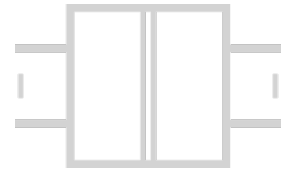


# Passive Isolator DH 18

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



The input loop-powered isolator DH 18 is used for the electrical isolation of 0(4) ... 20 mA standard signals.

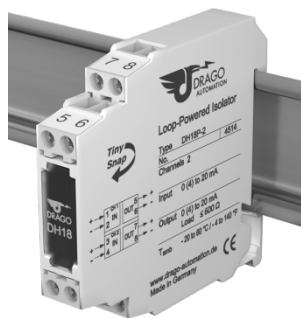
The DH 18 transfers the measuring signal to the output with a high degree of accuracy and avoids interference voltage carry-over and suppressing interferences effectively. The slim housing with 11.2 mm wide for one or two channels saves significant space on the DIN-rail.

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.

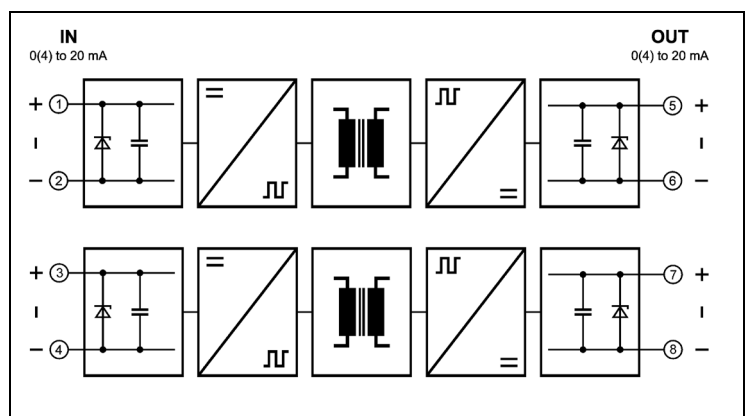
To protect both maintenance personnel as well as downstream equipment against impermissibly high voltages, the DH 18 offers Protective Separation in according to EN 61140.

The DH 18 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.

- **1- and 2-channel versions**  
 Economical separation for standard applications
- **Only 60 mm installation depth, 11.2 mm wide**  
 Can be installed in economical standard terminal boxes
- **Galvanic isolation across input and output**  
 Protection against erroneous measurements due to parasitic voltages or ground loops
- **High reliability and long-term stability**  
 New APT technology for signal processing
- **Protective Separation acc. to EN 61140**  
 Protects service personnel and downstream devices against impermissibly high voltage
- **No power supply required**  
 Saving costs since wiring is reduced and line influences are omitted
- **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

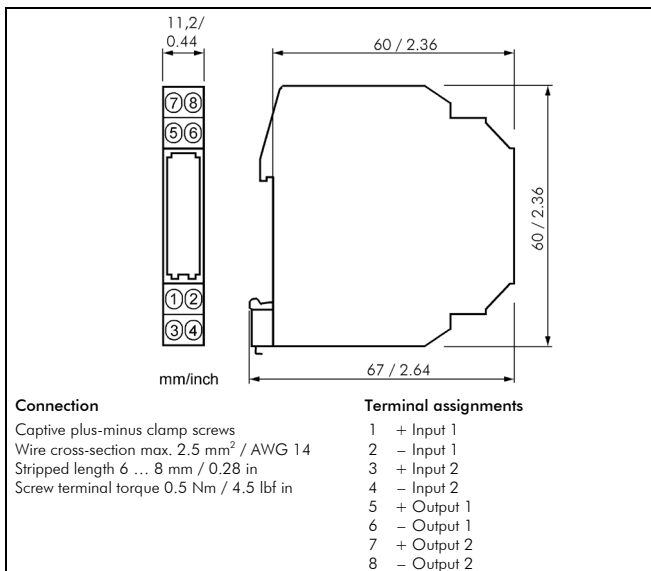
Input	
Input signal	0(4) ... 20 mA
Start-up current	< 100 $\mu$ A
Voltage drop	< 3.0 V
Overload	$\leq$ 50 mA, 15 V
Output	
Output signal	0(4) ... 20 mA
Load	< 600 $\Omega$
Cut-off frequency -3 dB	100 Hz
Response time $T_{99}$	5 ms
Residual ripple	< 10 mV <sub>rms</sub>
General Data	
Transmission error	< 0.1 % full scale
Load error	< 0.05 % of measured value / 100 $\Omega$ load
Temperature coefficient <sup>1)</sup>	< 0.004 %/K of measured value / 100 $\Omega$ load
Test voltage	3 kV, 50 Hz all circuits against one another
Working voltage (Basic Insulation) <sup>2)</sup>	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 + 60 °C (-4 to + 140 °F) Transport and storage - 35 to + 85 °C (-31 to + 185 °F)
EMC <sup>3)</sup>	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

## Dimensions



Subject to change!

## Product line

Device	Order No.
Loop-powered isolator DH 18 P 1-channel	DH 18 P - 1
Loop-powered isolator DH 18 P 2-channel	DH 18 P - 2