

Differential Pressure

EJA110E

Working Principle

DPharp digital sensor uses two single crystal silicon resonators vibrating at their natural frequencies. When pressure is applied, one of the resonators goes into tension, while the other goes into compression mode. The CPU directly counts the sensor output frequencies without any additional A/D conversion. Due to the excellent elastic properties of silicon material, the DPharp sensor exhibits greater linearity and repeatability, with no inherent hysteresis. Resonant sensor also provides a large output signal resulting in greater sensitivity and higher turndown.

Features

EJA110E features include:

0.055% Accuracy (0.04% Accuracy *optional*)
0.1% Stability per 10 years
90 ms Response Time
Exida and TUV SIL 2 / SIL3 Certified
MWP 2,300 psi (MWP 3,600 psi *option*)
Local Parameter Setting (LPS)

Premium Performance

EJX Series transmitters deliver premium performance up to 0.025% precision. Industry leading stability guarantee of 0.1% URL for 10 years means reduced maintenance with extended recalibration intervals

Safety

DPharp is an active pressure sensor, so even with no pressure applied the resonators oscillate at their natural frequencies. Two independent resonators are utilized. If either one or both fail, the transmitter diagnostics detects a capsule error. DPharp sensor is inherently fail-safe with no undiscovered failure modes.

Multi-Sensing

DPharp digital sensor has the unique ability to simultaneously measure static pressure and differential pressure.

Response Time

Small form factors and powerful electronics enable a fast response time of 90 milliseconds.

Display Capability

Intelligent indicator clearly displays multiple process variables, user configurable engineering units, communication protocol, output status and diagnostics by alpha-numeric and bar graph display.

Advanced Diagnostics

EJX Impulse Line Blockage Detection (ILBD) and heat tracing diagnostics increase plant availability by enabling predictive maintenance.

High Pressure Capability

EJX600 series pressure transmitters with direct screwed connection enable compact inline installation. It is suitable for measurement of absolute and gauge pressure up to 10,000 PSI with a superior accuracy and 10-year long term stability.

Multi-Variable Transmitter

EJX900 multi-variable transmitter successfully integrates the DPharp multi-sensing capability with an onboard flow computer and can be configured for multi-variable (DP, SP, T) or dynamically compensated mass flow outputs. Dynamic flow compensation allows the EJX900 multi-variable transmitter to eliminate inherent errors in the DP flow calculations at actual operating condition and to model the flow profile more precisely.

Wireless

EJX-B series of transmitters extend the benefits of DPharp digital sensing technology to the wireless world, enabling advanced high precision digital sensing with all other benefits of wireless deployment.

For more detailed information please see attachments under the product on the website.