

## Short description Force Transducer FFT01-P

The TEQFORT GmbH develop, produce and marketed on strain gauge based sensors for force and torque measuring as well as the required electronic. The name TEQFORT represent for - Test Equipment Force Torque - and for quality at high and highest precision.

The force transducer of the model range FFT01-P is the premium version of the FFT01 series and well qualified for all tension and compression application, in industrial area just like for the high requirements in the proofing and test technic. Especially measuring tasks, where dynamic use is essential, are its strong points.



- Nominal load 1,25 kN – 1000 kN
- For static and dynamic application
- Accuracy from 0,03 - 0,06 %
- Fatigue resistant  $\pm 100$  %
- Easy mounting due to outer flange
- 6-wire technology

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By means of different adapters the model FFT01-P can be flexibly used. The below illustration shows a construction with adapter plate and threaded rod. On the thread side, however, clamping tools of a testing machine can be screwed directly also. Since we also make special designs within our sensor model series, the model FFT01-P now also offers **63 kN**, **630 kN** and **750 kN** versions, contact us.



### Options

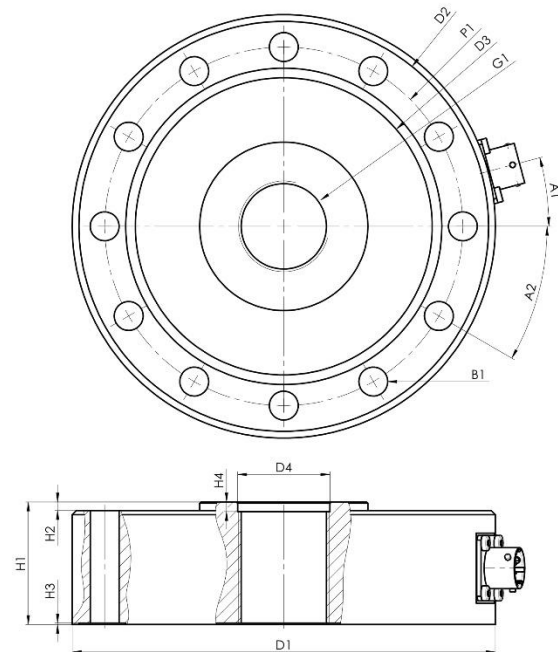
- Second measuring circuit for redundancy
- Measuring circuit for torque  $M_z$
- Fixed wire connection
- Additional protection of the connector
- Attachment parts for assembling

### Technical Data

Nominal Load	$\pm F_{nom}$	kN	1,25 / 2,5 / 5,0	12,5 / 25	50 / 125	250	500	1000
Accuracy		%	$\pm 0,03$		$\pm 0,04$		$\pm 0,06$	
Linearity error	$d_{lin}$	%	$\pm 0,03$		$\pm 0,04$		$\pm 0,06$	
Hysteresis	$h$	%	$\pm 0,03$	$\pm 0,03$	$\pm 0,05$		$\pm 0,06$	
Reproducibility		%			$\pm 0,025$			
Rel. zero-point return	$f_0$	%			0,01			
Creep		%			$\pm 0,025$			
Eccentricity effect		%/mm			$< 0,01$			
Bending moment effect		%/Nm			$< 0,01$			
Tension/compression rated output variation	$d_{ZD}$	%			0,1			
Nominal temp. range		°C			+10 up to + 60			
Temperature effect on characteristic value	$TK_c$	%/10K			0,015			
Temperature effect on zero signal	$TK_0$	%/10K			0,015			
Rated characteristic value	$C_{nom}$	mV/V	1			2		
Input resistance	$R_e$	$\Omega$			per bridge ca. 1000			
Range of supply voltage	$B_{U,G}$	V			5 - 15			
Protection class (EN 60529)		IP			67			

Nominal load	$\pm F_{nom}$	kN	1,25 / 2,5 / 5,0	12,5 / 25	50 / 125	250	500	1000
Height	$H1$	mm	34,9 <sub>-0,1</sub>		44,5 <sub>-0,1</sub>	63,5 <sub>-0,1</sub>	88,9 <sub>-0,1</sub>	114,3
Height	$H2$	mm	3,2		3,1	6,3	12,7	6,3
Height	$H3$	mm	0,5			0,8		
Height	$H4$	mm	3,4		3,5	3	3,5	
Diameter	$D1$	mm	104,8 <sub>-0,1</sub>		153,9 <sub>-0,1</sub>	203,2 <sub>-0,1</sub>	279,0 <sub>-0,1</sub>	304,8 <sub>-0,2</sub>
Diameter	$D2$	mm	101,6 <sub>-0,1</sub>		149,0 <sub>-0,1</sub>	198,1 <sub>-0,1</sub>	269,2 <sub>-0,1</sub>	289,6 <sub>-0,1</sub>
Diameter	$D3$	mm	74,7 <sub>-0,1</sub>		108,0 <sub>-0,1</sub>	138,9 <sub>-0,1</sub>	172,1 <sub>-0,1</sub>	195,0 <sub>-0,1</sub>
Diameter	$D4$	mm	16,5 <sub>H8</sub>		33,5 <sub>H8</sub>	43,0 <sub>H8</sub>	73,0 <sub>H8</sub>	
Pitch circle diameter	$P1$	mm	88,9 <sub>-0,1</sub>		130,3 <sub>-0,1</sub>	165,1 <sub>-0,1</sub>	229,0 <sub>-0,1</sub>	241,3 <sub>-0,1</sub>
Bore	$B1$	mm	7,1		10,4	13,5	16,8	22
Thread	$G1$	mm	M16x2-4H		M33x2-4H	M42x2-4H	M72x2-4H	
Angle	$A1$		22,5°		15°	11,25°		9°
Angle	$A2$		8x45°		12x30°	16x22,5°		20 x 18°
Weight		kg	0,5	1,3	5	11	28	46



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