

SELF-POWERED LOOP ISOLATOR

ATIS/ATI2S - ELIT93/ELIT940

ARDETEM



Type

- ▶ The ATIS/ELIT solves common point problems that may occur on measure loops, and also helps to prevent rejections of inducted disturbances on the cables.
- ▶ The ATIS/ELIT isolates sensors or transmitters from process receivers (PLCs, data takers, etc.)

SFERE

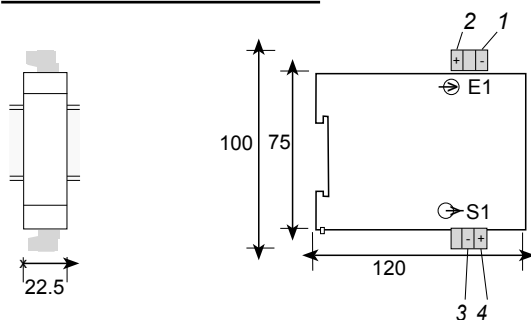


Functions

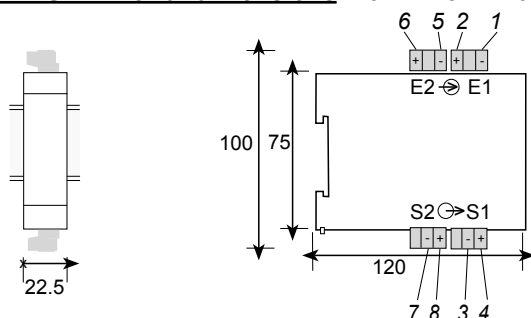
- ▶ 1 or 2 isolated meas. channels
- ▶ Isolation input / output
- ▶ Transfer ratio 1 / 1
- ▶ High transmission accuracy
- ▶ High load impedance
- ▶ Self supplied by the input signal
- ▶ Reduced dimensions

Dimensions

ATIS/ELIT93: dimensions: 75 x 22.5 x 120 mm



ATI2S/ELIT940: dimensions: 75 x 22.5 x 120 mm



Applications

- Isolation of current loops.
- Isolation of measure transmitters from PLC boards.
- Isolation of 4-20mA signals from thermocouples whose isolation tends to become inefficient as temperature increases.

Coding

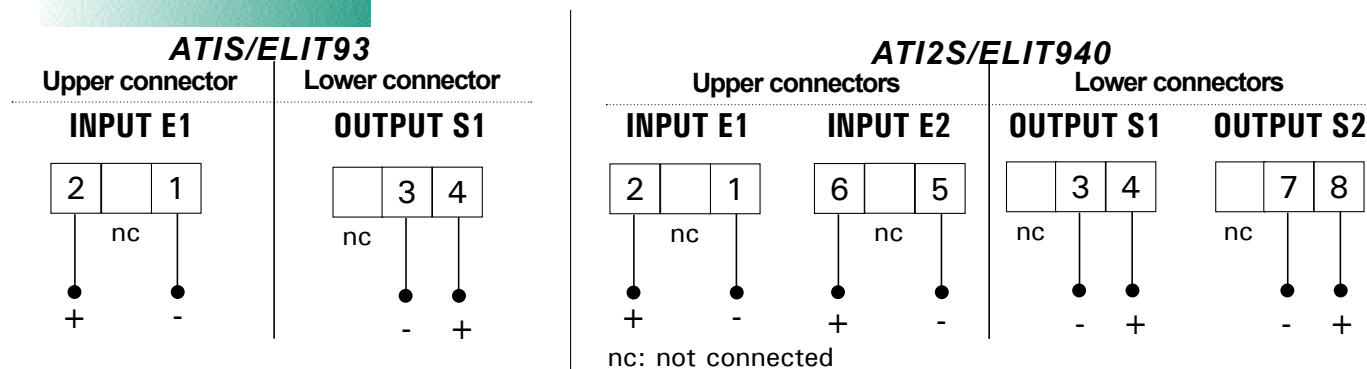
1 channel loop isolator
 ARDETEM reference: ATIS
 SFERE reference: ELIT93

2 channel loop isolator
 ARDETEM reference: ATI2S
 SFERE reference: ELIT940

Technical features at 23°C

	ATIS/ELIT93	ATI2S/ELIT940
INPUT	1 channel	2 channels
	Current 0..4..20..50 mA	0..4..20..50 mA
	Internal voltage drop at 20mA $\leq 1.6 \text{ V}$	$\leq 1.6 \text{ V}$
	Load loss $I \times L_r + 1.6 \text{ V}$	$I \times L_r + 1.6 \text{ V}$
	Max. voltage drop (output loop open) $U_e = 16 \text{ VDC}$	$U_e = 16 \text{ VDC}$
OUTPUT	Impedance in Ω at 20 mA $L_r + 80 \Omega$	$L_r + 80 \Omega$
	1 channel	2 channels
	Current 0..4..20..50 mA	0..4..20..50 mA
	Max load (L_r in Ω) admissible at 20 mA 700 Ω	700 Ω
SUPP	Power supply Self-powered by the input loop	Self-powered by the input loop
	Nominal response time (0 to 90%) For load $L_r = 20 \Omega$ $L_r = 100 \Omega$ L_r influence $100 \leq L_r \leq 700 \Omega$	0.3 ms 1 ms 0.7 ms / 100 Ω
	Accuracy at nominal conditions Grade Temperature influence L_r : load resistance influence	0.15 % at $L_r = 100 \Omega$ $\pm 0.001 \text{ \% / } ^\circ\text{C}$ $\pm 0.05 \text{ \% / } 100\Omega$ for $L_r \leq 500\Omega$ $\pm 0.1 \text{ \% / } 50\Omega$ if $\geq 500\Omega$
	Temperatures Operating temperature Storage temperature	0 to 55°C -20 to +70 °C
	Others Conversion ratio Insulation Input/output and bet. channels Uncondensed dampness Standards	1 / 1 2 Kv 50Hz 1mn 85 % CE - EN50081-2 and EN50082-2
MECHANICAL	Dimensions : H x L x D 75 x 22.5 x 120 mm	75 x 22.5 x 120 mm
	Tightenings Horizontal symmetrical DIN rail	Horizontal symmetrical DIN rail
	Tightness Case / terminals IP 20	Case / terminals IP 20
	Terminals Plug-off screwed connectors for flexible or rigid 2.5 mm ² wires 90 g	Plug-off screwed connectors for flexible or rigid 2.5 mm ² wires 125 g
	Weight	

Wiring



This appliance is designed for industrial applications. It has to be installed in an electrical cabinet, or equivalent.



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