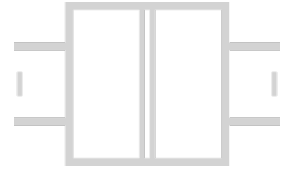


# Passive Isolator DH 1000

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



The input loop-powered isolator DH 1000 provides galvanic separation for 0(4) ... 20mA standard signals, while transferring the measurement signal to the output with a high degree of accuracy.

In this way, the unit avoids interference voltage carry-over, effectively suppressing interference. The very low drop voltage of 2.0 V, a high level of accuracy and a compact design all work together to make the DH 1000 the first choice in system design.

The slim housing with 12.5 mm width for one or two channels saves space in your switch cabinet and facilitates by the practical plug-in screw terminal blocks the assembly. The DH 10X2 requires only 6.3 mm DIN-rail space per channel.

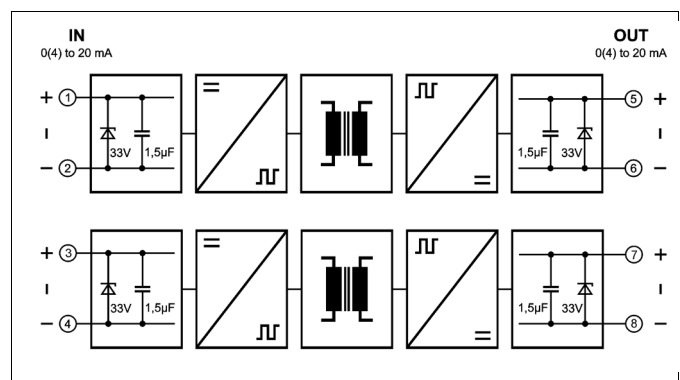
Intelligent design and their consequential avoidance of highly integrated components result in extremely long service lives and reliability without any falsification of the measurement signal.

To protect both maintenance personnel as well as downstream equipment against impermissibly high voltages, the DH 102X offers Protective Separation with a test voltage of 4 kV AC. The DH 1000 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 compact design, 1- and 2-channel versions**  
Only 6.3 mm DIN-rail per channel
- **High accuracy**  
No falsification of measured signal
- **Protective Separation**  
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

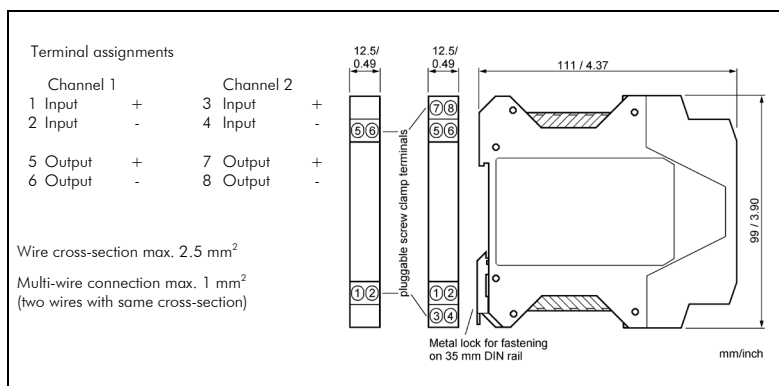
Input		
Input signal		0(4) ... 20 mA
Start-up current		< 20 µA
Voltage drop		< 2.0 V
Overload		100 mA, 30 V
Output		
Output signal		0(4) ... 20 mA
Cut-off frequency -3 dB		100 Hz at 500 Ω load
Response time T <sub>99</sub>		5 ms at 500 Ω load
Residual ripple		< 10 mV <sub>rms</sub>
General Data		
Transmission error		< 0.1 % full scale
Load error		< 0.03 % of measured value / 100 Ω load
Temperature coefficient <sup>1)</sup>		< 15 ppm/K of measured value / 100 Ω load
DH 101X	Test voltage	1.5 kV AC, 50 Hz, 1 min. all circuits against one another
DH 102X	Test voltage	4 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                    - 20 to + 70 °C    (- 4 to + 158 °F) Transport and storage    - 35 to + 85 °C    (- 31 to + 185 °F)
EMC <sup>3)</sup>		EN 61326-1
Construction		12.5 mm (0.49") housing, protection class IP 20, mounting on 35 mm DIN rail acc. to EN 60715
Weight		Approx. 100 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	1-channel		DH 1011 AG
Loop-Powered Isolator	2-channel		DH 1012 AG
Loop-Powered Isolator	1-channel	Protective Separation, test voltage 4 kV~	DH 1021 AG
Loop-Powered Isolator	2-channel	Protective Separation, test voltage 4 kV~	DH 1022 AG