

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 ($\pm 0.1\%$ 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



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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.



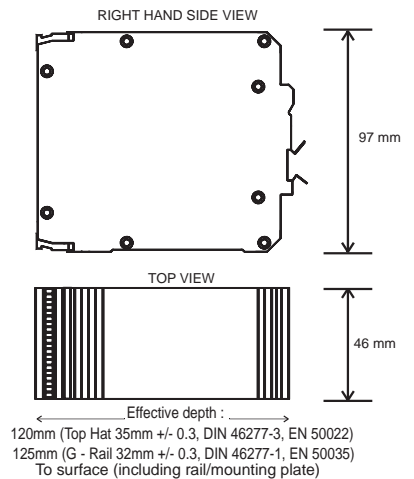
Technical Specifications

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	E256486
SFI and DFI - DC Powered versions only	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



Ordering Information

Type (Model Input/Output/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