COMPACT RING LOAD CELL



TENSION & COMPRESSION

- LOW PROFILE
- COMBINED ERROR ≤ ±0.07 %
- IP67 PROTECTION RATING
- 17-4PH STAINLESS STEEL

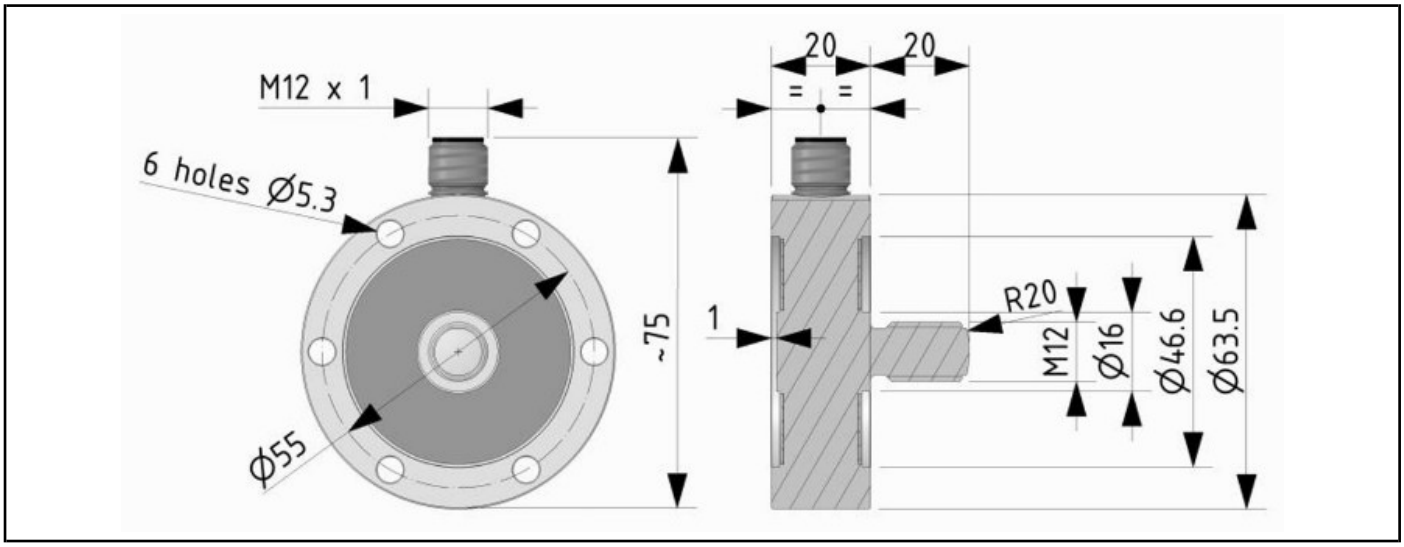
CE REACH COMPLIANCE RoHS COMPLIANT IP67 Stainless Steel High Temperature -40...250 °C Dynamic Measurement Fully Laser Welded Ex ISO 17025 ACCREDITED LABORATORY mV/V

NOMINAL LOAD (FS)

N	kg (optional)	Net weight (kg)	Combined error	ISO 17025	Ex	High Temperature -40...250°C	Rated Output (mV/V)
1 000	100	0.28	≤±0.07 %	(optional)	(optional)	(optional)	2 ±0.1%
2 500	250	0.28	≤±0.07 %	(optional)	(optional)	(optional)	2 ±0.1%
5 000	500	0.28	≤±0.07 %	(optional)	(optional)	(optional)	2 ±0.1%
10 000	1 000	0.28	≤±0.07 %	(optional)	(optional)	(optional)	2 ±0.1%

TECHNICAL DATA

DIMENSIONS [mm]



PRECISION

Rated Output (C_n)	2 mV/V[1] ±0.1 % at FS
Zero Balance	≤ ± 1 %FS
Combined error	≤ ±0.07 %FS
Non-linearity	≤ ±0.05 %FS
Hysteresis	≤ ±0.05 %FS
Repeatability	≤ ±0.01 %FS
Creep	≤ ±0.1 %FS (at 30 min FS)
Temperature coefficient of zero	±0.028 %FS per 10°C
Temperature coefficient of sensitivity	±0.024 %FS per 10°C
Compensated temperature range	-10...+40 °C
Operating temperature range	-20...+70 °C
Reference Temperature	23 °C

MECHANICAL PROPERTIES

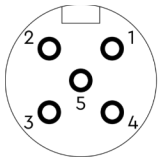
Material	Stainless Steel
Deflection at FN	~ 0.06 mm

ELECTRICAL PROPERTIES

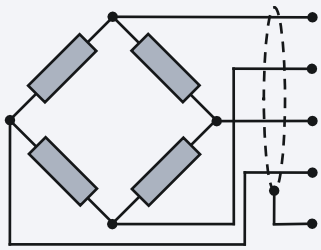
Bridge configuration	Full Wheatstone bridge, 4-wire
Input resistance	800 ± 20 Ω
Output resistance	705 ± 10 Ω
Insulation resistance	≥ 5 000 MΩ
Recommended excitation voltage	max. 18 V

ELECTRICAL CONNECTION

Connector
M12 Male
5 PIN



View:
Plug Side



+ EXCITATION	PIN 1	RED
– EXCITATION	PIN 3	BLACK
+ SIGNAL	PIN 2	WHITE
– SIGNAL	PIN 4	YELLOW
SHIELD	PIN 5	connected to lock nut

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)	100 %FS	Maximum lateral or shear load that can be applied (e.g. due to misalignment or friction).
Max. permissible dynamic load	70 %FS[2]	For cyclic or oscillating loads, the amplitude should not exceed this load to prevent fatigue failure.

[1] Tests and calibrations performed in **COMPRESSION** with the transducer mounted on a bearing support with correctly tightened clamping screws.

[2] The dynamic load must be applied to the transducer central thread and not to the external fixing rim.

COMPLIANCE AND CERTIFICATION

Protection Rating	IP67 (IEC 60529)
Compliance	CE, RoHS, REACH
Calibration	Factory calibrated in COMPRESSION[1], ISO 17025 calibration available on request, high temperature calibration on request
HS-CODE	9031.80.80
Certifications (on request)	TÜV CY 17 ATEX 0205891 Q

ACCESSORIES

AM12H0511A141-010

- M12 Pre-Molded Cable
- 5 Pins
- A Code
- Male-Straight | Female-Straight
- Cable Assembly



L=1;3;5;20 m

AM12F0511A141-010

- M12 Pre-Molded Cable
- 5 Pins
- A Code
- Female-Straight | Free end
- Cable Assembly



L=1;3;5;20 m

AM12F0511A142-010

- M12 Pre-Molded Cable
- 5 Pins
- A Code
- Female-90° | Free end
- Cable Assembly



L=1;3;5;20 m

MOUNTING PLATE

- For compression
- Stainless Steel
- Center hole: M12
- Thickness: 20mm



SWIVEL HEADS M12

- For tension
- Stainless Steel
- Center distance when assembled: 127 mm

