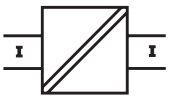
1-channel Loop Powered Isolator for separation of 0(4)-20 mA Signals

The input loop-powered isolator IsoPAQ-611 provides galvanic separation for 0(4) ... 20 mA standard signals, while transferring the measurement signal to the output with a high degree of accuracy.

The unit avoids interference voltage carry-over and effectively suppressing parasitic noise. The very low drop voltage of 2.3 V and the high level of accuracy work together to make the IsoPAQ-611 the first choice in system design.

Intelligent design and their consequential avoidance of highly integrated components result in extremely long service lives and reliability - without any falsification of the measurement signal.

The IsoPAQ-611 requires no additional power supply since the auxiliary power is obtained from the input signal without distorting it. This not only saves costs during installation, but also increases reliability.



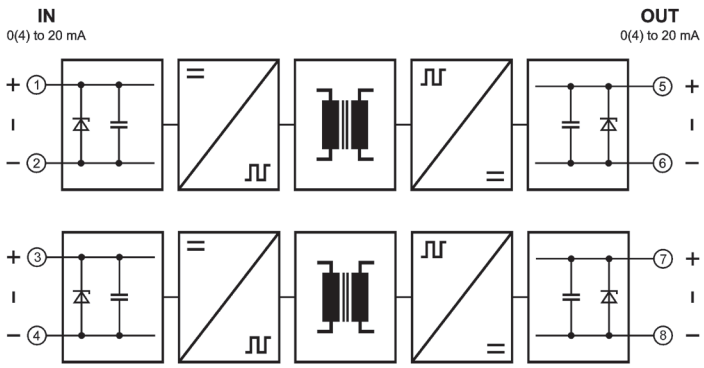
- **Galvanic isolation across input and output**
  Protection against erroneous measurements due to parasitic voltages or ground loops
- **No power supply required**
  Saving costs since wiring is reduced and line influences are omitted
- **Extremely slim design**
  Only 3.1 mm DIN-rail per channel
- **Protective Separation acc. to EN 61140**
  Protects service personnel and downstream devices against impermissibly high voltage
- **Maximum reliability**
  No maintenance costs

Specifications:

Input			
Input signal	0(4) ... 20 mA		
Start-up current	< 200 µA		
Voltage drop	Approx. 2.3 V at 20 mA		
Overload	≤ 50 mA, 30 V		
Output			
Output signal	0(4) ... 20 mA		
Load	600 Ω		
Cut-off frequency -3 dB	100 Hz		
Response time T_{99}	5 ms		
Residual ripple	< 10 mV_{rms}		
General Data			
Transmission error	< 0.1 % full scale		
Load error	< 0.05 % of measured value / 100 Ω load		
Temperature coefficient[1]	< 100 ppm/K		
Test voltage	3 kV AC, 50 Hz, 1 min. all circuits against one another		
Working voltage[2] (Basic insulation)	600 V AC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010-1		
Protection against electrical shock [2]	Protective separation according to EN 61140 by reinforced insulation in accordance with EN 61010-1 up to 300 V AC/DC for overvoltage category II and pollution degree 2 between all circuits		
Ambient temperature	Operation	-25 to +70 °C	(-13 to +158 °F)
	Transport and Storage	-40 to +85 °C	(-40 to +185 °F)
EMC[3]	EN 61326-1		
Construction	6.2 mm (0.244") housing, protection class IP 20, mounting on 35 mm DIN rail acc. to EN 60715		
Weight	Approx. 70 g		

1) Average TC related to full scale value in specified operating temperature range, reference temperature 23 °C
2) For applications with high working voltages, ensure there is sufficient spacing or isolation from neighboring devices and protection against electric shocks.
3) Minor deviations possible during interference

Block diagram/Connections



Dimensions