

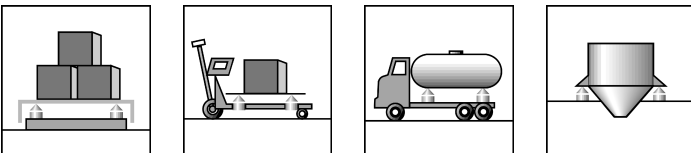
# HLCB2...

## Load cells

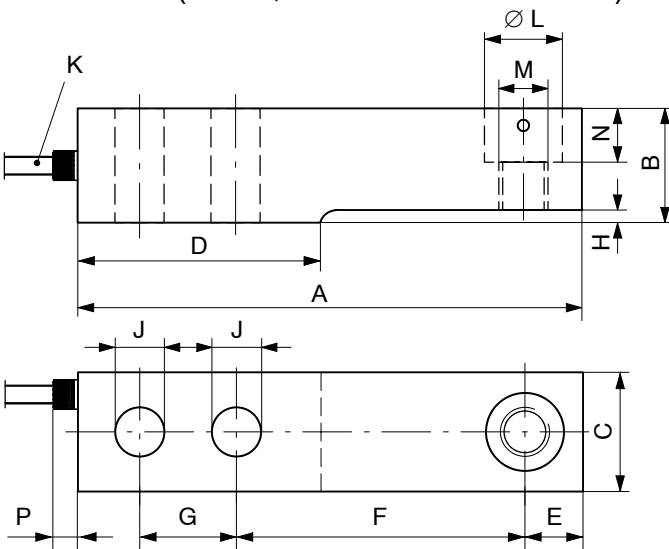
### Special features



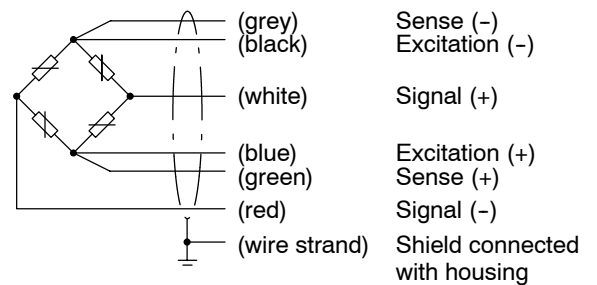
- Hermetically sealed (IP68, IP69K)
- Max. capacities: 220 kg ... 4,4 t
- Stainless steel
- Low overall height
- Meets EMC/ESD requirements according to EN 45 501
- Complies with OIML R60 regulations up to 3000d for scales according to EN 45 501
- Explosion-proof versions according to ATEX 95 optional



### Dimensions (in mm; 1 mm= 0.03937 inches)



### Wiring code (6-wire circuit)



Max. capacity ( $E_{max}$ )	A	B	C	D	E	F	G	H	J	K	Ø L	M	N	P
220 kg; 550 kg; 1.1 t; 1.76 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
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

## Technical Data

Type		HLCB2
Maximum capacity ( $E_{max}$ )		220 kg; 550 kg; 1.1 t; 1.76 t, 2.2 t, 4.4 t
Accuracy class according to OIML R60		C3
Maximum number of load cell intervals ( $n_{LC}$ )		3000
Minimum LC verification interval ( $v_{min}$ )	% of $E_{max}$	0.0100 (220 kg; 1.76 t; 2.2 t; 4.4 t) 0.0090 (550 kg; + 1.1 t)
Sensitivity ( $C_n$ )	mV/V	1.94
Sensitivity tolerance	%	± 0.1
Temperature effect on zero balance ( $TK_0$ ) <sup>1)</sup>	% of $C_n$ / 10 K	± 0.0140 (220 kg; 1.76 t; 2.2 t; 4.4 t) ± 0.0127 (550 kg; + 1.1 t)
Temperature effect on sensitivity ( $TK_C$ ) <sup>1)</sup>		± 0.0140
Hysteresis error ( $d_{hy}$ ) <sup>1)</sup>	% of $C_n$	± 0.0170
Non-linearity ( $d_{lin}$ )		± 0.0170
Creep ( $d_{cr}$ ) over 30 min.		± 0.0166
Input resistance ( $R_{LC}$ )		> 350
Output resistance ( $R_0$ )	Ω	350 ± 2
Reference excitation voltage ( $U_{ref}$ )	V	5
Nominal range of excitation voltage ( $B_U$ )		0.5 ... 15 ( Ex-Versionen max. 12 V !!! )
Insulation resistance ( $R_{is}$ )	GΩ	> 5
Nominal temperature range ( $B_T$ )	°C	-10 ... +40
Service temperature range ( $B_{tu}$ )		-30 ... +70
Storage temperature range ( $B_{tl}$ )		-50 ... +85
Safe load limit ( $E_L$ )	% of $E_{max}$	150
Lateral load limit ( $E_{lq}$ )		100
Breaking load ( $E_d$ )		300
Permissible dynamic load ( $F_{srel}$ ) (vibration amplitude according to DIN 50100)		70
Deflection at $E_{max}$ ( $s_{nom}$ ), approx.	mm	0.5 (1.76 t = 1.4 mm)
Weight (G), approx.	kg	0.9 (220 kg ... 1.76 t); 1.6 (2.2 t); 2.2 (4.4 t)
Protection class to EN 60 529 (IEC 529)		IP 68 / IP 69K
Material: Measuring element Cable fitting Cable-sheath Application protection (sealing)		Stainless steel Stainless steel (Gasket: Viton®) TPE <b>hermetically welded</b>

<sup>1)</sup> The data for Non-linearity ( $d_{lin}$ ), Hysteresis error ( $d_{hy}$ ) and Temperature effect on sensitivity ( $TK_C$ ) are typical values. The sum of these data meets the requirements according to OIML R60.



### Accessories (see Data sheet “HLC... - Load Cells“):

In order to minimize error interferences due to load introduction, HBM offers various proven load introductions for this load cell type, depending on the mounting situation:

<b>HLCB/ZFP/...T</b>	Swivel load foot
<b>HLCB/ZAK/1.76T</b>	Swivel load foot (height adjustable)
<b>HLCB/...T/ZEL</b>	Elastomer bearing
<b>HLCB/ZDP/...T</b>	Elastomer bearing <i>Easy Top</i>
<b>HLC/ZPU/...T</b>	Base plate / Mounting kit

## Options

### HLCB2 Load cells, optional versions [ !!! ] 1)

Order no.					
K-HLCB2 1)					
Code	Option 1: Design				
S	Standard (= IP69K protection class; connection cable free of halogen and silicone)				
Code	Option 2: Accuracy				
C3	C3 (OIML)				
Code	Option 3: Capacity		EUR	Code	Option 3: Capacity
220	220kg		326	1760	1.76t
550	550kg		315	2200	2.2t
1100	1.1t		315	4400	4.4t
Code	Option 4: Ex protection (accord. to ATEX 95)				
N	non ATEX				
1	ATEX Zone 1 + 21 and FM				
2	ATEX Zone 2 + 22 (non-conductive dust)				
Code	Option 5: Cable length				
S3	3m (Standard) [ only with Option 3 = 220 / 550 / 1100 / 1760 ]				
S6	6m (Standard) [ only with Option 3 = 2200 / 4400 ]				
6	6m [ only with Option 3 = 220 / 550 / 1100 / 1760 ]				
12	12m				
20	20m				
K-HLCB2 - <b>S</b> - <b>C3</b> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>					

[ !!! ]: Not all codes can be combined with each other. Please take heed of the terms in the square brackets!

1) Available for delivery expected from 2nd Quarter 2008 - availability on request!

### Options for HLC...:

- **Explosion-proof versions according to ATEX:** Ex II 2G EEx ia IIC T4 resp. T6 (Zone 1) \*\*)  
Ex II 2D Ex tD A21 IP68 T 80°C (Zone 21) \*\*)  
\*\*) with EC-Type Examination Certificate  
  
Ex II 3G EEx nA II T6 (Zone 2)  
Ex II 3D IP68 T 80°C (Zone 22 for non-conductive dust)

Modifications reserved.

All details describe our products in general form only. They are not to be understood as express warranty and do not constitute any liability whatsoever.

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