Fuji Electric

Innovating Energy Technology

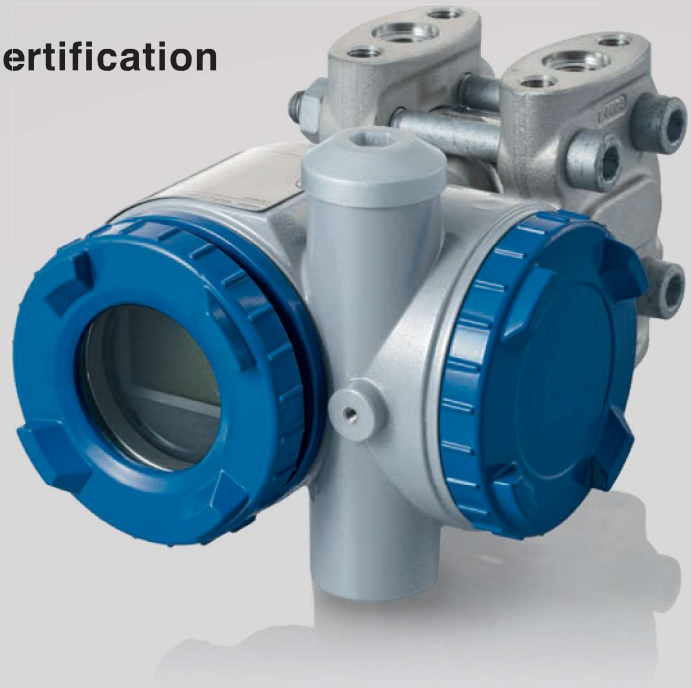
FCX-A IV Series

Pressure, Differential Pressure, Level Transmitters

Field proven and worldwide recognized thanks to its highest reliability

The FCX Series has been adopted into various process industries throughout the world.
The pursuit of reliability and ease of use, in addition to higher accuracy and quicker response, are culminated in our newest FCX-A IV series.
The FCX-A IV series certified under the Functional Safety Certificate IEC 61508 SIL2/SIL3.

- ☑ **Excellent reliability through high accuracy measurement and long term stability**
- ☑ **Best-in-class 40ms measurement cycle**
- ☑ **Obtained Functional Safety Certification (IEC 61508 SIL2/SIL3)**



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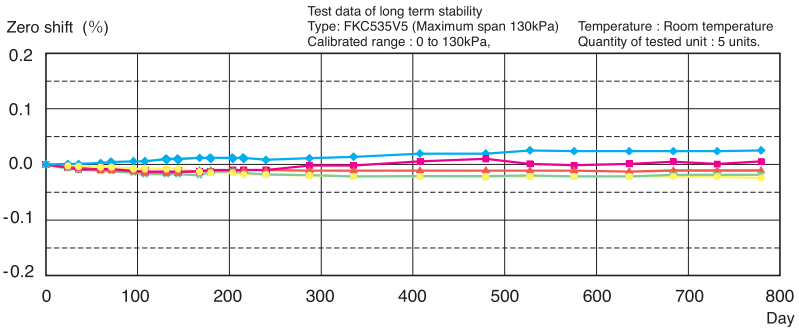
Lower your operating costs.
No compromise between accuracy, response time and stability.

- **high accuracy measurement: ± 0.065% (standard)**

  (Where the diff. press. meas. range is 32kPa, press. meas. range is 1000kPa)

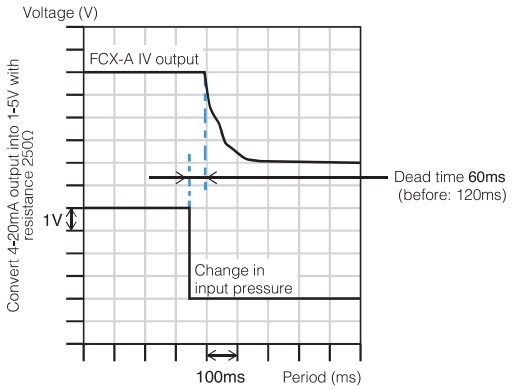
- **fast measurement cycle: 40ms**
- **long term stability: ±0.1% / 5 years***

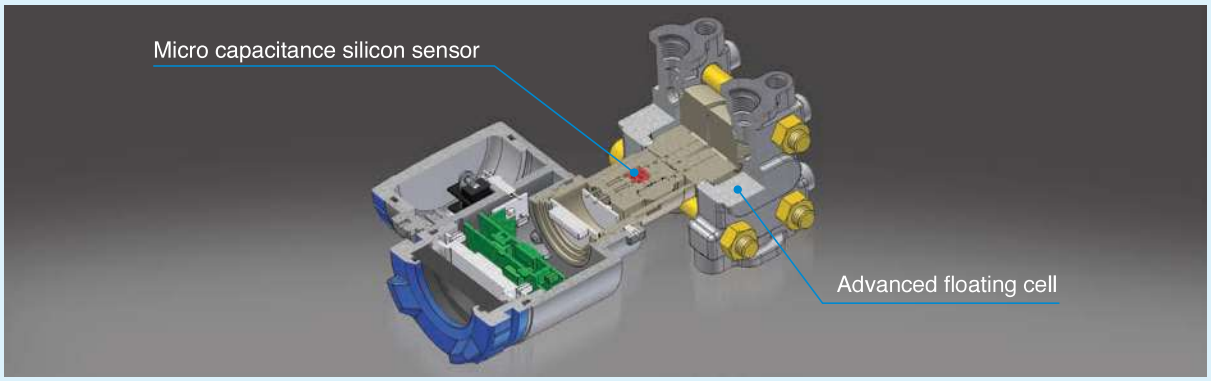


Enhance the response of your ESD applications.

High speed CPU and optimized software processing lead to the fastest response speed as an smart pressure/ differential pressure transmitter. Suitable for ESD applications which require excellent response time such as emergency valve shut-down, etc…

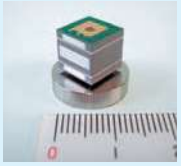
Change in input pressure and FCX-A IV Transmitter's output response

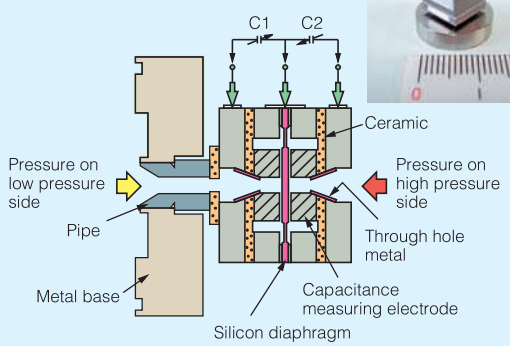




Micro Capacitance Silicon Sensor

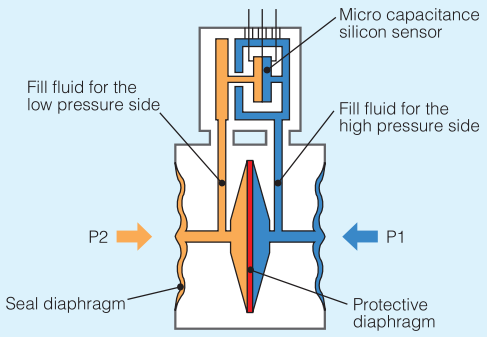
The monocrystal silicon sensor minimizes hysteresis, thereby achieving excellent stability and reproducibility. Optimized structure enhances the output stability and long-term stability.





Advanced Floating Sensor

The advanced floating sensor protects transmitters against various severe environmental conditions, assuring stability. The downsized sensor enables easy handling while offering improved temperature effect and static pressure effect, and excessive overload pressure.



Reduce failure probability during upset conditions by integrating FCX-AIV in your safety loop.

SIL2/SIL3 Third party certified FCX AIV is the preferred choice of I&C engineers when design of a safety function is necessary, thanks to its world's superior safe failure fraction (SFF).

Functional safety is a method to reduce risks to an acceptable level via detecting malfunctions that have occurred in equipment or systems used in a plant or other facility and maintaining safe conditions.

Approvals

FCX-AIII transmitter is a world-class product which conforms to:

- HART communication protocol

HART COMMUNICATION PROTOCOL

- Hazardous approvals
  (ATEX, IECEx, cCSAus, JPEx (penfing approvals))

- Certification mark

A large choice of exotic materials to fit the most agressive process.

In addition to Hastelloy C, Monel, Tantalum, Titanium and Zirconium are newly employed as a material for the seal diaphragm. Optimal selection from our variety of anti-corrosion materials will turn processes that suffer from corrosion into maintenance-free processes.

Application examples

Material	Applications
Gold & ceramic coating	Desulfurization facility, hydrogen production and supply system, ionized gas (Hydrogen Sulfide)
Zirconium	Hydrochloric acid, sodium hydroxide, bleaching agent
Titanium	Chloride salt, sulfated compound

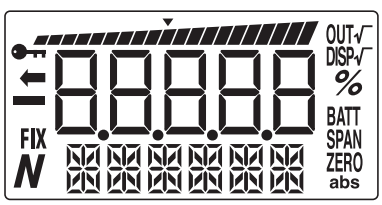
Material	Applications
Hastelloy-C	Various organic acid, inorganic acid, alkalis
Monel	Alkalis, fluorinated acid
Tantalum	Hydrochloric acid, sulfuric acid, nitric acid, aqua regia

Improve the visibility of your process through user friendly indicator.

Digital Indicator

By adding a bar graph display, output statuses are now intuitively comprehensive like that of an analog indicator. Displaying digital measurements and units at the same time makes it easier to read the data accurately. When any abnormality occurs, the error code display enable users to understand and respond to the situation quickly.

New: Digital Indicator



Field Configurator

All parameters of the digital indicator can be configured and adjusted without opening the indicator cover using a non-contact switch.

Housing Selection

L-shape and T-shape housings are compatible for vertical and horizontal pipings.

L type	T type
	 

Specifications

Type	FKC	FKG	FKA	FKE	FKB	FKD	FKP	FKH
Appearance	 Differential pressure (flow)	 Pressure	 Absolute pressure	 Level	 Remote seal type pressure	 Remote seal type differential pressure (flow)	 Pressure	 Absolute pressure
Case type	L type, T type							
Maximum span (kPa) [URL]	1 6 32 130 500 3000 20000	130 500 3000 10000 50000	16 130 500 3000	32 130 500	130 500 3000 10000 50000	32 130 500	130 500 3000 10000	130 500 3000
Weight in kg (No indicator)	3.1	2.9	2.9	9-19	4-18	9-19	2	2
Accuracy rating	±0.04% (option)/±0.065% (standard) *Refer to the data sheets for details.						±0.1%	±0.2%
Diaphragm materials	316L SS Hastelloy-C Monel Tantalum 316L SS Gold-plated Gold & ceramic coating		316L SS Hastelloy-C Monel Tantalum	316L SS Hastelloy-C Monel Titanium Zirconium 316L SS Gold-plated			316L SS	
Process connection	Rc1/4			Flange			NPT1/2, Rc1/4, Rc1/2,NPT1/4	
Common specifications	Elevation / Suppression: -100 to +100%URL Span setting range: 1 to 1/100URL Measuring cycle: 40ms Temperature range: Sensor unit: -40 to +120°C (version for higher temperature available) Electronics: -40 to 85°C Power supply voltage: 10.5 to 45V DC Output signal / Allowable load resistance: 4–20mA DC/600 or less (When 24V DC is applied)			Communication protocol: HART protocol Damping time constant: configurable between 0.06 to 32 s Zero/span adjustment: Able to be calibrated from transmitter outer casing. Optionally, local adjustment function or HART communication can be used Conduit: G1/2, 1/2-14 NPT, Pg13.5 or M20×1.5 Options: Digital indicator, degreasing treatment, Oxygen service, Chlorine service, stainless steel tag plate, local adjustment function				

Information in this catalog is subject to change without notice.
Read the instruction manuals thoroughly before using the products.

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