

## Rail-mounted smart temperature transmitters type LI-24 and LI-24L



LI-24



LI-24L



- ✓ Galvanic insulation (In, out)
- ✓ Programmable sensor type
- ✓ Programmable measuring range
- ✓ Thermoresistance line compensation
- ✓ Compensation of thermocouple cold junction
- ✓ Output signal 4...20mA + Hart protocol
- ✓ Ambient temperature from -25 to +75 °C
- ✓ Rail mounting system.
- ✓ Autodiagnostic system
- ✓ Hart protocol
- ✓ ATEX certificate (LI-24) II 1G Ex ia IIC T4/T5 Ga  
I M1 Ex ia I Ma

### Technical data

Input signal	K, J, S, B, N, T, R, E voltage Pt10, Pt50, Pt100, Pt200, Pt500, Pt1000, Ni100, 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	LI-24: 14...50V DC (Ex 14...30V DC) LI-24L: 8,5...50V DC
Max. Wires resistance	500Ω
Alarm signal	21,5mA or 3,75 mA or setting by user
Sensor current	0,42mA
Accuracy	± 0,1%
Time constant	0,3s - 1,2s
Additional electronic damping	0..30s
Ambient temperature	-25...+75°C
Dimensions	LI-24: 27,5mmx80mmx106,7mm (WxHD) LI-24L: 12,5mmx99mmx114,5mm

### Application and function

The temperature transmitter LI-24 and LI-24L are applicable to converting resistance of temperature or voltage of thermocouple sensor to standard current signal 4-20mA. The transmitters have two separate measuring channels enabling measurement of temperature difference, average, average with redundancy, max or min temperature. Transmitter has compensation of ambient temperature 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. Transmitter for rail mounting (TS-35).

### Electrical diagrams

