USER INSTRUCTIONS English

Programmable Universal Transmitter D62T 46000



Read these instructions before using the product and retain for future information.

D62T 46000

1. Before Startup



When operating the Universal Transmitter, certain parts of the module can carry dangerous voltage! Ignoring the warnings can lead to serious injury and/or cause damage!

The Universal Transmitter should only be installed and put into operation by qualified staff. The staff must have studied the warnings in these operating instructions thoroughly.

The Universal Transmitter may not be put into operation if the housing is open.

In applications with high operating voltages sufficient distance and isolation as well as shock protection must be ensured.

Safe and trouble-free operation of this device can only be guaranteed if transport, storage and installation are carried out correctly and operation a maintenance are carried out with care.



Appropriate safety measures against electrostatic discharge (ESD) should be taken during range selection and assembly on the transmitter.

2. Short description

The programmable universal transmitter is designed for operating various industry sensors. The measured values are converted into a linear current or voltage signal.

The configuration is done via an USB-interface with the PC configuration program DRAGOset.

The 3-way isolation guarantees reliable decoupling of the sensor circuit from the processing circuit and prevents linked measurement circuits from influencing each other.

3. Configuration and startup

Changes to the configuration and parameterization data can be performed both during operation with power and with a connected measuring circuit and in a disconnected and unpowered state.

The **DRAGOset** software is available for download free of charge at: www.drago-automation.de

Caution:

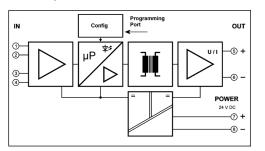
Use only the DRAGOset-Box with USB Converter, Order No. DZU1201 for connecting the device to the PC.

4. Mounting, Electrical Connection

The isolation transmitter is mounted on standard 35 mm DIN rail.

Terminal assignments							
1 2	Input	5	Output +				
	Input	6	Output -				
3	Input	7	Power supply +				
4	Input	8	Power supply -				

5. Block Diagram



6. Technical Data

Sensor	RTD / KTY		Resistor
Sensor type	Pt100, Pt200, Pt500, Pt1000 Ni100, Ni200, Ni500, Ni1000 KTY, 66 types		0 - 5 kΩ
Measuring range	full sensor range		0 - 5 kΩ
Min. span	50 K		100 Ω
Measuring error	< max. of 0.1 K / 0.05 %		< 0.1 %
Temperature influence	< 50 ppm / K		
Sensor connection	4-wire, 3-wire, 2-wire		
Sensor wire resistance	< 100 Ω per wire		
Sensor current	0.2 mA		
Potentiometer	200 Ω 50 kΩ		
Min. span	10 %		
Measuring error	< 0.1 %		
Temperature influence	< 50 ppm / K		
TC Sensor	Type B, E, J, K, L, N, R, S, T, U Type C (W5Re/W26Re) Type D (W3Re/W25Re)		
Measuring range	full sensor range		
Min. span	50 K		
Input resistance	~ 10 MΩ		
Measuring error	< max. of 0.3 K / 0.1 %		
Temperature influence	< 50 ppm / K		
Cold junction compensation	programmable: internal, external Pt100, uncompensated, manual default value		
Cold junction error	< 1.5 K		
mV Input	± 125 mV	± 100	00 mV
Min. span	± 5 mV	± 50	mV
Input resistance	~ 10 MΩ		
Measuring error	< 0.1 %		
Temperature influence	< 50 ppm / K		

Output	Current		Voltage	
Output signal	0 - 20 mA	4 - 20 mA	0 - 10 V	2 - 10 V
	0 - 10 mA	2 - 10 mA	0 - 5 V	1 - 5 V
Load	\leq 600 Ω		\leq 2 k Ω	
Offset	< 20 µA		< 20 mV	
Linear transfer range	0 102.5 % (3.8 20.5	mA at output	4 - 20 mA)	
Error signal	programmab	ole		
Residual ripple	< 10 mV _{ms}			

General data Characteristic Transmission error Temperature coefficient ²	Rising / falling linearly		
Characteristic Transmission error Temperature	0 0 7		
Transmission error Temperature	0 0 7		
Temperature			
COCINCICIA	< 100 /K v. E.		
Diagnostic function	Sensor- / wire break,		
	error signal at output programmable		
Measurement rate	4 / s		
Test voltage	2.5 kV, 50 Hz		
	Input against output against power supply		
Working voltage ³⁾ (basic insulation)	600 V AC/DC for overvoltage category II and contamination class 2 acc. to EN 61010 part 1		
Protection against electric shocke ³⁾	Protective Separation by reinforced insulation acc. to EN 61010 part 1 up to 300 V AC/DC for overvoltage category II and contamination class 2 between input and output and power supply.		
Ambient temperature	Operation - 25 °C to + 70 °C (-13 to 158 °F)		
	Transport - 40 °C to + 85 °C (-40 to 185 °F)		
	and storage		
Power supply	24 V DC 16.8 V 31.2 V, approx. 0.8 W		
EMV ⁴⁾	EN 61326 -1		
Construction	6.2 mm housing, protection type: IP 20		
Connection	≤ 2.5 mm², AWG 14		
Weight	Approx. 50 g		

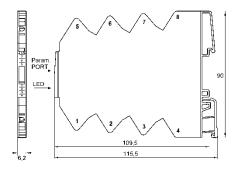
1) Factory setting:

Input: Pt100, 0 - 100°C, 4-wire-sensor connection
Output: 0 - 20 mA, Characteristic rising, error signal 22 mA

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 equipment's. 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.

Minor deviations possible during interference

7. Dimensions



8. Order Information

Product	Input / Output	Part No.
Universal Transmitter	programmable	D62T 46000

LIMITED WARRANTY

DRAGO Automation GmbH hereby warrants that the Product will be free from defects in materials or workmanship for a period of five (5) years from the date of delivery ("Limited Warranty"). This Limited Warranty is limited to repair or replacement at DRAGO's option and is effective only for the first end-user of the Product. This Limited Warranty applies only if the Product:

- 1. is installed according to the instructions furnished by DRAGO;
- 2. is connected to a proper power supply;
- 3. is not misused or abused; and
- there is no evidence of tampering, mishandling, neglect, accidental damage, modification or repair without the approval of DRAGO or damage done to the Product by anyone other than DRAGO.

Delivery conditions are based upon the "GENERAL CONDITIONS FOR THE SUPPLY OF PRODUCTS AND SERVICES OF THE ELECTRICAL AND ELECTRONICS INDUSTRY" recommended by the Zentralverband Elektrotechnik- und Elektronikindustrie (ZVEI) e.V.

Subject to change!

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