



Meso-HX



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## MESO-H

# Universal HART-compatible 2-wire Transmitters



MESO-H/-HX are smart and universal 2-wire in-head transmitters for temperature and other measurement applications. MESO-H/-HX are fully HART-compatible, with communication through the HART protocol.

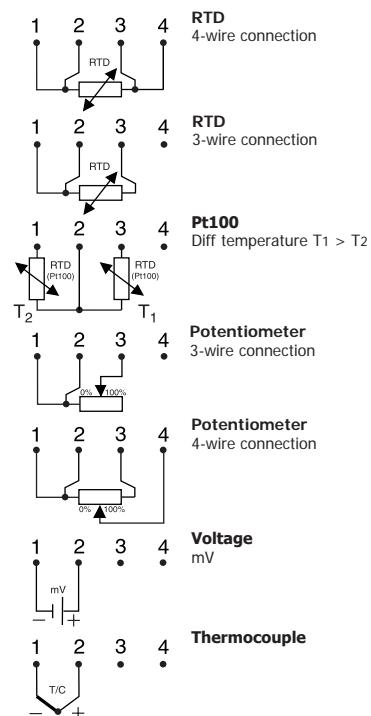
- Utilizes HART Protocol for remote configuration and monitoring
- Communicates with HART Communicator or PC via modem
- Fully universal, linearized and isolated
- Accepts RTD, T/C, mV and  $\Omega$
- Sensor error correction
- Easy wiring, large center hole
- 50 point linearization – any sensor can be matched
- Consistent sensor break function
- Full access to all features while in operation
- Low sensor isolation detection
- MEPRO, easy-to-use Windows configuration software
- Integrated in Emerson AMS and Siemens PDM systems

### Specifications:

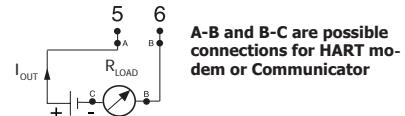
Input RTD and Resistance	
Pt100 <sup>1)</sup> and D100 <sup>2)</sup>	3-,4-wire connection -200 to +1000 °C / -328 to +1832 °F
Pt1000 <sup>1)</sup>	-200 to +200 °C / -328 to +392 °F
PtX 10 ≤ X ≤ 1000 <sup>1)</sup>	Upper range depending on X value
Ni100 <sup>3)</sup>	-60 to +250 °C / -76 to +482 °F
Ni1000 <sup>3)</sup>	-60 to +150 °C / -76 to +302 °F
Potentiometer / resistance	0 to 2000 $\Omega$
Input Thermocouples	
Input Voltage	AE, B, E, J, K, L, N, R, S, T, U
Sensor failure / Low isolation	-10 to +500 mV
Adjustments - Zero	User definable output
Adjustments - Minimum spans	
Pt100, Pt1000, Ni100, Ni1000	10°C / 18°F
Potentiometer	10 $\Omega$
T/C, mV	2 mV
Output	
Operating temperature	4-20 / 20-4 mA
Galvanic isolation	-40 to +85°C / -40 to +185°F
Power supply	
MESO-H	10 to 42 VDC
MESO-HX	12 to 30 VDC
Intrinsic safety	
MESO-HX	ATEX: II 1 G EEx ia IIC T4-T6
MESO-HX	FM: Class I-III, Div. 1, Gr. A-D, G
Typical accuracy	
Connection head	±0.1% of temperature span
	DIN B or larger

<sup>1)</sup>IEC 60751,  $\alpha=0.00385$    <sup>2)</sup>Pt100 acc. to JIS 1604,  $\alpha=0.003916$    <sup>3)</sup>IEC 60751

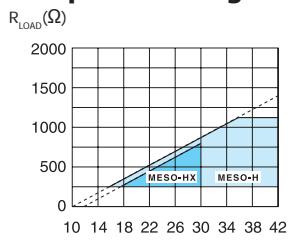
### Input connections



### Output connections



### Output load diagram

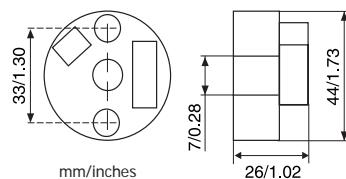


Supply voltage U (V DC)

$R_{LOAD} = (U-10)/0.023$  (MESO-H)

$R_{LOAD} = (U-12)/0.023$  (MESO-HX)

### Dimensions



### Ordering information

MESO-H	70MEH0001
MESO-HX (ATEX)	70MEHX0001
MESO-HX (FM)	70MEH1001
HART PC modem RS232	70MEM00001
HART PC modem USB	70MEM00003
Software CD	70CDSOFT01
Configuration	70CAL00001