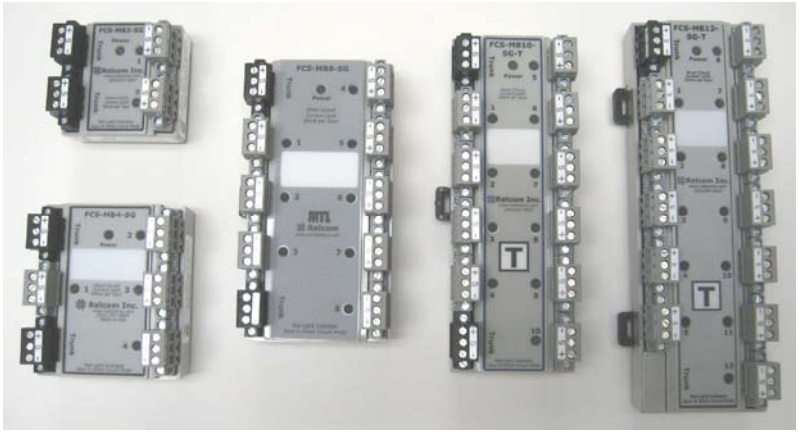
Product Specification

FOUNDATION™ Fieldbus
Profibus PA

Standard Megablocks



Standard Megablocks provide for Fieldbus Device connections and include integrated short circuit (SpurGuard™) protection. They have been designed and hazardous area certified for general purpose and Zone 2/Div 2 applications. The non-SpurGuarded™ versions are also certified for IS Entity and FISCO applications. Refer to PS-001 "Megablock Series Product Overview" for the basic capabilities of the Megablock series. Non-IS applications can use the FPS-I, FPS-DT, or F8xx Fieldbus Power Supplies. For FISCO Fieldbus Power Supplies, see MTL's 912x-IS products. Contact MTL (www.mtl-fieldbus.com) for pricing and delivery.

Related Documents:

PS-001: Megablock Product Overview
500-275: Megablock Installation Instructions
501-123: Relcom Fieldbus Wiring Guide

Accessories	**Part Number**
Megablock Terminator	F100
IS Megablock Terminator	FCS-MBT
Heavy Duty DIN rail end stop	FCS-A06
35 mm DIN Rail, aluminum, 1 meter	FCS-A01

Specifications		
Mounting Requirements	35mm DIN Rail; IP54 (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	130, 230, 390, 340, 400 grams (2, 4, 8, 10, 12 Port)	
Minimum Input Voltage[1]	10.5V	
Maximum Input Voltage	see Certification Ratings	
Maximum Input Current	see Certification Ratings	
Trunk to Trunk Voltage Drop	0.1V maximum	
Models	**SpurGuard™**	**non-SpurGuard™**
Unloaded Current Consumption	4.0, 4.1, 4.3, 4.4, 4.5 mA (2, 4, 8, 10, 12 Port)	4.0mA
Spur Device Current	46mA maximum (recommend one device per spur)	not limited
Spur Short Circuit Current	60mA maximum	unlimited
Trunk to Spur Voltage Drop	1.1V maximum	0.1V maximum

Note 1: The minimum input voltage guarantees that the Spur output under full load will be at least 9.3V so that the device will see at least 9.0V.

Product specifications are subject to change without notice.

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Standard Megablock (with SpurGuards™) Selection:

Use the following table to determine which Standard Megablock with integrated SpurGuards™ is suitable for your application. The table includes only those models that are standard production. Other versions are available that require minimum purchases and longer lead-times. This includes Terminator variations (without, with, or switch-able), and connector variations (Pluggable Spring Clamp or Pluggable Insulation Displacement). Consult MTL about these other versions.

All Megablocks are useable in a non-hazardous area when installed per the installation instructions.

SpurGuard™	Device Ports	Terminator	FM	CSA	CENELEC
FCS-MB2-SG	2	–	√	√	√
FCS-MB4-SG	4	–	√	√	√
FCS-MB4-SG-T	4	√	√	√	√
FCS-MB8-SG	8	–	√	√	√
FCS-MB8-SG-T	8	√	√	√	√
FCS-MB10-SG	10	–	√	√	√
FCS-MB10-SG-T	10	√	√	√	√
F118	10	Switchable	√	√	√
FCS-MB12-SG	12	–	√	√	√
FCS-MB12-SG-T	12	√	√	√	√
F215	12	Switchable	√	√	√

Note: Normally only one Megablock containing a built-in (fixed) Terminator exists on a single segment. Each segment must contain two Terminators and one is usually included in the Fieldbus Power Supply which is normally located in the control room.

Approvals:

Region (Authority)	Standard	Certificate	Approved For	Ratings
EU (Relcom)	EN61326		Class A Industrial Locations	CE
Canada (FM)	CAN/CSA C22.2 No. 213: 1987 CAN/CSA E60079-0: 2002 CAN/CSA E60079-15:2002 CAN/CSA C22.2 No. 1010.1: 1997	3020445C 3013852C	CL I, Div 2, ABCD T4 Ex nA [nL] IIC T4	Vmax=32V, Imax=1.5A
USA (FM)	3600 3611 3810	3020445 3013852	CL I, Div 2, ABCD T4 CL I, Zone 2, IIC T4	Vmax=32V, Imax=1.5A
EU (Relcom)	EN 60079-0: 2009 EN 60079-15: 2010	RELC 07ATEX1001X	Ex II 3 G Ex nA IIC T4 Gc	Vmax=32V, Imax=1.5A

Both Canadian and US certifications recognize that the SpurGuard™ limits the energy to the Fieldbus devices to a level that prevents incendive sparks. This allows Live Working WITHOUT having to de-energize or get a “hot work permit” (subject to local code restrictions for live working of conductors in a hazardous area).

Relcom SpurGuard™ technology is protected by multiple US patents: 6,366,437 6,369,997 6,519,125

Standard Megablock (without SpurGuards™) Selection:

Use the following table to determine which Standard Megablock without integrated SpurGuards™ is suitable for your application. The table includes only those models that are standard production. Other versions are available that require minimum purchases and longer lead-times. This includes Terminator variations (without, with, or switchable), and connector variations (Pluggable Spring Clamp or Pluggable Insulation Displacement). Consult MTL about these other versions.

All Megablocks are useable in a non-hazardous area when installed per the installation instructions.

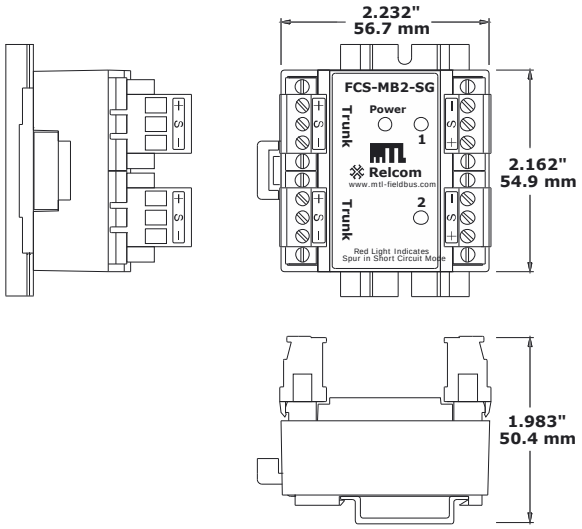
Non-SpurGuard™	Device Ports	Terminator	FM	CSA	CENELEC
FCS-MB2	2	No	Div 2	IS, Div 2	Zone 2, IS
FCS-MB4	4	No	Div 2	IS, Div 2	Zone 2, IS
FCS-MB8	8	No	Div 2	IS, Div 2	Zone 2, IS
FCS-MB10-T	10	IS	Div 2	IS, Div 2	Zone 2, IS

Note: Normally only one Megablock containing a built-in (fixed) Terminator exists on a single segment. Each segment must contain two Terminators and one is usually included in the Fieldbus Power Supply which is normally located in the control room.

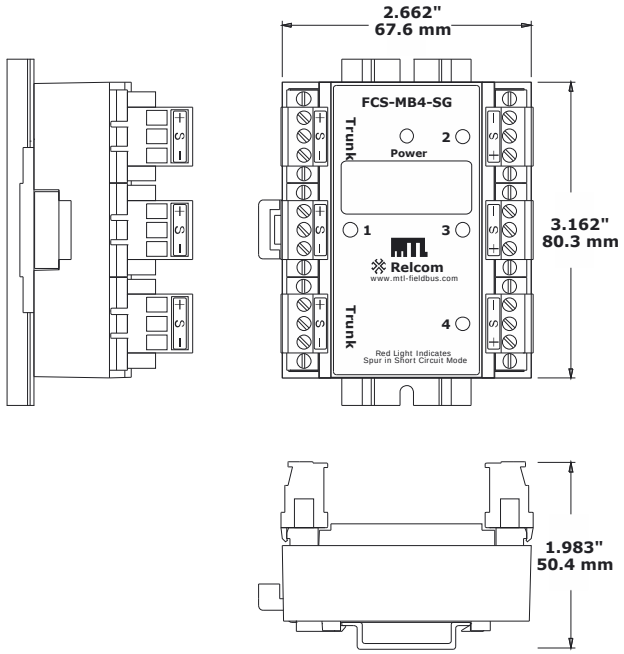
Approvals:

Region (Authority)	Standard	Certificate	Approved For	Ratings
EU (Relcom)	EN61326		Class A Industrial Locations	CE
Canada (FM)	CAN/CSA C22.2 No. 213: 1987 CAN/CSA E60079-0: 2002 CAN/CSA E60079-15:2002 CAN/CSA C22.2 No. 1010.1: 1997	3020445C	CL I, Div 2, ABCD T4 Ex nA IIC T4	Vmax=32V, Imax=1.5A
USA (FM)	3600 3611 3810	3020445	CL I, Div 2, ABCD T4 CL I, Zone 2 IIC T4	Vmax=32V, Imax=1.5A
EU (LCIE)	EN 60079-0: 2009 EN 60079-11: 2007	LCIE 02ATEX6212X	II 1 G Ex ia IIC T4	Entity: Ui=24V, Ii=240mA Pi=1.2W, Li=0mH, Ci=0uF FISCO: Ui=17.5V, Ii=380mA Pi=5.32W, Li=0mH, Ci=0uF
EU (Relcom)	EN 60079-0: 2009 EN 60079-15: 2010	RELC 07ATEX1004X	II 3 G Ex nA IIC T4 Gc	Vmax=32V, Imax=1.5A

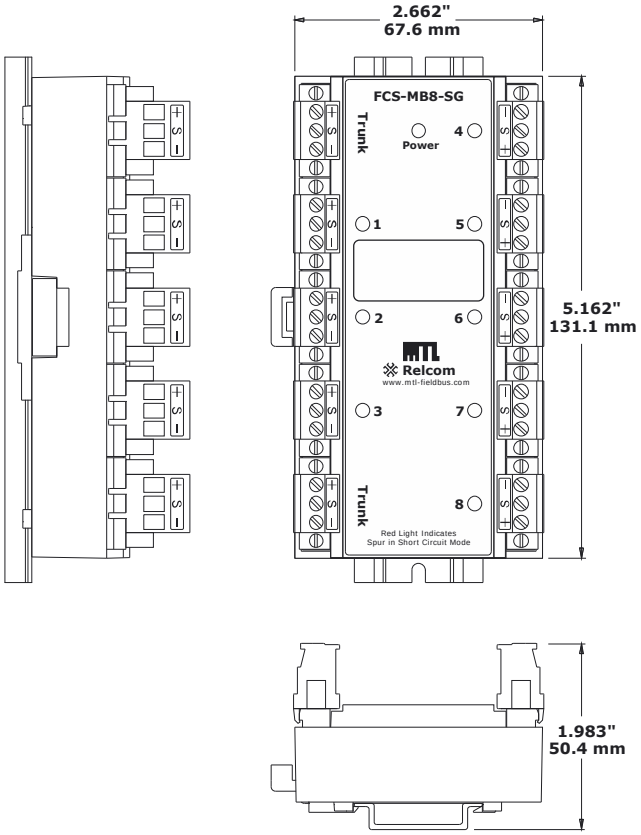
2 Port Megablock Dimensions



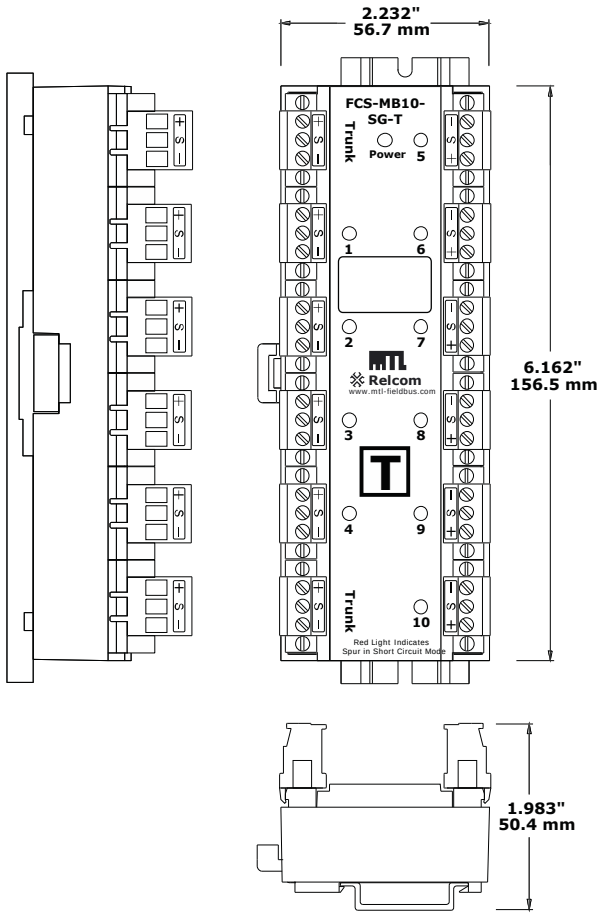
4 Port Megablock Dimensions



8 Port Megablock Dimensions



10 Port Megablock Dimensions



12 Port Megablock Dimensions