

# Single Channel - Intrinsically Safe Controller

## Applications

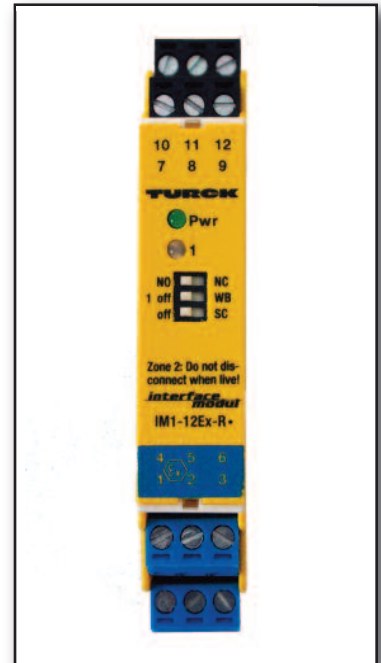
### • 2 or 4 Wire Safety Device

#### About the FSIS...

Miller Edge FSIS-35P-4, using Turck # IM1-12Ex-R Isolating Switching Amplifier

The Turck Isolating Switching Amplifier provides a safe means to read a safety edge's condition in a hazardous atmosphere (a NAMUR sensor, in an IP20 environment). The input sensing circuit is limited to a maximum open-circuit voltage of 8.2 Volts, and a maximum short-circuit current of 8.2 milliamperes.

It may (optionally) operate in a fail-safe mode or a simple mode, depending upon the switch settings on the front panel. Both output relays are activated and de-activated together. This permits switching two completely different circuits without any inter-action between them.



#### TECHNICAL SPECIFICATIONS:

<b>Type</b>	<b>IM1-12EX-R</b>
ID Number	7541226
<b>Power Supply</b>	
Supply Voltage - 115VAC	20-250 VAC, 20-125 VDC 40-70 Hz@40mA
Power Consumption -	3 Watts
Galvanic Isolation -	between input, output and supply circuits, test voltage 2.5 kVrms
<b>Input Circuits</b>	
Nominal operating characteristics (per DIN 19234)	
- Voltage	8.2 VDC
- Current	8.2 mA
- Switching Threshold	1.55mA
<b>Output Circuits</b>	
Switching Voltage per output	Two SPDT relays 250 VAC / 120 VDC
Switching Current per output	2 A
Maximum Load per output	500 VA / 60 W
Contact Material	AgNi + 3µ Au
Switching Frequency	10 Hz

#### DESIGN FEATURES:

- Fail-Safe operations REQUIRE the relay output type to be set to Normally Closed.
- Wire Break monitoring requires the WB switch to be ON and the monitored safety edge circuit to be terminated in a resistance of 10K to 20K Ohms.
- IF the wiring between the Intrinsically Safe controller is to be checked for short circuits, the 1.5K Ohm series resistor must be installed BEFORE the safety edge, AT the safety edge's location, AND the SC switch must be ON.
- A Power Failure will also cause the output relays to be open circuit.