

Digital Shear Beam Load Cell

FEATURES

- Capacities: 0.5, 1, 2, 5, and 10 ton
- Digital output via RS-485 or RS-422 interface
- Stainless steel construction with water block cable-entry
- Hermetically sealed, IP66 and IP68
- Certified to OIML R-60, 6000d
- Internal diagnostics
- 240000 counts resolution
- Maximum transmission distance 1200m
- **Optional**
 - Multi-interval and multiple-range versions available



APPLICATIONS

- Platform scales
- Belt scales
- Overhead track scales
- Silo hopper weighing

DESCRIPTION

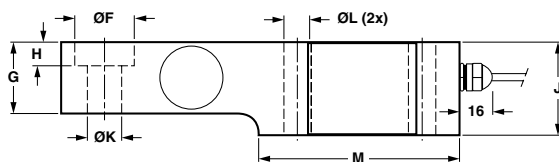
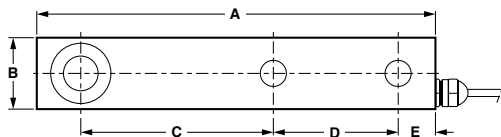
The SBC is a stainless steel, single-ended, shear beam load cell with a digital output signal.

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.

OUTLINE DIMENSIONS in millimeters



Cable specifications

Cable length:	5 meters
Excitation +	Green
Excitation -	Black
Rx +	Yellow
Rx -	Blue
Tx -	White
Tx +	Red
Shield	Transparent

Capacity (T)	0.5-2	5	10
A	203.2	235.0	235.0
B	36.5	47.5	55.0
C	98.4	123.8	123.8
D	63.5	66.7	66.7
E	19.1	20.6	20.6
ØF	30.2 ^{+0.20}	41.3 ^{+0.20}	41.3 ^{+0.20}
G	36.5	47.6	56.0
H	11.9	15.8	15.8
J	47.6	69.9	69.9
ØK	17.5 H11	25.5 H11	25.5 H11
ØL	14.0	22.0	25.0
M	101.6	111.2	111.2

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SPECIFICATIONS					
PARAMETER	VALUE				UNIT
Standard capacities (E_{max})	0.5, 1, 2, 5, 10				ton
Accuracy class according to OIML R-60	C1	C3	C5	C6	
Maximum no. of verification intervals (n)	1000	3000	5000	6000	
Minimum verification interval ($V_{min}=E_{max}/Y$)	$E_{max}/7000$	$E_{max}/15000$	$E_{max}/15000$	$E_{max}/15000$	
Minimum utilization	14.3	30	33.3	40	%
Minimum verification interval, type MR		$E_{max}/25000$	$E_{max}/25000$	$E_{max}/25000$	
Rated output (=S)	240000				counts
Tolerance on rated output	200				±counts
Zero balance	200				±counts
Combined error	0.0300	0.0200	0.0140	0.0115	±% FSO
Non-repeatability	0.0200	0.0100	0.0080	0.0060	±% FSO
Minimum dead load output return	0.0500	0.0167	0.0100	0.0083	±% applied load
Creep error (30 minutes)	0.0490	0.0245	0.0147	0.0123	±% applied load
Temp. effect on min. dead load output	0.0100	0.0070	0.0045	0.0045	±% FSO/5°C
Temperature effect on sensitivity	0.0085	0.0050	0.0030	0.0025	±% applied load/5°C
Compensated temperature range	-10 to +40				°C
Operating temperature range	-40 to +80				°C
Storage temperature range	-40 to +90				°C
Maximum safe overload	150				% E_{max}
Ultimate overload	300				% E_{max}
Maximum safe side load	100				% E_{max}
Deflection at E_{max}	0.5 max				mm
Excitation voltage	12.5 to 18				VDC
Maximum excitation voltage	15				V
Maximum current consumption	80				mA
Maximum current (internal short circuit)	150				mA
Insulation resistance	>5000				MΩ
Element material (DIN)	Stainless steel 1.4542				
Sealing (DIN 40.050 / EN60.529)	IP66 and IP68				
Signal update per second	25				
Baudrate	9600				Bits/s
Start bits	1				
Data bits	7				
Stop bits	1				
Parity	Odd				
Maximum transmission cable length	1200				m
Data transmission interface	RS485/422-full duplex				
Standard capacities (E_{max})	0.5, 1, 2, 5				ton
Accuracy class according to OIML R-60	C3MI10	C4MI10	C5MI10		
Maximum no. of verification intervals (n)	3000	4000	5000		
Minimum verification interval ($V_{min}=E_{max}/Yz$)	$E_{max}/15000$	$E_{max}/15000$	$E_{max}/25000$		
Minimum utilization	20	26.7	20		%
Minimum dead load output return DR	0.0050	0.0050	0.0050		±% applied load
Temp. effect on min. dead load output	0.0045	0.0045	0.0032		±% FSO/5°C

All specifications subject to change without notice.

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