



bar

## APR3100

Standard Industrial Pressure Transmitter

### FEATURES

- Pressure ranges available from 0-2.5 bar to 0-1000 bar
- Reliable pressure management
- Long service life
- Robust designs



### SPECIFICATIONS

The APR3100 series pressure transmitters have been designed to meet the requirements of the majority of industrial applications of pressure measurement requiring an output of 4-20 mA. Robustly constructed from stainless steel this range of pressure transmitters incorporates the latest strain gauge technology together with a custom IC amplifier, offering excellent stability and accuracy over a long service life.

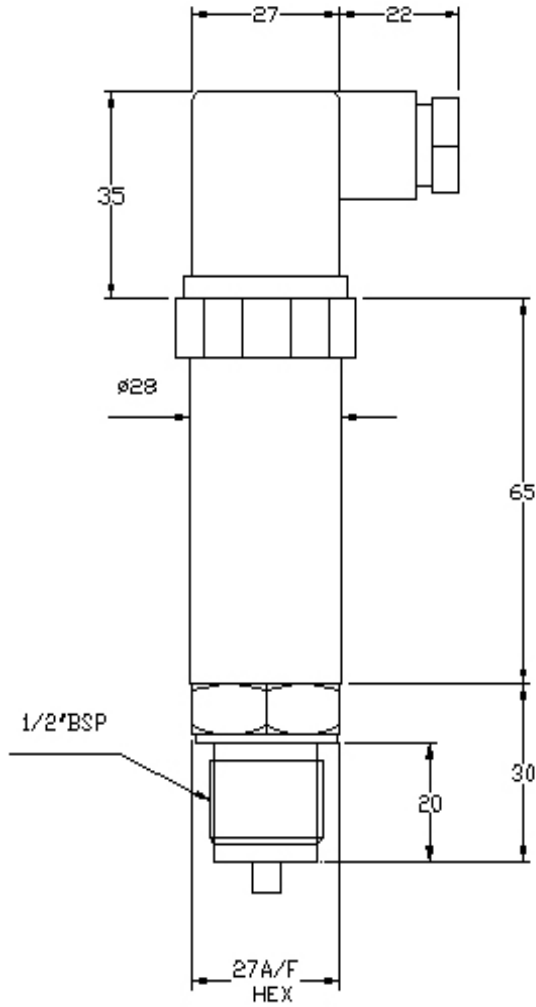
An optional ATEX and IECEx approved version of this product is available for explosion protection for flammable gases (zone 0), dusts (zone 20) and mining areas (group I M1).

#### Typical applications include:

- Mechanical and civil engineering installations
- Process plant
- Production test facilities
- Water resources
- Power generation
- Any application on fluid or gas requiring a stable repeatable and accurate output signal of 4-20 mA.



**DIMENSIONS (in mm)**



**ELECTRICAL CONNECTIONS**

PIN No.	mA		VDC	
	2 wire	4 wire	3 wire	
1	+supply	-supply	common	
2	4-20mA signal	+supply	+supply	
3	N/C	+output	+output	
↓	to case	-output	to case	



## TECHNICAL DATA

Type	APR3100	APR3101	APR3102	APR3103
Sensor Technology:	Ceramic Thick Film or Bonded Foil Strain Gauge			
Output Signal:	4-20 Ma (2 wire)	2 mV/V typical (4 wire)	0-5 V (4 wire)	0-10 V (4 wire)
Supply Voltage:	13-36 VDC	10 VDC (5-15)	13-30 VDC	13-30 VDC
Pressure Reference:	Gauge or Absolute			
Protection of Supply Voltage:	Protected against supply voltage reversal up to 50 V (amplified versions)			
Standard Pressure Ranges (bar):	0 – 1 bar Vac; 0 – 2.5 bar; 0 – 10 bar; 0 – 100 bar; 0 – 250 bar; 0 – 600 bar; 0 – 1,000 bar (other ranges available; absolute to 0 – 400 bar)			
Standard Pressure Ranges (psi):	0-30 in Hg; 0-30 psi; 0-150 psi; 0-1500 psi; 0-3000 psi; 0-10,000 psi; 0-15,00 psi (other ranges available; absolute to 0-5,800 psi)			
Overpressure Safety:	2x for ranges 1 bar to 400 bar; 1.5x for 600 bar range; 1.2x 1,00 bar range			
Load driving Capability:	4-20 mA: RL < [UB-13V] / 20mA (e.g. with supply voltage (UB) of 36V max. load (RL) is 1150); 2mV/V: n/a; 0-5: max load RL > 5 K; 0-10V: max load RL > 10K			
Accuracy NLHR:	< +0.3 % of span BFSL			
Zero Offset & Span Tolerance:	+0.5 %FS at room temperature (PR3101: +0.2 mV); 5 %FS (approx.) adjustment with easy access trimming potentiometers on amplified versions only			
Operating Ambient Temperature:	-20C to +85C (-4F + 185F)			
Operating Media Temperature:	-20C to +85C (-4F to 185F)			
Storage Temperature:	+5C to +40C (+41F to +104F) Recommended Best Practice			
Temperature Effects:	+1.5 %FS total error band for -20 to +70C. Typical thermal zero and span coefficients +0.015 %FS/C			
ATEX/IECEX Approval (4-20 mA version only):	EX II 1 G Ex ia IIC4 GA (Zone 0) Ex II 1 D Ex ia IIIC T135 C Da (Zone 20)	n/a	n/a	n/a
ATEX/IECEX Safety Values:	Ui = 28 V / Li = 119mA / Pi = 0.65 W / Li = 0.1 pH / Ci = 74 nF. Temperature Range = '-20C to +70C. Max. cable length = 45m	n/a	n/a	n/a
Electromagnetic Compatibility:	Emissions: EN61000-6-3; Immunity: EN6100-6-2; Certification: CE Marked			
Insulation Resistance:	> 100 M @ 50 VDC			
Response Time 10-90%:	1 mS			
Wetted Parts:	SAE 316 Stainless Steel and Nitrile NBR O-Ring for ranges up to 20 bar, and SAE 316 stainless steel, alumina and nitrile (NBR) seal for ranges over 20 bar			
Pressure Media:	All fluids compatible with SAE 316 Stainless Steel and Nitrile NBR O-Ring for ranges up to 20 bar, and SAE 316 stainless steel, alumina and nitrile (NBR) seal for ranges over 20 bar			
Pressure Connection:	1/4" BSP male (G1/4); 1/4" NPT male; BSP male (G1/2); 1/2" NPT male (other options available)			
Electrical Connection:	Mating socket EN175301-803 Form A (ex DIN43650) rated IP65 with PG9 cable entry (other options available)			
Net Weight:	0.3 Kg			



■ TECHNICAL DATA

Output	WiresT	ype	Electrical Connection/ Options	Pressure Range	Process Connection	
4-20 mA	2A	APR3100				
2 mV/V	4A	APR3101				
0-5 Vdc	4A	APR3102				
0-10 Vdc	4	APR3103				
Electrical Connections/Options						
Din plug and socket						-
Cable outlet 1m screened						A
M12 connector						B
Cable outlet 1m screened IP67 protection						C
ATEX/IECEX certified with DIN EN175301 plug						EX
Pressure Range in bar						
0-1 bar Vac						V001
0-2.5 bar						02.5
0-10 bar						0010
0-100 bar						0100
0-250 bar						0250
0-600 bar						0500
0-1,000 bar						1000
Process Connection						
1/4" BSP male (G1/4)						AB
1/4" NPT Male						AM
1/2" BSP male (G1/2)						AC
1/2" NPT male						AN

Order Number Example

APR3100-0100AC

For options not listed please contact the sales team

**DISCLAIMER:** We reserve the right to change specifications without prior notice. specifications without prior notice. All manufactured products are calibrated with precision calibration equipment that is traceable to national measurement standards.

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The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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