

Product Specification

FOUNDATION™ Fieldbus Profibus PA

FCS-MBT

The **FCS-MBT** IS Megablock Terminator is a fieldbus terminator for Foundation Fieldbus or Profibus PA. It is certified for use in Intrinsically Safe (and FISCO) applications. For other terminator models including general purpose, Zone2/Div2, and Increased Safety (Zone 1) installations see the **F100** or **FCS-MBT-XE** product specifications. Pricing and delivery for the **FCS-MBT** may be obtained by contacting MTL (www.mtl-inst.com).

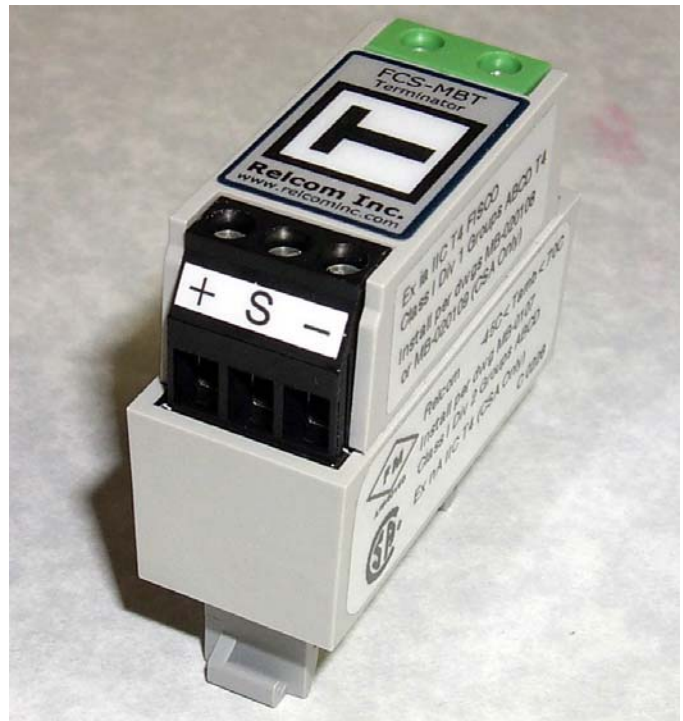
Foundation Fieldbus and Profibus PA share the same physical layer specification (IEC 61158-2). For this type of network, two terminators are required on each segment. Usually one terminator is provided by the Power Conditioner in the Control Room. The **FCS-MBT** is ideally suited to provide the terminator that is normally in a junction box in the field (along with a Megablock for interconnecting devices). The **FCS-MBT** also includes some differential and common mode (cable shield) surge protection.

A large "T" is placed on the **FCS-MBT** label for easy identification of the terminator location.

The **FCS-MBT** is fully encapsulated to provide long life and resistance to contaminants.

Grounding

The Ground connection on the **FCS-MBT** is used to shunt any surge currents that may get on the cable shield to a local ground in the junction box. Under

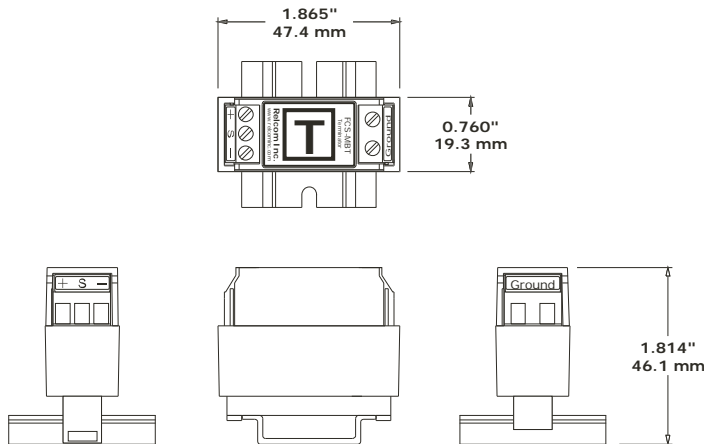


normal conditions, the cable shield remains DC isolated from this local ground. Even with the cable shield being grounded in the control room, this additional ground connection will not cause ground loops. When a voltage surge occurs on the cable shield, a gas discharge tube in the **FCS-MBT** fires and shunts the unwanted current to ground.

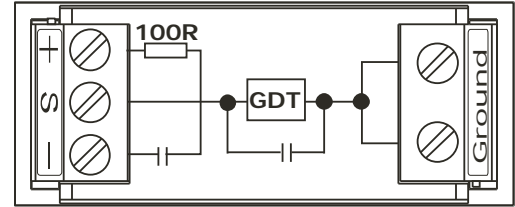
Specifications	
Mounting Requirements	35mm DIN Rail; IP40 (minimum) Enclosure
Wire Capacity	12-24 AWG, 2.5mm ² maximum
Case Material	Lexan Polycarbonate
Operating Temperature	-45°C to +70°C
Storage Temperature	-50°C to +70°C
Humidity	0 to 90% (non-condensing)
Screw Torque Range	0.5-0.6 Nm
Weight	39 grams
Input Voltage	See Certification ratings
Input Current	See Certification ratings
Differential Mode Voltage Limit	39V (transient)
Common Mode Voltage Limit	75V (transient)

Product specifications are subject to change without notice.

Dimensions



Internal Diagram



Related Documents:

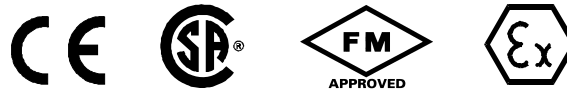
PS-001: Megablock Product Overview
 PS-002: Megablock Selection Guide
 500-948: IS Megablock Installation Instructions
 501-123: Relcom Fieldbus Wiring Guide

Accessories

Heavy Duty DIN rail end stop FCS-A06
 35 mm DIN Rail, aluminum, 1 meter FCS-A01

Part Number

Approvals:



Region (Authority)	Standard	Certificate	Approved For	Ratings
EU (Relcom)	EN61326		Class A Industrial Locations	CE
Canada (CSA)	C22.2 No. 0—M1982 C22.2 No. 1010.1-92 C22.2 No. 1010.1B-97 T.I.L. No. 1-29 C22.2 No. 157-92 C22.2 No. 213 - M1987 CAN/CSA-E60079-0-02 CAN/CSA-E60079-11-02 CAN/CSA-E60079-15-02	1198909	Class I, Div 1 Groups A-D, T4 Ex ia IIC T4 Class I, Div 2 Groups A-D, T4 Ex nA IIC T4	Entity V _{max} =24V, I _{max} =240mA P _i =1.2W, L _i =0mH, C _i =0uF FISCO V _{max} =17.5V, I _{max} =380mA P _i =5.32W, L _i =0mH, C _i =0uF V _{max} =32V, I _{max} =1.5A
USA (FM)	3600 3610 3611 3810 (including supplement #1) IEC/TS 60079-27:2002	3020445	CL I, Div 1, ABCD T4 CL I, Zone 0, AEx ia IIC T4 CL I, Div 2, ABCD T4 CL I, Zone 2, IIC T4	Same as Above
EU (LC IE)	EN 60079-0:2009 EN 60079-11:2007	LC IE 02ATEX6212X	Ex II 1 G Ex ia IIC T4	Entity: U _i =24V, I _i =240mA P _i =1.2W, L _i =0mH, C _i =0uF FISCO: U _i =17.5V, I _i =380mA P _i =5.32W, L _i =0mH, C _i =0uF
EU (Relcom)	IEC 60079-0: 2009 IEC 60079-15: 2010	RELC 07ATEX1004X	Ex II 3 G Ex nA IIC T4 Gc	V _{max} = 32V, I _{max} = 1.5A