

6mm

Universal Isolation Amplifier D6B 64000

Isolation and Conversion of Bipolar and Unipolar Industrial Signals

With the configurable Isolation Amplifier D6B 64000 DRAGO is extending its offer on high functional and high reliable components of the interface technique.

The Isolation Amplifier D6B 64000 is used for isolation and conversion of bipolar and unipolar industrial signals. Due to the easy selection of the calibrated input and output ranges and the ultra small housing the Isolation Amplifier is suitable for flexible use. High reliability and Protective Separation are further characteristics that make the D6B 64000 unrivaled.

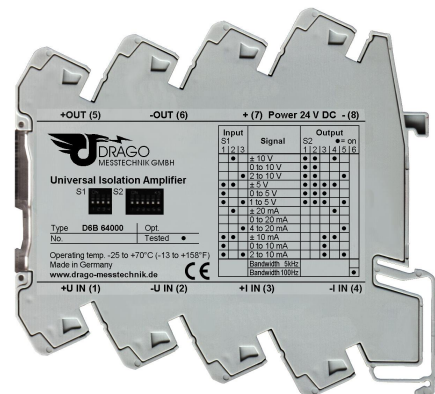
The desired input and output range of D6B 64000 can be easily set by using DIP switch and due to the calibrated range selection no further adjustment is necessary. Also the cut-off frequency can be adapted to the measurement task by using the DIP Switch. A measured range compensation can be performed at the zero/span potentiometers on the front panel.

Pluggable cross-connectors for the auxiliary power supply ensures fast and economical installation. The slim housing with 6.0 mm wide saves significant space on DIN-rail in the switch cabinet.

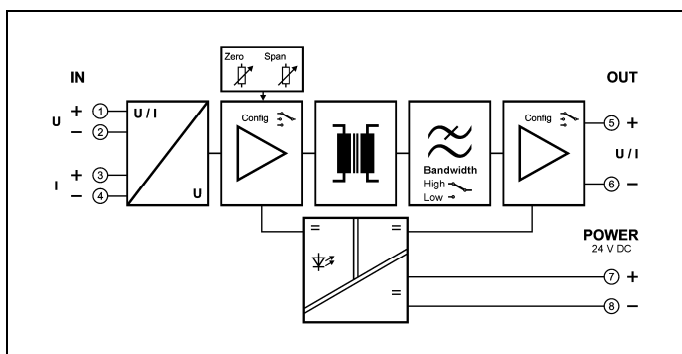
The optimized efficiency of the D6B 64000 power pack contributes significantly to reducing the unit's own heat generation. This is reflected in extremely high MTBF, it means highest reliability and long-term stability. A green LED on the front of the unit has been provided to monitor the power supply.

- **Calibrated signal setting**
Input and output range can be set by using DIP switch - without any further adjustment
- **Zero/Span compensation**
Subsequent readjustment at the zero/span potentiometers on the front panel
- **3-Port isolation**
Protection against erroneous measurements due to parasitic voltages or ground loops
- **Extremely slim design**
6.0 mm small housing with practical pull-spring clamps
- **Protective Separation acc. to EN 61140**
Protects service personnel and downstream devices against impermissibly high voltage
- **Maximum reliability**
No maintenance costs
- **5 Years Warranty**

5 Years Warranty
Defects occurring within 5 years from delivery are remedied free of charge at our plant (carriage and insurance paid by sender).



Block diagram



Technical Data

Input	Voltage	Current
Input signals (terminal/switch selectable), calibrated range selection	± 10 V 0 ... 10 V 2 ... 10 V ± 5 V 0 ... 5 V 1 ... 5 V	± 20 mA 0 ... 20 mA 4 ... 20 mA ± 10 mA 0 ... 10 mA 2 ... 10 mA
Input resistance	Approx. 1 MΩ	Approx. 50 Ω
Overload	< 30 V	≤ 50 mA
Output	Voltage	Current
Output signals, calibrated range selection	± 10 V 0 ... 10 V 2 ... 10 V ± 5 V 0 ... 5 V 1 ... 5 V	± 20 mA 0 ... 20 mA 4 ... 20 mA ± 10 mA 0 ... 10 mA 2 ... 10 mA
Load	≤ 5 mA (2 kΩ at 10 V)	≤ 12 V (600 Ω at 20 mA)
Offset	< 10 mV	< 20 μA
Linear transmission range	unipolar: -1 ... +110 % bipolar: -110 ... +110 %	
Ripple	< 10 mV _{rms}	
General Data		
Transmission error	< 0.1 % of final value	
Temperature coefficient ¹⁾	< 100 ppm/K	
Zero/Span compensation	± 5 % of final value	
Cut-off frequency (-3 dB)	5 kHz switchable to 100 Hz	
Test voltage	2.5 kV, 50 Hz 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 16.8 V ... 31.2 V DC, approx. 0.8 W	
EMC ³⁾	EN 61326-1	
Construction	6.0 mm housing, protection class: IP 20	
Weight	Approx. 50 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 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

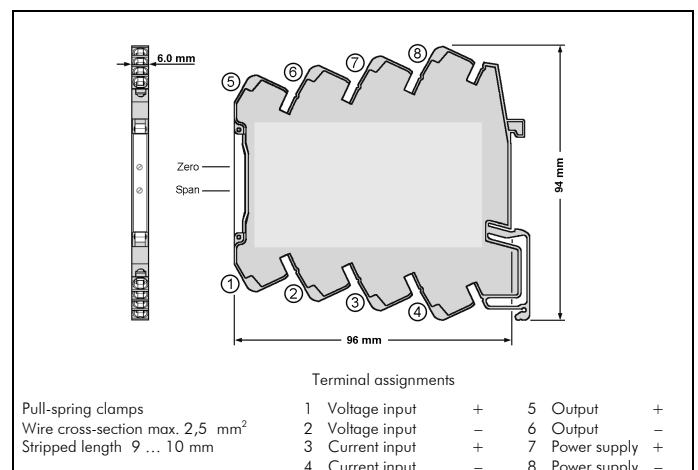
Bold: Factory setting for D6B 64000

Order Table for Factory Setting

D6B 64005	- XX	- YY
	Input	Output
Range	XX / YY	
± 10 V	00	± 20 mA 06
0 ... 10 V	01	0 ... 20 mA 07
2 ... 10 V	02	4 ... 20 mA 08
± 5 V	03	± 10 mA 09
0 ... 5 V	04	0 ... 10 mA 10
1 ... 5 V	05	2 ... 10 mA 11

Example: Input: ± 5 V, Output: 4 ... 20 mA
 Order No.: D6B 64005 - 03 - 08

Dimensions



Product line

Device	Order No.
Universal Isolation Amplifier, Zero/Span compensation, calibrated range selection	D6B 64000
Universal Isolation Amplifier, calibrated range selection, customer specific preselection	D6B 64005 - XX - YY

Subject to change !