Auxiliary Powered, Isolators

SFI Single Channel, Isolator
DFI Dual Channel, Isolator and Signal Splitter

The SFI is a single channel, auxiliary powered, isolator for current/voltage signals. The DFI combines two isolators, which can be used separately or as a signal splitter.

- Single and dual channel versions
- Power for active input devices
- Highly accurate (±0.1% of span)
- LED status indication
- Bipolar inputs
- Switch selectable input format
- Front panel zero and span adjustment
- Complete Isolation
- AC or DC powered
- Removable, screw-type, terminal blocks
- Compact metal housing

General Information

The standard package has a single 24Vdc output to drive a loop powered transmitter as input. The second power supply output (on DFI channel two) is standard.

Input channel one, Input channel two, Output channel one, Output channel two and the power supply are all fully isolated from one another.

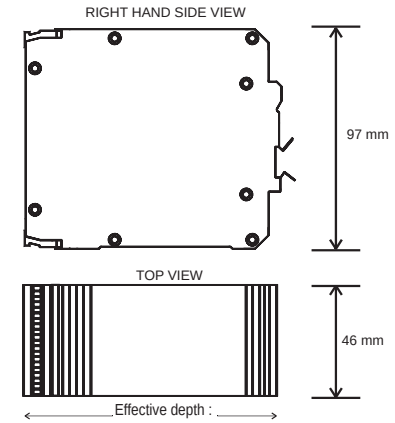
Technical Specifications

Inputs		
Type	Switch selectable current/voltage format	
Ranges	4-20mA, 0-20mA, 0-10V, -10 to + 10V Other ranges on request	
Input impedance	22Ω (current inputs) or 1MΩ (Voltage inputs)	
Power supply (out)	One 24Vdc (to 25mA) per channel	
Outputs		
Type	Current/voltage format (as ordered)	
Ranges	4-20mA or 0-20mA (into 0–1kΩ load) 0-10V (minimum load 430kΩ) 1-5V (minimum load 215kΩ) Other ranges on request	
Power Supply		
Type	AC or DC powered	
AC	Voltage 110V/240V, Frequency 50Hz/60Hz	
DC	12-50Vdc	
Nominal Power Usage (SFI)	AC 4.6VA @ 240Vac/110Vac DC 4.5W @ 24Vdc	
Adjustments		
Type	20-turn potentiometers	
Span	±25% of span	
Zero	±25% of span	
Environmental Conditions		
Operating temperature	0 to 60 °C	
Storage temperature	-25 to +70 °C	
Pollution Degree	2	
Relative humidity	10–90% (non–condensing)	
Insulation Co-ordination		
Ports	Input Channel One / Output Channel One Input Channel Two / Output Channel Two / Case	
Rated Insulation Voltage	300Veff	
Overvoltage Category	III	
Impulse Withstand	4kV (1.2 / 50)	
Isolation	2 kV (between ports)	
Performance		
Linearity	Better than ±0.1%	
Temperature drift	<0.05% span per °C	
Long term drift	0.1% per 10,000 hours	
Response time 10%-90%	280mS	
Housing		
Type	Dual DIN rail mount	
Dimensions	See diagram	
Weight	0.35kg	
Connection type	Plug in terminal blocks with screw connections	
Wiring	Use 12-28AWG Cu Wire rated >60°C	
Approvals	**Mark**	
SFI and DFI	c UL us LISTED	E256486
SFI and DFI - DC Powered versions only	CE	LV Directive EMC
Standard		
CAN/CSA C22.2 No. 1010.1:92 UL61010-1: 2004		
EN50178:1998 BS EN 61326:1998 + A2		

Connections

Terminal	Signal	
1	24Vdc (out)	Input channel one
2	Current +	
3	Common –	
4	Voltage +	
5	24Vdc (out)	Input channel two (DFI only)
6	Current +	
7	Common –	
8	Voltage +	
9	Neutral (–)	Power supply
10	Live (+)	
11	Not used	Output channel one
12	Output +	
13	Output –	
14	Not used	Output channel two (DFI only)
15	Output +	
16	Output –	
Case	Earthing is via a stud on lower side of case	

Dimension drawing



120mm (Top Hat 35mm +/- 0.3, DIN 46277-3, EN 50022)
125mm (G - Rail 32mm +/- 0.3, DIN 46277-1, EN 50035)
To surface (including rail/mounting plate)

Ordering Information

Type (Model Input/Ouput/Supply)	**Cat. no.**
SFI 0-10V/4-20mA/12-50Vdc	**7940016083**
SFI 4-20mA/4-20mA/12-50Vdc	**7940010212**
DFI 0-10V/4-20mA/12-50Vdc	**7940012275**
DFI 4-20mA/4-20mA/12-50Vdc	**7940010167**

Note: For other ranges please specify Model 1/2/3 where:
1 = Input, 2 = Output, 3 = Supply