SELF-POWERED LOOP ISOLATOR

ATIS/ATI2S-H ELIT93/940-H

ARDETEM **SFERE**



Coding
1 channel loop isolator *ARDETEM reference: ATIS-H* *SFERE reference: ELIT93-H*
2 channel loop isolator *ARDETEM reference: ATI2S-H* *SFERE reference: ELIT940-H*



Advantages

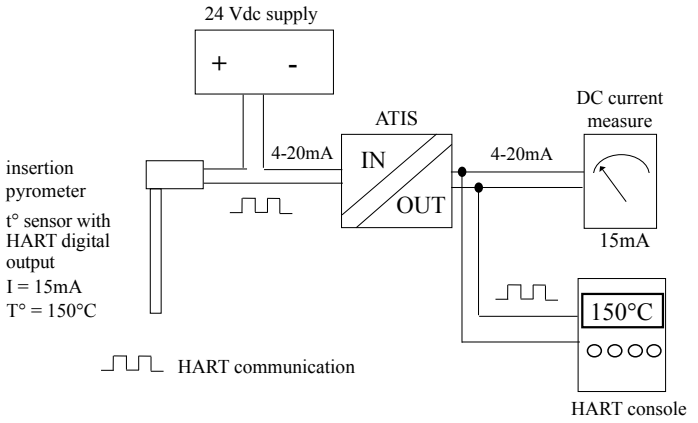
- The ATIS/ELIT solves common point problems which may occur on the measure loops and also reduces the rejection of the disturbances induced on the cables.
- The ATIS/ELIT isolates the sensors or transmitters from the process receivers PLC's, recorders, etc.)
- The transparency to the HART protocole allows the user to communicate with the digital protocole HART via the ATIS/ELIT.

- HART PROTOCOLE TRANSPARENCY
- 1 or 2 isolated measure channels
- Isolation between input / output
- Transfer ratio 1 / 1
- High transmission accuracy
- High load impedance
- Powered by the input signal
- Reduced dimensions

Applications

- Insulation of current loops.
- Insulation of measure transmitters from the PLC boards.
- Insulation of 4-20mA signals from thermocouples which may start to have insulation problems when the temperature increases.

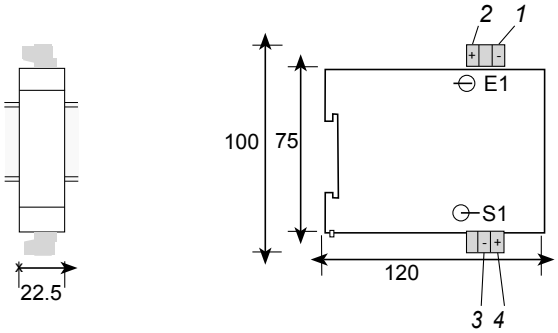
Application example with a temperature sensor with hart digital output:



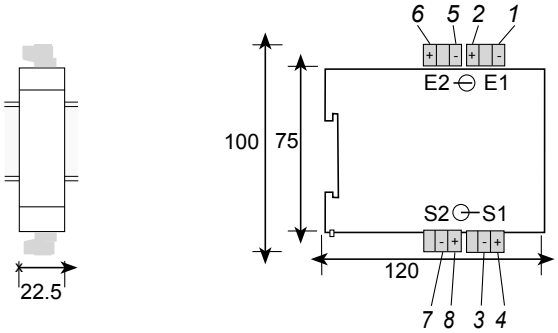
The ATIS/ELIT transmits the measure information in the form of a DC current, + the HART digital pattern with a galvanic partition of 2kV.

Dimensions

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



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



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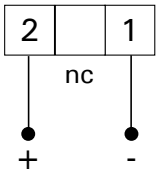
Technical features at 23°C

		ATIS-H/ELIT93-H	ATI2S-H/ELIT940-H
INPUT	Number of channels	**1 channel**	**2 channels**
	Current	0..4..20..50 mA	0..4..20..50 mA
	Internal voltage drop at 20mA	≤ 1.8 V	≤ 1.8 V
	Load loss	I x Lr + 1.8 V	I x Lr + 1.8 V
	Max. voltage drop (output loop open)	Ue = 16 VDC	Ue = 16 VDC
	Impedance, in Ω at 20 mA	Lr + 90 Ω	Lr + 90 Ω
OUTPUT	Number of channels	**1 channel**	**2 channels**
	Current	0..4..20..50 mA	0..4..20..50 mA
	Max. load (Lr 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
GENERALS	Nominal response time (0 to 90%) For a load Lr = 20 Ω Lr = 100 Ω Lr influence 100 ≤ Lr ≤ 700 Ω	0.3 ms 1 ms 0.7 ms / 100 Ω	0.3 ms 1 ms 0.7 ms / 100 Ω
	Accuracy at the nominal conditions Class Temperature influence Influence of the load resistance Lr	0.15 % at Lr = 100 Ω ±0.001 % / °C ±0.05% / 100Ω for Lr ≤ 500Ω ±0.1% / 50Ω if ≥ 500Ω	0.15 % at Lr = 100 Ω ±0.001 % / °C ±0.05% / 100Ω for Lr ≤ 500Ω ±0.1% / 50Ω if ≥ 500Ω
	Temperatures Operating Storage	0 to 55°C -20 to +70 °C	0 to 55°C -20 to +70 °C
	Others Transforming ratio Insulation input / out. and between chan Condense free dampness Standards	1 / 1 2 Kv 50Hz 1mn 85 % CE acc. EN50081-2 & EN50082-2	1 / 1 2 Kv 50Hz 1mn 85 % CE acc. EN50081-2 & EN50082-2
MECHANICAL	Dimensions H x L x D	75 x 22.5 x 120 mm	75 x 22.5 x 120 mm
	Tightening	mounting on symmetrical horizontal DIN rail	mounting on symmetrical horizontal DIN rail
	Sealing	Housing / terminals IP 20	Housing / terminals IP 20
	Terminals	Screw-in connectors for flexible or rigid 2.5 mm² wires	Screw-in connectors for flexible or rigid 2.5 mm² wires
	Weight	100 g	140 g

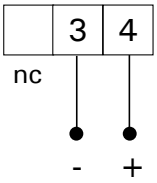
Connectings

ATIS-H/ELIT93-H

Upper connector — INPUT E1

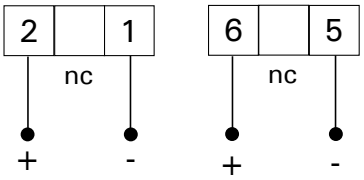


Connecteur du bas — OUTPUT S1

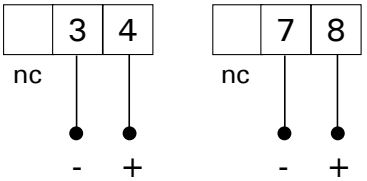


ATI2S-H/ELIT940-H

Upper connectors — INPUT E1 / INPUT E2



Lower connectors — OUTPUT S1 / OUTPUT S2



nc: not connected

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

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