# High-performance Isolation Transmitter for Unipolar mA Signals with Fixed Range and Zero/Span Adjustment

The Isolation Transmitter IsoPAQ-51P is used for high-precision isolation of 0(4)-20 mA unipolar signals.

For applications where normally only one signal combination is used, IsoPAQ-51P offers a cost-effective alternative.

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.





## Fixed ranges

Ready to use without any settings

# Zero/Span Adjustment

Allow for additional fine-tuning of the measurement loop

### • 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

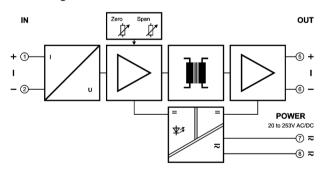
Low self heating thanks to patented high-efficiency power supply provides long-term reliability and stability

# Specifications: IsoPAQ-51P

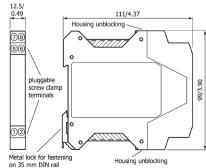
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|--|---|---|--|
| Input signal                                     | 0(4)-20 mA  |   |  |
| Input resistance                                 | Approx. 25 Ω  |   |  |
| Overload   | ≤ 200 mA  |   |  |
| Output   |   |   |  |
| Output signal                                    | 0(4)-20 mA  |   |  |
| Load   | ≤ 600 Ω   |   |  |
| Linear transmission range                        | -2 to +110 %  |   |  |
| Ripple   | < 0.1 % of end value, ~150 kH                                 | z   |  |
| General data                                     |   |   |  |
| Transmission error                               | ± 0.1 % of end value  |   |  |
| Temperature coefficient <sup>1]</sup>            | ± 0.01 %/K of end value                                       |   |  |
| Zero/Span Adjustment                             | ± 5 % of end value  |   |  |
| Cut-off frequency (-3 dB)                        | > 1 kHz   |   |  |
| Test voltage                                     | 4 kV, 50 Hz   | Input against output against power supply                     |  |
| Working voltage <sup>2]</sup> (Basic Insulation) | 600 VAC/DC for overvoltage category II and pollution degree 2 |   |  |
|  | acc. to EN 61010 part 1 betweer                               |   |  |
| Protection against electrical                    | Protective separation acc. to                                 | EN 61140 by reinforced insulation acc. to EN 61010 part 1     |  |
| shock <sup>2]</sup>                              | up to 300 VAC/DC for overvol                                  | tage 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 <sup>3</sup>                                 | EN 61326-1  |   |  |
| Construction                                     | 12.5 mm (0.5") housing, protection class: IP20                |   |  |
| Connection                                       | ≤ 2.5 mm², AWG 14   |   |  |
| Weight   | Approx. 100 g   |   |  |
|  |   |   |  |

#### **Block diagram/Connections**



# **Dimensions**



#### Ordering information:

| Product    | Input / Output          | Part No.   |
|------------|-------------------------|------------|
| IsoPAQ-51P | 0(4)-20 mA / 0(4)-20 mA | 70ISP51012 |

mm/inch

<sup>1]</sup> Average TC in specified operating temperature range
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