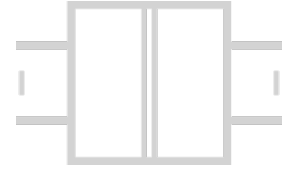


Passive Isolator

IS 18

Separation of 0(4) ... 20 mA Standard Signals



The input loop-powered isolator IS 18 is used for the electrical isolation of 0(4) ... 20 mA standard signals.

The IS 18 transfers the measuring signal to the output with a high degree of accuracy and avoids interference voltage carry-over and suppressing interferences effectively. The slim housing with 11.2 mm wide for one or two channels saves significant space on the DIN-rail.

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.

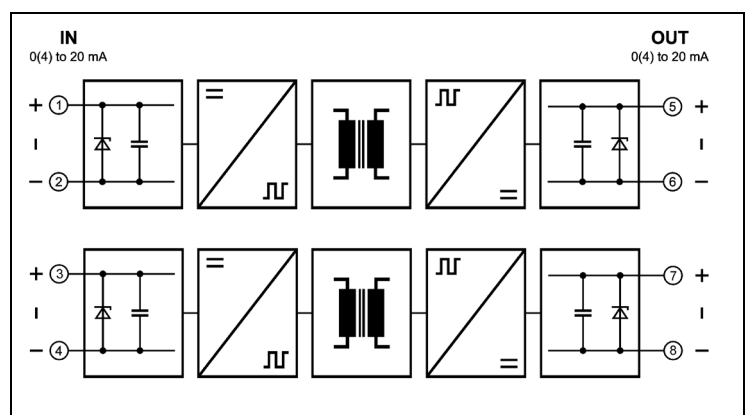
To protect both maintenance personnel as well as downstream equipment against impermissibly high voltages, the IS 18 offers Protective Separation in according to EN 61140.

The IS 18 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.

- **1- and 2-channel versions**
Economical separation for standard applications
- **Only 60 mm installation depth, 11.2 mm wide**
Can be installed in economical standard terminal boxes
- **Galvanic isolation across input and output**
Protection against erroneous measurements due to parasitic voltages or ground loops
- **High reliability and long-term stability**
New APT technology for signal processing
- **Protective Separation acc. to EN 61140**
Protects service personnel and downstream devices against impermissibly high voltage
- **No power supply required**
Saving costs since wiring is reduced and line influences are omitted
- **5 Years Warranty**
Defects occurring within 5 years from delivery date shall be remedied free of charge at our plant (carriage and insurance paid by sender)



Block diagram





Technical Data

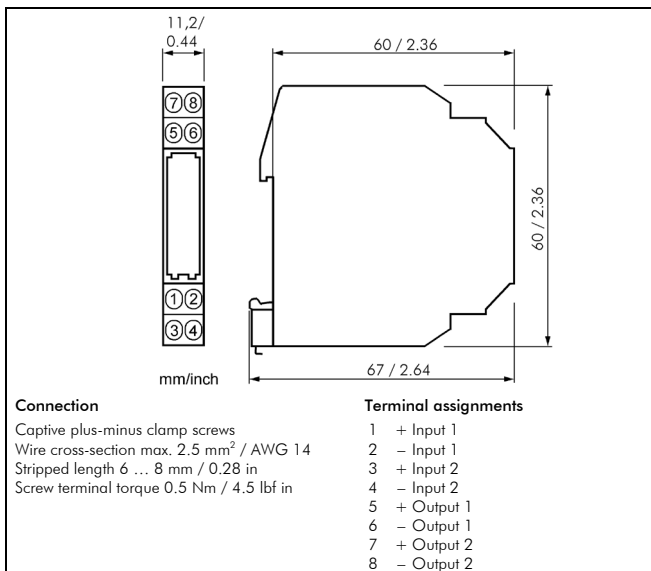
| Input | |
|---|--|
| Input signal | 0(4) ... 20 mA |
| Start-up current | < 100 μ A |
| Voltage drop | < 3.0 V |
| Overload | \leq 50 mA, 15 V |
| Output | |
| Output signal | 0(4) ... 20 mA |
| Load | < 600 Ω |
| Cut-off frequency -3 dB | 100 Hz |
| Response time T_{99} | 5 ms |
| Residual ripple | < 10 mV _{rms} |
| General Data | |
| Transmission error | < 0.1 % full scale |
| Load error | < 0.05 % of measured value / 100 Ω load |
| Temperature coefficient ¹⁾ | < 0.004 %/K of measured value / 100 Ω load |
| Test voltage | 3 kV, 50 Hz all circuits against one another |
| Working voltage (Basic Insulation) ²⁾ | 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 - 20 to + 60 °C (-4 to + 140 °F) Transport and storage - 35 to + 85 °C (-31 to + 185 °F) |
| EMC ³⁾ | EN 61326-1 |
| Construction | 11.2 mm (0.44") housing, protection class: IP 20, mounting on 35 mm DIN rail acc. to EN 60715 |
| Weight | Approx. 50 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

Dimensions



Subject to change!

Product line

| Device | Order No. |
|---|-------------|
| Loop-powered isolator IS 18 P 1-channel | IS 18 P - 1 |
| Loop-powered isolator IS 18 P 2-channel | IS 18 P - 2 |