

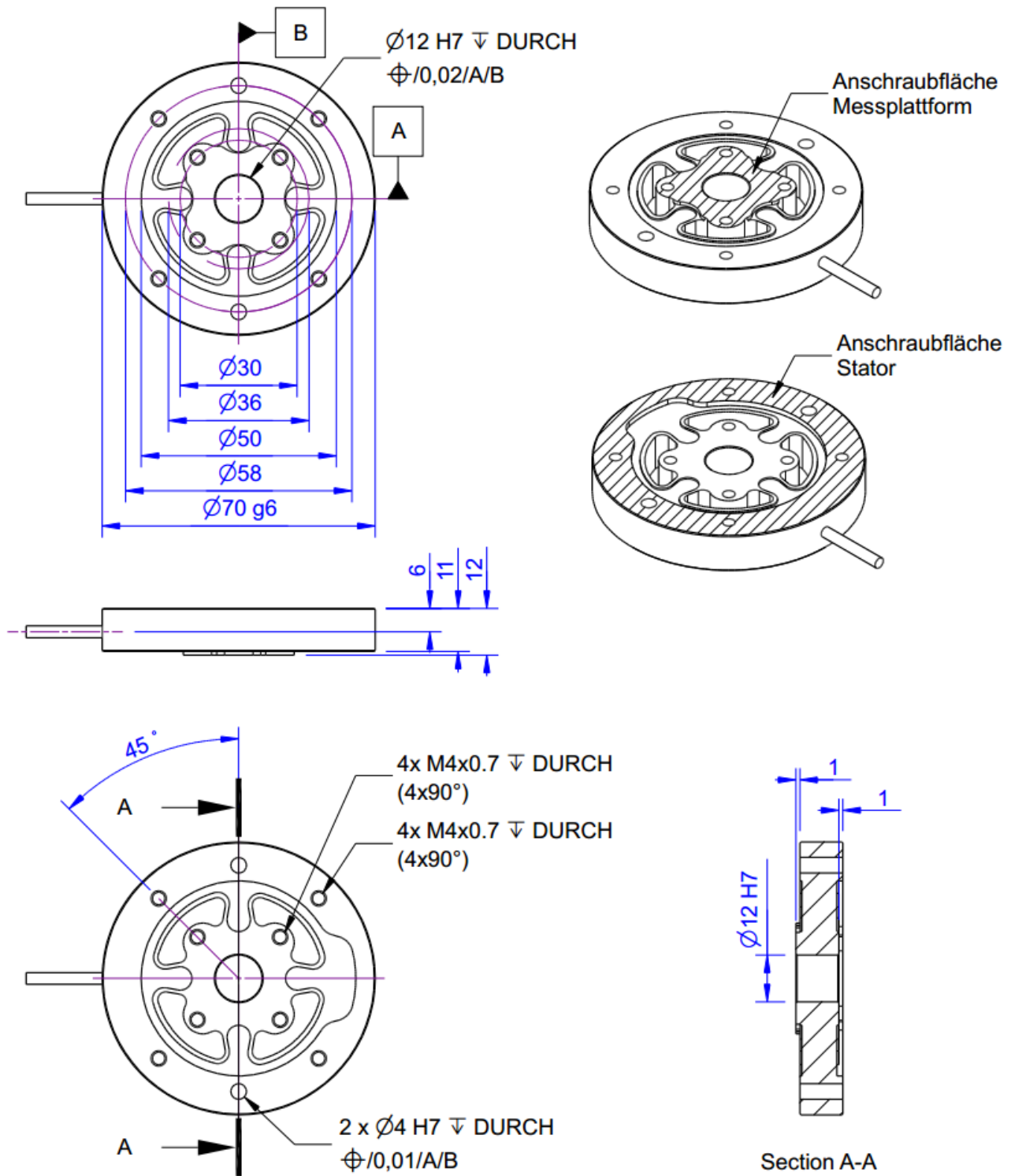
TS70a $\pm 5\text{Nm}$



Description

The torque sensor consists of an outer flange and an inner flange which are connected by 4 shear beams. Outer and inner flange have 4 threads M4 each for torque introduction. The sensor is suitable for measurement of reaction moment in drives and teststands.

Dimensions



Technical Data

Electrical Data

Input resistance	2000	Ohm
Tolerance input resistance	20	Ohm
Output resistance	2000	Ohm
Tolerance output resistance	20	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	0.5	mV/V / FS
characteristic value range min	0.5	mV/V / FS
characteristic value range max	0.7	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

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
Environmental protection	IP65	

Basis Data

Type	shear beam	
Rated torque	5	Nm
Bending moment limit	5	Nm
Maximum operating torque	150	%FS
Breaking torque	400	%FS
Rated torsion angle	0.02	°/FS
Axial force limit	200	N
Lateral force limit	200	N
Torque introduction	pitch circle	
Dimension 1	Ø30	
drehmomentausleitung	pitch circle	

Dimension 2	Ø58
Diameter	70 mm
length	10 mm
Material	Aluminium alloy

Abbreviation : RD: „Reading“; FS: „Full Scale“;



1) The exact nominal sensitivity is indicated in the test report.

Pin Configuration

Symbol	Description	Wire colour
+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.
Shield- transparent.

accessories

Description		Description
	Factory calibration certificate Nm/50/5	Detection of the characteristic value and traceability on DAkkS torque device; 0.025Nm... 50Nm
	Factory calibration certificate Nm/50/5/System	Detection of the characteristic value and traceability on DAkkS torque device; 0.025Nm... 50Nm; incl. calibration, torque sensor + amplifier