

Programmable Isolated Temperature Transmitter Type M-422

DIN Rail Mount

- Programmable for various input signals, measuring range
- DIN Rail Mount
- Configurable without external loop power connected
- **Universal Input:** Resistance Thermometer (PT100)
Thermocouple (J, K, T, E, B, R, S, N, C)
Voltage/Current transmitter (mV / V / mA)
- **Output:** 2-wire loop-power technology, 4-20 mA
or 20-4 mA analog output.
- High accuracy in total ambient temperature range
- Fault signal on sensor break presettable.



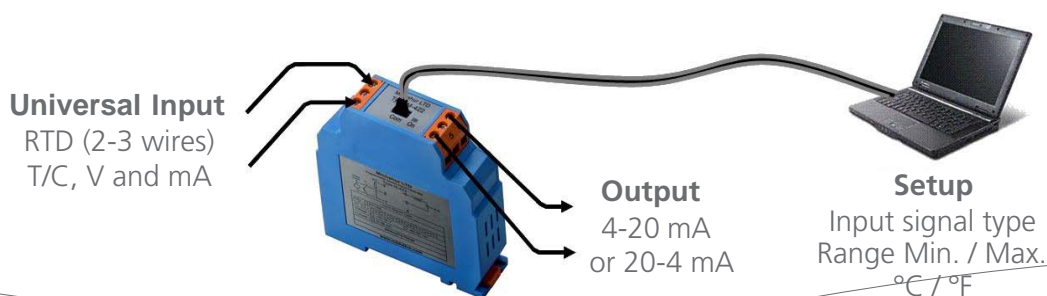
The M-422 is a 2-wire loop-powered isolated signal transmitter.

Microprocessor based designed make it flexible to accept various input signals including mV, V, mA, PT100 and 9 different thermocouples. The unit is housed in an ABS plastic enclosure mounted on a standard DIN rail.

Probe type, range and units ($^{\circ}\text{C}$ / $^{\circ}\text{F}$) are also configurable with a user-friendly software via PC. The 4 - 20mA output signal (or reversed 20 - 4mA) is available.

The instrument is designed for industrial application and conforms to the corresponding European Standards, to ensure electromagnetic compatibility (CE).

The M-422 units can be mounted side by side, with no wasted space in high density installation.



Technical Specifications

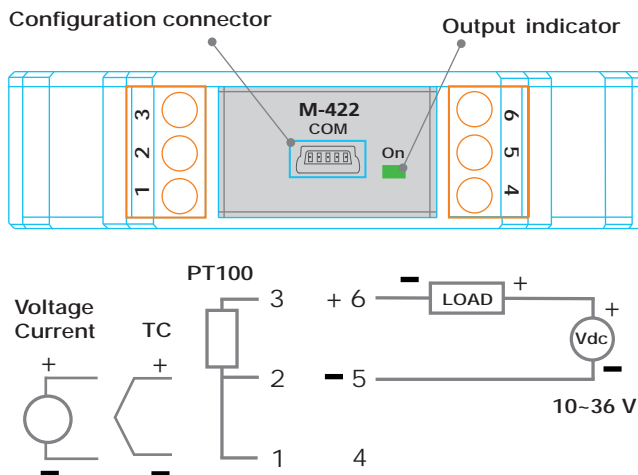
Input:	- Thermocouple (T/C): Industry standard types J, K, T, E, B, R, S, N, C (ITS-90) - Pt100: Excitation 180 uA. 2-3 wire connection, (ITS-90 a = 0.00385) - Voltage: -60 mV DC or -10 VDC to 10 VDC - Current: 0 - 24 mA DC
Accuracy:	Refer to table 1
A/D Resolution:	16 bits
Input Sampling Rate:	< 200 ms
Power Supply:	DC 10 to 36V
Max. Load:	(V-10) / 0.02 ()
Output Resolution:	0.6 μ A (15bit)
Output Response Time:	< 200 ms
Common Mode Rejection Ratio (CMRR):	> 80 dB
Electromagnetic Compatibility EMC:	En 50081-2, En 50082-2
Galvanic Isolation:	4KV between input and output
Operating Temperature:	- 40 to 85 °C
Humidity:	0 - 90% RH
Dimension:	75 mm (W) x 87 mm (H) x 18.5 mm (D)

Input Signal	Maximun Range	Accuracy
Thermocouple J	: - 50 to 1000 °C (- 58 to 1832 °F)	: ± 1 °C
Thermocouple K	: - 50 to 1370 °C (- 58 to 2498 °F)	: ± 1 °C
Thermocouple T	: - 270 to 400 °C (- 454 to 752 °F)	: ± 1 °C
Thermocouple E	: - 50 to 960 °C (- 58 to 1760 °F)	: ± 1 °C
Thermocouple B	: 0 to 1750 °C (- 32 to 3182 °F)	: ± 2 °C (Note 1)
Thermocouple R	: - 50 to 1750 °C (- 58 to 3182 °F)	: ± 2 °C
Thermocouple S	: - 50 to 1750 °C (- 58 to 3182 °F)	: ± 2 °C
Thermocouple N	: - 50 to 1300 °C (- 58 to 2372 °F)	: ± 2 °C
Thermocouple C	: - 50 to 1800 °C (- 58 to 3272 °F)	: ± 2 °C
Pt100	: -200 to 600 °C (-328 to 1112 °F)	: ± 0.2 °C
mV	: - 60 mV to 60 mV	: ± 0.01 mV
Voltage (note 2)	: - 10 to 10 VDC	: ± 1 mV
Current (note 2)	: 0 to 24 mA DC	: ± 10 μ A

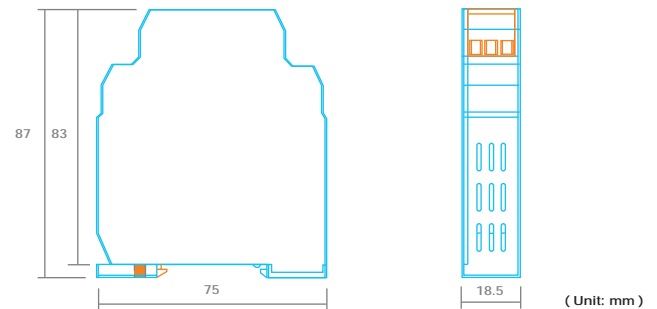
Note 1: Accuracy is not guaranteed between 0 and 400 °C (0 and 752 °F) for T/C B

Note 2: Not selectable, request by order

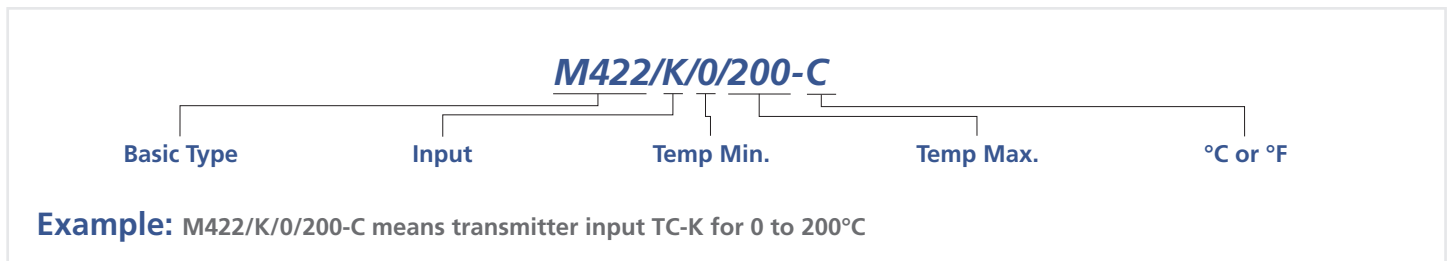
Electrical connection:



Dimensions (mm):



How to order:



Note: Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.