

Compression load cell



- 17-4PH STAINLESS STEEL | 1.4542
- COMBINED ERROR $\leq \pm 0.03 \%$
($\leq 0.02\% \text{ C3 on request}$)
- IP68 PROTECTION RATING



NOMINAL LOAD (FS) [$E_{\max}$]

kg	kN	Net weight (kg)	Combined error		ACCURACY Class			Rated Output (mV/V)
			C2	C3	C2	C3		
250	2.5	1.1	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	-	-	-	$2.0 \pm 0.1\%$
500	5	1.1	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	-	-	-	$2.0 \pm 0.1\%$
1 000	10	1.1	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	-	-	-	$2.0 \pm 0.1\%$
2 500	25	1.1	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	•	•	•	$2.0 \pm 0.1\%$
5 000	50	1.1	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	•	•	•	$2.0 \pm 0.1\%$
7 500	75	1.1	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	•	•	•	$2.0 \pm 0.1\%$
10 000	100	1.1	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	•	•	•	$2.0 \pm 0.1\%$
12 500	125	1.6	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	-	•	•	$2.0 \pm 0.1\%$
15 000	150	2.1	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	-	-	-	$2.0 \pm 0.1\%$
30 000	300	3.8	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	-	-	-	$2.0 \pm 0.1\%$
50 000	500	8.6	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	-	-	-	$2.0 \pm 0.1\%$
100 000	1000	9.1	$\leq \pm 0.03 \%$	$\leq \pm 0.02 \%$	-	-	-	$2.0 \pm 0.1\%$

ON REQUEST



TECHNICAL DATA

PRECISION

Rated Output (C_n)	2.0 mV/V ± 0.1 % at FS
Zero Balance	$< \pm 1.0$ %
Combined error	$\leq \pm 0.03$ %FS (C2)
	$\leq \pm 0.02$ %FS (C3)
Non-linearity	$\leq \pm 0.021$ %FS (C2)
	$\leq \pm 0.014$ %FS (C3)
Hysteresis	$\leq \pm 0.021$ %FS (C2)
	$\leq \pm 0.014$ %FS (C3)
Creep	$\leq \pm 0.03$ %FS (at 30 min FS)
Temperature coefficient on zero	0.005 %FS/°C
Temperature coefficient on span	0.003 %FS/°C
Temperature range OIML R60	-10 °C...+40 °C
Compensated temperature range	-20...+70 °C
Operating temperature range	-30...+90 °C
Reference Temperature	23 °C

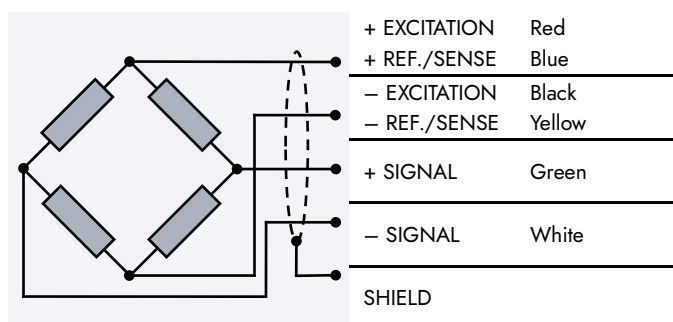
MECHANICAL PROPERTIES

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	700 $\pm$ 10 Ω
Output resistance	700 $\pm$ 10 Ω
Insulation resistance	$\geq 10\,000$ M Ω at 100 V
Minimum verification interval (V min)	– (250 - 500 – 1 000 – 15 000 kg; 30 000 – 50 000 – 100 000 kg)
	$E_{max}/15\,000$ (2 500 – 5 000 kg; 7 500 – 10 000 kg)
	$E_{max}/15\,000$ (2 500 – 5 000 – 7 500 kg; 10 000 – 12 500 kg)
Recommended excitation voltage	max. 15 V
Cable diameter	5.0 mm
Cable length	5 m* (250 -10 000 kg)
	10 m (12 500 -100 000 kg)
Cores	6 x 0.14 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.

*) On request: 10 m long cable version



DIMENSIONS (mm)

	kg	250 – 12 500	15 000	13 000	50 000 100 000
	A	Ø82	Ø100	Ø126	Ø164
	B	44	48	54	80
	C	32	35	40	60
	D	Ø22	Ø28	Ø35	Ø60
	E	14	14	14	26
	F	15	15	15	15

P10000

4x Ø14

BOLTS TO FIX THE LOAD CELL

150 115 17.5

BASESUP

BASEINF

90 18 22 M8x1.25

PIASTRA200

4x Ø15

200 150 25

BASESUPFIL

M12x1.75

10 60 Ø60

BINF

C D Ø26 Ø11 A B

	A	B	C	D
BINF100	Ø110	22	Ø102	2
BINF126	Ø140	23	Ø128	3
BINF165	Ø180	23	Ø167	3



COMPLIANCE AND CERTIFICATION

Protection Rating	IP68 (IEC 60529)
	IP69K (ON REQUEST)
Compliance	CE, RoHS, REACH
Calibration	Factory calibrated, ISO 17025 calibration available on request
HS-CODE	9031.80.80
Certifications	 OIML R60 C2
	 Complies with the Eurasian Customs Union regulations
	 Equivalent of the CE marking for the United Kingdom
Certifications (on request)	 Calibration report
	 Declaration of conformity + IP69K marking protection rating Water protection in case of high-pressure or steam jet cleaning (test: pressurized water is sprayed from a distance of max 150 mm); Water pressure: 100 bar; temperature: 80 °C; test duration: 250 seconds (reference standard: DIN 40050-9)
	 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
	 OIML R60 C3
	 Complies with Chinese market regulations for use in potentially explosive atmospheres
	 Complies with the regulations of the Russian Federation for legal for trade use
	 Complies with Chinese market regulations for legal for trade use



MOUNTING KITS AND ACCESSORIES

LMLAV – EN1090

- AISI 304 stainless steel upper and lower plates.
- AISI 304 stainless steel laminas against lateral forces.
- Anti-tilt constraint consisting of two threaded rods with self-locking nut.



application range:
up to 15 000 kg

LMLAW – EN1090

- AISI 304 stainless steel upper and lower plates.
- AISI 304 stainless steel laminas against lateral forces.
- Anti-tilt constraint consisting of two threaded rods with self-locking nut.



application range:
up to 15 000 kg

LMLBC – EN1090

- AISI 304 stainless steel upper and lower plates.
- AISI 304 stainless steel laminas against lateral forces.
- Anti-tilt constraint consisting of two threaded rods with self-locking nut.



application range:
up to 100 000 kg

BASESUPFIL

- AISI 304 stainless steel threaded upper base for compression load cells.



M12x1.75mm

BINF100 | BINF126 | BINF165

- AISI 304 stainless steel turned lower base for compression load cells.



BINF100:
Ø110x22 mm
BINF126:
Ø140x23 mm
BINF165:
Ø180x23 mm



BASEUP | P10000

- Lower plate and turned upper base in AISI 304 stainless steel.



Load cell capacity:
up to 12 500 kg

BASEUP | BASEINF

- Turned upper and lower bases in AISI 304 stainless steel.



Load cell capacity:
up to 12 500 kg

BASEINF | PIASTRA200

- Lower plate and turned lower base in AISI 304 stainless steel.



Load cell capacity:
up to 12 500 kg

