



The Bipolar Isolation Amplifier GB 64000 is used for isolation and conversion of bipolar and unipolar industrial standard signals.

The input and output range of GB 64000 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

- **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**

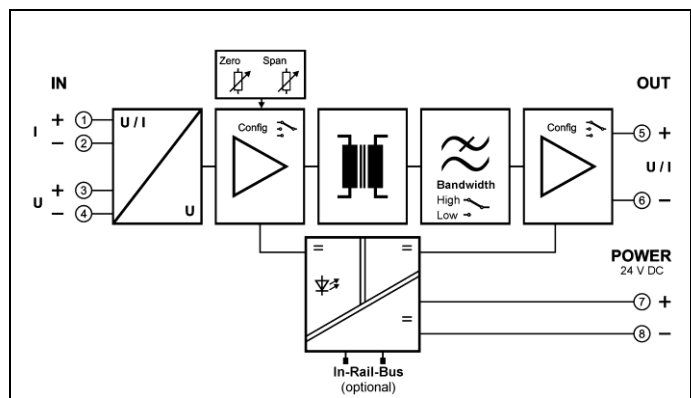
Protects service personnel and downstream devices against impermissibly high voltage

- **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



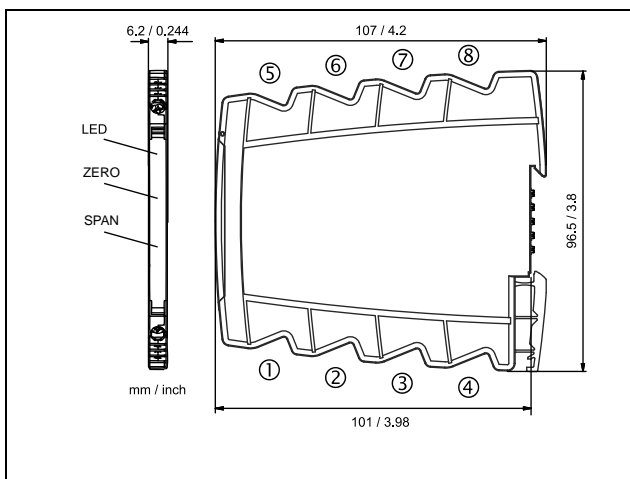
Sûreté des Procédés Industriels

Technical Data

Input	Current			Voltage		
Input signal (calibrated switchable)	± 20 mA	0 ... 20 mA	4 ... 20 mA	± 10 V	0 ... 10 V	2 ... 10 V
	± 10 mA	0 ... 10 mA	2 ... 10 mA	± 5 V	0 ... 5 V	1 ... 5 V
Input resistance	≤ 25 Ω			≥ 1 MΩ		
Overload	≤ 50 mA			< 30 V		
Output	Current			Voltage		
Output signal (calibrated switchable)	± 20 mA	0 ... 20 mA	4 ... 20 mA	± 10 V	0 ... 10 V	2 ... 10 V
	± 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)	8 kHz	100 Hz	switchable			
Response time (T ₁₀₋₉₀)	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 current |
| 2 | - Input current |
| 3 | + Input voltage |
| 4 | - Input voltage |
| 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.
Bipolar Isolation Amplifier, calibrated range selection	GB 64000 S
Bipolar Isolation Amplifier, calibrated range selection, In-Rail-Bus for power supply	GB 64000 B