VELOMAT

MESSELEKTRONIK GmbH

Torque sensor, rotating

Torque sensor

Range: TA-W

VELOMAT MESSELEKTRONIK GmbH

Performance features

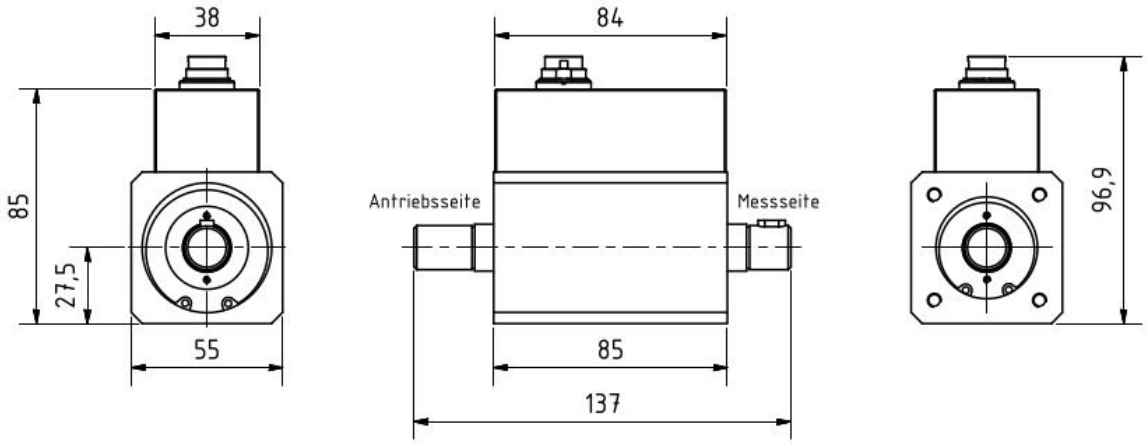
- Nominal torque 5 Nm … 100 Nm
- Active output ±5 V / ±10 V / on request
- Speed output up to 10,000 rotations

Advantages

- Non-contact transmission of measured values
- Very short axial length
- For fixed and floating sensor installation
- Excellent price-performance ratio

Nominal torque [Nm]	Spring constant [Nm / rad]	Moment of inertia [kg·m²]		Max. axial force [N][1]	Max. shear force [N][2]
		Drive end	Measurement end		
5	8,9E+02	1,7E-06	1,1E-06	520	23
10	8,9E+02	1,7E-06	1,1E-06	520	23
15	8,9E+02	1,7E-06	1,1E-06	520	23
20	8,4E+03	4,2E-05	2,1E-05	1200	65
50	8,4E+03	4,2E-05	2,1E-05	1200	65
100	2,0E+04	4,7E-05	2,7E-05	3100	200

Drawing / Dimensions



Accuracy class	% v. Ew.	0,5
Repeatability	%	0,1
Supply voltage	VDC	12 … 28
Supply current	mA	Max. 50
Output signal	V	±5 / ±10 / on request
Reference temperature	°C	23
Nominal temp. range	°C	5 … 45
Service temp. range	°C	0 … 60
Storage temp. range	°C	-10 … 70
Temp. coeff. of sensitivity	% v. Ew./K	±0,02
Temp. coeff. of zero	% v. Ew./K	±0,04
Service torque	% v. Ew.	150
Limit torque	% v. Ew.	200
Ultimate torque	% v. Ew.	>300
Bandwidth (DIN 50100)	%	70 (top-top)
Max. rotation speed	Min-1	10.000
Connector		12-pin
Weight	kg	ca. 1,2

Options

Designation	
Output signal	±10 V
Keyway according to DIN 6885	on request

Options calibration

Designation	**Steps**	**Standard**
Linearity	25 %	Company standard
Linearity	10 %	
Company standard	3	VDI / VDE 2656
Company standard	5	
Company standard	8	
DKD-calibration		on request

VELOMAT Messelektronik GmbH
Schwarzer Weg 23 b
01917 Kamenz

Phone: +49 3578 3749 0
E-Mail: vertrieb@velomat.de
Internet: www.velomat.de

Pin Assignment

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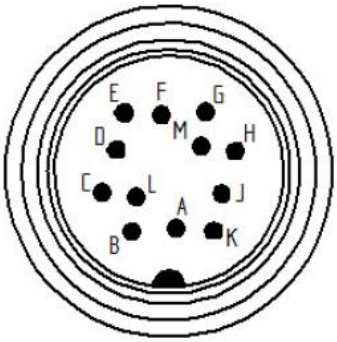
Connector

12-pin			Range 723
PIN A	NC		
PIN B	Option angle B	5 V TTL	
PIN C	Signal (+)	±5 V	
PIN D	Signal (GND)	0 V	
PIN E	Excitation (GND)	0 V	
PIN F	Excitation (+)	12 … 28 V	
PIN G	Option angle A	5 V TTL	
PIN H	NC		
PIN J	NC		
PIN K	Cal. Control	L<2,0 V; H>3,5 V	
PIN L	NC		
PIN M	Shield		

Top view

Connection cable optionally available in various lengths.

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