

## Single-Ended Load Beam

### FEATURES

- Capacities: 5–500 kg
- Fully welded, stainless steel construction
- Hermetically sealed, IP66 and IP68
- Certified to OIML R-60, 4000d and NTEP class IIII, 10000 divisions
- Current calibration output (SC version) ensures easy and accurate parallel connection of multiple load cells
- **Optional**
  - ATEX and FM certified versions are available for use in potentially explosive atmospheres



### APPLICATIONS

- Platform scales
- Belt scales
- Packaging machines
- Silo/hopper weighing

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

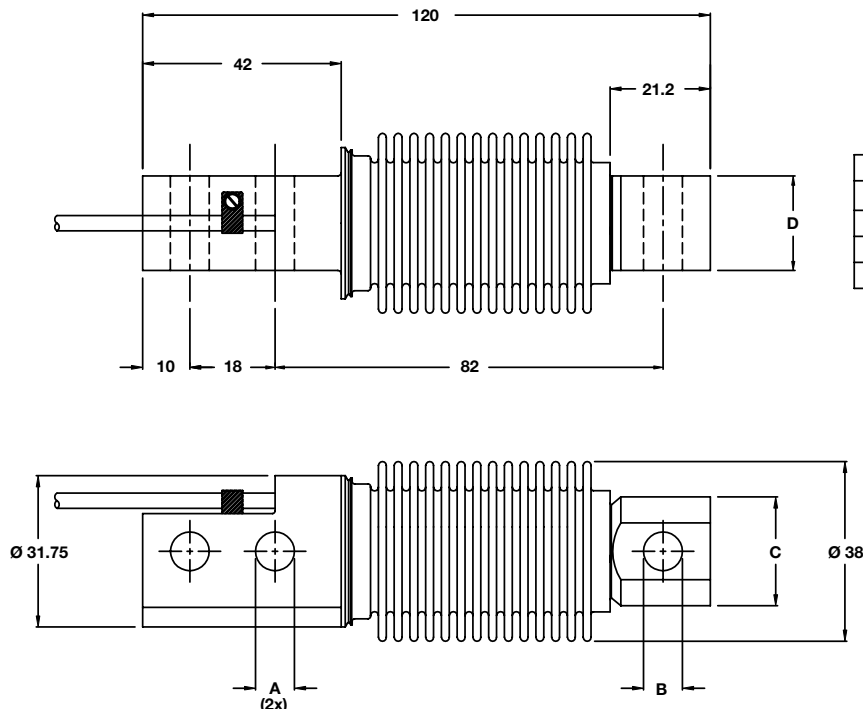
Fully welded construction and water block cable-entry ensure that this product can be used successfully in harsh environments found in the food, chemical and allied industries.

### DESCRIPTION

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

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

### OUTLINE DIMENSIONS in millimeters



Capacity (kg)	5–200	350 / 500
A	8.2	10.3
B	8.2 <sup>+0.1</sup> <sub>0</sub>	10.3 <sup>+0.1</sup> <sub>0</sub>
C	23.0	24.0
D	20.0	19.0

Note: Dimensions in millimeters

#### Cable specifications:

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

4-wire cable standard,  
6-wire cable optional

### Single-Ended Load Beam

SPECIFICATIONS						
PARAMETER	VALUE					UNIT
Standard capacities ( $E_{max}$ )	5, 10, 20, 30, 50, 100, 200, 350, 500 <sup>(1)</sup>				100, 200, 350, 500 <sup>(2)</sup>	kg
Accuracy class according to OIML R-60 /NTEP	NTEP III L	Non-Approved	C3	C4	C3MI7.5	
Max. no. of verification intervals	10000		3000	4000	3000	
Min. verification interval ( $V_{min}=E_{max}/\gamma$ )			$E_{max}/15,000$	$E_{max}/15,000$	$E_{max}/15,000$	
MDLOR ( $Z=E_{max}/2*DR$ )					7500	
Rated output (=S)	2					mV/V
Rated output tolerance	0.02					±mV/V
Zero balance	1.0					±% FSO
Combined error	0.0200	0.05000	0.0200	0.0170	0.0200	±% FSO
Non-repeatability	0.0100	0.0200	0.0100	0.0090	0.0100	±% FSO
Minimum dead load output return	0.0250	0.0500	0.0167	0.0125	0.0067	±% applied load
Creep error (30 minutes)		0.0600	0.0245	0.0184	0.0245	±% applied load
Creep error (20 - 30 minutes)	0.0300	0.0500				±% applied load
Temp. effect on min. dead load output	(0.0008)	0.0250	0.0047	0.0047	0.0047	±% FSO/5 °C (°F)
Temperature effect on sensitivity	(0.0010)	0.0250	0.0050	0.0045	0.0050	±% applied load/5°C (°F)
Minimum dead load	0					% $E_{max}$
Maximum safe over load	150					% $E_{max}$
Ultimate over load	300					% $E_{max}$
Maximum safe side load	100					% $E_{max}$
Deflection at $E_{max}$	0.30±0.03					mm
Excitation voltage	5 to 12					V
Maximum excitation voltage	15					V
Input resistance	460±50					Ω
Output resistance	350±3.5					Ω
Insulation resistance	≥5000					MΩ
Compensated temperature range	-10 to +40					°C
Operating temperature range	-40 to +80					°C
Storage temperature range	-40 to +90					°C
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	23 (70 for 350/500 kg)					N*m

<sup>(1)</sup> 5 and 10 kg capacities are not approved by NTEP.  
5 kg is not approved by OIML.

<sup>(2)</sup>  $D_{max} = 0.75 * E_{max}$

FSO—Full Scale Output

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 easy parallel connection of the load cells.

All specifications subject to change without notice.

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