

# 1- & 2-channel Loop Powered Isolators for Separation of 0(4)-20 mA Signals

IsoPAQ-11L and IsoPAQ-12L are 1- and 2-channel loop powered isolators used for electrical isolation of 0(4)-20 mA signals to avoid measurement errors due to different voltage potentials or ground loops in an instrument installation.

The 2-channel version, IsoPAQ-12L offers a very cost effective alternative combined with a high-density mounting.

The isolators need no power supply, which contributes to reduced installation costs compared to isolation transmitters.

The high reliability ensures a safe system operation and low maintenance costs.

- **Input to output galvanic isolation**  
Protection against erroneous measurements due to parasitic voltages or ground loops
- **1- and 2-channel versions**  
Allows for optimal cost efficiency
- **No power supply required**  
Reduced wiring saves installation costs
- **Low voltage drop**  
Input voltage drop of less than 2 V reduces impact on the primary current loop
- **High accuracy**  
Negligible additional measurement errors in the loop
- **High-density DIN-rail mounting**  
12.5 mm (0.5") housing combined with very low self heating allows for high density mounting
- **Plug-in screw terminals**  
Simplifies installation and maintenance



## Specifications: IsoPAQ-11L/-12L

**Input**

Input signal	0(4)-20 mA/max. 30 V
Operating current	< 20 $\mu$ A
Voltage drop	< 2 V
Overload	$\leq 100$ mA, $\leq 30$ V

**Output**

Output signal	0(4)-20 mA/max. 28 V
Response time (10 to 90 % of end value)	2 ms @ 250 $\Omega$ load/6 ms @ 750 $\Omega$ load
Ripple	< 0.07 % of measured value, ~100 kHz

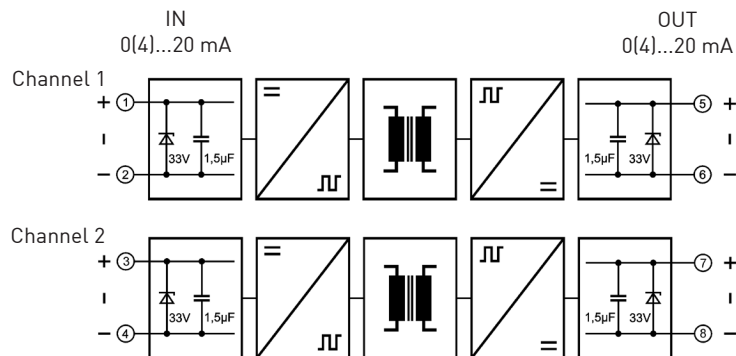
**General data**

Transmission error	$\pm 0.1$ % of end value	
Load error	$\pm 0.03$ % of measured value/100 $\Omega$ load	
Temperature coefficient <sup>1)</sup>	$\pm 0.0015$ %/K of measured value/100 $\Omega$ load	
Test voltage	1.5 kV, 50 Hz	Between all circuits
Ambient temperature	Operation	-20 to +70 °C [-4 to +158 °F]
	Transport and storage	-35 to +85 °C [-31 to +185 °F]
EMC <sup>2)</sup>	EN 61326-1	
Construction	12.5 mm [0.5"] housing, protection class: IP20	
Connection	$\leq 2.5$ mm <sup>2</sup> , AWG 14	
Weight	Approx. 100 g	

1) Average TC in specified operating temperature range

2) Minor deviations possible during interference

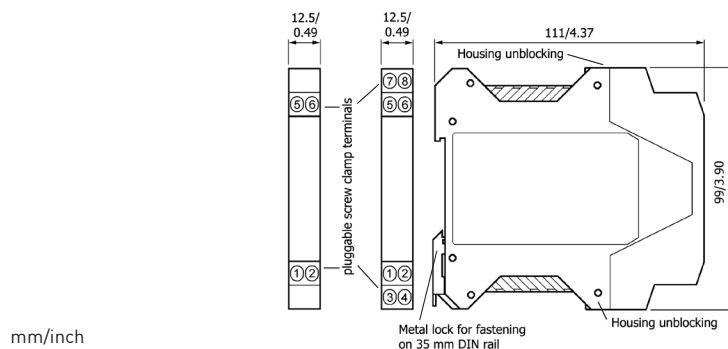
## Block diagram/Connections



## Ordering information

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

## Dimensions



mm/inch