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senseca

Produktinformation

Universal Transmitter UT125

- ● **Transmitter for electrical signals**
- ● **Universal input for standard signals, Pt100, thermocouple, potentiometer**
- ● **Configuration via front-side DIP switch**
- ● **Analog output 4..20 mA**
- ● **With Pt100 sensors, monitoring of sensor break and short-circuit**
- ● **Wide-range power supply or 24 V DC**
- ● **Housing width 12.5 mm**
- ● **Removal coded screw terminals**
- ● **Carrier rail mounting TS35 EN60715**

Characteristics

The UT125 series of universal transmitters are designed for the affordable transformation of standard signals, temperatures and potentiometer statuses into a current signal of 4..20 mA. The universal configurability of the measuring inputs reduces the stock requirement for various applications. The measuring inputs and actual value output are not galvanically isolated. The housing width of only 12.5 mm enables space-saving installation in the switch cabinet.

Measurement inputs

Configuration via DIP switch

Standard signals	: 0/2..10 V and 0/4..20 mA
Potentiometer	: Rated value 500 Ω..20 kΩ
Pt100	: -50..50 °C
	0..50 °C
	0..100 °C
	0..150 °C
	0..200 °C
	0..300 °C
	0..500 °C
Thermocouple	
FeCuNI, Type J	: 0..250 °C
	0..500 °C
NiCrNi, Type K	: 0..500 °C
	0..750 °C
	0..1000 °C
PtRhPt, Type S	: 0..1500 °C

(Special measurement ranges available on request)

Technical data

Wide-range power supply
Supply voltage : 20..125 VDC and
20..250 VAC (47..63 Hz), max. 1.5 W

24V power supply
Supply voltage : 24 V DC +/-15 %, max. 1.5 W

Combined data
Rated voltage : 253 V AC
Test voltage : 3 kV AC between
power supply // input = output
Working temperature : -10..60 °C
Storage temperature : -20..80 °C
Air humidity : 10..90% (no condensation)

Measurement inputs
Voltage : 0/2..10 V, Ri approx. 20 kΩ
Current : 0/4..20 mA, Ri approx. 60 kΩ
Pt100 linearised,
measurement current 1.6 mA
Recognition of sensor break or
short circuit: Actual value drops to
approx. 0mA
Thermocouple : linearised
with comparison point compensation
Resistance : Potentiometer (3-wire)
Rated value 500 Ω..20 kΩ
Intern. reference voltage approx. 1.5 V
Analog output : 4..20 mA, max. burden 400 Ω,
No galvanic isolation from the
input signal

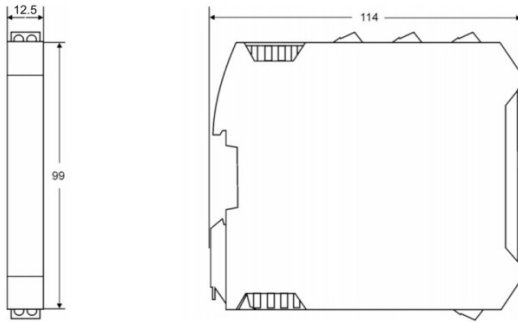| Input signal	Basic precision-actual value output	Temperature deviation *)
0/2..10 V	0.2 %	0.004 %/K
0/4..20 mA	0.2 %	0.004 %/K
Potentiometer	1 %	0.007 %/K
Pt100 -50.. 50 °C	0.5 %	0.03 %/K
Pt100 0.. 50 °C	0.9 %	0.04 %/K
Pt100 0..100 °C	0.5 %	0.03 %/K
Pt100 0..150 °C	0.2 %	0.02 %/K
Pt100 0..200 °C	0.4 %	0.02 %/K
Pt100 0..300 °C	0.3 %	0.01 %/K
Pt100 0..500 °C	0.2 %	0.007 %/K
FeCuNi 0..250 °C	1.0 %	0.04 %/K
FeCuNi 0..500 °C	0.5 %	0.03 %/K
NiCrNi 0..500 °C	0.5 %	0.04 %/K
NiCrNi 0..750 °C	0.4 %	0.03 %/K
NiCrNi 0..1000 °C	0.3 %	0.02 %/K
PtRhPt 0..1500 °C	1.0 %	0.04 %/K

*) Measurement deviation depending on the environmental temperature in the switch cabinet (-10..+60°C)

Housing
Dimensions (W x D x H) : 12.5 x 114 x 108 mm
Material : PA6.6, light grey,
Flammability class V0 (UL94)
Weight : 120 g
Protection rating : IP20
Screw terminals : 0.2..2.5 mm², AWG 24..14,
removable, coded
Push-in terminals : 0.5..1.5 mm², AWG 25..16,
(spring-type terminal) Double connection (12A between the
connections), removable, coded
Power Rail : 8A over the entire bus system
(Supply via removable terminals

0.2..2.5 mm², AWG 24..14)
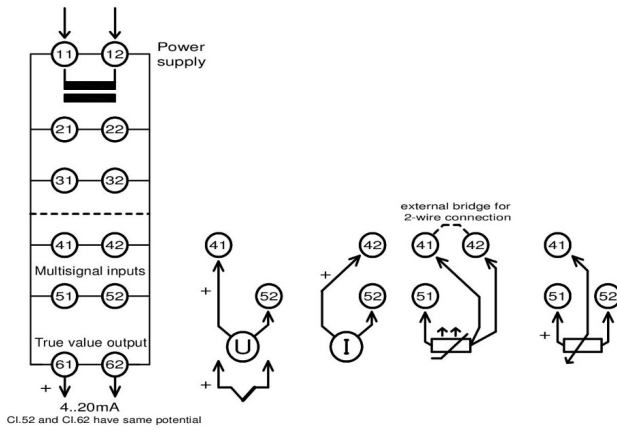
Produktinformation

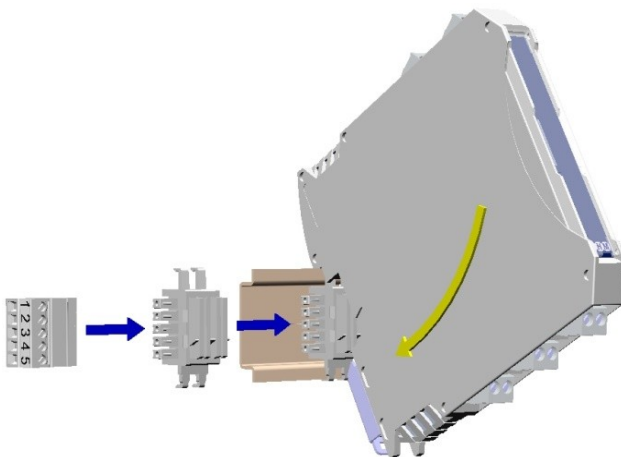## Dimensions

Ordering code

UT [1.] - [2.]

1.	Device version	
	125L	Supply voltage 24 V DC +/- 15 %
	125LP	Supply voltage 24 V DC +/- 15 % with carrier rail bus connection *)
	125M	Wide-range power supply 20..125 V DC / 20..253 V AC
2.	Options	
	00	No options
	01	Push-in terminals (plug-in)

*) Supply including matching bus adapter piece; see also separate Power Rail information sheet

Connection diagram

Power Rail

The power supply of multiple devices can be concentrated in the mounting carrier rail (TS35) of a bus system.

An equivalent version is available for the entire series of GHM power rail devices in 12.5 mm wide housing.