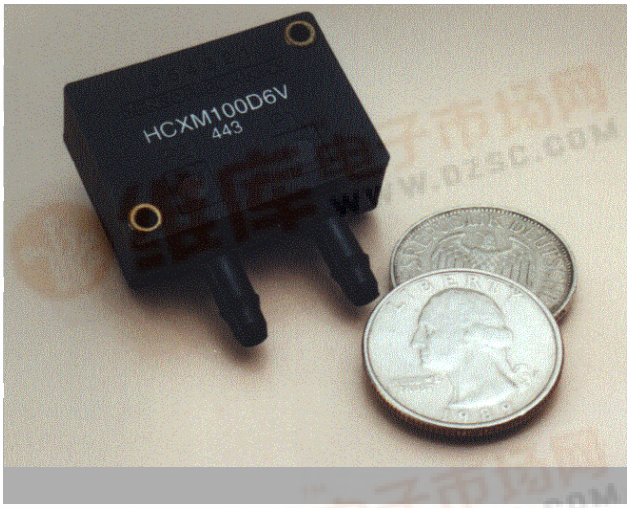
HCX...A6 / HCX(M)...D6 - Series

Fully signal conditioned pressure transducer

FEATURES

- **Pressure ranges from ±5 mbar to 5 bar differential, 1 and 2 bar absolute**
- **TTL power supply**
- **0.5 to 4.5 V output**
- **Inline pinning for easy PCB-mounting**
- **Externally adjustable offset and span**



Scale: 1cm
1 inch

SERVICE

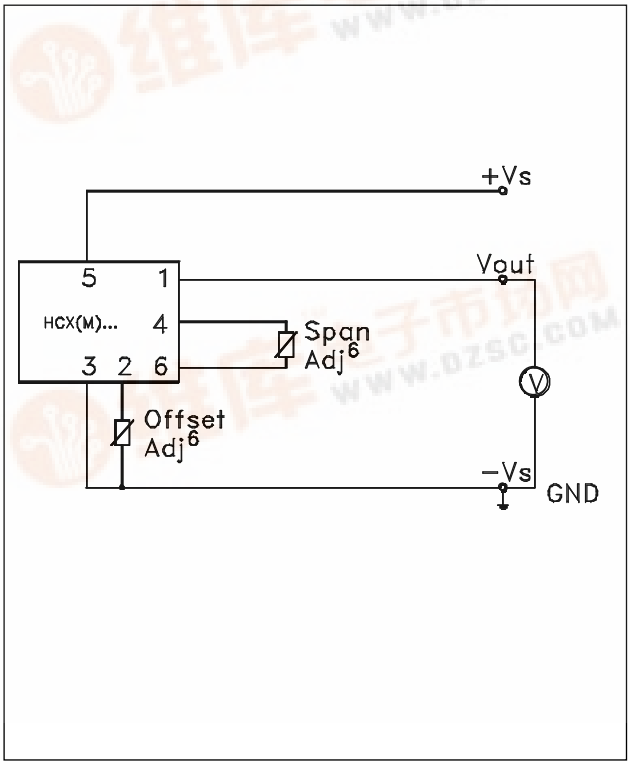
Non-corrosive, non-ionic working fluids, such as dry air and dry gases.

SPECIFICATIONS

Maximum ratings

Excitation voltage	4.8 V to 15 V
Output current	
Source	10 mA
Sink	10 mA
Temperature limits	
Operating	-20°C to 70°C
Storage	-20°C to 85°C
Compensated	0°C to 50°C
Humidity	0 - 95 %RH
Proof pressure[1]	
HCXP...M005, HCX...M010	350 mbar
HCXM050 to HCXM350	1.4 bar
all HCX...	2 x rated pressure

ELECTRICAL CONNECTION



SENSORTECHNICS
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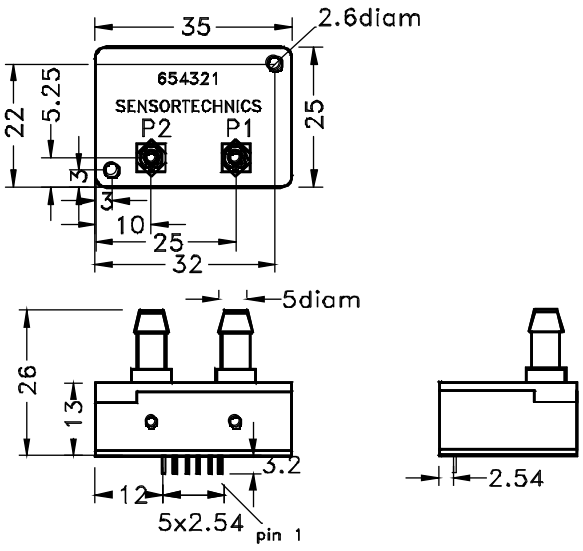
PERFORMANCE CHARACTERISTICS

(unless otherwise noted, V_S = 5 V, R_L > 100 kΩ, t_{amb} = 25°C)

Characteristics		Min.	Typ.	Max.	Unit
Operating pressure	HCXPM005D6...	-5		5	mbar
	HCXM010D6...	0		10	
	HCXPM010D6...	-10		10	
	HCXM020D6...	0		20	
	HCXM050D6...	0		50	
	HCXM100D6...	0		100	
	HCXM350D6...	0		350	
	HCX001...6...	0		1000	
	HCX002...6...	0		2000	
	HCX005...6...	0		5000	
Zero pressure offset	all HCXPM...	2.40	2.50	2.60	V
	HCXM010D6/HCXM020D6...	0.40	0.50	0.60	
	all other devices	0.45	0.5	0.55	
Span[5]		3.95	4.0	4.05	
Full scale output			4.5		
Output at lowest specified pressure	HCXPM... only		0.5		
Non-linearity and hysteresis (BSL)[2]	HCXM020D6...		0.5	1.0	%FSO
	all other devices		0.1	0.5	
Thermal effects (0 to 50°C)[4]					
Combined offset and span					
	HCXP...M005D6...			0.20	%FSO/°C
	HCXM010D6... to HCXM050D6...			0.12	
	HCXM100D6...			0.10	
	all other devices			0.05	
Output impedance				50	Ω
Long term stability[3]			±0.2		%FSO
Power supply rejection					
Offset			0.05		%FSO/V
Span			0.03		
Power consumption			50		mW

OUTLINE DRAWING

HCX(M)...6H, HCXPM...6H



P1: **High pressure port for 5 mbar and 10 mbar devices**

P2: **High pressure port for all other devices.**

Mass: 14 g

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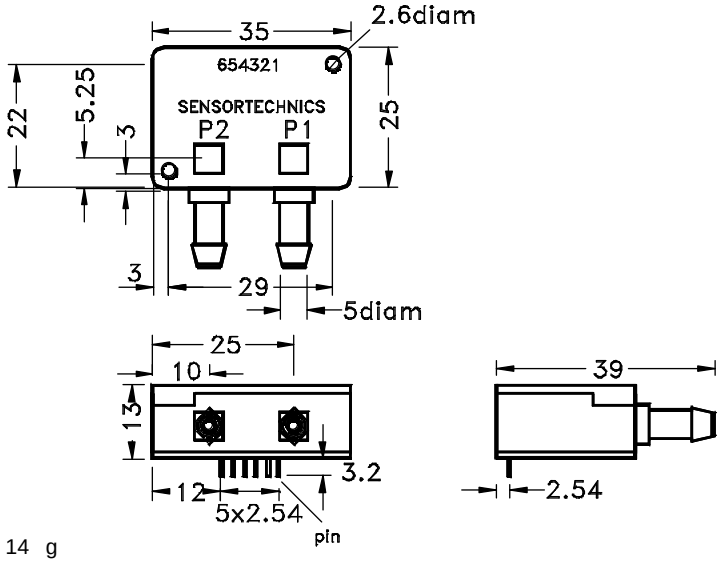
OUTLINE DRAWING
HCX(M)...6V



P1: **High pressure port for 5 mbar and 10 mbar devices**
P2: **High pressure port for all other devices.**

Mass: 14 g

All dimensions in mm

ORDERING INFORMATION

Pressure range	Part Number Package version Side facing ports	Top facing ports
Differential / gage devices		
0 to ±5 mbar	HCXPM005D6V	HCXPM005D6H
0 to 10 mbar	HCXM010D6V	HCXM010D6H
0 to ±10 mbar	HCXPM010D6V	HCXPM010D6H
0 to 20 mbar	HCXM020D6V	HCXM020D6H
0 to 50 mbar	HCXM050D6V	HCXM050D6H
0 to 100 mbar	HCXM100D6V	HCXM100D6H
0 to 350 mbar	HCXM350D6V	HCXM350D6H
0 to 1 bar	HCX001D6V	HCX001D6H
0 to 2 bar	HCX002D6V	HCX002D6H
0 to 5 bar	HCX005D6V	HCX005D6H
Absolute devices		
0 to 1 bar	HCX001A6V	HCX001A6H
0 to 2 bar	HCX002A6V	HCX002A6H

Specification Notes

1. Proof pressure is the maximum pressure which may be applied without causing damage to the sensing element.
2. Non-linearity - the maximum deviation of measured output at constant temperature, from **"B**est **S**traight **L**ine" through three points (offset pressure, full scale pressure and 1/2 full scale pressure).
3. Change after one year or 1 million pressure cycles.
4. Thermal effects tested and guaranteed from 0°C to 50°C relative to 25°C. All specifications shown are relative to 25°C.
5. Span is the algebraic difference between the output at full scale pressure and offset.
6. Offset adjustment possible to lower values only. Do not trim for nominal value minus 150 mV.
   Span adjustment possible to lower pressure range (higher gain). Do not trim for more than 15% of full scale pressure

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