

Compression force transducer, miniature, up to 50 kN

with electrical output



Description

Because of its small dimensions and solid design this load cell made of high grade stainless steel can be used in the laboratory and testing sector in the most diverse branches of industry.

This load cell is easy to handle and is relatively easy to install.

Due to its small dimensions it is predestined for installation more especially in structures where space is at a premium and pressure forces have to be measured.

Note

In order to avoid overloading, it is advantageous to connect the load cell electrically during installation and to monitor the measured value.

The force to be measured must be applied concentrically and free of transverse force.

The load cells are to be mounted on a level surface.

Features

- for compression force measurements
- simple force introduction
- compact small dimensions
- simple installation
- very low installation height
- Protection class IP 65
- Accuracy 1% of full scale value

Measuring ranges

- 0,5 kN ... 50 kN

Applications

- Plant engineering
- Production lines
- Measuring and monitoring facilities
- Special equipment and machinery construction

Specific information

- Calibration control:
100% signal (option)
- Cable outlet axial ≤ 20 kN (option)
- Sensorinterface
- Drag chain suitable (optional)

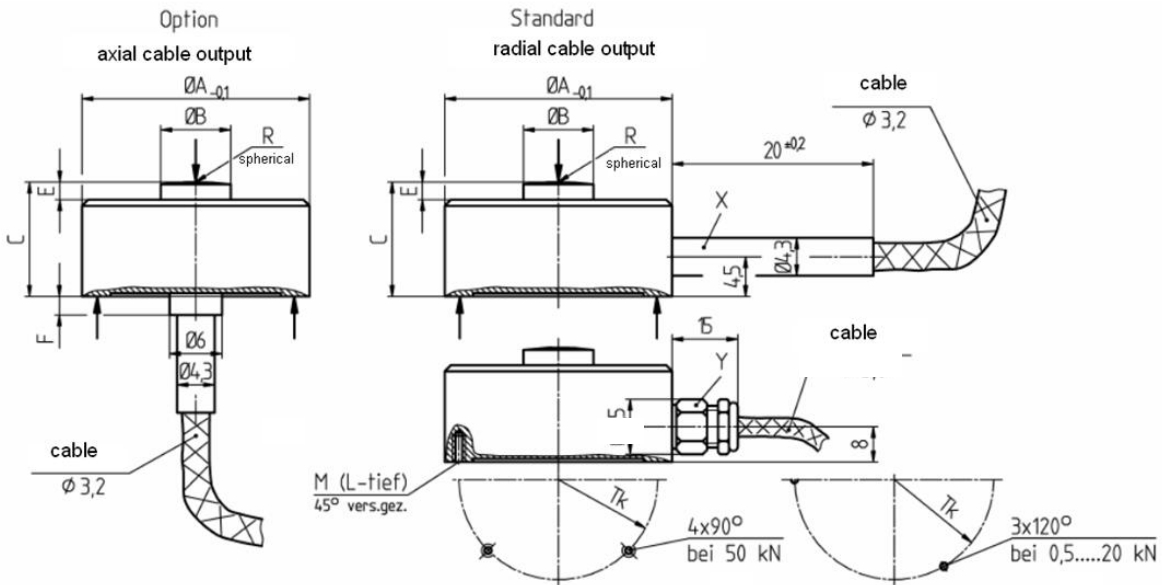
Model: F1210

Technical data

Model	F1210	Optionen
Nominal load F_{nom}	0,5, 1, 2, 5, 10, 20, 50 kN	
Accuracy class	0,5% of F.S.	
Limit load	150% F_{nom}	
Breaking load	>300% F_{nom}	
Combined error	$\leq \pm 0,3\%$ of F.S.	
Max. dynamic load	$\pm 70\%$ of F_{nom} acc. to DIN 50 100	
Creep, 30 min. at F_{nom}	$< \pm 0,1\%$ of F. S.	
Nominal deflection	<0,2 mm	
Nominal temperature range	-10 up to +50°C	
Service temperature range	-30 up to +80°C	
Storage temperature range	-50 up to +95°C	
Reference temperature	23°C	
Temperature effect -span -zero	$\pm 0,2\%$ of F.S. / 10K $\pm 0,2\%$ of F.S. / 10K	
Protection type (acc. to EN 60529/IEC 529)	IP 65	
Insulation resistance	> 2 G Ω	
Analogue output - output signal - Bridge resistance - Option - Tolerance of span - Excitation voltage - Option - Electrical connecton	1 mV/V 350 Ω Cable integrated amplifier 0 (4) ... 20 mA, 0 ... 10 V DC $\leq \pm 0,5\%$ of F.S. 2 ... 12 V (15 V max.) 12 ... 28 V DC for cable integrated amplifier cable 3 m / 4-wire, shielded	Drag chain suitable Fastening screw thread
Calibration control		100% signal
Cable output		Axial ≤ 20 kN
Sensorinterface LCV 0... ± 10 V bzw.- or 0(4)...20 mA		LCVU or LCVI
Material of measuring device	stainless steel	
Weight (kN) - 0,5 - 2 - 5 - 20 - 50	0,07 kg 0,08 kg 0,32 kg	

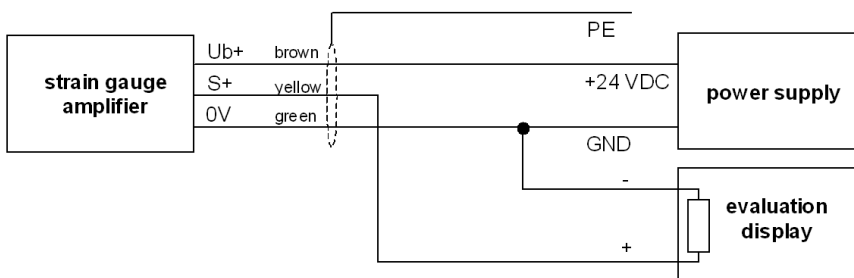
of F.S. = full scale value

Dimension



Nominal load [kN]	Dimensions in [mm]										
	$\varnothing A$	$\varnothing B$	C	E	F	R	M	L	X	Y	$\varnothing Tk \pm 0.1$
0,5, 1, 2, 5, 10, 20	26	8	13	2	2	30	M2	3.5	•	---	22,75
50	46	16	28	8	---	60	M4	6	---	•	40

Electr. connection	
Vers. (-)	green
Vers. (+)	brown
Sign. (+)	yellow
Sign. (-)	withe
Controll	grey
Screen	Screen



Pin assignment for cable integrated amplifier