



**Differential Pressure (flowmeter) Transmitter**  
**20 000 Psi Line Pressure**



SUBSEA APPLICATIONS



**FCX-AII** Series





# Solutions for SUPER High Line Pressure for Flow and Differential Pressure applications :

Based on more than 15 years experience of supplying Differential Pressure transmitters for Oil & Gas for line pressure of **more than 6000 Psi**, Fuji Electric France, is proud to announce the release of its latest Differential Pressure for **20 000 Psi** (1379 bar) line pressure as a direct response to our customer's requirements in **super** high pressure applications that are traditionally found in Oil & Gas flow measurement.

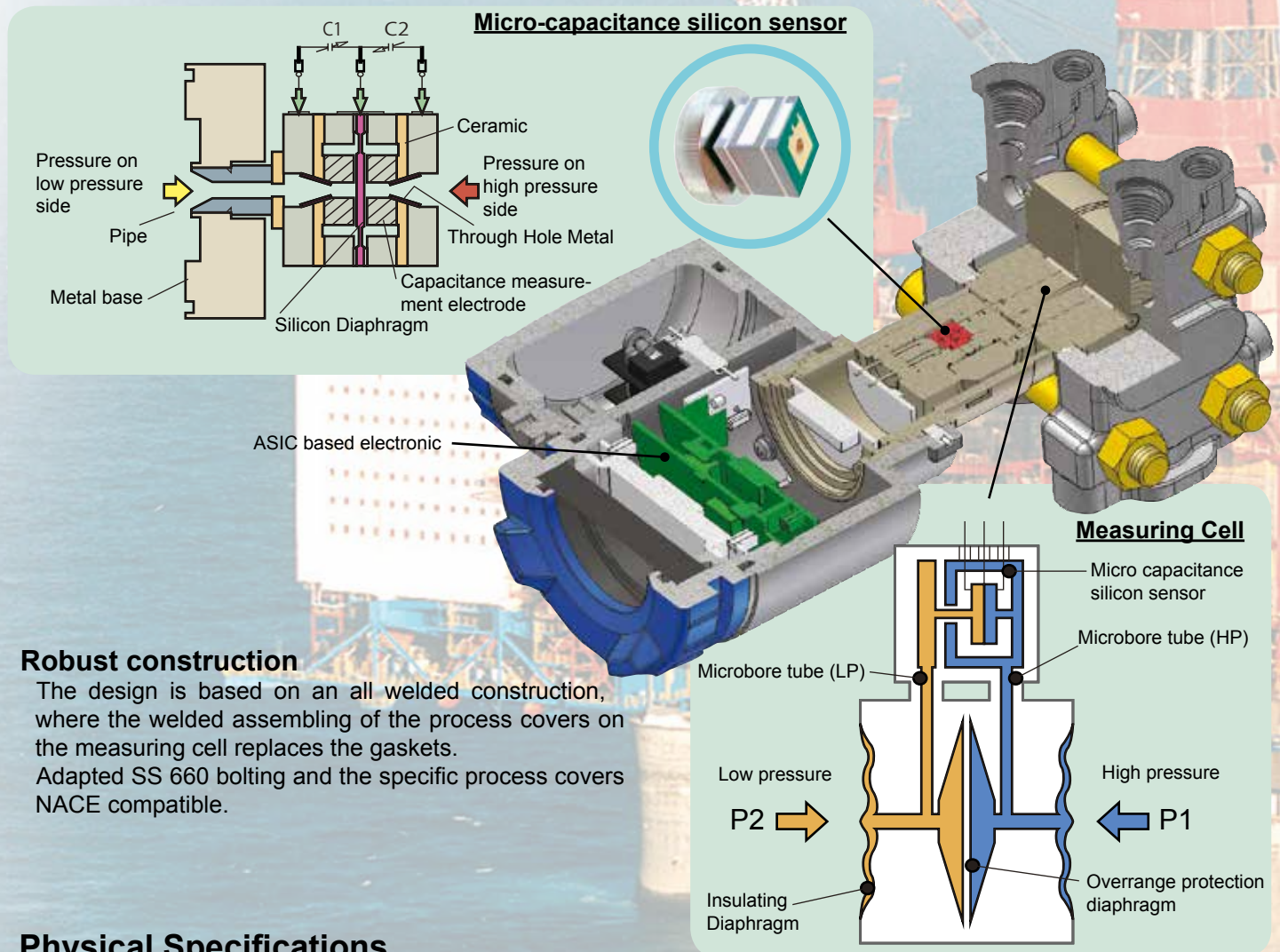
The experience and technical capability that we built into the new transmitter enables it to measure differential pressures of 130mbar at static pressures of up to 20 000 Psi (1379 bar), typically found in **top side and subsea applications**.

## Measuring principle :

The transmitter utilizes a unique micromachined capacitive silicon sensor with state of the art microprocessor technology to provide exceptional performance and functionality. The silicon sensor is assembled **floating in measuring cell neck**, which allows extreme high line pressures and improves the static pressure characteristics.

Pressure transfer oil envelops the silicon sensor >>> **FLOATING SILICON SENSOR**.

Static pressure (line pressure) influence is strongly minimized thanks to floating sensor design.



## Robust construction

The design is based on an all welded construction, where the welded assembling of the process covers on the measuring cell replaces the gaskets.

Adapted SS 660 bolting and the specific process covers NACE compatible.

## Physical Specifications

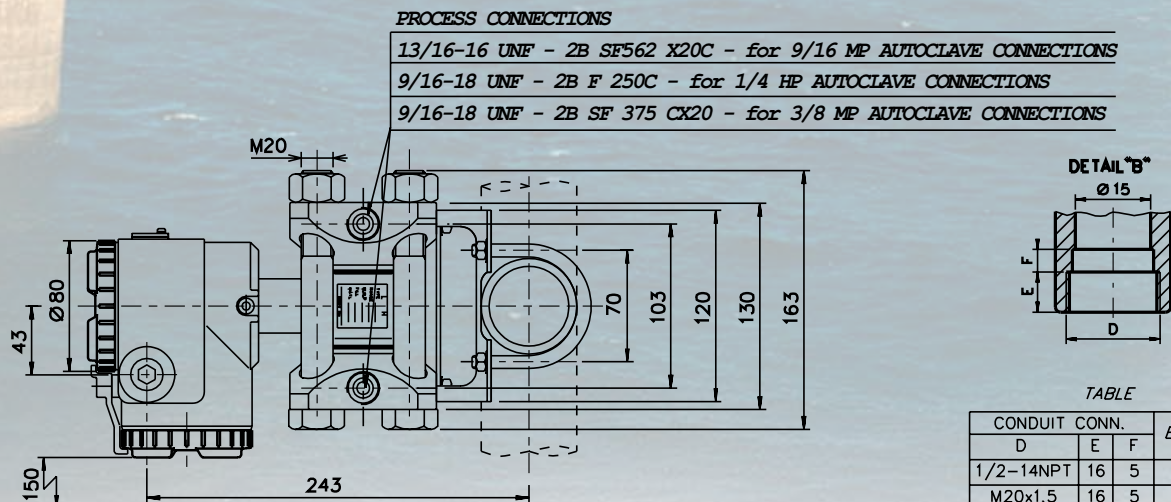
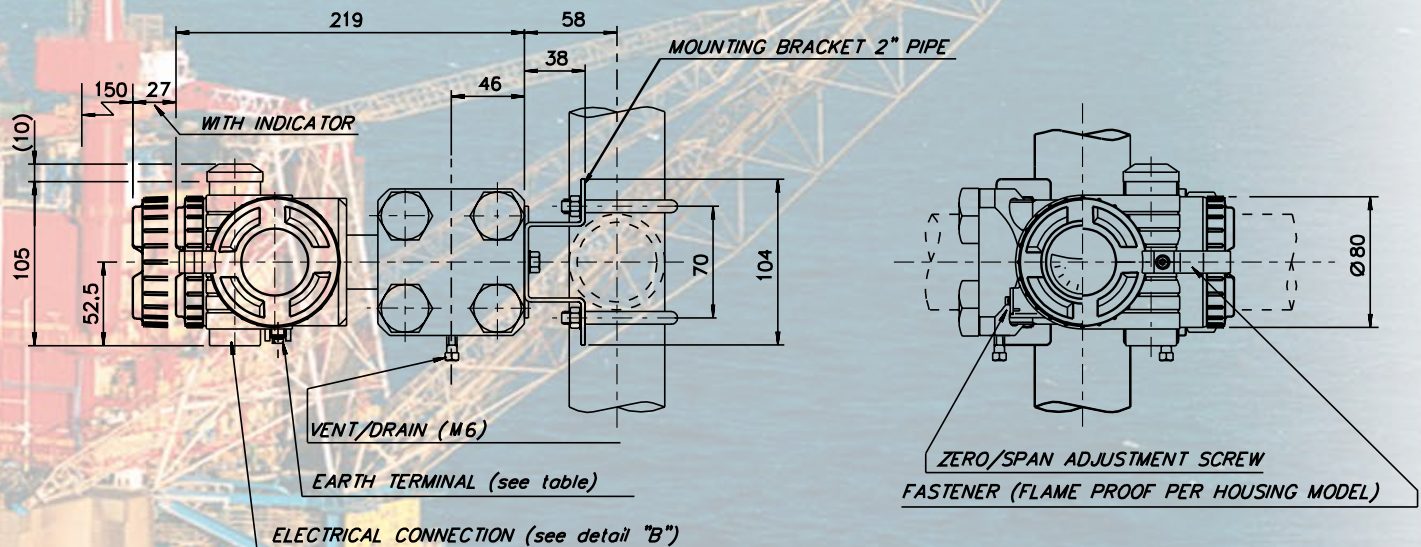
<b>Process connections</b>	Autoclave 9/16-18 UNF - 2B SF 375CX20, 9/16-18 UNF - 2B F 250C or 13/16-16UNF-2B SF 562CX20, others upon request
<b>Wetted parts materials</b> <small>*Nota : see table (code symbols)</small>	Measuring cell and body / Diaphragm Hastelloy C 276, Measuring cell and body Hastelloy C 276 / Duplex
<b>Non wetted parts</b>	Electronics housing : - Low copper die-cast aluminum alloy (std), finished with epoxy / polyurethane double coating - SS 316 Bolts / nuts : SS 660
<b>Ambient temperature</b>	-5 to 85°C
<b>Process temperature</b>	-5 to 120 °C
<b>Remote seal designs</b>	Available according customer specifications



## Performance Specifications

<b>Accuracy rating :</b> (including linearity, hysteresis and repeatability)	For spans greater than 1/10 of URL : $\pm 0.1\%$ of span
<b>Stability</b>	$\pm 0.1\%$ of upper range limit (URL) for 3 years
<b>Ambient temperature effect</b>	Zero : $\pm (0.1 + 0.025 \times \text{URL} / \text{span})$ in % of span / $28^\circ\text{C}$ Total : $\pm (0.125 + 0.025 \times \text{URL} / \text{span})$ in % of span / $28^\circ\text{C}$
<b>Static pressure effect</b>	Zero : $\pm 0.1\%$ of URL / 10 MPa Span : 0 to $-0.3\%$ of span / 10 MPa
<b>Supply voltage effect</b>	Less than $0.05\%$ of calibrated span per 10V
<b>RFI effect</b>	Less than $0.2\%$ of URL for the frequencies of 20 to 1000MHz and field strength 30 V/m when electronics covers in place. (Classification : 2-abc : $0.2\%$ span per SAMA PMC 33.1)
<b>Mounting position effect</b>	Zero shift : Less than $0.12\text{kPa}$ {1.2m bar} for a $10^\circ$ tilt in any plane. No effect on span. This error can be corrected by adjusting Zero after installation.
<b>Vibration effect</b>	$< \pm 0.25\%$ of spans for spans greater than 1/10 of URL. Frequency 10 to 150Hz, acceleration $39.2\text{m/sec}^2$
<b>Dielectric strength</b>	500V AC, 50/60Hz 1 min, between circuit and earth.
<b>Insulation resistance</b>	More than $100\text{M}\Omega$ at 500V DC
<b>Turn-on time</b>	4 seconds

## Outline dimensions



## Code Symbols

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
							4	-							
F	K	C								C				-	W
F	D	C													W
		</													

\* Note 1 : Only available with digit 10 codes A & X

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