

# SBC SMART BEAM CELL



## DESCRIPTION:

The SBC, Smart Beam Cell, is a stainless steel, single ended, shear beam load cell with a digital output signal.

This digital output enables the user to communicate with each SBC independently of the others in the system, thus offering advantages in system setup, system control, corner correction, fault finding and load cell replacement.

The fully welded construction and water block cable-entry ensure successful use in harsh environments. Applications of the SBC include medium capacity platform scales, pallet scales, overhead track scales and process-weighing applications.

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

## FEATURES:

- Digital output via RS485 or RS422 interface
- Stainless steel construction with water block cable-entry
- Hermetically sealed, IP66 and IP68
- Certified to OIML R-60, **6000d**
- Internal diagnostics
- 240,000 counts resolution
- Multi-interval and multiple-range versions available
- Maximum transmission distance 1200m
- **CAPACITIES: 0.5 → 5 t**

# SBC: SPECIFICATIONS

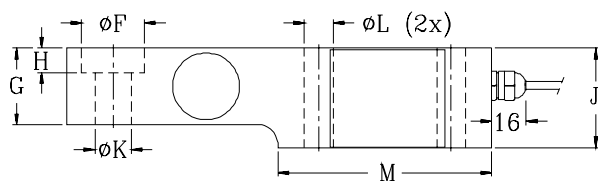
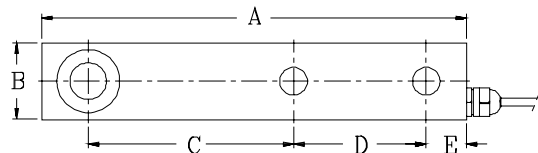
Standard Capacities (=E <sub>max</sub> )	t	0.5, 1, 2, 5					
Accuracy Class According to OIML R-60		C1	C2	C3	C4	C5	C6
Max. Number of Verification Intervals (n <sub>ic</sub> )		1000	2000	3000	4000	5000	6000
Minimum Verification Interval (v <sub>min</sub> )		E <sub>max</sub> /7000	E <sub>max</sub> /10000	E <sub>max</sub> /10000	E <sub>max</sub> /10000	E <sub>max</sub> /15000	E <sub>max</sub> /15000
Minimum Verification Interval Type <b>MR</b>				E <sub>max</sub> /25000	E <sub>max</sub> /25000	E <sub>max</sub> /25000	E <sub>max</sub> /25000
Combined Error	%S	<± 0.0300	<± 0.0230	<± 0.0200	<± 0.0173	<± 0.0140	<± 0.0115
Non-Repeatability	%S	<± 0.0200	<± 0.0100	<± 0.0100	<± 0.0090	<± 0.0080	<± 0.0060
Minimum Dead Load Output Return <sup>1</sup>	%S	<± 0.0500	<± 0.0250	<± 0.0167	<± 0.0125	<± 0.0100	<± 0.0083
Creep Error (30 Minutes) <sup>1</sup>	%S	<± 0.0490	<± 0.0245	<± 0.0245	<± 0.0184	<± 0.0147	<± 0.0123
Creep Error (20-30 Minutes) <sup>1</sup>	%S	<± 0.0105	<± 0.0053	<± 0.0053	<± 0.0039	<± 0.0032	<± 0.0026
Temp. Effect on Min. Dead Load Output	%S/5°C	<± 0.0100	<± 0.0070	<± 0.0070	<± 0.0070	<± 0.0045	<± 0.0045
Temp. Effect on Min. Dead Load Output <b>MR</b>	%S/5°C			<± 0.0032	<± 0.0032	<± 0.0032	<± 0.0032
Temp. Effect on Sensitivity	%S/5°C	<± 0.0085	<± 0.0060	<± 0.0050	<± 0.0040	<± 0.0030	<± 0.0025
Minimum Dead Load	%E <sub>max</sub>	0	Element Material (DIN)			1.4542	Stainless Steel 1.4542
Maximum Safe Overload	%E <sub>max</sub>	150	Signal Update per Second				25
Ultimate Overload	%E <sub>max</sub>	300	Baudrate			Bits/s	9600
Maximum Safe Sideload	%E <sub>max</sub>	100	Transmission type				Asynchronous serial transmission
Deflection at E <sub>max</sub>	mm	0.5 max.					
Excitation Voltage	Vdc	11.5...17.0	Start Bits				1
Recommended Excitation Voltage	Vdc	15	Data Bits				7
Maximum Current Consumption	mA	80	Stop Bits				1
Start-up Current	mA	150	Parity				Odd
Rated Output (=S)	counts	240,000	Maximum Transmission Cable Length			m	1200
Tolerance on Rated Output	counts	<±200	Data Transmission Interface				RS485/422
Zero Balance	counts	<±200	Compensated Temperature Range			°C	-10 -- +40
Insulation Resistance	Mohm	>5000	Operating Temperature Range			°C	-40 -- +80
Sealing (DIN40.050/EN60.529/IEC 529)		IP66,68	Storage Temperature Range			°C	-40 -- +90

Standard Capacities (E <sub>max</sub> )	t	0.5, 1, 2, 5					
Accuracy Class According to OIML R60		C3MI6	C3MI7.5	C3MI10	C4MI8	C4MI10	C5MI10
Max. Number of Verification Intervals (n <sub>ic</sub> )		3000	3000	3000	4000	4000	5000
Minimum Verification Interval (v <sub>min</sub> )		E <sub>max</sub> / 15000					
Minimum Dead Load Output Return DR	%S	<± 0.0083	<± 0.0067	<± 0.0050	<± 0.0063	<± 0.0050	<± 0.0050
Temp. Effect on Min, Dead Load Output	%S/5°C	<± 0.0045					

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

Accuracy classes are in agreement with OIML recommendation R-60. **Accuracy class CC is also available.** Correct mounting of load cells is essential to ensure optimum performance. Further information is available on request.



## REVERE TRANSDUCERS EUROPE B.V.

Ramshoorn 7  
Postbus 6909, 4802 HX Breda  
The Netherlands  
Tel: (+31) 76-5480700  
Fax: (+31) 76-5412854  
E-mail: info@revere.nl

## REVERE TRANSDUCERS INC.

14192 Franklin Avenue  
Tustin, CA 92780-7016  
U.S.A.  
Tel: (+1) 714.731.1234  
Fax: (+1) 714.731.2019  
E-mail: info@reveretransducers.com

### Attention:

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

### Cable specifications:

Cable length 5m  
Excitation+ Green  
Excitation - Black  
Rx+ Yellow  
Rx - Blue  
Tx+ Red  
Tx - White  
Shield Clear

Cable screen is connected to load cell body.

Capacity	0.5 – 2 t	5 t
A	203.2	235.0
B	36.5	47.5
C	98.4	123.8
D	63.5	66.7
E	19.1	20.6
F	30.2 <sup>+0.2</sup> <sub>0</sub>	41.3 <sup>+0.2</sup> <sub>0</sub>
G	36.5	47.6
H	11.9	15.8
J	47.6	69.9
K	17.5 H11	25.5 H11
L	14.0	22.0
M	101.6	111.2

All specifications subject to change without notice

### REGIONAL OFFICE UK

The Business Centre  
Edward Street, Redditch  
Worcs B97 6HR, UK  
Tel: (+44) 1527 - 65 888  
Fax: (+44) 1527 - 64 888  
E-mail: alittlejohn@revere.nl