

Short description Force Transducer FFF01-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 FFF01-P is the premium version of the FFF01 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 50 kN - 2000 kN
- For static and dynamic application
- Accuracy from 0,04 - 0,08 %
- Fatigue resistant ± 100 %
- Easy mounting due to inner- and outer- flange
- Standard line length 5 m, 6-wire technology

Technical Data

Nominal Load	$\pm F_{nom}$	kN	50 / 125	250	500	1000	1500	2000
Accuracy		%	$\pm 0,04$	$\pm 0,05$	$\pm 0,06$	$\pm 0,06$	$\pm 0,08$	$\pm 0,08$
Linearity error	d_{lin}	%	$\pm 0,04$	$\pm 0,05$	$\pm 0,06$	$\pm 0,06$	$\pm 0,08$	$\pm 0,08$
Hysteresis	h	%	$\pm 0,04$	$\pm 0,05$	$\pm 0,06$	$\pm 0,06$	$\pm 0,08$	$\pm 0,08$
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					
Nominal temperature 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 values	C_{nom}	mV/V	2					
Input resistance	R_e	Ω	per bridge ca. 1000					
Range of supply voltage	$B_{U,G}$	V	5 - 15					
Protection class (EN 60529)		IP	67					

Options

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

Nominal Load	$\pm F_{nom}$	kN	50 / 125	250	500	1000	1500	2000
Height	$H1$	mm	44,5 _{-0,1}	63,5 _{-0,1}	88,9 _{-0,1}	114,3 _{-0,1}	139,7 _{-0,1}	155 _{-0,1}
Height	$H2$	mm	3,1	6,3	12,7	6,3	12,7	6,3
Height	$H3$	mm	0,5					
Height	$H4$	mm	10	20				
Height	$H5$	mm	17					
Height	$H6$	mm	-			24		
Diameter	$D1$	mm	153,9 _{-0,1}	203,2 _{-0,1}	279 _{-0,1}	304,8 _{-0,1}	393,7 _{-0,1}	480 _{-0,1}
Diameter	$D2$	mm	67,3 _{H9}	95,5 _{H9}	122,2 _{H9}	144,3 _{H9}	196,9 _{H9}	232 _{H9}
Diameter	$D3$	mm	149 _{-0,1}	198,10 _{-0,1}	269,20 _{-0,1}	289,56 _{-0,1}	450 _{-0,1}	
Diameter	$D4$	mm	108 _{H8}	138,9 _{H8}	172,1 _{H8}	195 _{H8}	254,4 _{H8}	310 _{H8}
Pitch circle diameter	$P1$	mm	130,3 _{-0,1}	165,1 _{-0,1}	229 _{-0,1}	241,3 _{-0,1}	322,1 _{-0,1}	385 _{-0,1}
Pitch circle diameter	$P2$	mm	45 _{-0,1}	71 _{-0,1}	105 _{-0,1}		150 _{-0,1}	180 _{-0,1}
Bore	$B1$	mm	10,5	13	17,5	22	26	33
Bore	$B2$	mm	10,5	17	17,5	26		33
Bore	$B3$	mm	10 _{H7}					
Bore	$B4$	mm	10 _{H7}	16 _{H7}				
Thread	$G1$		M12					
Angle	$A1$		15°	11,25°	9°		7,5°	6,43°
Angle	$A2$		12 x 30°	16 x 22,5°	20 x 18°		24 x 15°	
Angle	$A3$		15°	11,25°	9°		7,5°	6,43°
Angle	$A4$		-		56,25°	63°	52,5°	
Angle	$A5$		15°	11,25°	9°		7,5°	
Angle	$A6$		8 x 45°			12 x 30°		
Weight		kg	4,3	10,3	29,1	44,9	93	155,7

