Isolation Transmitter for Bipolar and Unipolar mA/V Signals with Fixed Ranges

The Isolation Transmitter IsoPAQ-161P is mainly used for isolation of bipolar signals, such as ± 20 mA, ± 10 mA, ± 10 V, ± 5 V, and conversion into unipolar output signals.

For applications where normally one signal combination only is used, IsoPAQ-161P offers a cost-effective alternative.

The high reliability and the Protective Separation are further features, which ensure a safe system operation.





COMPACTLINE

COMPACT LINE is a line of very compact and cost-optimized Isolators, Transmitter Repeaters and Isolating Transmitters within the IsoPAQ family.

The small dimensions - only 60 mm deep and 11.2 mm wide - and the favorable pricing allow for space saving and economic installations.

• 3-port isolation

Protection against erroneous measurements due to parasitic voltages or ground loops

• Bipolar input signals

Bipolar input signals, e.g. -10..0..+10 V, as well as special ranges available

Fixed ranges

Ready to use without any settings

Universal power supply for 24 VAC/DC

Increased flexibility in industrial applications

• Protective Separation acc. to EN 61140

The design and high isolation level (2.5 kV) provides protection for service personnel and downstream devices against impermissibly high voltage $\,$

Compact DIN-rail mounting

11.2 mm (0.44") housing combined with very low self heating allows for high density mounting. With a depth of only 60 mm, compact standard boxes can be used.

Excellent reliability

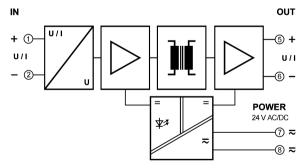
Low self heating thanks to high-efficiency power supply provides long-term reliability and stability



Specifications: IsoPAQ-161P

Input					
Input signal 1)	± 20 mA	± 10 mA		Factory set as ordered	
	± 10 V	± 5 V	0-5 V		
Input resistance	Current input	5 Ω			
•	Voltage input	$1\mathrm{M}\Omega$			
Overload	Current input	≤ 200 mA			
	Voltage input	≤ 250 V			
Output					
Output signal 1)	0-20 mA	4-20 mA		Factory set as ordered	
	0-10 V	0-5 V		•	
Load	Current output	≤ 500 Ω			
	Voltage output	$\geq 2 \text{ k}\Omega$			
Ripple	< 0.1 % of end value	e, ~ 100 kHz			
General data					
Transmission error	± 0.2 % of measuring span				
Temperature coefficient ^{2]}	± 0.02 %/K of measuring span				
Response time	< 5 ms				
Test voltage	2.5 kV, 50 Hz Between all circuits				
Working voltage ^{3]} (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 ^{3]}	up to 300 VAC/DC for overvoltage category II and pollution degre 2 between all circuits.				
Ambient temperature	Operation 0 to +55 °C (32 to +131 °F)				
	Transport and storage		-25 to +80 °C (-13 to +176 °F)		
Power supply	24 VAC/DC, ± 15 %		AC 48 to 62	AC 48 to 62 Hz, approx. 2 VA	
			DC approx. 0.7 W		
EMC ^{4]}	EN 61326-1		• • •		
Construction	11.2 mm (0.44") housing, protection class: IP20				
Connection	≤ 2.5 mm², AWG 14				
Weight	Approx. 50 g				

Block diagram/Connections



Dimensions 60 / 2.36 78 60 / 2.36 mm/inch

Ordering information

Product		Part No.
IsoPAQ161P		70ISC161XX
Input	± 10 V	1
	± 5 V	2
	0-5 V	3
	± 20 mA	4
	± 10 mA	5
Output	0-20 mA	2
	4-20 mA	4
	0-5 V	5
	0-10 V	6
Power connector set for up to 10 units		70ADA00030

Other signals on request
 Average TC in specified operating temperature range
 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