Product Data Sheet
2021-2022

Differential Pressure Field-Mounted Transmitter

PEK501HF

With HART Protocol

Application Area

Field mounted differential pressure transmitter PEK501HF with HART- protocol for converting pressure into a scalable 4 to 20 mA analogue output signal. Typical area use of this transmitter is Process Control, differential pressure for deriving flow rated (volumetric or mass flow), level, mass or volume

Input Types

This Transmitter uses differential pressure sensor as input analogue signal.

- High Performance and Accuracy in total ambient pressure and Temperature range
- Digital Communication and Universal configuration with HART protocol communicator or PC-based configuration
- Self-diagnostics function ensures long-term performance and lower cost of ownership
- High Resolution LCD display and a bar-graph with an indicator for alarms
- 2-wire technology, Loop-powered 4-20mA temperature Transmitter analogue output with HART protocol
- Wide voltage supply range from 10V DC without load up to 15V DC with 250 Ω load
- Extremely high overload limit and High temperature and long term stability
- Minimum temperature and static pressure influence

Technical Data

Power Supply			
Supply Voltage		Minimum	10V DC without load 15V DC with 250Ω load
		Maximum	32V DC
Output			
Output Signal		4 to 20 mA with HART Protocol 7.0	
Signal on Alarm		Under Range 3.9 mA Over Range 21 mA as NAMUR STD	
Load		Max. 23mA	
Transmission Behavior		Loop Current Linear in Input Range	
Input Types and Ranges			
Differential Sensor	Range	One Side Over Load Pressure	Static Pressure
	-3-3 KPa	0.3 MPa	7 MPa
	-6-6 KPa	16 MPa	25 MPa
	-40-40 KPa	16 MPa	40 MPa
	-250-250 KPa	16 MPa	40 MPa
	-0.5-1 MPa	16 MPa	40 MPa
Performance Characteristic			
Accuracy		0.1 % Full Scale	
Pressure Hystersis		<= +/- 0.5 % Full Scale	
Long Term Drift		<= +/- 0.5 % Full Scale/Year	
Noise suppression for noise frequency		50/60 Hz	
Update time		< 0.5 sec	
Response Time		650 ms	
Switch on Delay		750 ms	
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	
		Burst	
		Surge	
		Conducted	

EMC	Magnetic	50Hz @ 30A/m
	Emission	30-230MHz, 30dB (uV/m) @ 10m 230-1000MHz, 37dB (uV/m) @ 10m
Expiosion Proof		EXia/Eexd IIC T6
Vibration Effect		10 to 60 Hz : 0.21 mm peak Displacement 60 to 500 Hz : 3g
Operating Temperature		Without LCD: -40˚C to +85˚C With LCD: -20˚C to 70˚C
Relative humidity		0% to 95%
Protection rating (Enclosure)		IP65 (IP66 ,IP67 Optional)
Others		
Display Type		Graphical Display, 8×17 Characters, 102x64 Pixels, FSTN Pos. Transflective
Weight		Approx. 2,200 g
Display Range		Pressure: -9999.9 Current: 99.999
Materials		Aluminum die cast (SS 316 Optional)

Electrical Connection

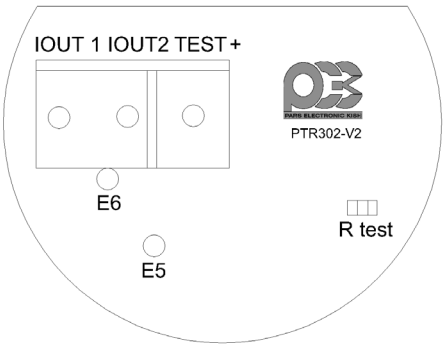
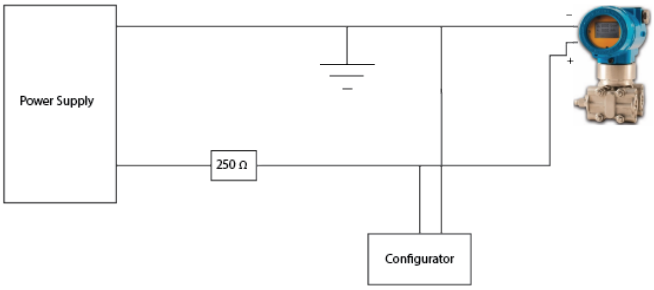


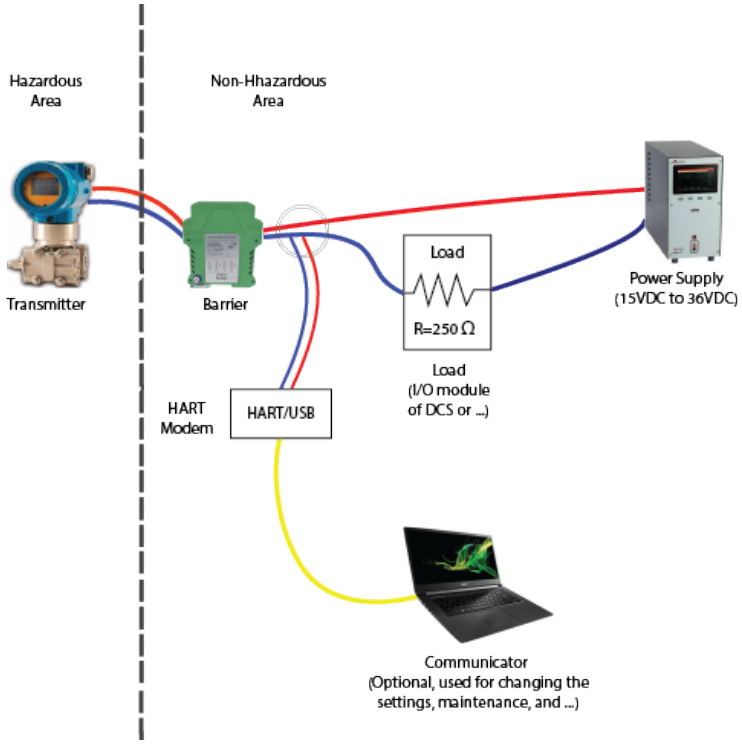
Diagram of connectors PEK501HF

Connection	Description
IOUT1	HART Supply Connector (without polarization)
IOUT2	HART Supply Connector (without polarization)
	Communicator Connector (without polarization)
Test+	Communicator Connector (without polarization)



Wiring Diagram for the PEK501H Working as a Transmitter

Electrical Field Connection Diagram



Electrical Field Connection Diagram PEK501HF

Pars Electronic Kish

Unit, No. 20, Qavam pour Alley, North
Sheikh Bahai St, Tehran, Iran

Tel: +9821-88613511
Fax: +9821-88602547
info@parsek.org
www.parsek.org