

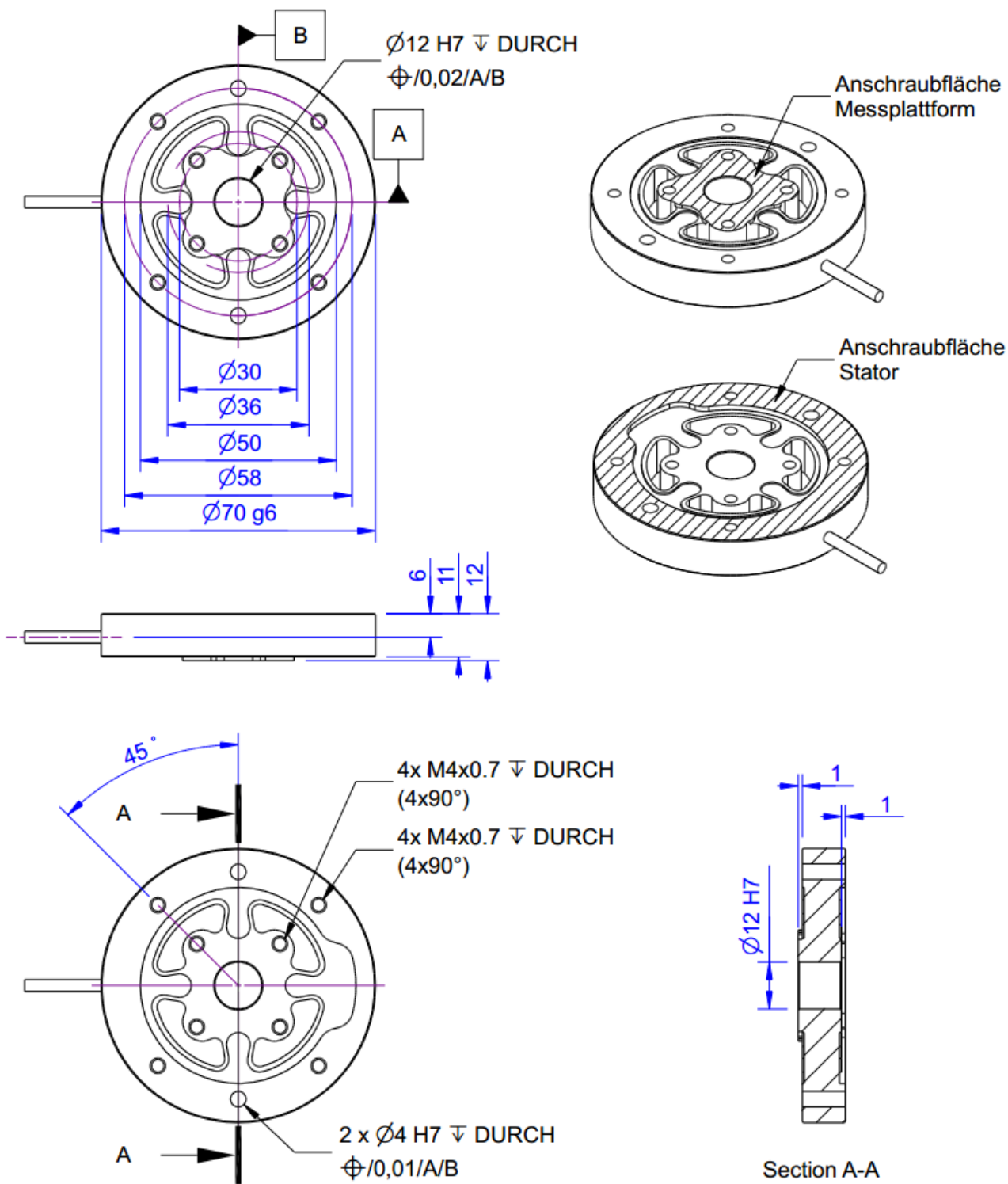
TS70 $\pm 2\text{Nm}$, $\pm 5\text{Nm}$, $\pm 10\text{Nm}$



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

Basis Data

Type	shear beam
Bending moment limit	5 Nm
Maximum operating torque	150 %FS
Breaking torque	400 %FS
Rated torsion angle	0.7 °/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

Electrical Data

Input resistance	2000 Ohm
Tolerance input resistance	20 ±
Output resistance	2000 Ohm
Tolerance output resistance	20 ±
Insulation resistance	5x10 ⁹ Ohm
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

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



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