Scanivalve MPS=4000:

MPS4264/EPx

Miniature Pressure Scanner Electric Valve

Patented

Features

- Integral processor for direct Ethernet connection
- · New valve design provides "isolate-purge"
- Dynamic zero correction for unmatched sensor stability
- Electronic valve control eliminates the need for control pressures
- IEEE1588-2008v2 PTP compatible
- Up to 2,500 samples/channel/second*
- Simple LabVIEW® integration
- · Removable input headers
- · Integral web server



The MPS4264/EPx miniature pressure scanner represents the forefront of pressure measurement technology. It has been designed from the ground up with size, accuracy, and functionality in mind. It boasts 64 pressure channels, TCP/IP Ethernet connectivity, and a wealth of other features.

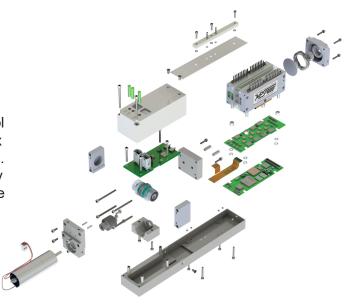
A new valve was designed that fully isolates the sensors from purge pressure and provides long term, maintenance free operation. Not only is the valve design an improvement over legacy products, but also introduces a new method of valve operation never before used in Scanivalve products.

The EPx was designed to be used in applications where a pneumatic supply for control pressure is inconvenient or unavailable. The NPx and CPx variants of the MPS4264 require pneumatic control pressure to change the valve state, where the EPx utilizes an internal motor to change the valve state. This electronic valve provides users with the ability to change the valve state from measurement mode to calibration/purge mode with a simple software command. An optical valve position sensor can also be queried with a software command to determine the valve position.

The power requirements and scanner footprint are the main differences when comparing the EPx to the typical CPx or NPx MPS4264 model. The internal motor that drives the valve requires a 18-36VDC to operate the electric valve.



The EPx version still maintains the same robust features that are found in the MPS4264 series scanners. Communication protocols remained unchanged. Precision Time Protocol is available for time correlated data, and scan data can be collected via TCP, FTP, or UDP at scan rates up to 2500Hz*. A TCU option is available for the MPS/EPx.



* When limiting the channel scan list to 16 channels using the "Fast Scan" feature

Specifications (for MPS4264/EPx version)

Inputs (Px): 0.042" [1.067mm] OD (standard)

0.031" [.787mm] OD (optional)

Inputs

(Cal, Ref, Prg): 0.063" [1.600mm] OD

Full Scale

Ranges: 4 inH₂O, 8 inH₂O, 1psid, 5psid,

15psid, 50psid

[995.4Pa, 1990.7Pa, 6.89kPa, 34.5kPa, 103.4kPa, 344.7kPa]

Accuracy*: 4 inH₂O: 0.20%FS

8 inH₂O: 0.15%FS 1psid: 0.06%FS 5psid: 0.06%FS 15psid: 0.06%FS 50psid: 0.06%FS

Overpressure

Capability: 4 inH₂O: 25x 8 inH₂²O: 15x

8 inH₂O: 15x 1psid: 15x 5psid: 10x 15psid: 5x 50psid: 2x

A/D Resolution: 24bit

Media

Compatibility: Gases compatible with silicon,

silicone, aluminum, and Buna-N

Maximum

Reference Pressure: 50 psig (345kPa)

Maximum

Environment Pressure: 100 psia (690kPa absolute)

Ethernet Connection: 100baseT, MDIX auto-crossing

External Trigger: 5-15Vdc, 6.5mA

Data Output Rate:

(samples/channel/second) TCP/IP Binary: 850Hz

"Fast Mode": 2500Hz

Power

Requirements: 18-36Vdc @ 5.5W

(Required for valve transition)

Mating Connectors:

Ethernet: TE Connectivity PLG 8P8C Mini2
Power: TE Connectivity PLG 8P8C Mini1

Weight: 0.804lbs [365g]

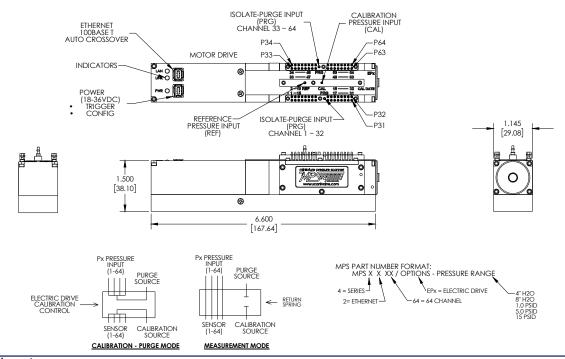
Operating

Temperature: 0° to 70°C

Storage Temperature: 0° to 80°C

Shock and Vibe: MIL-STD 810G Curve H

Dimensions (for MPS4264/EPx version) Inches [mm]



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^{*} Non-standard pressure ranges may result in a reduction of accuracy. Please contact Scanivalve for more information.