

2-Channel Isolation Amplifier DN 26000

Isolation and Conversion of Standard Signals

The 2-Channel Isolation Amplifier DN 26000 is used for isolation and conversion of 0/4 ... 20 mA and 0 ... 10 V, 0... 5 V standard signals.

Due to the extremely slim design, the space requirement is only 3 mm per channel. The input and output ranges can be selected individually for each channel via DIP switches. A readjustment is not necessary due to the calibrated measuring ranges. A signal clipping and the cut-off frequency can also be set via DIP switches.

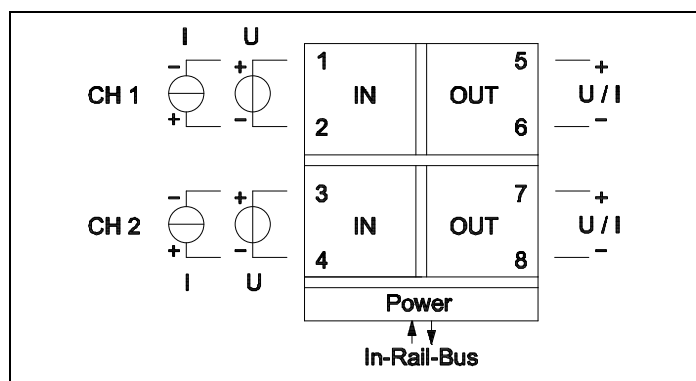
The power is supplied via the In-Rail-Bus, which ensures pre-wiring on a standard DIN rail. This significantly reduces the wiring effort. A green LED on the front of the unit has been provided to monitor the power supply.



- **Calibrated signal setting via DIP switch**
Input and output range can be set by using DIP switch – high precision without any further adjustment
- **5-Port Isolation**
Protection against erroneous measurements due to parasitic voltages or ground loops
- **Extremely slim design**
6.2 mm slim housing for a simple and space saving DIN rail mounting
- **Power supply via In-Rail-connector**
allows fast and economical installation
- **Protective Separation acc. to EN 61140**
Protects service personnel and downstream devices against impermissibly high voltage
- **Maximum reliability**
No maintenance costs
- **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

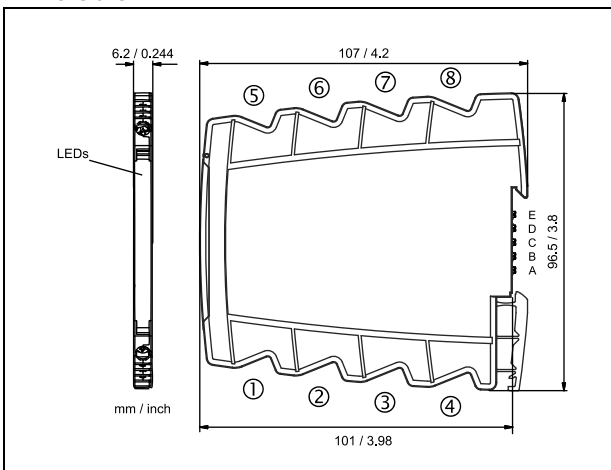
| Input | | |
|--|--|--|
| Input signal | 0 ... 20 mA | 4 ... 20 mA |
| (calibrated switchable) | 0 ... 10 V | 0 ... 5 V |
| Input resistance | Current input | ≤ 25 Ω |
| | Voltage input | ≥ 100 kΩ |
| Overload | Current input | ≤ 50 mA |
| | Voltage input | ≤ 30 V |
| Output | | |
| Output signal | 0 ... 20 mA | 4 ... 20 mA |
| (calibrated switchable) | 0 ... 10 V | 0 ... 5 V |
| Load | Current output: ≤ 10 V (500 Ω at 20 mA) | Voltage output: ≤ 5 mA (2 kΩ at 10 V) |
| Linear transmission range | -1 ... +110 % | |
| Residual ripple | < 10 mV _{rms} | |
| General Data | | |
| Transmission error | < 0.1 % full scale | |
| Temperature coefficient ¹⁾ | < 100 ppm/K | |
| Cut-off frequency -3 dB (switchable) | 100 Hz | 10 Hz |
| Response time T ₉₉ | 10 ms | 55 ms |
| Test voltage | 3 kV AC, 50 Hz, 1 min. | Inputs against outputs against power supply |
| 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 | 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 °C to + 70 °C (- 13 to + 158 °F) |
| | Transport and storage | - 40 °C to + 85 °C (- 40 to + 185 °F) |
| Power supply | 24 V DC via In-Rail-Bus | voltage range 16.8 V ... 31.2 V, approx. 1.1 W |
| 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

Dimensions



Subject to change!

Terminal assignments

| | | | |
|---|------------------------------|---|--------------------|
| 1 | Input channel 1 (+U / -I) | 5 | Output channel 1 + |
| 2 | Input channel 1 (-U / +I) | 6 | Output channel 1 - |
| 3 | Input channel 2 (+U / -I) | 7 | Output channel 2 + |
| 4 | Input channel 2 (-U / +I) | 8 | Output channel 2 - |
| D | Power supply In-Rail-Bus D + | | |
| C | Power supply In-Rail-Bus C - | | |

Connection

| |
|--|
| Captive plus-minus clamp screws |
| Wire cross-section 0.5 ... 2.5 mm ² / 0.5 ... 1.5 mm ² |
| Stripped length 8 mm |
| Screw terminal torque 0.6 Nm |
| Power connection via In-Rail-Bus (see accessories) |

| Product line | Order No. |
|--|------------|
| 2-Channel Isolation Amplifier, screw terminals | DN 26000 B |
| In-Rail-Bus for power supply (see accessories) | |