

# PULSAR *bar*

## *Pulsarbar* 700

PULSAR  
Process Measurement

Pulsarbar is a range of pressure and level transmitters that are perfect for demanding applications throughout industry and the utilities. They are exceptionally stable and combine advanced sensing technology with modern manufacturing methods to provide a superb pressure transducer with very long life. All Pulsarbar pressure transducers are submersible. The robust measurement cell provides good overrange protection and, with accuracy of at least 0.25% fsd, you can specify Pulsarbar with confidence. Typical applications include borehole level measurement, sumps, tanks and basin depth.

### *Pulsarbar 720 General Purpose Transducers*

Pulsarbar 720 features a stable and accurate strain gauge sensor that provides accuracy of 0.25% together with a welded stainless steel back end for all demanding or submersible applications. Models are available for pressure ranges of vacuum to 400bar and offer a stability of 0.2% full scale per year (non-cumulative). Gauge, absolute and relative pressure versions are available, with a choice of millivolt, voltage and current outputs.



### *Pulsarbar 750 Low Range Transducers*

Pulsarbar 750 features a strong ceramic diaphragm with high over-pressure capability and very accurate capacitance technology that will detect minute pressure variations while withstanding large pressure spikes. Sensing ranges are available from 25 mbar to 1 bar, with voltage or current output options. Sensing range is adjustable via a potentiometer to give a 3:1 turndown ratio from the capsule range.



### *Pulsarbar 760 transducers with turn-down*

For applications where a wide range ability is required the Pulsarbar 760 provides an internal 5:1 turndown capability using a potentiometer. Gauge and absolute sensing ranges are available from 180mBar to 400bar. The Pulsarbar 760 features a sputtered sensing element for high stability with an accurate strain gauge sensor. The Pulsarbar 760 has a rugged stainless steel enclosure. Design life is 100 million full scale cycles.



*Pulsarbar 700 series  
pressure transducers*

**Pulsar Process  
Measurement Ltd.**  
Oak House  
Bromyard Road  
Worcester WR2 5HP  
England

Tel: +44 (0)870 6039 112  
Fax: +44 (0) 870 6039 114  
info@pulsar-pm.com  
web: www.pulsar-pm.com

**Pulsar Inc**  
PO Box 800  
Shalimar  
Florida 32579  
USA

Tel: +1 850 609 1777  
Fax: +1 850 651 4777  
info@pulsar-us.com  
www.pulsar-us.com

# Technical Specification: PULSAR<sub>bar</sub> 700 series

Pulsarbar version	Pulsarbar 720	Pulsarbar 750	Pulsarbar 760
-------------------	---------------	---------------	---------------

## Input

Pressure range	Vacuum to 400bar	0-25mbar to 0-1bar	0.18 to 400bar
Proof pressure	2 x full scale (FS) (1.5 x FS for 400bar)	2bar for range to 200mbar 4bar for range 201 to 350mbar 7bar for range 351mbar to 1bar	2 x full scale (FS)
Burst pressure	>35 x FS (<=6bar) >20 x FS (>=60bar) >5 x FS (<=400bar)	3bar for 70mbar & below 4bar for 71 to 200mbar 6bar for 201 to 350mbar 10bar for 351mbar to 1bar	>35 x FS (<=6bar) >20 x FS (>=60bar) >5 x FS (<=400bar)
Fatigue life	> 100 million FS cycles	10 million FS cycles	> 100 million FS cycles
Supply voltage	24Vdc (7-35Vdc) 4-20mA output version	9-35Vdc 4-20mA version	8.5-40 Vdc 4-20mA only

## Performance

Long term drift	0.2% FS per year (non-cumulative)	0.25% FS per year	0.15% FS per year (non-cumulative)
Accuracy	0.25% FS typical	0.2% span maximum	0.15% FS typical
Thermal error	1.5% FS typical	2% span maximum	0.5%-1% FS typical
Compensated temperatures	-20 to 80°C	-20 to 60°C	-20 - 80°C
Operating temperatures	-20 - 50°C submersible version	-20 - 50°C submersible version	-20 - 50°C submersible version
Zero/Span tolerances	1% of span	0.1% of span	0.1% of span
Zero adjustment	approx 10% factory set	+/-10%	+/-10% (100% at factory)
Span adjustment	approx 50% factory set	+/-10%	17 - 100% of span (potentiometer)

## Mechanical Configuration

Pressure port	Various	Various	Various
Wetted parts	17-4 PH stainless steel	s/s to UNS 31803 Inconel 625, ceramic and nitrile	17-4 PH stainless steel
Electrical connection	moulded cable submersible	moulded cable submersible	moulded cable submersible
Enclosure	Submersible version IP68	Submersible version IP68	Submersible version IP68
Approvals	CE	CE; ExII 1G; EExia IIB*	CE; ExII 1G; EExia II CT4*
Weight	Approx 100g (cable 75g/m)	330g plus cable	250g plus cable

\* ExII is optional extra

## Output

Output	4-20mA (2 wire)	4-20mA (2 wire)	4-20mA (2 wire)
Max loop resistance	(Vs-7) x 50 ohms	(Vs-9) x 50 ohms	(Vs-8.5) x 50 ohms
Versions	Millivolt and voltage output versions also available	Voltage output version also available	Current output only

nb: Specifications of individual models vary. Please contact Pulsar for specification details for a particular application

Our policy is one of constant development and improvement. Pulsar reserves the right to amend technical details as necessary.

Represented by



ISO 9001 : 2000

sira



Certificate N°: 950136

### Pulsar Process Measurement

Oak House, Bromyard Road, Worcester WR2 5HP England Tel: +44 (0)870 6039 112; Fax: +44 (0)870 6039 114  
e-mail: info@pulsar-pm.com [www.pulsar-pm.com](http://www.pulsar-pm.com)

### Pulsar Inc

Pulsar Inc. PO Box 800 Shalimar Florida 32579 USA Tel: 001 850 609 1777 Fax: 001 850 651 4777  
e-mail: info@pulsar-us.com [www.pulsar-us.com](http://www.pulsar-us.com)