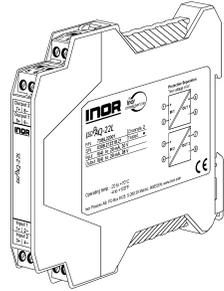


Loop Powered Isolator

ISO PAQ-11L ISO PAQ-12L



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Read these instructions before using the product and retain for future information.

1. Before Startup



The isolator should only be installed and put into operation by qualified staff. The staff must have studied the warnings in these operating instructions thoroughly.

The isolator may not be put into operation if the housing is open.

In applications with high operating voltages sufficient distance and isolation as well as shock protection must be ensured.

Safe and trouble-free operation of this device can only be guaranteed if transport, storage and installation are carried out correctly and operation and maintenance are carried out with care.



Appropriate safety measures against electrostatic discharge (ESD) should be taken during connection and assembly on the isolator.

2. Short description

The loop powered isolator is used for electrical isolation and processing of 0(4) - 20 mA standard signals.

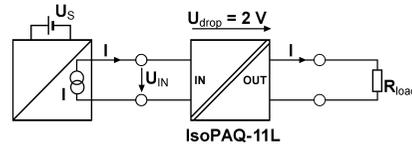
The galvanic isolation guarantees reliable decoupling of the sensor circuit from the processing circuit and prevents linked measurement circuits from influencing each other.

3. Functioning

The input signal is modulated and then electrically decoupled using a transformer. The isolated signal is then made available at the output, demodulated and filtered.

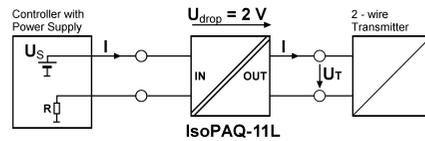
When using loop-powered Isolators, ensure that the current-driving voltage of the power source U_S is sufficient for driving the maximum current of 20 mA over the isolator with voltage drop of $U_{drop} = 2 V$ and the load R_{load} .

$$U_S \geq U_{IN} = 2 V + 20 \text{ mA} \times R_{load}$$



Optional use:

$$U_T = U_S - 2 V - 20 \text{ mA} \times R$$



4. Equipment

A screwdriver with a width of 2.5 mm is required connect the wires to the screw clamp terminals.

5. Mounting, electrical connection

The isolation transmitter is mounted on standard 35 mm DIN rail.

Terminal assignments			
Channel 1		Channel 2	
1 Input +	3 Input +	7 Output +	9 Output +
2 Input -	4 Input -	8 Output -	10 Output -
5 Output +			
6 Output -			

6. Order information

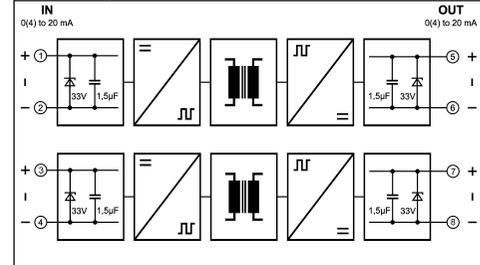
Product	Input / Output	Part No.
IsoPAQ-11L	1-channel, 0(4) - 20 mA	70ISL11001
IsoPAQ-12L	2-channel, 0(4) - 20 mA	70ISL12001

7. Technical Data

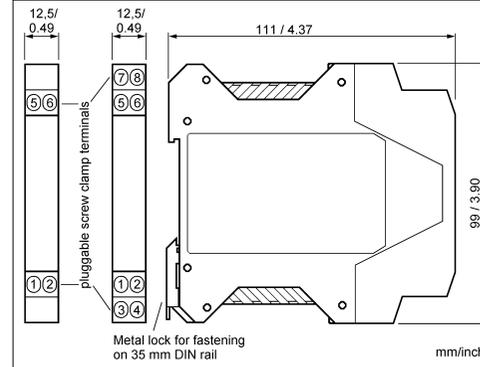
Input	
Input signal	0(4) - 20 mA / max. 30 V
Operating current	< 20 μ A
Voltage drop	< 2 V
Overload	$\leq 100 \text{ mA}$, $\leq 30 \text{ V}$
Output	
Output signal	0(4) - 20 mA / max. 28 V
Response time	2 ms @ 250 Ω load / 6 ms 750 Ω load (10 to 90 % of end value)
Ripple	< 20 mV _{rms}
General data	
Transmission error	$\pm 0.1 \%$ of end value
Load error	$\pm 0.03 \%$ of measured value / 100 Ω load
Temperature coefficient ¹⁾	$\pm 0.0015 \%$ /K of measured value / 100 Ω load
Test voltage	1.5 kV, 50 Hz Between all circuits
Ambient temperature	Operation -20 °C to +70 °C (-4 to +158 °F) Transport and storage -35 °C to +85 °C (-31 to +185 °F)
EMC ²⁾ EN 61326 -1	
Construction	12,5 mm (0.5") housing, protection type: IP 20
Connection	$\leq 2.5 \text{ mm}^2$, AWG 14
Weight	Approx. 100 g

- 1) Average TC in specified operating temperature range
- 2) Minor deviations possible during interference

8. Block diagram



9. Dimensions



LIMITED WARRANTY

INOR Process AB, or any other affiliated company within the Inor Group (hereinafter jointly referred to as "Inor"), hereby warrants that the Product will be free from defects in materials or workmanship for a period of **five (5) years** from the date of delivery ("Limited Warranty"). This Limited Warranty is limited to repair or replacement at Inor's option and is effective only for the first end-user of the Product. Upon receipt of a warranty claim, Inor shall respond within a reasonable time period as to its decision concerning:

1. Whether Inor acknowledges its responsibility for any asserted defect in materials or workmanship; and, if so,
2. the appropriate cause of action to be taken (i.e. whether a defective product should be replaced or repaired by Inor).

This Limited Warranty applies only if the Product:

1. is installed according to the instructions furnished by Inor;
2. is connected to a proper power supply;
3. is not misused or abused; and
4. there is no evidence of tampering, mishandling, neglect, accidental damage, modification or repair without the approval of Inor or damage done to the Product by anyone other than Inor.

This Limited Warranty is provided by Inor and contains the only express warranty provided.

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