



TT7S00-HR 2-Wire Transmitter Pt-100 input

TT7S00-HR is low cost Analog Linearized non-isolated 2-wire Head mount Transmitter, solder pads selection and potentiometer adjustments makes the Transmitter suitable for multi-range applications; the electronics is rated to withstand high temperature, protected by potting and housed in a rugged enclosure for reliability.

The Transmitter is sized for DIN B sensor heads with ergonomically placed terminals and potentiometers for ease of wiring and adjustments, the output is fully linear to temperature and load independent, with just 6.5V drop across the output, large loads can be connected in the loop.

For sensor break the unit can be configured for upscale or down scale output, sensor lead wires are compensated for up to 15 ohms per lead in 3W connection

TT7S00-HR is the most cost effective transmitter for Pt-100 input where Isolation between Input and Output is not required, the electronics is optimized to give the best performance at a very low cost, the PCBs are machine soldered for utmost reliability, every unit undergoes a stringent quality and calibration check and supplied with a test report each.

Masibus has 39 years of design experience and is known for delivering quality Instrumentation products cost effectively.

Features

- Multi-Range design
- Output Linear to Temperature
- Analog Linearized for 0.1% Linearity
- Sized for DIN B heads and bigger
- Sensor break selection for upscale or downscale
- Protected Electronics rated to withstand high temperature
- Flat and compact housing
- Most cost effective
- Machine soldered Printed Circuit Boards
- Automated Testing and calibration check

Applications

As a Pt-100 Transmitter in

- Power Plants
- Metal Industry
- Oil & Gas
- Chemical
- Glass Industry
- Cement
- Fertilizer
- Research
- Pulp & Paper
- Food & Beverages

TECHNICAL SPECIFICATIONS

Input		Output	
Input Type		Current Output	4 - 20 mA
Pt100 ($\alpha = 0.00385$), 3-wire connection	Adjustable to specific ranges within: -50 to +550 °C	Linearity	Temperature Linear
Sensor current	~1.1 mA	Current Limitation	~ 25 mA
Max. sensor wire resistance	15Ω / wire	Permissible Load (Ω)	Rload = (Supply Voltage - 6.5)/0.025
Sensor break detection, Selectable	Upscale ~25 mA, downscale ~3 mA	Power Supply	
Adjustments		Supply Voltage	6.5 to 32 VDC
Zero	-50 to +50 °C	Permissible Ripple	4 Vp-p @ 50/60 Hz
Span, Selectable	50 to 500 °C	Polarity Protection	Yes
Span, Fine adjustment	±10 %	Physical	
Response time 10-90%	≤ 0.2 s	Enclosure Material	Poly Carbonate
Accuracy		Mounting	DIN B-head or larger
Linearity	±0.1 % of span	Connection, Single/stranded wires	≤2.5 mm ² , AWG 14
Calibration	±0.1 % of span	Weight	40 g
Temperature Influence	< 150 PPM / °C	Protection	IP20
Sensor Wire Influence	±0.005 °C/Ω	Environmental	
Supply Voltage Influence	±0.02 % of span/V	Operating Temperature	0 to +85 °C
Supply Ripple Influence, 50/60 Hz, 4 Vp-p	±0.05 % of span	Storage Temperature	-40 to +100 °C
Long Term Stability	±0.1 % of span/year	Humidity	30 to 95% (Non-condensing)

Accessories (Optional-On request)

Mounting Kit	
Head Mounting	Rail Mounting
m-MK-FH-00-1	m-MK-RC-00-1
	

Ordering Code

Model	Range Setting
TT7S00-HR	X
	S Standard without Range Setting & without calibration certificate
	M Customer Specified Range Setting & Calibration Certificate (Option)

Specify **Input Range** at the time of Ordering for range setting option

Example:

TT7S00-HR-M-XX-XXX

For input range: -50 to 200 °C

Specify: TT7S00-HR -M- (-50) - 200 °C