

SHBxR SINGLE ENDED BEAM LOAD CELL



DESCRIPTION:

The SHBxR is a fully weld-sealed stainless steel bending beam type load cell.

This product is suitable for low capacity platform scales, packaging machines, hybrid scales and process weighing.

Fully welded construction and water block cable-entry ensure that this product can be used successfully in harsh environments found in the food, chemical and allied industries.

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

FEATURES:

- Fully welded, stainless steel construction
- Hermetically sealed, IP66 and IP68
- Certified to OIML R-60, **4000d**
- ATEX certified versions are available for use in potentially explosive atmospheres
- Current calibration output (SC version) ensures easy and accurate parallel connection of multiple load cells
- **CAPACITIES: 5 → 500kg**

SHBxR: SPECIFICATIONS

Standard Capacities (=E _{max})	Kg	5 ² , 10, 20, 30, 50, 100, 200, 350, 500				100 ³ , 200 ³ , 350 ³ , 500 ³	
Accuracy Class According to OIML R-60			C2	C3	C4	C3M16	C3M17.5
Max. Number of Verification Intervals (n _{ic})			2000	3000	4000	3000	3000
Minimum Verification Interval (V _{min})			E _{max} /10000	E _{max} /15000	E _{max} /15000	E _{max} /15000	E _{max} /15000
MDLOR (Z= E _{max} / 2*DR)			--	---	--	6000	7500
Accuracy According to Type Designation		CC	C2	C3	C4	C3M16	C3M17.5
Combined Error	%S	≤± 0.0500	≤± 0.0230	≤± 0.0200	≤± 0.0170	≤± 0.0200	≤± 0.0200
Non-Repeatability	%S	≤± 0.0200	≤± 0.0100	≤± 0.0100	≤± 0.0090	≤± 0.0100	≤± 0.0100
Minimum Dead Load Output Return ¹	%S	≤± 0.0500	≤± 0.0250	≤± 0.0167	≤± 0.0125	≤± 0.0083	≤± 0.0067
Creep Error (30 Minutes) ¹	%S	≤± 0.0600	≤± 0.0245	≤± 0.0245	≤± 0.0184	≤± 0.0245	≤± 0.0245
Creep Error (20-30 Minutes) ¹	%S	≤± 0.0200	≤± 0.0053	≤± 0.0053	≤± 0.0039	≤± 0.0053	≤± 0.0053
Temp. Effect on Min. Dead Load Output	%S/5°C	≤± 0.0250	≤± 0.0070	≤± 0.0047	≤± 0.0047	≤± 0.0047	≤± 0.0047
Temp. Effect on Sensitivity	%S/5°C	≤± 0.0250	≤± 0.0060	≤± 0.0050	≤± 0.0045	≤± 0.0050	≤± 0.0050
Minimum Dead Load	%E _{max}	0					
Maximum Safe Over Load	%E _{max}	150					
Ultimate Over Load	%E _{max}	300					
Maximum Safe Side Load	%E _{max}	100					
Deflection at E _{max}	mm	0.30 ± 0.03					
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	460 ± 50					
Output Resistance	Ω	350 ± 3.5					
Insulation Resistance	MΩ	≥ 5000					
Compensated Temperature Range	°C	-10...+40					
Operating Temperature Range	°C	-40...+80					
Storage Temperature Range	°C	-40...+90					
Element Material (DIN)		Stainless Steel 1.4542					
Sealing (DIN 40.050 / EN60.529)		IP66 and IP68					
SC-Version (Current Calibration)		Standard					
Recommended Torque on Fixation Bolts	Nm	23 (70 for 350/500kg)					
ATEX opt. for potent. explosive atmospheres		II2G EEx ib IIC T4/T6, II2D					

1 Applies for the temperature range -10 to +40 °C

2 CC quality only

3 D_{max} = 0.75 * E_{max}

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

Accuracy classes C2, C3, C3M16, C3M17.5 and C4 are in agreement with the OIML recommendation R-60. Accuracy class C1 is also available.

The correct mounting of the load cells is essential to ensure optimum performance.

Further information is available on request.

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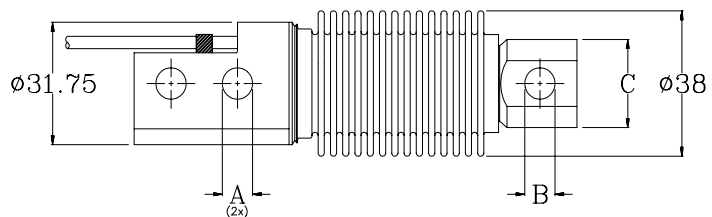
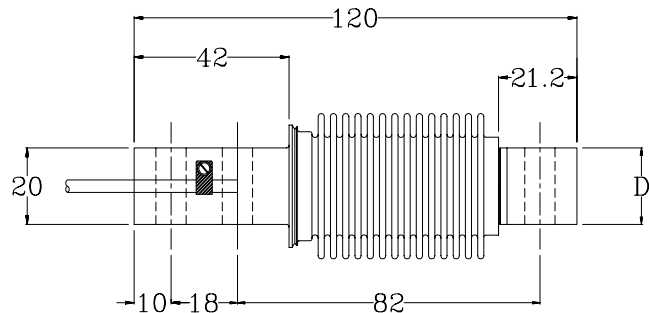
Tustin, CA 92780-7016

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Cable specifications:

Cable length: 3m
 Excitation + Green
 Excitation - Black
 Output + White
 Output - Red
 (Sense + Yellow)
 (Sense - Blue)
 Shield Transparent

Cable screen is not connected to load cell body.
 6-wire cable optional, 4-wire cable standard.

E _{max}	5-200	350/500
A	8.2	10.3
B	8.2 ^{+0.1} ₀	10.3 ^{+0.1} ₀
C	23.0	24.0
D	20.0	19.0

Dimensions: mm.
 All dimension tolerances according to ISO 2768m, unless otherwise specified.

All specifications subject to change without notice.

REGIONAL OFFICE UK

The Business Centre

Edward Street, Redditch

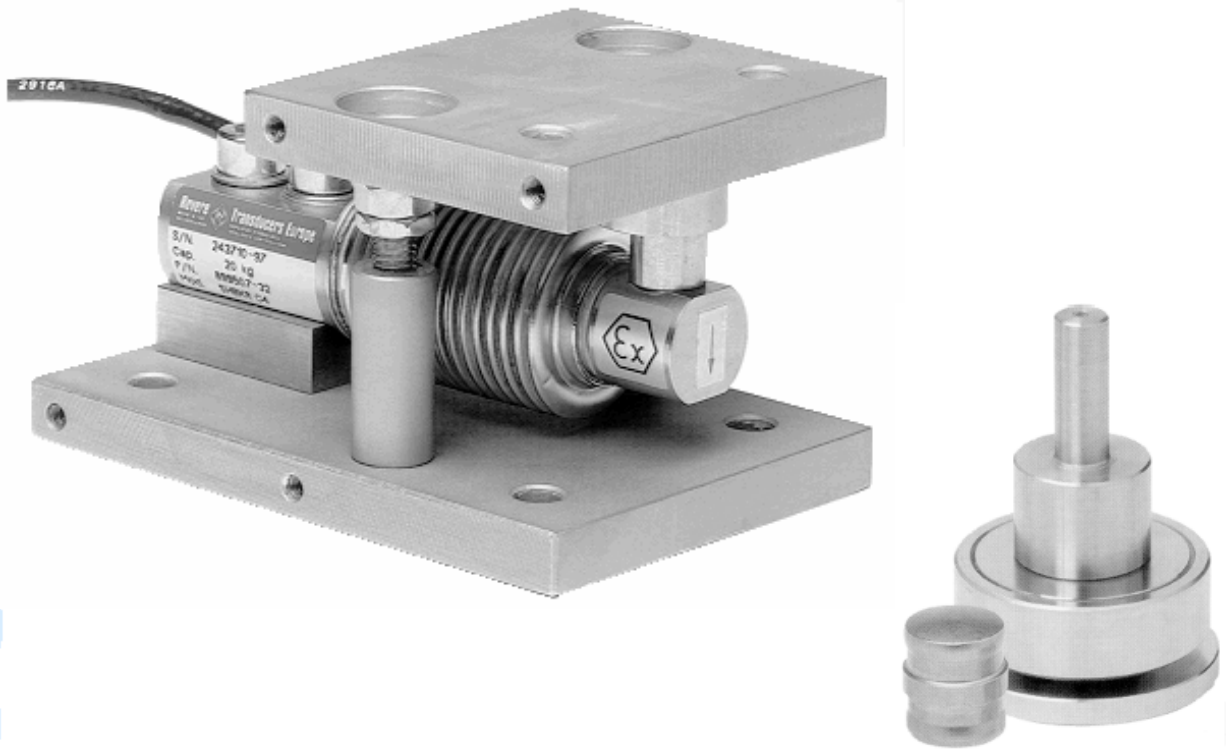
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SHBxR Self Aligning Accessories



DESCRIPTION:

The SHBxR self aligning silo mount, combined with the SHBxR load cell family, provides weighing assemblies suitable for process control, batch weighing, silo/hopper and belt scale applications.

The SHBxR foot assembly is an ideal solution for low and medium capacity platform scales.

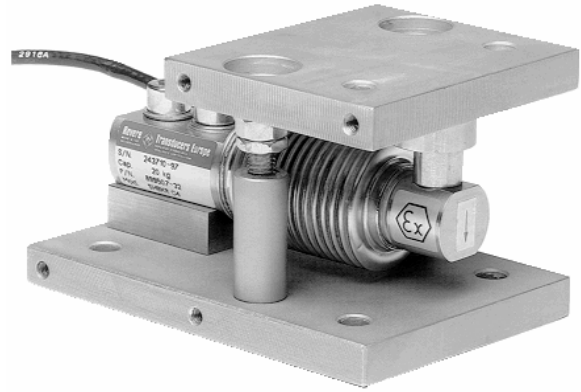
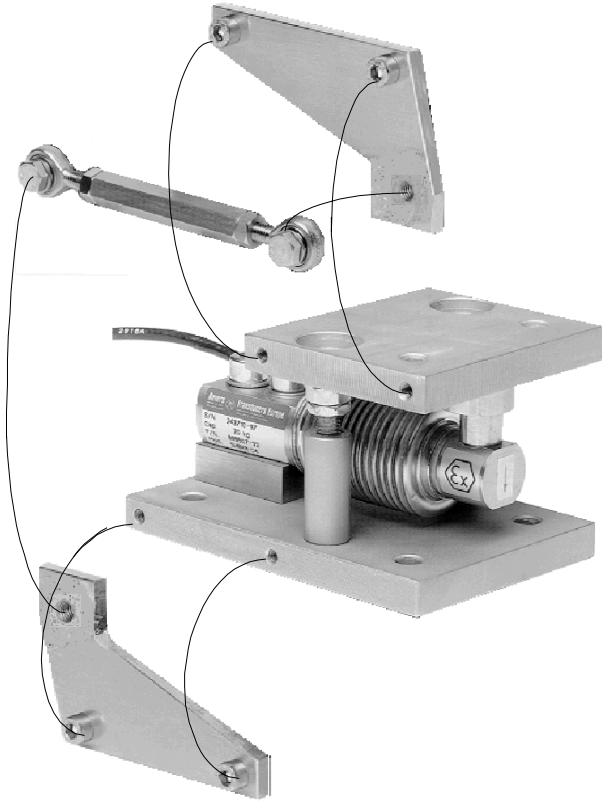
The SHBxR mount and foot are based on a rocker pin design, combining excellent load introduction to the transducer with an overall low profile. Hardened components are used at all load bearing surfaces. The stainless steel construction guarantees long term reliability, even in the most harsh of environments.

FEATURES:

- Hardened components at all load bearing surfaces
- Rocker pin load introduction
- Stainless steel or nickel plated steel versions available
- Built in horizontal movement control and lift-off protection
- Load cell (re)placement after installation of the mount
- Optional stay rod assembly
- **Capacities: 5 → 500kg**

Self Aligning Mount

The SHBxR mount permits controlled horizontal movement in all directions. The design allows the load cell to be (re)placed after installation of the mount. The critical load introduction area is mechanically protected.



Stay Rod Assembly

If major load movement is anticipated stay rods should be used to restrain a vessel or platform. The SHBxR stay rod assembly can be bolted to the mount prior to or after its installation.

Height Adjustable Foot

The stainless steel foot, which has 5mm height adjustment, provides excellent load introduction to the transducer. The foot allows flexibility in platform design without compromising overall system performance.



Further information:

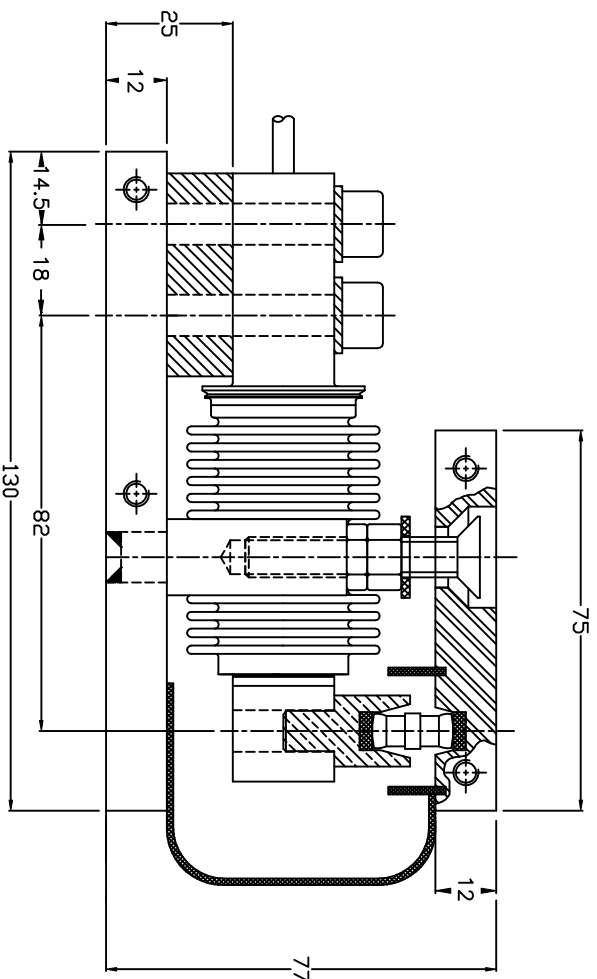
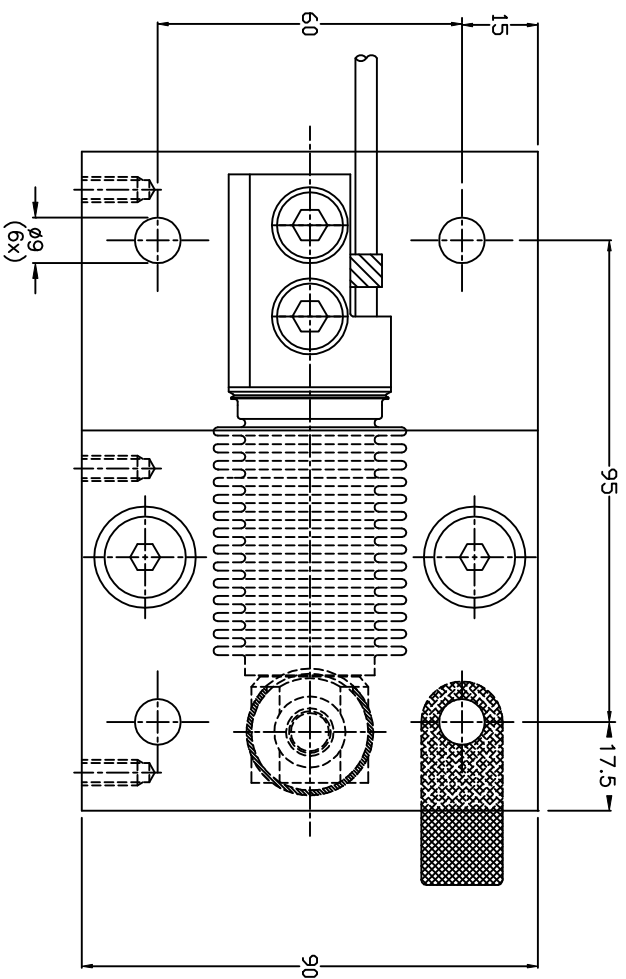
		Height, assembly + SHBxR (5-200kg)	Height, assembly + SHBxR (350-500kg)
Self Aligning Mount	mm	77	90
Height Adj. Foot	mm	65+5	-

Mount / Foot	Assembly Guidelines	Outline drawing (5-200kg)		Outline drawing (350-500kg)	
		Stainless steel	Nickel plated	Stainless steel	Nickel plated
Self Aligning Mount	AG 05/7-104/01	499048-10	499048-00	499095-10	499095-00
Stay Rod Assembly	AG 09/7-202/01	499061-10	499061-00	-	-
Height Adj. Foot	-	499070	-	-	-

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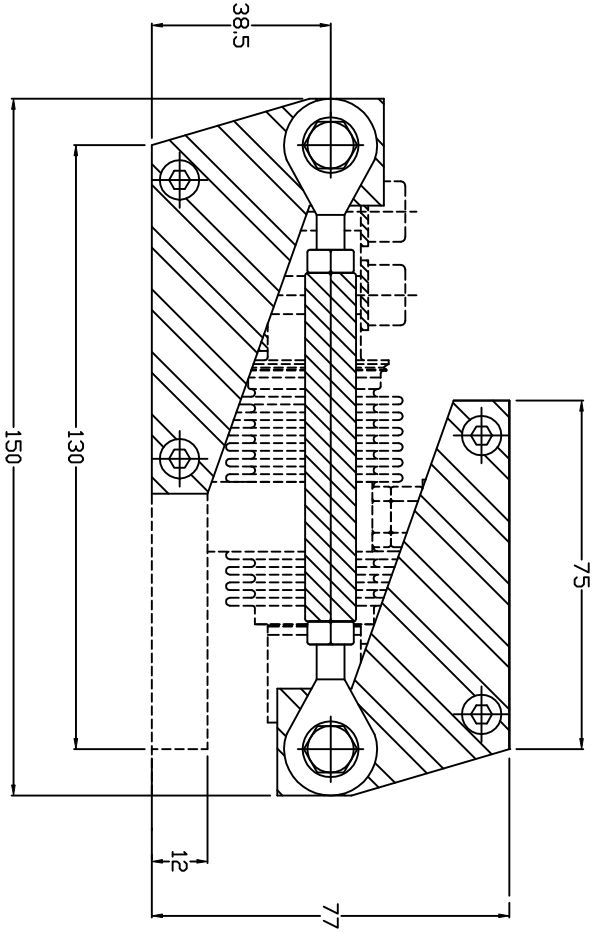
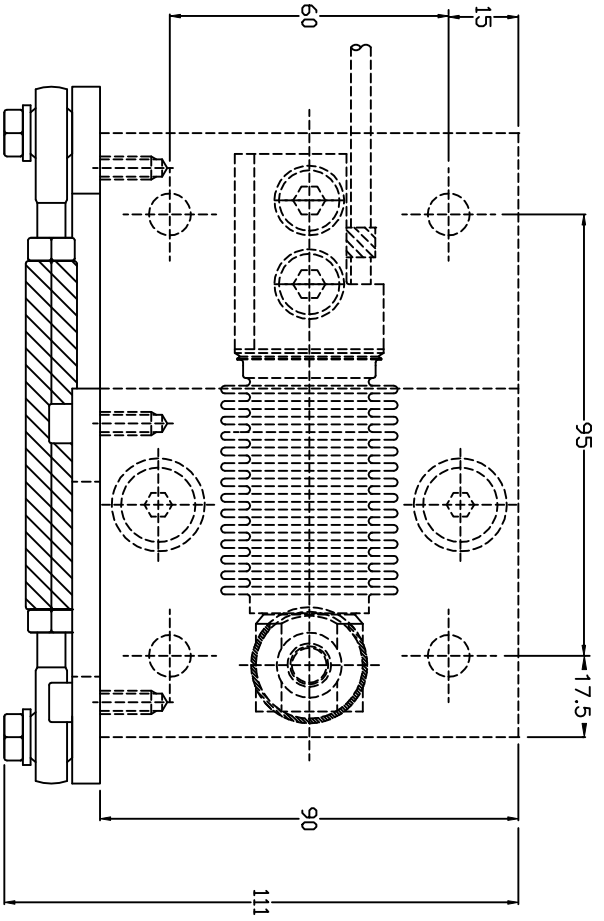
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499048-10	Stainless Steel Assembly
499048-00	Steel Nickel Plated
PARTNUMBER	SPECIFICATION
REVERE TRANSDUCERS EUROPE	
GEN. TOL. ±	ANGLE ±
SCALE : None	ROUGHN. <input checked="" type="checkbox"/>
DRAWN : U.D. Preischhof	FINISH:
MATERIAL:	
DATE : 02-10-'96	
DRAWING : SHBXR 10/200kg	499048
Self Aligning Sliomount	SHEET: 1 OF 1
	Rev
	SIZE
	A2

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499061-10	Stainless Steel Assembly
499061-00	Steel Nickel Plated
PARTNUMBER	SPECIFICATION
REVERE TRANSDUCERS EUROPE	
GEN. TOL. ±	ANGLE ±
SCALE : None	ROUGHN. <input checked="" type="checkbox"/>
DRAWN : U.Dreischopf	FINISH:
MATERIAL:	
DATE : 02-10-'96	
DRAWING : Stay Rod Assembly	499061
SAM SHBxR, 9102 50/200lbs	SHEET: 1 OF 1
Rev	Size
A2	A2

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