

Amber Instruments Ltd

High Accuracy Compression Load Cells



- ◆ Capacities: 5,000, 10,000, 20,000 & 30,000 kg (5, 10, 20 & 30 tons)
- ◆ Stainless steel construction
- ◆ Small size, low profile
- ◆ Current matched and rationalized
- ◆ Fully welded, providing IP68 protection
- ◆ OIML R60 approved, to 4000 divisions
- ◆ Hazardous area approved to EEx ia IIC T6

Model 220 is a low profile bending ring load cell designed for high capacity weighing applications, including weighbridges, tanks, silos and high capacity platform scales as well as force measurement.

Its small physical size, combined with high accuracy and low cost, makes this load cell ideally suited for modern low profile designs in both approved applications and process weighing.

This high accuracy load cell is OIML R60 approved to 4000 divisions. For hazardous environments, this load cell has an EEx ia IIC T6 approved option. When combined with Amber Instruments mounting accessories, this load cell will provide a simple, accurate and reliable weighing system.

The two additional sense wires feed back the voltage reaching the load cell. Complete compensation of changes in lead resistance due to temperature change and/or cable extension, is achieved by feeding this voltage into the appropriate electronics.



Amber Instruments Ltd

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Torque Transducers, Load Cells (general purpose, weighing & fatigue rated). Multi-Axis Force/Torque, Weighing Instruments, Process Instruments, Portable Data Loggers, Pressure Sensors, Proximity Sensors, Laser (Distance Measuring) Sensors, & more.

High Accuracy Compression Load Cells

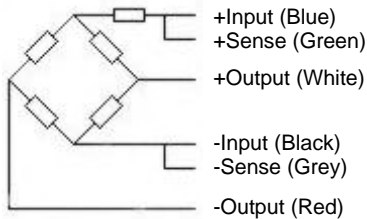
GRADE	C1	C3	C4	UNITS
Rated Capacities	5,000, 10,000, 20,000, 30,000			kg
Rated Output	2.0 ± 0.1%			mV/V
Total Error*	0.050	0.020	0.017	±% of Applied Load
Zero Return after 30 mins	0.050	0.017	0.013	±% of Applied Load
Temperature Effect: On Output	0.0040	0.0010	0.0010	±% of Rated Output / °C
Temperature Effect: On Zero	0.0028	0.0009	0.0010	±% of Rated Output / °C
Zero Balance	3.0	2.0		±% of Rated Output
Temperature Range: Operating	-30 to +70			°C
Temperature Range: Compensated	-10 to +40			°C
Safe Overload	150			% of Rated Capacity
Ultimate Overload	300			% of Rated Capacity
Excitation: Recommended	10			Volts AC or DC
Excitation: Maximum	15			Volts AC or DC
Input Impedance	1065 ± 50			Ohms
Output Impedance	1000 nominal			Ohms
Insulation Impedance	>2000			Mega Ohms
Deflection at Rated Capacity	<0.5			mm
Weight	1.10 (5T), 1.50 (10T), 3.25 (20 & 30T)			kg
Construction	Stainless Steel			
Environmental Protection	IP68			
Cable	5m (5T), 10m (10 & 20T) 20 Meters (30T), 6 Wire PU, Double Screened			
Approvals	OIML R60 (4000 divisions)			

*Total Error - According to OIML R60

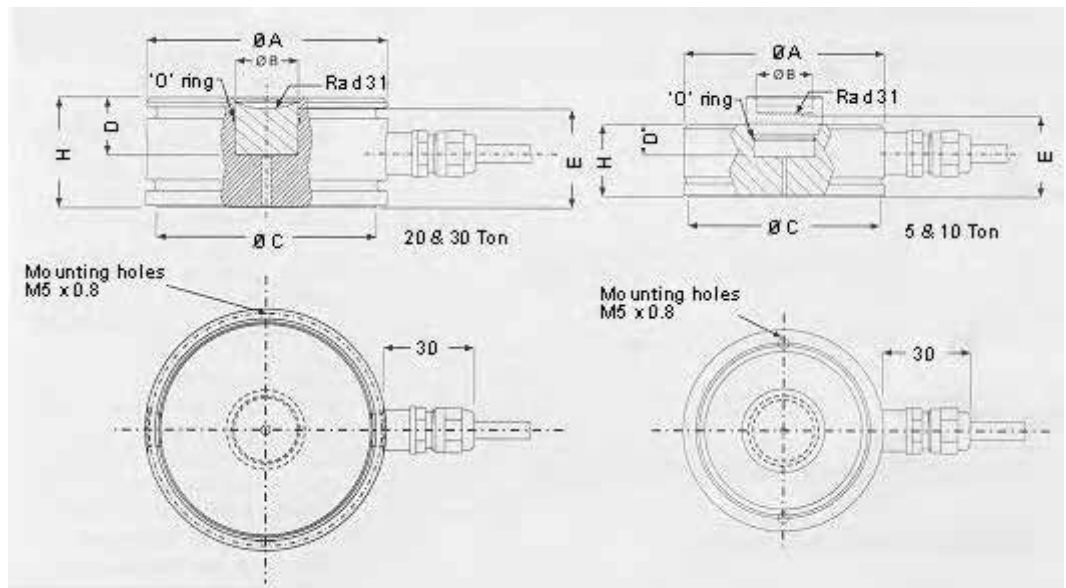
** 30% minimum utilization

Standard minimum utilization 20% - Other utilization factors available upon request.

Wiring Schematic Diagram



Outline Dimensions All Capacities (in mm)



Product Weight (per capacity)	
5 ton	1.10 kg
10 ton	1.5 kg
20-30 ton	3.25 kg

	ØA	ØB	ØC	D	E	H
5T	80.0	19	70	20	33.4	30
10T	92.0	28	80	14.6	33.4	33
20T	110	29	101.5	26.3	39	50
30T	110	29	101.5	26.3	39	50