

S15J In-Line Fuse



Datasheet

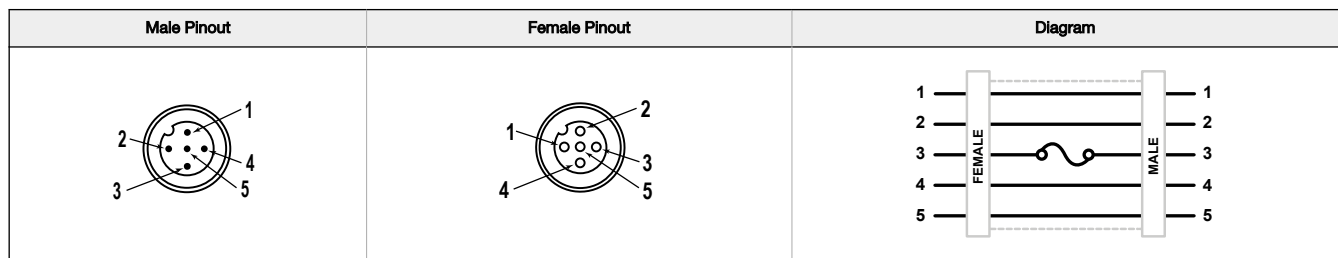


- Protect devices from over-current
- Rugged over-molded design meets IP65, IP67, and IP68
- Simple M12 connection for easy installation where needed in the circuit
- LEDs provide fuse status to indicate healthy or blown state
- Provides an alternative solution to products that require a Class 2 power supply

Models

| Model Number | Function Description |
|--------------|-------------------------|
| S15J-2AFB-Q | Fast-blow fuse, 2 A max |
| S15J-3AFB-Q | Fast-blow fuse, 3 A max |

Wiring



Specifications

Supply Voltage

12 V DC to 30 V DC at 15 mA maximum device current draw
Use only with one of the following:

- Class 2 power supply (North America)
- Power supply rated to a maximum of 100 VA
- Power supply certified to either IEC 60950-1 or IEC 62368-1

Maximum Fuse Current

Model-dependent, see [Models](#) on page 1 and [Operational Conditions](#) on page 2

Connections

Integral 5-pin M12 male/female quick-disconnect connector

Construction

Coupling Material: Nickel-plated brass
Connector Body: PVC translucent black

Environmental Rating

IP65, IP67, IP68
UL Type 1

Operating Conditions

Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
Storage Temperature: -40 °C to +70 °C (-40 °F to +158 °F)

Indicators ¹

Green: Power present, normal signal transmission
Red & Green: Power present, normal signal transmission, but current approaching or over rating
Red: Fuse blown, signal transmission stopped

Alternative to Class 2 Power Supply Requirement

When the S15J is paired with a power supply in accordance with Annex Q of IEC 62368-1, then it can be used to create a low voltage, limited energy power source.

The S15J may be used with a power supply that can deliver up to 100 A at a maximum of 30 V DC (3000 VA).

The S15J limits the current of a 0 V DC to 30 V DC source to satisfy Class 2 or SELV Power Supply requirements.

Selecting a fuse size depends on the type of connection cabling to the device.

Power Supply > (Cable 1) > Fuse > (Optional Cable 2) > Protected Device

The correct fuse rating is based on the connection or cabling upstream from the fuse, but before the power supply.

| Cable(s) (Awg) | Amperage Rating |
|----------------|-----------------|
| 22 | 3 A |
| 24 | 2 A |

This power supply combination meets the requirements for Class 2 power while the fuse is intact. There is no rating available when the fuse is blown or disabled.

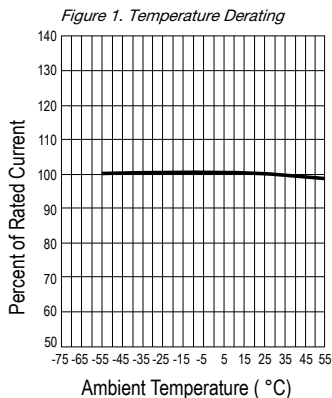
¹ The fuse functions properly when power is applied on either the male or female connector. The LEDs function properly only when power is applied to Pin 1 on the male connector.



Operational Conditions

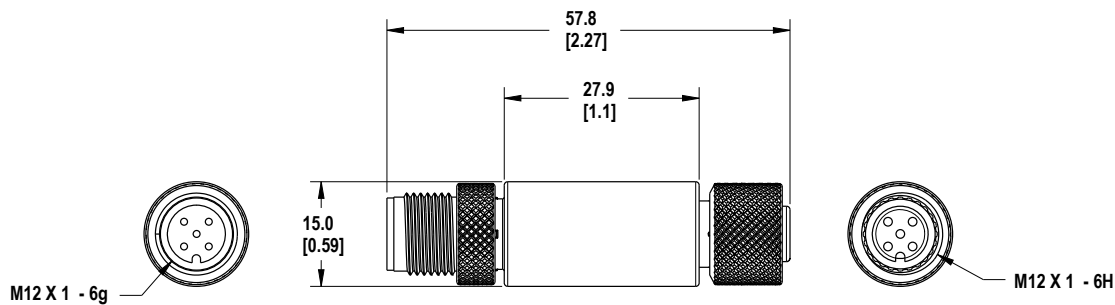
The operation of the fast-blow fuse is variable, and depends on ambient temperature and conditions. A fuse running at 100% of its rated current could potentially blow after 4 hours of use. However, a fuse at 200% of its rated current will blow within 5 seconds, and a fuse at 300% of its rated current will blow within 0.2 seconds.

| Amperage Rating | Minimum Blow Time | Maximum Blow Time |
|-----------------|-------------------|-------------------|
| 100% | 4 hours | N/A |
| 200% | N/A | 5 seconds |
| 300% | N/A | 0.2 seconds |



Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise.



Accessories

Cordsets

| 5-Pin Threaded M12 Cordsets—Double Ended | | | | | |
|--|------------------|-----------------------------------|------------|------------------------------------|-----------------------|
| Model | Length | Style | Dimensions | Pinout (Male) | Pinout (Female) |
| MQDEC-501SS | 0.31 m (1.02 ft) | Male Straight/ Female Straight | | | |
| MQDEC-503SS | 0.91 m (2.99 ft) | | | 1 = Brown 2 = White 3 = Blue | 4 = Black 5 = Gray |
| MQDEC-506SS | 1.83 m (6 ft) | | | | |
| MQDEC-512SS | 3.66 m (12 ft) | | | | |
| MQDEC-515SS | 5 m (16.4 ft) | | | | |
| MQDEC-530SS | 9 m (29.5 ft) | | | | |
| MQDEC-550SS | 15 m (49.2 ft) | | | | |