



Main Features:

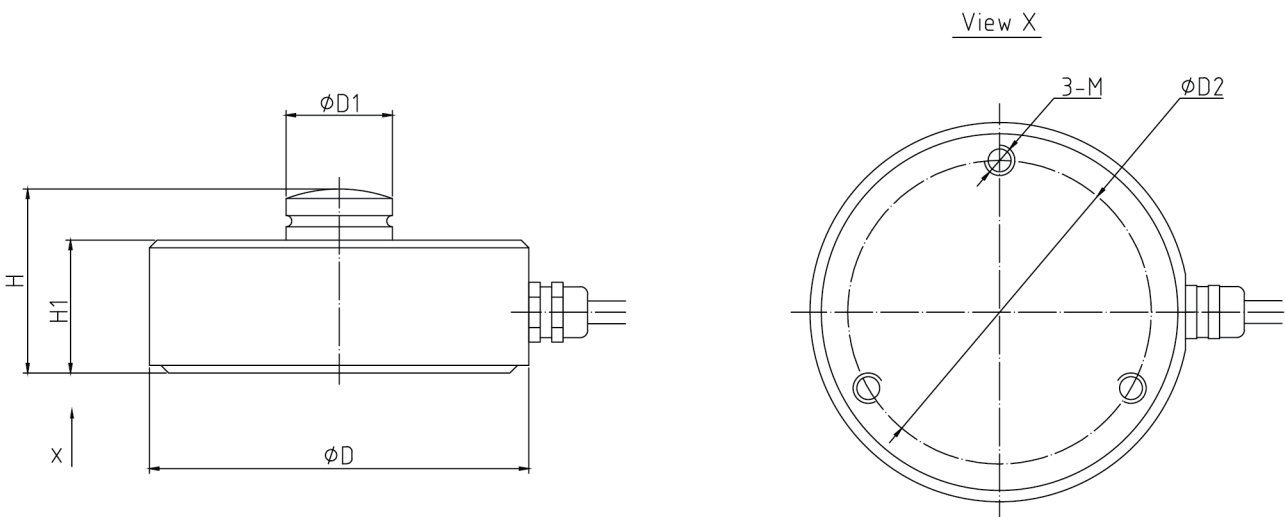
- Material: Stainless steel
- Rated Capacities: 1t-100t
- OIML R60, NTEP HB44, CPA, CE and RoHS certified
- IP Rating: IP68, IP69K
- Suitable for process weighing of hopper scales, silo scales, tank scales
- High precision by OIML R60 C5, high reliability



Product description:

R510S is a low-profile compression load cell, it is compact and high precision. It is widely suitable for applications in the food and chemicals industry, it is with smooth electro-polished surfaces so that it is easy to be cleaned, and is ideally suited to weighing applications in clean-in-place/sterilize-in-place environments. Full stainless steel construction, completely hermetically sealed by laser. Also it is designed with mandrel with self-aligning arc point to receive force vertically to ensure the high force accuracy.

Dimensions (mm&inch):



Rated Capacity	ϕD	$\phi D1$	$\phi D2$	H	H1	M
t/mm						
0.5t-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	-

R510S Compression Type Load Cell Specifications

Parameter		Units	Specifications			
Model No.			R510S			
Rated capacity (E _{max})		t	1 / 2.5 / 5 / 10 / 15 / 20 / 30 / 50 / 100			
Accuracy class ¹⁾²⁾			C3		C5	
Min. dead load		kg	0			
Rated output		mV/V	2.0 ± 0.004			
Zero balance		% of E _{max}	± 1			
Repeatability error		% of AL ³⁾	< ± 0.010		< ± 0.006	
Creep; 30 minute		% of AL	< ± 0.017		< ± 0.010	
Min. dead load output return (DR); 30 min		% of AL	< ± 0.017		< ± 0.010	
Temp. effect on	Min. dead load output	% of E _{max} /°C	< ± 0.0018		< ± 0.0014	
	Rated output ²⁾	% of AL/°C	< ± 0.0012		< ± 0.0007	
Temperature range	Compensated	°C(°F)	-10 to +40 [+14 to +104]			
	Operating		-40 to +65 [-40 to +149]			
	Safe storage		-40 to +80 [-40 to +176]			
Excitation voltage	Recommended	V AC/DC	5 ~ 15			
	Maximum		15			
Terminal resistance	Excitation	Ω	766 ± 10			
	Output		700 ± 3			
Insulation resistance @50VDC		MΩ	> 5000			
Breakdown voltage		V AC	> 500			
Seal type / IP rating			Hermetically welded / IP68 IP69k			
Load limit	Safe	% of E _{max}	150			
	Ultimate		300			
Material	Spring element		Stainless steel			
	Strain gauge		PEEK			
	Cable		Φ6; 4-wire; PVC			
Cable length	m	1-10t	15-100t			
		6.0	12.0			
Weight; approx	kg	1-10t	15-20t	30t	50-100t	
		1.5	2.0	3.5	7.0	
Fatigue life		cycles @E _{max}	> 1,000,000			
Deflection at E _{max} ; approx		mm	< 0.5			
Barometric pressure effect on Zero Output		Vmin/kPa	< 1.0			

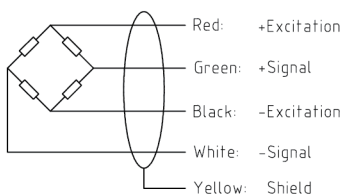
Notes:

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

Cable Colour Code: (4-wire circuit)



Shield connected to load cell body