

# Stainless Steel Tension and Compression **LOAD CELL**

## DBCL Series



Note: Picture shows version with optional spanner flats

- Capacities 1 tonne to 100 tonne
- Sealed to IP66 (optional IP67 & submersible versions)
- Special sizes and ranges available
- Imperial threads and male or male/female end threads
- Robust Construction
- Simple Installation
- **3 YEAR WARRANTY**

#### Options Available

Higher Capacities up to 300 tonnes  
Different Cable Lengths  
Special electrical connections  
Spherical rod end bearings  
Version with spanner flats

### **DESCRIPTION**

The DBCL series load cell is ideal for measuring both tensile and compressive forces. The standard metric threads at each end of the load cell are designed to accept standard spherical seating rod-end Bearing.

There is great flexibility in the DBCL design, allowing us to offer special sizes, to meet specific application requirements, or different end thread sizes/combinations. There are versions available with male threads at each end, or male threads one end, female the other. We are also happy to supply any of the DBCL series with imperial thread sizes.

The DBCL series can be supplied as shown in this datasheet or can be modified to meet a particular application requirement. We are always pleased to discuss any special requirements that can be accommodated. The DBCL series can be supplied on it's own or combined with our extensive range of instrumentation to provide a complete load monitoring system.

*Transducer Specialists...*

## **APPLIED MEASUREMENTS LIMITED**

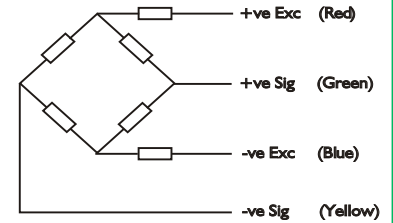
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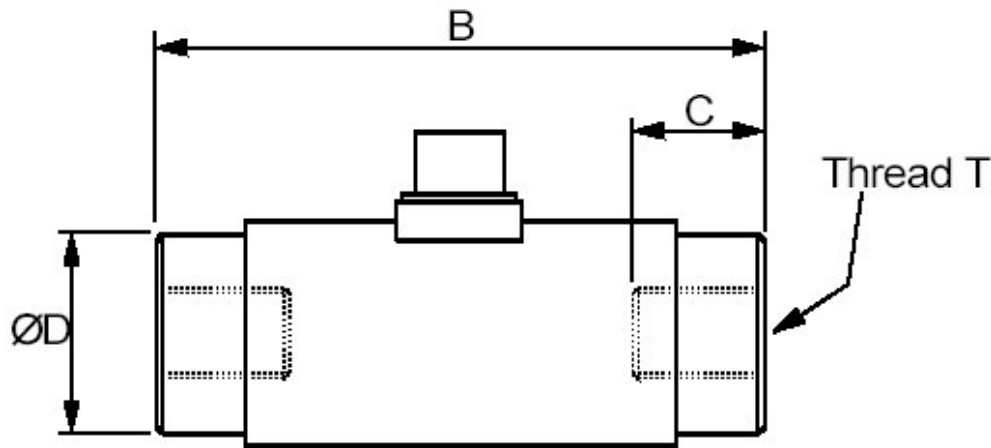
# SPECIFICATION

Wiring Schematic Diagram



CHARACTERISTICS	DBCL	UNITS
Rated Capacities:	1, 2, 3, 5, 7.5, 10, 20, 30, 50, 75, 100	Tonnes
Rated Output:	1.5 at rated load (nominal)	mV/V
Accuracy:	<0.20	±% of Rated Load
Zero Return after 30 mins.:	<0.030	±% of Rated Load
Zero Balance:	<2.0	±% of Rated Output
Temperature Range Operating:	-20 to +70	°C
Compensated:	-10 to +50	°C
Temperature Effect On Output:	<0.010	±% of Applied Load/°C
On Zero:	<0.010	±% of Rated Output/°C
Safe Overload:	150	% of Rated Capacity
Ultimate Overload:	300	% of Rated Capacity
Excitation Recommended:	10	VAC or VDC
Maximum:	15	VAC or VDC
Input Impedance:	375 ± 10	Ohms
Output Impedance:	350 (700 for ranges above 30 tonnes)	Ohms
Insulation Impedance:	>500	Megaohms
Construction:	Stainless Steel	
Environmental Protection:	IP66 (IP67 or submersible optional)	
Electrical Connection:	Integral bayonet lock connector with 5m mating cable assembly	
Output Symmetry:	<0.1%	±% of Rated Load

Note: The DBCL is calibrated in compression only as standard, there is an additional charge for calibration in tension



All dimensions in mm

RANGE (te)	B	C	ØD	Thread T
1, 2	76	16	31	M12 x 1.25
3, 5	84	22	38	M20 x 1.5
7.5, 10	108	29	44	M24 x 2
20	203	50	57	M36 x 3
30, 50	355	89	114	M64 x 4
75, 100	458	100	130	M100 x 3

Please contact sales to discuss capacities greater than 100 tonnes

