BENDING BEAM AND SHEAR LOAD CELL

TENSION & COMPRESSION



- LOW PROFILE
- COMBINED ERROR ≤ ±0.025 %
- IP68 PROTECTION RATING
- 17-4PH STAINLESS STEEL | 1.4542

CE · RoHS COMPLIANT · IP68 · Stainless Steel 17-4 PH · 1.4542 · High Temperature −40...250 °C · Dynamic Measurement · REACH COMPLIANCE · ISO 17025 ACCREDITED LABORATORY · mV/V

NOMINAL LOAD (FS)

kg	N	Net weight (kg)	Combined error	ISO 17025	High Temperature -40...250°C	Rated Output (mV/V)
10	100	0.5	≤±0.025 %	(optional)	(optional)	2.0±0.05
20	200	0.5	≤±0.025 %	(optional)	(optional)	2.0±0.05
30	300	0.5	≤±0.025 %	(optional)	(optional)	2.0±0.05
50	500	0.5	≤±0.025 %	(optional)	(optional)	2.0±0.05
100	1 000	0.5	≤±0.025 %	(optional)	(optional)	2.0±0.05
200	2 000	0.5	≤±0.025 %	(optional)	(optional)	2.0±0.05
500	5 000	0.5	≤±0.025 %	(optional)	(optional)	2.0±0.05

TECHNICAL DATA

PRECISION

Rated Output (C_n)	2.0 mV/V ±0,04 % at FS
Zero Balance	< ±0.02 %
Combined error	≤ ±0.025 %FS
Non-linearity	≤ ±0.018 %FS
Hysteresis	≤ ±0.017 %FS
Repeatability	≤ ±0.018 %FS
Creep	≤ ±0.0166 %FS (at 30 min FS)
Temperature coefficient of zero	-0.0125 %FS/°C
Temperature coefficient of sensitivity	0.008 %FS/°C
Compensated temperature range	-10...+40 °C
Operating temperature range	-30...+70 °C
Reference Temperature	23 °C

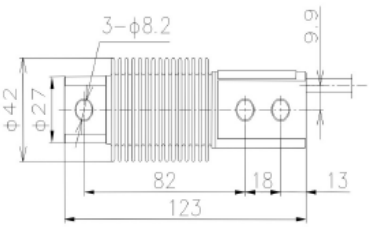
MECHANICAL PROPERTIES

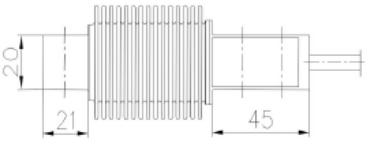
Material	17–4 PH STAINLESS STEEL | 1.4542
Deflection at FN	~ 0.06 mm

ELECTRICAL PROPERTIES

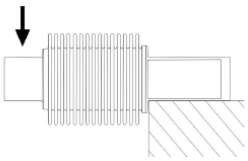
Bridge configuration	Full Wheatstone bridge, 6-wire
Input resistance	390 ± 5 Ω
Output resistance	350 ± 5 Ω
Insulation resistance	≥ 5 000 MΩ at 100 V
Recommended excitation voltage	5 - 15 V
Cable diameter	5.4 mm
Cable length	1500 mm

DIMENSIONS

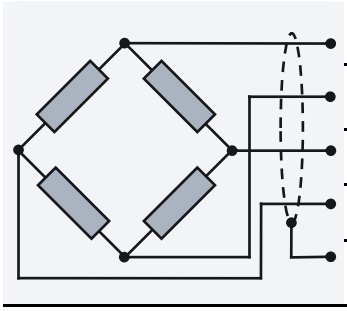




LOAD DIRECTION



ELECTRICAL CONNECTION



+ EXCITATION	BLUE
+ REF./SENSE	GREEN
– EXCITATION	BLACK
– REF./SENSE	GRAY
+ 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.

COMPLIANCE AND CERTIFICATION

Protection Rating	IP68 (IEC 60529)
Compliance	CE, RoHS, REACH
Calibration	Factory-calibrated, ISO 17025 calibration available on request
HS-CODE	9031.80.80