BENDING BEAM LOAD CELL

TENSION & COMPRESSION



- COMBINED ERROR ≤ ±0.02%
- IP68 PROTECTION RATING
- AISI 420 STAINLESS STEEL

Stainless Steel
AISI 420 · 1.4034

mV/V

NOMINAL LOAD (FS)

kg	N	Net weight (kg)	ISO 17025	Rated Output (mV/V)
30	300	0.6	(optional)	2 ±0.4%
50	500	0.6	(optional)	2 ±0.4%
75	750	0.6	(optional)	2 ±0.4%
150	1 500	0.6	(optional)	2 ±0.4%
300	3 000	0.7	(optional)	2 ±0.4%
500	5 000	0.7	(optional)	2 ±0.4%
750	7 500	0.7	(optional)	2 ±0.4%
1 000	10 00000	0.7	(optional)	2 ±0.4%
1500	15 00000	0.7	(optional)	2 ±0.4%

TECHNICAL DATA

PRECISION

Rated Output (C_n)	2 mV/V ±0.4 % at FS
Zero Balance	< ±1 %
Combined error	≤ ±0.02 %FS
Non-linearity	≤ ±0.014 %FS
Hysteresis	≤ ±0.014 %FS
Repeatability	-
Creep	≤ ±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...+40 °C
Operating temperature range	-20...+50 °C
Reference Temperature	23 °C

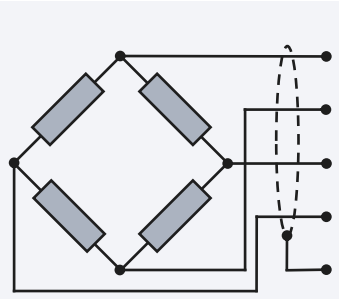
MECHANICAL PROPERTIES

Material	AISI 420 stainless steel
Deflection at FN	~ 0.4 mm

ELECTRICAL PROPERTIES

Bridge configuration	Full Wheatstone bridge, 6-wire
Input resistance	400±20 Ω (30 – 300 kg) 350±5 Ω (500 – 1 500 kg)
Output resistance	350±5 Ω (30 – 1 500 kg)
Insulation resistance	≥ 5,000 MΩ at 100 V
Recommended excitation voltage	≤ 15 V
Cable diameter	5 mm
Cable length	5 m
Cores	6 x 0.22 mm²

ELECTRICAL CONNECTION

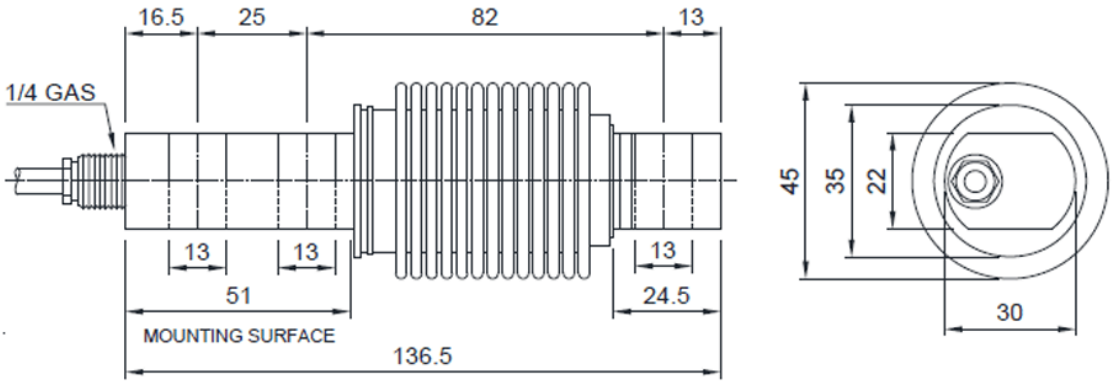


+ EXCITATION	RED
+ REF./SENSE	BLUE
- EXCITATION	BLACK
- REF./SENSE	YELLOW
+ SIGNAL	GREEN
- SIGNAL	WHITE
SHIELD	

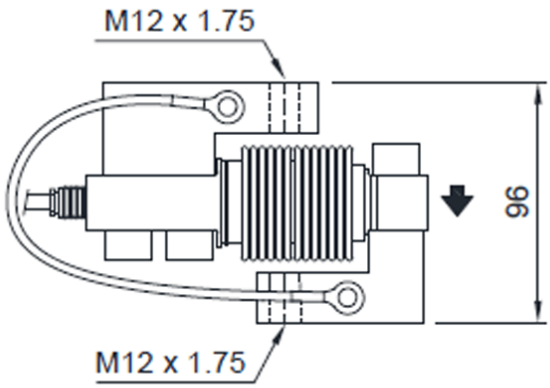
MECHANICAL LIMITS

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)



TENSION STAINLESS STEEL
BRACKETS (max load 300 kg)



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		Complies with the Eurasian Customs Union regulations
		Equivalent of the CE marking for the United Kingdom
Certifications (on request)		Calibration report
		LAT Accredia calibration certificate ISO 376 or ASTM E74 for capacities from 1000 kg to 10000 kg
		ATEX (zone 2-22)
		Complies with Chinese market regulations for use in potentially explosive atmospheres
		Complies with the Eurasian Customs Union regulations for use in potentially explosive atmospheres

MOUNTING KITS AND ACCESSORIES

LMLAU

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



50...1 500 kg
0.5...15 kN

LMLAF

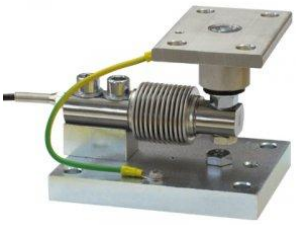
- Adjustable upper plate in AISI 304 stainless steel (LALAD) or galvanized steel (LALAE).
- Lower plate and block in AISI 304 stainless steel.
- Constraint against lateral forces and anti-tilt by AISI 304 stainless steel (LMLAF, LMLAF_1500) or galvanized steel (LMLAF_Z) self-centering joint foot.
- Compensation for any misalignments of the support plates of the structure.
- Partial height adjustment.
- Locking screw to avoid damage during transport and installation.



50...1 500 kg
0.5...15 kN

LMLAJ

- Upper plate with a compression joint in AISI 304 stainless steel and rubber.
- Lower plate and block in galvanized 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...2 000 kg
0.5...20 kN

LMLAE

- 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...1 500 kg
0.5...15 kN

LMLAC

- Aluminum alloy tension ball joint.
- AISI 304 stainless steel lower plate.
- Locking screw to avoid damage during transport and installation.



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

LMLAD

- 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