Sitron

ST90A/GPX External-Mount Temperature Transmitter

Characteristics

* Non-intrusive design eliminates the need to drill into the pipe

* Easy to install mounting bracket is locked into place with 2 bolts

* Large stand-off height enables installation with or without piping insulation

* Spring loaded sensor guarantees constant pipe contact

* Standard and customized brackets regardless of pipe size

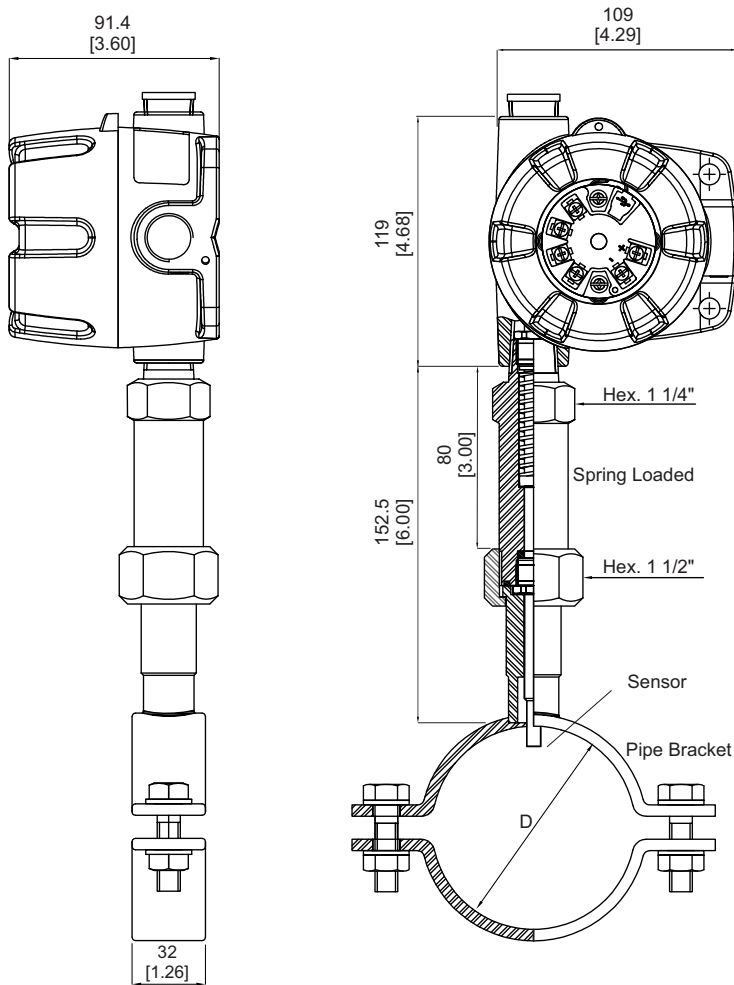* Installation and maintenance with zero down time

Description

The ST90A with pipe mounting bracket provides reliable surface temperature measurement of pipe fluid without having to shut down the process, drill into the pipe, install a thermowell or worry about future leaks and maintenance shutdowns.

Sitron's ST90A temperature transmitters utilize high purity platinum wire resistance sensors encapsulated in a ceramic insulation. The transmitter transforms the thermal resistance value into a mA output that is directly proportional to the temperature at the point of measurement.

The ST90A offers complete construction in 316 stainless steel with aluminum explosion proof housings, and temperature ranges up to 200° C. The pipe mounting brackets are available in a wide range of sizes with customized units upon request.

Dimensions (mm/inches)

91.4 [3.60]

109 [4.29]

119 [4.68]

152.5 [6.00]

80 [3.00]

Hex. 1 1/4"

Spring Loaded

Hex. 1 1/2"

Sensor

Pipe Bracket

D

32 [1.26]

Wiring Diagram

Pt100 (3 wires)

1
4
3

+
−

Supply

+

4...20mA

−

+
−
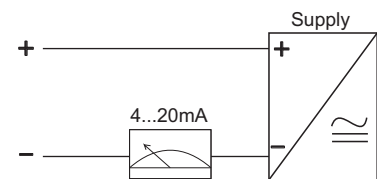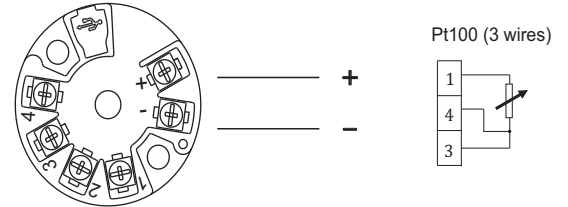
Technical Specifications

ST90A GPX

Power Supply: DC: 7.5~45 V
Consumption: 22mA
Output: 4~20mA (2 wires) + HART communication
Sensor type: Pt100 RTD
Measuring Range: -100 to 200°C
Accuracy: 0.25% F.S
Response time: 1s
Adjuste: Via HART protocol
Load (Zin): Rmax=[(Vin-7.5)/22mA]
Resolution: 1uA
Protection: Polarity reverse
Electromagnetic Compatibility(EMC): Interference immunity and interference emission according
to GB/T17626.2-1998, compliance with IEC 61000-4-3:1995
Housing: Aluminum painted (blue) with glass viewing window
Electrical Connection (cable entry): 1/2" NPT
Process Connection: BSP, NPT (other specify)
Body Material: 316SS
Clamp Material: 304SS
Work Temperature ambiente: -10 to +70°C
Max Pressure: 10 bar
Class Protection: IP66
Approvals EX proof Housing:
FM: Explosion-proof for Class I, Division 1, Groups B, C and D; dust ignition-proof for Class II/III, Division 1,
Groups E, F and G, hazardous (classified) locations, indoors and outdoors (Type 4X/IP66)
CSA: Explosion-proof for Class I, Division 1, Groups B, C and D; dust ignition-proof for Class II/III, Division 1,
Groups E, F and G, hazardous (classified) locations, indoors and outdoors (Type 4X/IP66)
ATEX: II 2 G D, Ex d IIC, Ex tD A21, IP68, Ta = -40°C to +85°C
IEC EX: Ex d IIC, Ex A21 tD, IP68, Ta = -40°C to +85°C

Order Code

MODEL									
ST90A	**Temperature transmitter (4~20mA + HART protocol)**								

	SIZE								
	3	**1/2"**							
	4	**3/4"**							
	5	**1"**							
	6	**1 1/2"**	**CONECTION TYPE**						
	7	**2"**	**B**	**BSP**					
	9	**3"**	**D**	**Flange ANSI 150# Carbon Steel Painted**					
	Q	**4"**	**E**	**Flange ANSI 150# -316SS**					
	X	**Other**	**G**	**Flange ANSI 300# Carbon Steel Painted**					
			H	**Flange ANSI 300# - 316SS**					
			K	**Flange ANSI 150# - 304SS**					
			L	**Flange ANSI 300# - 304SS**					
			N	**NPT**					
			S	**SAE O'ring**					
			T	**Tri Clamp**					
			X	**Other Specify**					

				ROD TYPE					
				0	**None**				
				A	**316SS - 6,3mm (1/4")**				
				B	**316SS - 8,0mm (5/16")**				
				C	**316SS - 12,7mm (½")**				
				SP	**Spring Loaded mechanism for pipe bracket**				
				X	**Others**				

					INSERTION LENGTH				
					L	**Specify**			

						TEMP RANGE			
						R	**Specify w/ °C or °F**		

							HOUSING		
							GPX	**Aluminum w/ Glass windows EX proof**	

								ELECTRICAL CONNECTION	
								6	**1/2" NPT (Entry conduit)**

									OPTIONAL
									BR2
									2" Pipe Bracket
									BR3 3" Pipe Bracket
									BR4 4" Pipe Bracket
									BR6 6" Pipe Bracket
									BR8 8" Pipe Bracket
									BR10 10" Pipe Bracket
									BR12 12" Pipe Bracket

ST90A	3	N	SP	L100	0~50°C	GPX	6	BR3