

# FCX-AIV series

Pressure / Flow / Level / Density measurements

Recognized worldwide thanks to its  
reliability and robustness



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# FCX-AIV series



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

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



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## Lower your operating costs without compromise



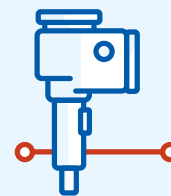
High accuracy measurement

± 0.065% (standard)



Fast measurement cycle

40 ms



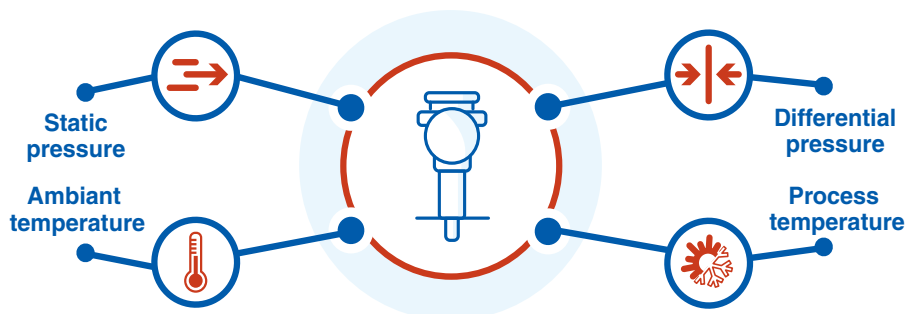
Long-term stability

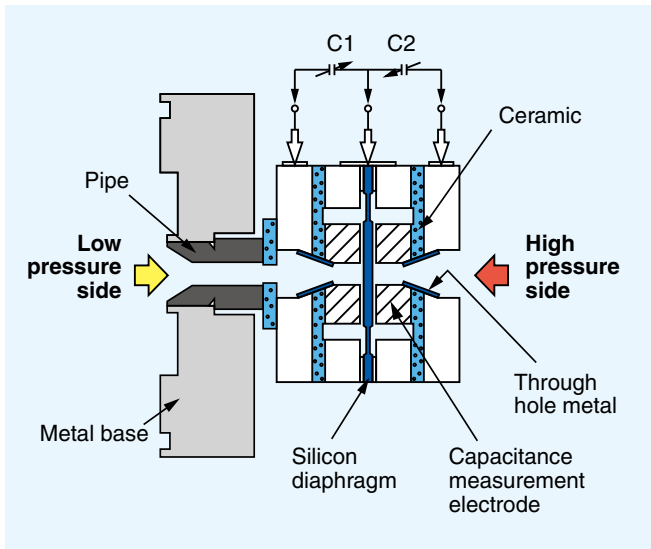
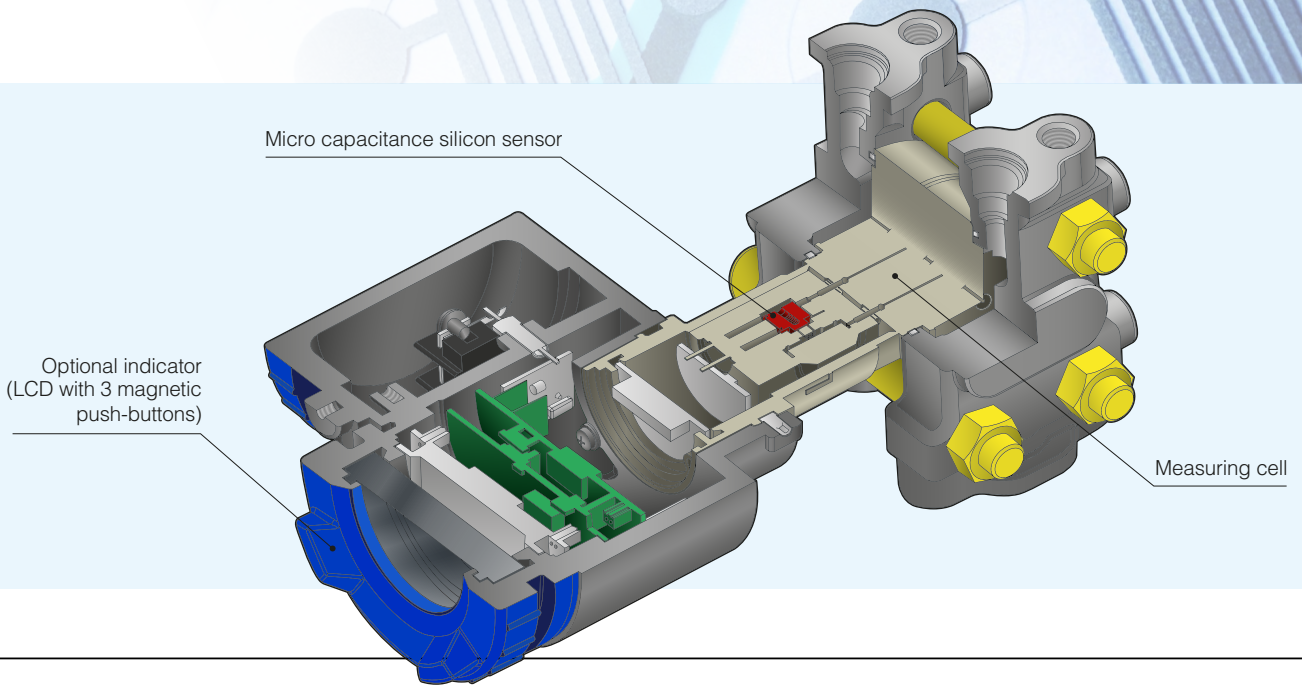
± 0.1% / 5 years

## Accurate measurement in any environment



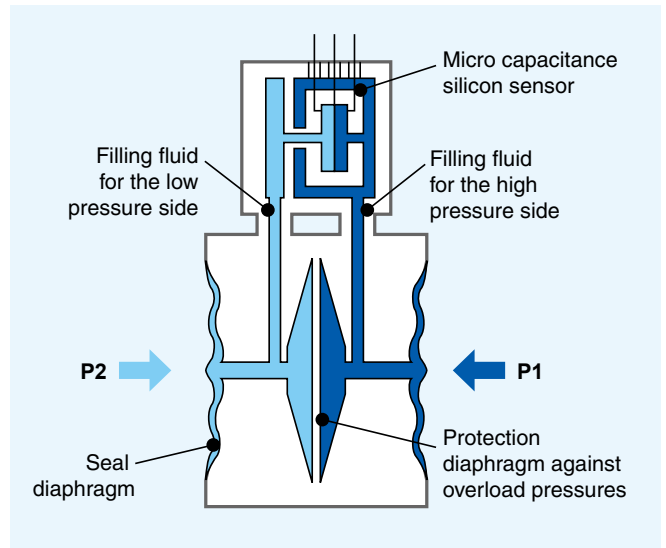
The performance of the processor and the optimization algorithm compensate the pressure measurement from the external variations in real time. Thanks to the unique 4D Gyration™ technology, choosing the FCX-AIV is the guarantee of precise and repeatable pressure measurements whatever the conditions of your process and your environment.





## 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.



## 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.

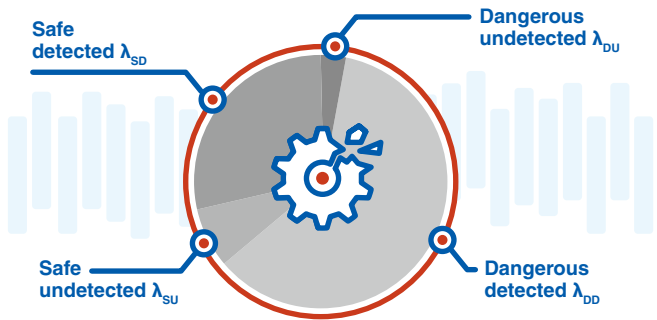
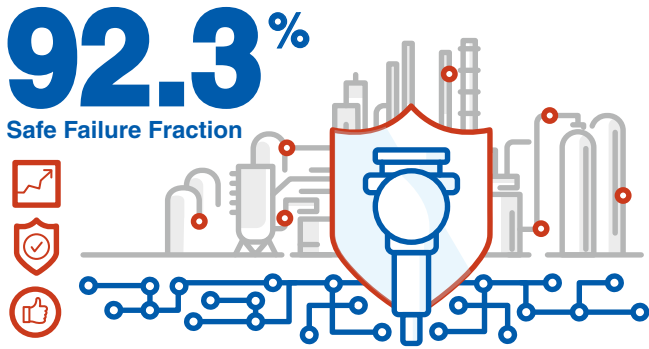




# Reduce failure probability by integrating FCX-AIV in your safety loop

The SIL2/SIL3 certified FCX-AIV series, thanks to its premium SFF, is the preferred choice of I&C engineers when the design of a Safety Instrumented System is required.

The implementation of Safety Instrumented Systems in the process industry (IEC 61511) makes it possible to reduce the risks to a targeted and acceptable level and to organize the maintenance strategy to maintain this safety level.



## Approvals

## Communication

Hazardous area approvals	Conformity

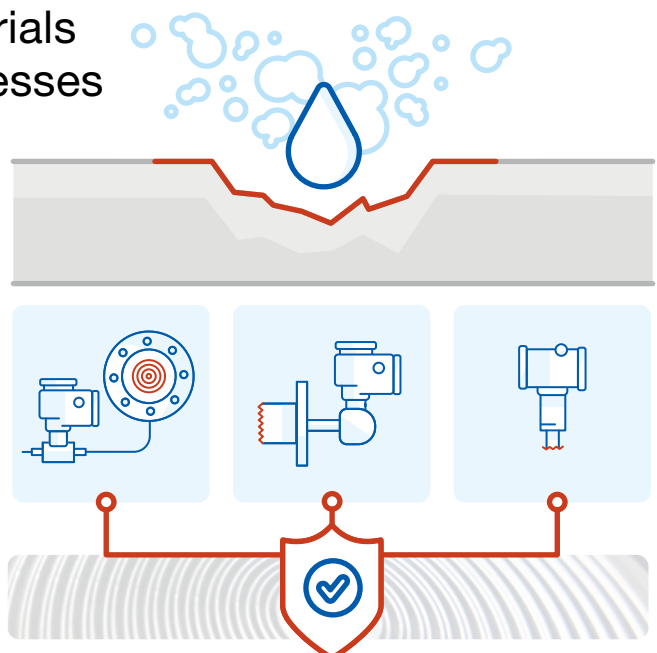
HART communication protocol

## A large choice of specific materials to fit the most aggressive processes

In addition to SS 316L, various materials for wetted parts are available to fit the most versatile applications.

Material	Applications
Hast C-276	Alkalis, organic acids, sea water
Gold plating	Hydrogen
Gold plating & Ceramic	Hydrogen mixed with hydrocarbons and/or H <sub>2</sub> S
Monel	Hydrofluoric, sulfuric and phosphoric acids, Non oxidizing salts
Tantalum	Hydrochloric, hydrobromic and nitric acids

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





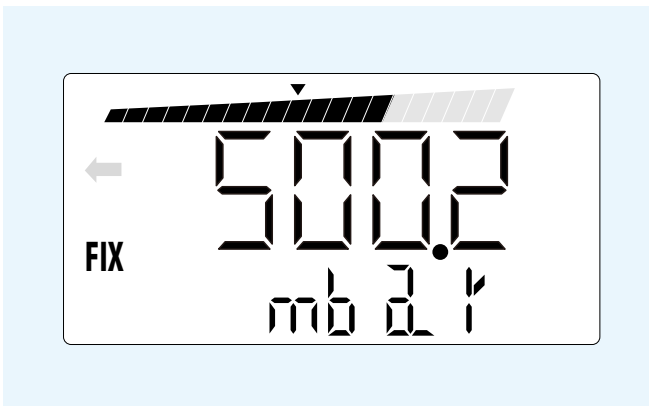
Improve the visibility of your process through user-friendly indicator

## Digital Indicator

By adding a bargraph display, the output level is now intuitively understandable as an analog indicator.

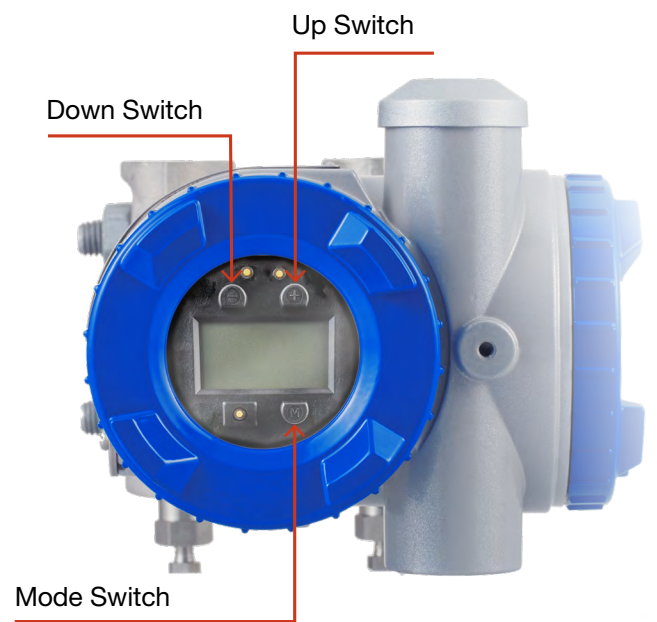
The simultaneous display in engineering units allows an accurate reading of the measurement.

When an abnormality occurs, the displayed error code allows users to quickly understand and react to the situation



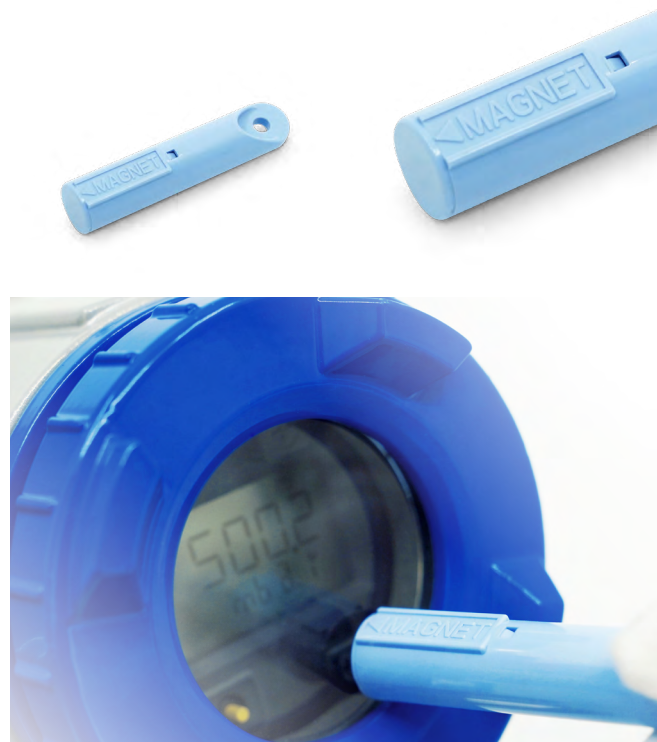
## Field Configuration

Using the magnetic stick allows all transmitter settings to be configured and adjusted without opening the indicator cover











## Housing Selection

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



## Specifications

Type	FKC	FKG	FKA	FKE	FKB	FKD	FKP	FKH
Appearance								
	Differential pressure	Gauge pressure	Absolute pressure	Hydrostatic level	Gauge pressure (remote seal)	Differential pressure (remote seal)	Pressure (direct mount)	Absolute pressure (direct mount)
Case type	L type, T type							
Maximum span (kPa) [URL]	1	130	16	1	130	32	130	130
	6	500	130	6	500	130	500	500
	32	3000	500	32	3000	500	3000	3000
	130	10000	3000	130	10000	3000	10000	
	500	50000		500	50000	20000		
3000			3000					
20000								
Weight in kg (No indicator)	3.1	2.9	2.9	2-19	4-18	9-19	1.7	1.7
Accuracy rating	± 0.04% (option) / ± 0.065% (standard) *Refer to the data sheets for details						± 0.1%	± 0.2%
Diaphragm materials	SS 316L Hastelloy-C Monel Tantalum SS 316L gold-plated Gold & ceramic coating		SS 316L Hastelloy-C Monel Tantalum		SS 316L Hastelloy-C Monel Titanium Zirconium SS 316L gold-plated		SS 316L Hastelloy-C	
Elevation/Suppression	-100 to +100% URL							
Span setting range	1 to 1/100 URL							
Measuring cycle	40ms							
Temperature range	Process side: -40 to +120°C (version for higher temperature available) Ambient temperature: -40 to 85°C							
Power supply voltage	10,5 to 45V DC							
Output signal / Allowable load resistance	4-20 mA / 250 Ω nominal							
Communication protocol	HART™ 7 protocol							
Damping time constant	Configurable between 0,04 to 32 s							
Zero/span adjustment	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							
Options	Digital indicator, degreasing treatment, oxygen service, chlorine service, extra stainless steel tag plate							



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