

Industrial Temperature Transmitter With HART Protocol PEK301HI



PEK301HI Temperature Transmitter with HART Protocol for converting various input signals into a scalable 4 to 20 mA analogue signal.

Application Area

- Compressed air
- Non-aggressive gases
- Vacuum technology
- Pneumatics

Input Types

- Resistance thermometer (RTD)
- Thermocouple (TC)
- Resistance transmitter (Ohm)
- Voltage Transmitter (mV)

- Universal setting with HART Protocol for various input signals.
- 2 wire technology, 4 ~ 20 mA analogue output
- High accuracy in total ambient temperature range
- Compact Design
- Wide voltage supply range
- An internal temperature sensor for active temperature compensation for T/C
- Excellent long-term stability
- Long operational life
- Low price
- HART-Communication
- LED display (Option)

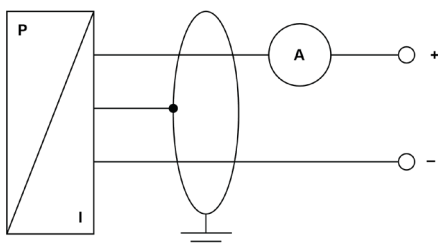
Technical Data

Power Supply			
Supply Voltage	Minimum	9V DC without load 15V DC with 250Ω load	
	Maximum	36V DC	
Output			
Output Signal		4 to 20 mA	
Signal on Alarm		Under Range 3.9 mA Over Range 21 mA	
Load		Max. 23mA	
Transmission Behavior		Loop Current Linear in Input Range	
Input Types and Ranges			
Input	Type	Measurement ranges	Min. meas. Ranges
Resistance thermometer (RTD)	Pt100	-200 °C to 850 °C (-328 °F to 1562 °F)	10K
Performance Characteristic			
Accuracy		0.2 % Full Scale	
Cold Junction		Internal	
Long Term Stability		Typically 0.15% per year	
Communication Resistance		250 Ω	
Noise suppression for noise frequency		50/60 Hz	
Update time		< 0.5 sec	
Response Time		2 sec	
Switch on Delay		3 sec	
Influence of Ambient		Negligible	
Load Influence		Negligible	
Power Supply Influence		Negligible	
Resolution		1μA	
Insulation resistance		>250MΩ	
Intrinsic safety		Eex ia IIC T4	
Short-Circuit protection		Permanent	

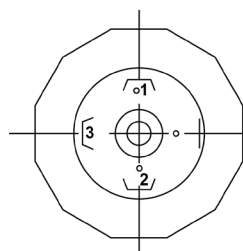
Electromagnetic Compatibility (EMC) standards		
Electromagnetic Compatibility (EMC) standards	IEC/EN 61326-1: 2006 IEC/EN 61326-2-3: 2006	
EMC	ESD	4KV Contact 8KV Air
	Radiated	80-1000MHz @ 10V/m AM
	Burst	1KV
	Surge	0.5KV Line-Line 1KV Line-Earth
	Conducted	150KHz to 80MHz @ 10V
	Magnetic	50Hz @ 30A/m
	Emission	30-230MHz, 30dB (uV/m) @ 10m 230-1000MHz, 37dB (uV/m) @ 10m
Vibration Effect	10 to 60 Hz : 0.21mm peak Displacement 60 to 500 Hz : 3g	
Operating Temperature	Without LED: -40°C to +85°C With LED: -20°C to 60°C	
Relative humidity	0% to 95%	
Protection rating (Enclosure)	IP65	
Others		
Display Type	4 Digit, red LED Display, digit high 7 mm, digit width 4.85 mm	
Weight	Approx. 140 g	
Display Range	Current: -1.9.9.9 ~ 9.9.9.9	
Materials	SS304	
Process connections	NPT ½"	

Electrical Connection

Wiring Diagram



Pin Configuration

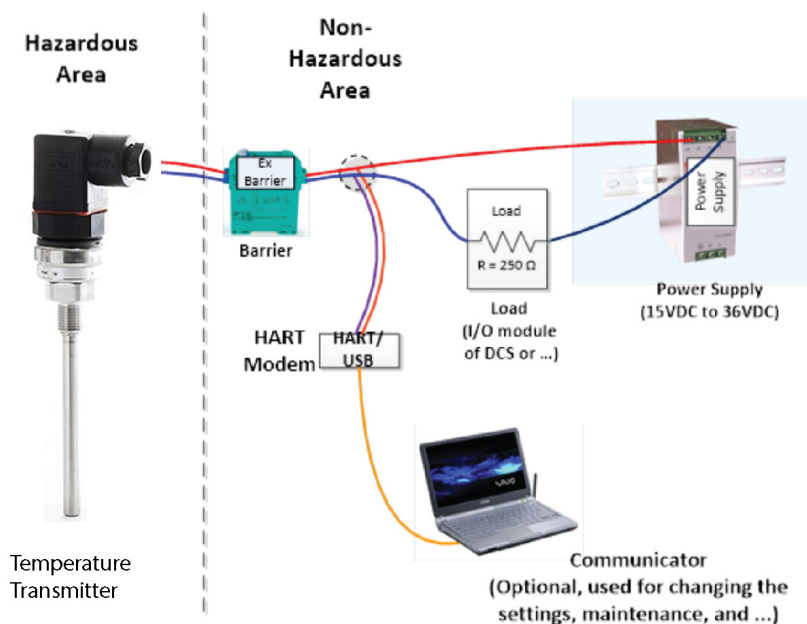


2. Wire System
 1. : Supply +
 2. : Supply -
 3. GND
 Power Supply : 9 - 32 VDC
 Output Signal : 4 - 20 mA , HART

Diagram of connectors PEK301HI

Connection	Description
BUS 1	HART Network connector
BUS 2	HART Network connector

Electrical Field Connection Diagram



Electrical Field Connection Diagram PEK301HI