## Thermosense

# **Datasheet**

#### APB5/APB5V Pressure/Vacuum Transmitter (0~5V, G1/4)

The APB range of high accuracy, low cost ceramic pressure and vacuum transmitters are designed for use in most industrial applications and are suitable for the measurement of most pressure mediums.

The transmitters incorporate a high quality thick-film ceramic sensor and special amplified circuit. Output is 0~5V DC (3-wire). The pressure diaphragm is made from ceramic material and its wetted parts are made from 316L stainless steel.

Because of the thermal stability of ceramic and its thickfilm resistance, the transmitters can be operated at a higher temperature range; at the same time this makes the zero and sensitivity thermal shifts over the whole operating temperature range of the transmitter very small.

- 0~5V DC output signal
- · G1/4 1/4" BSP(M) process connection
- · Pressure and vacuum options
- · Vast pressure measurement range
- · Wide application scope and long service life
- · Automatic testing and laser trimming compensating zero and sensitivity
- · High accuracy and long-term stability
- · Good anti-corrosion and anti-impact ability
- · Available ranges from -1 to +100 bar
- IP65 rated

#### Technical Details

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Pressure Medium	Gas or liquid compatible with ceramic and stainless steel			- D-
Pressure Range	-1 100 bar			
Overload Pressure	150%FS			K_
Burst Pressure	200%FS			
Output Signal	0~5V DC (3-wire)			1
Accuracy	0.25%FS			5
Load Resistance	No limit			
Long-Term Stability	< 0.2%FS/year	E	27mm Ø	_
Supply Voltage	12~30VDC	8		
Compensated Temperature Range	0~70°C	· '		
Operating/Storage Temperature Range	-20°C to +80°C / -30°C to +90°C			
Temperature Coefficient of Zero/Span	0.3%FS/10°C	8		27mm
Insulation Resistance	100MΩ@50VDC	E C		- Across
Process Connection	G1/4 - 1/4" BSP(M)	÷		Flats
Electrical Connection	Hirschmann style connector (others available)	6	∎tl ( † † 1	
Material of Wetted Part	1Cr18Ni9Ti	- E		
Material of Pressure Membrane	Ceramic (Piezoresistive pressure sensor above 200 bar)	- <u>+</u>	┻┥	
Material of Housing	1Cr18Ni9Ti		G1/4	
Sealing	N-Butyronitrile or Fluoro-Rubber Sealing Ring		20mm Ø	
Ingress Protection Rating	IP65 rated			
Speed of Response	1ms	1000		

	range (bar)	order code		
Pressure	0 to 1.0	APB5-0010		
Pressure	0 to 1.6	APB5-0016		
Pressure	0 to 2.5	APB5-0025		
Pressure	0 to 4.0	APB5-0040		
Pressure	0 to 6.0	APB5-0060		
Pressure	0 to 10.0	APB5-0100		
Pressure	0 to 16.0	APB5-0160		
Pressure	0 to 25.0	APB5-0250		
Pressure	0 to 40.0	APB5-0400		
Pressure	0 to 60.0	APB5-0600		
Pressure	0 to 100.0	APB5-1000		
Vacuum	-1 to 0.0 *	APB5V-0000		
Vacuum	-1 to 1.5	APB5V-0015		
Vacuum	-1 to 2.5	APB5V-0025		
* supplied with a silicon element				



Main body terminals

Hirschmann style connector



0~5V (3-wire) output wiring example



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