ME-Meßsysteme GmbH
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TD70 ±25mNm, ±50mNm, ±150mNm, ±300mNm, ±1Nm

Description

The torque sensor consists of an outer flange and an inner flange which are connected by 4 s-shaped spiral springs. Outer and inner flange have 4 threads M4 each for torque introduction.
The sensor is suitable for measurement of reaction moment e.g. in the clock industry, in wind tunnel weighersor for measurement of frictional forces.
Through the integrated mechanical stopper overload is prevented.
It is recommended to insert distance pieces as shown in the assembly drawing. These can be shock absorbers with M4 threads.
By using distance pieces the torque sensor is also isolated thermically from the traction unit.

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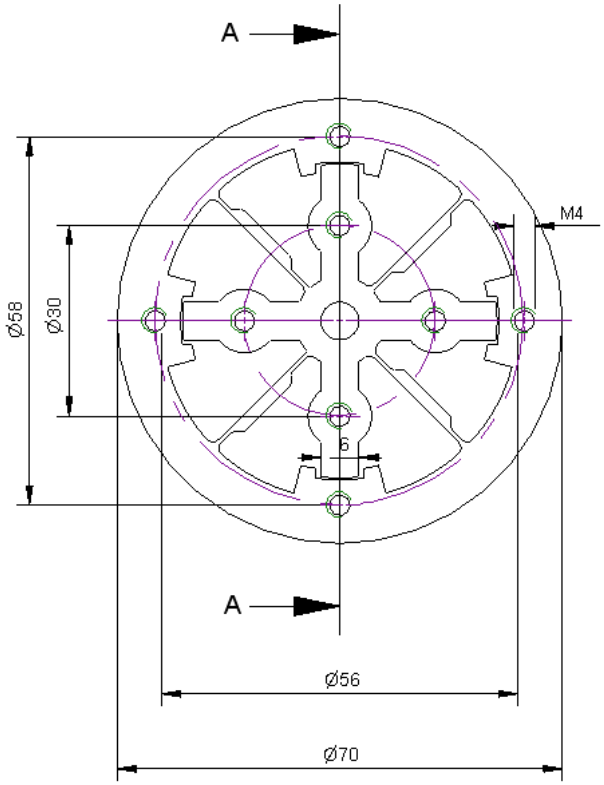
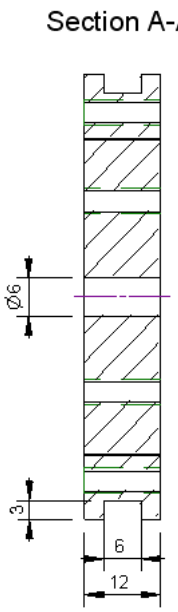
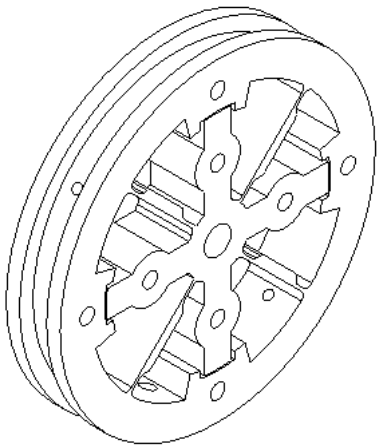
Dimensions







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Technical Data

Basis Data

Type	bending spring	
Maximum operating torque	150	%FS
Breaking torque	400	%FS
Rated torsion angle	0.7	°/FS
Axial force limit	100	N
Torque introduction	pitch circle	
Dimension 1	Ø30	
drehmomentausleitung	pitch circle	
Dimension 2	Ø58	
Diameter	70	mm
laenge	10	mm

Elektrische Daten

Input resistance	350	Ohm
Tolerance input resistance	10	Ohm
Output resistance	350	Ohm
Tolerance output resistance	10	Ohm
Insulation resistance	5	GOhm
Rated range of excitation voltage f	2.5 ... 5	V
Operating range of excitation voltage f	1 ... 10	V
Zero signal	0.05	mV/V
Rated output	0.7	mV/V / FS
characteristic value range min	0.6	mV/V / FS
characteristic value range max	0.8	mV/V / FS

Precision

Accuracy class	0,1%	
Relative linearity error	0.1	%FS
Relative zero signal hysteresis	0.1	%FS
Temperature effect on zero signal	0.01	%FS/K
Temperature effect on characteristic value	0.01	%RD/K
Relative creep	0.05	%FS

Connection Data

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Connection type	4 conductor open	
Name of the connection	STC-31V-4	
Cable length	2	m

Temperature

Rated temperature range f	-10 ... 60	°C
Operating temperature range f	-10 ... 85	°C
Storage temperature range f	-10 ... 85	°C

Abbreviation : RD: „Reading“; FS: „Full Scale“;
The characteristic value is indicated in the test report;

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Pin Configuration

Channel	Symbol	Description	Wire colour	PIN
	+Us	positive bridge supply	red	
	-Us	negative bridge supply	black	
	+Ud	positive bridge output	green	
	-Ud	negative bridge output	white	

Pressure load : positive output signal

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accessories

	Description	Description
	Factory calbration certificate Nm/50/5	Detection of the characteristic value and the traceability to DKD torque device
	Factory calbration certificate Nm/50/5/System	Proof of the characteristic value and the traceability on DAkkS torque device, including system calibration
	Factory calbration certificate Nm/200/5	Detection of the characteristic value and the traceability to DKD torque device
	Factory calbration certificate Nm/200/5/System	