



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	Burst pressure		Output signal (FSO)
		[PSI ¹⁾ /bar]		[PSI ¹⁾ /bar]	[PSI ¹⁾ /bar]		
30	2	60	4	vacuum resistant	120	≥ 8	0.5 to 4.5 V (@ V _S = 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 @ 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

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.	[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 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																		
		JST socket B3B-ZR-SM4-TF <table><tr><td>3</td><td>2</td><td>1</td><td>Pin Out</td></tr><tr><td colspan="3"></td><td>1: +5 V</td></tr><tr><td colspan="3"></td><td>2: GND</td></tr><tr><td colspan="3"></td><td>3: signal</td></tr></table>			3	2	1	Pin Out				1: +5 V				2: GND				3: signal
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			1: +5 V																	
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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					