

SHEAR BEAM LOAD CELL

TENSION & COMPRESSION

Capacity: 2.5 ~ 5t and 7.5 ~ 10t



Capacity: 50 ~ 200kg

- LOW PROFILE
- COMBINED ERROR $\leq \pm 0.024 \%$
- IP67 PROTECTION RATING
- 17-4PH STAINLESS STEEL | 1.4542

STAINLESS
STEEL

17-4PH | 1.4542

NOMINAL LOAD (FS)

t	kN	Net weight (kg)	Combined error	ISO 17025	High Temperature -40...250°C	Rated Output (mV/V)
0.05 – 2	0.5 - 20	~ 1.0	$\leq \pm 0.028 \%$	(optional)	(optional)	2.0±0.005
2.5 - 5	25 - 50	~ 1.9	$\leq \pm 0.028 \%$	(optional)	(optional)	3.0±0.005
7.5 - 10	75 - 100	~ 4.3	$\leq \pm 0.028 \%$	(optional)	(optional)	3.0±0.005



TECHNICAL DATA

PRECISION

Rated Output (C_n) Capacity 0.05-2t	2.0 mV/V $\pm 0,005$ % at FS
Rated Output (C_n) Capacity 2,5-5t	3.0 mV/V $\pm 0,005$ % at FS
Rated Output (C_n) Capacity 7,5-10t	3.0 mV/V $\pm 0,005$ % at FS
Zero Balance	$< \pm 1.0$ %
Combined error	$\leq \pm 0.028$ %FS
Non-linearity	$\leq \pm 0.02$ %FS
Hysteresis	$\leq \pm 0.02$ %FS
Repeatability	$\leq \pm 0.01$ %FS
Creep	$\leq \pm 0.02$ %FS (at 30 min FS)
Temperature coefficient of zero	0.002 %FS/°C
Temperature coefficient of sensitivity	0.002 %FS/°C
Compensated temperature range	-10...+50 °C
Operating temperature range	-20...+60 °C
Reference Temperature	23 °C

MECHANICAL PROPERTIES

Material	17-4 PH STAINLESS STEEL 1.4542
Deflection at FN	~ 0.4 mm

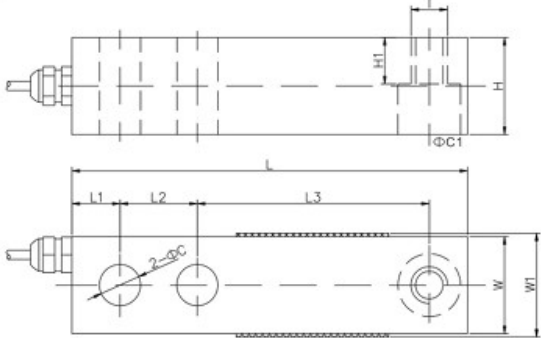
ELECTRICAL PROPERTIES

Bridge configuration	Full Wheatstone bridge, 6-wire
Input resistance	$385 \pm 5 \Omega$
Output resistance	$350 \pm 5 \Omega$
Insulation resistance	$\geq 5\,000\text{ M}\Omega$ at 100 V
Recommended excitation voltage	10 - 15 V
Cable diameter	5.4 mm
Cable length	6 000 mm

MECHANICAL LIMITS

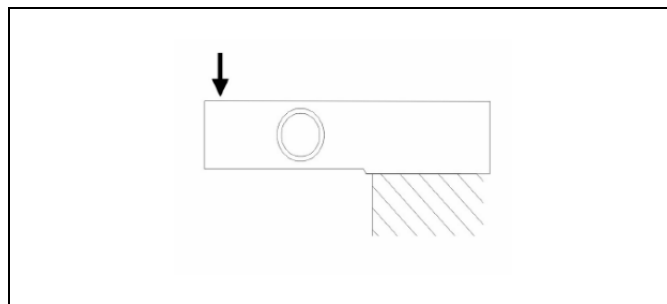
Service load	120 %FS	Load without any permanent deformation or change in calibration.
Safe overload	120 %FS	The highest static load that may be applied once or briefly without mechanical damage.
Breaking load	> 300 %FS	Load at which permanent deformation or mechanical failure (fracture) occurs.
Max. 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.

DIMENSIONS

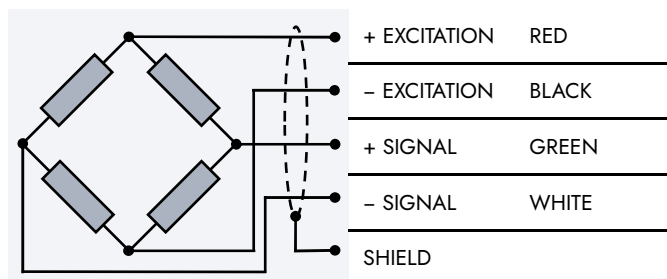


Cap	(mm)									
	C	L	L1	L2	L3	H	H1	W	W1	T
50 - 200kg	13.5	130.0	15.8	25.4	76.2	31.8	15.8	31.8	34.0	M12x1.75
2.5 - 5t	19.8	171.5	19.1	38.1	95.3	38.1	18.8	38.1	40.0	M18x1.5
7.5 - 10t	26.2	222.3	25.4	50.8	120.7	50.8	25.4	50.8	52.4	M24x2

LOAD DIRECTION



ELECTRICAL CONNECTION



COMPLIANCE AND CERTIFICATION

Protection Rating	IP67 (IEC 60529)
Compliance	CE, RoHS, REACH
Calibration	Factory-calibrated, ISO 17025 calibration available on request
HS-CODE	9031.80.80

