

# HCB SINGLE ENDED BEAM LOAD CELL



## DESCRIPTION:

The HCB is a high performance stainless steel beam type load cell. An integral mounting step removes the need for spacer plates and ensures optimum "bolt down" conditions.

This product is suitable for small and medium platform scales, hybrid scales, pallet weighers and process weighing.

The fully welded construction and waterblock cable-entry ensure that this product can be used successfully in harsh environments found in the food, chemical and allied process industries.

This product meets the stringent Weights and Measures requirements throughout Europe.

## FEATURES:

- # Low profile, stainless steel construction
- # Hermetically sealed, IP66 and IP68
- # Certified to OIML R-60, **4000d**
- # **1000W** bridge impedance
- # EEx(i) versions are available for use in hazardous areas
- # Current calibration output (SC version) ensures easy and accurate parallel connection of multiple load cells
- # Integral mounting step
- # **CAPACITIES: 250 65000 kg**

# HCB: SPECIFICATIONS

Standard Capacities (= E <sub>max</sub> )	Kg	250, 500, 1000, 2000, 5000				
Accuracy Class According to OIML R-60			C2	C3	C4	C3MI6 <sup>2</sup>
Max. Number of Verification Intervals (n <sub>v</sub> )			2000	3000	4000	3000
Minimum Verification Interval (V <sub>min</sub> )			E <sub>max</sub> /7000	E <sub>max</sub> /10000	E <sub>max</sub> /13500 <sup>3</sup>	E <sub>max</sub> /15000
Minimum Utilisation	%		30	30	30	20
MDLOR (Z = E <sub>max</sub> / 2 * DR)			--	--	--	6000
Minimum Verification Interval type MR <sup>2</sup>				E <sub>max</sub> /20000	E <sub>max</sub> /20000	--
Minimum Utilisation Type MR <sup>2</sup>	%			15	20	--
Accuracy According to Type Designation		CC	C2	C3	C4	C3MI6
Combined Error	%S	#" 0.0500	#" 0.0230	#" 0.0200	#" 0.0170	#" 0.0200
Non-Repeatability	%S	#" 0.0200	#" 0.0100	#" 0.0100	#" 0.0090	#" 0.0100
Minimum Dead Load Output Return <sup>1</sup>	%S	#" 0.0500	#" 0.0250	#" 0.0167	#" 0.0125	#" 0.0083
Creep Error (30 Minutes) <sup>1</sup>	%S	#" 0.0600	#" 0.0245	#" 0.0245	#" 0.0184	#" 0.0245
Creep Error (20-30 Minutes) <sup>1</sup>	%S	#" 0.0200	#" 0.0053	#" 0.0053	#" 0.0039	#" 0.0053
Temp. Effect on Min. Dead Load Output	%S/5EC	#" 0.0250	#" 0.0100	#" 0.0070	#" 0.0050	#" 0.0070
Temp. Effect on Min. Dead Load Output MR <sup>2</sup>	%S/5EC			#" 0.0035	#" 0.0035	#" 0.0035
Temp. Effect on Sensitivity	%S/5EC	#" 0.0250	#" 0.0045	#" 0.0045	#" 0.0035	#" 0.0045
Minimum Dead Load	%E <sub>max</sub>	0				
Maximum Safe Overload	%E <sub>max</sub>	150				
Ultimate Overload	%E <sub>max</sub>	300				
Maximum Safe Sideload	%E <sub>max</sub>	100				
Deflection at E <sub>max</sub>	mm	0.25/ 0.20/ 0.22/ 0.25/ 1.0				
Excitation Voltage	V	5...12				
Maximum Excitation Voltage	V	15				
Rated Output (= S)	mV/V	2				
Tolerance on Rated Output	mV/V	±0.02				
Zero Balance	%S	≤± 1.0				
Input Resistance	Ω	1000 ± 10				
Output Resistance	Ω	1000 ± 10				
Insulation Resistance	MΩ	≥ 5000				
Compensated Temperature Range	EC	-10... + 40				
Operating Temperature Range	EC	-40... + 80				
Storage Temperature Range	EC	-40... + 90				
Element Material (DIN)		Stainless Steel 1.4542				
Sealing (DIN 40.050)		IP66 and IP68				
SC-Version (Current Calibration)		Standard				
Recommended Torque on Fixation Bolts	Nm	50 6 75 (550 for 5t version)				
EEx(I) Certification		EEx Ia IIC T6 / EEx Ia IIC T4 <sup>2</sup>				

- 1 Applies for the temperature range -10 to + 40 °C  
 2 Not applicable for 5t version  
 3 12500 for 5t version

"SC-Version" The "Rated Output" and the "Output Resistance" are balanced in such a way, that the output current is calibrated to within 0.05% of a reference value. This allows an easy parallel connection of load cells.

Accuracy classes C2, C3, C4, C3MR and C4MR are in agreement with the OIML recommendation R-60. The correct mounting of the load cells is essential to ensure optimum performance. Cable length 3m, six-wire standard, four wire optional. Cable screen is not connected to load cell body.

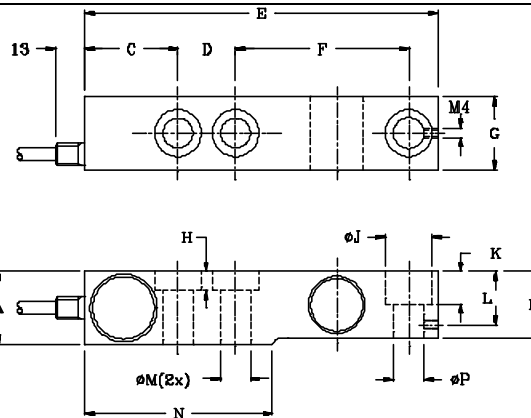
Further information is available on request.

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Capacity	250	500	1000	2000	5000
A	31.8	31.80	31.80	35.80	44.0
B	25.2	26.10	29.15	34.00	40.0
C	41.0	41.0	41.0	41.0	19.1
D	25.4	25.4	25.4	25.4	38.1
E	155.5	155.5	155.5	155.5	172.0
F	76.2	76.2	76.2	76.2	95.3
G	31.8	31.8	31.8	31.8	38.0
H	8.0(2x)	8.0(2x)	8.0(2x)	8.0(2x)	--
J	20.5(3x)	20.5(3x)	20.5(3x)	20.5(3x)	30.2
K	14.2	14.2	14.2	14.2	20.0
L	23.2	23.2	23.2	23.2	30.0
M	13.0	13.0	13.0	13.0	20.5
N	82.6	82.6	82.6	82.6	76.2
P	13.5	13.5	13.5	13.5	17.5

### REGIONAL OFFICE UK

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### Wiring:

Excitation + Green  
 Excitation - Black  
 Output + White  
 Output - Red  
 Sense + Yellow  
 Sense - Blue  
 Screen Orange

### Attention:

Dimensions: mm.  
 All dimension tolerances according to DIN 7168:  
 middle accuracy unless otherwise specified

All specifications subject to change without notice