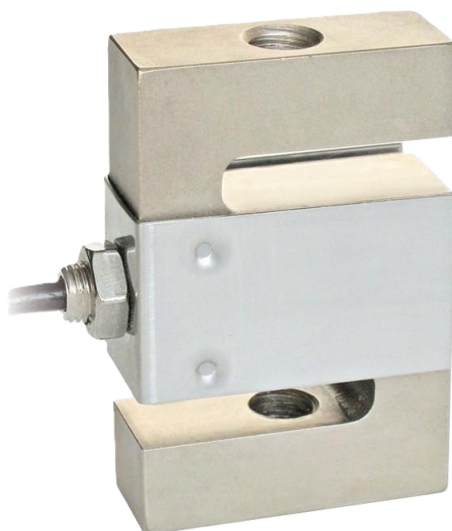


TENSION AND COMPRESSION LOAD CELL

 TENSION &
COMPRESSION



- NICKEL PLATED STEEL AISI 4340
- COMBINED ERROR $\leq \pm 0.02\%$C3
- COMBINED ERROR $\leq \pm 0.017\%$C4
- IP67 PROTECTION RATING



NOMINAL LOAD (FS) [E_{max}]

kg	N	NET WEIGHT (kg)	COMBINED ERROR (C3)	COMBINED ERROR (C4)	ACCURACY CLASS			Rated Output (mV/V)
					C3	C4		
25	250	0.4	$\leq \pm 0.02\%$	$\leq \pm 0.017\%$	-	-	-	2.0 $\pm$ 0.2%
100	1 000	0.6	$\leq \pm 0.02\%$	$\leq \pm 0.017\%$	•	•	•	2.0 $\pm$ 0.2%
200	2 000	0.6	$\leq \pm 0.02\%$	$\leq \pm 0.017\%$	•	•	-	2.0 $\pm$ 0.2%
300	3 000	0.6	$\leq \pm 0.02\%$	$\leq \pm 0.017\%$	•	•	-	2.0 $\pm$ 0.2%
500	5 000	0.7	$\leq \pm 0.02\%$	$\leq \pm 0.017\%$	•	•	•	2.0 $\pm$ 0.2%
1 000	10 000	0.9	$\leq \pm 0.02\%$	$\leq \pm 0.017\%$	•	•	•	2.0 $\pm$ 0.2%
2 500	25 000	1.6	$\leq \pm 0.02\%$	$\leq \pm 0.017\%$	•	•	•	2.0 $\pm$ 0.2%

ON REQUEST



TECHNICAL DATA

PRECISION

Rated Output (C_n)	2.0 mV/V $\pm$ 0.2 % at FS
Zero Balance	$< \pm 1.0$ %
Combined error	$\leq \pm 0.02$ %FS
Non-linearity	$\leq \pm 0.014$ %FS
Hysteresis	$\leq \pm 0.014$ %FS
Creep	$\leq \pm 0.03$ %FS (at 30 min FS)
Temperature coefficient on zero	0.0015 %FS/ $^{\circ}$ C
Temperature coefficient on span	0.0017 %FS/ $^{\circ}$ C
Compensated temperature range	-10...+40 $^{\circ}$ C
Operating temperature range	-35...+65 $^{\circ}$ C
Reference Temperature	24 $^{\circ}$ C

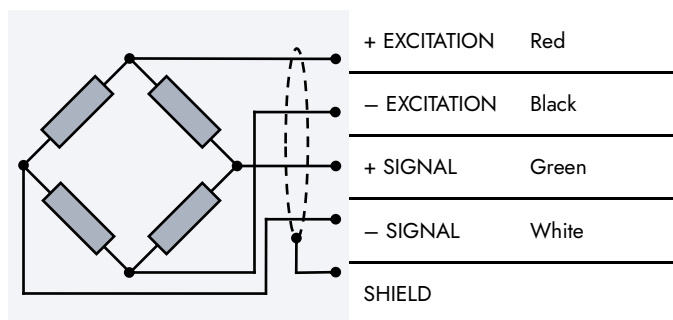
MECHANICAL PROPERTIES

Material	NICKEL PLATED STEEL AISI 4340
Deflection at FN	~ 0.4 mm

ELECTRICAL PROPERTIES

Bridge configuration	Full Wheatstone bridge, 4-wire
Input resistance	350 $\pm$ 3.5 Ω
Output resistance	350 $\pm$ 3.5 Ω
Insulation resistance	$\geq 5\,000$ M Ω at 100 V
Recommended excitation voltage	5 - 15 V
Minimum verification interval (V min)	– (25 kg)
	$E_{max}/10\,000$ (100 – 200 – 300 kg) [C3]
	$E_{max}/15\,000$ (500 – 1 000 – 2 500 kg) [C3]
	$E_{max}/20\,000$ (100 – 200 – 300 kg; 500 – 1 000 – 2 500 k) [C4]
Cable diameter	5.0 mm
Cable length	5 m (25 – 300 kg) 10 m (500 – 2 500 kg)
Cores	4 x 0.24 mm ²

ELECTRICAL CONNECTION

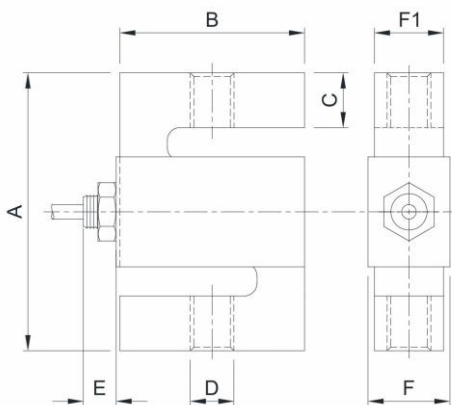


MECHANICAL LIMITS

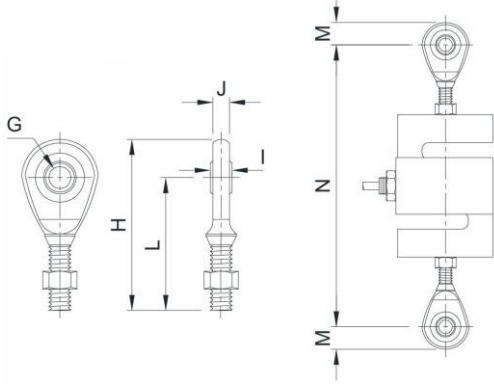
Service load	120 %FS	Load without any permanent deformation or change in calibration.
Safe overload	150 %FS	The highest static load that may be applied once or briefly without mechanical damage.
Breaking load	> 300 %FS	Load at which permanent deformation or mechanical failure (fracture) occurs.
Max. 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.

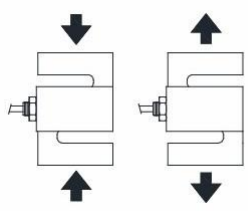


DIMENSIONS (mm)



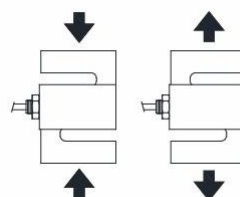
Overall dimensions with ball-and-socket joints



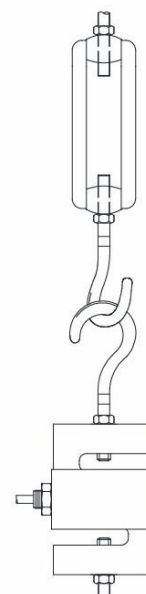


Example of application on the tension bar mechanical scale

	25 kg	100 kg	200 kg 300 kg 500 kg	1 000 kg	2 500 kg
A	76.2	76,2	76.2	76.2	101.6
B	50.8	50.8	50.8	50.8	76.2
C	15.5	15.3	14.4	12.5	20
D	M8 x 1.25	M10 x 1.5	M12 x 1.75	M12 x 1.75	M20 x 1.5
E	10	9	8 9 9	10	6
F	14.5	22.4	22.4	28.9	28.9
F1	12.7	19	19	25.4	25.4
G	Ø8	Ø10	Ø12	Ø12	Ø20
H	54	62.5	71	71	104.5
I	8	9	10	10	16
J	6.5	7.5	8.5	8.5	13.5
L	42.5	48.5	54.5	54.5	77.5
M	11.5	14	16.5	16.5	27
N (≈)	129	142	154	159	217



Example of application
on the tension bar
mechanical scale



COMPLIANCE AND CERTIFICATION

Protection Rating	IP67	
Compliance	CE, RoHS, REACH	
Calibration	Factory-calibrated, ISO 17025 calibration available on request	
HS-CODE	9031.80.80	
Certifications		OIML R60 C3
		Complies with the Eurasian Customs Union regulations
		Equivalent of the CE marking for the United Kingdom
Certifications (on request)		Calibration report
		OIML R60 C4
		LAT Accredia calibration certificate ISO 376 or ASTM E74 for <u>capacities from 1000 kg to 10000 kg</u>
		ATEX (zone 2-22)
		ATEX/IECEx (zone 1-21)
		Complies with the Eurasian Customs Union regulations for use in potentially explosive atmospheres
		FM HazLoc - Complies with the United States and Canada regulations for use in potentially explosive atmospheres
		Complies with Chinese market regulations for use in potentially explosive atmospheres
		NTEP - Complies with United States regulations for legal for trade use



COMPLEMENTARY ACCESSORIES

LALAR

	Dimensions	Load Cell Capacity
Ball-and-socket with nut:	M12x1.75	200-1 000 kg
	M20x1.5	2 500 kg
stainless steel		



LALAS

	Dimensions	Load Cell Capacity
Ball-and-socket with nut:	M8x1.25	25 kg
	M10x1.5	100 kg
	M12x1.75	200-1 000 kg
galvanized C40 steel	M20x1.5	2 500 kg

