

# Programmable Isolated Temperature Transmitter Type M-355

Head mount

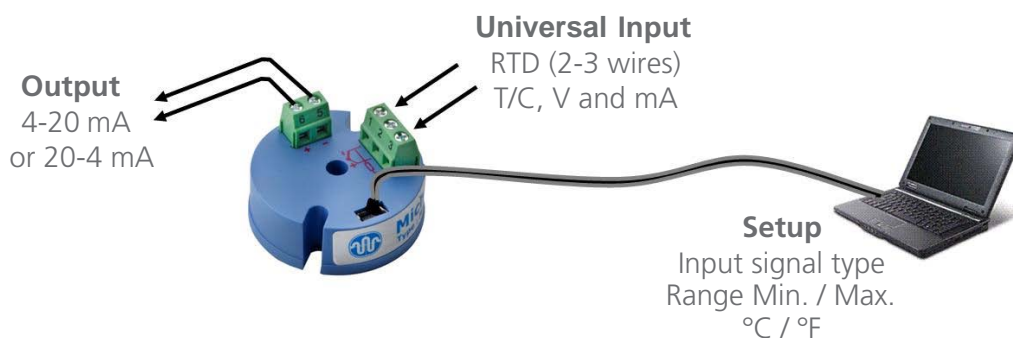
- Programmable for various input signals, measuring range
- Head Mount
- Configurable without external loop power connected
- **Universal Input:** Resistance Thermometer (PT100)  
Thermocouple (J, K, T, E, B, R, S, N, C)  
Voltage/Current transmitter (mV/V/mA)
- **Output:** 2-wire loop-power technology,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



The M-355 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 Head

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

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



# Technical Specifications

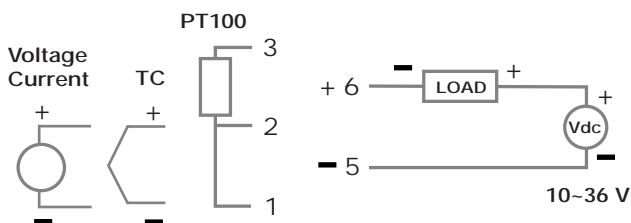
<b>Input:</b>	Thermocouple (T/C): Industry standard thermocouple types J, K, T, E, B, R, S, N, C (ITS-90) Pt100: Excitation 180 micro A. 2-3 wire connection (ITS-90 $\alpha = 0.00385$ ) Voltage: - 60 mV DC or - 10 VDC to 10 VDC Current: 0 - 24 mA DC
<b>Accuracy:</b>	Refer to table
<b>A/D Resolution: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

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

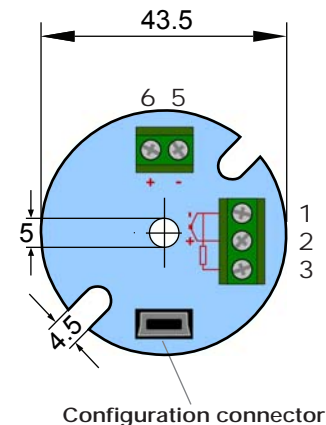
**Note 1:** Accuracy is not guaranteed between 0 and 400 °C (0 and 752 °F) for T/C B

**Note 2:** Not selectable, request by order

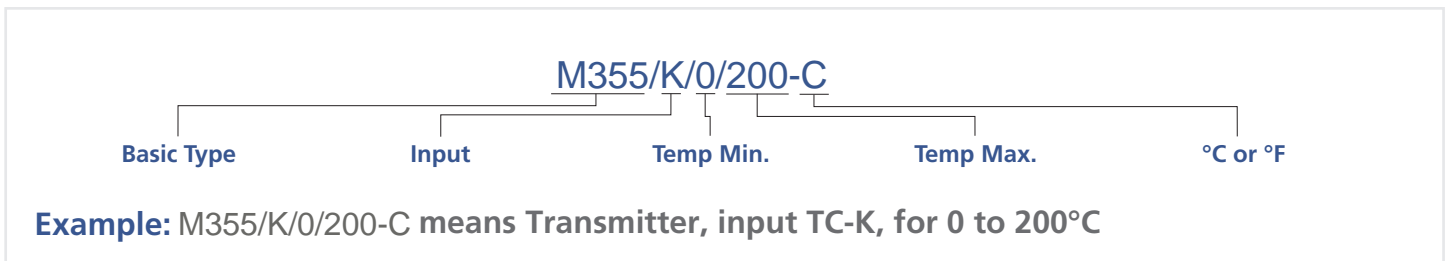
## Electrical connection:



## 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.