

Features

- Ranges: 0-1000 Bar up to 0-5000 Bar
 - Outputs: 4-20mA, 0-5vDC, 0-10vDC, 0-100mV/V, 0.5-4.5vDC
 - Environmental Protection: IP65
 - Accuracy: $<\pm 0.25\%/FS$
 - High Pressure F-250-C Autoclave Fitting
 - Field-Adjustable Span & Zero ($\pm 10\%$)
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- **Save Time With In-Field Span and Zero Adjustments**
 - No need to send in your pressure sensor for re-calibration for those minor changes.
 - **Titanium Construction Offers Excellent Long-Term Performance**
 - **Superb Media Compatibility** Thanks to its Titanium Alloy Pressure Port
 - **ATEX Certified Explosive Atmosphere Versions Available**
 - **Protected from Low Pressure Water Jets**



Description

The P600FA high range pressure transmitter is designed for the measurement of pressure across a wide range of general purpose and industrial applications including hydraulics, medical, research and development and a range of steel manufacturing and preparation processes.

The P600FA high range pressure transmitter offers superb media compatibility as standard with its all-Titanium Alloy pressure port and sensing element. The process connection is a high-pressure F-250-C Autoclave type.

The P600FA high range pressure transmitter offers a 2-wire 4-20mA electrical output as standard while 0-100mV, 0-5vDC and 0-10vDC are optional.

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For pricing or any further information, please contact Omni Instruments Ltd.

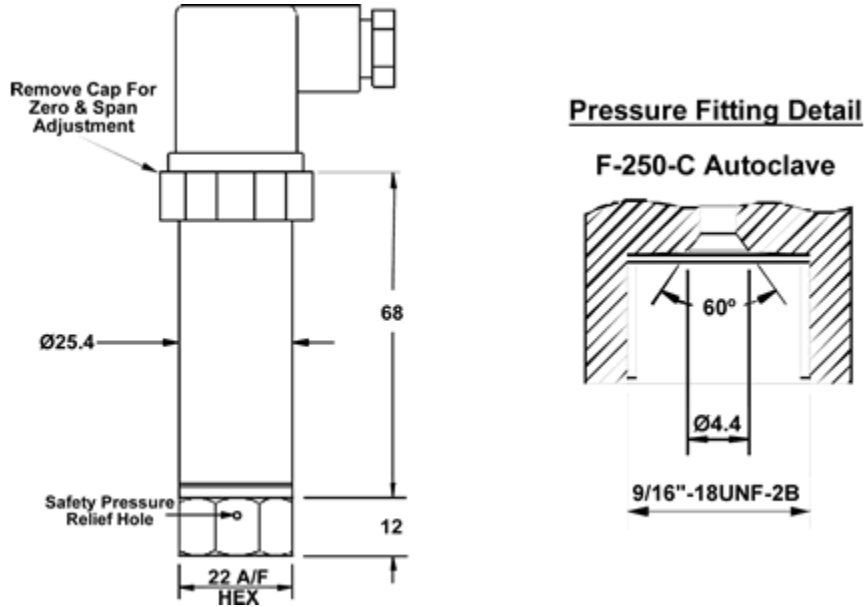
Technical Specifications

Input Pressure Range								
Nominal Pressure Range	Bar (gauge)	1000	1500	2000	2500	3000	4000	5000
Permissible Overpressure	x nominal	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.25	x 1.2
Burst Pressure	Bar	4000	4000	4000	6000	6000	6000	6000

Output signal & supply voltage	Number of Wires	Output	Supply Voltage	Supply Current
P610FA	4 – wire	10 mV/V	5 to 15 Vdc (regulated)	0.6mA/V
P605FA	3 - wire	0 – 5 Vdc	13 to 30 Vdc (unregulated)	13mA
P6010FA	3 - wire	0 – 10 Vdc	13 to 30 Vdc (unregulated)	13mA
P642FA	2 - wire	4 – 20 mA	10 to 36 Vdc (unregulated)	N/A

Performance		
Accuracy (non-linearity, hysteresis, repeatability)	% Full Scale Output	<±0.25 (BFSL)
Zero Offset and Span Tolerance	% / Span	±0.5% (at room temperature)
Zero Offset and Span Adjustment	% / Full Scale Output	±5 adjustment with easy access trimming potentiometers on amplified versions only
Media Temperature	°C	-50 to +125
Ambient Temperature	°C	-40 to +85 (-20 to +70 ATEX Version)
Storage Temperature	°C	+5 to +40
Thermal Zero Shift (TZS)	% / FS / °C	<±0.02
Thermal Span Shift (TSS)	% / FS / °C	<±0.02
Reverse Polarity Protection		Protected against supply voltage reversal up to 50Vdc (amplified version only)
Media Compatibility		Any media compatible with BT9 Titanium Alloy
Weight	grams	125 nominal
Insulation Resistance	Megohm @ 50 Vdc	>100
Input Resistance and Output Resistance	Ω	1500 ±30% (P610FA only)
Electrical Connection		Mating socket with screw terminal connections to DIN 43650
Pressure Connection		F250-C Autoclave fitting. Thread Type 9/16-18UNF-2B (female)
Response Time (10% - 90%)	ms	≤1
Environmental Protection		IP65
Load Driving Capability	4 - 20mA version	Supply voltage - 10V / 0.02A (i.e. 36V - 10V / 0.02A = 1300Ω)
	0 - 5V / 0 - 10V versions	>5kΩ / >10kΩ
Long Term Stability	% / Full Scale	< 0.2 / 6 months
Operational Life	Pressure Cycles	> 10 ⁸ typical
ATEX Approval (4-20mA versions only)		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



All dimensions are in mm

Wiring Details

Pin No.	2 Wire (4 - 20mA)	3 Wire (0 - 5Vdc / 0 - 10Vdc)	4 Wire (10mV/V)
1	+ve supply	common	-ve supply
2	4 - 20mA signal	+ve supply	+ve supply
3	not fitted	+ve output	+ve output
⊥	to case	to case	-ve output

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Ordering Codes & Options

P642FAC-1000barg-AA-00-000 (example code)	P6	42	FA	C	-	1000barg	-	A	A	-	00	-	000
Product Family													
P6--FA	P6		FA										
Electrical Output													
10 = 10mV/V (4 wire)		10											
42 = 4-20mA (2 wire)		42											
45 = 0.5-4.5Vdc (5V excitation)		45											
05 = 0-5Vdc (3 wire)		05											
010 = 0-10Vdc (3 wire)		010											
Electrical Connection / ATEX Certification													
Blank = Large DIN Plug & Socket (standard)				Blank									
C = IP67 Cable (1 metre fitted as standard)				C									
X = ATEX Certified				X									
CX = IP67 cable + ATEX				CX									
Pressure Range													
1000barg = 0 to 1000bar gauge					-	1000barg							
15,000psig = 0 to 15,000psi gauge					-	15,000psig							
Accuracy (Non-Linearity & Hysteresis)													
A = <±0.25%/FS (standard)								-	A				
B = <±0.15%/FS (FA, FAX & FD versions only)								-	B				
Process Connection													
B = F-250C Autoclave (9/16" UNF Female)												B	
D = M16 x 1.5 Female Cone Seal												D	
Cable Length in Metres													
00 = None												-	00
01 = 1 metre												-	01
Specials Code													
000 = No Special Requirements												-	000

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