



New in 2020 8H

Universal PC-Programmable 2-wire transmitter USB



The JMS 8H is a universal, isolated, temperature transmitter with additional voltage and resistance input. Its robust design and high quality gives excellent performance and accuracy also under harsh conditions.

The JMS 8H supports communication via NFC® (Near-field communication) and Bluetooth® which makes it possible to configure and monitor the transmitter remotely.

- High accuracy and long term stability
- 50-point Customized Linearization and Callendar-Van Dusen
- Accepts RTD, T/C, mV and Ω
- Sensor error and system (sensor/transmitter) error correction for highest total accuracy
- Low temperature drift
- Configuration via USB or NFC without external power
- Runtime counter - hour counter for elapsed operational time
- Rugged design tested for 10 g vibrations
- High security - Password protection and date of changes logged

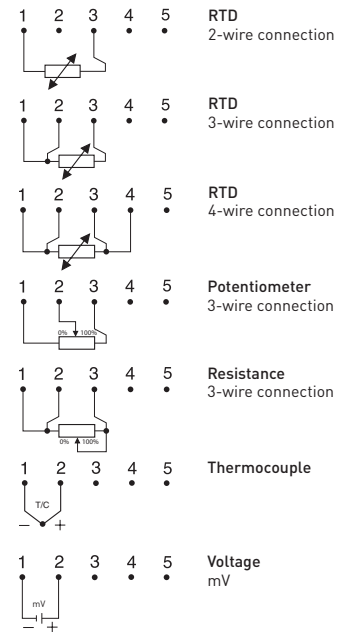
Specifications:

Input RTD	2-, 3-, 4-wire connection
Pt100 ($\alpha = 0.00385$)	-200 to +850 °C / -328 to +1562 °F
PtX $10 \leq X \leq 1000$ ($\alpha = 0.00385$)	Upper range depending on X-value
Pt100 ($\alpha = 0.003916$)	-200 to +850 °C / -328 to +1562 °F
Ni100 ¹⁾ , Ni120 ²⁾	-60 to +250 °C / -76 to +482 °F
Ni1000 ¹⁾	-50 to +180 °C / -58 to +356 °F
Cu10 ³⁾	-50 to +200 °C / -58 to +392 °F
Input Resistance / potentiometer	0 to 10000 Ω / 100 to 10000 Ω
Input Thermocouples	Types B, C, D, E, J, K, N, R, S, T
Input mV	-10 to +1000 mV
Sensor failure	Upscale (≥ 21.0 mA) or downscale (≤ 3.6 mA) action
Adjustments - Zero	Any value within range limits
Adjustments - Minimum spans	
Pt100, Pt1000, Ni100, Ni1000	10 °C / 18 °F
Potentiometer	10 Ω
T/C, mV	2 mV
Output	4-20 / 20-4 mA, temperature linear
Operating temperature	-40 to +85 °C / -40 to +185 °F
Galvanic isolation	1500 VAC, 1 min
Power supply	JMS 8H 8.0...36.0 VDC
	JMS 8HX 8.0...30.0 VDC
Intrinsic safety	
JMS 8HX ATEX:	II 1 G Ex ia IIC T6...T4 Ga ⁴⁾
JMS 8HX IECEx:	Ex ia IIC T6...T4 Ga ⁴⁾
JMS 8HX cFMus:	IS CL I Div 1 GP A-D, T6...T4 CL I Zn 0 AEx/Ex ia IIC T6...T4 Ga ⁴⁾
Typical accuracy	$\pm 0.08\%$ or $\pm 0.08\%$ of span
Connection head	DIN B or larger

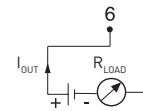
¹⁾DIN 43760, ²⁾Edison No.7, ³⁾Edison No.15 ⁴⁾For Tambient, see the manual

Input connections

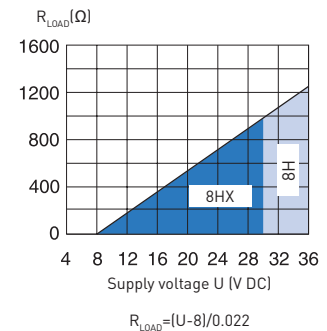
See data sheet for more alternatives



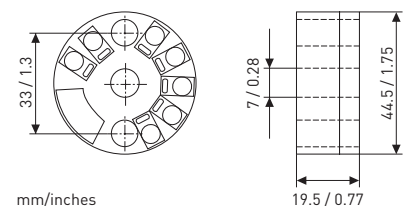
Output connections



Output load diagram



Dimensions



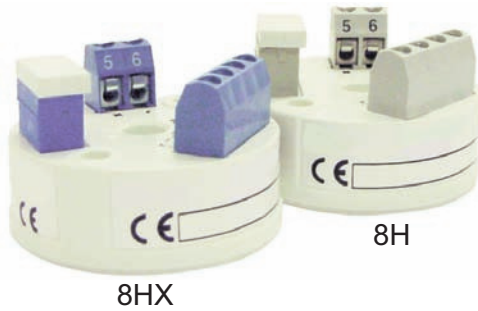
JMS Southeast, Inc.

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Pre- 2020 8H TRANSMITTER (ISOLATED)

Universal Programmable 2-wire Transmitters



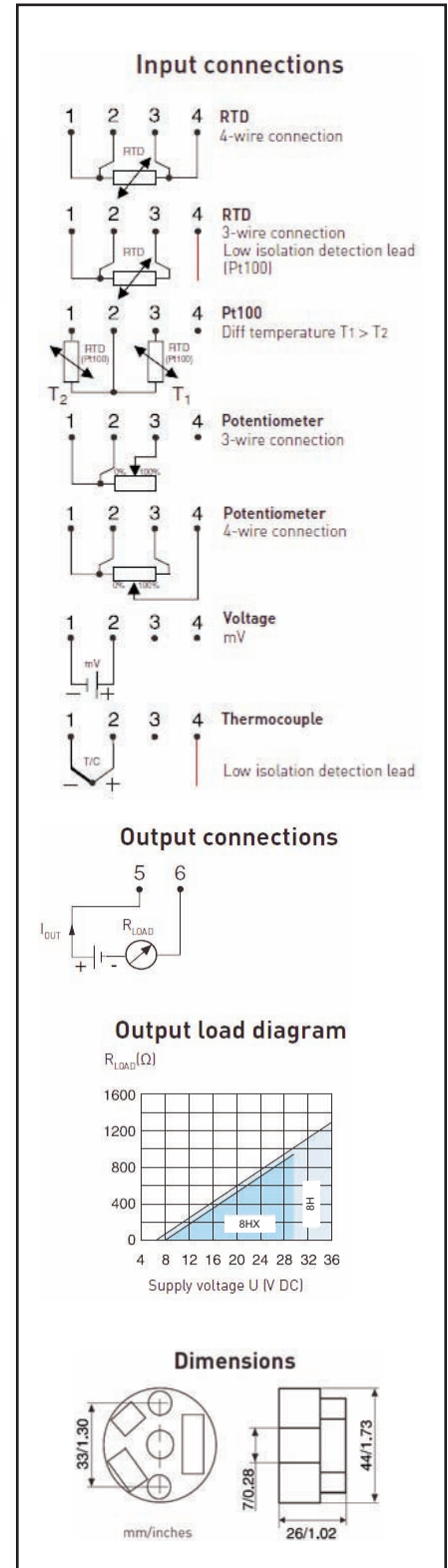
8H / 8HX are universal, isolated 2-wire transmitters for temperature and other measurement applications. They combine competitive pricing, functionality and simple configuration. Useful error correction functions improve the accuracy.

- Fully universal, linearized and high-isolation
- Accepts RTD, T/C, mV and Ω
- Sensor error and system (sensor/transmitter) error correction for highest total accuracy
- Full access to all features while in operation
- NAMUR compliant
- Consistent sensor break function
- Simplified loop check-up with calibration output
- Low sensor isolation detection
- Easy-to-use Windows configuration software

Specifications:

Input RTD	3-, 4-wire connection
Pt100 ($\alpha=0.00385$)	-200 to +1000 °C / -328 to +1832 °F
Pt1000 ($\alpha=0.00385$)	-200 to +200 °C / -328 to +392 °F
PtX $10 \leq X \leq 1000$ ($\alpha=0.00385$)	Upper range depending on X-value
Pt100 ($\alpha=0.003902$)	-200 to +1000 °C / -328 to +1832 °F
Pt100 ($\alpha=0.003916$)	-200 to +1000 °C / -328 to +1832 °F
Ni100 ¹⁾ , Ni120 ²⁾	-60 to +250 °C / -76 to +482 °F
Ni1000 ¹⁾	-100 to +150 °C / -148 to +302 °F
Cu10 ²⁾	-200 to +260 °C / -328 to +500 °F
Input Potentiometer / resistance	3-, 4-wire connection, 0 to 2000 Ω
Input Thermocouples	Types B, C, E, J, K, L, N, R, S, T, U
Input mV	-10 to +500 mV
Sensor failure / Low isolation	User definable output
Adjustments - Zero	Any value within range limits
Adjustments - Minimum spans	
Pt100, Pt1000, Ni100, Ni1000	10 °C / 18 °F
Potentiometer	10 Ω
T/C, mV	2 mV
Output	4-20 / 20-4 mA, temperature linear
Operating temperature	-40 to +85 °C / -40 to +185 °F
Galvanic isolation	1500 VAC, 1 min
Power supply	8H: 6.5 to 36 VDC 8HX: 8 to 30 VDC
Intrinsic safety	
8HX ATEX:	II 1 G EEx ia IIC T4-T6
8HX FM:	IS Class I, DIV 1, GP A-D
8HX CSA:	Class I, Groups A-D
Typical accuracy	± 0.1 % of span
Connection head	DIN B or larger

¹⁾DIN 43760 ²⁾Edison No. 7 ³⁾Edison No. 15



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