

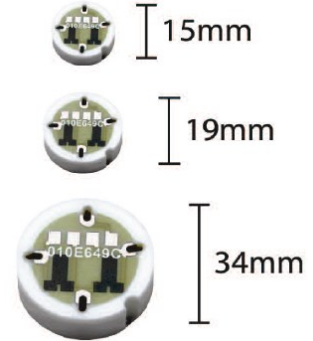
OEM Pressure Sensors

DS2902



Features:

- Superb chemical and corrosion resistance
- High output
- High bridge resistance
- Excellent linearity
- Low cost
- Low supply current
- High electrical isolation
- Excellent long term stability
- Small size
- Bridge balanced at zero applied pressure



Description:

The OEM pressure sensor is a high performance, cost effective solution available in standard ranges from 100mbar to 600bar. All ranges are available in gauge or absolute format. It is ideal for continuous use in applications where the pressure medium is wet and corrosive and long term stability is of prime importance.

Manufactured from high purity alumina ceramics, the OEM pressure sensor possesses superb chemical and abrasion resistance, making it unrivalled for use with virtually any pressure medium.

The diaphragm of the sensing element has a four active-arm strain gauge bridge fused to its inner face. This direct fusion ensures excellent long term stability and repeatability, which, coupled with the matched bridge network, provides excellent linear thermal characteristics.

Designed for your requirements:

INTERCONNECTIONS

- Customer wire lengths & preparation
- Ribbon Cables
- Headers / Sockets
- Custom pitch / pad layout
- Designed for your requirements
- Others, contact Sales

OUTPUT

- Zero & Span trim set points
- Ratiometric Voltage output
- Voltage output
- 4-20mA
- Temperature compensated
- Offset Zero available



General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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P34X (34mm dia) OEM CERAMIC SENSOR

Sensor range (bar)	0.5	1.0	2.0	5.0	10	20	50	100	200	350	500	700
Thickness (mm normal)	7.3	7.3	7.3	7.4	7.4	7.8	8.3	8.3	8.3	9.0	9.5	10.0
Sensitivity mV/V $\pm 30\%$	2.5	3.5	4.5	6.5	7.0	8.0	7.5	10.0	8.5	7.0	6.5	9.0
Burst pressure	3X sensor range minimum											
Sensor diameter	33.70mm - 34.35mm											
Supply Voltage	1 - 30Vdc											
Operating Temperature	-25°C to +125°C											
NL&H (%FRO.BSL)	< ± 0.25 (< ± 0.1 available)											
TZS (%FRO/°C)	< $\pm 0.04\%$ Typical											
TSS (%FRO/°C)	<-0.04 Typical											
Zero output laser trim	< ± 0.2 mV/V											
Bridge resistance	10K $\pm 30\%$											
Long Term Stability	< $\pm 0.1\%/y@25^\circ\text{C}$											
Material	96% AL ₂ O ₃ ceramic											
For "O" ring and mounting details see Drawing A												

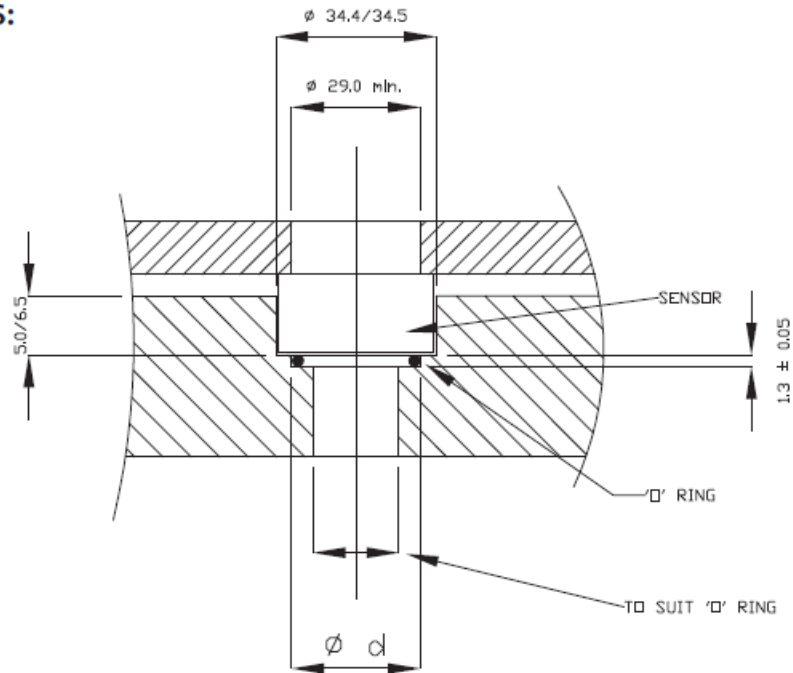
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CONNECTION DETAILS:

- 1. INPUT +
- 4. INPUT -
- 5. OUTPUT +
- 3. OUTPUT -



O RING DETAILS

RANGE	O RING	DIMENSION 'd'
UP TO 1 BAR	BS022	28.25 - 28.50 mm
2 - 20 BAR	BS020	25.15 - 25.40 mm
200 - 300 BAR	BS014	15.35 - 15.60 mm
500 - 700 BAR	CONSULT RM & C	

DRAWING A

P19X (19mm dia) OEM CERAMIC SENSOR

Sensor range (bar)	0.1	0.4	1.0	2.0	3	5	10	20	50	100	200	400	600
Thickness (mm normal)	6.2	6.2	6.2	6.3	6.4	6.4	6.5	6.6	6.8	7.3	7.8	8.6	9.5
Sensitivity mV/V $\pm 30\%$	0.9	2.2	3.0	3.0	3.0	3.5	4.0	5.0	4.5	4.0	5.0	4.0	3.0
Burst pressure	3X sensor range minimum												
Sensor diameter	18.60mm - 19.00mm												
Supply Voltage	1 - 30Vdc												
Operating Temperature	-25°C to +150°C												
NL&H (%FRO.BSL)	< ± 0.25 (< ± 0.1 available)												
TZS (%FRO/°C)	< $\pm 0.04\%$ Span / °C typical												
TSS (%FRO/°C)	<-0.04 reading / °C typical												
Zero output laser trim	< ± 0.2 mV/V												
Bridge resistance	10K $\pm 30\%$												
Long Term Stability	< $\pm 0.1\%/y@25^\circ\text{C}$												
Material	96% AL ₂ O ₃ ceramic												
For "O" ring and mounting details see Drawing B													

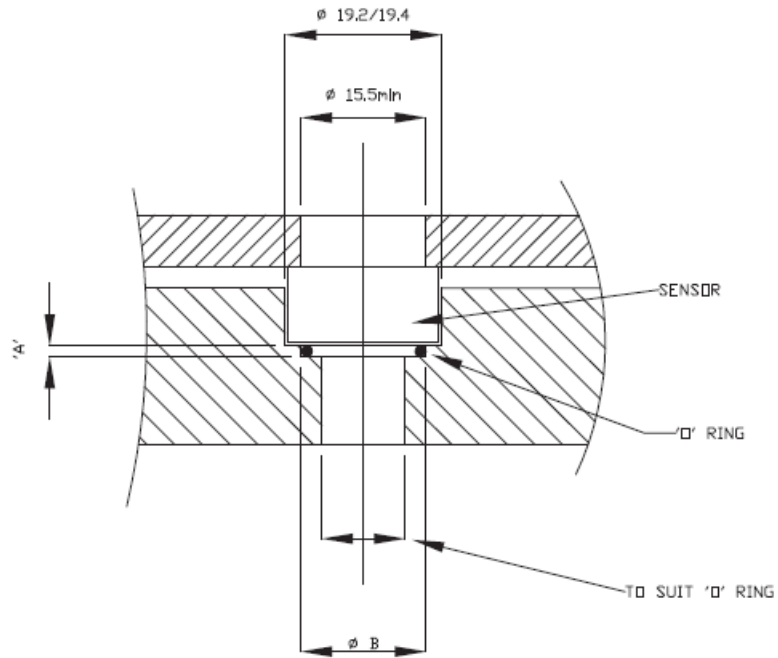
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CONNECTION DETAILS:

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2. OUTPUT +
4. OUTPUT -



'D' RING DETAILS

RANGE	SIZE	A	B
0.1-100 BAR	12 x 2	1.35/1.45	16.10/15.95
200-600 BAR	7 x 2	1.40/1.50	11.20/11.10

DRAWING B

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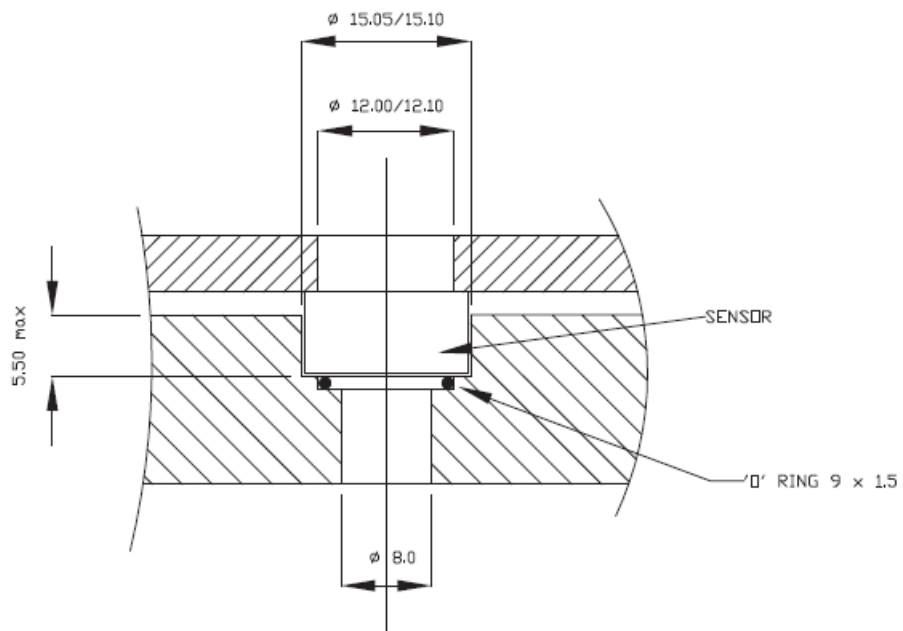
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P15X (15mm dia) OEM CERAMIC SENSOR

Sensor range (bar)	0.4	1.0	2.0	3.0	4	5	10	20	50	150	200
Thickness (mm normal)	6.20	6.20	6.26	6.26	6.31	6.31	6.38	6.49	6.49	7.06	7.28
Sensitivity mV/V $\pm 30\%$	1.3	3.7	2.8	4.3	3.4	4.2	4.5	4.8	6.4	5.4	5.4
Burst pressure	3X sensor range minimum										
Sensor diameter	14.80mm - 15.00mm										
Supply Voltage	1 - 30Vdc										
Operating Temperature	-25° to $+125^{\circ}$ C										
NL&H (%FRO.BSL)	$<\pm 0.25$ ($<\pm 0.1$ available)										
TZS (%FRO/ $^{\circ}$ C)	$<\pm 0.07$										
TSS (%FRO/ $^{\circ}$ C)	<-0.04 Typical										
Zero output laser trim	$<\pm 0.2$ mV/V										
Bridge resistance	10K $\pm 30\%$										
Long Term Stability	$<\pm 0.1\%/y@25^{\circ}$ C										
Material	96% AL_2O_3 ceramic										
For "O" ring and mounting details see Drawing C											

CONNECTION DETAILS:

1. INPUT +
3. INPUT -
2. OUTPUT +
4. OUTPUT -



DRAWING C

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