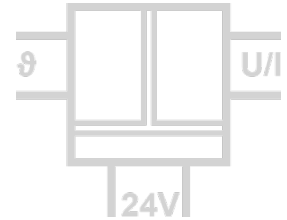


KTY Temperature Transmitter DT 45600

Temperature Measuring with KTY Sensors,
configurable via DIP Switch or USB



The KTY Temperature Transmitter DT 45600 is used for measure industrial process signals. It converts KTY sensor signals to isolated standard signals.

Due to the easy setting of the calibrated measuring ranges via DIP switch the Transmitter is suitable for flexible use.

With the USB Programming-Kit DRAGOset the Transmitter can be configured and all data can be stored by a PC. In mode of programming no additionally auxiliary power is required.

The Commissioning Function, switchable on front panel, generates an output reference signal for testing and adjusting of the downstream signal path.

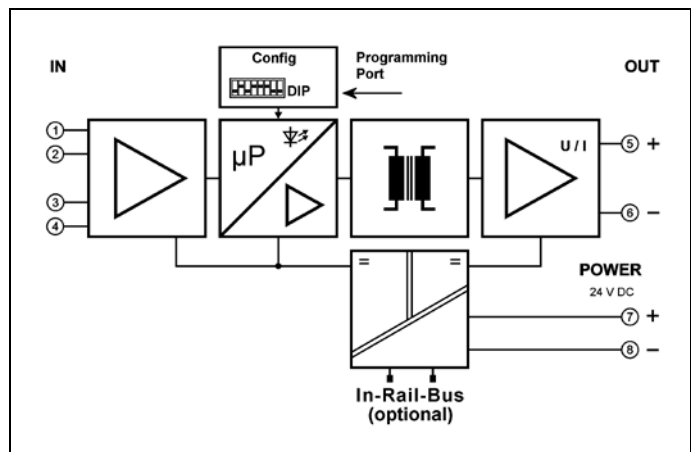
The auxiliary power can be supplied via the connection terminals or via the optional In-Rail-Bus connector. The status of power supply and sensor connection will be displayed by a LED on front.



- **Measuring input for all KTY temperature sensors**
calibrated standard measuring ranges, ready to use
- **Easy configurable via DIP switches**
or via USB interface without auxiliary power supply
- **Switchable service functions**
for an easy commissioning
- **3-port isolation**
Protection against erroneous measurements due to parasitic voltages or ground loops
- **Extremely slim design**
6.2 mm slim housing for a simple and space saving DIN rail mounting
- **Optional In-Rail-Bus mounting rail connector**
allows for fast and economical installation
- **Protective Separation acc. to EN 61140**
Protects service personnel and downstream devices against impermissibly high voltage
- **5 Years Warranty**
Defects occurring within 5 years from delivery date shall be remedied free of charge at our plant (carriage and insurance paid by sender)



Block Diagram



Technical Data

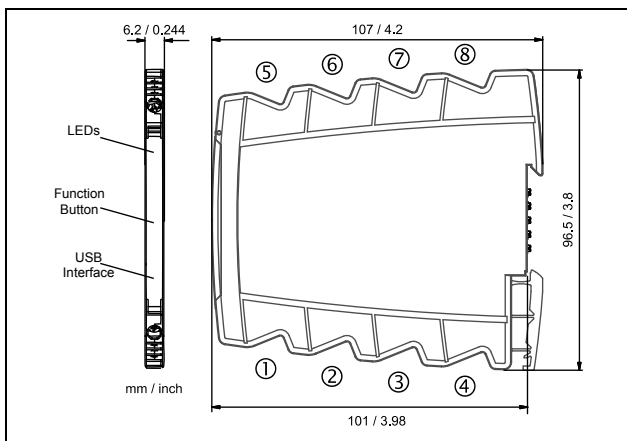
Input							
Sensor	KT100, KT110, KT130, KT210, KT230, KTY10-5, KTY10-6, KTY10-62, KTY10-7, KTY11-5, KTY11-6, KTY11-7, TY13-5, KTY13-6, KTY13-7, KTY16-6, KTY19-6M, KTY19-6Z, KTY21-5, KTY21-6, KTY21-7, KTY23-5, KTY23-6, KTY23-7, KTY81-110, KTY81-120, KTY81-121, KTY81-122, KTY81-210, KTY81-220, KTY81-221, KTY81-222, KTY81-250, KTY81-251, KTY81-252, KTY82-110, KTY82-120, KTY82-121, KTY82-122, KTY82-150, KTY82-151, KTY82-152, KTY82-210, KTY82-220, KTY82-221, KTY82-222, KTY82-250, KTY82-251, KTY82-252, KTY83-110, KTY83-120, KTY83-121, KTY83-122, KTY83-150, KTY83-151, KTY83-152, KTY84-130, KTY84-150, KTY84-151, KTY84-152, ST-13, ST-15, ST-16, ST-20M, ST-20Z						
Messbereich	calibrated steps of 25 °C in complete sensor measuring ranges, configurable via DIP switch or USB interface						
Measuring span min.	25 K						
Measuring error	< 0.3 K + 0,05 % meas. val.						
Sensor connection	3-wire, 2-wire						
Sensor current	0,2 mA						
Cable resistance	< 100 Ω per wire at 3-wire connection						
Output							
	<table border="1"> <thead> <tr> <th>Current</th> <th>Voltage</th> </tr> </thead> <tbody> <tr> <td>0/2 ... 10 mA</td> <td>0/1 ... 5 V</td> </tr> <tr> <td>0/4 ... 20 mA</td> <td>0/2 ... 10 V</td> </tr> </tbody> </table>	Current	Voltage	0/2 ... 10 mA	0/1 ... 5 V	0/4 ... 20 mA	0/2 ... 10 V
Current	Voltage						
0/2 ... 10 mA	0/1 ... 5 V						
0/4 ... 20 mA	0/2 ... 10 V						
Output signal							
Load	≤ 12 V (600 Ω at 20 mA) ≤ 5 mA (2 kΩ at 10 V)						
Residual ripple	< 10 mV _{rms}						
Transfer range	0 to 102.5 % (3.8 to 20.5 mA at output 4 to 20 mA) Transfer characteristic rising / falling						
Error signal	Sensor/wire break, Error signal programmable						
General data							
Transmission error	< 0.1 % full scale						
Temperature coefficient ¹	< 100 ppm/K						
Sampling rate / Response time T ₉₉	4/s / 250 ms						
Test voltage	3 kV AC, 50 Hz, 1 min. Input against output against power supply						
Working voltage ² (basic insulation)	600 V AC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010-1						
Protection against electric shocks ²	Protective Separation by reinforced insulation acc. to EN 61010-1 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 and storage -40 °C to +85 °C (-40 to +185 °F)						
Power supply	24 V DC voltage range 9.6 V to 31.2 V DC, approx. 0.8 W						
EMC ³	EN 61326-1						
Approvals (pending)	UL (USA/Canada): UL 61010, Class I, Div. 2 ATEX / IECEx: Zone 2 (nA)						
Construction	6.2 mm (0.244") housing, protection class IP 20, mounting on 35 mm DIN rail acc. to EN 60715						
Weight	Approx. 70 g						

1) Average TC related to full scale value in specified operating temperature range, reference temperature 23 °C

2) For applications with high working voltages, ensure there is sufficient spacing or isolation from neighboring devices and protection against electric shocks.

3) Minor deviations possible during interference

Dimensions



Subject to change!

Terminal assignments

- | | |
|---|---|
| 1 | + Input KTY |
| 2 | + Input 3-wire |
| 3 | |
| 4 | - Input KTY |
| 5 | + Output |
| 6 | - Output |
| 7 | + Power supply (connected to In-Rail-Bus) |
| 8 | - Power supply (connected to In-Rail-Bus) |

Connection

- | |
|---|
| Captive plus-minus clamp screws |
| Wire cross-section max. 2.5 mm ² / AWG 14 |
| Stripped length 6 ... 8 mm / 0.28 in |
| Screw terminal torque 0.8 Nm / 7 lbf in |
| Optional power connection via In-Rail-Bus (see accessories) |

Product line

Device	Order No.
KTY Temperature Transmitter, configurable via DIP switch and USB	DT 45600 S
KTY Temperature Transmitter, configurable via DIP switch and USB, In-Rail-Bus for power supply	DT 45600 B