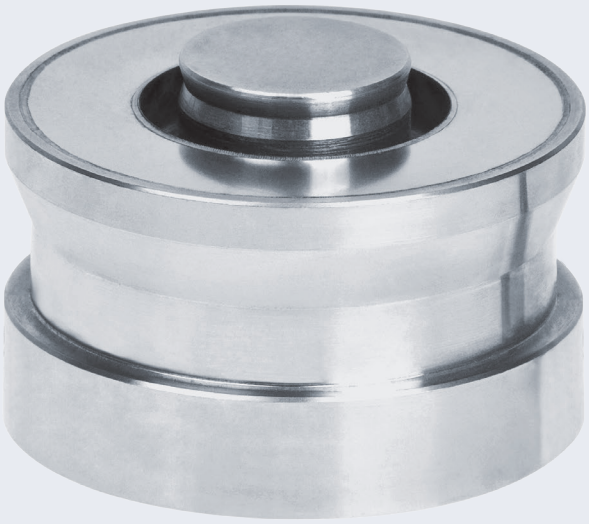
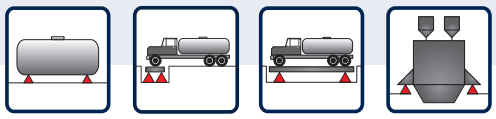
BOSCHE
WEIGHING SYSTEMS

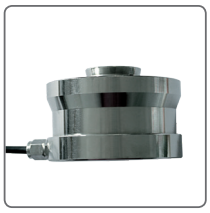
Ring-Torsion load cell *V50S*





Features

- Material: Alloy Steel
- Rated load: 10 - 150 t
- Protection class: IP 66 - laser welded
- Structure: the measuring element is laser-welded
- Particularly robust for heavy duty industrial use
- Low profile



Application

- Weighing machines
- Cargo scales,
- Silo and hopper scales
- Coil scales
- Heavy duty scales
- Force measurements in the process industry

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Ring-Torsion load cell *V50S*

Ring-Torsion load cell for measurement in harsh industrial environments

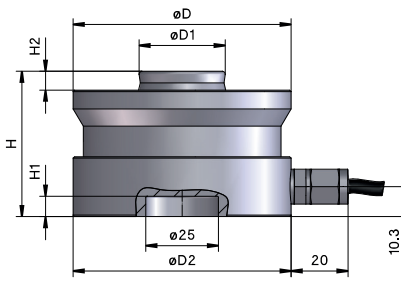
The V50S pressure cells are used for the measurement of compressive forces in various industrial applications. The load cells are very symmetrical and compact, so it also allows the precise measurement in harsh industrial environments. The forces are always centered in the measured doses. The High load-load cell is manufactured from high alloy tool steel, laser welded and meets the requirements of protection class IP66.

The load cells, force transducers V50S are due to the small dimensions mainly used in hard to reach areas, or where on the basis of design specifications only little space is available.

TECHNICAL DETAILS

Accuracy class		G3
Maximum capacity (E_{max})	kg	10.000, 22.000, 33.000, 47.000, 68.000, 100.000, 150.000
Max. number of load cell intervals (n_{LC})		3000
Output sensitivity (C_n) / Sensivity tolerance	mV/V	2,85 ± 0,01
Ratio of max. capacity to min. verification interval (Y = Emax / vmin)	% of Emax	10 000
Minimum dead load (E_{min})		0
Safe overload (E_L) **Ultimate overload (E_d)**	% of Emax	150 200
Excitation, recommended (U_{ref}) **Excitation, maximum (B_U)**	V	5 - 12 15
Zero balance	% v. C_n	≤ 1 %
Input resistance (R_{LC}) **Output resistance (R_O)**	Ω	1450 ± 10 1402 ± 5
Insulation resistance	MΩ	> 5 000
Nominal temperature range (B_T)	°C	- 10 ... + 40
Protection class (DIN 40.050 / EN 60529)		IP66
Cable lengths		16 m, 12 m
Material		Alloyed steel

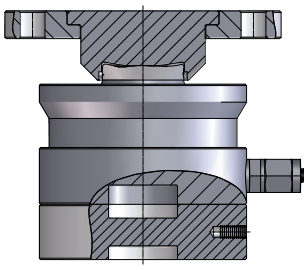
Technical Drawing



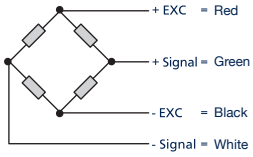
Load	D	D1	D2	H	H1	H2
10 - 22 t	75	30	75	50	7	6,5
33 t	95	40	95	65	7	10
47 t	130	60	130	75	7	14
68 t	130	60	130	85	7	14
100 t	150	70	150	90	7	16

All dimensions are given in millimetres (mm)
Technical specifications are subject to change without prior notice

Example of installation



Electrical connection
4-wire-cable



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