



### DESCRIPTION

APZ 4420 is a pressure transmitter with a WEKO® 2" (Hammer Union) connection. The monolithic process connection prevents the transmitter from changing its characteristics when mounted in harsh environments. Thin-film piezoresistive sensor ensures low drift and the best long-term stability. The pressure transmitter is particularly resistant to strong vibrations, shocks and pressure surges. It is reliable in cementing and wellbore tightening applications.

### SPECIFICATIONS

Pressure ranges: 5000 psi to 0...15000 psi

Basic accuracy:  $\pm 0.5\%$

Outputs: 4...20 mA

Sensor: thin-film piezoresistive

Pressure port: WEKO® 2" (1502)

Media temperature:  $-40...+125\text{ }^{\circ}\text{C}$

Ambient temperature:  $-40...+125\text{ }^{\circ}\text{C}$

Optional: Ex ia

### APPLICATIONS

Onshore and offshore applications in the petrochemical industry

Fracking equipment

Acid Treatment Equipment

Drilling mud/slurry pressure measurements

## TECHNICAL SPECIFICATIONS

### MEASURING RANGES

Pressure range, psi Gauge	Overpressure, psi	Burst pressure, psi
0...5000	7500	10000
0...6000	9000	12000
0...10000	15000	20000
0...15000	22500	30000

### PERFORMANCE

Accuracy, % of span*	≤ ±0.5 (±0.25% of span BFSL)
Temperature effect (% of span / 10 °C)	≤ ±0.2
Compensated range	-20...+70 °C
Power supply effect	≤ ±0.05% of span / 10 V
Load resistance effect	≤ ±0.05% of span / kOhm
Long-term stability	≤ ±0.2% of span / year
Response time (10...90%)	≤ 1 ms

\*Accuracy includes non-linearity, hysteresis and non-repeatability (IEC 60770). Calibration certificate available optionally.

### OPERATING CONDITIONS

Medium temperature	-40...+125 °C (Ex: -40...+85 °C)
Ambient temperature	-40...+125 °C (Ex: -40...+85 °C)
Storage temperature	-55...+125 °C
Approval	0Ex ia IIC T4 Ga X
Vibration resistance	10 g RMS, 25–2000 Hz
Shock resistance	50 g / 1 ms, as per DIN EN 60068-2-6
Service life	> 100 x 10 <sup>6</sup> cycles, as per DIN EN 60068-2-27

### MECHANICAL SPECIFICATIONS

Pressure port material	stainless steel 1.4548 (17-4PH)		
Housing material	stainless steel 304 (1.4301)		
Diaphragm	stainless steel 1.4548 (17-4PH)		
Wetted parts	Diaphragm, pressure port		
Pressure port	WEKO® 2" (1502)		
<b>Electrical connection</b>	<b>Ingress protection</b>	<b>Cross section</b>	<b>Cable diameter</b>
MIL-/Bendix connector (PT02-E10-6P-023), 6 pin	IP67	0.75 mm <sup>2</sup>	6...8 mm

### ELECTRICAL SPECIFICATIONS

Output signal	Power supply, U <sub>s</sub>	Load resistance	Power consumption
4...20 mA / 2-wire	12...32 V	= (U <sub>s</sub> - 11 V) / 0.02 A Ohm	≤ 26 mA
<b>Ex ia</b> 4...20 mA / 2-wire	14...28 V	=(U <sub>s</sub> - 14 V) / 0.02 A Ohm	≤ 26 mA

Safe values for intrinsically safe design Ex ia:

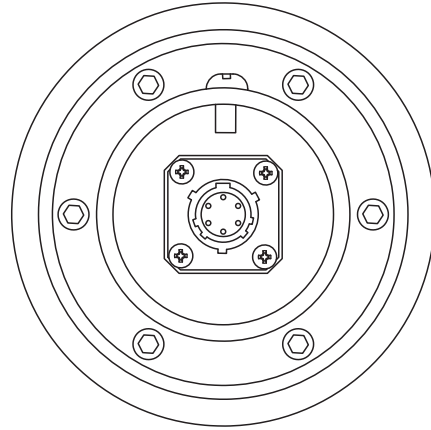
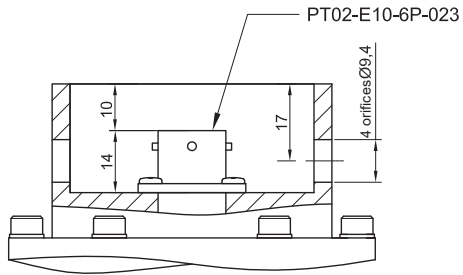
Parameter	Value
Maximum voltage, U <sub>i</sub>	28 V
Maximum current, I <sub>i</sub>	93 mA
Maximum power, P <sub>i</sub>	660 mW
Maximum internal inductance, L <sub>i</sub>	10 μH
Maximum internal capacitance, C <sub>i</sub>	25 nF
Maximum DC voltage or effective value of AC voltage, U <sub>m</sub>	28 V

### ELECTRICAL CONNECTIONS / PIN ASSIGNMENT

Circuits	MIL-/Bendix (PT02-E10-6P-023) connector, 6 pin
2-wire	
power +	A
power -	B
shield	D

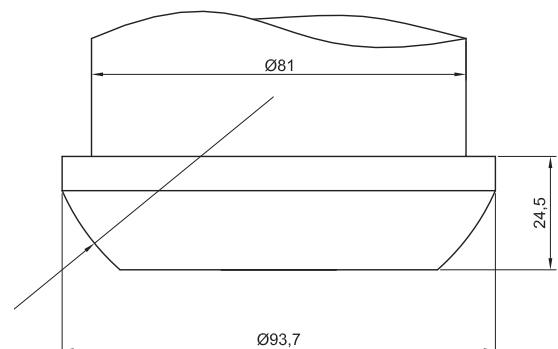
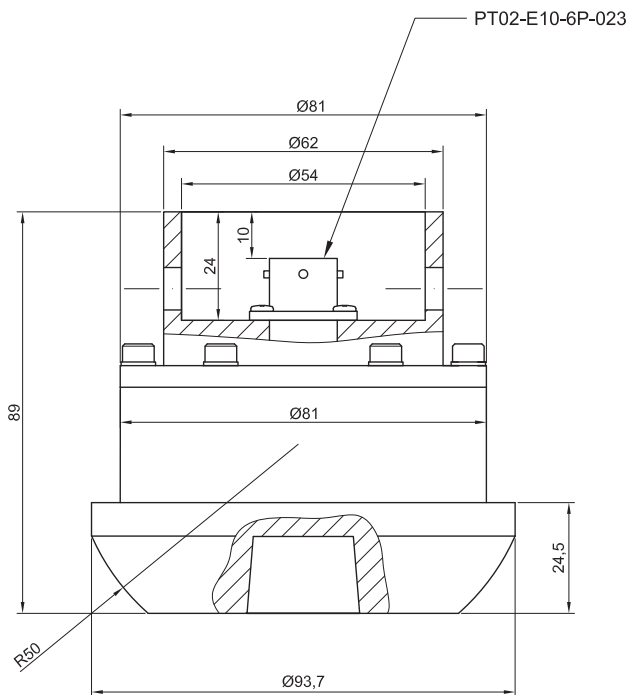
## ELECTRICAL CONNECTIONS, DIMENSIONS (mm)

PT02-E10-6P-023



## DIMENSIONS (mm)

## PRESSURE PORTS, DIMENSIONS (mm)




## ORDERING CODE

	APZ 4420	-X	-X	-XXXX	-X	-XX	-X	-XXX	-XX
<b>MEASUREMENT TYPE</b>									
	Gauge	G							
<b>UNIT OF MEASUREMENT</b>									
		psi	N						
	Other (specify when ordering)		X						
<b>UPPER RANGE LIMIT (URL), psi</b>									
		0...5000	5003						
		0...6000	6003						
		0...10000	1004						
		0...15000	1504						
	Other (specify when ordering)		XXXX						
<b>ACCURACY</b>									
		±0.5 % (±0.25% BFSL)	D						
	±0.5 % (±0.25% BFSL) with calibration certificate		M						
	Other (specify when ordering)		X						
<b>ELECTRICAL CONNECTION</b>									
	MIL-/Bendix (PT02-E10-6P-023), 6 pin / IP 67		MB						
	Other (specify when ordering)		XX						
<b>OUTPUT SIGNAL</b>									
		4...20 mA / 2-wire / 10...32 V	A						
		4...20 mA / 2-wire / 14...28 V + Ex ia	Q						
	Other (specify when ordering)		X						
<b>PRESSURE PORT</b>									
		WEKO® 2" (1502)	W15						
	Other (specify when ordering)		XXX						
<b>VERSION</b>									
			Standard	00					
		Other (specify when ordering)		XX					

Example: APZ 4420-G-N-5003-D-MB-A-W15-00

## ACCESSORIES

				
PZ 1024 Power supply unit				