

Hydraulic Ring Force Transducer Heavy Duty - Version

Forces from 8 kN up to 2500 kN

F6126 – ND 40
F6132 – ND 60
F6139 – ND 90
F6151 – ND 160
F6154 – ND 240
F6166 – ND 410



Description

Robust hydraulic ring force transducer for use in rough environmental conditions.

Hydraulic force measurement is an easy way to measure and display force in various applications.

The force measurement utilizes the hydraulic principle: The force applied to a piston generates a hydraulic pressure, which is displayed with an indicating device. The scale of the indicating device can show various units e.g. N, kN, kg, t.

The connection of the indicating device can optionally be done via capillary or measuring tube. This enables the customer to read the measurement result easily. Furthermore the measuring tube allows a "leak free separation", which enables the change of the indicating unit without dismounting the force transducer.

Applications for the hydraulic force transducers can be found in apparatus engineering, mining, test and measurement equipment and special mechanical engineering.

The Leakproofness Guarantee is prolonged to five years*. In the unlikely event of a leakage the transducers will be repaired free of charge. Therewith we underline the quality of our products and the trust in our technology.

Features

- Stainless steel housing and piston
- Accuracy min. $\pm 0,5\%$ F.S.
- Very robust design for use in rough environmental conditions
- Connection optionally via capillary tube or measuring tube
- Operates without power supply
- Piston movement $\leq 0,8$ mm
- 5 Years Leak-Proofness Guarantee*

Measuring range

- 0 ... 8 kN up to 0 ... 2500 kN

Applications

- Apparatus engineering
- Test and measurement equipment
- Special mechanical engineering
- Geotechnics
- Foundation construction

*Precondition for the prolonged guarantee to five years is that the hydraulic force transducer is only used within the intended using conditions.

Model: F6126, F6132, F6139, F6151, F6154, F6166

Selection - Dimension - Sheet: Hydraulic Ring Force Transducer – Heavy Duty - Version

Model	F6126 / F6132 / F6139 / F6151 / F6154 / F6166		Optionen
Nominal diameter	ND 40 / ND 60 / ND 90 / ND 160 / ND 240 / ND 410		
Nominal load F_{nom}	0 ... 8 kN up to 0 ... 3000 kN		
Version	Analog Display	Digital Display	
Accuracy class	$\leq \pm 1,0\%$ F.S. at +21°C	$\leq \pm 0,5\%$ F.S. at +21°C	
Limit load	100% F_{nom} (dependent on measuring range)		
Breaking load	> 130% F_{nom} (dependent on measuring range)		
Piston movement	< 0,8 mm		
Nominal temperature range	-25 ... +90°C		
Protection type acc. EN60529/IEC529	IP 65		
Housing	Stainless steel		- Mounting flange
Piston	Stainless steel		
Diaphragm	Plastic		
Connection type	Adapter		- Capillary tube - Measuring tube for "leak free separation"
Display	Pressure gauge P2324 (ND100)	Digital pressure gauge P3962	- Drag pointer - Pressure gauge P2032 (ND63) - Pressure gauge with contacts - Pressure sensor P3276
Filling liquid	Glycerin/Water 70%		
Mounting	threaded holes in the housing bottom		

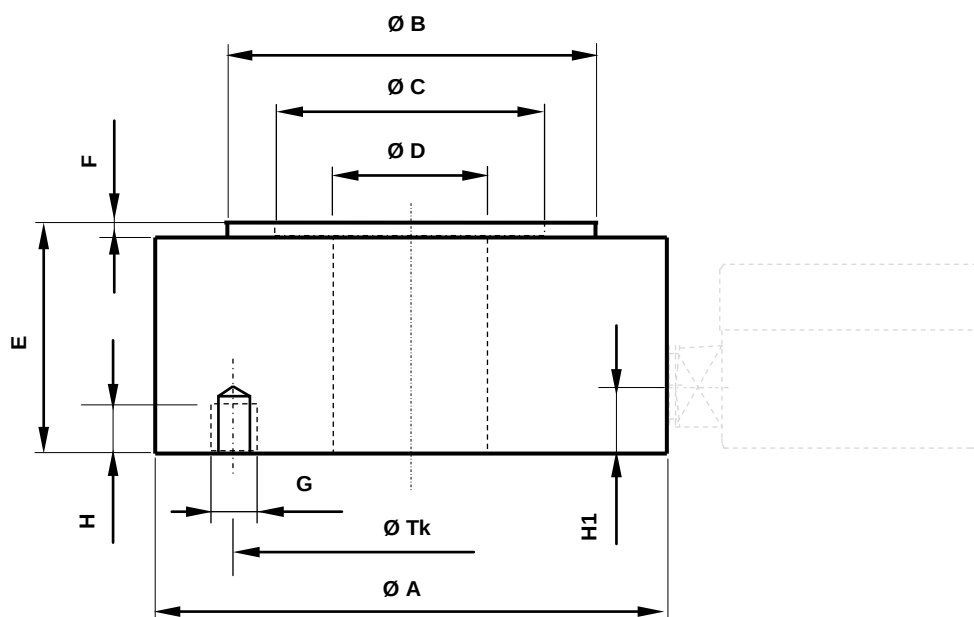
Version					Display		Options		Dimensions										
Model	ND [cm²]	Nominal load	Resolution	bar	P2324	P3962	Meas. tube DN2 [max. L 1]	Capillary tube [max. L 1]	Ø A	Weight	Ø C	Ø D	Ø Tk	Ø G	H	E	F	H1	Weight [approx. kg]
F6126	40	4 kN	100 N	10	■	-	1,0	2,0	100	83	38	25	70	M8	15	58	3	22,5	3,1
F6126	40	6 kN	100 N	16	■	-	1,0	2,0											
F6126	40	8 kN	-	20	-	■*	1,5	2,0											
F6126	40	10 kN	200 N	25	■	-	1,5	2,0											
F6126	40	16 kN	500 N	40	■	-	1,5	2,0											
F6126	40	20 kN	-	50	-	■	2,0	2,0											
F6126	40	25 kN	500 N	60	■	-	2,0	2,0											
F6126	40	40 kN	1 kN	100	■	-	2,0	2,0											
F6126	40	60 kN	1 kN	160	■	-	2,0	4,0											
F6126	40	100 kN	2 kN	250	■	■	3,2	4,0											
F6126	40	160 kN	5 kN	400	■	■	3,2	6,0											
F6126	40	240 kN	5 kN	600	■	■	3,2	6,0											
F6132	60	6 kN	100 N	10	■	-	1,0	2,0	120	100	56	40	90	M8	15	62	5	22,5	4,5
F6132	60	10 kN	200 N	16	■	-	1,0	2,0											
F6132	60	12 kN	-	20	-	■*	1,5	2,0											
F6132	60	15 kN	500 N	25	■	-	1,5	2,0											
F6132	60	25 kN	500 N	40	■	-	1,5	2,0											
F6132	60	30 kN	-	50	-	■	2,0	2,0											
F6132	60	36 kN	1 kN	60	■	-	2,0	2,0											
F6132	60	60 kN	1 kN	100	■	-	2,0	2,0											
F6132	60	100 kN	2 kN	160	■	-	2,0	4,0											
F6132	60	150 kN	5 kN	250	■	■	3,2	4,0											
F6132	60	250 kN	5 kN	400	■	■	3,2	6,0											
F6132	60	350 kN	10 kN	600	■	■	3,2	6,0											
F6139	90	9 kN	200 N	10	■	-	1,0	2,0	170	130	80	60	120	M10	18	68	5	22,5	10,5
F6139	90	15 kN	500 N	16	■	-	1,0	2,0											
F6139	90	18 kN	-	20	-	■*	1,5	2,0											
F6139	90	24 kN	500 N	25	■	-	1,5	2,0											
F6139	90	35 kN	1 kN	40	■	-	1,5	2,0											
F6139	90	45 kN	-	50	-	■	2,0	2,0											
F6139	90	55 kN	1 kN	60	■	-	2,0	2,0											
F6139	90	95 kN	2 kN	100	■	-	2,0	2,0											
F6139	90	150 kN	5 kN	160	■	-	2,0	4,0											
F6139	90	225 kN	5 kN	250	■	■	3,2	4,0											
F6139	90	350 kN	10 kN	400	■	■	3,2	6,0											
F6139	90	550 kN	10 kN	600	■	■	3,2	6,0											

F6151	160	16	kN	500 N	10	■	-	1,0	2,0	210	188	120	100	170	M10	18	70	5	22,5	13,5
F6151	160	25	kN	500 N	16	■	-	1,0	2,0											
F6151	160	34	kN	-	20	-	■*	1,5	2,0											
F6151	160	40	kN	1 kN	25	■	-	1,5	2,0											
F6151	160	65	kN	1 kN	40	■	-	1,5	2,0											
F6151	160	80	kN	-	50	-	■	2,0	2,0											
F6151	160	100	kN	2 kN	60	■	-	2,0	2,0											
F6151	160	160	kN	5 kN	100	■	■	2,0	2,0											
F6151	160	250	kN	5 kN	160	■	■	2,0	4,0											
F6151	160	400	kN	10 kN	250	■	■	3,2	4,0											
F6151	160	650	kN	10 kN	400	■	■	3,2	6,0											
F6151	160	1000	kN	20 kN	600	■	■	3,2	6,0											
F6154	240	25	kN	500 N	10	■	-	1,0	2,0	250	225	142	125	200	M12	20	75	5	22,5	20,5
F6154	240	40	kN	1 kN	16	■	-	1,0	2,0											
F6154	240	50	kN	-	20	-	■*	1,5	2,0											
F6154	240	60	kN	1 kN	25	■	-	1,5	2,0											
F6154	240	100	kN	2 kN	40	■	-	1,5	2,0											
F6154	240	120	kN	-	50	-	■	2,0	2,0											
F6154	240	150	kN	5 kN	60	■	-	2,0	2,0											
F6154	240	250	kN	5 kN	100	■	■	2,0	2,0											
F6154	240	400	kN	10 kN	160	■	■	2,0	4,0											
F6154	240	600	kN	10 kN	250	■	■	3,2	4,0											
F6154	240	1000	kN	20 kN	400	■	■	3,2	6,0											
F6154	240	1500	kN	50 kN	600	■	■	3,2	6,0											
F6166	410	40	kN	1 kN	10	■	-	1,0	2,0	310	280	180	160	260	M12	22	75	5	22,5	30,5
F6166	410	65	kN	1 kN	16	■	-	1,0	2,0											
F6166	410	80	kN	-	20	-	■*	1,5	2,0											
F6166	410	100	kN	2 kN	25	■	-	1,5	2,0											
F6166	410	160	kN	5 kN	40	■	-	1,5	2,0											
F6166	410	200	kN	-	50	-	■	2,0	2,0											
F6166	410	250	kN	5 kN	60	■	-	2,0	2,0											
F6166	410	400	kN	10 kN	100	■	■	2,0	2,0											
F6166	410	650	kN	10 kN	160	■	■	2,0	4,0											
F6166	410	1000	kN	20 kN	250	■	■	3,2	4,0											
F6166	410	1600	kN	50 kN	400	■	■	3,2	6,0											
F6166	410	2500	kN	50 kN	600	■	■	3,2	6,0											

Other nominal loads and versions on request

*Accuracy class: $\leq \pm 1,0\%$ v.E.

Model: F6126 / F6132 / F6139 / F6151 / F6154 / F6166



Remark: Couplings of the hydraulic force transducer must not be disconnected!
In case of violation there will be no guarantee and no measuring function.

Subject of technical changes.