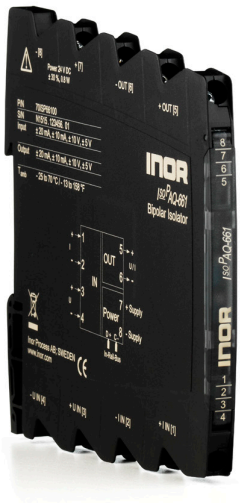
Isolation transmitter for Bipolar and Unipolar mA/V signals with calibrated range selection

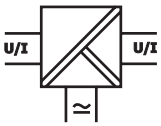


The Bipolar Isolation Amplifier IisPAQ-661 is used for isolation and conversion of bipolar and unipolar industrial standard signals.

The input and output range of IsoPAQ-661 can be easily set by using DIP switch. Due to the calibrated range selection no further adjustment is necessary.

A switchable compensation of the measuring range can be performed at the Zero/Span potentiometers on the front panel. Also the cut-off frequency can be adapted to the measurement task by using the DIP Switch.

The auxiliary power can be supplied via the connection terminals or via the optional In-Rail-Bus connector. A green LED on the front of the unit has been provided to monitor the power supply.



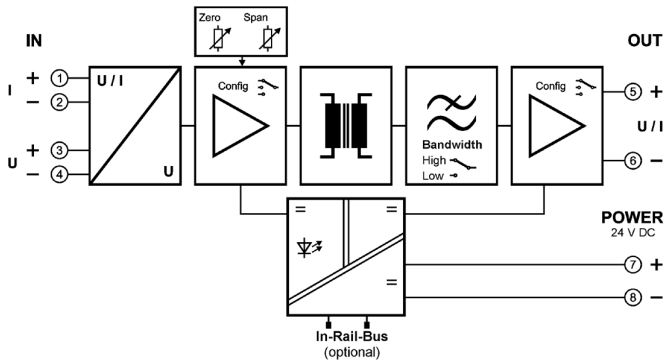
- **Calibrated signal setting via DIP switch**
  Input and output range can be set by using DIP switch – high precision without any further adjustment
- **High bandwidth; short response time**
  No signal distortion; no falsification of measured signal
- **Switchable Zero/Span compensation**
  For readjustment of the sensor or field device
- **3-Port isolation**
  Protection against erroneous measurements due to parasitic voltages or ground loops
- **Extremely slim design**
  6.2 mm slim housing for a simple and space saving DIN rail mounting
- **Optional In-Rail-Bus mounting rail connector**
  allows for fast and economical installation
- **Protective Separation acc. to EN 61140**
  Protects service personnel and downstream devices against impermissibly high voltage

Specifications:

Input	Current			Voltage		
Input signal	±20 mA	0... 20 mA	4... 20 mA	±10 V	0... 10 V	2 ... 10 V
(calibrated switchable)	±10 mA	0... 10 mA	2... 10 mA	±5 V	0... 5 V	1 ... 5 V
Input resistance	⩽ 25Ω			⩾1 MΩ		
Overload	< 50 mA			< 30 V		
Output	**Current**			**Voltage**		
Output signal	±20 mA	0... 20 mA	4... 20 mA	±10 V	0... 10 V	2... 10 V
(calibrated switchable)	±10 mA	0... 10 mA	2... 10 mA	±5 V	0... 5 V	1... 5 V
Load	⩽12 V	(600 Ω at 20 mA)		⩽5 mA	(2 kΩ at 10 V)	
Linear transmission range	unipolar: -1... +110 %		bipolar: -110... +110 %			
Residual ripple	< 10 mV_{rms}					
General Data						
Transmission error	< 0.1 % full scale					
Temperature coefficient[1]	< 100 ppm/K					
Zero/Span compensation (switchable)	±5 % of measuring range					
Cut-off frequency -3 dB (switchable)	8 kHz		100 Hz			
Response time T_{99}	100 µs		7 ms			
Test voltage	3 kV AC, 50 Hz, 1 min.		Input against output against power supply			
Working voltage[2] (Basic Insulation)	600 V AC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010-1					
Protection against electrical shock[2]	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		-25°C to +70°C		(-13 to +158°F)	
	Transport and storage		-40°C to +85°C		(-40 to +185°F)	
Power supply	24 V DC		voltage range 16.8 V ... 31.2 V DC, approx. 0.8 W			
EMC[3]	EN 61326-1					
Construction	6.2 mm (0.244") housing, protection class IP 20, mounting on 35 mm DIN rail acc. to EN 60715					
Weight	Approx. 70 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

Block diagram/Connections



Dimensions