TENSION AND COMPRESSION LOAD CELL

TENSION & COMPRESSION



- LOW PROFILE
- COMBINED ERROR ≤ ±0.042 %
- IP67 PROTECTION RATING
- 17-4PH STAINLESS STEEL | 1.4542

CE · REACH COMPLIANCE · RoHS COMPLIANT · IP67 · Stainless Steel 17-4 PH · 1.4542 · High Temperature -40...250 °C · Dynamic Measurement · ISO 17025 ACCREDITED LABORATORY · mV/V

NOMINAL LOAD (FS)

kg	kN	Net weight (kg)	Combined error	ISO 17025	High Temperature -40...250°C	Rated Output (mV/V)
500	5	~4	≤±0.042 %	(optional)	(optional)	2.0 ±1%
1 000	10	~4	≤±0.042 %	(optional)	(optional)	2.0 ±1%
2 000	20	~4	≤±0.042 %	(optional)	(optional)	2.0 ±1%
3 000	30	~4	≤±0.042 %	(optional)	(optional)	2.0 ±1%
5 000	50	~11	≤±0.042 %	(optional)	(optional)	2.0 ±1%
10 000	100	~11	≤±0.042 %	(optional)	(optional)	2.0 ±1%
20 000	200	~25	≤±0.042 %	(optional)	(optional)	2.0 ±1%
30 000	300	~28	≤±0.042 %	(optional)	(optional)	2.0 ±1%

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TECHNICAL DATA

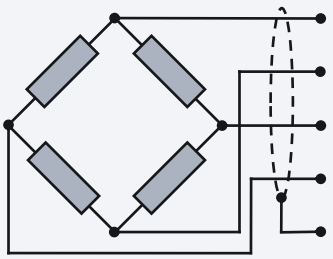
PRECISION

Rated Output (C_n)	2.0 mV/V ±1 % at FS
Zero Balance	< ±1.0 %
Combined error	≤ ±0.042 %FS
Non-linearity	≤ ±0.03 %FS
Hysteresis	≤ ±0.03 %FS
Repeatability	≤ ±0.02 %FS
Creep	≤ ±0.03 %FS (at 30 min FS)
Temperature coefficient of zero	0.0002 %FS/°C
Temperature coefficient of sensitivity	0.0002 %FS/°C
Compensated temperature range	-10...+40 °C
Operating temperature range	-10...+70 °C
Reference Temperature	23 °C

ELECTRICAL PROPERTIES

Bridge configuration	Full Wheatstone bridge, 4-wire
Input resistance	780 ± 20 Ω
Output resistance	700 ± 10 Ω
Insulation resistance	≥ 5 000 MΩ at 100 V
Recommended excitation voltage	5 - 15 V
Cable diameter	5.0 mm
Cable length	6 000 mm

ELECTRICAL CONNECTION



+ EXCITATION	Red
– EXCITATION	Black
+ SIGNAL	Green
– SIGNAL	White
SHIELD	

MECHANICAL PROPERTIES

Material	17–4 PH STAINLESS STEEL | 1.4542
Deflection at FN	~ 0.4 mm

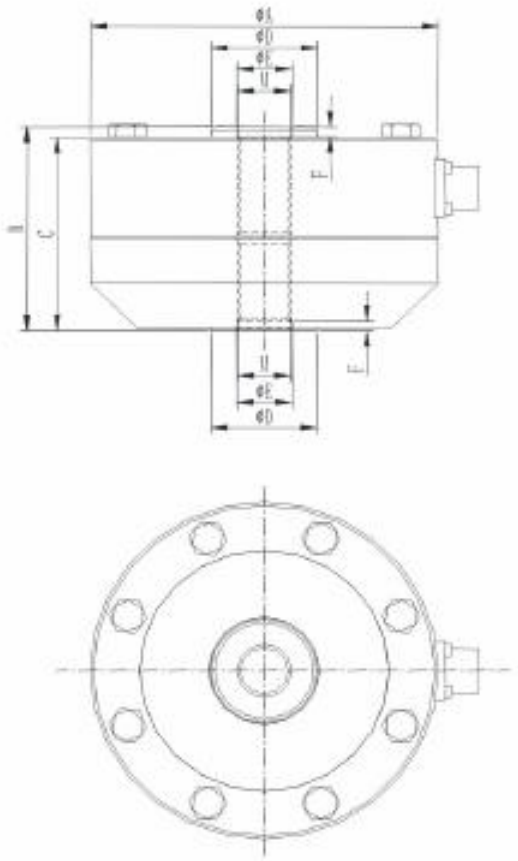
MECHANICAL LIMITS

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	IP67 (IEC 60529)
Compliance	CE, RoHS, REACH
Calibration	Factory calibrated, ISO 17025 calibration available on request
HS-CODE	9031.80.80

DIMENSIONS



Cap(t)	(mm)						
	A	B	C	D	E	F	M
0.5,1 ,2 ,3	104,8	63,5	60,3	34	16,5	3	M16 x 2
5	153,9	89	85	61,2	34	3,5	M32 x 2
10	153,9	89	85	67,3	34	3,5	M32 x 2
20, 30	203,2	114,3	108	95,2	43	3,5	M42 x 2
50	220	113,8	108	110	61	3	M60 x 2

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