AMPLIFIED TENSION LOAD CELL



TENSION

- 5 t TO 20 t
- 4 ... 20 mA · ± 5 V · ± 10 V
- STAINLESS STEEL · IP65
- ACCURACY 0.03 %

CE IP65 Stainless Steel Analogsignal

ORDERING

Nominal load	5, 7.5, 10, 15 and 20 t
Output	4 ... 20 mA in three wires, ± 5 V or ± 10 V — please state
Connector	M12 as standard · CMIL4MF for the MIL connector · direct cable output of 5 m
Cable	CONNM12FV5 — 3 m, included · CONNM12FVSC — custom length · CMIL4FV5 — 5 m for the MIL connector
Calibration report	CRT

The manufacturer document carries no order code for the cell itself, only for the options. An octogon order code has not yet been defined; please state nominal load, output signal and connector.

OVERVIEW

The LTAB is the tension link LTAA with the amplifier built in. The body is the same — stainless steel, two holes for standard shackles, 5 to 20 t — but it answers with 4 … 20 mA, ± 5 V or ± 10 V instead of millivolts, and an M12 connector sits where the cable left the LTAA. A measuring amplifier is therefore not needed: an ordinary analogue input of a PLC reads the force directly, and a crane scale is built from two shackles, one cell and one input. Accuracy, non linearity and non repeatability are each stated as 0.03 %. The cell is delivered with a female M12 connector and three metres of moulded shielded cable; a MIL connector with four poles or a direct cable of five metres are available instead.

MEASUREMENT AND OUTPUT	MECHANICS, SEALING AND MOUNTING
• Nominal load 5, 7.5, 10, 15, 20 t	• Stainless steel body, IP65 to EN 60529
• Output 4 … 20 mA, ± 5 V or ± 10 V	• Service load 120 %, breaking load > 300 %
• Accuracy 0.03 %	• Max. transverse load 100 % of nominal load
• Non linearity and non repeatability ≤ 0.03 %	• Displacement ≤ 0.3 mm at nominal load
• Calibration tolerance < ± 0.1 %	• Length 200 mm or 250 mm by load group
• Supply 12 … 24 V DC or 18 … 24 V DC	• Weight about 4.4 kg or 7 kg
• Maximum supply 28 V DC, absorption 30 mA	• M12 connector, 4 poles, male, in the body
• Service temperature –20 … +70 °C	• Holes for standard shackles

TECHNICAL DATA

MEASUREMENT

Nominal load	5, 7.5, 10, 15 and 20 t
Accuracy	0.03 %
Non linearity	≤ 0.03 %
Non repeatability	≤ 0.03 %
Calibration tolerance	< ± 0.1 %
Temperature effect per 10 °C	on zero ± 0.030 % · on sensitivity ± 0.015 %
Calibration report	CRT on request

MECHANICAL LIMITS

Minimum load	0 %FS
Service load	120 %FS
Maximum permissible load	150 %FS
Breaking load	> 300 %FS
Maximum transverse load	100 %FS
Maximum dynamic load	50 %FS
Displacement at nominal load	≤ 0.3 mm

OUTPUT AND SUPPLY

Nominal sensitivity	4 ... 20 mA in three wires · ± 5 V · ± 10 V
Nominal power supply	12 ... 24 V DC for 4 ... 20 mA and ± 5 V · 18 ... 24 V DC for ± 10 V
Maximum power supply	28 V DC
Maximum absorption	30 mA without load
Loading resistance	voltage output from 3 kΩ · current output 0 ... 470 Ω
Insulation resistance	> 2 GΩ
Protection of the supply	protect the positive with an external fast blow fuse of 100 to 200 mA

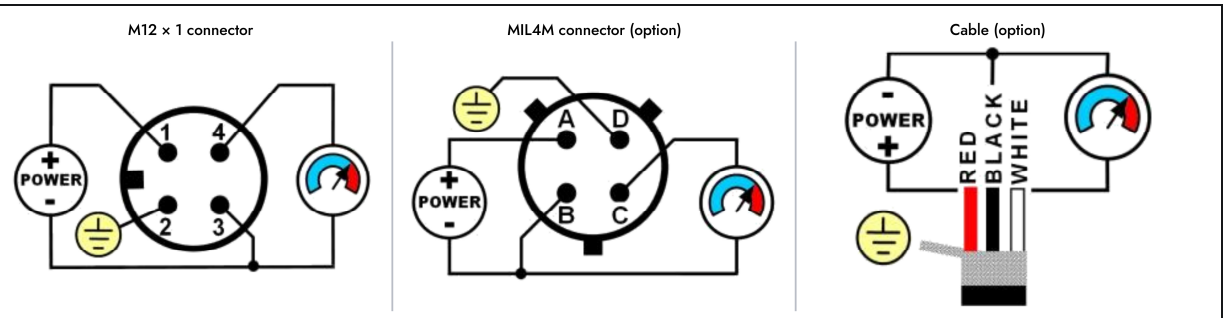
TEMPERATURE AND SEALING

Reference temperature	+23 °C
Nominal temperature range	–10 ... +40 °C
Service temperature	–20 ... +70 °C
Storage temperature	–20 ... +80 °C
Protection class	IP65 to EN 60529
Material	stainless steel
Weight	about 4.4 kg in Ø 76 · about 7 kg in Ø 82

SIZE, CONNECTORS AND SHACKLES

Length A	200 mm for 5 ... 10 t · 250 mm for 15 ... 20 t
Thickness B	45 mm for 5 ... 10 t · 54 mm for 15 ... 20 t
Connection holes F	Ø 33 mm for 5 ... 10 t · Ø 42.5 mm for 15 ... 20 t — for standard shackles
Standard connector	M12, 4 poles, male, with a female M12 × 1 connector and 3 m moulded shielded cable
MIL connector	CMIL4MF — MIL-C-26482 series I, 4 poles · with this option the dimension G grows by about 17 mm
Direct cable	5 m shielded PVC cable 105 °C, Ø 5.2 mm, 4 × 0.35 mm² tinned — instead of the connector
Shackles	CGP419.5T for 5 ... 10 t · CGP4117T for 15 ... 20 t

ELECTRICAL CONNECTION



The three pictures are those of the manufacturer document: the M12 connector that the cell carries as standard, the MIL connector of the option, and the direct cable. The document gives no terminal list in words for this cell, so none is set here. Protect the positive of the supply with an external fast blow fuse of 100 to 200 mA.

ACCESSORIES

Shackles CGP419.5T	zinc plated, for 5, 7.5 and 10 t · overall height H about 434 mm with the cell
Shackles CGP4117T	zinc plated, for 15 and 20 t · overall height H about 566 mm with the cell
Cable CONNM12FV5	female M12 × 1, 5 poles, straight, 3 m moulded shielded cable — included, and the code for a spare
Cable CONNM12FVSC	the same with a custom length
MIL connector CMIL4FV5	female MIL4M, 4 poles, straight, with 5 m shielded PVC cable

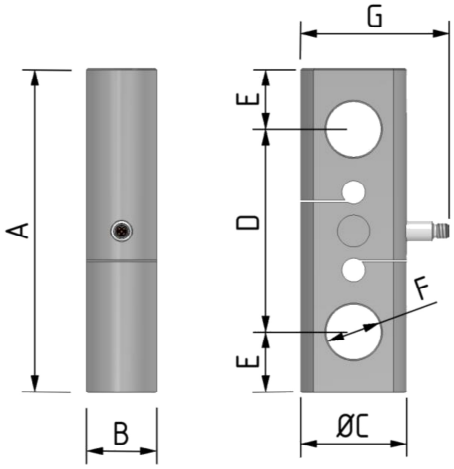
The shackles are supplied with a safety coefficient of 5 — except for the 20 t load, for which they cannot be supplied with that coefficient.

COMPLIANCE

CE	Requirements	CE according to regulation (EC) No 765/2008
IP65	Sealing	IP65 to EN 60529
Stainless Steel	Material	stainless steel body
Analogsignal	Output	4 … 20 mA, ± 5 V or ± 10 V · supply 12 … 24 V DC, maximum 28 V DC

The manufacturer states no OIML class for the amplified version — unlike the LTAA, which is given in the classes C2 and C3. The EAC and ATEX certificates in the product folder cover the AEP load cells; please ask octogon before relying on a marking for a particular application.

DIMENSIONS (mm)



LOAD	A	B	C	D	E	F*	G
5 ... 10 t	200	45	76	130	35	33	103
15 ... 20 t	250	54	82	156	47	42,5	109

The drawing is the one of the manufacturer document; its letters are read in the table beside it. F is the diameter of the two connection holes, sized for standard shackles. With the MIL connector the dimension G grows by about 17 mm.