

T5

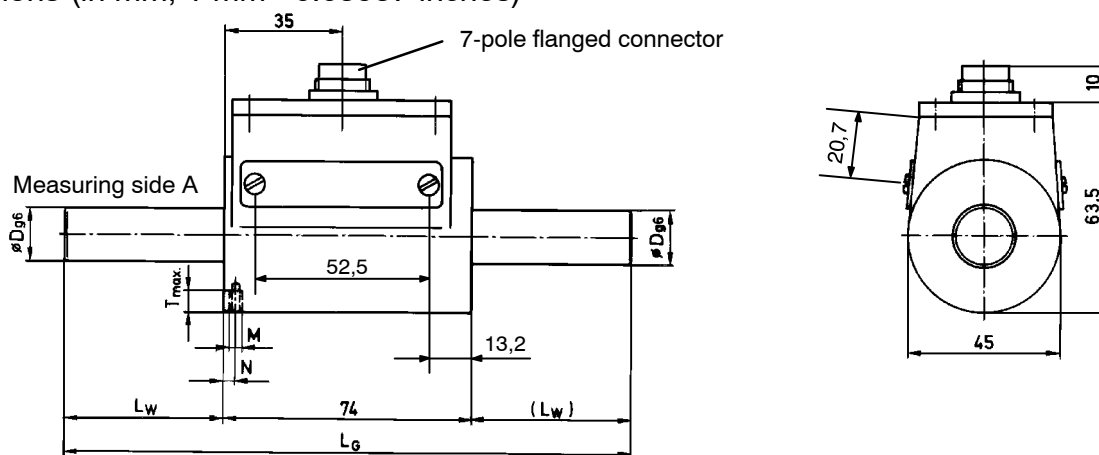
Torque Transducer



Special features

- Measurement of torques in any direction of rotation
- Nominal torques 10 N·m, 20 N·m, 50 N·m, 100 N·m and 200 N·m
- Cylindrical shaft-stubs for no-play friction joints
- Small and handy

Dimensions (in mm; 1 mm= 0.03937 inches)



Type	L_G	L_W	$\varnothing D_{g6}$	M	N	T_{max}
T5/10 N·m	132	29	14	M4	3.5	6
T5/20 N·m	132	29	16	M4	3.5	6
T5/50 N·m	158	42	16	M4	3.5	6
T5/100 N·m	158	42	20	–	–	–
T5/200 N·m	168	47	20	–	–	–

Specifications

Type		T5				
Accuracy class		0,1				
Nominal torque	N m	10	20	50	100	200
Nominal sensitivity (nominal output signal at nominal torque)	mV/V	2				
Sensitivity tolerance	%	< ± 0.2				
Temperature effect per 10 K in the nominal temperature range	%	< ± 0.1				
On output signal (related to actual value)	%	< ± 0.1				
On zero signal (related to nominal sensitivity)	%	< ± 0.1				
Linearity deviation, including hysteresis, related to nominal sensitivity	%	< ± 0.1				
Relative standard deviation of reproducibility according to DIN 1319 (related to variation of output signal)	%	< ± 0.05				
Input resistance at reference temperature	Ω	350 ± 1.8				
Output resistance at the reference temperature	Ω	350 ± 1.5				
Maximum permissible excitation voltage	V	20				
Nominal range of the excitation voltage	V	0.5...12				
Reference temperature	°C [°F]	+23 [+73.4]				
Nominal temperature range	°C [°F]	+10...+60 [+50...+140]				
Service temperature range	°C [°F]	-10...+60 [+14...+140]				
Storage temperature range	°C [°F]	-50...+70 [-13...+158]				
Mechanical values (related to nominal torque)						
Static limit load	%	150				
Static breaking load	%	300				
Bending limit moment¹⁾	N·m	1.2	2.3	6	11	23
Axial limit force¹⁾	kN	0.6	1.9	3.5	5.5	8.8
Lateral limit force¹⁾	N	9	26	50	80	125
Torsion angle at nominal torque, approx.	degrees	0.85				
Moment of inertia	kg · m ² × 10 ⁻³	0.041		0.047		
Maximum permissible speed	rpm	4000				
Service life of the slipping system, approx.	revol.	3×10 ⁸				
Vibration amplitude to ISO/R 373 (related to the nominal torque M _N) ²⁾	%	70 (Peak-to-peak)				
Additional reliability data						
Mechanical impact test , degree of precision to IEC 68-2-27-1987						
Number	n	1000				
Duration	ms	3				
Acceleration	m/s ²	500				
Vibration stress test , degree of precision to IEC 68-2-6-1982						
Frequency range	Hz	5...65				
Duration	h	1.5				
Acceleration	m/s ²	50				
Protection class according to EN 60 529		IP 50				
Weight, approx.	kg	0.5		0.6		

¹⁾ Each type of irregular stress can only be permitted with its given limit value (bending moment, side load or axial load, exceeding the nominal speed) if none of the others can occur. Otherwise the limit values must be reduced. If for instance 30 % of the bending moment and also 30 % of the side load are present, only 40 % of the axial load are permitted, provided that the nominal torque is not exceeded. With maximum additional loading, measuring errors of the order of 1 % of the nominal torque can occur.

²⁾ The nominal torque must not then be exceeded.

Accessories (to be ordered separately):

Connecting cable Kab 139A-6, length 6 m (423-free ends)

Modifications reserved.
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