Model SBC

Revere

VISHAY PRECISION GROUP

Digital Shear Beam Load Cell

FEATURES

- Capacities: 0.5, 1, 2, and 5t
- 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 FEATURE

- Multi-interval and multiple-range versions available

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.

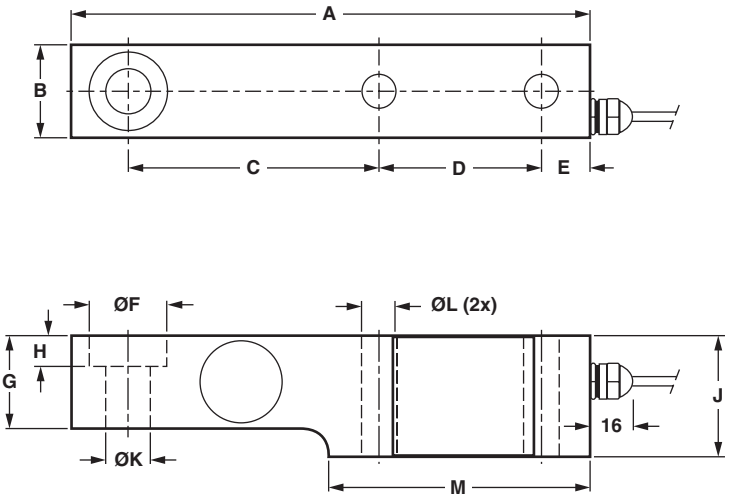
The fully welded construction and water block cable-entry ensure successful use in harsh environments. Applications of the SBC include medium capacity platform scales, pallet scales, overhead track scales and process weighing applications.

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

APPLICATIONS

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

OUTLINE DIMENSIONS in mm



Cable specifications:

Cable length: 5 meters

Excitation +	Green
Excitation -	Black
Rx +	Yellow
Rx -	Blue
Tx -	White
Tx +	Red
Shield	Transparent

Note: Dimensions are in millimeters

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	$30.2\ ^{+0.2}_{0}$	$41.3\ ^{+0.2}_{0}$	$41.3\ ^{+0.2}_{0}$
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

SPECIFICATIONS

PARAMETER	VALUE				UNIT
Standard capacities (E_{max})	0.5, 1, 2, 5				ton
Accuracy class according to OIML R-60	C1	C3	C5	C6	
Maximum no. of verfication 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 utilisation	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 over load	150				%E_{max}
Ultimate over load	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				

SPECIFICATIONS cont.

PARAMETER	VALUE			UNIT
Standard capacities (E_{max})	0.5, 1, 2, 5			ton
Accuracy class according to OIML R-60	**C3MI10**	**C4MI10**	**C5MI10**	
Maximum no. of verfication intervals (n)	3000	4000	5000	
Minimum verification interval ($V_{min}=E_{max}/Y$)	E_{max}/15000	E_{max}/15000	E_{max}/25000	
Minimum utilisation	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

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