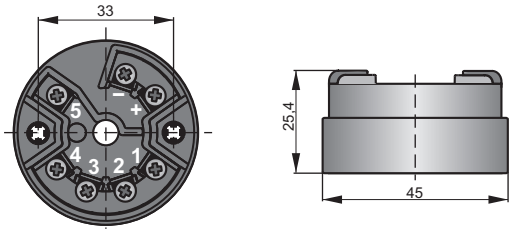
Head-mounted smart temperature transmitter type LI-24G



- ✓ **Galvanic insulation (In, out)**
- ✓ **Programmable sensor type**
- ✓ **Programmable measuring range**
- ✓ **Resistant thermoresistance line compensation**
- ✓ **Compensation of thermocouple cold junction**
- ✓ **Output signal 4…20mA + Hart protocol**
- ✓ **Ambient temperature from -25 to +75 °C**
- ✓ **Autodiagnostic system**
- ✓ **Hart protocol**
- ✓ **Intrinsic Safety version**

I M1 Ex ia I Ma
II 1G Ex ia IIC T5/T6 Ga
II 1D Ex ia IIIC T105°C Da

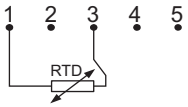
Technical data

Input signal	L, K, J, S, B, N, T, R, E voltage Pt10, Pt50, Pt98, Pt100, Pt200, Pt500, Pt1000, Ni100, Cu50, Cu100, resistance
Limit process	- 10mV< E<100mV or -100mV< E<1000mV 0Ω<R<400Ω or 0Ω<R<2000Ω
Min. measuring range	10mV or 10Ω
Output signal	4...20mA + HART
Power supply	8,5...36V DC
Max. sensor resistance	150Ω/200Ω
Alarm signal	21,5mA or 3,75 mA or setting by user
Sensor current	0,42mA
Accuracy	± 0,1%
Time constant	0,55s - 1,5s
Additional electronic damping	0..30s
Ambient temperature	-25…+75°C

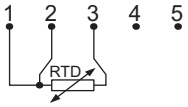
Application and function

The temperature transmitter LI-24G is applicable to converting resistance of temperature or voltage of thermocouple sensor to standard current signal 4-20mA. The transmitter has two separate measuring channels enabling measurement of temperature difference, averange, averange with redundancy, max or min temperature. Transmitter has compensation of ambient temparature influence and compensation of thermocouple cold junction using internal/external (Pt100) sensor or constant temperature.
Most of parameters such as: sensor type, measuring range, current alarm signal when electric circuit is broken, output characteristic correction, user characteristic (60 points) are programmed using PC with Hart/USB/Bluetooth converter and Raport 2 configuration software or KAP-03 communicator.
For request Aplisens can set temperature transmitter parameters like measuring range, type of sensor. Their values are printed on label.

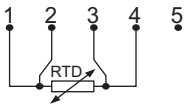
Electrical diagrams.



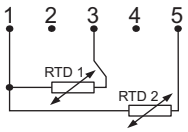
RTD
2-wires connection



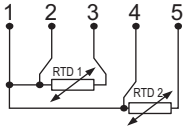
RTD
3-wires connection



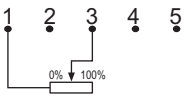
RTD
4-wires connection



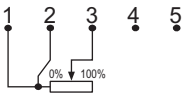
2 × RTD
2-wires connection



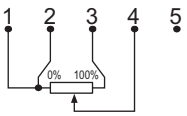
2 × RTD
3-wires connection



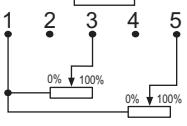
Potentiometer
2-wires connection



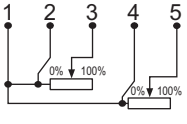
Potentiometer
3-wires connection



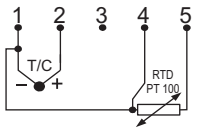
Potentiometer
4-wires connection



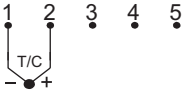
2 × Potentiometer
2-wires connection



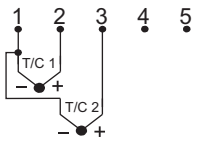
2 × Potentiometer
3-wires connection



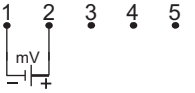
Thermocouple
with external
CJC



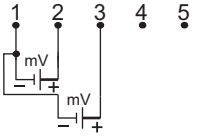
Thermocouple



2 x Thermocouple



Voltage source



2 x Voltage source

Ordering procedure

LI-24G /___/___/___/___

- Version: Exia
- Sensor type
- Alarm signal
- Measuring range