Fuji Electric

Innovating Energy Technology

FCX-AIV series

Pressure / Flow / Level / Density measurements

Renowned worldwide for its reliability and durability

MADE IN FRANCE

21A1-E-0114a

FCX-AIV series

The FCX Series has been adopted in various process industries worldwide and has built an impressive track record since its launch in 1989. The pursuit of reliability and ease of use led to the development of our newest FCX-AIV Series. In addition to higher accuracy and a quicker response time, FCX-AIV pressure transmitters are certified SIL2/SIL3.

- **Outstanding reliability thanks to high-accuracy measurements and long-term stability.**
- **Industry-leading 40ms measurement cycle.**
- **Functional Safety Certification (IEC 61508 SIL2/SIL3).**

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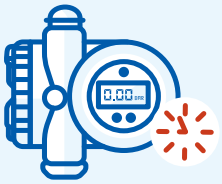
Lower your operating costs without compromise

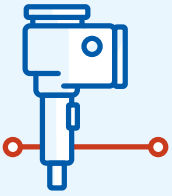
High accuracy measurement

± 0.065% (standard)



Fast measurement cycle

40 ms



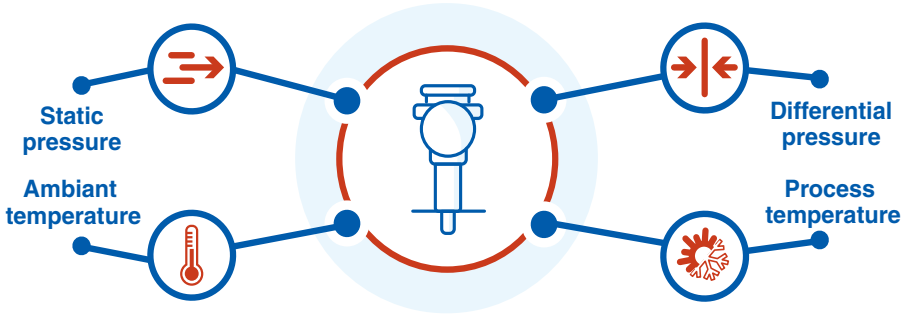
Long-term stability

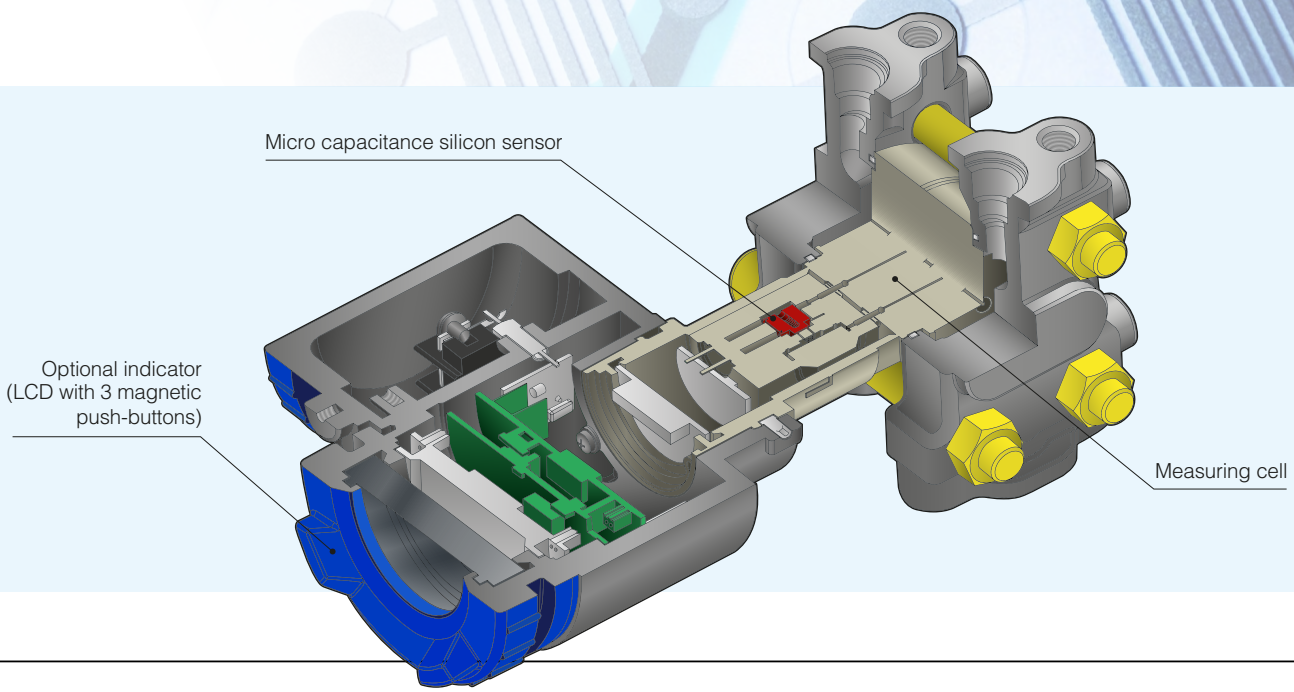
± 0.1% / 5 years

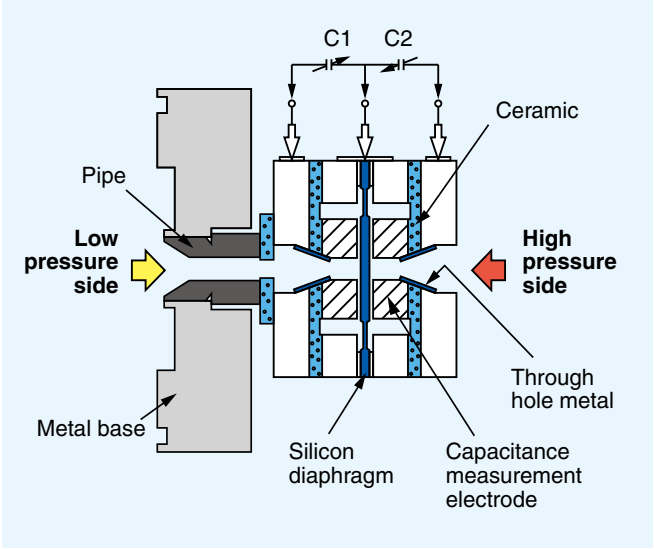
Accurate measurement in any environment

4D GYRATION™

The processor's performance and optimization algorithm compensate for pressure measurement variations caused by external factors in real time. Thanks to the unique 4D Gyration™ technology, choosing the FCX-AIV guarantees precise and repeatable pressure measurements, regardless of your process conditions or environment.







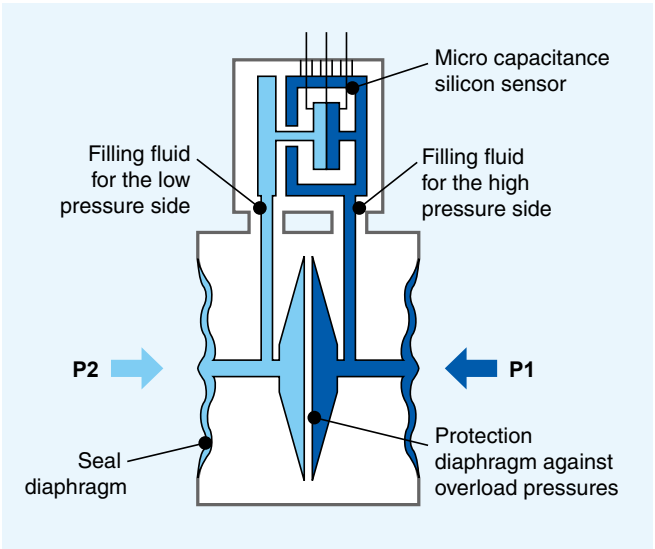
Micro Capacitance Silicon Sensor

The monocrystalline silicon sensor minimizes hysteresis, delivering excellent stability and reproducibility.

Its optimized structure enhances both output stability and long-term performance.

Advanced Floating Sensor

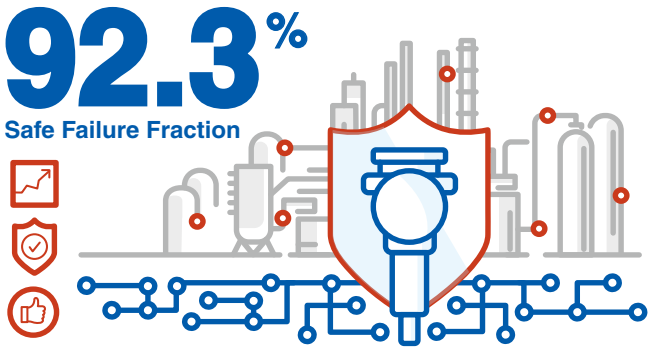
The advanced floating sensor protects transmitters from various severe environmental conditions, ensuring long-term stability. Its compact size allows for easy handling while minimizing temperature effects, static pressure effects, and excessive overload pressure.

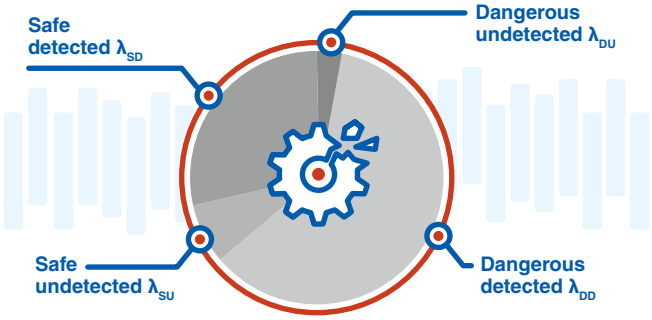


Reduce failure probability by integrating FCX-AIV in your safety loop

The SIL2/SIL3-certified FCX-AIV series, with its premium Safe Failure Fraction (SFF), is the preferred choice for I&C engineers when designing a Safety Instrumented System (SIS).

Implementing Safety Instrumented Systems in the process industry (IEC 61511) helps reduce risks to a targeted, acceptable level while organizing a maintenance strategy to sustain this safety level over time.





Certifications, conformities

Hazardous locations	Safety and integrity	Conformities
Ex IECEx SA C US	CERTIFIED IEC 61508 SIL 3 CAPABLE	CE UKCA

Communication

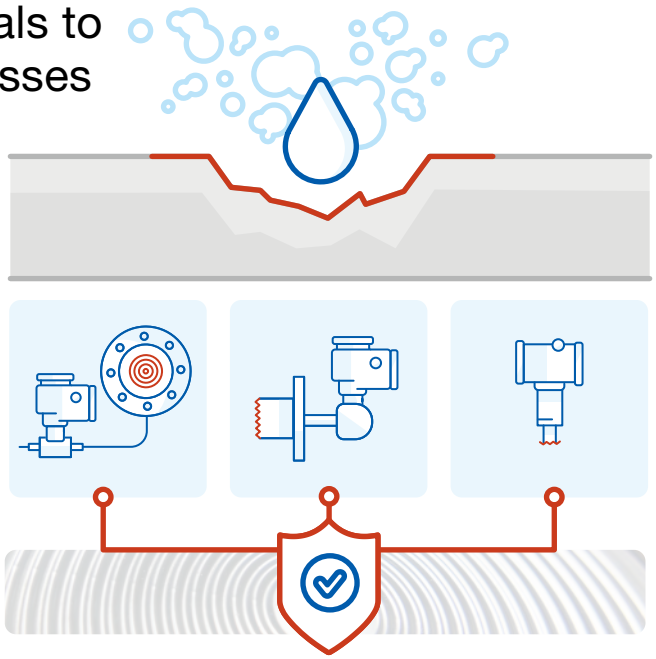
HART communication protocol
HART COMMUNICATION PROTOCOL

A wide range of specific materials to suit the most demanding processes

In addition to SS 316L, various materials for wetted parts are available to meet the requirements of the most challenging and versatile applications.

Material	Applications
Hastelloy® 276	Alkalis, organic acids, sea water
Gold plating	Hydrogen
Gold plating & Ceramic	Hydrogen mixed with hydrocarbons and/or H_2S
Monel® 400	Hydrofluoric, sulfuric and phosphoric acids, Non oxidizing salts
Tantalum	Hydrochloric, hydrobromic and nitric acids

Note : This list is not exhaustive. Other materials are available.



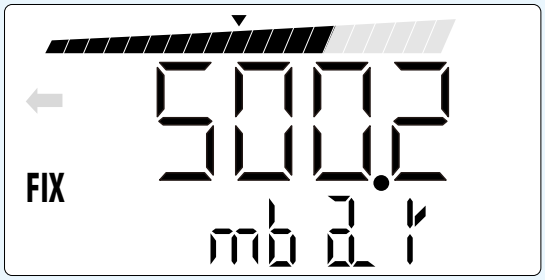
Enhance process visibility with a user-friendly indicator

Digital Indicator

The addition of a bargraph display makes the output level intuitively understandable, similar to an analog indicator.

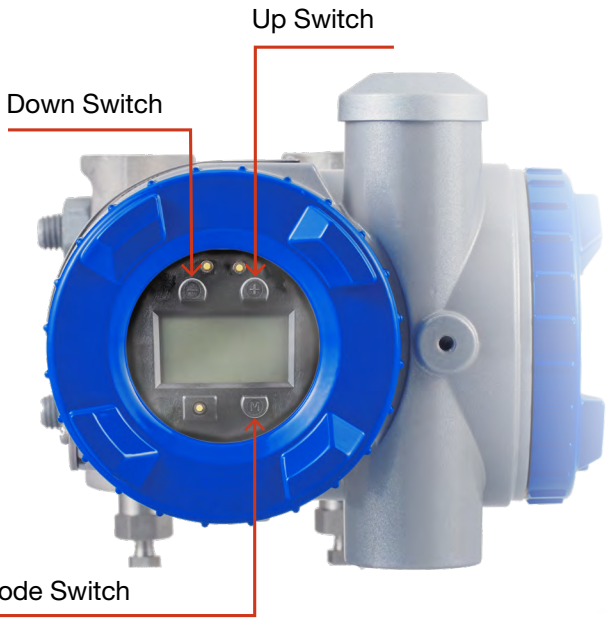
Simultaneous display in engineering units ensures precise measurement readings.

In case of an abnormality, the error code displayed allows users to quickly identify and react to the situation.



Field Configuration

All transmitter settings can be configured and adjusted using the magnetic stick without opening the indicator cover.



Housing Selection

Both L-shape and T-shape housings are compatible with vertical and horizontal piping installations.

L type	T type
	

FCX-AIV series

Specifications

Type	FKC	FKG	FKA	FKE	FKB	FKD	FKM	FKP	FKH	FKR
Appearance										
	Differential pressure	Gauge pressure	Absolute pressure	Hydrostatic level	Gauge pressure (Remote seal)	Differential pressure (Remote seal)	Absolute pressure (Remote seal)	Gauge pressure (Direct mount)	Absolute pressure (Remote seal)	Gauge pressure (High pressure, Direct mount)
Case type	L type, T 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	1 6 32 130 500 3000	130 500 3000 10000 50000	32 130 500 3000 20000	32 130 500 3000 20000	130 500 3000 10000	130 500 3000	70 000 150 000
Weight in kg (No indicator)	3.1	2.9	2.9	2-19	4 -18	9 -19	4 - 18	1.7	1.7	1.5
Accuracy rating	± 0,04 % (option) ± 0,065 % (standard)		± 0,1 % (option) ± 0,2 % (standard)		± 0.04% (option) ± 0.065% (standard)		± 0.2 %	± 0.1%	± 0.2%	± 0.065%
Diaphragm materials	SS 316L Hastelloy® C276 Monel® 400 Tantalum SS 316L gold plated Gold-plated + ceramic coating		SS 316L Hastelloy® C276 Monel® 400 Tantalum	SS 316L Hastelloy® C276 Monel® 400 Titanium Zirconium SS 316L gold-plated	SS 316L Hastelloy® C276 Monel® 400 Titanium Tantalum Zirconium SS 316L gold-plated			SS 316L Hastelloy® C276 SS 316L gold-plated		Inconel® 625 Inconel® 625 and gold-plated
Elevation/Suppression	± 100% maximum of the URL	- 1 barg to 100% of the URL	0 to 100% of the URL	± 100% of the URL	- 1 barg to 100% of the URL	± 100% of the URL	0 to 100% of the URL	- 1 barg to 100% of the URL	0 to 100% of the URL	- 1 barg to 100% of the URL
Span setting range	1 to 1/100 of the URL				1 to 1/100 of the URL			1 to 1/16 of the URL		
Measuring cycle	40 ms				40 ms					
Process temperature range	-40 to +120°C		-40 to 85°C	-40 to +150°C	-40 to + 350°C (Depending on the remote seal filling oil)			-40 to 100°C	-40 to 85°C	-40 to 100°C
Ambient temperature range	-40 to +85°C				-40 to +85°C					
Power supply voltage	10,5 to 45V DC				10,5 to 45V DC					
Output signal / Allowable load resistance	4-20 mA / 250 Ω nominal				4-20 mA / 250 Ω nominal					
Communication protocol	HART™ 7 protocol				HART™ 7 protocol					
Damping time constant	Configurable between 0,04 to 32 s				Configurable between 0,04 to 32 s					
Zero/span adjustment	With the external adjustment screw, the three button indicator or the HART™ communication protocol				With the external adjustment screw, the three button indicator or the HART™ communication protocol					
Electrical conduit	M20×1.5" / 1/2 -14 NPT / Pg13.5				M20×1.5" / 1/2 -14 NPT / Pg13.5					
Options	Digital indicator, degreasing treatment, oxygen service, chlorine service, extra stainless steel tag plate				Digital indicator, degreasing treatment, oxygen service, chlorine service, extra stainless steel tag plate					

Accessories	Isolation valves	Condensate pots	Standard cable glands	ATEX cable glands	Pigtail siphons	Oval flanges	Flushing rings	1, 2, 3, 5 way manifolds	HART® Modem	Pocket HART®
Appearance										

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