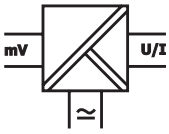
High-performance Isolation Transmitter for Bipolar and Unipolar Shunt Voltages with Extensive Range Selection and Zero/Span Adjustment



The Isolation Transmitter IsoPAQ-80S is used for high-precision isolation and conversion of bipolar and unipolar shunt voltages into standard mA/V signals.

Due to the extensive range selection, the selectable bandwidth and the universal power supply, IsoPAQ-80S is a true universal transmitter for any demanding shunt voltage isolation application.

The zero and span adjustments allow for a fine-tuning of the measurement loop.

The high reliability and the Protective Separation are additional features that ensure a safe system operation.

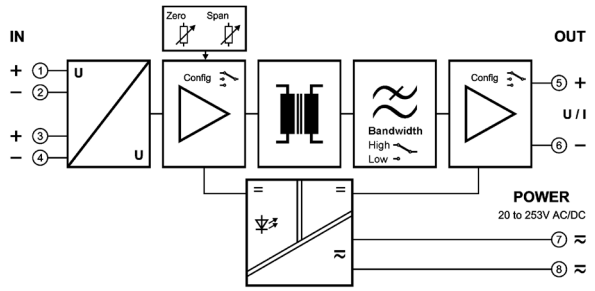
- **Extensive range selection**
  Input ranges in mV and output ranges in mA or V can be set in 144 combinations by using DIP switches
- **Zero/Span Adjustment**
  Allow for additional fine-tuning of the measurement loop and recalibration after a range selection
- **Extremely fast response**
  Cut-off frequency higher than 10 kHz, switchable to 30 Hz
- **Protective Separation acc. to EN 61140**
  The design and high isolation level (4 kV) provides protection for service personnel and downstream devices against impermissibly high voltage
- **High accuracy**
  Negligible additional measurement errors in the loop
- **Universal power supply for 20 to 253 VAC/DC**
  Applicable world-wide for all common supply voltages
- **3-port isolation**
  Protection against erroneous measurements due to parasitic voltages or ground loops
- **High-density DIN-rail mounting**
  12.5 mm (0.5") housing combined with very low self heating allows for high density mounting
- **Plug-in screw terminals**
  Simplifies installation and maintenance
- **Excellent reliability**
  Low self heating thanks to patented high-efficiency power supply provides long-term reliability and stability

Specifications: IsoPAQ-80S

Input	**Voltage**					
Input signal	± **60 mV**[1]	± 100 mV	± 150 mV	± 250 mV	± 300 mV	± 500 mV
(terminal/switch selectable)	0-60 mV	0-100 mV	0-150 mV	0-250 mV	0-300 mV	0-500 mV
Input resistance	> 100 kΩ					
Input capacitance	Approx. 1 nF					
Overload	Voltage limitation via 30 V Z-Diode, max. continuous current 30 mA					
Output	**Voltage**			**Current**		
Output signal	± **10 V**[1]	0-10 V	2-10 V	± 20 mA	0-20 mA	4-20 mA
(switch selectable)	± 5 V	0-5 V	1-5 V	± 10 mA	0-10 mA	2-10 mA
Load	≤ 10 mA (1 kΩ @ 10 V)			≤ 12 V (600 Ω @ 20 mA)		
Linear transmission range	Unipolar: -2 to +110 %, Bipolar: -110 to +110 %					
Ripple	< 0.2 % of end value, ~150 kHz					
General data						
Transmission error	± 0.1 % of end value					
Temperature coefficient[2]	± 0.01 %/K of end value					
Zero/Span adjustment	± 10 % of end value					
Cut-off frequency (-3 dB)	> **10 kHz**[1] Switchable to approx. 30 Hz					
Test voltage	4 kV, 50 Hz Input against output against power supply					
Working voltage[3] (Basic Insulation)	1000 VAC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010 part 1 between all circuits.					
Protection against electrical shock[3]	Protective separation acc. to EN 61140 by reinforced insulation acc. to EN 61010 part 1 up to 600 VAC/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)					
Power supply	20 to 253 VAC/DC AC 48 to 62 Hz, approx. 2 VA					
	DC approx. 1 W					
EMC[4]	EN 61326-1					
Construction	12.5 mm (0.5") housing, protection class: IP20					
Connection	≤ 2.5 mm², AWG 14					
Weight	Approx. 100 g					

1) Factory setting
2) Average TC in specified operating temperature range
3) As far as relevant the standards and rules mentioned above are considered by development and production of our devices. In addition relevant assembly rules are to be considered by installation of our devices in other equipments. For applications with high working voltages, take measures to prevent accidental contact and make sure that there is sufficient distance or insulation between adjacent situated devices.
4) Minor deviations possible during interference

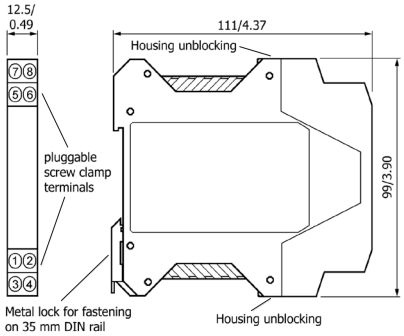
Block diagram/Connections



Ordering information:

Product	*Input / Output*	*Part No.*
IsoPAQ-80S	±60mV/±10V	70ISS80001
Calibration for other range		70CAL00001

Dimensions



mm/inch