



Main Features:

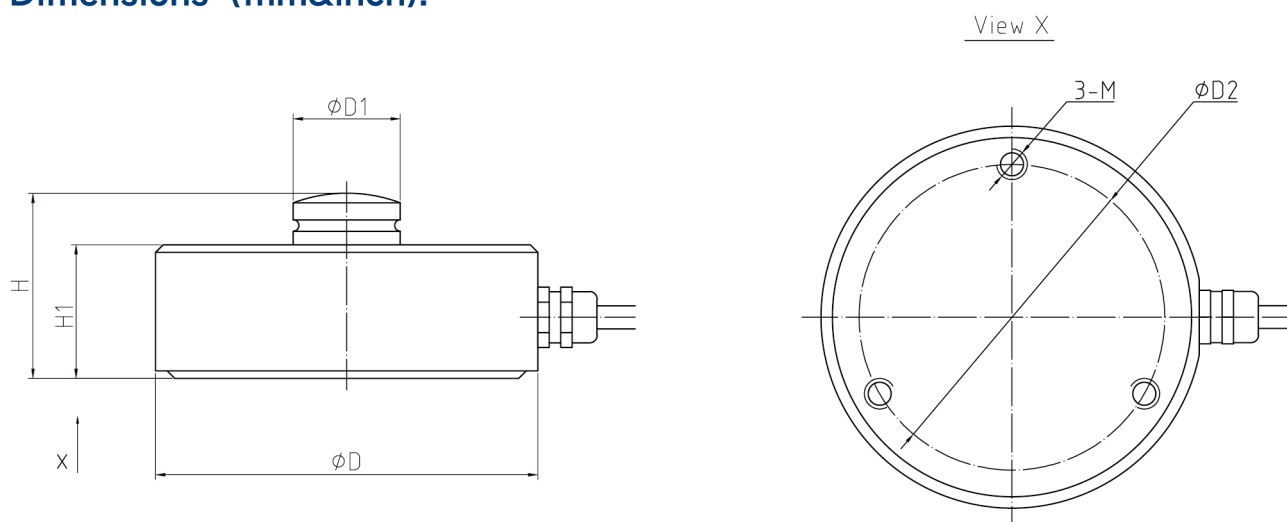
- Material: Stainless steel
- Rated Capacities: 1t~100t
- CPA C6 (pending), CE and RoHS certified
- IP Rating: IP68, IP69K
- Suitable for process weighing of hopper scales, silo scales, tank scales
- Built-in real-time self-compensation microprocessor, high accuracy up to OIML R60 C10 and high reliability



Product description:

R510SD is a digital single pancake-styled compression load cell with a precision of C6. 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 result more accurate and stable. R510SD is a digital low-profile compression load cell, compact and high-precision. It is widely used in food processing and chemical industries. The electrolytic polished surface enables the surface easy to clean, making it an ideal load cell for on-site cleaning and disinfection weighing occasions. It is made of all stainless steel and fully hermetically sealed. At the same time, it is designed with a top rod with an arc vertex in the middle, which can receive force in the vertical direction, ensuring the force measurement more accurate.

Dimensions (mm&inch):



Rated Capacity	ϕD	$\phi D1$	$\phi D2$	H	H1	M
t/mm						
1t~10t	82	22	65	44	32	M6×1.0
15t~20t	100	28	80	48.5	35	M8×1.25
30t	126	35	-	54	40	-
50t~100t	165	60	-	80	60	-

R510SD Stainless steel digital pancake-styled compression load cell

Parameter		Units	Specification			
Model No.			R510SD			
Type			Digital pancake-styled compression			
Rated capacity (R.C.) ⁴⁾		t	5	10	15	20
Sensitivity at R.C.		d @ R.C.	250,000	500,000	300,000	400,000
Accuracy class ¹⁾²⁾			C3	C4	C6	
Min. dead load		kg	0			
Zero balance		% of Emax	± 1			
Y-value			10000	12500	20000	
Repeatability error		% of AL ³⁾	< ± 0.010	< ± 0.008	< ± 0.005	
Creep; 30 minute		% of AL	< ± 0.0167	< ± 0.0125	< ± 0.0083	
Min. dead load output return (DR); 30 min		% of AL	< ± 0.0167	< ± 0.0125	< ± 0.0083	
Temp. effect on	Min. dead load output	% of Emax/°C	< ± 0.0016	< ± 0.00128	< ± 0.0008	
	Rated output ¹⁾²⁾	% of AL/°C	< ± 0.00133	< ± 0.0010	< ± 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)			
Communication	Mode		CAN		RS485	
	Protocol		CANopen		Modbus RTU	
	Transmission rate		125 / 250 kbps		9600bps / 57600bps	
Effective refresh 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, IP69K			
Load limit	Safe dynamic load	% of Emax	70			
	Safe		200			
	Ultimate		300			
Material	Spring element		stainless steel			
	Enclosure		304 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		m	6.0		12.0	
Weight; approx		kg	1.5		3.0	
Fatigue life		times @Emax	> 1,000,000			
Deflection at Emax; approx		mm	< 0.5			
Barometric pressure effect on Zero Output		Vmin/kPa	< 1.0			

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