MESO-L

Universal HART-compatible 2-wire Transmitter

Meso-L

MESO-L is a smart and universal 2-wire transmitter for temperature and other measurement applications. MESO-L is fully HART-compatible, with communication through the HART protocol.

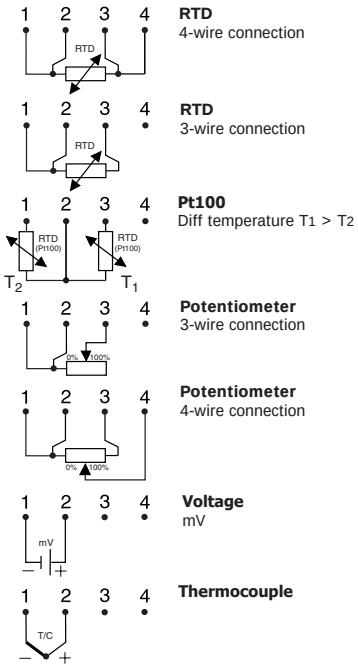
- Utilizes HART protocol for remote configuration and monitoring
- Communicates with HART Communicator or PC via modem
- Fully universal, linearized and isolated
- Accepts RTD, T/C, mV and ohm
- Sensor error correction
- 50 point linearization – any sensor can be matched
- Consistent sensor break function
- Simplified loop check-up with calibration output
- 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	3-,4-wire connection
Pt100[1] and D100[2]	-200 to +1000 °C / -328 to +1832 °F
Pt1000[1]	-200 to +200 °C / -328 to +392 °F
PtX 10 ≤ X ≤ 1000[1]	Upper range depending on X value
Ni100[3]	-60 to +250 °C / -76 to +482 °F
Ni1000[3]	-60 to +150 °C /-76 to +302 °F
Potentiometer / resistance	0 to 2000 Ω
Input Thermocouples	AE, B, E, J, K, L, N, R, S, T, U
Input Voltage	-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
Operating temperature	-20 to +70 °C / -4 to +158 °F
Galvanic isolation	1500 VAC, 1 min
Power supply	11 to 42 VDC
Typical accuracy	±0.1% of temperature span
Mounting	Rail acc. to DIN EN50022, 35 mm

[1] IEC 60751, α=0,00385 [2] Pt100 acc. JIS 1604, α=0,003916 [3] IEC 60751

Input connections



RTD
4-wire connection

RTD
3-wire connection

Pt100
Diff temperature T1 > T2

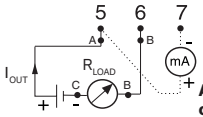
Potentiometer
3-wire connection

Potentiometer
4-wire connection

Voltage
mV

Thermocouple

Output connections

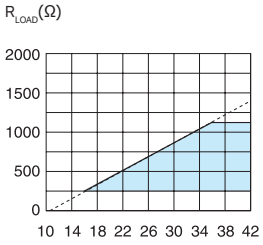


Test[1]

A-B and B-C are possible connections for HART modem or Communicator

[1] Ri ≤ 10 Ω

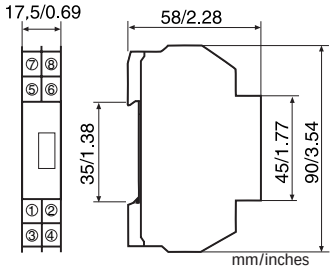
Output load diagram



Supply voltage U (V DC)

R_{LOAD}=(U-11)/0.023

Dimensions



Ordering information

MESO-L	70MEL00001
HART PC modem RS232	70MEM00001
HART PC-modem USB	70MEM00003
Software CD	70CDSOFT01
Configuration	70CAL00001