



## 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 <sup>1)</sup>	bar	Proof pressure		Admissible negative pressure [PSI <sup>1)</sup> /bar]	Burst pressure		Output signal (FSO)  0.5 to 4.5 V  (@ V <sub>s</sub> = 5V <sub>DC</sub> )
		[PSI <sup>1)</sup> /bar]			[PSI <sup>1)</sup> /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							
<b>Reference Conditions</b>							
Supply voltage		4.5 to 5.5 V <sub>DC</sub>					
Output signal / Supply		3-wire ratiometric: 10 to 90% of V <sub>s</sub> (V <sub>0</sub> = 0.5 to 4.5 V <sub>DC</sub> @ V <sub>s</sub> = 5.0 V)					
Reference temperature		25 °C					
Measuring supply voltage		5 V <sub>DC</sub>					
<b>Performance Characteristics</b>							
Supply current		≤ 2.5 mA					
Offset		0.5 V @ V <sub>s</sub> = 5 V					
Span		4.0 V @ V <sub>s</sub> = 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 <sup>2)</sup>					
TC Span (TCS)		≤ - 0.012 % FS / °C <sup>2)</sup>					

<sup>1)</sup> PSI values around rounded and for reference only

<sup>2)</sup> 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 <sup>2</sup> ]	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 <sub>2</sub> O <sub>3</sub> 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="1"> <tr> <td>3</td> <td>2</td> <td>1</td> <td>Pin Out</td> </tr> <tr> <td>○</td> <td>○</td> <td>○</td> <td>1: +5 V</td> </tr> <tr> <td></td> <td></td> <td></td> <td>2: GND</td> </tr> <tr> <td></td> <td></td> <td></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		-		
<b>Type of pressure</b>				
gauge G				
<b>Pressure ranges</b>				
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	
<b>Electrical connection</b>				
JST socket	3	0	1	
Others – on request	9	9	9	
<b>Options</b>				
Standard	0	0	1	

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

