

Isolation Amplifier DN 240M

Isolation and Conversion of Standard Signals
for PCB Assembling

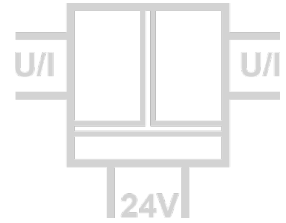
The Isolation Amplifier DN 240M is used for isolation and conversion of 0 ... 20 mA, 4 ... 20 mA and 0 ... 10 V standard signals.

Its high level of reliability and cost optimized design make the DN 240M the first choice in customer applications.

Unique in its price class, the DN 240M provides application flexibility thanks to the calibrated range.

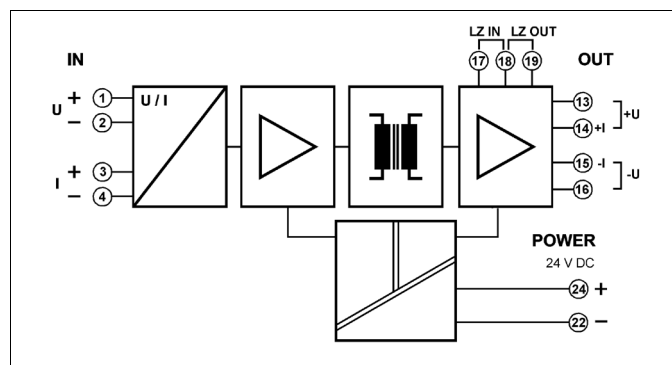
The desired input and output range can be easily set by terminal pins and due to the calibrated range selection no further adjustment is necessary.

The flat module with 15.5 mm height for pcb assembling saves space in the customer application.



- **Cost optimized design**
Economical separation for standard applications
- **Calibrated signal setting**
Input and output range can be set by using connector pins - without any further adjustment
- **Power Supply for 24 V DC**
Applicable for standard power supply voltages
- **3-port isolation**
Protection against erroneous measurements due to parasitic voltages or ground loops
- **Ultra-small-sized housing**
15.5 mm flat module for pcb assembling
- **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

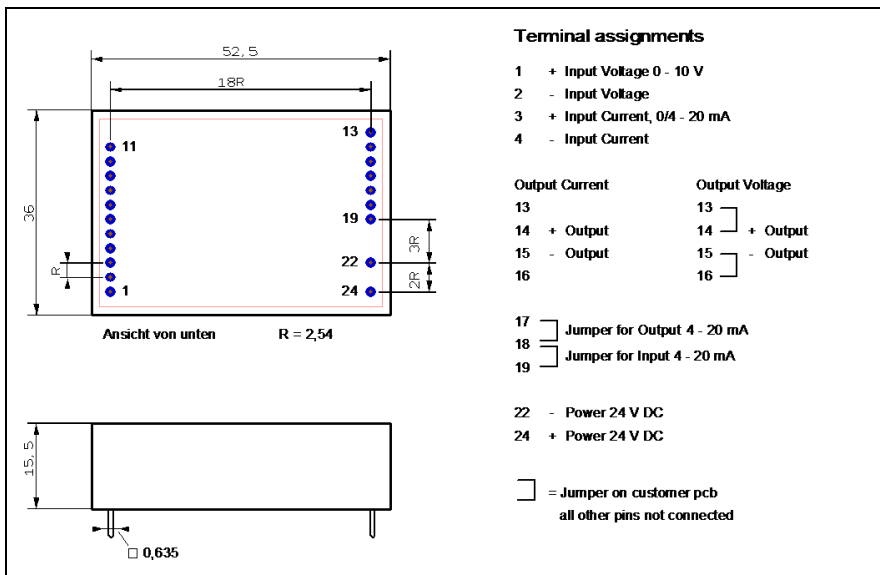
| Input | | | | |
|--|---|-----------------|--|-------------------------|
| Input signal | 0 ... 20 mA | 4 ... 20 mA | 0 ... 10 V | terminal selectable |
| Input resistance | Current input | | 22 Ω | |
| | Voltage input | | 1 M Ω | |
| Overload | Current input | | ≤ 100 mA | |
| | Voltage input | | Voltage limitation via 30 V Z-Diode, max. continuous current 30 mA | |
| Output | | | | |
| Output signal | 0 ... 20 mA | 4 ... 20 mA | 0 ... 10 V | terminal selectable |
| Load | Current output | | ≤ 10 V | (500 Ω at 20 mA) |
| | Voltage output | | ≤ 10 mA | (1 k Ω at 10 V) |
| Residual ripple | < 20 mV _{rms} | | | |
| General Data | | | | |
| Transmission error | < 0.3 % full scale | | | |
| Temperature coefficient ¹⁾ | < 150 ppm/K | | | |
| Cut-off frequency (-3 dB) | 1 kHz | | | |
| Response time | 0.7 ms | | | |
| Test voltage | 2.5 kV AC, 50 Hz, 1 min. | | Input against output 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 | | | |
| Ambient temperature | Operation | - 10 to + 60 °C | | (+ 14 to + 140 °F) |
| | Transport and storage | - 20 to + 80 °C | | (- 4 to + 176 °F) |
| Power supply | 24 V DC, ± 10 %, approx. 1.2 W | | | |
| EMC ⁴⁾ | EN 61326-1 | | | |
| Construction | Module for pcb assembling, 52.5 x 36 x 15.5 mm (l x w x h) | | | |
| Weight | Approx. 60 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. |
|---|-----------|
| Isolation Amplifier, calibrated range selection | DN 240 M |