

TENSION AND COMPRESSION LOAD CELL

TENSION & COMPRESSION



- MINIATURE LOAD CELL
- COMBINED ERROR $\leq \pm 0,22 \%$
- IP68 PROTECTION RATING
- 17-4PH STAINLESS STEEL | 1.4542



STAINLESS
STEEL
17-4PH | 1.4542



NOMINAL LOAD (FS)

N	kg (optional)	Net weight (kg)	Combined error	ISO 17025	High Temperature -40...250°C
500	50	0.2	$\leq \pm 0.22 \%$	(optional)	(optional)
1 000	100	0.2	$\leq \pm 0.22 \%$	(optional)	(optional)
1 500	150	0.2	$\leq \pm 0.22 \%$	(optional)	(optional)
2 000	200	0.2	$\leq \pm 0.22 \%$	(optional)	(optional)
3 000	300	0.2	$\leq \pm 0.22 \%$	(optional)	(optional)
5 000	500	0.3	$\leq \pm 0.22 \%$	(optional)	(optional)



TECHNICAL DATA

PRECISION

Rated Output (C_n)	1.5 mV/V ± 10 % at FS
Zero Balance	$< \pm 0.05$ %
Combined error	$\leq \pm 0.22$ %FS
Non-linearity	$\leq \pm 0.2$ %FS
Hysteresis	$\leq \pm 0.1$ %FS
Repeatability	$\leq \pm 0.1$ %FS
Creep	$\leq \pm 0.1$ %FS (at 30 min FS)
Temperature coefficient of zero	-0.005 %FS/°C
Temperature coefficient of sensitivity	0.005 %FS/°C
Compensated temperature range	-10...+40 °C
Operating temperature range	-20...+70 °C
Reference Temperature	23 °C

LOAD CELL PROPERTIES

Material	17-4PH STAINLESS STEEL 1.4542
Protection rating	IP68
Deflection at FN	~ 0.06 mm

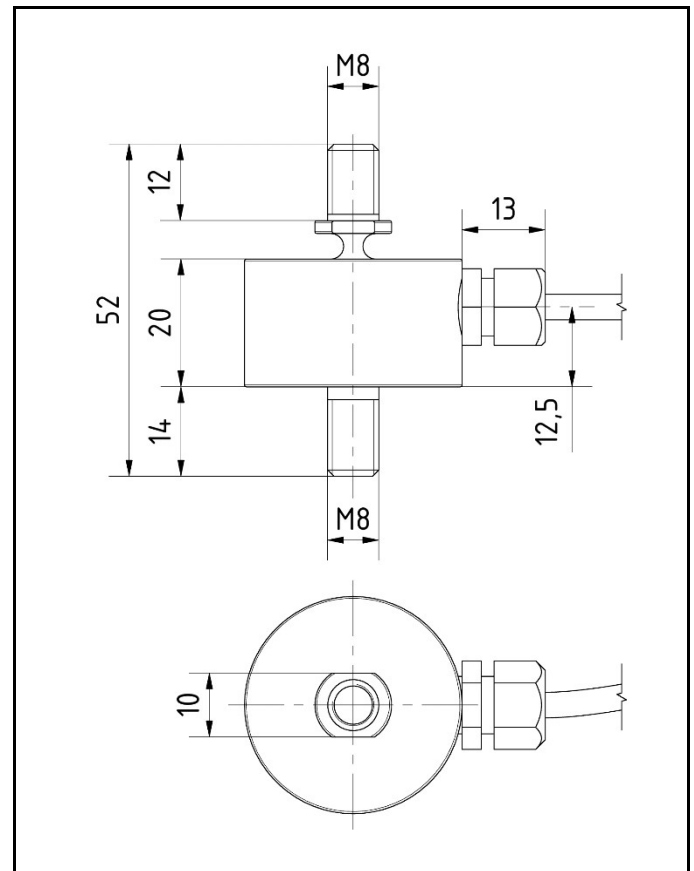
ELECTRICAL PROPERTIES

Bridge configuration	Full Wheatstone bridge, 4-wire
Input resistance	700 $\pm$ 10 Ω
Output resistance	700 $\pm$ 10 Ω
Insulation resistance	$\geq 5\,000$ M Ω at 100 V
Recommended excitation voltage	< 18 V
Cable diameter	4 mm
Cable length	4 000 mm

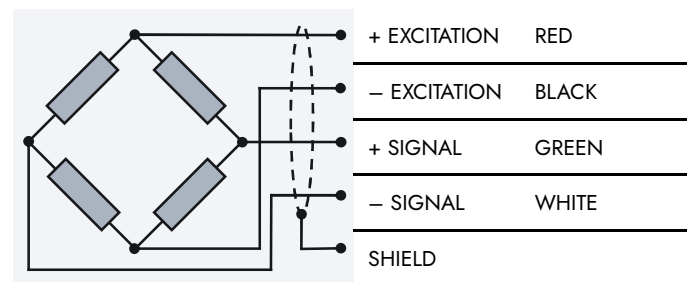
MECHANICAL LIMITS

Service load	120 %FS	Load without any permanent deformation or change in calibration.
Safe overload	150 %FS	The highest static load that may be applied once or briefly without mechanical damage.
Breaking load	> 300 %FS	Load at which permanent deformation or mechanical failure (fracture) occurs.
Max. transverse load (side)	50 %FS	Maximum lateral or shear load that can be applied (e.g. due to misalignment or friction).
Max. permissible dynamic load	70 %FS	For cyclic or oscillating loads, the amplitude should not exceed this load to prevent fatigue failure. The dynamic load must be applied to the transducer central thread.

DIMENSIONS



ELECTRICAL CONNECTION



ACCESSORIES

LAOAA | SPHERICAL ROD ENDS

- Material: AISI 304 Stainless Steel
- Spherical rod ends ensure precise and reliable force transmission by compensating for small misalignments.
- They help center the applied load, reduce lateral and bending forces, protect the load cell from mechanical stress, and improve overall measurement accuracy.



M8
Female

