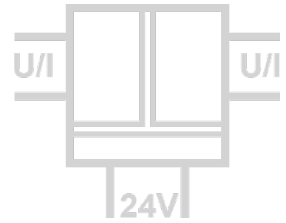


Isolation Amplifier DN 28

Isolation and Conversion of Standard Signals



The Isolation Amplifier DN 28 is used for isolation and conversion of 0 ... 20 mA, 4 ... 20 mA and 0 ... 10 V standard signals.

For applications where one signal combination only is used, the Isolation Amplifier DN 28 offers a cost-effective alternative.

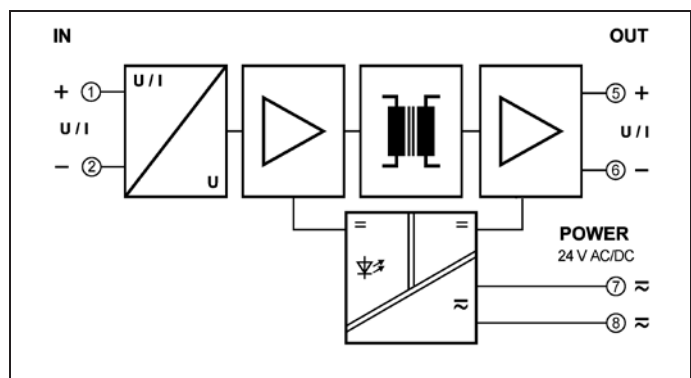
A cross-connector for the auxiliary power supply ensures fast and easy installation. The slim housing with 11.2 mm width saves significant space on the DIN-rail. If required a measuring range compensation can be performed at the Zero/Scan potentiometers behind the front cover.

Analog signal processing guarantees precise measured values with short response times and outstanding signal reproduction at the output. Protective Separation and the 24 V AC/DC power supply make the DN 28 universally applicable for all measurement and industrial applications, as well as for building automation.

- **Cost optimized design**
Economical separation for standard applications
- **Only 60 mm installation depth, 11.2 mm wide**
Can be installed in economical standard terminal boxes
- **Fixed ranges, easy to use**
Ready to use without any settings or adjustments
- **True 3-port separation**
Protection against erroneous measurements due to parasitic voltages or ground loops
- **Protective Separation acc. to EN 61140**
Protects service personnel and downstream devices against impermissibly high voltage
- **Unlimited use with 24 V AC/DC power supply**
Universally applicable for all measurement and industrial applications
- **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 ... 20 mA 4 ... 20 mA 0 ... 10 V see product line |
| Input resistance | Current input approx. 5 Ω |
| | Voltage input approx. 1 MΩ |
| Overload | Current input ≤ 200 mA |
| | Voltage input ≤ 250 V |
| Output | |
| Output signal | 0 ... 20 mA 4 ... 20 mA 0 ... 10 V see product line |
| Load | Current output ≤ 500 Ω |
| | Voltage output ≥ 2 kΩ |
| Residual ripple | < 10 mV _{rms} |
| General Data | |
| Transmission error | < 0.2 % full scale |
| Temperature coefficient ¹⁾ | < 0.02 % /K |
| Cut-off frequency -3 dB | 200 Hz |
| Response time T ₉₉ | 3.5 ms |
| Test voltage | 3 kV AC, 50 Hz, 1 min. input against output against power supply |
| 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) |
| Power supply | 24 V AC/DC, ± 15 % AC 48 ... 62 Hz, approx. 2 VA |
| | DC approx. 0.7 W |
| 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

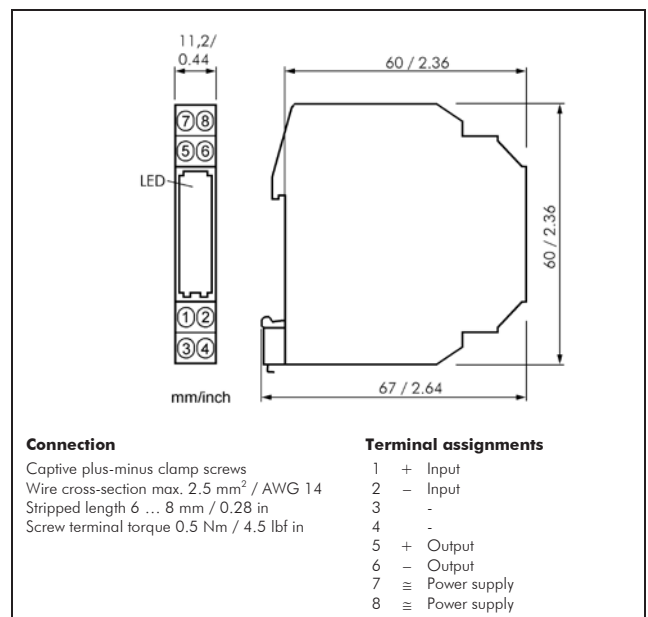
2) For applications with high working voltages, ensure there is sufficient spacing or isolation from neighboring devices and protection against electric shocks.

3) Minor deviations possible during interference

Product line

| Device | Order No. |
|--------------------------------|---|
| Isolation Amplifier DN 28 P | |
| Input Output | |
| 0 ... 20 mA 0 ... 20 mA | DN 28 P - 12 |
| 4 ... 20 mA 0 ... 20 mA | DN 28 P - 32 |
| 0 ... 10 V 0 ... 20 mA | DN 28 P - 52 |
| 0 ... 20 mA 4 ... 20 mA | DN 28 P - 14 |
| 4 ... 20 mA 4 ... 20 mA | DN 28 P - 12 |
| 0 ... 10 V 4 ... 20 mA | DN 28 P - 54 |
| 0 ... 20 mA 0 ... 10 V | DN 28 P - 16 |
| 4 ... 20 mA 0 ... 10 V | DN 28 P - 36 |
| 0 ... 10 V 0 ... 10 V | DN 28 P - 56 |
| cross-connector (2 pcs.) | for looping through the power supply for up to 10 <i>Tiny Snap</i> , splittable DZU 0801 |

Dimensions



Subject to change!