



*Representative photograph, actual product appearance may vary.*

*Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.*

## ASCX150DN

**Pressure Sensors: Measurement Type: Differential, Gage; 0 psid to 150 psid Operating Pressure, Straight Port**

### Features

- 5.0 Vdc Supply
- High Level Voltage Output
- Field Interchangeable
- Calibrated and Temperature Compensated
- Small Form Factor
- Low Power
- Offset Adjust

### Typical Applications

- Medical Equipment
- Industrial Controls
- Pneumatic Controls

### Description

The ASCX Series is an signal-conditioned version of Honeywell's proven performer and industry leading SCX Series. The amplified ASCX device is in the same package as the SCX but it offers a high level output (4.5 Vdc span) on a very cost-effective basis. This family is fully calibrated and temperature compensated over a range of 0 °C to 70 °C [32 °F to 158 °F] but can be operated from -25 °C to 105 °C [-13 °F to 221 °F]. They are intended for use with non-corrosive, non-ionic working fluids such as air and dry gases.

Devices are available to measure absolute, differential and gage pressures from 1 psi (ASCX01) up to 150 psi (ASCX150). The absolute devices (A) have an internal vacuum reference and an output voltage proportional to absolute pressure. Differential devices (D) allow application of pressure to either side of the sensing diaphragm and can be used for gage or differential pressure measurements.

The ASCX Series devices feature an integrated circuit (IC) sensor element and laser trimmed thick film ceramic housed in a compact solvent resistant case. It provides excellent corrosion resistance and isolation to external packaging stresses. The package has convenient mounting holes and pressure ports for ease of use with standard plastic tubing for pressure connection.

All ASCX devices are calibrated for span to within  $\pm 1\%$  (typically  $\pm$

0.2 %) of FSO. The devices are characterized for operation from a single 5 Vdc supply although sensitivity is ratiometric to the supply voltage and any dc supply from 5 Vdc to 16 Vdc is acceptable.

The ACSX series requires very low quiescent current compared to other signal conditioned pressure sensors, thus, this series is ideal for battery-powered applications. The 100  $\mu$ s response time makes this series an excellent choice for computer peripherals and pneumatic control applications.



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Product Specifications	
Measurement Type	Gage, Differential
Signal Conditioning	Amplified
Pressure Range	0 psid to 150 psid
Maximum Overpressure	150 psid
Supply Voltage	4.5 Vdc min., 5.0 Vdc typ., 16.0 Vdc max.
Compensated	Yes
Output Calibration	Yes
Response Time	100 $\mu$ s
Termination	PCB
Port Style	Straight
Package Style	6-pin SIP
Linearity	$\pm 1.0$ % span ( $\pm 0.2$ % typ.)
Typical Sensitivity	30mV/psi
Full Scale Span	4.43 Vdc min, 4.5 Vdc typ., 4.57 Vdc max.
Null Offset	0.180 Vdc min., 0.250 Vdc typ., 0.320 Vdc max.
Span Shift Over Temperature	$\pm 0.2$ % span typ., $\pm 1.0$ % span max.
Offset Position Sensitivity	0.205 Vdc min., 0.250 Vdc typ., 0.295 Vdc max.
Linearity, Hysteresis Error	$\pm 0.1$ % Span Typ.; $\pm 0.5$ % Span Max.
Repeatability & Hysteresis Error	$\pm 0.2$ % span typ.
Repeatability	$\pm 0.2$ % span typ., $\pm 0.5$ % span max.
Operating Temperature Range	25 °C to 105 °C [-13 °F to 221 °F]
Compensated Temperature Range	0 °C to 70 °C [32 °F to 158 °F]
Storage Temperature Range	-55 °C to 125 °C [-67 °F to 257 °F]

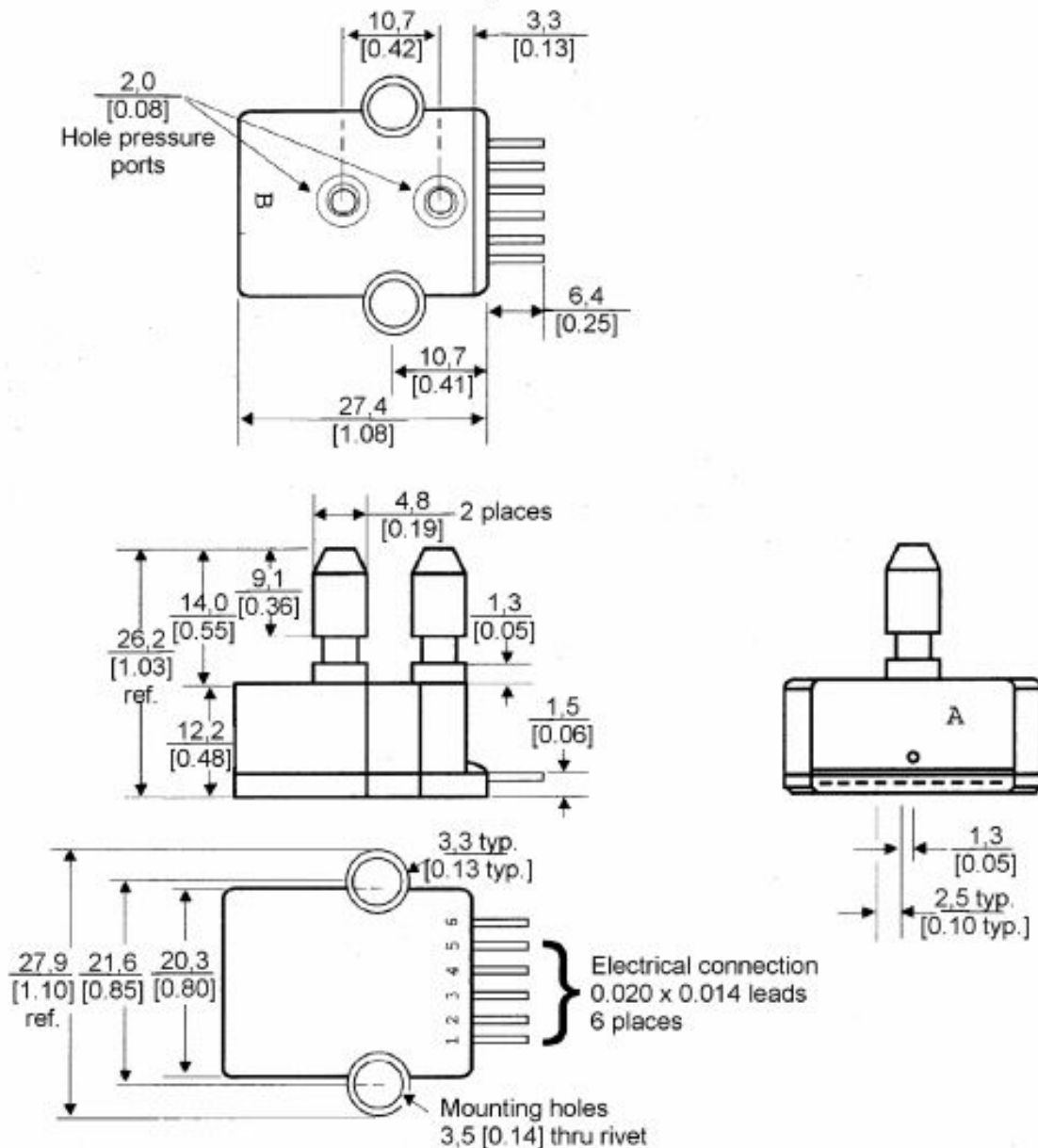
<b>Media Compatibility</b>	Clean, dry gases only
<b>UNSPSC Code</b>	411121
<b>UNSPSC Commodity</b>	411121 Transducers
<b>Availability</b>	Global
<b>Series Name</b>	ASCX Series



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### For Reference Only mm/in



Dimensions: mm [in]  
 Weight: 5 grams  
 Case material: Glass-filled nylon

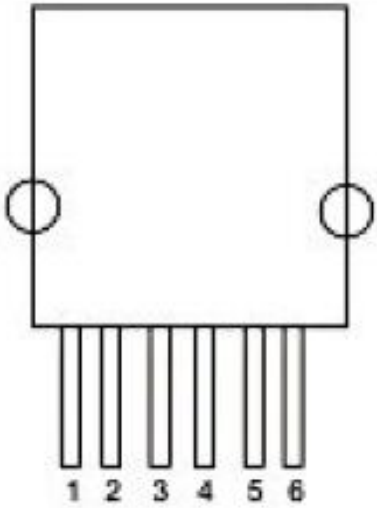
Wetted material  
 Port A: Glass-filled nylon, RTV, Silgel  
 Port B: Glass-filled nylon, Silicon, RTV  
 See physical construction drawing

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### ELECTRICAL CONNECTION

Pinout	ASCX Series
	<p>PIN 1) External Offset Adjustment            PIN 2) <math>V_s</math>            PIN 3) + Output            PIN 4) Ground            PIN 5) N/C            PIN 6) Do Not Use</p>

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** WARNING**

**PERSONAL INJURY**

DO NOT USE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

** WARNING**

**MISUSE OF DOCUMENTATION**

- The information presented in this product sheet (or catalog) is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

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