

TMFS - Torque Measuring Flange

Product Overview

This Torque measuring flange is based on the Strain Gauge principle. It has an integral signal conditioner, which produces either analogue or digital outputs, which are transmitted through a non-contacting system. There is no bearing between the rotor and stator; as such the unit is free from wear.

The Transducer has a very short flange to flange dimension, the rotor being installed from one side, (normally the test specimen side). This allows easy, cost effective assembly into a drive line.

System Specifications:

Accuracy Class:	0.1	Supply Voltage:	11 – 30 V
Linearity Error:	$\leq \pm 0.05\%$	Power Consumption:	<5 W
Output Signal:	$\pm 10\text{Vdc}$	Operating Temp:	10 to 60°C
Overload Capacity:	200%	Storage Temp:	-25 to +60°C
Protection:	IP54		

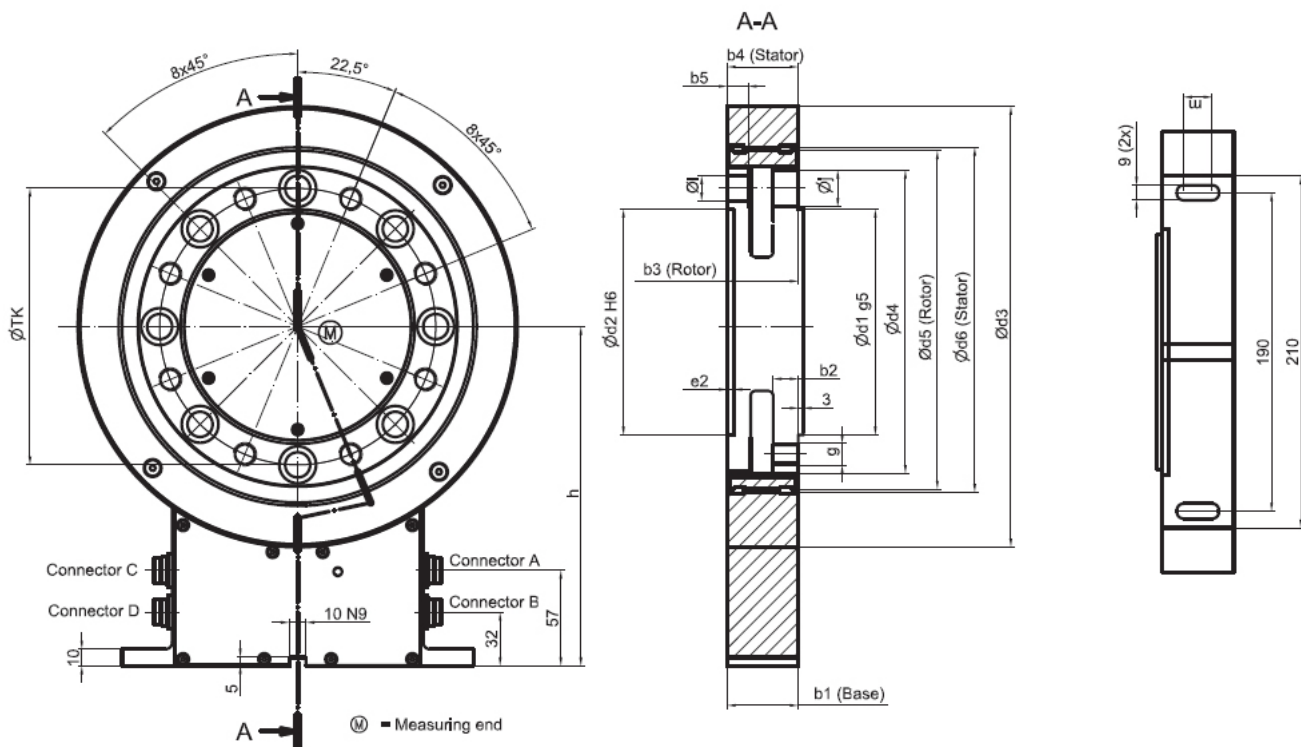
Industrial Measurements

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Model No.	Rated Torque (Nm)	Max Speed	Torsional Stiffness (kNm/rad)	Total Weight (Kg)	Rotor Weight (Kg)	Rotor Inertia (Kg.m ² (10 ⁻³))
TMFS50	50	15000	66	2.3	0.9	1.5
TMFS100	100	15000	238	2.35	0.95	1.6
TMFS200	200	15000	375	3.3	1.7	4.0
TMFS500	500	12000	945	4.9	3.0	11.6
TMFS1000	1000	12000	1462	4.9	3.0	11.1
TMFS2000	2000	10000	3220	7.0	4.5	25.2
TMFS3000	3000	10000	5098	8.7	6.2	27.8
TMFS5000	5000	8000	11442	13.0	10.5	91.6

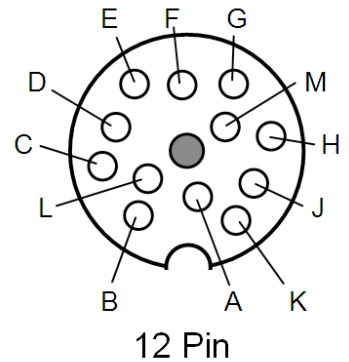
Dimensions



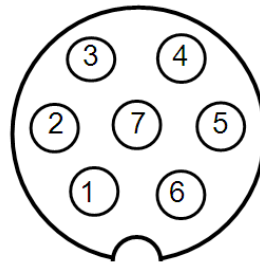
Size	Measuring Range (Nm)	b1	b2	b3	b4	b5	e2	d1 g6	d2 h6	d3	d4	d5	d6	TK	g	h	i	j	m
1	50	40.5	6.5	25	25	8.5	2.5	75	75	172	100	120	124	87	M6	157.5	6.4	11	17
1	100	40.5	6.5	25	25	9.5	2.5	75	75	172	100	120	124	87	M6	157.5	6.4	11	17
2	200	40.5	8.5	30.5	30.5	10.2	2.5	90	90	192	120	140	144	105	M8	167.5	8.4	14	17
3	500	40.5	13	40.5	40.5	12.5	3	110	110	228	155	175	179	133	M12	185.5	13	20	17
3	1000	40.5	13	40.5	40.5	12.5	3	110	110	228	155	175	179	133	M12	185.5	13	20	17
4	2000	42.5	16	42.5	42.5	12.5	4	140	140	263	190	210	214	165	M14	202.5	15	22	17
4	3000	42.5	22	55	42.5	18	4	140	140	263	190	210	214	165	M14	202.5	15	22	17
5	5000	64	21	64	64	24	4	174	174	311	238	255	259	206	M18	226.5	19	30	34

Wiring Details

PIN	Designation		
A	GND relating to +V supply	G	N/C
B	TXD	H	60 pulses per revolution
C	V out $\pm 10V$ for rated Torque	J	N/C
D	GND relating to V out	K	Calibration - Off 0 to 2V - On 3.5 to 30V Input resistance = 10kohm
E	DGND relating to speed/cal	L	RXD
F	+V supply 11 to 30V, 4W	M	Screen in sensor to housing



PIN	Designation
1	N/C
2	N/C
3	DGND
4	Calibration - Off 0 to 2V - On 3.5 to 30V
5	TXD (User RS233 option)
6	RXD (User RS232 option)
7	OGND



7 Pin

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Providing custom torque solutions. Industrial Measurements.

Founded in 1981, Industrial Measurements have been providing comprehensive Torque measurement solutions and the design & manufacture of standard and bespoke Torque Transducers, for over 35 years.

We pride ourselves on being able to provide a solution no matter what the challenge. As well our standard products such as Inline Rotary Torque Transducers & Static Torque Systems, we are devoted to designing and manufacturing completely bespoke Torque systems to suit our customers needs.

As well as offering one of the largest ranges of Torque Transducers in the world, we make special Torque Sensors, Torque Meters and Load Cells. We also provide a fully accredited Torque calibration service, not just for our own products but for other manufacturers Torque products too.

Whilst our head office is based in the UK, we have customers from all over the world, in particular Western Europe and we are always looking to extend our customer base and offer support and technical advice to all current and future customers.

The knowledge and commitment of our dedicated employees has aided in building a quality customer base across the globe and we supply several industries including Marine & Offshore, Steel Plants, Automotive, Aerospace, Power Generation and much more.

Since 2009, Industrial Measurements has been a part of the Crane Group, alongside Crane Electronics Ltd.



For more information about the TMFS range or for a quote, call +44 (0) 1332 810 240 or email sales@indmeas.co.uk.

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