
SL-RSD (new generation) compression load cell



product description key features

The digital SL-RSD compression load cell features embedded electronics that improve system accuracy and load cell handling and allows the user to communicate with each load cell independently. It's designed so that multiple cells can be wired together in a daisy chain to the indicator, greatly simplifying installations by avoiding the need for a junction box.

The SL-RSD is compact and robust, built from high-grade stainless steel and fully hermetically sealed; its performance can be relied upon in even the harshest of conditions. A rocker column design helps ensure optimum weighing accuracy when subjected to off-centre forces from scale deck movements.

applications

Weighbridges, hoppers, tanks and silos.

approvals

C3 and C4 approval (Y = 15,000)

NTEP class III approval to 5,000

IP69K

accessories + options

Range of hardware and electronics

Variety of cable and connector options

Stainless steel construction

Capacities of 30, 40 and 50t are available

Hermetically sealed to IP68/IP69K

Eliminates need for a junction box

Extensive diagnostic capabilities to monitor load cell condition

Easy communication (RS485) and fast system setup

Improved handling of corner adjustment and system calibration

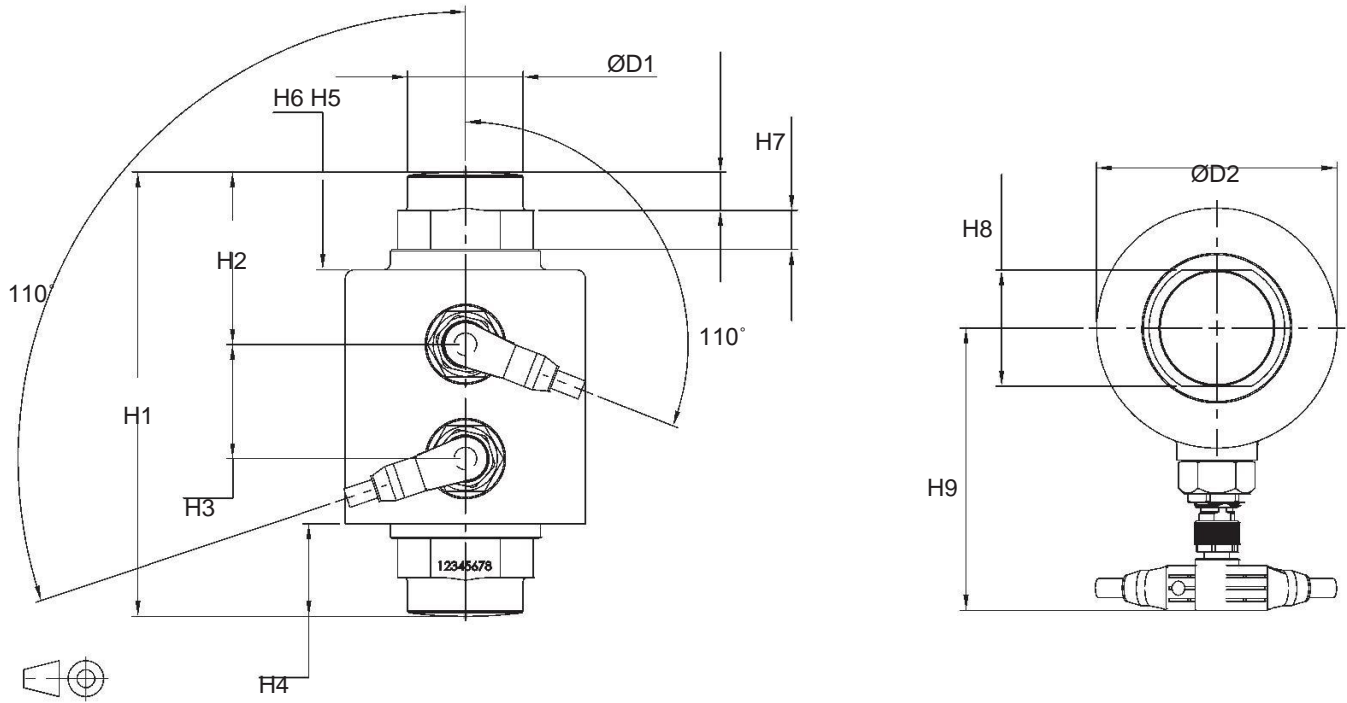
Integrated surge protectors tested in accordance with EN 61000-4-5

Daisy-chain connection with proven M12 connector cable

specifications

Maximum Capacity (E_{max})	t	30/40/50			
Accuracy class according to OIML R60		(GP) C4	C1	C3	
Maximum number of verification intervals (n_{LC})		n.a.	1,000	3,000	4,000
Minimum load cell verification interval (v_{min})		n.a.	$E_{max} / 5,000$	$E_{max} / 15,000$	
Temperature effect on minimum dead load output (TC_0)	%*RO/10°C	± 0.0400	± 0.0280	± 0.0093	
Temperature effect on sensitivity (TC_{RO})	%*RO/10°C 0.0080	± 0.0200	± 0.0160	± 0.0100	±
Combined error	%*RO	± 0.0500	± 0.0300	± 0.0200	± 0.0180
Non-linearity	%*RO	± 0.0400	± 0.0300	± 0.0166	± 0.0125
Hysteresis	%*RO	± 0.0400	± 0.0300	± 0.0166	± 0.0125
Creep error (30 minutes) / DR	%*RO	± 0.0600	± 0.0490	± 0.0166	± 0.0125
Rated Output (RO)	counts	200,000 ± 200 (± 0.1%*RO)			
Zero balance	counts	± 2,000 (± 1%*RO)			
Internal resolution	counts	500,000			
Excitation voltage	V	10...12			
Current consumption	mA	< 40			
Converter type		Sigma-Delta ratiometric			
Conversion rate		10 Hz (4.7 to 80 Hertz, factory configuration only)			
Digital filter		Rolling Average (4, 9, 16, 25 samples)			
Asynchronous interface		RS485A half duplex, multidrop with network address, 2,400...38,400 baud. Baudrate, data bits, parity and data output are programmable			
Number of bus addresses	n	52			
Safe load limit (E_{lim})	%* E_{max}	200			
Ultimate load	%* E_{max}	300			
Compensated temperature range	°C	-10...+40			
Operating temperature range	°C	-40...+60			
Load cell material		stainless steel 17-4 PH (1.4548)			
Sealing		complete hermetic sealing; cable entry sealed by glass to metal header			
Protection according EN 60 529		IP68 (up to 2m water depth) / IP69K			
Packet weight	kg	3.3 (30t), 3.6 (40t), 4.5 (50t)			
Load cell cable length	m	10 - supplied with 2x M12 right-angle, female connectors			
Load cell connectors		2x M12, 4-pin, male			

product dimensions (mm)



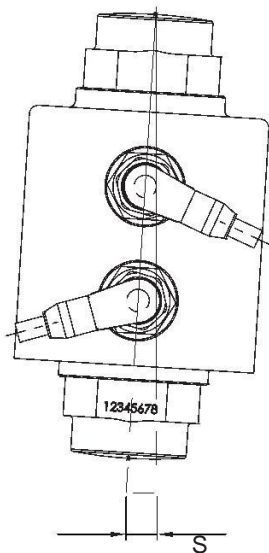
Notes

S_{max} = Maximum lateral displacement of load introduction. Recommended gap 3...5mm.

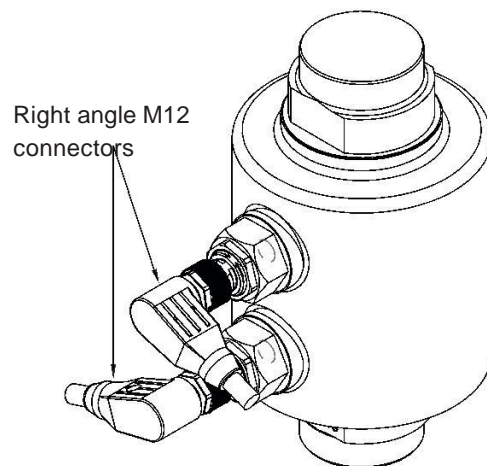
**RF = Restoring force at S_{max} and E_{max}

Unless otherwise specified: dimensions are in millimetres with tolerances to ISO 2768-m.

Type	H1	H2	H3	H4	H5	H6	H7	H8	H9	D1	D2	S_{max}^*	RF**
SL-RSD-30t/40t	150 27kN	58	38.5	31	33	13	13	39	95	39	81	12	
SL-RSD-50t	178	69.5	38.5	32	34	17	25.2	44	104	44	99	9	51kN



Mandatory main rocking direction



Right angle M12 connectors

wiring

M12 connector pin configuration	
Pin no.	Description
1	Exc+
2	Exc-
3	Data-(A)
4	Data+(B)

