Intrinsically Safe Pressure Sensor | ATEX Certified | P642FAX

Accurate, Extremely Robust and ATEX Certified for Hazardous Areas

- **Lead Time:** 6 weeks

AT A GLANCE

- Ranges: 0-0.5bar up to 0-5000bar
- Outputs: 4-20mA
- ATEX Certified:
  - II 1GD EEx ia IIC T4
  - Ex iaD 20 T200ºC
  - Ta = -20ºC to +70ºC
  - Intrinsically Safe
- Environmental Protection: IP65
- Accuracy: <±0.25%/FS

- **Designed for Hazardous Environments & Explosive Atmospheres**
- **Titanium Alloy Construction Offers Excellent Long-Term Performance**
- **Protected from Low-Pressure Water Jets** to Suit Most Industrial Environments
- **Suitable Intrinsically Safe Barriers Available**

DESCRIPTION

The P642FAX ATEX Certified, Intrinsically Safe (https://appmeas.co.uk/resources/atex-intrinsic-safety-hazardous-area-information/) pressure sensor is designed for use in hazardous areas across all common industrial applications.

The P642FAX intrinsically safe pressure sensor has a **Titanium media connection** offering compatibility with a wide range of harsh and aggressive pressure media.

The pressure sensor's electrical output is the intrinsically safe standard **4-20mA, 2-wire signal**, connection to which is made **via a DIN43650 plus & socket**. Pressure connection is made via a G¼" male on pressure ranges up to 1500bar, while a high-pressure F-250-C Autoclave fitting is supplied thereafter.

If you require your intrinsically safe pressure sensor to be supplied with suitable barriers please contact us (https://appmeas.co.uk/contact-us/) with the details of your requirement and we will be pleased to source and supply them.

TECHNICAL SPECIFICATIONS

Input Pressure Range	
Nominal Pressure Range Bar (gauge)	Permissible Overpressure Bar
0.5	x 4
1	x 2
1.6	x 2
2.5	x 2
4	x 2
6	x 2
10	x 2
16	x 2
25	x 2
40	x 2
60	x 2
100	x 2
160	x 2
250	x 2
400	x 2
600	x 1.5
700	x 1.5
1000	x 1.5
1500	x 1.5
2000	x 1.5
3000	x 1.5
4000	x 1.25
5000	x 1

Output Signal & Supply Voltage	Number of Wires	Output	Supply Voltage
P642FAX	2 – wire	4 - 20mA	13 - 28 Vdc

| Performance		
Accuracy (non-linearity, hysteresis, repeatability)	% Full Scale Output	<±0.25 (BFSL)
Zero Offset and Span Tolerance	% / Span	±1 (at room temperature)
Zero Offset and Span Adjustment	% / Full Scale Output	±5 with easy access trimming potentiometers
Media Temperature	˚C	-50 to +125
Ambient Temperature	˚C	-20 to +70
Storage Temperature	˚C	+5 to +40
Thermal Zero Shift (TZS)	% / Full Scale / ˚C	<±0.02 typ.
Thermal Span Shift (TSS)	% / Full Scale / ˚C	<±0.02 typ.

Performance		
Reverse Polarity Protection		Protected against supply voltage reversal up to 50Vdc
Media Compatibility		Any media compatible with BT9 Titanium Alloy
Weight	Grams	90 nominal
Insulation Resistance	Megohm @ 50 Vdc	>100
Electrical Connection		Mating socket with screw terminal connections to DIN 43650. Cable entry PG9.
Pressure Connection		1/4" BSP or 1/4" NPT male (others available on request)
Response Time (10% - 90%)	ms	≤1
Environmental Protection		IP65
Load Driving Capability	4 - 20mA	supply voltage - 10V / 0.02A (i.e. 36V - 10V / 0.02A = 1300Ω)
Long Term Stability	% / Full Scale	<0.2 / 6 months
Operational Life	Pressure Cycles	>10^8 typical
ATEX Approval		Ex II 1 G Ex ia IIC T4 Ga (zone 0)
		Ex II 1 D Ex ia IIIC T135°C Da (zone 20)
		EX I M 1 Ex ia I Ma (group I M1)

Product Dimensions
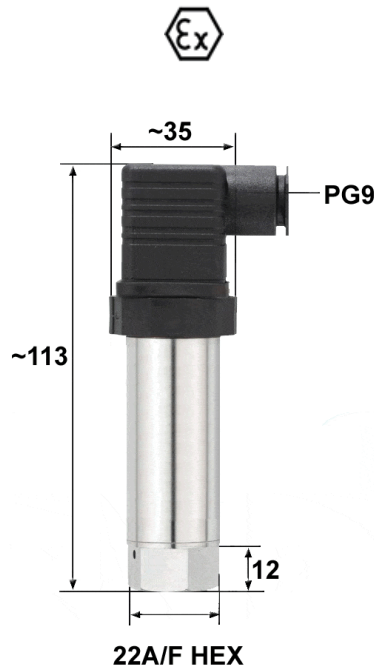
P642FAX ATEX Intrinsically Safe Pressure Sensor Outline Drawing 0-2000bar to 0-5000bar
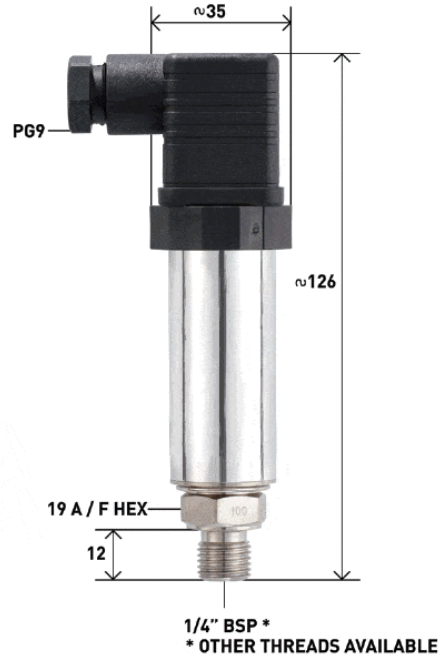
P642FAX ATEX Intrinsically Safe Pressure Sensor Outline Drawing 0-0.5bar to 0-1'500bar

Wiring Details

Pin No.	2 Wire (4 - 20mA)
1	+ve supply
2	4 - 20mA signal
3	not fitted
⏚	to case

P642FAX ORDERING CODES & OPTIONS

P642FAX-10barg-AA-00-000	P6	42	FA	X	-	10barg	-	A	A	-	00	-	000
Product Family													
P6--FA	P6		FA										
Electrical Output													
42 = 4-20mA (2 wire)		42											
Electrical Connection / ATEX Certification													
X = ATEX + Large DIN Plug & Socket (standard)				X									
CX = ATEX + IP67 Cable (1 metre fitted as standard)				CX									
Pressure Range													
10barg = 0 to 10bar gauge					-	10barg							

P642FAX-10barg-AA-00-000	P6	42	FA	X	-	10barg	-	A	A	-	00	-	000
M1P1barg = -1 to +1bar gauge					-	M1P1barg							
P15P500psia = +15 to +500psi absolute					-	P15P500psia							
2400psig = 0 to 2400psi gauge					-	2400psig							
Accuracy (Non-Linearity & Hysteresis)													
A = <±0.25%/FS (standard)							-	A					
B = <±0.15%/FS							-	B					
Process Connection													
A = G1/4" Male (<0-1500bar standard)									A				
B = F-250C Autoclave (9/16" UNF Female) (0-2000 to 0-5000 standard)									B				
D = M16 x 1.5 Female Cone Seal (optional 0-2000 to 0-5000 only)									D				
Cable Length in Metres													
00 = None										-	00		
01 = 1 metre										-	01		
Specials Code													
000 = No Special Requirements												-	000

RELATED PRODUCTS & SERVICES

ATEX Wireless Portable Display | ATEX IECEx Wireless Telemetry |... (https://appmeas.co.uk/products/instrumentation/atex-wireless-portable-display-x24-hd/)

IECEx ATEX Wireless Transmitter Module | X24-ACMi-SA (https://appmeas.co.uk/products/instrumentation/atex-wireless-transmitter-module-x24-acmi-sa/)

X24 IECEx / ATEX Wireless Telemetry for Load, Strain, Pressure,... (https://appmeas.co.uk/products/instrumentation/x24-iecex-atex-wireless-telemetry/)

Universal Process Input Digital Indicator | Intuitive4-P (https://appmeas.co.uk/products/instrumentation/universal-process-input-digital-indicator-int4-p/)

ATEX Level Sensor | Intrinsically Safe Level Transmitter | Pi99EX (https://appmeas.co.uk/products/submersible-level-sensors/intrinsically-safe-atex-level-sensor-pi99ex/)

View this page in a browser:

https://appmeas.co.uk/products/pressure-sensors/intrinsically-safe-pressure-sensor-atex-p642fax/