

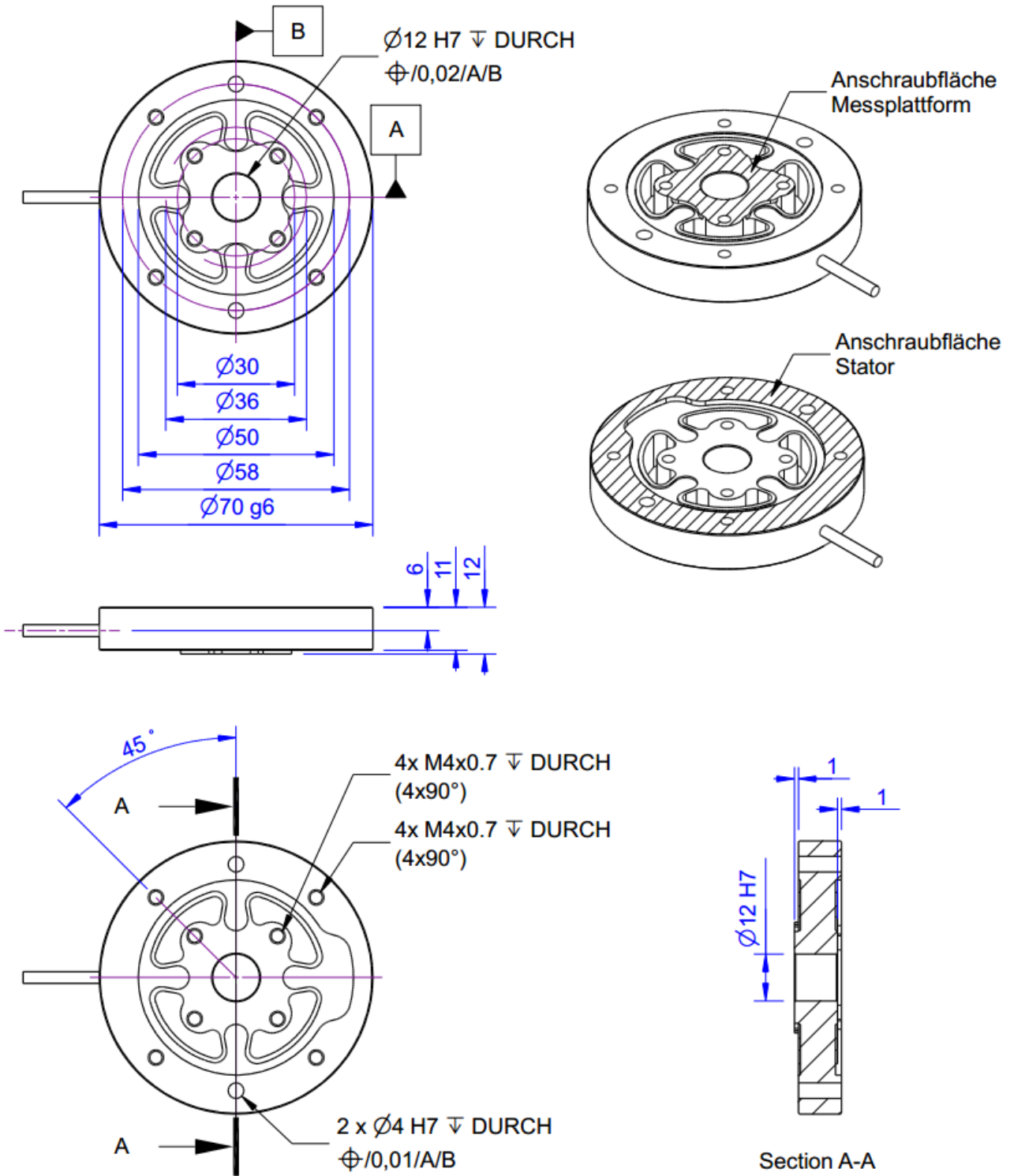
TS70a  $\pm 2\text{Nm}$



**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	0.3	mV/V / FS
characteristic value range max	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	

**Basis Data**

Type	shear beam
Rated torque	2 Nm
Bending moment limit	2 Nm
Maximum operating torque	150 %FS
Breaking torque	400 %FS
Rated torsion angle	0.02 °/FS
Axial force limit	100 N
Lateral force limit	100 N
Torque introduction	pitch circle
Dimension 1	Ø30
drehmomentausleitung	pitch circle

Dimension 2 Diameter	$\frac{058}{70}$ mm
length	10 mm
Material	Aluminium alloy



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

### 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