



Wideband Spherical Sensor

The Wideband Spherical Sensor (JS-B100-C4DS-PA) is a cutting edge, high quality, high-performance solution to a wide and varied range of underwater acoustic measurement applications.

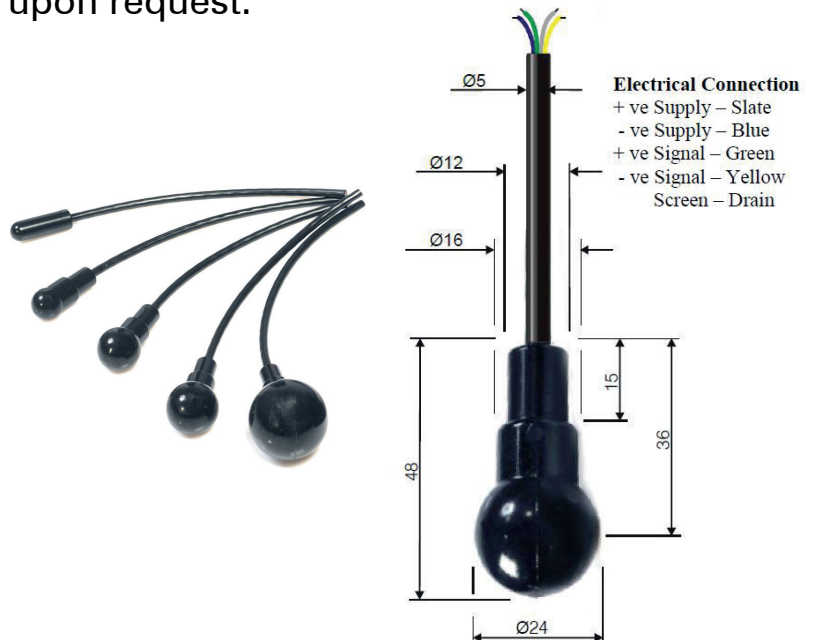
Key Features

- High sensitivity, wideband output
- Low noise, low power, high gain, differential pre-amplification
- Acceleration cancelled response
- Minimal directivity variation
- Robust, long term operational reliability and stability
- Excellent tolerance to environmental variation
- Simple electrical and mechanical system integration options
- Wide environmental condition tolerance

The Wideband Spherical Sensor combines a high sensitivity, acceleration cancelling, wideband spherical hydrophone element with an internally mounted, miniature low noise, low power, high gain differential pre-amplifier.

The Wideband Spherical Sensor is one of a family of high-quality spherical transducers; polyurethane moulded for standalone applications or epoxy resin coated for internally integrated applications.

The Wideband Spherical Sensor is supplied as standard with 2m of cable and conductor flying leads for user self-termination. Alternative cable lengths and factory fitted and moulded underwater mateable connector options are available upon request.



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Parameter	Qualification	Nominal Specification
Receive Voltage Sensitivity	Nominal [diff. O/P] Low Freq. (100 Hz)[diff. O/P]	-168 dB re. 1V/uPa -166 +/- 2 dB re. 1V/uPa
Frequency Response	Flat +/- 1.5 dB Flat +/- 3 dB	<50 Hz to >20 kHz <25Hz to >100 kHz
Noise Floor	10kHz	<28 dB re.1uPa $\sqrt{\text{Hz}}$
Linear Dynamic Limit	Max Acoustic Pressure	168 dB re. 1uPa
Directivity Response	Radial Plane at 100 kHz Axial Plane at 100 kHz	Omni +/- 1.5 dB 300° +/- 2 dB
Current Consumption	5 V dc supply (3V – 5.5V range)	<10 mA
Max. Depth	Operational >3000m Survival	>3000m >4000m
Diameter	Maximum	24.0 mm
Length	Overall (not inc. cable)	48 mm
Mass	In air (inc. 2m leads)	90g
Electrical Connection	Prepared for customer self termination	Tinned flying lead ends – shorted together for delivery.
Mounting Options (Mechanical)	1) Self Suspension 2) External Clamping	1) Support self weight on cable 2) Ø12 x 15 rear axial shank

