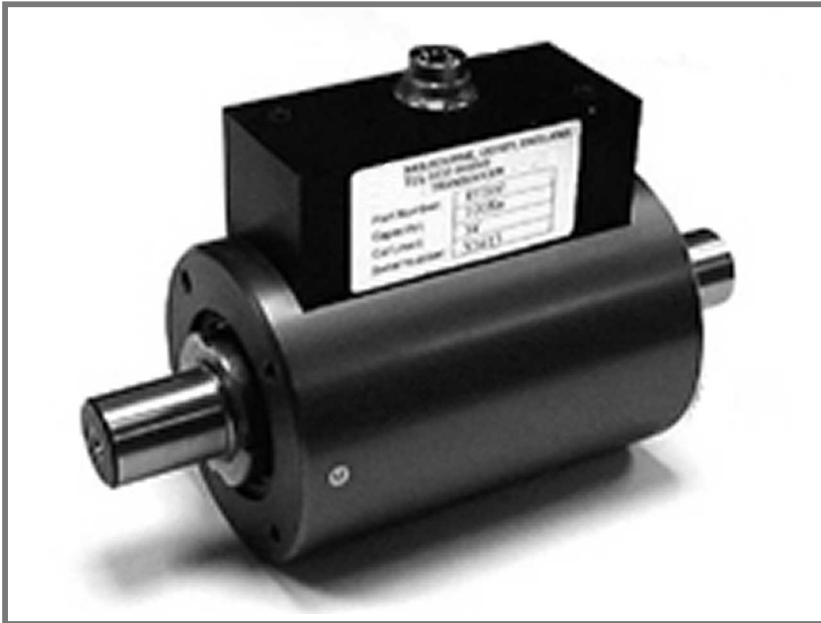


Rotary Keyed Shaft

TORQUE SENSOR

with Non-Contacting Data Transmission System

RTA/RTD
Series



- Torque Ranges 0.2Nm to 5000Nm
- High Accuracy
- RTD model offers 2.5:1, 3:1, 5:1 & 10:1 turndown ratios
- Suitable for continuously rotating applications
- Inductive non-contact data transmission system gives operating speeds up to 50,000rpm
- Pulsed speed output
- 3 YEAR WARRANTY

Options Available

Special couplings can be manufactured to order

RS232 output option on RTD

Supplied With Any Instrumentation and Calibrated as a Complete System with Traceable Certificate

DESCRIPTION

The RTA/RTD series of torque transducers provides high-speed, high accuracy “in-line” torque measurement by utilising strain gauged shaft and ‘non-contact’ inductive technology.

The signal from the strain gauge bridge is converted into a modulated frequency that is proportional to the measured torque. This signal is transferred from a rotating coil to a static coil for processing by the on-board amplifier. Excitation voltage is also transferred using this system.

A $\pm 5Vdc$ output is provided as standard with RS232 serial as an option. A 60 TTL pulsed output for speed measurement is also standard with a 360-pulse option available for speeds below 7000rpm.

Other options available to further compliment this product include; torsionally stiff flexible couplings, parallel bored and keyed as necessary. The RTD version also includes user-configurable turndown function that has four range settings: 2.5:1, 3:1, 5:1 and 10:1.

The RTA/RTD series can be additionally be accompanied by any of our range of instrumentation to offer a complete system, supplied and calibrated from a single supplier.

Transducer Specialists...

APPLIED MEASUREMENTS LIMITED

3 MERCURY HOUSE - CALLEVA PARK - ALDERMASTON - BERKSHIRE - RG7 8PN - UK

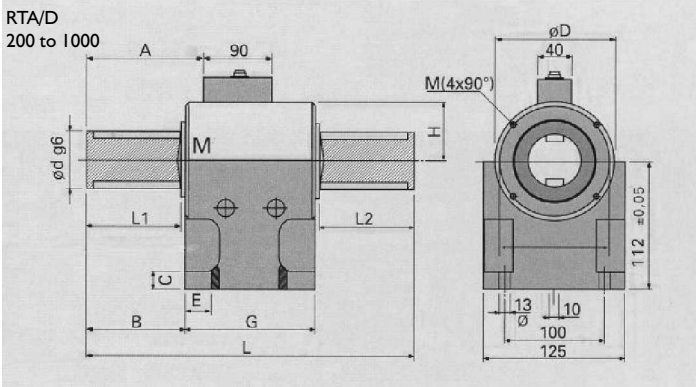
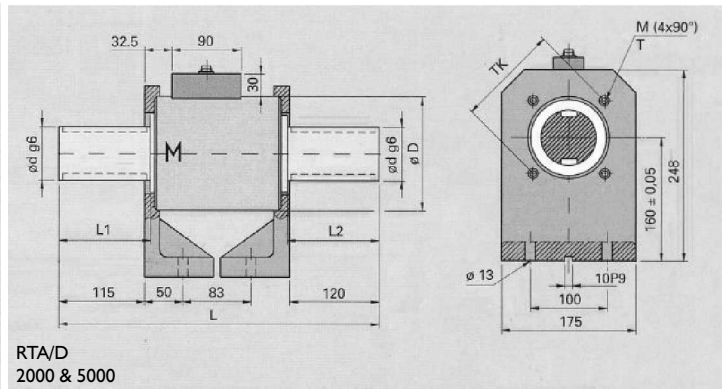
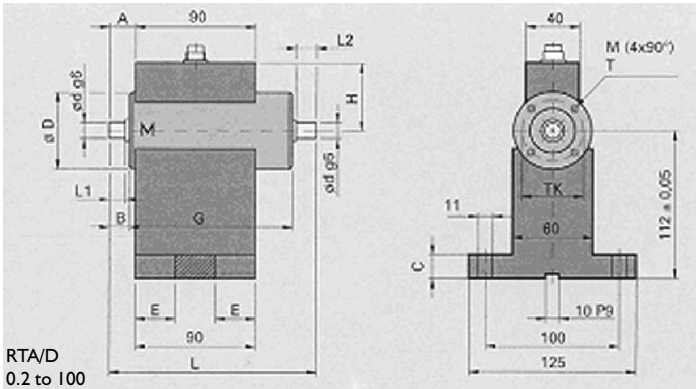
Tel: (+44) 0118 981 7339 Fax: (+44) 0118 981 9121 email: info@appmeas.co.uk Internet: www.appmeas.co.uk



SPECIFICATION

CHARACTERISTICS	RTA	RTD	UNITS
Maximum Torque Ranges:	0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000		Nm
Rated Output (FSO):	±5 (RS232 serial optional)		VDC
Excitation Voltage:	11-30		VDC
Power Input (approx.)	2.5		W
Safe Overload:	150		% FSO
Non-Linearity & Hysteresis:	<0.10 (RTD 0.2% on lower scale)		±% FSO
Repeatability:	<0.05		±% FSO
Temperature Range Compensated:	0 to +70		°C
Operating:	0 to +70		°C
Zero Temperature Shift:	<0.005		±%FSO/°C
Span Temperature Shift:	<0.01		±%FSO/°C
Frequency Bandwidth	1		kHz
Environmental Protection:	IP40		
Speed Output	60 TTL pulse (360-pulse optional below 7000rpm)		

MODEL RTA/RTD	RATED TORQUE Nm	STD MAX SPEED	OPTION MAX SPEED	STIFFNESS Nm/rad	MODEL RTA/RTD	RATED TORQUE Nm	STD MAX SPEED	OPTION MAX SPEED	STIFFNESS Nm/rad
0,2	0,2	20000	50000	10	50	50	12000	30000	9100
0,5	0,5	20000	50000	10	100	100	12000	30000	13500
1	1,0	20000	50000	180	200	200	8000	20000	60000
2	2,0	20000	50000	250	500	500	8000	20000	100000
5	5,0	20000	50000	450	1000	1000	8000	20000	135000
10	10	20000	50000	520	2000	2000	5000	10000	250000
20	20	20000	50000	580	5000	5000	5000	10000	720000



MODEL	L	L1	L2	d (g6)	D	TK
RTA/D 0,2 - 0,5	160,5	16	16	9	58	46
RTA/D 1,0	159	16	16	9	58	46
RTA/D 2 - 5	163	18	18	10	58	46
RTA/D 10 - 20	166	20	20	12	58	46
RTA/D 50 - 100	180	28	28	22	78	64
RTA/D 200-1000	267	60	61	42	98	87
RTA/D 2000-5000	418	120	120	70	148	132
MODEL	A	B	G	H	M	T
RTA/D 0,2 - 0,5	23,5	19	122	51	M5	10
RTA/D 1,0	22	17,5	122	51	M5	10
RTA/D 2 - 5	24	19,5	122	51	M5	10
RTA/D 10 - 20	25	20,5	122	51	M5	10
RTA/D 50 - 100	43,5	34	113	66	M6	12
RTA/D 200-1000	83,5	64,5	137	78	M6	12
RTA/D 2000-5000	-	-	-	-	M8	16

All dimensions in mm unless otherwise stated. Dimensions are the same for standard and high-speed units. Sizes up to and including the RT100 have keyless shafts requiring clamp-type couplings while larger sizes have twin metric keyways to BS4235.