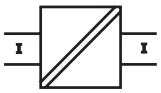
# 2-channel Loop Powered Isolator for separation of 0(4)-20 mA Signals


The input loop-powered isolator IsoPAQ-612 provides galvanic separatio 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 suppressi parasitic noise. The very low drop voltage of 2.3 V and the high level of accuracy work together to make the IsoPAQ-612 the first choice in syste design.

Intelligent design and their consequential avoidance of highly integrated components result in extremely long service lives and reliability - withou any falsification of the measurement signal.

The IsoPAQ-612 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.



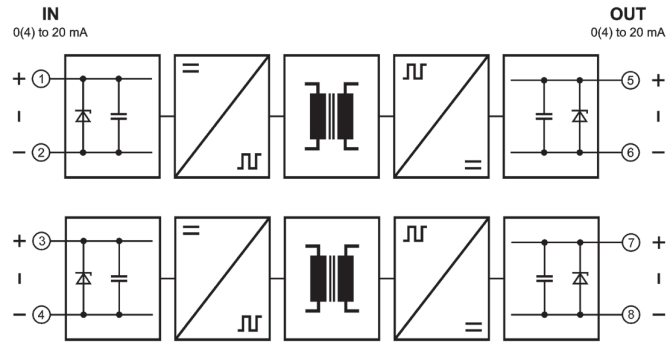
- **Galvanic isolation across input and output**
  Protection against erroneous measurements due to parasitic voltages or ground loops
- **No power supply required**
  Saving costs since wiring is reduced and line influences are omitted
- **Extremely slim design**
  Only 3.1 mm DIN-rail per channel
- **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