Product Specifications

A100-A103

AS-i Megablock Series

AS-i Megablocks are DIN rail mounted passive* hubs for the Actuator-Sensor-Interface (AS-i) network. They connect multiple AS-i slaves to the network trunk cable and provide short circuit protection to the segment.

The AS-i Megablock itself does not contain an AS-i chip or communicate over the AS-i network, so it consumes no network communication resources (bandwidth, slave addresses, etc.). They are used to interconnect AS-i master and slave devices that do contain AS-i chips.

AS-i Megablocks minimize hand wiring and allow individual slaves to be added to and removed from the segment without disrupting network communication. A green power LED on each unit indicates whether DC power is present.

AS-i Megablocks are available in four and eight drop versions. Multiple AS-i Megablocks are easily wired to one another allowing construction of larger segments. AS-i Megablocks are available with and without short circuit protection.

Simple and Reliable Interconnection

Each AS-i Megablock has two dedicated connections for the segment home run or trunk cables. Trunk connections are easily identified by their black connectors. Separate numbered connections are provided for each spur drop.

Connections to the AS-i Megablock are made using pluggable screw terminal type connectors. This allows wire terminations to individual connectors that plug into the AS-i Megablock. Slaves can then be easily connected and disconnected during commissioning. After commissioning, retaining screws are tightened to secure each connector to the AS-i Megablock.

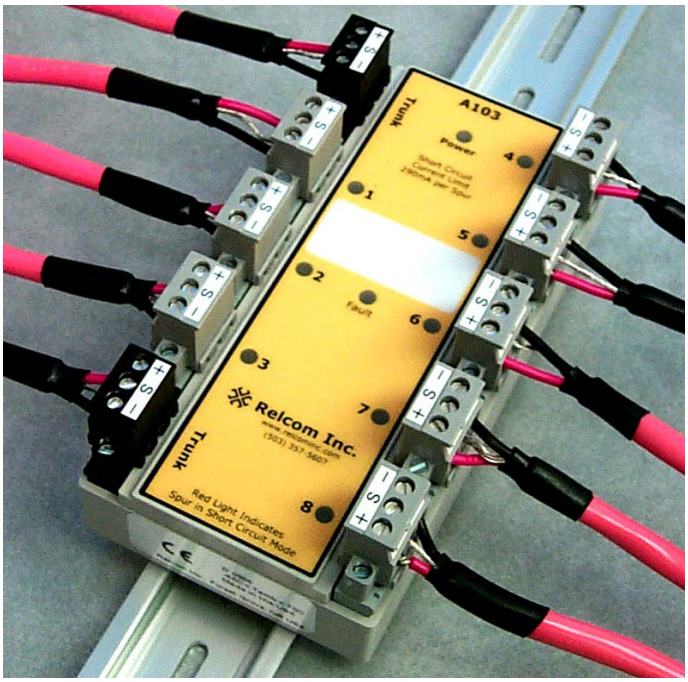
Short Circuit Protection

To minimize susceptibility to single points of failure, AS-i Megablocks are available with built-in SpurGuard™ short circuit protectors. SpurGuards™ prevent a short circuit in any of the individual transmitters or spur cable runs from bringing the entire network segment down by limiting the amount of current that can be drawn by any given spur. A red LED near each spur connection indicates that a spur is shorted and is in over-current mode.

Internal Fault Indication

A red Fault LED is included on SpurGuard™ protected units. The red Fault LED is lit if the AS-i Megablock diagnoses an internal failure and requires replacement. The AS-i network continues to function in this condition, however, the SpurGuard™ protection is not available.

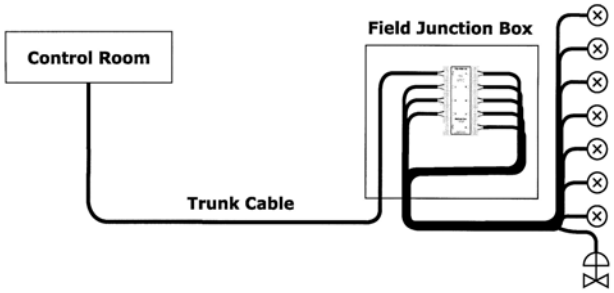
*AS-i Megablocks contain active circuit components but do not contain an AS-i chip or perform active repeater functions such as signal reconstruction or amplification.



Installation

AS-i Megablocks can be mounted vertically or horizontally using 35 mm DIN rail within a suitable enclosure, such as a field junction box. AS-i Megablocks are removed from the DIN rail using a flat blade screwdriver to release the mounting platform. Use of DIN rail end stops is recommended to prevent sliding in vertical installations.

AS-i Megablocks have labeling areas so that segments can be easily identified according to plant standards.



Shown above is an example of a common network segment topology. Eight AS-i slaves are connected to an eight-drop AS-i Megablock, which is mounted in a field junction box. For detailed installation instructions, refer to document 500-521 AS-i Megablock Installation Instructions.

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Approvals:

AS-i Megablocks are FM certified for Class I Division 2 Groups A,B,C, and D (Temp Code T4); Ex nA IIC T4

II 3 GD Ex nA IIC T4

Specifications:

Mounting Requirements:	35 mm DIN rail IP 54 minimum enclosure
Wire Capacity:	12-24 AWG
Case material:	Lexan Polycarbonate
Temperature Range:	–45°C to +70°C
Maximum Input Current:	8A
Maximum Input Voltage:	32VDC

AS-i Megablocks with SpurGuards™

Current Consumption:	
No SpurGuards™ tripped:	3.5 mA maximum
per SpurGuard™ tripped:	36 mA maximum
Maximum Current Delivered to Spur:	297 ± 6mA
Trunk to Spur Voltage Drop (SpurGuard™ not tripped):	Maximum: 0.3 V
Voltage Required to activate Power LED:	9.7V minimum

Basic AS-i Megablocks

Current Consumption:	0.4 mA maximum
Maximum Current Delivered to Spur:	Not Limited, rated for 1A per spur
Voltage Required to activate Power LED:	5V

Part Numbers

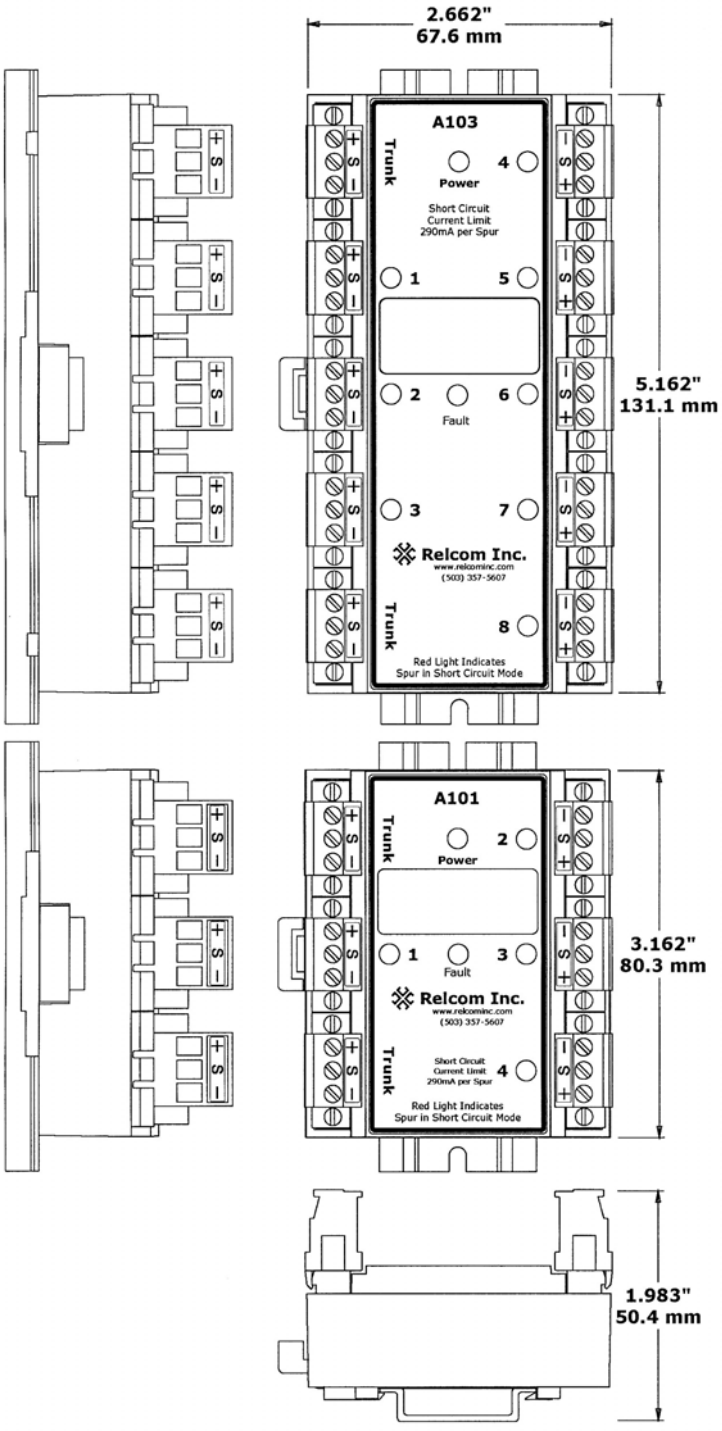
Megablock Series	Part Number
4-drop AS-i Megablock	A100
4-drop AS-i Megablock with integrated SpurGuard™ short circuit protection	A101
8-drop AS-i Megablock	A102
8-drop AS-i Megablock with integrated SpurGuard™ short circuit protection	A103

Accessories	Part Number
Heavy Duty DIN rail end stop	FCS-A06
35 mm DIN Rail, 1 meter length	FCS-A01

Relcom SpurGuard™ technology is protected by U.S. patents 6,366,437 6,369,997 6,519,125 and others pending.

Specifications subject to change without notice.

Mechanical Dimensions:



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PS-015 Rev. E