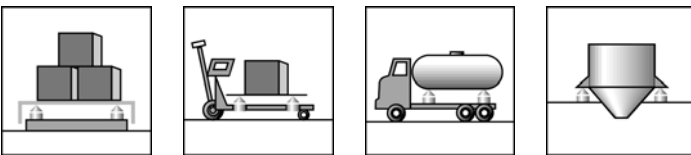


# HLCB2...

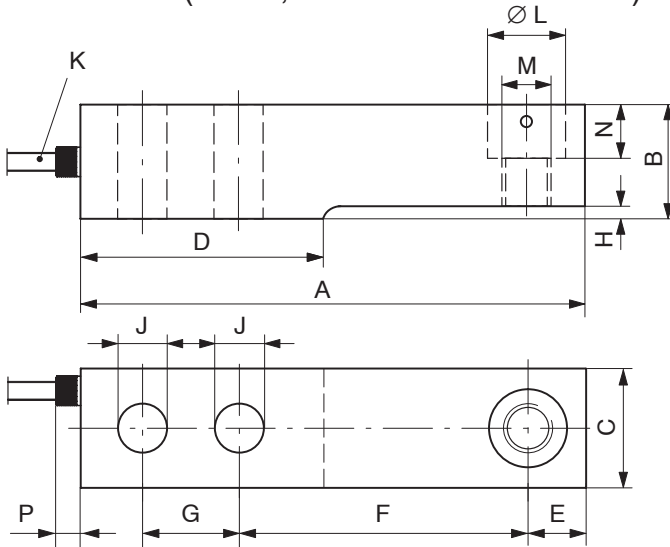
## Load Cells

### Special features

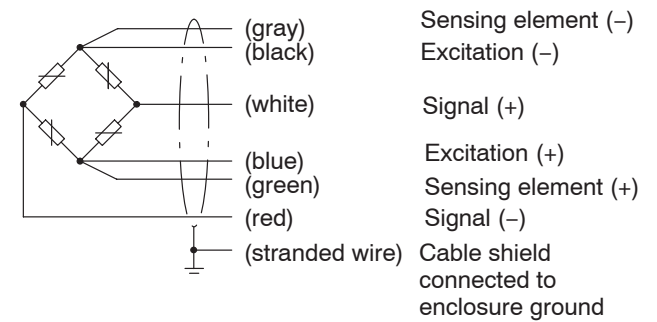
- Hermetically encapsulated (IP68, IP69K)
- Maximum capacities: 110 kg to 4.4 t
- Rust-resistant materials
- Low height of construction
- Six-wire configuration
- Optimized for parallel connection
- Meets EMC requirements in accordance with EN 45 501
- Legal for trade per OIML R60 to 6000 divisions



Dimensions (in mm; 1 mm = 0.03937 inches)



Cable assignment (six-wire configuration)



Maximum capacity ( $E_{max}$ )	A	B	C	D	E	F	G	H	J	K	Ø L	M	N	P
110 kg, 220 kg, 550 kg, 1.1 t	133.4	30.2	30.7	57.7	15.4	76.2	25.4	1.7	13	3 m	20.6	M12	14.2	12
1.76 t	133.4	30.2	30.7	51.7	15.4	76.2	25.4	1.7	13	3 m	20.6	M12	14.2	12
2 t, 2.2 t	171.5	36.5	36.8	76.2	19.1	95.3	38.1	2.5	20.5	6 m	30.2	M20	17.0	12
4.4 t	171.5	42.9	42.9	76.2	19.1	95.3	38.1	2.5	20.5	6 m	30.2	M20	20.1	12

## Specifications

Type		HLCB2			
Accuracy class <sup>1)</sup>		C3	C4	C6	
Number of load cell verification intervals	$n_{LC}$	3000	4000	6000	
Maximum capacity	$E_{max}$	110 kg, 220 kg, 550 kg, 1.1 t, 1.76 t, 2 t, 2.2 t, 4.4 t	220 kg; 550 kg; 1.1 t		
Minimum load cell verification interval	$v_{min}$	% of $E_{max}$	0.0100 (110 kg, 220 kg, 1.76 t, 2 t, 2.2 t, 4.4 t) 0.0090 (550 kg; + 1.1 t)		
Nominal (rated) sensitivity	$C_n$	mV/V	1.94		
Sensitivity tolerance		%	± 0.1		
Temperature effect of zero signal <sup>2)</sup>	$TK_0$	% of $C_n$	± 0.0140 (110 kg, 220 kg, 1.76 t, 2 t, 2.2 t, 4.4 t) ± 0.0127 (550 kg, 1.1 t)		
Temperature coefficient of sensitivity <sup>2)</sup>	$TK_C$	/ 10 K	± 0.0140	± 0.0105	
Relative reversibility error <sup>2)</sup>	$d_{hy}$	% of $C_n$	± 0.0166	± 0.0125	
Non-linearity <sup>2)</sup>	$d_{lin}$		± 0.0170	± 0.0166	
Creep upon loading over 30 min.	$d_{cr}$		± 0.0166		± 0.0122
Minimum dead load output return	$MDLOR$		± 0.0166	± 0.0125	± 0.0083
Input resistance	$R_{LC}$	Ω	350 ... 480		
Output resistance	$R_0$		350 ± 2	350 ± 0.12	
Reference excitation voltage	$U_{ref}$	V	5		
Nominal (rated) range of the excitation voltage	$B_U$		0.5 ... 15		
Insulation resistance	$R_{is}$		> 5		
Nominal (rated) ambient temperature range	$B_T$	°C	-10 ... +40		
Operating temperature range	$B_{tu}$		-30 ... +70		
Storage temperature range	$B_{tl}$		-50 ... +85		
Limit load	$E_L$	% of $E_{max}$	150		
Limit lateral loading	$E_{lq}$		100		
Breaking load	$E_d$		300		
Relative permissible oscillatory stress (oscillation width per DIN 50100)	$F_{srel}$		70		
Nominal (rated) displacement at $E_{max}$ , approx.	$s_{nom}$	mm	0.5 (1.76 t = 1.4 mm)		
Weight, approx.	$G$	kg	0.9 (110 kg ... 1.76 t); 1.6 (2 t, 2.2 t); 2.2 (4.4 t)		
Degree of protection per EN 60 529 (IEC 529)			IP 68 / IP 69K		
Material:	Measuring body Cable entry Cable sheath Measuring point protection		Stainless steel <sup>3)</sup> Stainless steel <sup>3)</sup> (seal: Viton <sup>®</sup> ) TPE Hermetically welded		

<sup>1)</sup> Per OIML R60 with  $P_{LC} = 0.7$ .

<sup>2)</sup> The values for non-linearity ( $d_{lin}$ ), relative reversibility error ( $d_{hy}$ ) and temperature coefficient of sensitivity ( $TK_C$ ) are recommended values. The sum of these values is within the cumulated error limit laid down by OIML R60.

<sup>3)</sup> Per EN 10 088-1.

### Accessories (see separate data sheet "HLC... load cells"):

To minimize error effects from load application, HBM offers different tried and tested load application elements for this type of load cell, according to the mounting conditions:

HLCB/ZFP/...T	Oscillating loading foot
HLCB/PCX/1.76T	Oscillating loading foot (height adjustable)
HLCB/...T/ZEL	Elastomer bearing
HLCB/ZDP/...T	Elastomer bearing <i>Easy Top</i>
HLC/ZPU/...T	Mounting base / mounting kit

Subject to modifications.  
All product descriptions are for general information only. They are not to be understood as a guarantee of quality or durability.

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