bar

APR3860 Protran®

High Temperature Pressure Transmitter

- High operating temperatures of up to 250°C
- Easy clean flush membrane to prevent clogging
- Thick film sensor technology for long service life
- Pressure ranges to 400 bar
- Good chemical compatibility for a range of applications
- Integral O-ring seal option to ensure flush pressure seal
- ATEX/IECEx option available (includes M1 for mining applications)

DESCRIPTION

The APR3860 high temperature pressure transmitter has been designed to meet the requirements of the majority of industrial pressure measurement applications where a hygienic flush diaphragm connection is required. Robustly constructed from stainless steel, the APR3860 pressure transmitter permits accurate pressure measurement at elevated temperatures. Output options include 0-5 Vdc, 0-10 Vdc and 4-20 mA. This transmitter is suitable for use at media temperature up to 250 °C. Typical applications include food processing, pharmaceutical and petrochemical. The flush membrane can be easily cleaned for long term reliability and outstanding performance. The APR3860 offers a stable and accurate output signal of 4-20 mA with options for 0-5 Vdc, 0-10 Vdc and other output signals. Electrical connection is via a detachable DIN connector allowing easy access to zero and span adjustment. Pressure ranges available from 0-10 bar to 0-400 bar.

Optional weldable boss is available to ensure flush-face installation of transmitter to tanks and pipe-work.

An optional ATEX and IECEx approved version of this product is available for explosion protection for flammable gases (zone 0), dusts (zone 20) and mining areas (group I M1).

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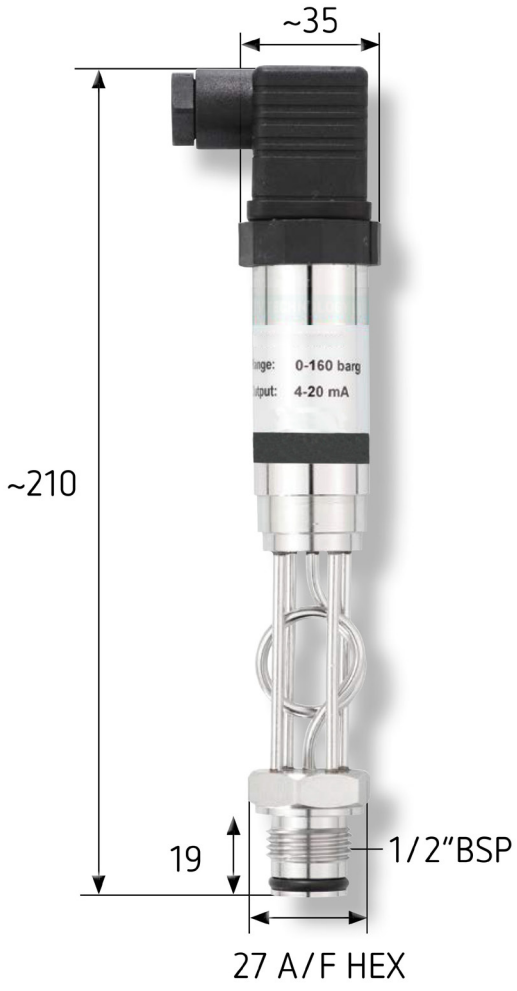
DIMENSIONS (in mm)

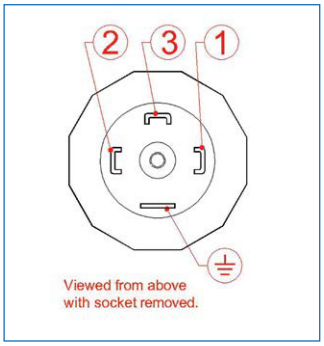
ELECTRICAL CONNECTION (mA)

Pin No.	2 wire
1	+supply
2	4-20mA signal
3	not fitted to case

ELECTRICAL CONNECTION (Vdc)

Pin No.	4 wire	3 wire
1	-supply	common
2	+supply	+supply
3	+output	+output





TECHNICAL DATA

Type:	APR3860	APR3861	APR3862
Sensor Technology:	Ceramic Thick Film		
Output Signal:	4 – 20 mA (2 wire)	0 – 5 V (4 wire)	0 – 10 V (4 wire)
Supply Voltage:	13 – 36 VDC	13 – 30 VDC	13 – 30 VDC
Pressure Reference:	Gauge		
Protection of Supply Voltage:	Protected against supply voltage reversal up to 50 V		
Standard Pressure Ranges (bar):	0 – 10 bar; 0 – 25 bar; 0 – 60 bar; 0 – 100 bar; 0 – 250 bar; 0 – 400 bar (other options available)		
Standard Pressure Ranges (psi):	0-150 psi; 0-300 psi; 0-1,500 psi; 0-3,000 psi; 0-6,000 psi (other options available)		
Overpressure Safety:	1.5x all ranges		
Load Driving Capability:	4 – 20 mA: RL < [UB - 13 V] / 20 mA (e.g. with supply voltage (UB) of 36V, max. load (RL) is 1150 Ω); 0 – 5 V: max load RL > 5 KΩ; 0 – 10 V: max load RL > 10 KΩ		
Accuracy NLHR:	≤ ±0.3 % of span BFSL		
Zero Offset and Span Tolerance:	±1.0 %FS at room temperature; ±5 %FS (approx.) adjustment with easy access trimming potentiometers on amplified versions only		
Operating Ambient Temperature:	-20 °C to +85 °C (-4 °F to +185 °F)		
Operating Media Temperature:	0 °C to +205 °C (+32 °F to 185°F) with standard o-ring ; 0 °C to +250 °C (+32 °F to +482 °F) with optional o-ring (sensor and electronics thermally insulated from media temperature)		
Storage Temperature:	+5 °C to +40 °C (+41 °F to +104°F) Recommended Best Practice		
Temperature Effects:	±2.5% FS total error band for -20 °C to +70 °C. Typical thermal zero and span coefficients ±0.04 %FS/ °C		
ATEX/IECEx Approval Option (4-20mA version 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 1 M1)	n/a	n/a
ATEX/IECEx Safety Values:	Ui = 28 V Ii = 119 mA Pi = 0.65 W Li = 0.1 µH Ci = 62 nF Temperature Range = -20 °C to +70 °C Max. cable length = 105 m	n/a	n/a
Electromagnetic Compatibility:	Emissions: EN61000-6-4; Immunity: EN61000-6-2; Certification: CE Marked		
Insulation Resistance:	> 100 MΩ @ 50 VDC		
Wetted Parts:	SAE 316L stainless steel		
Pressure Media:	All fluids compatible with SAE 316L stainless steel		
Pressure Connection:	1/2" BSP male (G1/2) with standard integral viton (FKM) o-ring seal and flush SAE 316L stainless steel diaphragm. O-ring seal is for service temperature up to max. 205 °C. An alternative o-ring material can be provided for service up to 250 °C (charged accessory)		
Electrical Connection:	Mating socket EN175301-803 Form A (ex DIN43650) rated IP65 with PG9 cable entry (other options available)		
Net. Weight (Kg):	0.8 kg		

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ORDER MATRIX

Output	Wires	Type	Electrical Connection / Options	Pressure Range	Process Connection	Options
4-20 mA	2	APR3860				
0-5 V	4	APR3861				
0-10 V	4	APR3862				

Electrical Connection / Options	
DIN EN175301 plug and socket	D
Cable outlet 1m screened	A
M12 connector	B
Cable outlet 1m screened IP67 protection	C
ATEX/ IECEx certified with DIN EN175301 plug and socket	EX

Pressure Range in bar	
0-10 bar	0010
0-25 bar	0025
0-60 bar	0060
0-100 bar	0100
0-250 bar	0250
0-400 bar	0400

Process Connection	
1/2" BSP flush diaphragm male	BA

Options	
250°C rated o-ring, fitted	HT

Order Number Example	APR3860-0400BA

For options not listed please contact the sales team

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