Temperature Transmitter (Field Mount Type)

Model No. KIT200-T Series

KINS

KIT200-T Series

HART FIELD COMMUNICATIONS PROTOCOL

- Field mounted temperature transmitter KIT200-T for resistance thermometers(RTD),thermocouples(TC), resistance and voltage transmitters,settable via HART-protocol
- High performance, high reliability
- Variety of sensor inputs
- Digital communication
- Self-diagnostics function
- LCD display with bargraph

Application areas

- Field mounted temperature transmitter with HART- protocol for converting various input signals into a scalable 4 to 20 mA analogue output signal
- Input
  Resistance thermometer (RTD)
  Thermocouple (TC)
  Resistance transmitter (Ω)
  Voltage transmitter (mV)

Performance

- Universal settings with HART-protocol for various input singnals
- 2 wire technology, 4 to 20mA analogue output
- High accuracy in total ambient temperature range
- Galvanic isolation
- An internal temperature sensor for active temperature compensation(For T/C)
- Wide voltage supply range
- Customer specific measurement range settings
- Multiparametric backlight rotatable LCD Display
- Expanded resistance input (max 2KΩ)
- Expanded voltage input (max 2KmV)

Technical data

Power supply	
Supply voltage	7.5 to 45 VDC(without display) , polarity protected
Output	
Output signal	4 to 20 mA
Signal on alarm	Underranging Linear drop to 3.8 mA
	Overranging linear rise to 20.5 mA
	Sensor break; sensor open-circuit 3.6 mA
Load	max.($V_{power\ supply}$-7.5 V)/0.022 A
Linearisation/transmission behaviour	Temperature linear, resistance linear, voltage linear
Galvanic isolation	U=2000V AC (input/output)
Installation conditions	
Installation instructions	Installation angle:no limit
	Installation area:Connection head accord. To DIN 43 729 Form B; TAF 10 field housing

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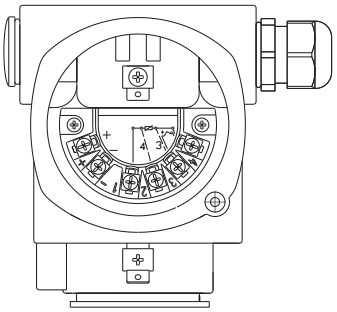
Input			
Input	**Type**	**Measurement ranges**	**Min.meas.Ranges**
Resistance thermometer(RTD)	Pt100	-200℃ to 850℃(-328°F to 1562°F)	10K
	Pt500	▲ -200℃ to 250℃(-328°F to 482°F)	10K
	Pt1000	▲ -200℃ to 250℃(-328°F to 482°F)	10K
	Cu50	-50℃ to 150℃ (-58°F to 302°F)	10K
	Cu100	-50℃ to 150℃ (-58°F to 302°F)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

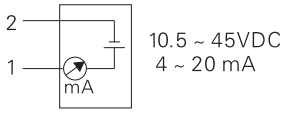
▲ on request

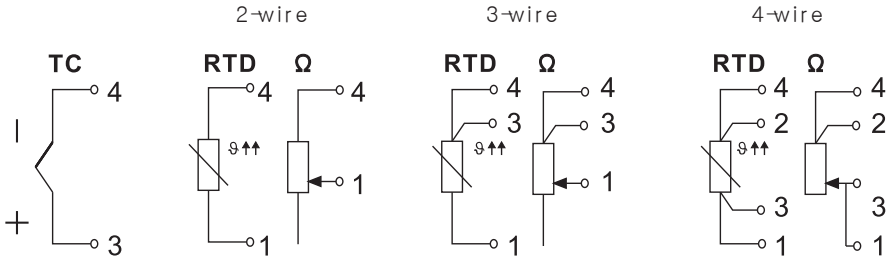
Performance characteristics			
Response time	1 s		
Reference operating conditions	Calibration temperature: 23℃(73.4°F)5K		
Long term stability	≤0.05%/year		
Switch on delay	≤5s		
Influence of ambient	Negligible		
Load influence	Negligible		
Power supply influence	Negligible		
Self stability configuration	0 to 2%		
Filter configurating	0 to 160 μA		
Resolution	0.3 μA		
Maximum measured error	Input	Type	Measurement accuracy
	RTD	Pt100, Ni100 Pt500, Ni500 Pt1000, Ni1000 Cu50 Cu100	0.2K or 0.08% 0.5K or 0.20% 0.3K or 0.12% 0.2K or 0.08% 0.3K or 0.12%
	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%
	Ω	0 to 400Ω 0 to 2000Ω	±0.1Ω or 0.08% ±1.5Ω or 0.12%
	mV	-10 to 75mV -100 to 100mV -100 to 500mV -100 to 2000mV	±20μV or 0.08% ±0μV or 0.08% ±0μV or 0.08% ±0μV or 0.08%

Environment conditions	
Ambient temperature limits	-40 to 85℃(-40℉ to 185℉)
Storage temperature	-40 to 100℃(-40℉ to 212℉)
Condensation	Allowable
Degree of protection	IP67
Explosion	Ex d IIC T6
Others	
Display Type	Visible range 32.5X22.5mm; 5-digit 7-segment main display, digit height 8mm, 8-digit 14 segment additional display, digit height 5mm;52 bars meter with 2% resolution
Weight	Approx. 800g
Display Range	-1.9.9.9.9-9.9.9.9.9
Materials	Housing: ADC12

Electrical connections







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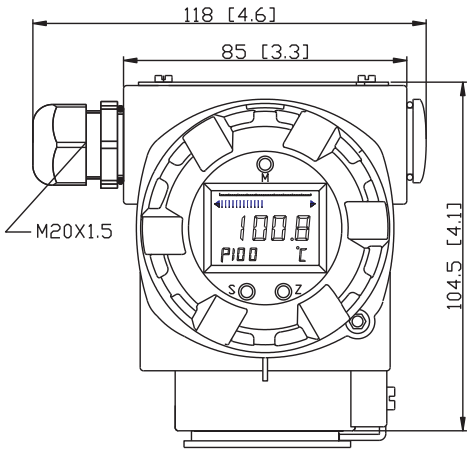
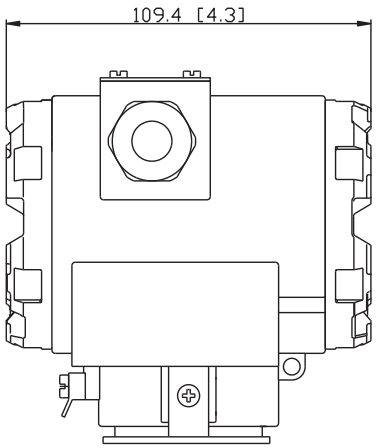
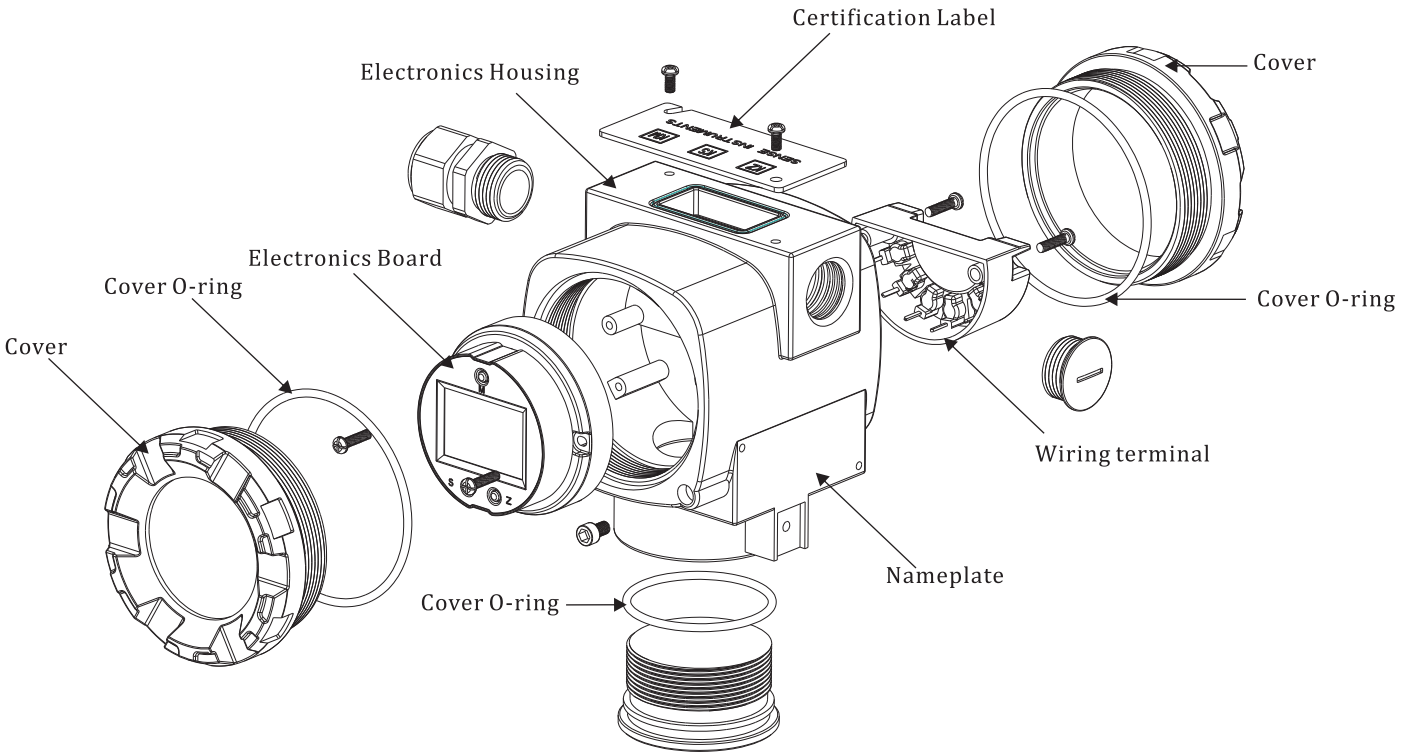
Dimensions

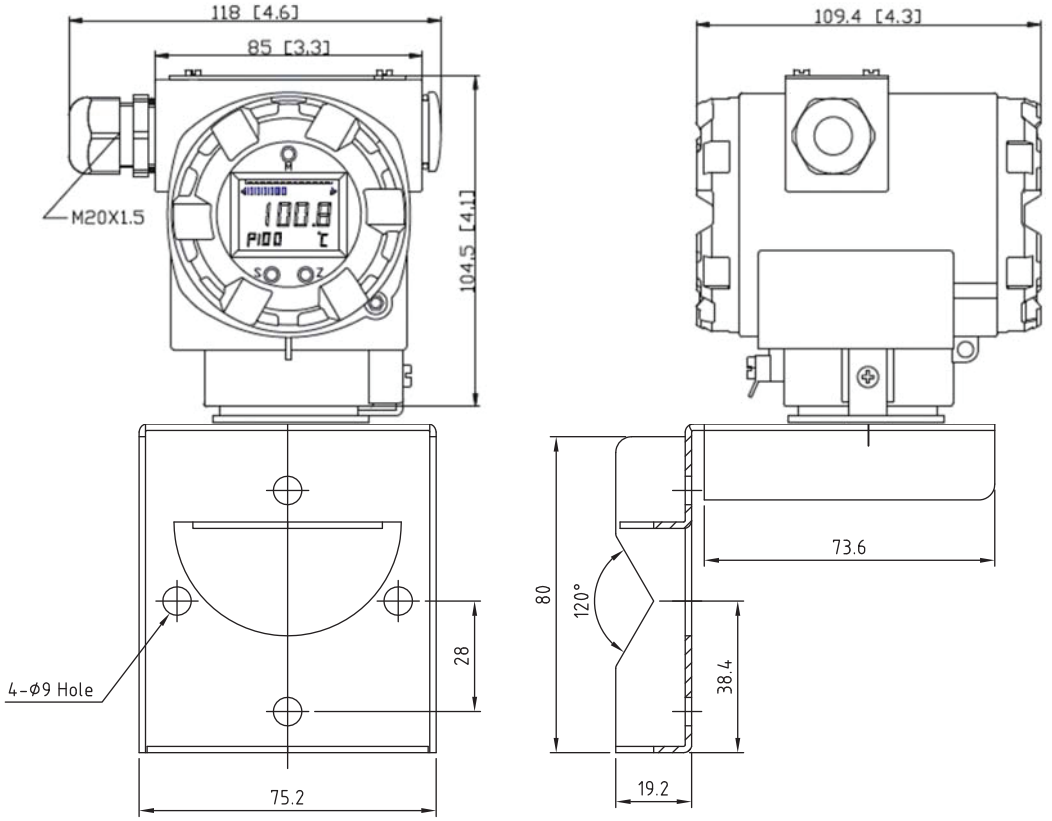




Exploded View



Installation diagram



Ordering Code

Model			Description
KIT200-T			
Display	1		LCD Backliht Display with Bargraph
Mounting Bracket		N	None
		1	2" Pipe Mounting