



Main Features:

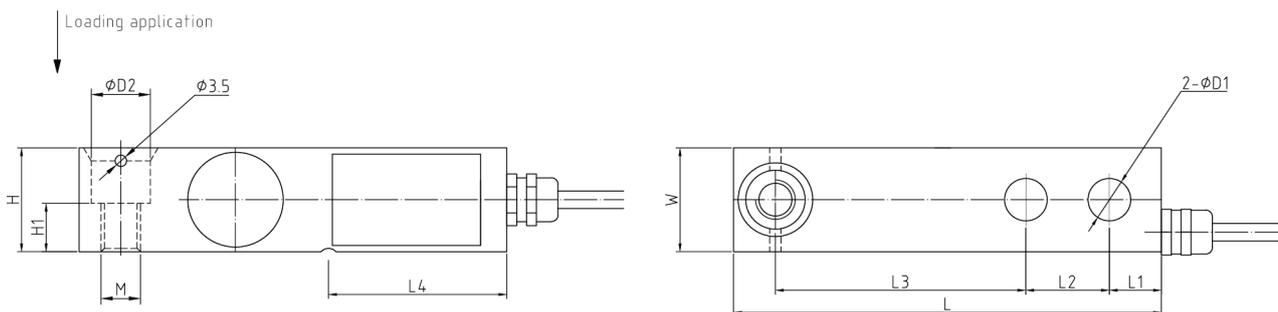
- Material: high-quality stainless steel
- Rated Capacities: 500kg-5t
- CPA C8, CE and RoHS certified
- IP Rating: IP67, IP68
- Suitable for high-precision platform scales, process weighing of hopper scales, silo scales, vessel scales etc.
- Built-in microprocessor for real-time active self-compensations, high accuracy up to OIML R60 C6 and high reliability



Product description:

The B520SD series is a digital single-ended shear beam load cell with C6 accuracy and a wide capacity range. The built-in microprocessor actively monitors environmental changes, continuously compensates for various performances in real time, and indicates the parameter status of each load cell, ensuring the weighing results more accurate and stable. The reliable potting and full-weld sealing process ensure high sealing performances, working well in harsh industrial environments.

Dimensions (mm&inch):



Rated Capacity	L	L1	L2	L3	L4	D1	D2	H	H1	W	M
kg/mm											
500-2,000	130.0	15.8	25.4	76.2	54.2	13.0	18.0	31.8	14.8	31.8	M12×1.75
3,000-5,000	171.5	19.1	38.1	95.3	77.2	19.5	22.2	38.1	18.0	38.1	M18×1.50

B520SD Digital Single-ended Shear beam Load Cell

Parameter		Units	Specification				
Model No.			B520SD				
Rated capacity (R.C.) ⁴⁾		t	0.5	1	2	3	5
Sensitivity at R.C.		d @ R.C.	500,000	500,000	400,000	300,000	500,000
Accuracy class ¹⁾²⁾			C3		C6		
Min. dead load		kg	0				
Zero balance		% of Emax	± 1				
Y-value			10000		15000		
Repeatability error		% of AL ³⁾	< ± 0.010		< ± 0.005		
Creep; 30 minute		% of AL	< ± 0.0167		< ± 0.0083		
Min. dead load output return (DR); 30 min		% of AL	< ± 0.0167		< ± 0.0083		
Temp. effect on	Min. dead load output	% of Emax/°C	< ± 0.0016		< ± 0.00107		
	Rated output ¹⁾²⁾	% of AL/°C	< ± 0.00133		< ± 0.00066		
Temperature range	Compensated	°C(°F)	-10 to +40 [+14 to +104]				
	Operating		-20 to +65 [-4 to +149]				
	Safe storage		-40 to +80 [-40 to +176]				
Effect of Cable Length on System Accuracy		kg	0 (digital signal)				
Communication	Mode		CAN		RS485		
	Protocol		CANopen		Modbus RTU		
	Transmission rate		125 / 250 kbps		9600bps / 57600 bps		
Effective system update rate		HZ	40 (4pcs digital load cell,125kbps)		20 (4pcs digital load cell,9600bps)		
Excitation voltage	Recommended	V DC	12 or 24				
	Minimum / Maximum		7.5 / 28				
Excitation current	Typical value	mA	20				
	Max. value		150				
Warm-up time		mins	15				
Surge protective device			Integral (GDT + TVS)				
Insulation resistance @50VDC		MΩ	> 5000				
Breakdown voltage		V AC	> 500				
Protection	Type		Hermetically sealing				
	IP rating		IP68				
Load limit	Safe dynamic load	% of Emax	70				
	Safe		150				
	Ultimate		300				
Material	Spring element		Stainless steel				
	Enclosure		316 stainless steel, hermetically sealing				
	Connectors		Stainless steel, fixed assembled				
	Strain gauge		PEEK				
	Cable construction		Fireretardant and cold-resistant PVC, 6mm O.D. ; 4 Conductors triple shielded wires				
Cable length	load cell	m	3.0				
	Network		via junction box				
Weight; approx		kg	0.5-2t		3-5t		
			1.2		2.1		
Fatigue life		times @Emax	> 1,000,000				
Deflection at Emax; approx		mm	< 0.5				
Barometric pressure effect on Zero Output		Vmin/kPa	< 1.0				
Fixing bolts	Size / class		M12 / A2-70		M18 / A2-70		
	Tightening torque	N.m	98	120	275		

Notes:

¹⁾ Error due to the combined effect of non-linearity and hysteresis

²⁾ The sum of errors due to Temperature Effect on Output comply with the requirements of OIML R60 and NIST HB44

³⁾ AL = Applied Load

⁴⁾ R.C. = Rated Capacity