High-performance Isolation Transmitter for Unipolar mA/V Signals with Fixed Ranges

The Isolation Transmitter IsoPAQ-41P is used for high-precision isolation and conversion of 0-20 mA, 4-20 mA and 0-10 V unipolar signals.

For applications where normally only one signal combination is used, IsoPAQ-41P offers a cost-effective alternative.

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





Fixed ranges

Ready to use without any settings

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

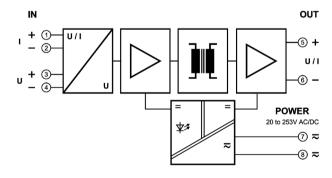


Specifications: IsoPAQ-41P

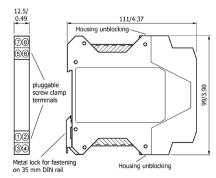
Input				
Input signal	0-20 mA 4-20 mA	0-10 V	Factory set as ordered	
Input resistance	Current input	22Ω		
	Voltage input	1 ΜΩ		
Input capacitance	Approx. 1 nF			
Overload	Current input	≤ 200 mA		
	Voltage input	Voltage limitatio	Voltage limitation via 30 V Z-Diode, max. continuous current 30 mA	
Output				
Output signal	0-20 mA 4-20 mA	0-10 V	Factory set as ordered	
Load	Current output	$\leq 600 \Omega$		
	Voltage output	≥ 1 kΩ		
Linear transmission range	-2 to +110 %			
Ripple	< 0.1 % of end value, ~ 150 kHz			
General data				
Transmission error	± 0.1 % of end value			
Temperature coefficient ^{1]}	± 0.005 %/K of end value			
Cut-off frequency (-3 dB)	> 1 kHz			
Test voltage	4 kV, 50 Hz	Input against output against power supply		
Working voltage ^{2]} (Basic insulation)	600 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 ²⁾	up to 300 VAC/DC for overvoltage category II and pollution degree 2 between all circuits.			
Ambient temperature	Operation	-20 to +70 °C	-20 to +70 °C (-4 to +158 °F)	
	Transport and storage	-35 to +85 °C	-35 to +85 °C (-31 to +185 °F)	
Power supply	20 to 253 VAC/DC	AC 48 to 62 H	AC 48 to 62 Hz, approx. 2 VA	
		DC approx. 1	W	
EMC ³⁾	EN 61326-1			
Construction	12.5 mm (0.5") housing, protection class: IP20			
Connection	≤ 2.5 mm², AWG 14			
Weight	Approx. 100 g			
	<u> </u>			

¹⁾ Average TC in specified operating temperature range

Block diagram/Connections



Dimensions



Ordering information:

Product	Input / Output	Part No.
IsoPAQ-41P	0-20 mA / 0-20 mA	70ISP41012
	4-20 mA / 0-20 mA	70ISP41032
	0-10 V / 0-20 mA	70ISP41052
	0-20 mA / 4-20 mA	70ISP41014
	4-20 mA / 4-20 mA	70ISP41012
	0-10 V / 4-20 mA	70ISP41054
	0-20 mA / 0-10 V	70ISP41016
	4-20 mA / 0-10 V	70ISP41036
	0-10 V / 0-10 V	70ISP41056

mm/inch

²⁾ 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.

3] Minor deviations possible during interference