Torque sensor TD110a 5Nm/VA

Item number: 6486



Highlights

- Measurement of reaction torque
- Stainless steel version
- The sensor is available in spring steel

The TD110a torque sensor is suitable for measuring the reaction torque up to a nominal torque of 50 Nm. (cable-connected, non-rotating).

The torque sensor consists of an outer flange and an inner flange, which are connected to each other via 4 measuring spokes.

The torque sensor is fastened internally and externally with DIN912 M6 screws.

The TD110a torque sensor is used both in torque test benches for quality assurance and in production machines. The sensor is available in spring steel.

Translated with DeepL.com (free version)

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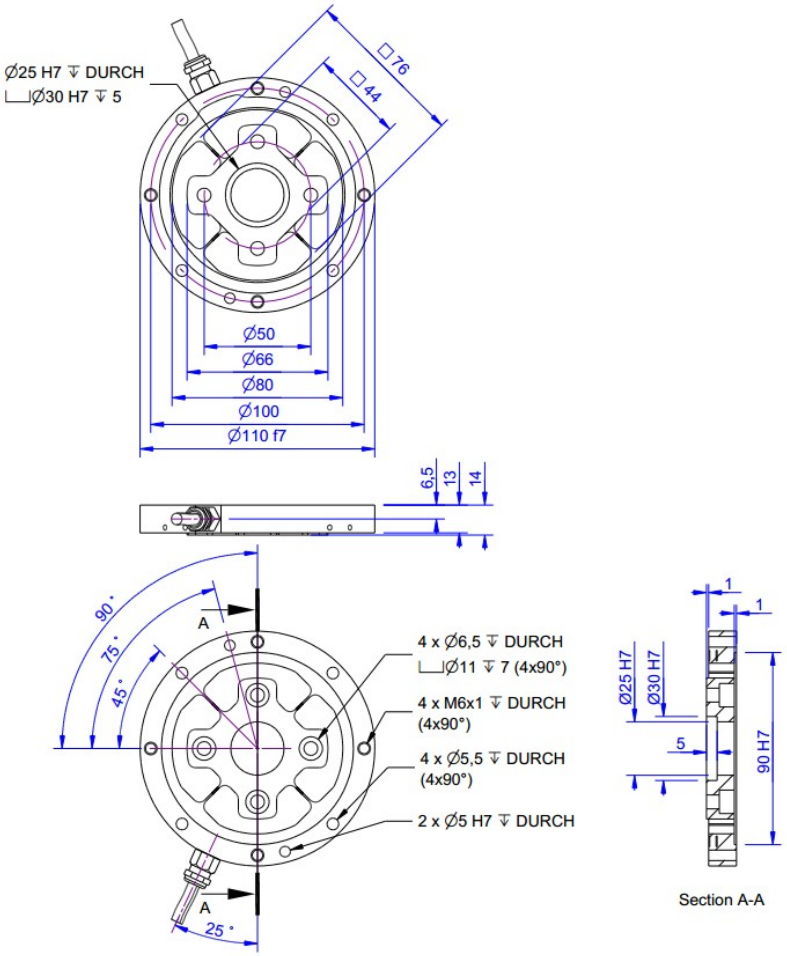
Stand: 01.04.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Type	Biegefeder	
Rated torque	5	Nm
Bending moment limit	20	Nm
Maximum operating torque	150	%FS
Breaking torque	400	%FS
Rated torsion angle	0.7	°/FS
Axial force limit	500	N
Lateral force limit	500	N
Torque introduction	pitch circle	
Dimension (torque introduction)	Ø50	
sensor fastening	pitch circle	
Dimension 2	Ø100	
Diameter	110	mm
length	13	mm
Material	Stainless steel	
Natural frequency fx	1.35	kHz
Dimensions	Ø 110mm x 13mm	
Variants	1Nm... 50Nm	

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Electrical Data		Unit
Input resistance	700	Ohm
Tolerance input resistance	10	Ohm
Output resistance	700	Ohm
Tolerance output resistance	10	Ohm
Insulation resistance	5	GOhm
Rated range of excitation voltage from	2.5	V
Rated range of excitation voltage to	5	V
Operating range of excitation voltage from	1	V
Operating range of excitation voltage to	10	V
Zero signal	0.05	mV/V
Rated output	1	mV/V / FS

Accuracy Data		Unit
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

Environmental Data	Unit

Abbreviation : RD: „Reading“; FS: „Full Scale“;1) The exact nominal sensitivity is indicated in the test report;

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Pin Assignment

Channel	Symbol	Description	Wire color	PIN
	+Us	positive bridge supply	brown	
	-Us	negative bridge supply	white	
	+Ud	positive bridge output	green	
	-Ud	negative bridge output	yellow	

Pressure load: positive output signal.
Shield- transparent.

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