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Honeywell Sensing and Productivity Solutions
ASCX01DN

For any questions, you can email us directly:
sales@integrated-circuit.com

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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.

ASCX01DN

Pressure Sensors: Measurement Type: Differential, Gage; 0 psid to 1 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 ± 1 % (typically ±

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 µs 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 1 psid
Maximum Overpressure	20 psid
Supply Voltage	4.5 Vdc min., 5.0 Vdc typ., 16.0 Vdc max.
Compensated	Yes
Output Calibration	Yes
Response Time	100 µS
Termination	PCB
Port Style	Straight
Package Style	6-pin SIP
Linearity	± 1.0 % span (± 0.2 % typ.)
Typical Sensitivity	4.5V/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	± 0.2 % span typ., ± 1.5 % span max.
Offset Position Sensitivity	0.180 Vdc min., 0.250 Vdc typ., 0.320 Vdc max.
Linearity, Hysteresis Error	± 0.1 % Span Typ.; ± 0.5 % Span Max.
Repeatability & Hysteresis Error	± 0.2 % span typ.
Repeatability	± 0.2 % span typ., ± 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]

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

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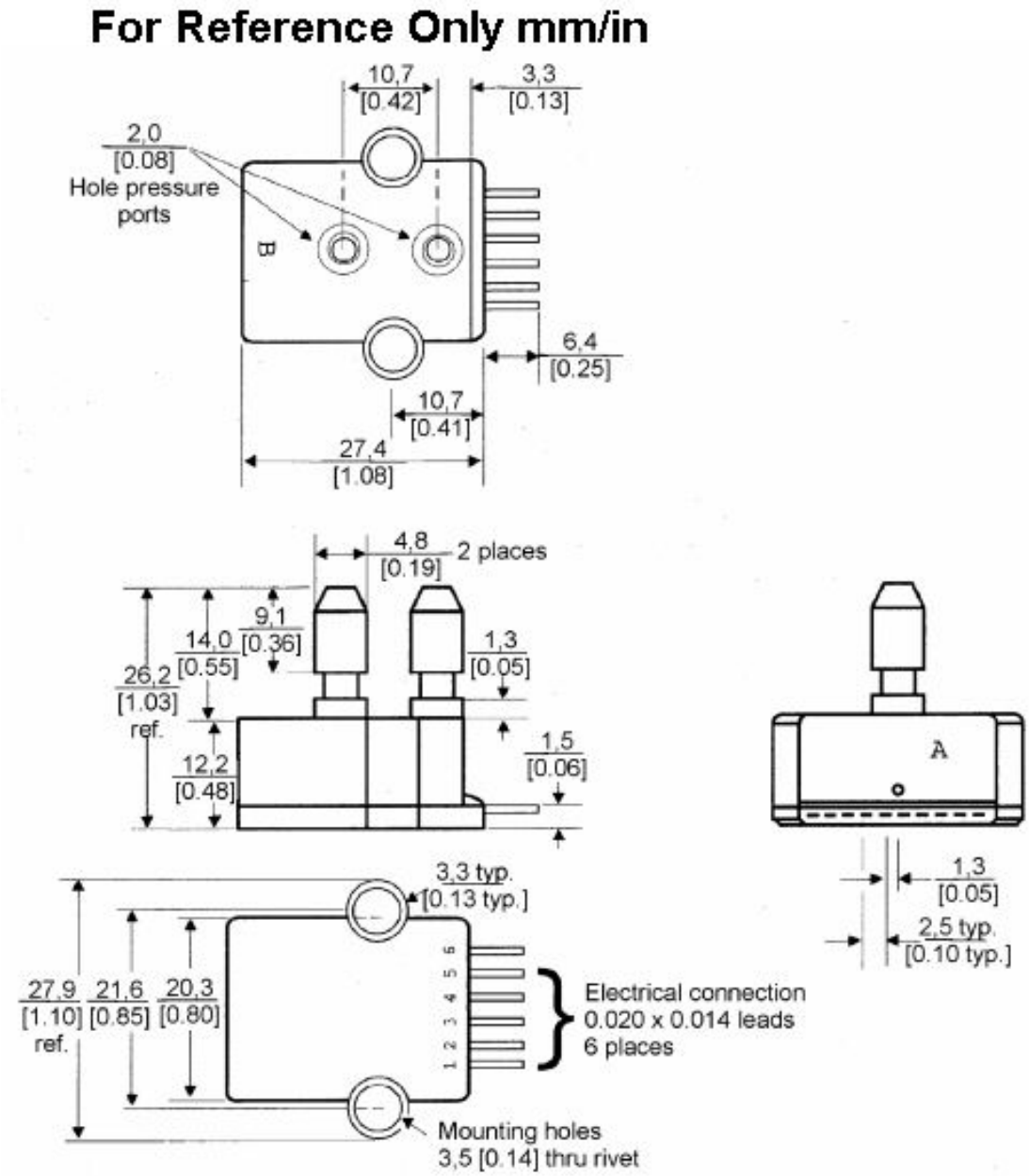

Dimensions: mm [in]
Weight: 5 grams
Case material: Glass-filled nylon

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

Distributor of Honeywell Sensing and Productivity Solutions : Excellent Integrated Syster
Datasheet of ASCX01DN - SENSOR AMP 0-1PSID
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Case material: Glass-filled nylon

Port B: Glass-filled nylon, Silicon, RTV
See physical construction drawing

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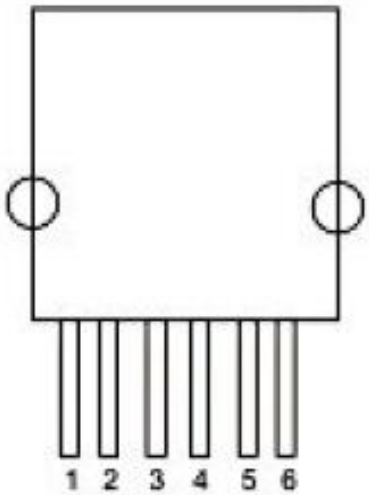
ELECTRICAL CONNECTION

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

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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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