

Shunt Isolation Amplifier D6S 75000

Isolation and Conversion of Bipolar and Unipolaren mV-Signals

With the Isolation Amplifier for Shunt Voltages D6S 75000 DRAGO is extending its offer on high functional and high reliable components of the interface technique.

The Isolation Amplifier D6S 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. Due to the easy selection of the 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 D6S 75000 unrivaled.

The desired input and output range of D6S 75000 can be easily set by using DIP switch. 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.

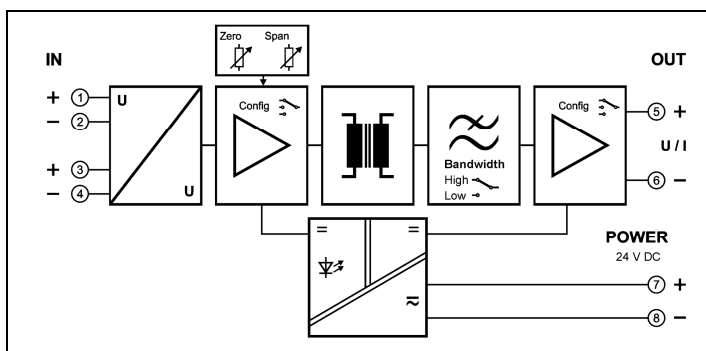
The optimized efficiency of the D6S 75000 power pack contributes significantly to reducing the units own heat generation. This is reflected in extremely high MTBF, it means highest reliability and long-term stability. A green LED on the front of the unit has been provided to monitor the power supply.

- **Easy selection of input and output range**
Input and output range can be set by using DIP switch
- **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	
Input signals (switch selectable)	± 60 mV ± 100 mV ± 150 mV ± 250 mV ± 300 mV ± 500 mV 0 .. 60 mV 0 .. 100 mV 0 .. 150 mV 0 .. 250 mV 0 .. 300 mV 0 .. 500mV
Input resistance	> 100 k Ω
Overload	< 30 V
Output	
	Voltage Current
Output signals (switch selectable)	± 10 V 0 ... 10 V 2 ... 10 V ± 20 mA 0 ... 20 mA 4 ... 20 mA ± 5 V 0 ... 5 V 1 ... 5 V ± 10 mA 0 ... 10 mA 2 ... 10 mA
Load	≤ 5 mA (2 k Ω at 10 V) ≤ 12 V (600 Ω at 20 mA)
Offset	< 10 mV < 20 μ A
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

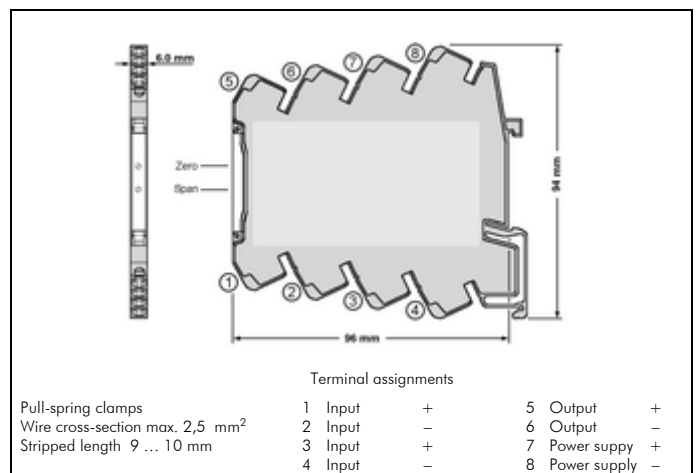
1) Average TC based on the final value in specified operating temperature range
 2) As far as relevant the standards and rules mentioned above are considered by development and production of our devices. In addition relevant assembly rules are to be considered by installation of our devices in other 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 D6S 75000

Order Table for Factory Setting

D6S 75005 - XX - YY			
Input	- XX	Output	- YY
± 60 mV	50	± 10 V	00
0 ... 60 mV	51	0 ... 10 V	01
± 100 mV	52	2 ... 10 V	02
0 ... 100 mV	53	± 5 V	03
± 150 mV	54	0 ... 5 V	04
0 ... 150 mV	55	1 ... 5 V	05
± 250 mV	56	± 20 mA	06
0 ... 250 mV	57	0 ... 20 mA	07
± 300 mV	58	4 ... 20 mA	08
0 ... 300 mV	59	± 10 mA	09
± 500 mV	60	0 ... 10 mA	10
0 ... 500 mV	61	2 ... 10 mA	11

Example: Input: ± 150 mV, Output: 4 ... 20 mA
 Order No.: D6S 75005 - 54 - 08

Dimensions



Product line

Device	Order No.
Shunt Isolation Amplifier, Zero/Span compensation, easy range selection	D6S 75000
Shunt Isolation Amplifier, calibrated range selection, customer specific preselection	D6S 75005 - XX - YY

Subject to change !