BENDING BEAM LOAD CELL

TENSION & COMPRESSION



- COMBINED ERROR ≤ ±0.02%
- IP68 PROTECTION RATING
- 17-4PH STAINLESS STEEL

Stainless Steel 17-4 PH · 1.4542

NOMINAL LOAD (FS) [E_{max}]

kg	N	Net weight (kg)	ACCURACY CLASS C3	C4	NTEP	ISO 17025	Rated Output (mV/V)
5	50	0.4	–	–	–	(optional)	2 ±1%
10	100	0.4	•	•	–	(optional)	2 ±1%
20	200	0.4	•	•	–	(optional)	2 ±1%
50	500	0.4	•	•	•	(optional)	2 ±1%
100	1 000	0.4	•	•	•	(optional)	2 ±1%
200	2 000	0.4	•	•	•	(optional)	2 ±1%
350	3 500	0.4	•	•	•	(optional)	2 ±1%
500	5 000	0.4	•	•	•	(optional)	2 ±1%

ON REQUEST

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TECHNICAL DATA

PRECISION

Rated Output (C_n)	2 mV/V ±1 % at FS *
Zero Balance	< ±1 %
Combined error	≤ ±0.02 %FS (C3)
	≤ ±0.017 %FS (C4)
Non-linearity	≤ ±0.014 %FS (C3)
	≤ ±0.012 %FS (C4)
Hysteresis	≤ ±0.014 %FS (C3)
	≤ ±0.012 %FS (C4)
Repeatability	-
Creep	≤ ±0.02 %FS (at 30 min FS)
Temperature coefficient of zero	0.002 %FS/°C
Temperature coefficient of sensitivity	0.0014 %FS/°C
Compensated temperature range	-10...+40 °C
Operating temperature range	-35...+65 °C
Reference Temperature	23 °C

* Calibrated current output

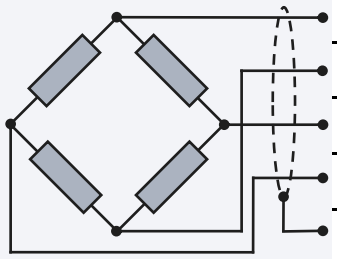
MECHANICAL PROPERTIES

Material	17-4PH stainless steel
Deflection at FN	~ 0.4 mm

ELECTRICAL PROPERTIES

Bridge configuration	Full Wheatstone bridge, 6-wire
Input resistance	460±50 Ω
Output resistance	350±3.5 Ω
Insulation resistance	≥ 5,000 MΩ at 100 V
Recommended excitation voltage	≤ 18 V
Minimum verification interval (V_{min})	– (5 kg)
	E_{max} / 10 000 (10 – 500 kg) [C3]
	E_{max} / 15 000 (10 – 500 kg) [C4]
Cable diameter	5 mm
Cable length	3 000 mm
Cores	4 x 0.22 mm²

ELECTRICAL CONNECTION

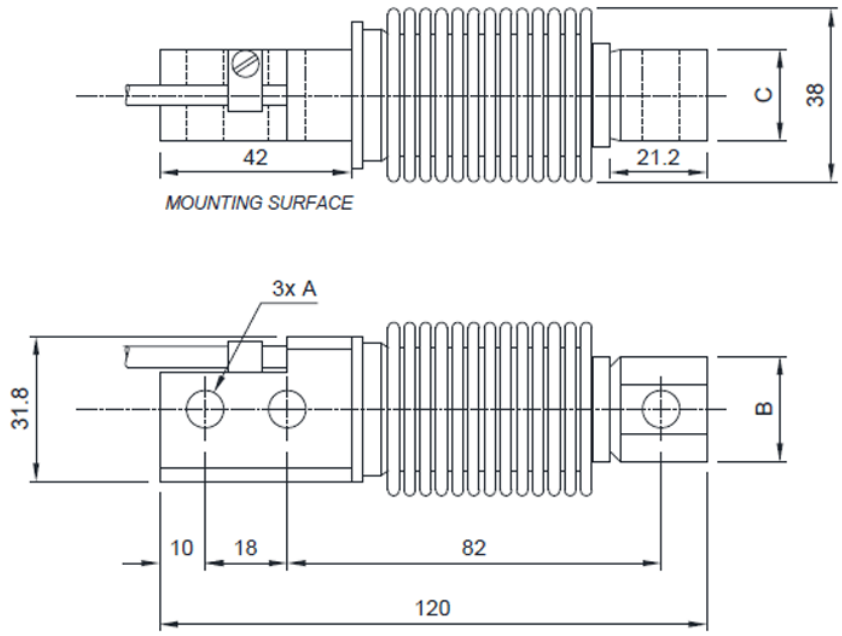


+ EXCITATION	GREEN
– EXCITATION	BLACK
+ SIGNAL	WHITE
– SIGNAL	RED
SHIELD	

MECHANICAL LIMITS

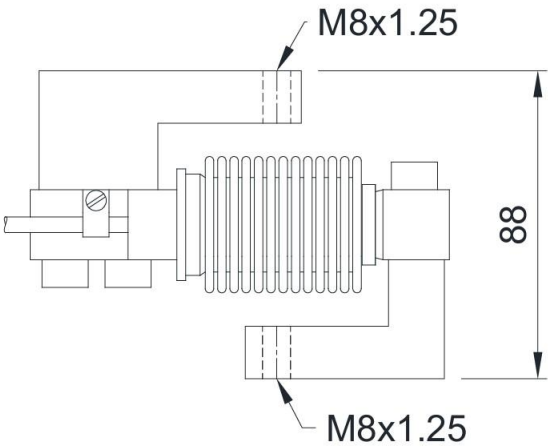
Service load	120 %FS	Load without any permanent deformation or change in calibration.
Safe overload	150 %FS	The highest static load that may be applied once or briefly without mechanical damage.
Breaking load	> 300 %FS	Load at which permanent deformation or mechanical failure (fracture) occurs.
Max.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



	A	B	C
20 – 200 kg	Ø 8.2	23	20
350 – 500 kg	Ø 10.3	24	19

TENSION STAINLESS STEEL BRACKETS (max load 100 kg)



Screw	M8		M10	
Screw class	6.8	8.8	6.8	8.8
Tightening torque	19 Nm	25 Nm	37 Nm	50 Nm

COMPLIANCE AND CERTIFICATION

Protection Rating	IP68 according to IEC 60529	
Compliance	CE, RoHS, REACH	
Calibration	Factory-calibrated, ISO 17025 calibration available on request	
HS-CODE	9031.80.80	
Certifications	OIML	OIML R60 C3
	EAC	Complies with the Eurasian Customs Union regulations
	UKCA	Equivalent of the CE marking for the United Kingdom
Certifications (on request)		Calibration report
	OIML	OIML R60 C4
	Ex	ATEX (zone 2-22)
	Ex IECEx	ATEX/IECEx (zone 1-21)
	EAC Ex	Complies with the Eurasian Customs Union regulations for use in potentially explosive atmospheres
	FM	FM HazLoc - Complies with the United States and Canada regulations for use in potentially explosive atmospheres
	Ex NEPSI	Complies with Chinese market regulations for use in potentially explosive atmospheres
	NTEP	NTEP - Complies with United States regulations for legal for trade use

MOUNTING KITS AND ACCESSORIES

LMLAG

- Adjustable upper plate in AISI 304 stainless steel or galvanized steel.
- Lower plate and block in AISI 304 stainless steel.
- Constraint against lateral forces and anti-tilt by AISI 304 stainless steel or galvanized steel self-centering joint foot.
- Compensation for any misalignments of the support plates of the structure.
- Partial height adjustment.
- Locking screw to avoid damage during transport and installation.



50...500 kg
0.5...5 kN

LMLAI

- Upper plate with a compression joint in AISI 304 stainless steel and rubber.
- Lower plate and block in AISI 304 stainless steel.
- Compensation for any misalignments of the support plates of the structure.
- Locking screw to avoid damage during transport and installation.
- It can be used for systems with at least 3 supports.



50...500 kg
0.5...5 kN

LMLAH

- Compression joint in AISI 304 stainless steel and rubber.
- Lower plate and block in AISI 304 stainless steel.
- Compensation for any misalignments of the support plates of the structure.
- Locking screw to avoid damage during transport and installation.
- It can be used for systems with at least 3 supports.



50...500 kg
0.5...5 kN