ALL SENSORS®



CPA 602

Piezoresistive Monolithic Ceramic Pressure Sensor

- Digital calibrated
- Ratiometric output signal (0.5 to 4.5 V)
- Excellent chemical resistance
- Easy mounting
- Pressure ranges
  30 to 6000 psi gauge

Standard Pressure Ranges

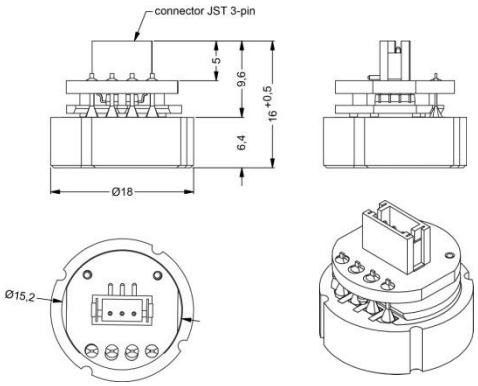
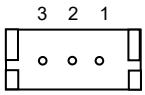
PSI[1)]	bar	Proof pressure [PSI[1)]/bar]		Admissible negative pressure [PSI[1)]/bar]	Burst pressure [PSI[1)]/bar]		Output signal (FSO)
30	2	60	4	vacuum resistant	120	≥ 8	0.5 to 4.5 V (@ Vs = $5V_{DC}$)
75	5	150	10		300	≥ 20	
150	10	300	20		525	≥ 35	
300	20	600	40		900	≥ 60	
750	50	1500	100		2100	≥ 140	
1500	100	2250	150		4500	≥ 300	
3000	200	4500	300		6000	≥ 400	
6000	400	7500	500		9750	≥ 650	
other on request							

Reference Conditions	
Supply voltage	4.5 to 5.5 V_{DC}
Output signal / Supply	3-wire ratiometric: 10 to 90% of V_S (V_0 = 0.5 to 4.5 V_{DC} @ V_S = 5.0 V)
Reference temperature	25 °C
Measuring supply voltage	5 V_{DC}
Performance Characteristics	
Supply current	≤ 2.5 mA
Offset	0.5 V @ Vs = 5 V
Span	4.0 V @ Vs = 5 V
Output load resistance	≥ 5 kΩ
Total error (non-linearity, hysteresis, non-repeatability)	Pressure ranges: ≤ 750 psi:≤ ± 0.4 % FS (terminal based) Pressure ranges: > 750 psi: ≤ ± 0.8 % FS typ. (1.5 % FS max.) (terminal based) (reduced error upon costumer request)
Calibration error	≤ ± 0.3 % FS
Long term stability	≤ ± 0.3 % FS/year (at reference conditions)
TC Offset (TC0)	≤ ± 0.02 % FS / °C [2)]
TC Span (TCS)	≤ - 0.012 % FS / °C [2)]

[1)] PSI values around rounded and for reference only
[2)] over compensated temperature range

Tel: 408.225.4314
Fax: 408.225.2079
www.allsensors.com
info@allsensors.com

Environmental Specification					
Operating temperature range	- 40 to 85 °C				
Storage temperature range	- 40 to 100 °C				
Compensated temperature range	0 to 85 °C				
Electrical connection					
on PCB of sensor	Mates with JST socket parts: B3B-ZR-SM4-TF				
on connection wire	Connection housing: ZHR-3				
	Connection pin:	Model No.	Applicable wire		
			[mm²]	AWG#	Insulation O.D.[mm]
		SZH-002T-P0.5	0.08 ~ 0.13	28 ~ 26	0.8 ~ 1.1
		SZH-003T-P0.5	0.032 ~ 0.08	32 ~ 28	0.5 ~ 0.9
Miscellaneous					
Media wetted parts	Ceramic Al_2O_3 96 %				
Weight	approx. 7 g				
Dimension	Ø = 18 ± 0.1 mm d = 6.35 ± 0.1 mm (excl. signal conditioning board)				
Mechanical					

Drawing	Pinout information
	JST socket B3B-ZR-SM4-TF  Pin Out 1: +5 V 2: GND 3: signal

Ordering code

CPA602 □ - □□□□□□□□□

Type of pressure			
gauge	G		
Pressure ranges			
30 psi / 2 bar		0 3 0	
75 psi / 5 bar		0 7 5	
150 psi / 10 bar		1 5 0	
300 psi / 20 bar		3 0 0	
750 psi / 50 bar		7 5 0	
1500 psi / 100 bar		1 K 5	
3000 psi / 200 bar		3 K 0	
6000 psi / 400 bar		6 K 0	
Electrical connection			
JST socket			3 0 1
Others – on request			9 9 9
Options			
Standard			0 0 1

This data sheet contains product specification, properties are not guaranteed. Subject to be changed without notice.

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