

KT-502H

HART-Protocol temperature transmitter

The KT-502H is smart type temperature transmitter with multi range input. Both remote control using a Hart protocol and universal range input are available.

Features

- Hart-Protocol temperature transmitter KT-502H for resistance temperature detector(RTD), thermocouples(TC), resistance and voltage transmitters, settable via HART-protocol, for temperature field transmitter and universal application
- Backlight LCD screen in crease the visibility in the darkness
- Continuously rotatable display(330°) for ease of reading
- HART protocol
- Explosion proof structure
- Be able to combine temp. sensor manufactured by user's design
- User's customized temperature sensor can be combined.

Ordering Codes

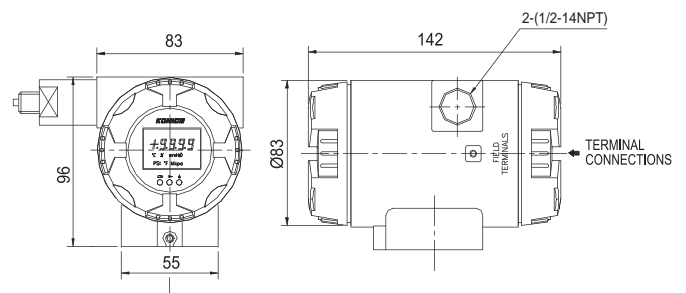
Basic	Mounting Bracket	Description
KT-502H	0	None
	1	With Bracket



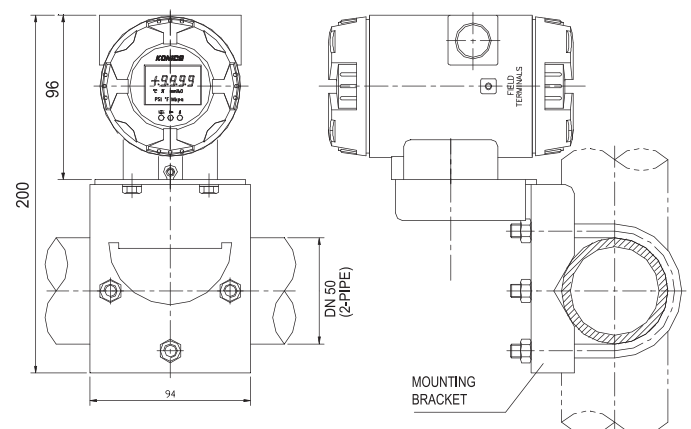
Dimensions

(Unit : mm)

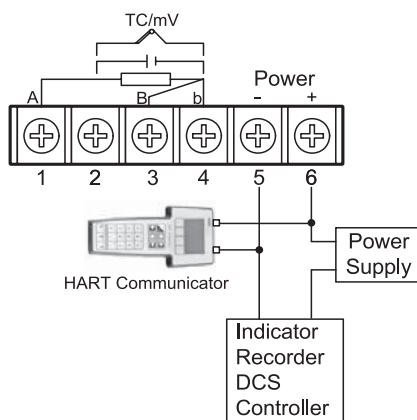
TEMPERATURE TRANSMITTER



MOUNTING BRACKET



Connections



KT-502H

HART-Protocol temperature transmitter

Specifications

• Input

	Type	Measurement ranges	Min.meas. Ranges
Resistance thermometer (RTD)	Pt100	-200°C to 850°C (-328°F to 1562°F)	10K
	Pt500	-200°C to 250°C (-328°F to 482°F)	10K
	Pt1000	-200°C to 250°C (-328°F to 482°F)	10K
	Cu50	-50°C to 150°C (-58°F to 302°F)	10K
	Cu100	-50°C to 150°C (-58°F to 302°F)	10K
	*Ni100 *Ni500 *Ni1000	-60°C to 180°C (-76°F to 356°F) -60°C to 180°C (-76°F to 356°F) -60°C to 150°C (-76°F to 302°F)	10K 10K 10K
Resistance transmitter	Resistance(Ω)	0 to 400Ω 0 to 2000Ω 0 to 10000Ω	10Ω 20Ω 100Ω
*α = 5000ppm/K or 6180ppm/K Connection type : 2-, 3- or 4-wire connection Sensor current : 0.5 mA			
Thermocouples (TC)	B(PtRh30-PtRh6)	0 to 1820°C (32 to 3308°F)	500K
	E(NiCr-CuNi)	-270 to 1000°C (-454 to 1832°F)	50K
	J(Fe-CuNi)	-210 to 1200°C (-346 to 2192°F)	50K
	K(NiCr-Ni)	-270 to 1372°C (-454 to 2501°F)	50K
	N(NiCrSi-NiSi)	-270 to 1300°C (-454 to 2372°F)	50K
	R(PtRh13-Pt)	-50 to 1768°C (-58 to 3214.4°F)	500K
	S(PtRh10-Pt) T(Cu-CuNi)	-50 to 1768°C (-58 to 3214.4°F) -270 to 400°C (-454 to 752°F)	500K 50K
Voltage transmitters (mV)	Millivolt transmitter(mV)	-10 to 75mV -100 to 100mV -100 to 500mV -100 to 2000mV	5mV 5mV 6mV 20mV

• Output

Output signal	4 to 20 mA
Signal on alarm	Under ranging Linear drop to 3.8 mA
	Over ranging linear rise to 20.8 mA
	Sensor break; sensor open-circuit 3.8 mA
Load	max.(Power supply-7.5 V) / 0.0208 A max.(Power supply-10.5 V) / 0.0208 A
Linearisation/transmission behaviour	Temperature linear, resistance linear, voltage linear
Galvanic isolation	U=2 KV AC (input/output)

• Power supply

Supply voltage (polarity protected)	U _b = 7.5 to 45 VDC (without display) U _b = 10.5 to 45VDC (with display)
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• Performance characteristics

Response time	1 s		
Reference operating conditions	Calibration temperature: 23°C (73.4°F) ±5K		
Long term stability	≤ 0.05%/year		
Switch on delay	≤ 5s		
Influence of ambient	Negligible		
Load influence	Negligible		
Power supply influence	Negligible		
Self stability configuration	0 to 2%		
Filter configurating	0 to 160 μA		
Resolution	0.3 μA		
Maximum measured error	Resistance thermometer (RTD)	Type	Measurement accuracy
		Pt100, Ni100	0.2K or 0.08%
		Pt500, Ni500	0.5K or 0.20%
		Pt1000, Ni1000	0.3K or 0.12%
	Cu50	0.2K or 0.08%	
	Cu100	0.3K or 0.12%	
Thermocouple (TC)	K, J, T, E N S, B, R	typ.0.5K or 0.08% typ.1.0K or 0.08% typ.2.0K or 0.08%	
	Resistance transmitter(Ω)	0 to 400Ω 0 to 2000Ω 0 to 10000Ω	±0.1Ω or 0.08% ±1.5Ω or 0.12% ±7.5Ω or 0.20%
Voltage transmitters (mV)	-10 to 75mV -100 to 100mV -100 to 500mV -100 to 2000mV	±20μV or 0.08% ±20μV or 0.08% ±30μV or 0.08% ±50μV or 0.08%	

A	Recorders
B	Indicators
C	Converters
D	Controllers
E	Thyristor Units
F	Pressure Transmitters
G	Temperature Transmitters
H	Temp. Sensors
I	Thermo Meters
J	Pressure Gauges
K	Accessories

KT-502H

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