

Anchor Load Cell KN

Model M, MF

Art.-No. 41.00



The GLÖTZL-Anchor Load Cells with Manometer (pressure gauge) for direct readings in kilonewton (kN) are used to monitor e. g. preload force of tiebacks, rock bolts and retaining walls reliable and permanently.

The anchor load cell is characterized by a pad with a predefined surface made of two discs with high bending strength. Ring grooves at the edges enable the discs to move slightly. The pressure chamber in between is filled with hydraulic liquid and connected directly to the Manometer.

This combination allows a conversion of hydraulic pressure into load/forth. The small amount of hydraulic liquid in the closed chamber of the load cell, provide very accurate measurements with a low influence of temperature.

SPECIFICATIONS

Anchor Load Cell with Manometer

Temperature Error:	0,06 % / K
Temperature Range:	-30 °C to 60 °C
Measuring Range:	250 to 5000 kN
Over Range:	min. 20 % f.s.
Accuracy of Manometer:	10 kN class 1,0 ± 1 %
Protection Class:	IP 68

Advantages

- hydraulic measuring principle
- defined contact area/surface
- easy installation
- very robust design
- low sensitivity to temperature
- low height
- direct readings in kilonewton
- linear measuring method

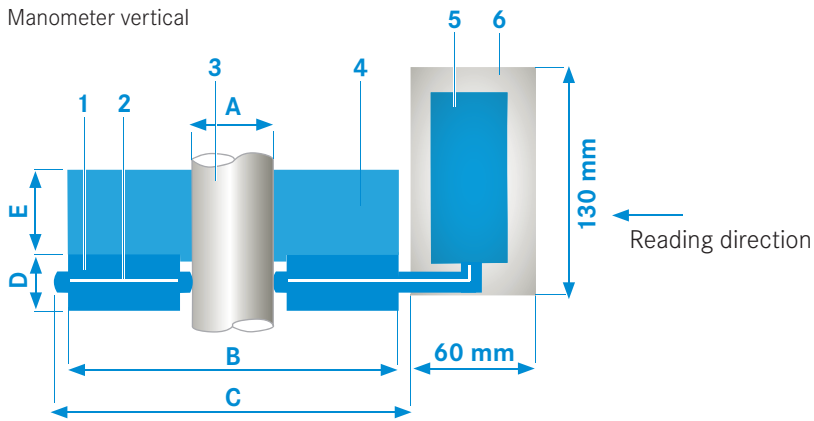
Alternatives

As an alternative to anchor load cells type M/MF with manometer it is also possible to equip the cell with a GLÖTZL-Compensation-Valve (VHD) for hydraulic measurements and remote readings.

For automated readings likewise to use a type with piezoresistive pressure transducer (Model AU/AI) or vibrating wire sensor (VW) can be used – see associated datasheet.

MODEL M

Manometer vertical



SYSTEM AND DESIGN

1. Piston Pad
2. Hydraulic Liquid
3. Anchor
4. Distribution Plate
5. Manometer
6. Protective Cover

Load Distribution Plates

In order to ensure that the applied force on the load cell is evenly spread we are offering additional load distribution plates in various designs. Customized solutions are available on request.

MODEL MF

Manometer horizontal

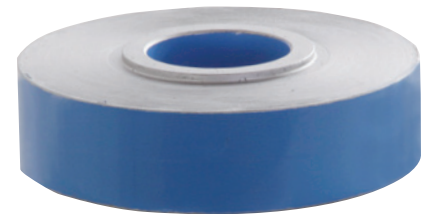
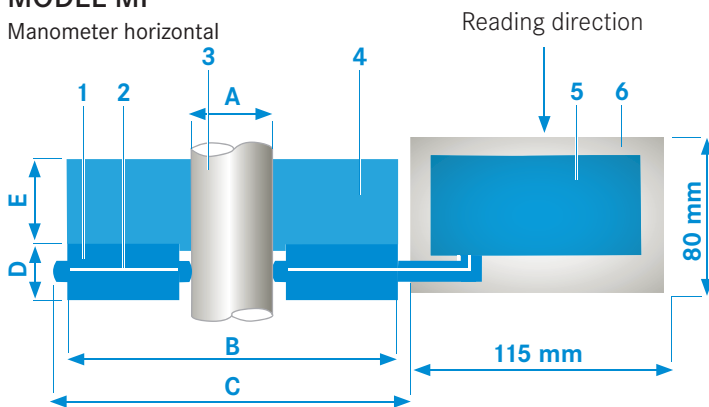


Fig.: load distribution plate

Type KN M or MF	Load (kN)*		Dimensions (mm)					Weight (kg)	
	nom	max	A	B	C	D	E	Load Cell	Cell + Distribution plate (P)**
KN 250 A35	250	300	35	123	144	30	27	3,0	5,3
KN 250 A50	250	300	50	133	155	30	37	3,2	6,6
KN 500 A50	500	600	50	144	165	30	37	3,8	7,9
KN 500 A60	500	600	60	151	172	30	37	3,8	8,3
KN 500 A75	500	600	75	157	179	30	37	3,8	8,1
KN 500 A90	500	600	90	165	187	30	37	3,7	8,1
KN 500 A105	500	600	105	176	198	30	37	3,8	8,2
KN 750 A50	750	900	50	144	165	30	37	3,8	7,9
KN 750 A60	750	900	60	152	172	30	37	3,8	8,3
KN 750 A75	750	900	75	157	179	30	37	3,8	8,1
KN 750 A90	750	900	90	165	187	30	37	3,7	8,1
KN 750 A105	750	900	105	176	198	30	37	3,8	8,3
KN 1000 A105	1000	1200	105	219	241	30	42	6,8	16,4
KN 1000 A115	1000	1200	115	228	250	30	42	7,1	17,1
KN 1000 A135	1000	1200	135	235	257	30	47	6,7	17,6
KN 1400 A105	1400	1600	105	219	241	30	42	6,9	16,4
KN 1400 A115	1400	1600	115	228	250	30	42	7,1	17,1
KN 1400 A135	1400	1600	135	235	257	30	47	6,7	17,5
KN 1400 A160	1400	1600	161	282	306	30	61	9,5	29,4
KN 2000 A135	2000	2400	135	265	287	30	61	9,5	29,1
KN 2000 A160	2000	2400	161	282	306	30	61	9,5	29,4
KN 3000 A160	3000	3600	160	336	360	41	76	20,8	61,7
KN 3000 A180	3000	3600	180	340	364	41	76	19,5	58,6
KN 5000 A160	5000	6000	160	380	406	50	81	34,9	94
KN 5000 A200	5000	6000	200	400	426	50	81	34,8	94,5

*Other measuring ranges available on request, ** Additional load plate on request