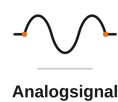
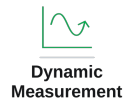
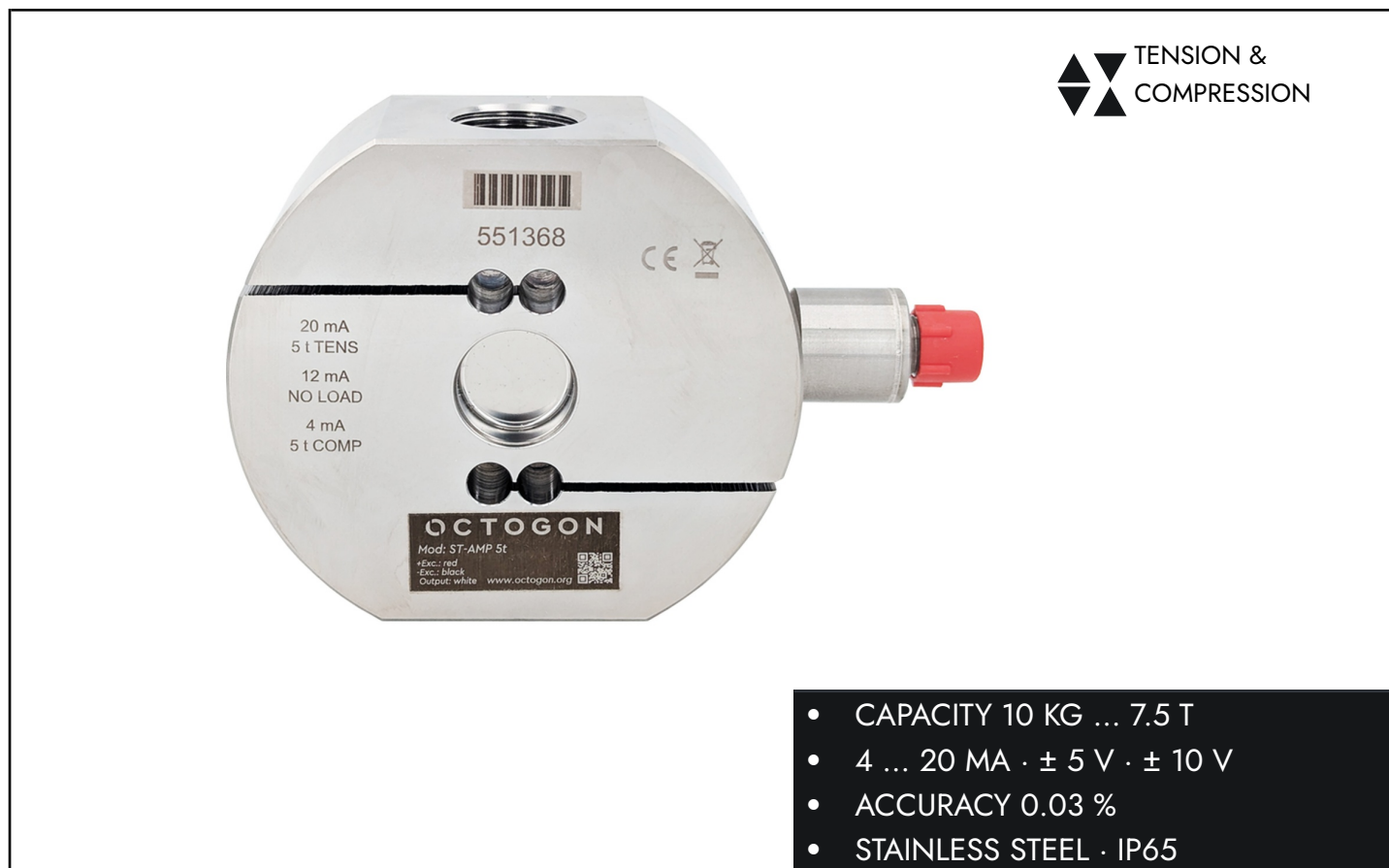


AMPLIFIED S-TYPE LOAD CELL



VERSIONS (OUTPUT)

Output	Signal	Power supply	Load resistance
4 ... 20 mA, 3-wire	20 mA at nominal tension	12 ... 24 V DC	0 ... 470 Ω
± 5 V	+5 V tension · -5 V compression	12 ... 24 V DC	min. 3 k Ω
± 10 V	+10 V tension · -10 V compression	18 ... 24 V DC	min. 3 k Ω

Capacities 10, 25, 50, 100, 200, 300, 500 kg and 1, 2, 2.5, 5 and 7.5 t. Positive output in tension. Acceleration of gravity $g = 9.80434 \text{ m/s}^2$.



OVERVIEW

S-type load cell with built-in amplifier: standard signal 4 ... 20 mA, ± 5 V or ± 10 V straight from the transducer, from 10 kg to 7.5 t.

The amplifier sits inside the stainless steel body; the cell is supplied with 12 ... 24 V DC (± 10 V: 18 ... 24 V DC) and connected via an M12 connector. No additional amplifier is needed. The response frequency is 1 kHz, the accuracy 0.03 %. Suited to silos with three tension supporting points and platforms with four jointed feet.

10 kg ... 7.5 t

capacities

4 ... 20 mA

or ± 5 V, ± 10 V

0.03 %

accuracy

1 kHz

response frequency

MEASUREMENT	CONNECTION
■ tension and compression, static and dynamic	■ 4 ... 20 mA (3-wire), ± 5 V or ± 10 V
■ accuracy 0.03 %	■ power supply 12 ... 24 V DC
■ non-linearity ± 0.023 %	■ M12 connector, 4-pole
■ response frequency 1 kHz	■ stainless steel, IP65

TECHNICAL DATA

PRECISION

Accuracy	0.03 %
Non-linearity	$\pm 0.023 \%$
Non-repeatability	$\pm 0.015 \%$
Calibration tolerance	$< \pm 0.1 \%$
Zero balance	1 %
Temperature effect on zero (10 °C)	$\pm 0.028 \%$
Temperature effect on sensitivity (10 °C)	$\pm 0.012 \%$
Response frequency	1 kHz

MECHANICAL PROPERTIES

Material	stainless steel, completely laser welded
Displacement at nominal load	0.2 mm
Weight	0.6 · 1.2 · 2.6 kg depending on size
Protection class (EN 60529)	IP65

ELECTRICAL PROPERTIES

Output	4 ... 20 mA (3-wire) · $\pm 5 \text{ V}$ · $\pm 10 \text{ V}$
Nominal power supply	12 ... 24 V DC (4 ... 20 mA, $\pm 5 \text{ V}$) · 18 ... 24 V DC ($\pm 10 \text{ V}$)
Max. power supply	28 V DC
Max. absorption (without load)	max. 30 mA
Load resistance, voltage	min. 3 k Ω
Load resistance, current	0 ... 470 Ω
Insulation resistance	$> 2 \text{ G}\Omega$
Connector output	M12 4-pole male connector with 3 m cable
Cable	PVC 105 °C, shielded, $\varnothing 5.2 \text{ mm}$, 4 x 0.35 mm ²

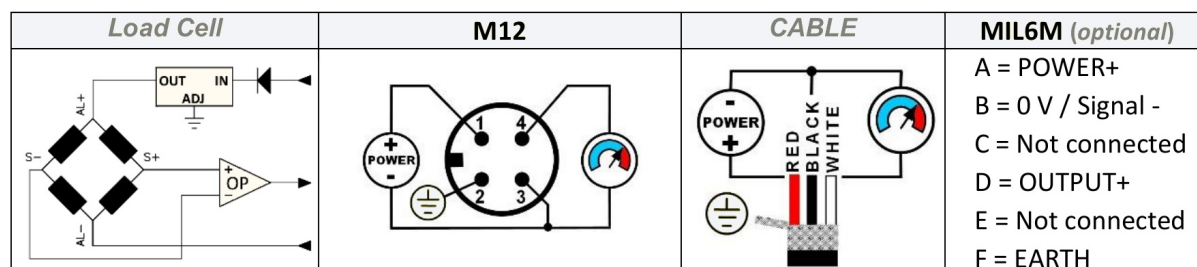
TEMPERATURE

Reference temperature	+23 °C
Nominal temperature range	-10 ... +40 °C
Service temperature	-20 ... +70 °C
Storage temperature	-20 ... +80 °C

MECHANICAL LIMITS (REFERRED TO NOMINAL LOAD)

Minimum load	0 %
Service load	120 %
Max. permissible load	150 %
Breaking load	$> 300 \%$
Max. transverse load	100 %
Max. permissible dynamic load	50 %

ELECTRICAL CONNECTION



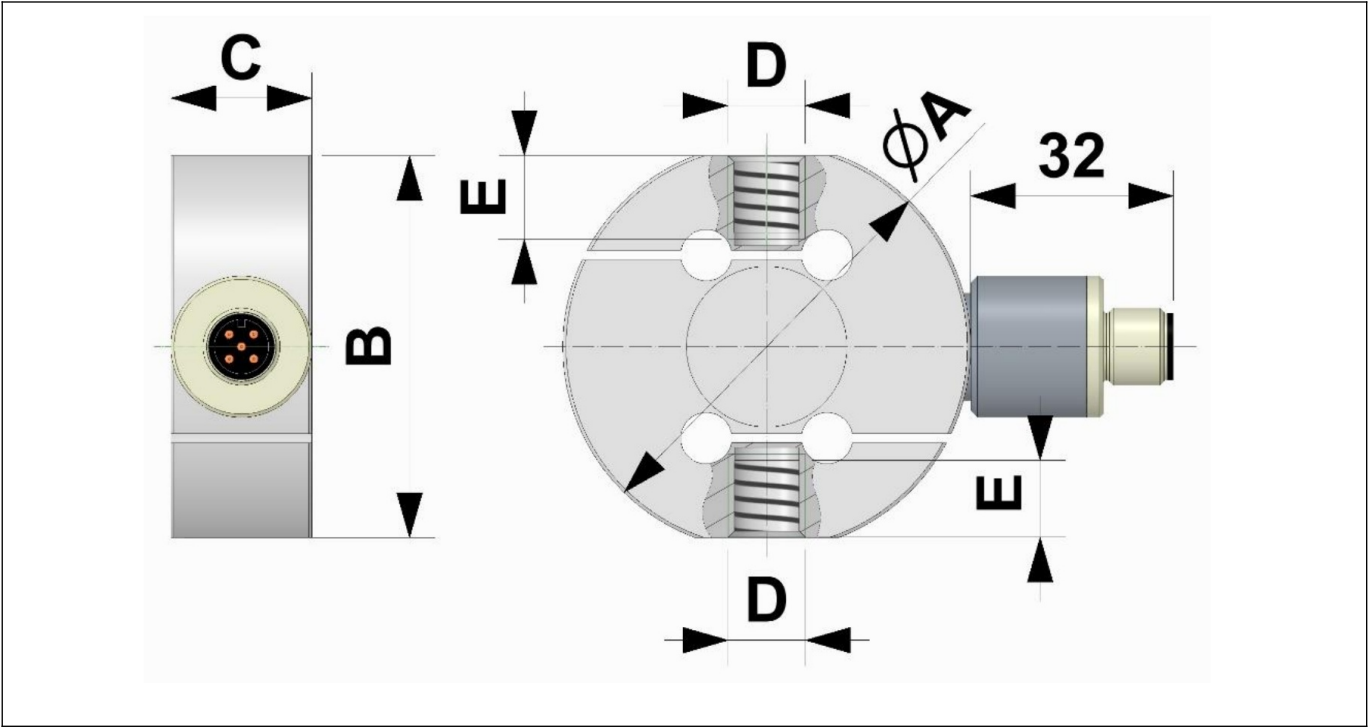
M12 connector: pin 1 power +, pin 3 0 V / signal -, pin 4 output +, pin 2 earth. MIL6M (option): A power +, B 0 V / signal -, D output +, F earth, C and E not connected. Shield connected to the body of the transducer. Protect power + by an external 100 ... 200 mA fast-blow fuse.

ACCESSORIES AND OPTIONS

Connection cable	female M12 x 1, straight, PVC, shielded, custom length
MIL6M connector	direct output instead of M12
MIL6M connection cable	female MIL6M, 6-pole, straight, PVC, shielded, 5 m
Knuckle joints	to ISO 12240-4 series E, M12 ... M24 x 2
Calibration report	compression or tension



DIMENSIONS (mm)



Dimensions in mm; the letters refer to the dimension table.

DIMENSION TABLE (mm)

Capacity	Ø A	B	C	D	E
10 ... 500 kg	63.5	59.5	22	M12 × 1.75	12
500 kg ... 2 t	82	78	30	M16 × 2	20
2.5 t	82	78	30	M20 × 1.5	20
5 t - 7.5 t	102	90	45	M24 × 2	21.5

500 kg is available in size Ø 63.5 and Ø 82 mm.

COMPLIANCE AND CERTIFICATION

Protection Rating	IP65
Compliance	CE, RoHS
Calibration	Calibration report on request (compression or tension)

