

# AS-I Megablocks

## Passive hubs for AS-i bus networks

- **AS-i bus wiring for the process industry environment**
- **SpurGuard™ short circuit protection with visual fault detection**
- **Plug-in connectors for fast commissioning and maintenance**
- **Choice of junction box to meet site requirements**
- **Power LED**



**AS-i Megablocks are DIN-rail mounted passive\* hubs for the AS-i network.** They connect several AS-i devices to the network trunk cable and provide short circuit and over voltage 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.

**Megablocks minimize hand wiring** and allow individual devices 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. Megablocks are available in four and eight drop versions. Multiple Megablocks are easily wired to one another to allow larger segments to be constructed.

**For simple and reliable interconnection,** each Megablock has two dedicated connections for the segment home run or trunk cable. Trunk connections are easily identified by their black connectors. Separate numbered connections are provided for each spur drop.

**Connections to the Megablock** are made using pluggable screw terminal type connectors. This allows wire terminations to be made to the individual connectors which are then plugged into the Megablock. Devices can then be easily connected and disconnected during commissioning. After commissioning, retaining screws are tightened to secure each connector to the Megablock.

**Short circuit protection** Megablocks are available with built-in SpurGuard™ short circuit protectors which prevent a short circuit in any of the individual AS-i devices or spur cable runs from bringing the entire network segment down. A red LED near each spur connection indicates that a spur is shorted and is in overcurrent 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. The AS-i network continues to function in this condition, however, the SpurGuard™ protection is not available.

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



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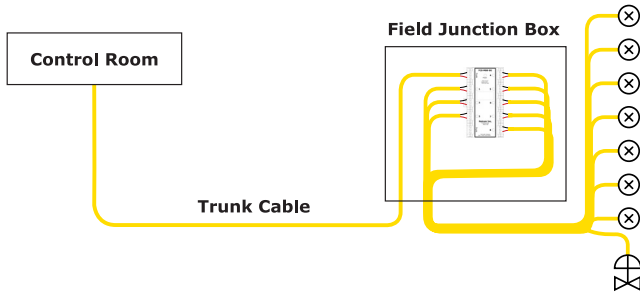
# AS-I Megablocks

May 2021

## 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. Four and eight port Megablocks have labelling areas so that segments can be easily identified according to plant standards.

Shown below is an example of a common network segment topology. Individual AS-i devices are connected to an eight-drop AS-i Megablock, which are mounted in field junction boxes.



For detailed installation instructions, refer to document 500-521 AS-i Megablock Installation Instructions. Relcom SpurGuard™ technology is protected by U.S. patents 6,366,437 6,369,997 6,525,915 6,519,125 and others pending.

## SPECIFICATION

### 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

### Input Current

- 8A maximum

### Input Voltage

- 32V dc maximum

### AS-i Megablocks with SpurGuards™

#### Power Consumption:

- No SpurGuards™ tripped: 3.5 mA
- per SpurGuard™ tripped: 36 mA

#### Maximum Current

- Delivered to Spur: 297 ± 6 mA

#### 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

#### Power Consumption

- 0.4 mA maximum

#### Maximum Current Delivered to Spur:

- Not Limited, rated to 1A per spur.
- Voltage required to activate power LED 5V



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## ORDERING INFORMATION

### Megablock Range

- 4-drop AS-i Megablock with integrated SpurGuard™ short circuit protection
- 8-drop AS-i Megablock with integrated SpurGuard™ short circuit protection

### Part Number

A101

A103

### Accessories

- Heavy Duty DIN rail end stop
- 35 mm DIN Rail, 1m length

### Part Number

ETL7000

THR7000

### Literature

- AS-i Megablock Installation Instructions 500-521

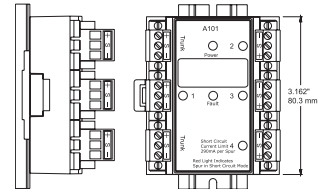
## APPROVALS A101 & A103

for full certification information visit [www.mtl-inst.com/support/certificates/](http://www.mtl-inst.com/support/certificates/)

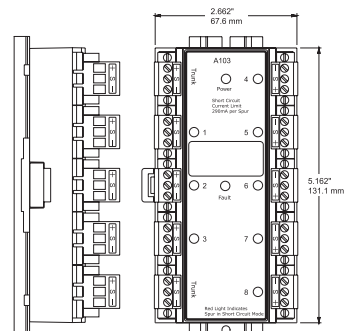
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Standard	EN 60079-0 EN 60079-15	3611, 3600
Approved for	⊕ II 3G Ex nA IIC T4 Gc	Class I Division 2 Groups A, B, C, DT4, Class 1 Zone 2 Group IIC
Certificate no.	RELC07ATEX1006X	3019356

## DIMENSIONS

### A101



### A103



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