BENDING BEAM AND SHEAR LOAD CELLS

TENSION & COMPRESSION





- COMBINED ERROR ≤ ±0.02%
- IP67 | IP68 PROTECTION RATING
- AISI 4340 NICKEL PLATED STEEL

IP67 IP68 Nickel-Plated Steel AISI 4340 mV/V

NOMINAL LOAD (FS) [E_{max}]

kg	N	Net weight (kg)	Accuracy Class	ISO 17025	Rated Output (mV/V)
75	750	1	-	(optional)	2 ±0.1%
150	1 500	1	-	(optional)	2 ±0.1%
300	3 000	1	-	(optional)	2 ±0.1%
500	5 000	1	-	(optional)	2 ±0.1%
1 000	10 000	1.1	C3	(optional)	2 ±0.1%
2 000	20 000	1.1	C3	(optional)	2 ±0.1%
3 000	30 000	1.1	C3	(optional)	2 ±0.1%
5 000	50 000	1.1	C3	(optional)	2 ±0.1%

TECHNICAL DATA

PRECISION

Rated Output (C_n)	2 mV/V ±0.1 %
Zero Balance	±2 %
Combined error	≤ ±0.02 %FS
Creep	0.03 %FS (at 30 min FS)
Temperature coefficient of zero	0.002 %FS/°C
Temperature coefficient of sensitivity	0.0012 %FS/°C
Compensated temperature range	-10...+40 °C
Operating temperature range	-20...+70 °C

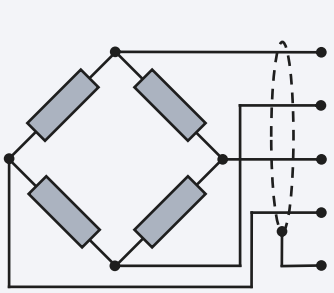
MECHANICAL PROPERTIES

Material	AISI 4340 nickel plated steel
Deflection at FN	0.6 mm

ELECTRICAL PROPERTIES

Bridge configuration	Full Wheatstone bridge, 6-wire
Input resistance	400 Ω ±10
Output resistance	352 Ω ±2
Insulation resistance	≥ 5,000 MΩ
Recommended excitation voltage	≤ 15 V
Minimum verification interval (V_{min})	– (75–500 kg)
	E_{max} / 12 000 (1 000–5 000 kg)
Cable diameter	5 mm
Cable length	6m
Cores	6 x 0.24 mm²

ELECTRICAL CONNECTION



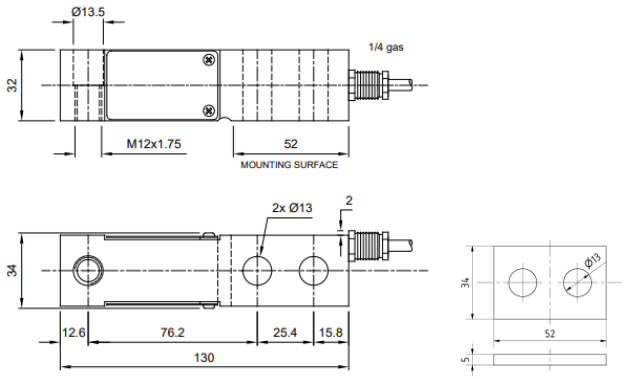
+ EXCITATION	RED
+ REF./SENSE	BLUE
– EXCITATION	BLACK
– REF./SENSE	YELLOW
+ SIGNAL	GREEN
– SIGNAL	WHITE
SHIELD	

MECHANICAL LIMITS

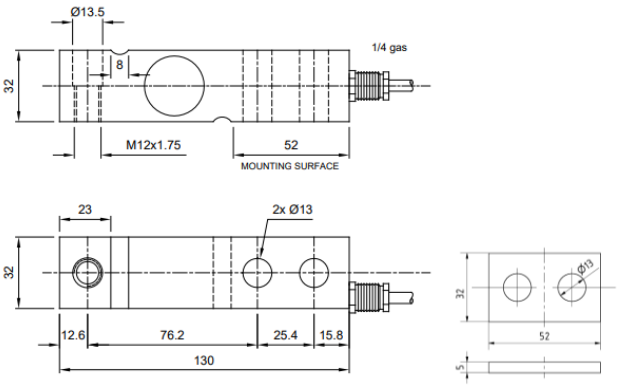
Safe overload	150 %FS	The highest static load that may be applied once or briefly without mechanical damage.
Ultimate overload	250 %FS	Load at which permanent deformation or mechanical failure (fracture) occurs.

DIMENSIONS (mm)

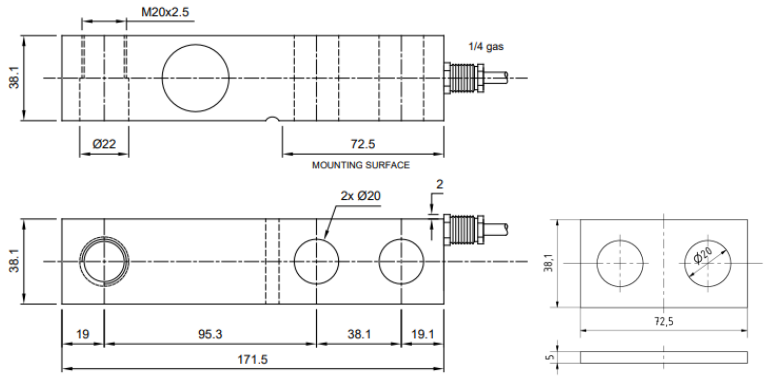
75...300 kg ≈ 750...3 000 N



500...2 000 kg ≈ 5 000...20 000 N



3 000...5 000 kg ≈ 30 000...50 000 N



Apply the torque values listed below when fastening load cell screws

	75...300 kg	500...2 000 kg	3 000...5 000 kg
Screw	M12	M12	M20
Screw class	8.8	8.8	8.8
Tightening torque (Nm)	79	79	400

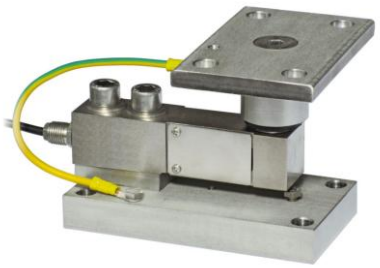
COMPLIANCE AND CERTIFICATION

Protection Rating	IP67 (75 – 300 kg) and IP68 (500 – 5 000 kg) according to IEC 60529	
Compliance	CE, UKCA	
Calibration	Factory-calibrated, ISO 17025 calibration report 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)	ISO 376	LAT Accredia calibration certificate ISO 376 or ASTM E74 for capacities from 1000 kg to 5000 kg
	Ex	ATEX (zone 2-22)
	EAC Ex	Complies with the Eurasian Customs Union regulations for use in potentially explosive atmospheres
	Ex NEPSI	Complies with Chinese market regulations for use in potentially explosive atmospheres
		Accredia traceable calibration report

MOUNTING KITS AND ACCESSORIES

LMLAS

- Upper plate with a compression joint in AISI 304 stainless steel and rubber.
- Lower plate and block in AISI 304 stainless steel (LMLAS, LMLAS_2000) or in galvanized steel (LMLAS_2000Z).
- 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

LMLAO

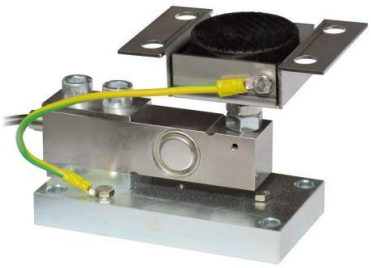
- Adjustable upper plate in AISI 304 stainless steel (LALAF) or galvanized steel (LALAG).
- Lower plate and block in AISI 304 stainless steel (LMLAO) or galvanized steel (LMLAO_Z).
- Constraint against lateral forces and anti-tilt by AISI 304 stainless steel (LMLAO) or galvanized steel (LMLAO_Z) self-centering joint foot.
- Compensation for any misalignments of the support plates of the structure.
- Adjustable height.



50...2 000 kg
0.5...20 kN

LMLBA

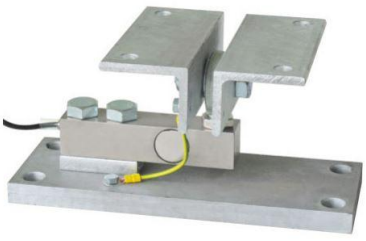
- Adjustable upper plate in AISI 304 stainless steel (LALAD) or galvanized steel (LALAE).
- Lower plate and block in AISI 304 stainless steel (PV) or galvanized steel (PVZ).
- Constraint against lateral forces and anti-tilt by AISI 304 stainless steel (LMLAF, LMLAF_1500) or galvanized steel (LMLAF_Z)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



50...2 000 kg
0.5...20 kN

LMLAB

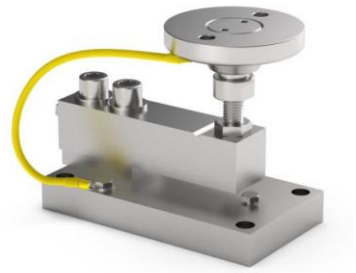
- Upper plate, lower plate and block in galvanized steel.
- Constraint against lateral forces and anti-tilt by ball-and-socket joint.
- Compensation for any misalignments of the support plates of the structure.
- Adjustable height



50...10 000 kg
0.5...100 kN

LMLAR

- 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.
- Adjustable height.
- Locking screw to avoid damage during transport and installation.

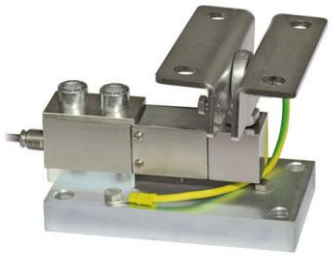


50...2 000 kg
0.5...20 kN

Certification:
EN1090

LMLAT

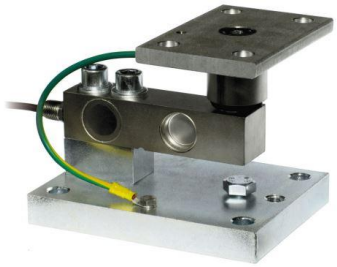
- AISI 304 stainless steel upper plate.
- Lower plate and block in galvanized steel (LMLAT) or in stainless steel (LMLAT_INOX).
- Constraint against lateral forces and anti-tilt by means of ball-and socket joint with nut in galvanized C45 steel (LMLAT) or in stainless steel (LMLAT_INOX).
- Compensation for any misalignments of the support plates of the structure.
- Adjustable height.
- Locking screw to avoid damage during transport and installation.



50...2 000 kg
0.5...20 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