

## Hydraulic Compression Force Transducer Compact - Version

Forces from 160 N up to 60 kN

F1106 – ND 10

F6107 – ND 10-ring



### Description

Compact hydraulic compression force transducer to measure and display force in an easy way for a reasonable price.

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.

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  $\pm 0,5\%$  F.S. with digital pressure gauge P3962 or pressure sensor P3276
- Accuracy  $\pm 1,0\%$  -  $1,6\%$  F.S. with pressure gauge
- Operates without power supply
- Piston movement  $\leq 0,5$  mm
- 5 Years Leak-Proofness Guarantee\*

### Measuring range

- 0 ... 160 N up to 0 ... 60 kN

### Applications

- Apparatus engineering
- Test and measurement equipment
- Special mechanical engineering

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

Model: F1106, F6107

## Selection - Dimension - Sheet: Hydraulic Compression Force Transducer – Compact - Version

Model	F1106 / F6107		Options
Nominal diameter	ND 10 / ND 10-ring		
Nominal load $F_{nom}$	0 ... 160 N bis 0 ... 60 kN		
Version	<b>Analog Display</b>	<b>Digital Display</b>	
Accuracy class	$\leq \pm 1,6\%$ 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	$< 0,5$ mm		
Nominal temperature range	-10 ... +50°C		
Protection type acc. EN60529/IEC529	IP 65		
Housing	Stainless steel		- Distance plate
Piston	Stainless steel		
Connection type	direct		- Adapter - Capillary tube - Measuring tube for "leak free separation"
Display	Pressure gauge P1515 (NG63)	Digital pressure gauge P3962	- Drag pointer - Pressure gauge P2032 (ND63) - Pressure gauge P2324 (ND100) optionally with contacts - Pressure sensor P3276
Filling liquid	Glycerin/Water 70%		
Mounting	threaded holes in the housing bottom		

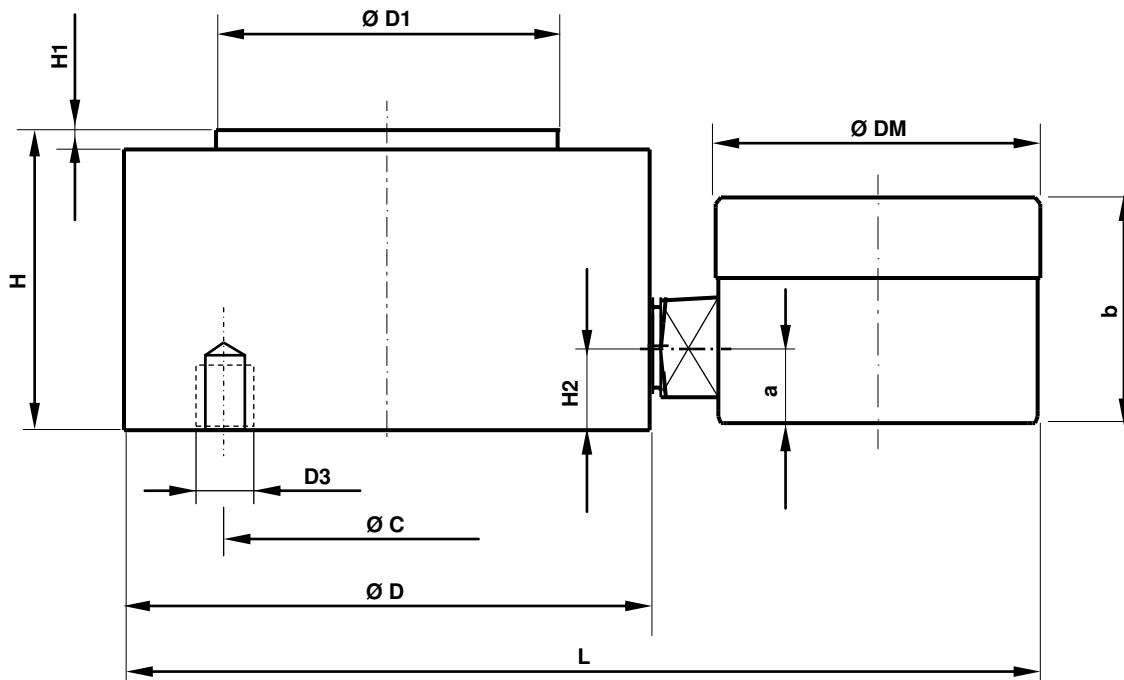
Version				Display		Options		Dimensions															
Model	ND [cm <sup>2</sup> ]	Nominal load	Resolution	bar	P1515	P3962	Meas. tube DN2 [max. L 1]	Capillary tube [max. L 1]	Ø D	Ø D1	Ø D2	Ø D3	Ø D4	Ø C	H	H1	H2	DM	a	b	ca. L	Weight [ca. kg]	
							[m]	[m]							[mm]								
F1106	10	160 N	5 N	1,6	■	-	---	---	75	45	---	M5	---	50	30	2	14	63 (P1515)	12,5 (P1515)	34 (P1515)	150 (P1515)	1,2 (P1515)	
F1106	10	250 N	10 N	2,5	■	-	---	---															
F1106	10	400 N	20 N	4	■	-	---	1,0															
F1106	10	600 kN	20 N	6	■	-	0,5	1,0															
F1106	10	1 kN	50 N	10	■	-	1,0	2,0															
F1106	10	1,6 kN	50 N	16	■	-	1,0	2,0															
F1106	10	2 kN	-	20	-	■*	1,5	2,0															
F1106	10	2,5 kN	100 N	25	■	-	1,5	2,0															
F1106	10	4 kN	100 N	40	■	-	1,5	2,0															
F1106	10	5 kN	-	50	-	■	2,0	2,0															
F1106	10	6 kN	200 N	60	■	-	2,0	2,0															
F1106	10	10 kN	500 N	100	■	■	2,0	2,0															
F1106	10	16 kN	500 N	160	■	■	2,0	4,0															
F1106	10	25 kN	1 kN	250	■	■	3,2	4,0															
F1106	10	32 kN	1 kN	315	■	-	3,2	4,0															
F1106	10	40 kN	2 kN	400	■	■	3,2	6,0															
F1106	10	60 kN	2 kN	600	■	■	3,2	6,0															
F6107	10	160 N	5 N	1,6	■	-	---	---	75	45	8	M5	---	50	30	2	14	63 (P1515)	12,5 (P1515)	34 (P1515)	150 (P1515)	1,2 (P1515)	
F6107	10	250 N	10 N	2,5	■	-	---	---															
F6107	10	400 N	20 N	4	■	-	---	1,0															
F6107	10	600 kN	20 N	6	■	-	0,5	1,0															
F6107	10	1 kN	50 N	10	■	-	1,0	2,0															
F6107	10	1,6 kN	50 N	16	■	-	1,0	2,0															
F6107	10	2 kN	-	20	-	■*	1,5	2,0															
F6107	10	2,5 kN	100 N	25	■	-	1,5	2,0															
F6107	10	4 kN	100 N	40	■	-	1,5	2,0															
F6107	10	5 kN	-	50	-	■	2,0	2,0															
F6107	10	6 kN	200 N	60	■	-	2,0	2,0															
F6107	10	10 kN	500 N	100	■	■	2,0	2,0															
F6107	10	16 kN	500 N	160	■	■	2,0	4,0															
F6107	10	25 kN	1 kN	250	■	■	3,2	4,0															
F6107	10	32 kN	1 kN	315	■	-	3,2	4,0															
F6107	10	40 kN	2 kN	400	■	■	3,2	6,0															
F6107	10	60 kN	2 kN	600	■	■	3,2	6,0															

*Other nominal loads and versions on request*

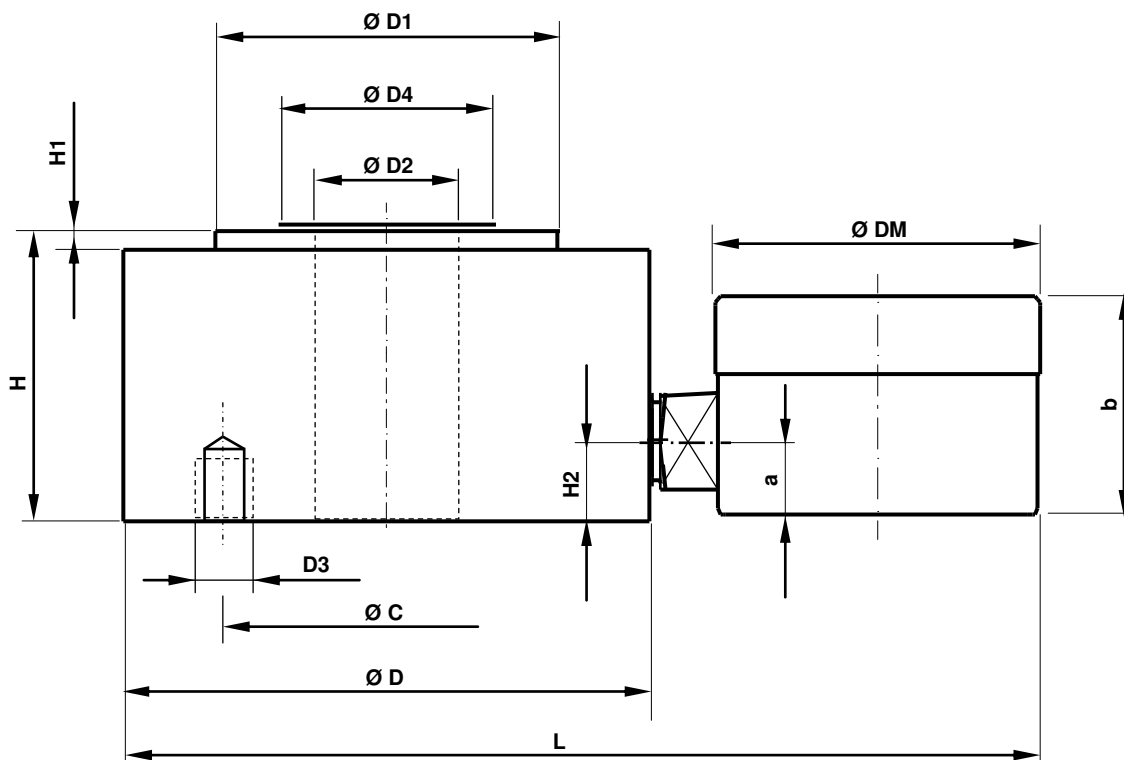
\*Accuracy class:  $\leq \pm 1,0\%$  v.E.

**Selection - Dimension - Sheet: Hydraulic Compression Force Transducer – Compact - Version**

**Model: F1106**



**Model: F6107**



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