



OpreX™ Field Instruments

## EJX S Series

Pressure Transmitter

# Built on a Legacy of Reliability

## OpreX™ Pressure Transmitter EJX S Series

The new EJX S series pressure transmitter is built on the foundation of trust and proven legacy, carrying forward decades of field experience, engineering excellence, and customer confidence into the next generation of reliable measurement.

With enhanced performance and functionality, the EJX S series supports safe operations and maximizes plant efficiency.



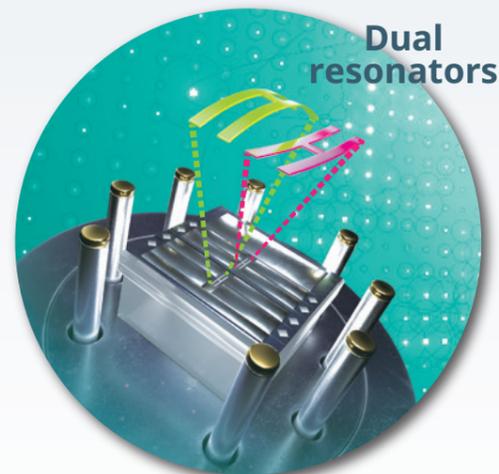
## Integrated Digital Sensing

The EJX S series pressure transmitter is built on Yokogawa's proven digital silicon resonant sensor technology, DPharp.

Dual vibrating resonators (active sensor) measure differential and static pressure directly and digitally, offering superior accuracy, repeatability, and long-term stability over traditional analog sensors.

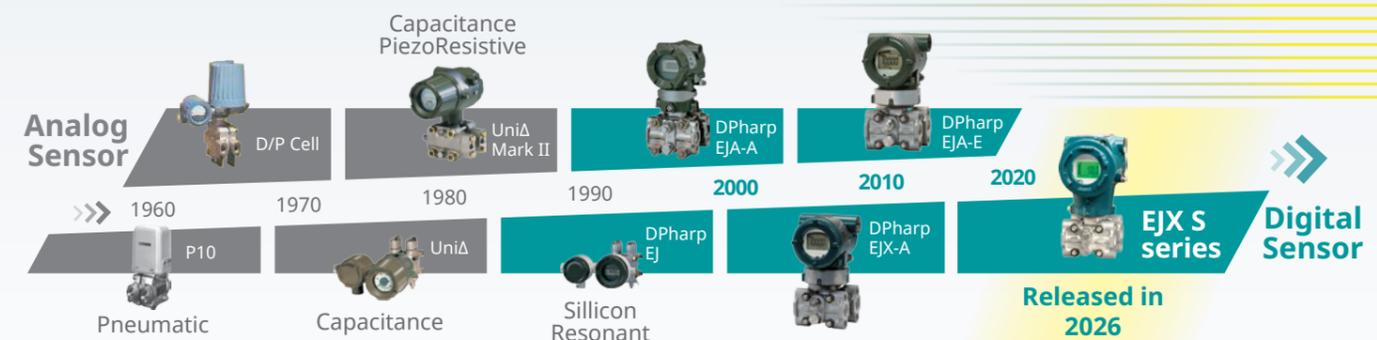
The direct digital output eliminates analog-to-digital conversion errors and enables dynamic compensation for temperature and static pressure effects in real time, ensuring reliable performance under all operating conditions.

**Unequaled precision and long-term stability for your measurements!**



## An Evolution of Innovation

Yokogawa's journey in pressure measurement began in 1950s with the launch of our first pneumatic transmitter. More than 10 million of Yokogawa's pressure transmitters have been installed worldwide.



# Smart Sensing & Connectivity

## Visual Interface

The all-new graphic display provides clearer process data and diagnostic visibility, enabling operators to make accurate decisions while reducing the risk of operational errors.

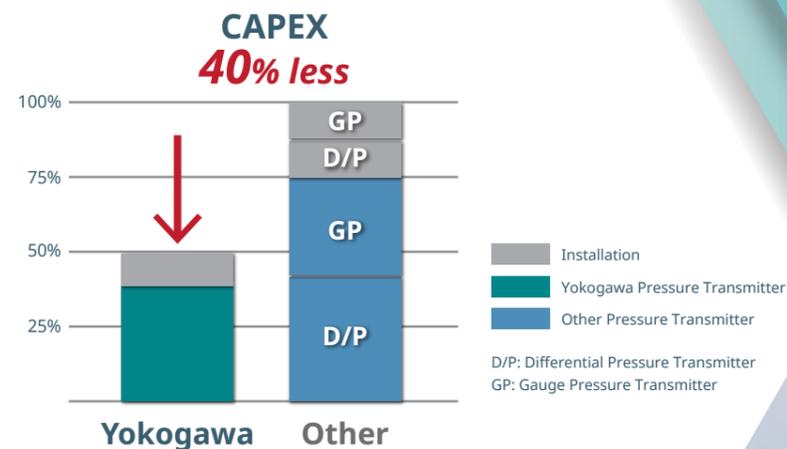
## One Transmitter, Many Application

### Reduced CAPEX and OPEX

With multi-sensing capability, installation is simplified, hardware requirements are reduced, and lifecycle costs are lowered.

Silicon resonant sensor has the unique ability to simultaneously measure static pressure and differential pressure. Additionally, sensor and housing temperatures are also measured.

Multi-sensing platform enables real-time dynamic compensation for unmatched precision and forms the basis for implementation of advanced diagnostics.



LCD Display (Segment)



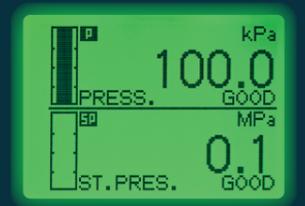
Graphic Display (Dot Matrix with color)



Process Display



Multi Value Display



NE107 Status Display



## Fast Link, Real Time Insight

Supporting HART and PROFINET with Ethernet APL:



### PROFINET with Ethernet APL

- Real-time Communication: High-speed (10 Mbps) and low-latency cyclic communication
- Seamless & Flexible System: Utilizes existing Fieldbus communication cable with APL switch
- Easy & Reliable Operation: Supports topology detection and network redundancy for enhanced reliability

## Predictive Diagnostics

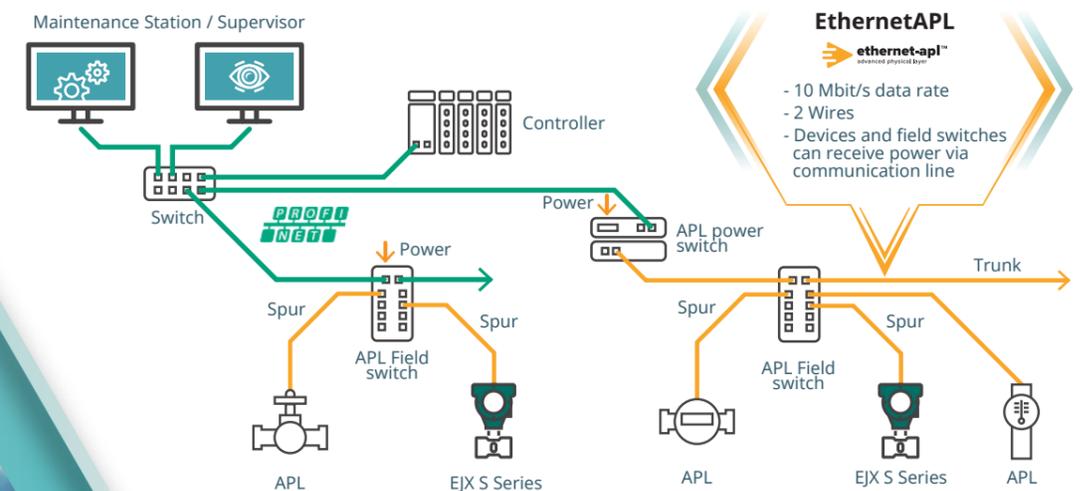
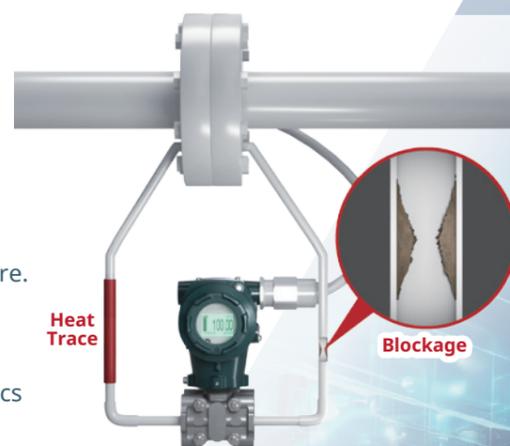
Advanced diagnosis becomes the standard spec. It will contribute plant availability by enabling predictive maintenance.

### ILBD (Impulse Line Blockage Detection)

The blockage of high, low or both impulse lines can be detected by monitoring the fluctuation change of pressure.

### Heat Trace Diagnosis

Flange Temperature can be calculated with the implemented temperature sensors. It provides diagnostics of heat trace or enclosure heater failures.



## Electric Noise Resistance

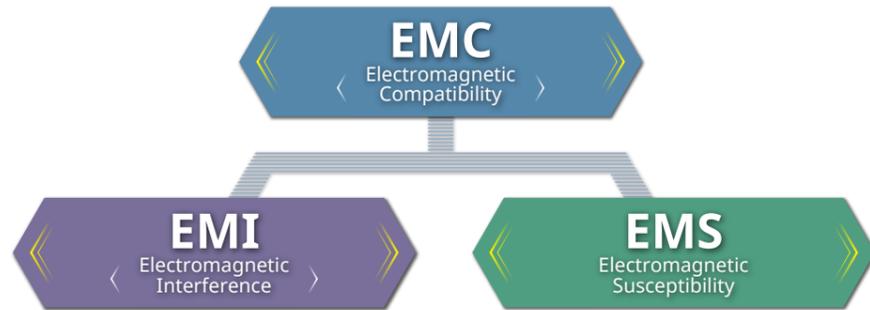
High resistance to electrical noise ensures stable measurements in electrically harsh environments, reducing signal interference, false alarms, and unplanned maintenance throughout the asset lifecycle.

### EMC Conformity Standards: EN61326-1 Class A, Table2 EN61326-2-3

IEC 61326 specifies requirements for immunity and emissions regarding electro-magnetic compatibility (EMC) for electrical equipment.

### Noise Resistance: EN61326, NAMUR NE21

NE21 is a guideline made by NAMUR of Germany. It focuses specifically on process measurement equipment and EMC requirements. This is especially required by EU country.



## Dust-Tight and Submersible (IP66/67/68)

Designed for demanding industrial and outdoor applications, EJX S series offers IP66, IP67, and IP68 protection — ensuring complete resistance against dust, heavy water jets, and even continuous immersion. Whether exposed to rain, washdowns, or challenging field conditions, it delivers consistent, reliable performance.

IP code	Protection level	Detail condition
IP6X	Protection against Dust	Dust does not get inside of enclosures.

IP code	Protection level	Detail condition
IPX6	Protection against Powerful water jets	Test duration: 1 minute per square meter for at least 3 minutes Water volume: 100 liters per minute Pressure: 100 kPa at distance of 3 meters

IP code	Protection level	Detail condition
IPX7	Immersion, up to 1 meter depth	Test duration: 30 minutes. Tested with the lowest point of the enclosure 1,000 mm below the surface of the water, or the highest point 150 mm below the surface, whichever is deeper.

IP code	Protection level	Detail condition
IPX8	Immersion, Up to 20 m	Test duration: 7 days Tested by applying water pressure equivalent to the depth of 20 m.

## Engineering Integrity

## Functional Safety Certification (IEC 61508)

### EJX S series supports SIL2 as standard, Not an Option!

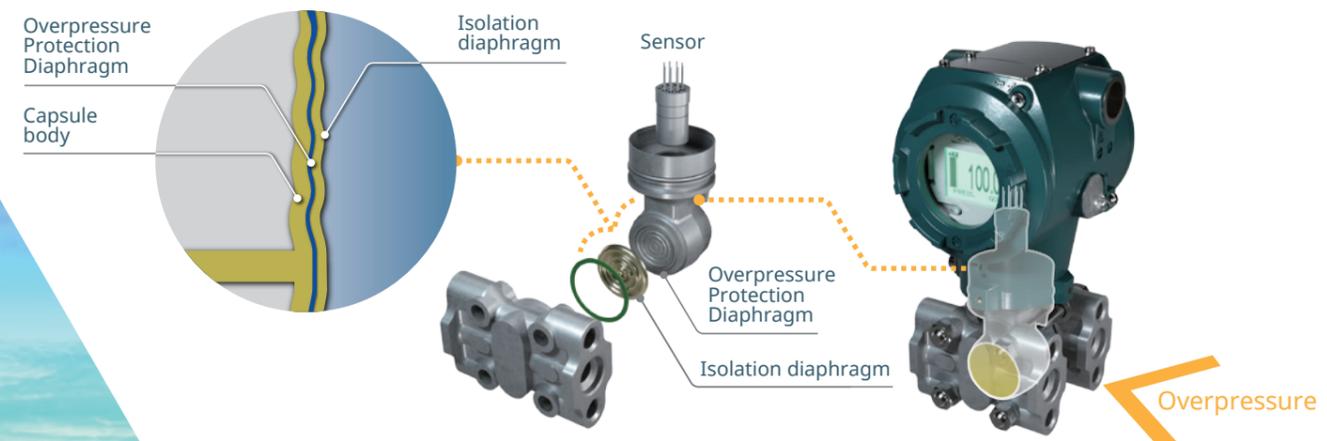
Silicon resonant sensor is an active pressure sensor, so even with no pressure applied the resonators oscillate at their natural frequencies. Two independent resonators are utilized. If either one or both fail, the transmitter diagnostics detects a capsule error. Silicon resonant sensor is inherently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

EJX S is capable of SIL2 single use and SIL3 redundant use, as standard. Same transmitter can be used in control and safety applications which reduces spares inventory and simplifies maintenance.



## Overpressure Protection

Overpressure event may occur due to incorrect operation of valve manifold or process upsets during plant start-up. EJX S series incorporate an additional overpressure Protection diaphragm to protect the sensor from abnormal pressure surges. Yokogawa has a published overpressure specification, based on superior sensor characteristics.

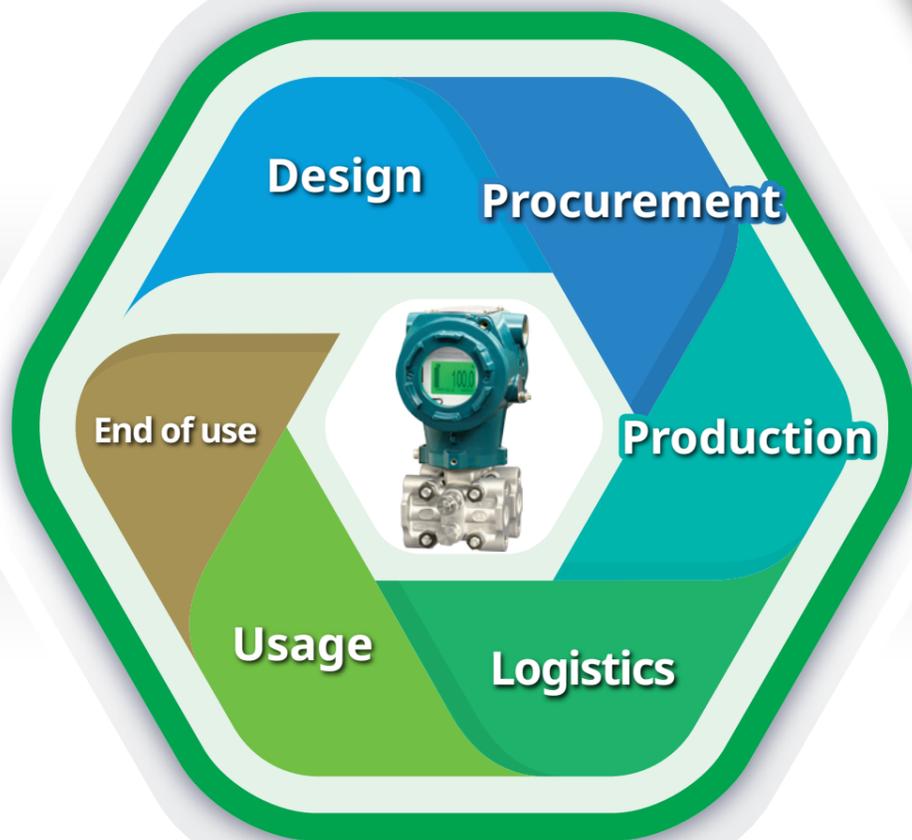


# Lifecycle Support for a Sustainable Future

## Trusted Green



Yokogawa has established sustainability guiding principles called Trusted Green that cover Yokogawa Group products over their entire lifecycle, from Design to End of use. The EJX S series is a product that meets Yokogawa's standards based on the Yokogawa Trusted Green guidelines.



## Life Cycle Planning

Extended warranty supports long-term asset planning.

Ease of Disposal by due to Modular designed product:

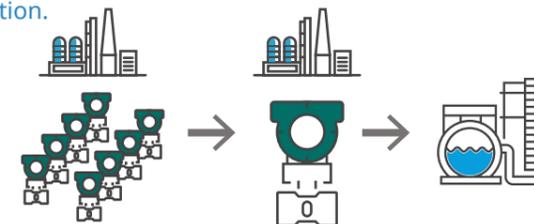
The modular design supports responsible end-of-life management by allowing quick separation of electronic boards, plastics, and metals, making disposal simpler and recycling more efficient.



## Smarter Planning with Reduced Maintenance Spares / Inventory

Ease of selection by combined or standardized specification.

- Combined Explosion protection type certification
- Combined 1/2NPT & M20 electrical connection
- SIL 2 as standard
- Range ability up to 400:1



## Environment Harmonized Product

Compliance with Environmental Regulations, management of hazardous substances and reduction of environmental impact.

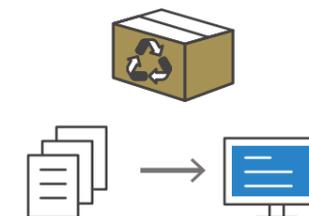
- EU RoHS Directive: EN IEC 63000
- REACH Statement: Regulation EC 1907/2006
- China RoHS: GB 26572
- Toxic Substances Control Act: TSCA
- Persistent Organic Pollutants (POPs)



## Reduce Carbon Footprint

Eliminating paper use helps lower CO<sub>2</sub> emissions by 60 tons a year generated during pulp processing, printing, and distribution compared to conventional products.

- a tangible step toward a low-carbon future.



## Service and Support

By accessing from QR code attached on products, you can directly access to Customer Portal site. Customer portal site provides product information and manuals suitable for the product's hardware and communication specifications, which will contribute maintainability.



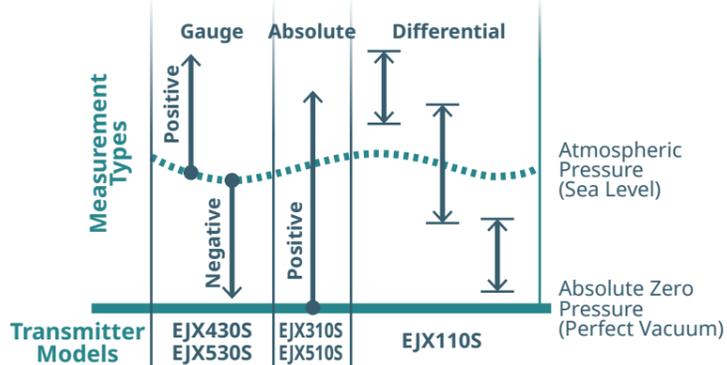
# Anatomy of a Pressure Transmitter

## Building the Model Number

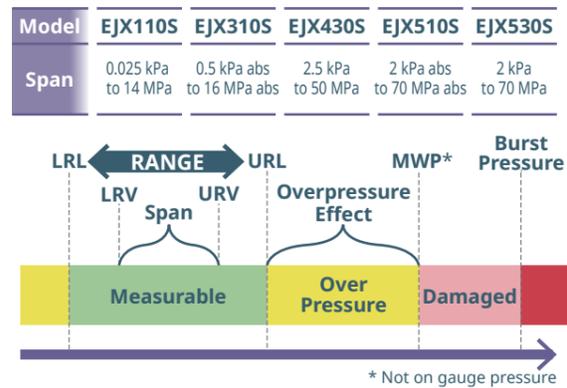
Refer to The model's General Specifications (GS) for details



### Transmitter Series Measurement Types



### Measurement Span



### Approvals



### Communication & Display



#### Graphic Display

- Dual Measurement Readings on One Display
- Multi-Color & Backlight



#### LCD Display

- Black & White LCD
- Sweeping Bar Graph



### Installation Mounting Bracket

**Installation 7:** vertical, left side high pressure and process connection downside



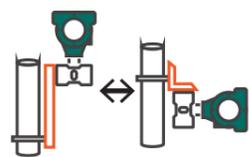
**Bracket:** L type for vertical piping 304 SST or 316 SST 2" pipe mounting

**Installation 8 or 9:** horizontal, right or left side high pressure



**Bracket:** Flat type for horizontal piping 304 SST or 316 SST 2" pipe mounting

**Installation U:** Universal flange



**Bracket:** Flat or L type, 316 SST 2" pipe mounting

**Installation B:** bottom process connection, left side high pressure



**Bracket:** 316 SST 2" pipe mounting

## Traditional Mount

Differential Pressure Transmitters

### Electrical Connection

Options: 1/2 NPT, G1/2, M20, Others available see General Specification (GS)

### Electrical Blind Plug(s)

Metal blind plugs are available to properly seal your transmitter's unused cable entry points and maintain its IP Rating.

### Display

Options: Graphical Display, Digital Indicator with Range Setting Switch, None

### Capsule Diaphragm

Options: Hastelloy C-276, Monel, Tantalum

### Capsule Gasket

Options: 316L SST (Teflon), PTFE Teflon

### Vent/Drain Plug

Options: 316 SST, 316L SST, Hastelloy C-276, Monel, Super Duplex SST

### Bolts & Nuts

Options: Carbon Steel, 316L SST, 660 SST

### Housing Material

Options: Cast Aluminum Alloy, Cast Aluminum Alloy with Corrosion Resistance

### Overpressure Protection Diaphragm

Mechanical Overpressure protection system

### Process Connection

Options: 1/4 NPT, 1/2 NPT, 1/2 NPT male, Rc 1/4, Rc 1/2, G1/2, M20, Others available see General Specification (GS)

### Process Connector

Options: 1/2 NPT female or 1/4 NPT female Pair includes o-rings and bolts

### Cover Flange

Options: 316 SST, 316L SST, Hastelloy C-276, Monel, Super Duplex SST

## In-Line (Screw) Mount

Gauge or Absolute Pressure Transmitters

### Process Connector

Options: 316L SST, Hastelloy C-276

### Diaphragm

Hastelloy C-276

### Process Connection

Options: 1/2 NPT, 1/2 NPT male, G1/2 male, M20 male, Others available see General Specification (GS)

## EJX S Series

<b>Model code</b>	<b>EJX110S</b>	<b>EJX310S</b>	<b>EJX430S</b>	<b>EJX510S</b>	<b>EJX530S</b>
<b>Measurement type</b>	Differential Pressure Transmitter	Absolute Pressure Transmitter	Gauge Pressure Transmitter	In-Line Mount Absolute Pressure Transmitter	In-Line Mount Gauge Pressure Transmitter

## Specification

<b>Performance</b>	Accuracy	Up to $\pm 0.025\%$ of Span
	Range Ability	Up to 400:1
	Static Pressure Accuracy	$\pm 0.2\%$ of span (*Differential pressure type only)
	Stability	$\pm 0.1\%$ of URL per 20 years
	Response Time (ms)	90ms
<b>Standards and Functionality</b>	Functional Safety	IEC 61508 SIL2 Certification
	EMC	EN61326-1 Class A, Table2 EN61326-2-3 / NAMUR NE21
	Degrees of Protection	IP66/67/68 Type 4X
	Diagnostics	ILBD and Heat Trace Diagnostics
	Device Status	NAMUR NE107 compliant



**OpreX™**

Through the comprehensive OpreX portfolio of products, services, and solutions, Yokogawa enables operational excellence across the enterprise.

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