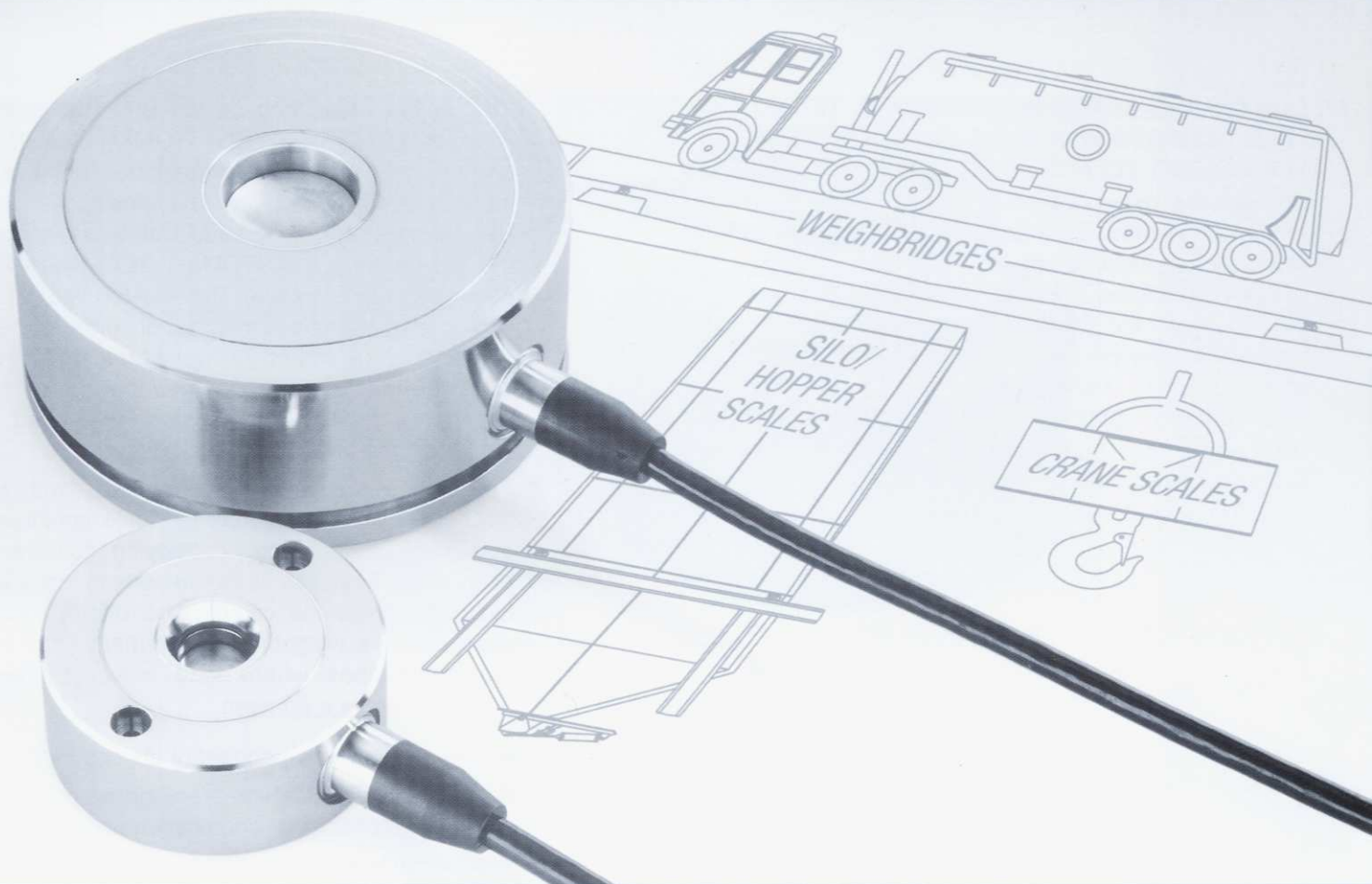


# BR Compression Ring Load Cells



- Compact low profile, stainless steel throughout.
- Hermetically sealed, conforming to EEC protection standard IP68.
- Hermetically sealed cable entry, proof against water jet cleaning, and ingress of dirt etc.
- Automatically accepts concentric & eccentric loading forces.
- Overload protection.
- Suitable for scales complying EEC class III calibration rules & regulations.
- OIML R60 / PTB Certification, to 4000 division.
- Allows parallel wiring of multi load cell applications.
- Capacities range 0,5 to 50 tons.
- EEx(i)-version for intrinsically safe areas, optional.

EHP- High Performance Stainless Steel Compression Ring Load Cells are internationally recognised.

The modern, dynamically balanced load cell design is based upon a flexible load bearing ring element. The actual deflection of element provides an accurate indication of applied load.

Laserwelded housing with EHP unique cable entry encapsulation ensures long term elimination ingress of possible contaminants.

Suitable for applications in most hazardous environments, such as chemical and food industries.

The BR- Compression Ring Load Cells are specifically designed to meet the EEC class III scales according OIML recommendation R60.

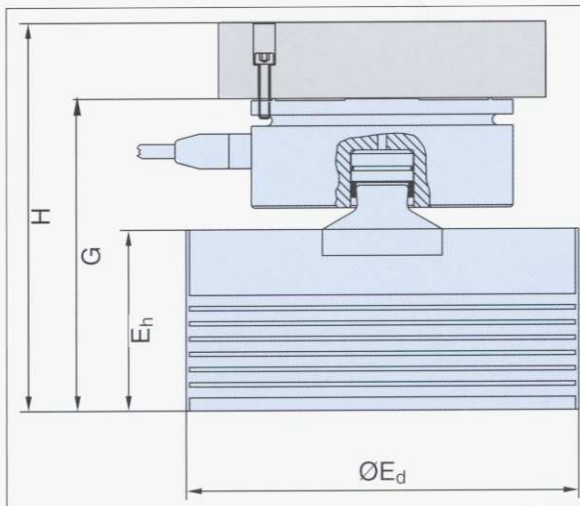
Ideally suitable for all commercial applications, i.e., platform scales, silo / hopper weighing, weighbridges "road & rail", process control and other automative projects, together with all static weighing applications.

# BR Elastomer Bearing

**BR-Load Cell 30t  
with  
Elastomer  
Bearing**



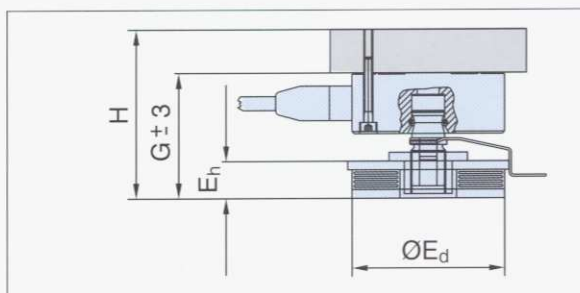
10t ... 50t



**BR-Load Cell 2t  
with  
Elastomer  
Bearing**



0,5t ... 3t



The weight measuring device BR- Compression Ring Load Cell with BR-ELASTOMER BEARING is a robust, and high accuracy load measuring device for all industrial type scales. The force applied to the BR- Compression Ring Load Cell is controlled by the self-centring ELASTOMER BEARING, a unique flexible component. The ELASTOMER BEARING dampens shock loading, absorbs off-centre movements of scales or weighbridge platforms, and silo mounts etc., and aligns the applied force directly to the BR-Compression Ring Load Cell thus ensuring total accuracy throughout.

The BR- Compression Ring Load Cell with ELASTOMER BEARING simplifies scale construction and plant design, whilst achieving considerable economies. Ease of installation adds to many technical attractions the combination offers, such as silo's, hoppers, weighbridges and many more weigher applications where load movement would otherwise prove a problem.

- Self-aligning, independent of applied load.
- Ideally suitable for high-precision weighing, all known applications, and environments.
- Maximal lateral deflection possible.
- Dustproof and watertight.
- Adjustable height applicable to capacities 0.5 to 3t.
- Impervious to bi-lateral movement of platform, and load mounts.
- Shock absorbing of vertical deflection.
- Eliminates the need of tie rods, and buffer stops.
- Easy to install and maintain.
- Very low profile.

## Dimensions / Lateral Deflections / Reaction Forces

Capacity [t]	E <sub>h</sub> [mm]	E <sub>d</sub> [mm]	G [mm]	H (*) [mm]	S <sub>max</sub> [mm]	F <sub>vertical</sub> [kN/mm]	F <sub>lateral</sub> [N/mm]
0,5/1	17	70	57,5	72,5	2	50	500
2/3	17	70	57,5	87,5	2	50	500
10	59	125	114	154	6	119	320
30	83	180	143	183	10	165	800
50	83	180	152	212	12	216	1100

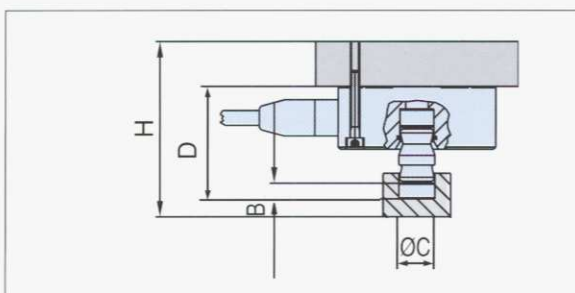
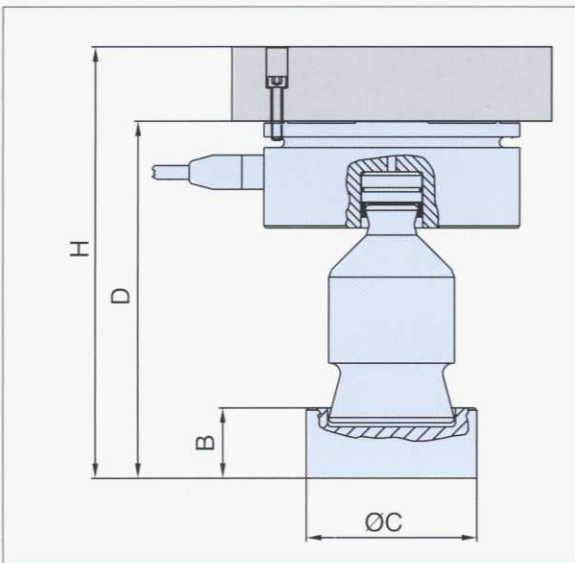
(\*): Mounting height. Full technical details with delivery of order.

# BR Rocker Pin

**BR-Load Cell 30t  
with  
Rocker-Pin**



10t ... 50t



**BR-Load Cell 2t  
with  
Rocker-Pin**

0,5t ... 5t

The BR- Compression Ring Load Cell with BR-ROCKER PIN is an excellent combination to use in Quality Weighing Systems. The BR-ROCKER PIN is designed and constructed to geometrically combine with radial components. Extreme accuracy is provided with this economical high performance, and simple to install method of weighing. Self-centring ROCKER PIN enables the full weight of load to be measured without the adverse influences associated with misalignment of Load Cells together with typical weighbridge kinetics, both lateral and horizontal. The BR- Compression Ring Load Cell with BR-ROCKER PIN can be installed in weighbridges and silo / hopper scales, both one or retrofit.

- Self-aligning.
- Low profile design for ultra-slim applications.
- Fully stainless steel components.
- Easy to install.
- Low physical weight.
- Customised variations available to suit all scales and projects.
- Suitable for extremely harsh and hazardous environments.
- Water and chemical proof.

## Dimensions / Lateral Deflections / Reactions Forces

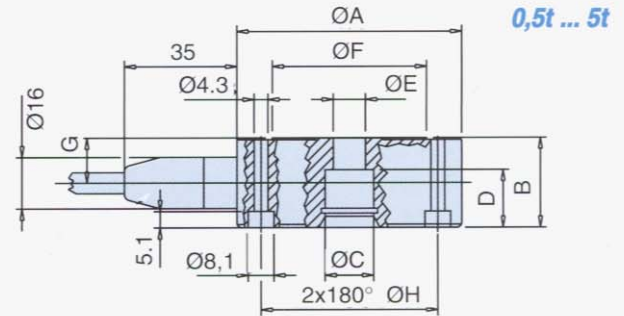
Capacity [t]	B [mm]	ØC [mm]	D [mm]	H (*) [mm]	S <sub>max</sub> [mm]	F <sub>rel</sub> [%/mm]
0,5 / 1	6	10 H9	41,5	62,5	±2,5	4,9
2 / 3	8	16 H9	50	88	±3,0	3,9
5	11	18 H9	63	114	±4,3	2,8
10	26	55	121,5	161,5	±8,0	2,9
30	33	100	167,5	207,5	±11,0	1,9
50	47	100	188	248	±13,5	2,1

(\*): Mounting height. Full technical details with delivery of order.

# BR Compression Ring Load Cells

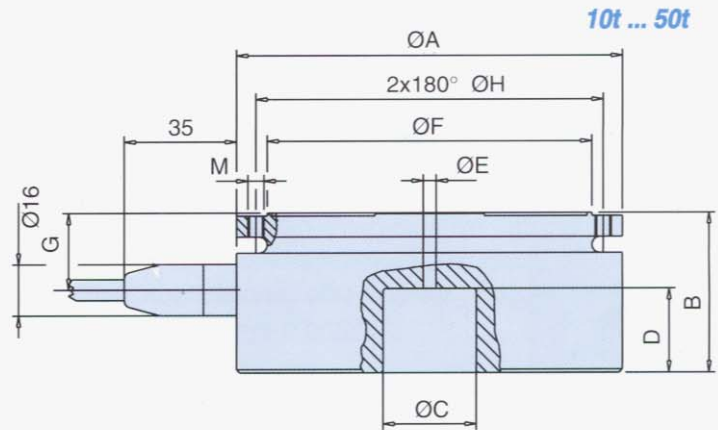
## Dimensions

Capacity [t]	ØA [mm]	B [mm]	ØC [mm]	D [mm]	ØE [mm]
0,5/1	52	25	10	18	7
2 / 3	70	28	15	18	10
5	92	32	18	21	15
10	92	33	28	15	4
30	120	50	29	26	4
50	130	60	40	29	4



0,5t ... 5t

Capacity [t]	ØF [mm]	G [mm]	ØH [mm]	M [mm]	K [mm]	Cable [m]
0,5/ 1	36,5	13	43	4,3	87	3
2 / 3	48	14	55	4,3	105	6
5	72,5	16	80	4,3	127	10
10	75	20	80	M5	127	10
30	101	24	108	M5	155	10
50	112	36	120	M6	165	16



10t ... 50t

## Specifications

All data stored at nominal temperature range.

Capacity (= E <sub>max</sub> )	L <sub>n</sub>	t	0,5 / 1 / 2 / 3 / 5 / 10 / 30 / 50	
			BR / D1	BR / C3
Type / Accuracy Class according to OIML R60			BR / D1	BR / C3
Maximum number of verification intervals	n <sub>max</sub>		1000	3000
Minimum verification interval	v <sub>min</sub>		E <sub>max</sub> / 3500	E <sub>max</sub> / 14000
Temperature coefficient sensitivity	TK <sub>C</sub>	% / 10 K	< 0,035	< 0,012
Temperature coefficient zero	TK <sub>0</sub>	% / 10 K	< 0,040	< 0,010
Combined error	F <sub>comb</sub>	%	< 0,080	< 0,018
Hysteresis	F <sub>u</sub>	%	< 0,050	< 0,017
Minimum dead load output return	C <sub>MDLOR</sub>	%	< 0,050	< 0,017
Maximum permissible change (mpc) for creep : 0 - 30 minutes	C <sub>C</sub>	%	< 0,0420	< 0,0210
: 20 - 30 minutes	C <sub>C</sub>	%	< 0,0090	< 0,0045
Nominal sensitivity	C <sub>n</sub>	mV / V	2	
Sensitivity tolerance	Z	%	< +1	
Input resistance	R <sub>e</sub>	Ohm	1160 ± 60	
Output resistance	R <sub>a</sub>	Ohm	1015 ± 65	
Insulation resistance	R <sub>is</sub>	G Ohm	> 20	
Reference input voltage	U <sub>sr</sub>	V	10	
Maximum voltage supply	U <sub>smax</sub>	V	30	
Minimum dead load	L <sub>De,min</sub>	%E <sub>max</sub>	0	
Maximum load with damage	L <sub>l</sub>	%E <sub>max</sub>	150	
Destructive load	L <sub>d</sub>	%E <sub>max</sub>	> 500	
Rel.static limit concentric & eccentric	L <sub>lq</sub>	%E <sub>max</sub>	75	
Load cell deflection at nominal load	h <sub>n</sub>	mm	< 0,08 ± 0,02	
Reference temperature	t <sub>r</sub>	°C	23	
Nominal temperature range	B <sub>tn</sub>	°C	- 10 ... + 40	
Temperature range	B <sub>t</sub>	°C	- 30 ... + 85	
Storage temperature range	B <sub>ts</sub>	°C	- 50 ... + 95	
EEC protection class (DIN 40050, EN 60529)	hermetically sealed, laserwelded housing IP 68 / 1m water pressure, 1000hours, IP 69K (water under high pressure)			
Material	high-grade stainless steel 17/4 PH, polished			
EEx(i) Certification	EEx ib IIC T6			
Cable	6-wir-PUR-cable Ø 6,5 mm, screened			

Technical variations may cause the specifications to change

**EHP**  
**Wägetechnik**  
**GmbH**

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