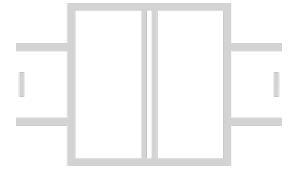


# Passive Isolator DH 11000

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



The input loop-powered isolator DH 11000 provides galvanic separation 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 suppressing parasitic noise. The very low drop voltage of 2.3 V and the high level of accuracy work together to make the DH 11000 the first choice in system design.

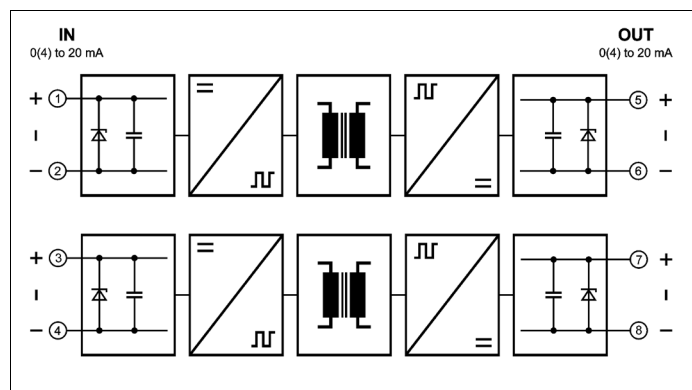
Intelligent design and their consequential avoidance of highly integrated components result in extremely long service lives and reliability - without any falsification of the measurement signal.

The DH 11000 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, 1- and 2-channel versions**  
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
- **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

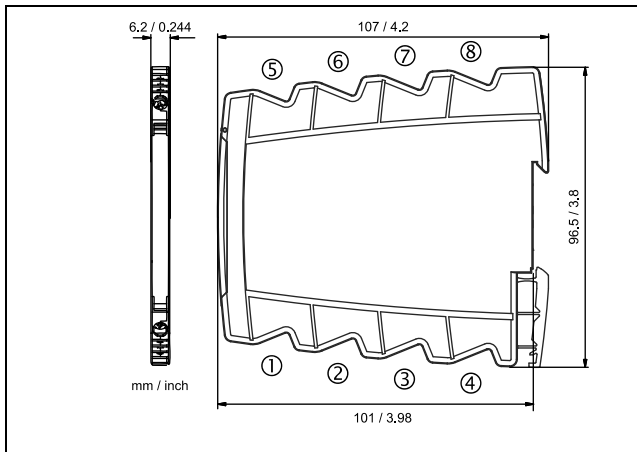
Input	
Input signal	0(4) ... 20 mA
Start-up current	< 200 $\mu$ A
Voltage drop	< 2.3 V
Overload	$\leq$ 50 mA, 30 V
Output	
Output signal	0(4) ... 20 mA
Load	600 $\Omega$
Cut-off frequency -3 dB	100 Hz
Response time $T_{99}$	5 ms
Residual ripple	< 10 mV <sub>rms</sub>
General Data	
Transmission error	< 0.1 % full scale
Load error	< 0.05 % of measured value / 100 $\Omega$ load
Temperature coefficient <sup>1)</sup>	< 100 ppm/K
Test voltage	3 kV AC, 50 Hz, 1 min. all circuits against one another
Working voltage <sup>2)</sup> (Basic insulation)	600 V AC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010-1
Protection against electrical shock <sup>2)</sup>	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 <sup>3)</sup>	EN 61326-1
Approvals	ATEX DEMKO 16 ATEX 1685X  II 3 G Ex nA IIC T4 Gc IECEX IECEX UL 16.0055X Ex nA IIC T4 Gc UL E478692 USA/Canada Class I, Division 2 Groups A, B, C, D T4
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 I   |
| 2 | - Input I   |
| 3 | + Input II  |
| 4 | - Input II  |
| 5 | + Output I  |
| 6 | - Output I  |
| 7 | + Output II |
| 8 | - Output II |

## Connection

Captive plus-minus clamp screws  
Wire cross-section 0.5 ... 2.5 mm<sup>2</sup> / AWG 20-14  
Stripped length 8 mm / 0.3 in  
Screw terminal torque 0.6 Nm / 5 lbf in

## Product line

Device	Order No.
Loop-Powered Isolator, 1-channel	DH 11010 S
Loop-Powered Isolator, 2-channel	DH 11020 S