

High
Functionality

Shunt Isolation Amplifier DS 7200

Isolation And Conversion Of Bipolar And Unipolar mV- Signals

With the Isolation Amplifier for Shunt Voltages DS 7200 DRAGO is extending its offer on high functional and high reliable components of the interface technique.

The Isolation Amplifier DS 7200 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, the new universal power supply and the ultra small housing the Isolation Amplifier is suitable for flexible use. High reliability and Protective Separation are further characteristics that make the DS 7200 unrivaled.

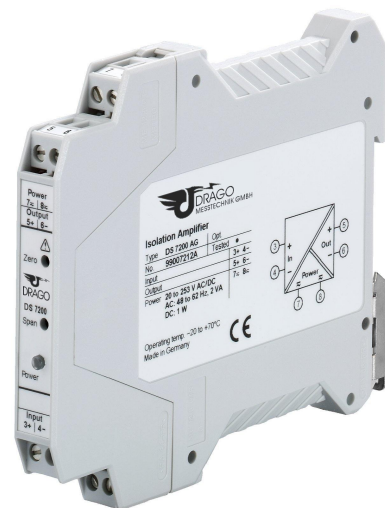
The order key allows you to select the desired input and output ranges to which the unit will be adjusted at the factory before delivery. These can be easily reconfigured at any time by means of DIP switch settings. Subsequent readjustment or a measured range compensation can then be performed at the 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 slim housing with 12.5 mm width saves space in your switch cabinet and facilitates by the practical plug-in screw terminal blocks the assembly. For range setting a simple housing unblocking is installed which makes it possible to reach easily all control elements on the DIN-rail.

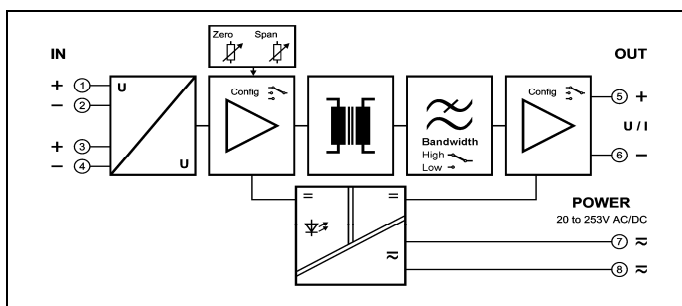
The new universal power pack for 20 ... 253 V AC/DC means the DS 7200 can be used anywhere in the world, with all mains power supplies. The unit's high efficiency contributes significantly to reducing the unit's own heat generation. This is reflected in extremely high reliability and long-term stability. A green LED on the front of the unit has been provided to monitor the power supply.

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

- **Easy selection of input and output range**
Input and output range for unipolar and bipolar signals can be easily set by using DIP switch
- **Universal power supply for 20 ... 253 V AC/DC**
Applicable world-wide for all common supply voltages
- **3-port isolation**
Protection against erroneous measurements due to parasitic voltages or ground loops
- **Ultra small sized housing**
12.5 mm housing with plug-in screw terminal blocks
- **High bandwidth; high accuracy**
No distortion; no falsification of measured signal
- **Protective Separation**
Protects service personnel and downstream devices against impermissibly high voltage
- **Maximum reliability**
No maintenance costs
- **5 Years Warranty**



Block diagram



Technical data

Input						
Input signals (terminal/switch selectable)	$\pm 60 \text{ mV}^{1)}$ 0 ... 60 mV	$\pm 100 \text{ mV}$ 0 ... 100 mV	$\pm 150 \text{ mV}$ 0 ... 150 mV	$\pm 250 \text{ mV}$ 0 ... 250 mV	$\pm 300 \text{ mV}$ 0 ... 300 mV	$\pm 500 \text{ mV}$ 0 ... 500 mV
Input resistance	> 100 k Ω					
Input capacitance	Approx. 1 nF					
Overload	$\leq 30 \text{ V}$					
Output						
Output signals (switch selectable)	Voltage			Current		
	$\pm 10 \text{ V}^{1)}$ $\pm 5 \text{ V}$	0 ... 10 V 0 ... 5 V	2 ... 10 V 1 ... 5 V	$\pm 20 \text{ mA}$ $\pm 10 \text{ mA}$	0 ... 20 mA 0 ... 10 mA	4 ... 20 mA 2 ... 10 mA
Load	$\leq 10 \text{ mA}$ (1 k Ω @ 10 V)			$\leq 12 \text{ V}$ (600 Ω @ 20 mA)		
Linear transmission range	unipolar: - 2 ... + 110 %			bipolar: - 110 ... + 110 %		
Ripple	< 20 mV _{rms}					
General data						
Transmission error	0.1 % of final value					
Temperature coefficient ²⁾	100 ppm/K of final value					
Zero/Span compensation	$\pm 10 \%$					
Cut-off frequency (-3 dB)	> 10 kHz ¹⁾			switchable to < 30 Hz		
Test voltage	4 kV, 50 Hz			Input against output against power supply		
Working voltage ³⁾ (Basic Insulation)	Up to 1000 V AC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010-1 between all circuits.					
Protection against electrical shock ³⁾	Protective separation according to EN 61140 by reinforced insulation in accordance with EN 61010-1 up to 600 V AC/DC for overvoltage category II and pollution degree 2 between all circuits.					
Ambient temperature	Operation	-20 to +70 °C		(-4 to +158 °F)		
	Transport and storage	-35 to +85 °C		(-31 to +185 °F)		
Power supply	20 ... 253 V AC/DC		AC 48 ... 62 Hz, approx. 2 VA DC approx. 1.0 W			
EMC ⁴⁾	EN 61326 -1					
Construction	12.5 mm housing, protection class: IP 20					
Weight	Approx. 100 g					

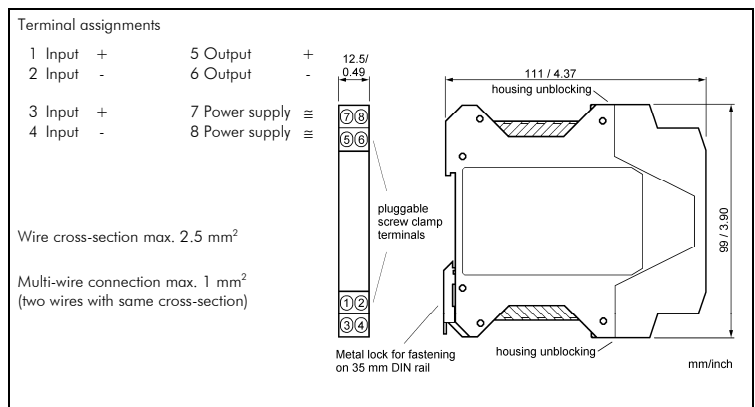
- 1) Factory setting, if no other information is given by ordering
- 2) Average TC in specified operating temperature range
- 3) As far as relevant the standards and rules mentioned above are considered by development and production of our devices. In addition relevant assembly rules are to be considered 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.
- 4) Minor deviations possible during interference

Ordering Table For Factory Setting

DS 7200 AG - XX - YY			
Input	- XX	Output	- YY
$\pm 60 \text{ mV}$	50	$\pm 10 \text{ V}$	00
0 ... 60 mV	51	0 ... 10 V	01
$\pm 100 \text{ mV}$	52	2 ... 10 V	02
0 ... 100 mV	53	$\pm 5 \text{ V}$	03
$\pm 150 \text{ mV}$	54	0 ... 5 V	04
0 ... 150 mV	55	1 ... 5 V	05
$\pm 250 \text{ mV}$	56	$\pm 20 \text{ mA}$	06
0 ... 250 mV	57	0 ... 20 mA	07
$\pm 300 \text{ mV}$	58	4 ... 20 mA	08
0 ... 300 mV	59	$\pm 10 \text{ mA}$	09
$\pm 500 \text{ mV}$	60	0 ... 10 mA	10
0 ... 500 mV	61	2 ... 10 mA	11

Example: Input: $\pm 150 \text{ mV}$, Output: 4 ... 20 mA
Order No.: DS 7200 AG - 54 - 08

Dimensions



Product line

Devices	Order No.
Isolation Amplifier, configurable	DS 7200 AG - XX - YY

If no information is given by ordering, the devices are delivered with the standard configuration: Input signal $\pm 60 \text{ mV}$, Output signal $\pm 10 \text{ V}$.

Subject to change!