

TENSION AND COMPRESSION LOAD CELL

TENSION &
COMPRESSION



- LOW PROFILE
- COMBINED ERROR $\leq \pm 0.14 \%$
- IP66 PROTECTION RATING
- 17-4PH STAINLESS STEEL | 1.4542

STAINLESS
STEEL

17-4PH | 1.4542

NOMINAL LOAD (FS)

kN	kg (optional)	Net weight (kg)	Combined error	ISO 17025	High Temperature -40...250°C	Rated Output (mV/V)
10	1 000	0.1	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
20	2 000	0.1	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
30	3 000	0.2	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
50	5 000	0.2	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
100	10 000	0.5	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
200	20 000	1.6	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
300	30 000	1.6	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
500	50 000	8.0	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
1 000	100 000	22.3	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
2 000	200 000	52,6	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
3 000	300 000	67,0	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
5 000	500 000	89,7	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
10 000	1 000 000	153,8	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
20 000	2 000 000	761,1	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$
30 000	3 000 000	1 571,7	$\leq \pm 0.14 \%$	(optional)	(optional)	1.5 $\pm 10\%$



TECHNICAL DATA

PRECISION

Rated Output (C_n)	1.5 mV/V ± 10 % at FS
Zero Balance	$< \pm 0.05$ %
Combined error	$\leq \pm 0.14$ %FS
Non-linearity	$\leq \pm 0.1$ %FS
Hysteresis	$\leq \pm 0.1$ %FS
Repeatability	$\leq \pm 0.05$ %FS
Creep	$\leq \pm 0.05$ %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

MECHANICAL PROPERTIES

Material	17-4PH STAINLESS STEEL 1.4542
Deflection at FN	~ 0.5 mm

ELECTRICAL PROPERTIES

Bridge configuration	Full Wheatstone bridge, 4-wire
Input resistance	760 - 800 Ω
Output resistance	690 - 710 Ω
Insulation resistance	$\geq 5\,000$ M Ω at 100 V
Recommended excitation voltage	5 - 15 V
Cable diameter	3 - 6 mm
Cable length	4 000 – 10 000 mm

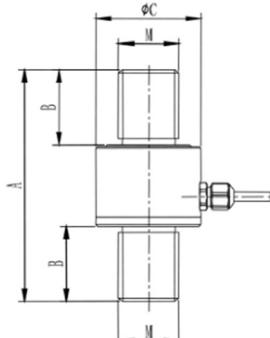
MECHANICAL LIMITS

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	> 200 %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.

COMPLIANCE AND CERTIFICATION

Protection Rating	IP66 (IEC 60529)
Compliance	CE, RoHS, REACH
Calibration	Factory-calibrated, ISO 17025 calibration available on request
HS-CODE	9031.80.80

DIMENSIONS

					
Cap (kN)	A	B	ØC	M	Cable Size
10, 20	56	18	20	M12	Ø3x4m
30, 50	74	24	28	M16x2	Ø3x4m
100	98	32	36	M24x2	Ø3x4m
200, 300	145	45	52	M36x3	Ø5x6m
500	260	85	82	M64x3	Ø5x6m
1 000	320	110	120	M100x3	Ø5x6m
2 000	360	120	180	M140x4	Ø5x6m
3 000	360	120	200	M160x4	Ø5x6m
5 000	520	162	180	M160x6	Ø6x10m
10 000	590	205	220	M200x6	Ø6x10m
20 000	1 080	380	360	TR330x24	Ø6x10m
30 000	1 460	460	450	TR400x24	Ø6x10m

ELECTRICAL CONNECTION

