3,000 m (-1,000 to +10,000 ft)

Storage Altitude: -300 to +12,000 m (-1,000 to +40,000 ft)

Vibration: 0.75g (5 to 500 Hz)