High-performance Isolation Transmitter for Bipolar and Unipolar mA/V Signals with Extensive Range Selection and Zero/Span Adjustment

The Isolation Transmitter IsoPAQ-60P is used for highprecision isolation and conversion of 0-20 mA, 4-20 mA and 0-10 V bipolar and unipolar signals.

Due to the extensive range selection with a choice of 144 input/output signal combinations, the selectable bandwidth and the universal power supply, IsoPAQ-60P is a true universal transmitter for any demanding 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 and output range 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

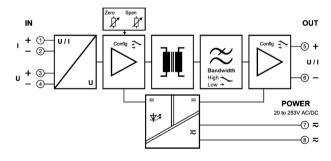
Excellent reliability

Low self heating thanks to patented high-efficiency power supply provides long-term reliability and stability

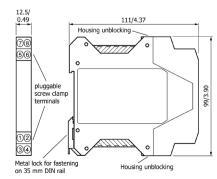
Specifications: IsoPAQ-60P

Input	Voltage			Current			
Input signal	± 10 V ¹⁾	0-10 V	2-10 V	± 20 mA	0-20 mA	4-20 mA	
(terminal/switch selectable)	± 5 V	0-5 V	1-5 V	± 10 mA	0-10 mA	2-10 mA	
Input resistance	Approx. 1 MΩ		Approx. 25 Ω				
Input capacitance	Approx. 1 nF				Approx. 1 nF		
Overload	Voltage limitation via 30 V Z-Diode,		≤ 200 mA				
	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	$\leq 10 \text{ mA} (1 \text{ k}\Omega \text{ @ } 10 \text{ V})$ $\leq 12 \text{ V} (600 \Omega \text{ @ } 20 \text{ mA})$						
Linear transmission range	Unipolar: -2 to +110 %, Bipolar: -110 to +110 %						
Ripple	< 0.1 % 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)					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	Protective separation acc. to EN 61140 by reinforced insulation acc. to EN 61010 part 1						
shock ^{3]}	up to 600 VAC/DC for overvoltage category II and pollution degree 2 between all circuits.						
Ambient temperature	Operation		-20 to +70 °C (+14 to +158 °F)				
		t and stora	ige		C (-31 to +185		
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, AWG14						
Weight	Approx. 1	00 g					

Block diagram/Connections



Dimensions



Ordering information:

Prod	luct	Input / Output	Part No.
IsoP	AQ-60P	±10V/±10V	70ISP60001
Calibration for other range			70CAL00001

mm/inch

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