



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		Admissible negative pressure [PSI ¹⁾ /bar]	Burst pressure		Output signal (FSO) 0.5 to 4.5 V (@ V _s = 5V _{DC})
		[PSI ¹⁾ /bar]			[PSI ¹⁾ /bar]		
30	2	60	4	vacuum resistant	120	≥ 8	
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 @ V _s = 5 V					
Span		4.0 V @ V _s = 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 customer 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

CPA-602

Ceramic pressure sensor

Specifications

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:	Applicable wire										
	Model No.	[mm ²]	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 ₂ O 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										
		<p>JST socket B3B-ZR-SM4-TF</p> <table border="0"> <tr> <td style="text-align: center;">3 2 1</td> <td>Pin Out</td> </tr> <tr> <td style="text-align: center;">○ ○ ○</td> <td>1: +5 V</td> </tr> <tr> <td></td> <td>2: GND</td> </tr> <tr> <td></td> <td>3: signal</td> </tr> </table>			3 2 1	Pin Out	○ ○ ○	1: +5 V		2: GND		3: signal
3 2 1	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.

