Low Range Precision Tension & Compression

LOAD CELL

DBCR Series

- **Capacities 10N to 500N**
- **Sealed to IP65**
- **High Accuracy**
- **Compact Size**
- **Robust Construction**
- **3 YEAR WARRANTY**

Options Available

Other Ranges Available on request

Spherical Rod End Bearings

Load Buttons

Different Cable Lengths

Shunt Calibration Facility

Full range of mounting options available (consult factory)

Higher Accuracy Versions available (consult factory)

DESCRIPTION

The DBCR range of low capacity high precision load cells has been designed for the measurement of compressive and tensile forces. They are used extensivelyfor bi-directional testing across a wide range of research and industrial applications.

Typical applications include material test machines, component test rigs and general in-line force measurement. The DBCR can also be used in low capacity weighing applications, particularly with small suspended hoppers, where a slim, compact and accurate load cell is required.

There are several options available with the DBCR series which makes it possible for the user to match the product even more precisely with their requirements.

The DBCR, as with all other Omni Instruments sensors, can be supplied complete with monitoring/control electronics and calibrated as a system (please refer to the Instrumentation datasheets).

Omni Instruments
Measurement > Control > Data Acquisition

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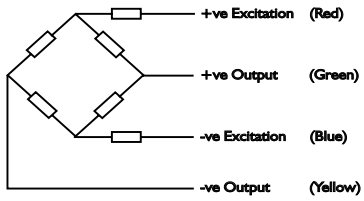
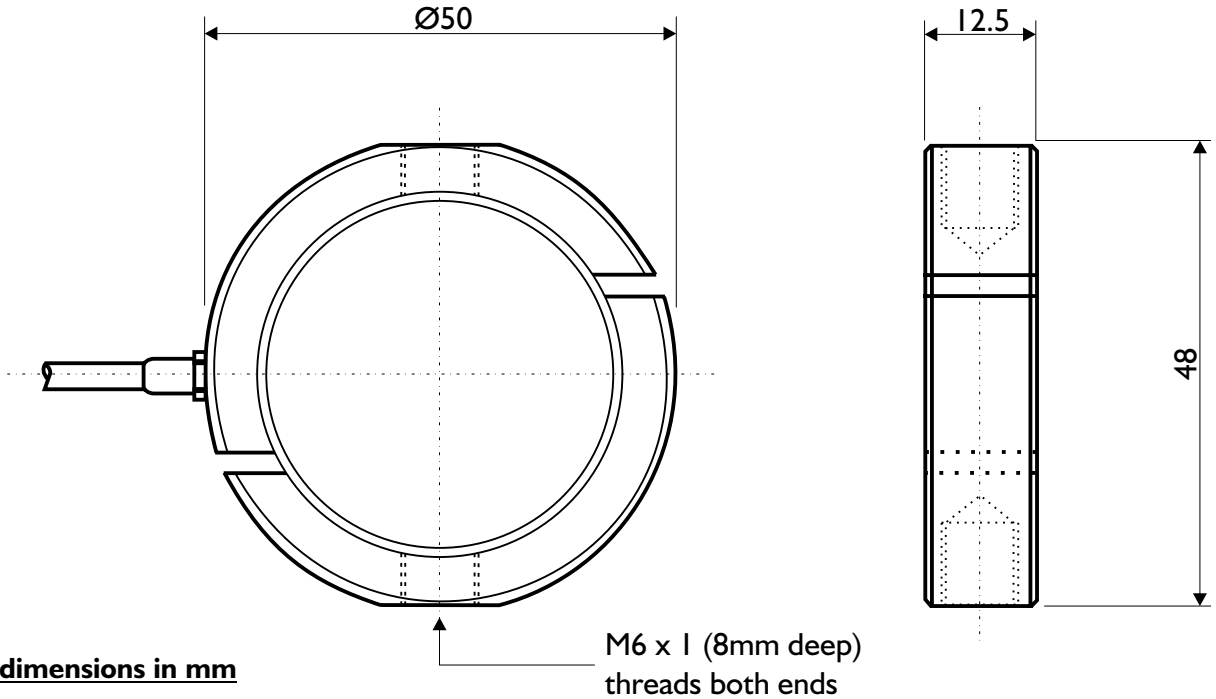
SPECIFICATION

Wiring Schematic Diagram



CHARACTERISTICS		DBCR	UNITS
Rated Capacities:		10, 20, 50, 100, 250, 500	N
Rated Output:		2.0 ±0.1%	mV/V
Non-Linearity:		<0.05	±% of Rated Output
Repeatability:		<0.02	±% of Rated Output
Hysteresis:		<0.02	% of Rated Output
Output Symmetry:		<0.20	±% of Rated Output
Zero Balance:		<1.0	±% of Rated Output
Temperature Range	Operating:	-20 to +80	°C
	Compensated:	0 to +70	°C
Temperature Effect	On Output:	<0.005	±% of Applied Load/ °C
	On Zero:	<0.005	±% of Rated Output/ °C
Safe Overload:		150	% of Rated Capacity
Ultimate Overload:		200	% of Rated Capacity
Excitation	Recommended:	10	Volts AC or DC
	Maximum:	15	Volts AC or DC
Input Impedance:		375	Ohms
Output Impedance:		350	Ohms
Insulation Impedance:		>500	Megaohms
Construction:		10N-20N Aluminium Alloy, 50N-500N Stainless Steel	
Environmental Protection:		IP65	
Cable:		2 Metre 4 Core Screened	



All dimensions in mm

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