

- Universal transmitter for (RTD, T/C, resistance, voltage) settable via HART-protocol



## PERFORMANCE :

- Universal settings with HART-protocol for various input signals (2-Wire)
- Galvanic isolation
- An internal temperature sensor for active temperature compensation
- 12.5 mm width



## Technical data

### INPUT :

	Type	Measurement ranges	Min. meas. Ranges
RTD	Pt100	-200°C to 850°C (-328°F to 1562°F)	100°C
	Pt500	-200°C to 250°C (-328°F to 482°F)	100°C
	Pt1000	-200°C to 250°C (-328°F to 482°F)	100°C
	Cu50	-50°C to 150°C (-58°F to 302°F)	50°C
	Cu100	-50°C to 150°C (-58°F to 302°F)	50°C
	*Ni100	-60°C to 180°C (-76°F to 356°F)	50°C
*Ni500	-60°C to 180°C (-76°F to 356°F)	50°C	
*Ni1000	-60°C to 150°C (-76°F to 302°F)	50°C	
Resistance(Ω)	Resistance(Ω)	0 to 400 Ω 0 to 2000 Ω 0 to 10000 Ω	50 Ω 100Ω 1000Ω
*α = 5000ppm/K or 6180ppm/K Connection type: 2-, 3- or 4-wire connection Sensor current: 0.5 mA			
Thermocouples(T/C)	B(PtRh30-PtRh6)	0 to 1820 ( 32 to 3308 )	500°C
	E(NiCr-CuNi)	-270 to 1000°C (-454 to 1832°F)	100°C
	J(Fe-CuNi)	-210 to 1200°C (-346 to 2192°F)	100°C
	K(NiCr-Ni)	-270 to 1372°C (-454 to 2501°F)	100°C
	N(NiCrSi-NiSi)	-270 to 1300°C (-454 to 2372°F)	100°C
	R(PtRh13-Pt)	-50 to 1768°C ( -58 to 3214.4°F )	500°C
	S(PtRh10-Pt)	-50 to 1768°C ( -58 to 3214.4°F )	500°C
	T(Cu-CuNi)	-270 to 400°C (-454 to 752°F)	100°C
Voltage (mV)	Millivolt transmitter(mV)	-10 to 75mV	15mV
		-100 to 100mV	15mV
		-100 to 500mV	50mV
		-100 to 2000mV	100mV

### OUTPUT :

Output signal	4 to 20 mA (HART)
Signal on alarm	Downscale Linear drop to 3.8 mA
	Upscale linear rise to 20.8 mA
	Sensor break; sensor open-circuit 3.8 mA
Load	max.(V <sub>s</sub> -7.5)/0.0208 A
Linearisation/transmission behavior	Temperature linear, resistance linear, voltage linear
Galvanic isolation	2 KV AC (input/output)

## POWER SUPPLY

Supply voltage ( $V_s$ ) (polarity protected)	12.0V to 45 VDC
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## PERFORMANCE CHARACTERISTICS

Response time	1s
Reference operating conditions	Calibration temperature : 23°C(73.4°F)±5K
Switch on delay	≤ 5s
Self stability configuration	0 to 2%
Filter configuring	0 to 160 $\mu$ A
Resolution	0.3 $\mu$ A



	Input	Type	Measurement accuracy
Maximum measured error	RTD	Pt100, Ni100	0.50°C or 0.10%
		Pt500, Ni500	0.1°C or 0.25%
		Pt1000, Ni1000	0.1°C or 0.2%
		Cu50	0.50°C or 0.1%
		Cu100	0.6°C or 0.15%
	Thermocouple(T/C)	K, J, T, E N S, B, R	0.1°C or 0.12% 1.5°C or 0.12% 3.0°C or 0.12%
	Resistance( $\Omega$ )	0 to 400 $\Omega$ 0 to 2000 $\Omega$ 0 to 10000 $\Omega$	0.2 $\Omega$ or 0.12% 3.0 $\Omega$ or 0.18% 15 $\Omega$ or 0.3%
	Voltage (mV)	-10 to 75mV -100 to 100mV -100 to 500mV -100 to 2000mV	30mV or 0.12% 30mV or 0.12% 50mV or 0.12% 80mV or 0.12%

## PERFORMANCE CHARACTERISTICS

Operating Ambient temperature	-40 to 85°C (-40°F to 185°F)
Degree of protection	IP 20 (For Dinrail mounting only)

## OTHERS

Model No.	Micron 100 HD (Hart Dinrail)	Micron 100 HH (Hart head Mounted)
Dimensions	12.5(W) X99(H) X112.5(D) mm	Dia. 44 mmX22.5(H) mm
Materials	PA 66 -FR	Housing : PC, Potting : epoxy
Weight	Approx. 90 g	Approx. 33.5g
Mounting	Din Rail Mounted	Head Mounted

Specifications are subject to change without prior notice.

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