# Shunt/mV Isolation Amplifier DS 7400

Isolation and Conversion of mV-Signals in Standard Applications



The Isolation Amplifier DS 7400 is used for separation and conversion mV-signals such as those frequently used for current measuring with shunt-resistors or other applications.

Its high level of reliability and cost optimized design make the DS 7400 the first choice in its class!

The desired input and output range can be easily set by using DIP switch and due to the calibrated range selection no further adjustment is necessary.

The slim housing with 12.5 mm width saves space in your switch cabinet and facilitates by the practical plug-in screw terminal blocks the assembly.

For range selection a simple housing unblocking is installed which makes it possible to reach easily all control elements also on the DIN-rail.

In cause of the new universal power pack for 20...253 V AC/DC the Isolation Amplifier DS 7400 is applicable world-wide for all common supply voltages. To control the power supply a green LED is installed on the front panel.

#### Calibrated signal setting

Input and output range can be set by using DIP switch - without any further adjustment

• Universal power supply for 20...253 V AC/DC Applicable world-wide for all common supply voltages

#### • 3-port isolation

Protection against erroneous measurements due to parasitic voltages or ground loops

#### Ultra-small-sized housing

12.5 mm housing with plug-in screw terminal blocks

## Maximum reliability

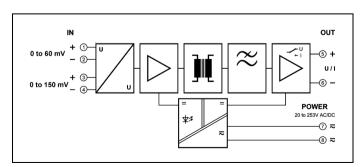
No maintenance costs

### • 5 Years Warranty

Defects occurring within 5 years from delivery date shall be remedied free of charge at our plant (carriage and insurance paid by sender)



## Block diagram

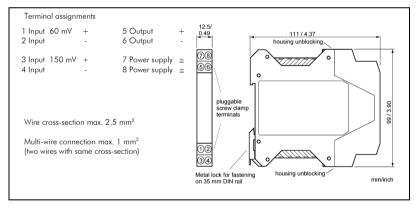




#### **Technical data**

Input				
Input signals	0 60 mV 0 150 m	١V	calibrated terminal selectable	
Input resistance	> 25 kΩ			
Input capacitance	Approx. 1 nF			
Overload	≤ 30 V			
Output				
Output signals	0 10 V 0 20 mA	4 20 mA	calibrated switchable	
Load	Current output	≤ 10 V	(500 $\Omega$ at 20 mA)	
	Voltage output	≤ 10 mA	(1 k $\Omega$ at 10 V)	
Residual ripple	$<$ 20 mV $_{rms}$			
General data				
Transmission error	< 0.3 % full scale			
Temperature coefficient <sup>2)</sup>	< 150 ppm/K of final value			
Cut-off frequency -3 dB	1 kHz			
Response time T <sub>99</sub>	0,7 ms			
Test voltage	2.5 kV AC, 50 Hz, 1 min. Input against output against power supply			
Working voltage <sup>3)</sup> (Basic Insulation)	600 V AC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010-1			
Ambient temperature	Operation	tion - 10 to + 60 °C (+ 14 to + 140 °F)		
	Transport and storage	-20  to  + 8	30 °C ( - 4 to + 176 °F)	
Power supply	20 253 V AC/DC		2 Hz, approx. 3 VA	
5) (04)	5)	DC approx. 1	1.5 W	
EMC <sup>4)</sup>	EN 61326 -1			
Construction	12.5 mm (0.49") housing, protection class IP 20, mounting on 35 mm DIN rail acc. to EN 60715			
Weight	Approx. 100 g			

## **Dimensions**



Subject to change!

#### **Product line**

Device	Order No.
Isolation Amplifier	DS 7400 AG

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