

The Isolation Amplifier GS 75000 is used for separation and conversion of bipolar and unipolar mV-signals such as those frequently used for current measuring with shunt resistors or other applications with low sensor voltages.

The input and output range of GS 75000 can be easily set by using DIP switch. Due to the calibrated range selection no further adjustment is necessary.

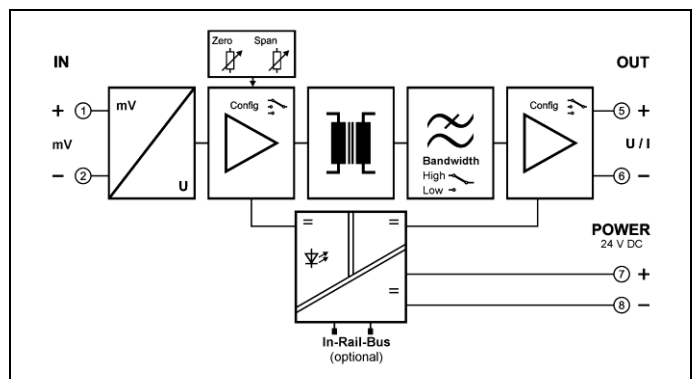
A switchable compensation of the measuring range can be performed at the Zero/Span potentiometers on the front panel. Also the cut-off frequency can be adapted to the measurement task by using the DIP Switch.

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**
 Input and output range can be set by using DIP switch – high precision without any further adjustment
- **Switchable Zero/Span compensation**
 For readjustment of the shunt/mV signal or measuring section
- **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
- **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



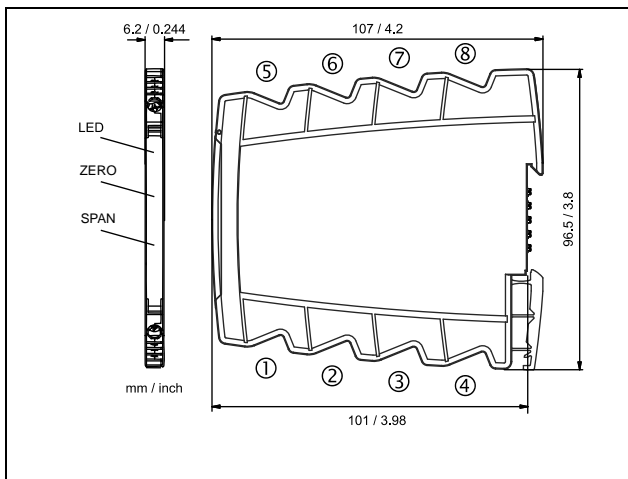
6mm

Technical Data

Input						
Input signals (calibrated switchable)	± 60 mV 0 ... 60 mV	± 100 mV 0 ... 100 mV	± 150 mV 0 ... 150 mV	± 250 mV 0 ... 250 mV	± 300 mV 0 ... 300 mV	± 500 mV 0 ... 500 mV
Input resistance	> 100 kΩ					
Overload	< 30 V					
Output		Current		Voltage		
Output signals (calibrated switchable)	± 20 mA ± 10 mA	0 ... 20 mA 0 ... 10 mA	4 ... 20 mA 2 ... 10 mA	± 10 V ± 5 V	0 ... 10 V 0 ... 5 V	2 ... 10 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 %			
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)	Up to 600 V AC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010-1 between all circuits.					
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 housing, protection class IP 20, mounting on 35 mm DIN rail acc. to EN 60715					
Weight	Approx. 70 g					

- 1) Average TC based on the final value 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 equipment. 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

Dimensions



Subject to change!

Terminal assignments

1	+ Input
2	- Input
3	N.C.
4	N.C.
5	+ Output
6	- Output
7	+ Power supply (connected to In-Rail-Bus)
8	- Power supply (connected to In-Rail-Bus)

Connection

Captive plus-minus clamp screws
 Wire cross-section max. 2.5 mm² / AWG 14
 Stripped length 6 ... 8 mm / 0.28 in
 Screw terminal torque 0.8 Nm / 7 lbf in
 Optional power connection via In-Rail-Bus (see accessories)

Product line

Device	Order No.
Shunt/mV Isolation Amplifier, calibrated range selection	GS 75000 S
Shunt/mV Isolation Amplifier, calibrated range selection, In-Rail-Bus for power supply	GS 75000 B