

Torque Transducer Type DRFL

with angle and speed detection



Special features:

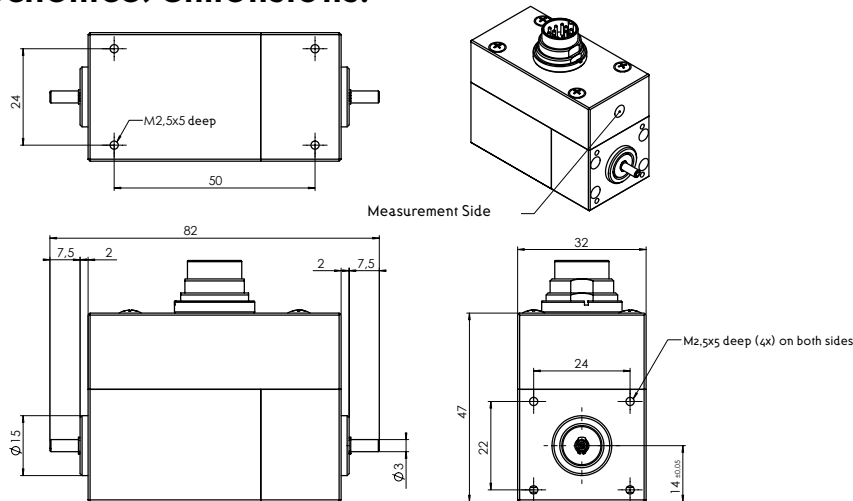
- no maintenance needed
- contactless
- build-in measurement amplifier
- wide application range
- small outline
- low moment of inertia

Description:

This transducer is suitable for applications in laboratory as well as in industrial environment because of its compact outline and its multiple mounting options. The contactless transmission of supply voltage and measuring signal enables continuous operation with low wear out and no service.

The integrated measurement amplifier is supplied with 12V DC and outputs an analog signal of 0 to ± 10 V which is potentially divided from supply voltage.

Mechanical dimensions:



Technical Data:

Measurement Range:	0,02; 0,05; 0,10Nm	Option Speed:	(n)	
Supply Voltage:	12V DC $\pm 10\%$	rev. max:	up to 10 000 min ⁻¹ *	
Current Consumption:	approx. 160mA	Output:	Open- Collector	
Rise Time 10-90%	2ms	Internal Pull Up	10k Ω (5 V level)	
Limit Frequency -3dB	200Hz	External Pull Up	24 V max / 20mA	
Voltage Output:	0 to ± 10 V	Pulses/rev.:	60	
Internal Resistance:	100 Ω	Option Angle:	(w)	
Ripple:	< 100mVss	rev. max:	up to 3 000 min ⁻¹ **	
Nonlinearity:	< 0,15%	Output:	Open- Collector	
Hysteresis:	< 0,15%	Internal Pull Up	10k Ω (5 V level)	
Operating Temperature:	0-60°C	External Pull Up	24 V max / 20mA	
Compensated Temperature Range:	5-45°C	Pulses/rev.:	360	
Temperature fault		Resolution:	1°	
Zero Point:	0,02%/K	Phase shift:	Channel A preceding 90° at right spin of propulsion side	
Sensitivity:	0,01%/K	With suitable external wiring	* 20.000 min ⁻¹ ** 15.000 min ⁻¹	
Mechanical Overload:	100%			
rev. max.:	max. 20.000 rpm			
Weight:	approx. 200g			
Connection:	12 pin Fitted Connector			
Measurement Range [Nm]	Spring Constant C [Nm/rad]	Mass Moment of Inertia J [g•cm ²]	Max. Axial Load [N]	Max. Radial Load [N]
0,02	16	7	35	30
0,05	16	7	35	30
0,1	16	7	35	30

Ordering Example:

Torque transducer

DRFL-0,02-A

range 0,02 Nm

DRFL-0,02-w

range 0,02 Nm, option angle measurement

Available Accessories: Connectors, measuring cable, supply and display unit, clutch