

FEATURES

- Flush diaphragm
- M5x0.8 or 10-32UNF-2A thread
- Cable or integral connector
- Many options available

APPLICATIONS

- Corrosive liquids and gases
- Braking system pressure
- Onboard equipment monitoring
- Mil-Aero

XP5

Miniature pressure sensor

SPECIFICATIONS

- Ranges 0.5 to 350 bar [7 psi to 5 000 psi]
- Absolute, sealed and gauge
- Titanium construction
- For static and dynamic applications
- Linearity up to ±0.25% FS

The **XP5** serie is designed in titanium for pressure measurement in dynamic and static operations even in harsh environments.

The **XP5** threaded construction virtually eliminates zero shifts caused by installation torque.

This rugged sensor is constructed of titanium to enable reliable operation including harsh environments. The **XP5**'s core sensing technology consists of a temperature compensated Wheatstone bridge composed of high stability micro-machined silicon strain gauges.

An on-board amplifier is optionally available (A1) for ranges from 5 to 350 bar [75 to 5,000 psi].

On request, Instruction documents can be provided to ease the selection and use of our sensors and provide helpful tips.

STANDARD RANGES

Full Scale (FS)		Pressure Reference			Resonance	Sensitivity "FSO" ²³	Overpressure	Burst Pressure	
bar	psi	Gauge	Abso.	Sealed	Frequency 1	(unamplified)	(rated pressure)	(rated pressure)	
0.5	7	•	•	•	90 kHz	2.5 mV/V	8 x FS	20 x FS	
1	15	•	•	•	90 kHz 5 mV/V		4 x FS	10 x FS	
2	30	•	•	•	90 kHz	10 mV/V	2 x FS	5 x FS	
5	75	•	•	•	130 kHz	10 mV/V	2 x FS	5 x FS	
10	150	•	•	•	160 kHz	10 mV/V	2 x FS	5 x FS	
20	300	•	•	•	190 kHz	10 mV/V	2 x FS	5 x FS	
35	500	•	•	•	250 kHz	10 mV/V	2 x FS	5 x FS	
50	750	•	*	•	300 kHz	10 mV/V	2 x FS	5 x FS	
70	1K	•	•	•	320 kHz	10 mV/V 2 x FS		5 x FS	
100	1.5K			•	380 kHz	10 mV/V	2 x FS	5 x FS	
200	3K			•	540 kHz	10 mV/V	2 x FS	5 x FS	
350	5K			•	760 kHz	10 mV/V	2 x FS	3 x FS	

- 1: Useful frequency is 20% of Resonance Frequency. Bandwidth 3 kHz for amplified model (A1 option)
- 2. Unamplified version are calibrated with 10Vdc power supply as standard.
- 3: Sensitivity "FSO" is indicated as nominal value with tolerances -50% to +100%.

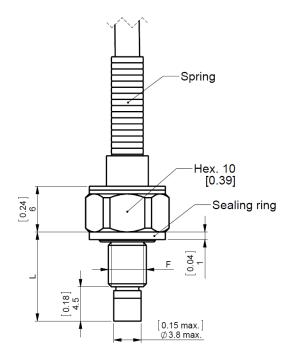
PERFORMANCE SPECIFICATIONS (all values are typical at temperature 23±3°C)

Parameters	Non amplified	A1	Notes			
Power supply	1-10 Vdc regulated	10 to 30 Vdc				
Sensitivity "FSO"	See previous table	4 V ±0.2 V	Signal 0.5 - 4.5 V for A1 option			
Zero Offset	±10 mV	0.5 V ±0.2 V				
Non Linearity	±0.5%FS ±0.25%FS		FS ≤ 2 bar or 30 psi FS ≥ 5 bar or 75 psi			
Hysteresis	±0.5%FS ±0.25%FS	FS ≤ 2 bar or 30 psi FS ≥ 5 bar or 75 psi				
Operating Temperature Range (OTR)	-40 to 120°C (-40 to 250°F)					
Compensated Temperature Range(CTR)	0 to 60°C (32 to 140°F)					
Thermal Zero Shift in CTR (TZS)	±6%FS/50°C ±4%FS/50°C ±2%FS/50°C	FS ≤ 1 bar or 15 psi FS = 2 bar or 30 psi FS ≥ 5 bar or 75 psi				
Thermal Sensitivity Shift in CTR (TSS)	±4% of reading /50°C ±2% of reading /50°C		FS ≤ 2 bar or 30 psi FS ≥ 5 bar or 75 psi			
Input Impedance / consumption	1500 Ω nom. 1000 Ω nom.	< 30 mA	FS ≤ 5 bar or 75 psi FS ≥ 10 bar or 150 psi			
Output Impedance	500 Ω nom. 1000 Ωnom.	1000 Ω	FS ≤ 5 bar or 75 psi FS ≥ 10 bar or 150 psi			
Ingress Protection	IP50 IP67		Standard or SC option P7 option			
Media – Pressure Port	Liquids and Gases compatible with Titanium					

Insulation under 50Vdc ≥100MΩ

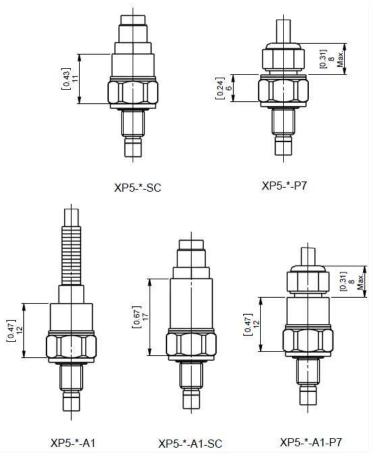
CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1.

DIMENSIONS & WIRING SCHEMATIC

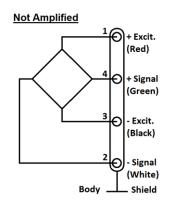


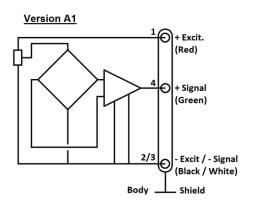
Dimensions XP5-M & XP5-X

	XP5-M	XP5-X				
F (Thread)	M5x0.8-6g	10-32UNF-2A				
L (mm)	11.7	12.1				
L (in)	[0.46]	[0.48]				



WIRING AND CONNECTOR OPTION





Notes:

- 1. Recommended Tightening Torque: 1 Nm (FS ≤2 bar or 30 psi); 1.8 Nm (FS ≥ 5 bar or 75 psi)
- 2. Sealing: One FKM sealing ring is supplied with the sensor (operating temperature -30 to 150°C)
- 3. Electrical connection: Standard = 2m of shielded cable ø3mm with 4 wires AWG30, Silicon jacket SC option = Integral connector ref. Comtronic CMR-02D-04P supplied with mating plug CMR-02-B-04S wired with 2m of cable (FMC-COM-4B-L2M)

OPTIONS

Z02: Compensation Temperature Range -40 to 60°C [-40 to 140°F]

Z35: Compensation Temperature Range 20 to 120°C [70 to 250°F]

Z36: Compensation Temperature Range 20 to 150°C [70 to 300°F] CTR=OTR (not compatible with A1 option)

SC: Connector output, mating plug supplied with 2 m cable [6.6 ft]

P7: IP67 protection / -20°C to 150°C [0°F to 300°F] (not compatible with gauge model)

V00: Non-standard power supply calibration, replace "00" with value in Volt (standard 10Vdc, unamplified sensor only)

L00M: special cable length, replace "00" with total length in meters (L5M; L10M;...). Note: standard length 2 m [6.6 ft])

ORDERING INFORMATION

XP5	-	M	-	A1	-	20B		G	-	/L5M
Model	-	Mounting thread	-	Output signal	-	Pressure Range		Pressure reference	-	Options
XP5		M : M5x0.8 X : 10-32UNF-2A		(none): bridge (mV/V) A1: 0,5 to 4,5V		0.5B 1B 2B 5B 10B 20B 35B 50B 70B 100B 200B 350B	7P 15P 30P 75P 150P 300P 500P 750P 1KP 1.5KP 3KP	A: absolute G: gauge S: sealed		Z02 Z35 Z36 SC P7 V05 L00M

Psi range models only supplied with imperial thread **Bar** range models only supplied with metric thread. Amplified Output **A1** are only available for ranges from 5 to 350 bar [75 to 5,000 psi]

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