

6mm

# Isolation Amplifier D6N 25000

Isolation and Conversion of Standard Signals

With the Isolation Amplifier D6N 25000 DRAGO is extending its offer on high-functional and high-reliable components of the interface technique.

The Isolation Amplifier D6N 25000 is used for isolation and conversion of 0 ... 20 mA, 4 ... 20 mA, 0 ... 5 V, 1 ... 5 V, 0 ... 10V and 2 ... 10 V standard signals. Due to the calibrated selection of the input and output ranges, the new universal power supply and the ultra-small housing the Isolation Amplifier is suitable for flexible use. The high reliability and the protective separation are further features, which ensure a safe system operation.

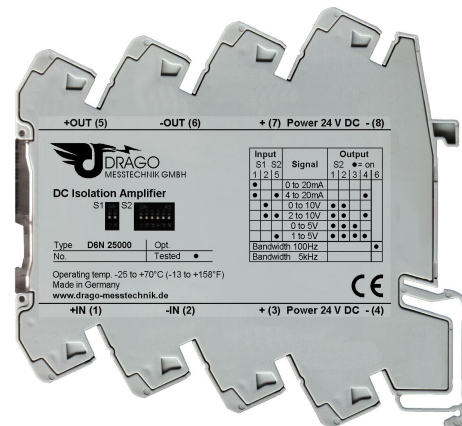
The desired input and output range of D6N 25000 can be easily set by using DIP switch and due to the calibrated range selection no further adjustment is necessary. Also the cut-off frequency can be adapted to the measurement task by using the DIP Switch. Alternatively, all signal combinations are also available in the form of fixed range units.

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.

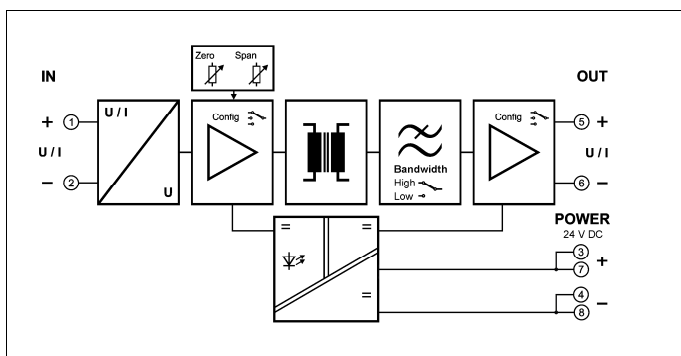
The optimized efficiency of the D6N 25000 power pack contributes significantly to reducing the units own heat generation. This is reflected in extremely high MTBF, it means highest reliability and long-term stability. A green LED on the front of the unit has been provided to monitor the power supply.

- **Calibrated signal setting**  
Input and output range can be set by using DIP switch – without any further adjustment
- **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).



## Prinzipschaltbild



**Technical Data**

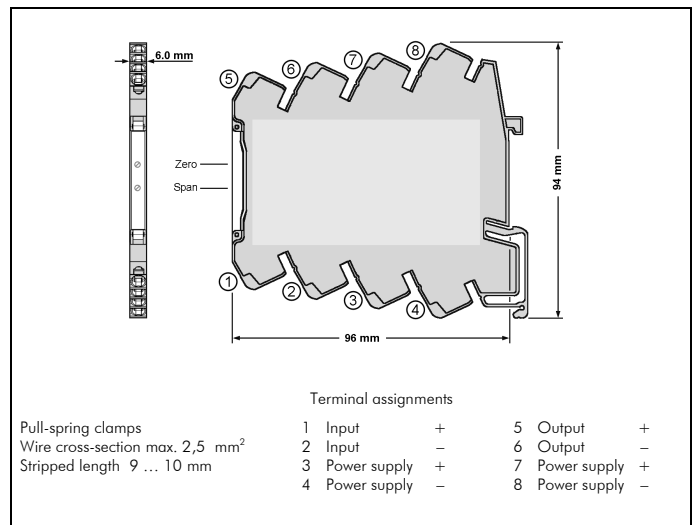
Input	
Input signal	<b>0 ... 20 mA</b> 4 ... 20 mA switch selectable 0 ... 10 V 2 ... 10 V 0 ... 5 V 1 ... 5 V
Input resistance	Current input $\leq 50 \Omega$ Voltage input $\geq 100 k\Omega$
Overload	Current input $\leq 50 mA$ Voltage input $\leq 30 V$
Output	
Output signal	<b>0 ... 20 mA</b> 4 ... 20 mA switch selectable 0 ... 10 V 2 ... 10 V 0 ... 5 V 1 ... 5 V
Load	Current output: $\leq 12 V$ (600 $\Omega$ at 20 mA) Voltage output: $\leq 5 mA$ (2 k $\Omega$ at 10 V)
Offset	Current output: $< 20 \mu A$ Voltage output: $< 10 mV$
Linear transmission range	-1 ... +110 %
Ripple	$< 10 mV_{rms}$
General Data	
Transmission error	$< 0.1 \%$ of final value
Temperature coefficient <sup>1)</sup>	$< 100 ppm/K$
Zero/Span compensation (only D6N 25000)	$\pm 3 \%$ of final value
Cut-off frequency (-3 dB)	<b>5 kHz</b> D6N 25000 switchable to 100 Hz
Response time (T <sub>10-90</sub> )	100 $\mu s$ D6N 25000 switchable to 3.5 ms
Test voltage	2.5 kV, 50 Hz Input against output against power supply
Working voltage <sup>2)</sup> (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	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, approx. 0.7 W
EMC <sup>3)</sup>	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 D6N 25000**

**Product line**

Devices	Order No.
Isolation Amplifier, Zero/Span compensation, calibrated range selection	D6N 25000
Isolation Amplifier fixed setting	
Input Output	
0 ... 20 mA 0 ... 20 mA	D6N 25120
4 ... 20 mA 4 ... 20 mA	
0 ... 10 V 4 ... 20 mA	D6N 25540
0 ... 5 V 4 ... 20 mA	D6N 25740
4 ... 20 mA 0 ... 10 V	D6N 25360
4 ... 20 mA 0 ... 5 V	D6N 25370
0 ... 5 V 0 ... 5 V	D6N 25560
0 ... 10 V 0 ... 10 V	
Request for more fixed signal combinations	

**Dimensions**



Subject to change !