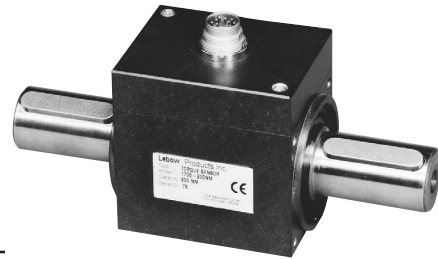


Model 1700 Series

Non-Contact/Amplified Output Torque Transducer



DESCRIPTION

These transducers are suitable for laboratory applications as well as industrial environments because of their compact size and multiple mounting options. The contactless transmission of supply voltage and measuring signal enables continuous operation with low maintenance.

FEATURES

- 0.02 Nm to 1500 Nm capacity range
- 0.25 % accuracy
- Built-in instrumentation amplifier (± 10 V output) (standard)
- Speed sensor or angle encoder option
- Contactless
- Compact size
- Wide application range

Model 1700 Series

PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Torque range	0.02, 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200, 300, 500, 1000, 1500 Nm

ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	0 °C to 60 °C [32 °F to 140 °F]
Temperature, compensated	5 °C to 45 °C [41 °F to 113 °F]
Temperature effect, zero	0.02 %/°K
Temperature effect, span	0.01 %/°K

ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Supply voltage	12 Vdc ±10 %
Current consumption	less than 200 mA
Rise time 1700-1703 1706	2 ms 1 ms (1 Hz)
Limit frequency (3dB)	200 Hz (none for 1706)
Voltage output	0 V to ±10 V
Internal resistance	100 ohm
Ripple	<100 mVpp
Overall accuracy	<0.25 %

MECHANICAL SPECIFICATIONS

Characteristic	Measure
Mechanical overload	200 % of rated output

SPEED SENSING (RPM) (S) OPTION

Characteristic	Measure
Speed max.	10000 RPM
Output	Open collector
Internal pull-up	100 kOhm (5 V level)
External pull-up	24 V max.
I max.	20 mA
Pulses/rev.	60

ANGLE (E) OPTION

Characteristic	Measure
Speed max.	3000 RPM
Pulses/rev.	360
Resolution	1°
Phase shift	Quadrature

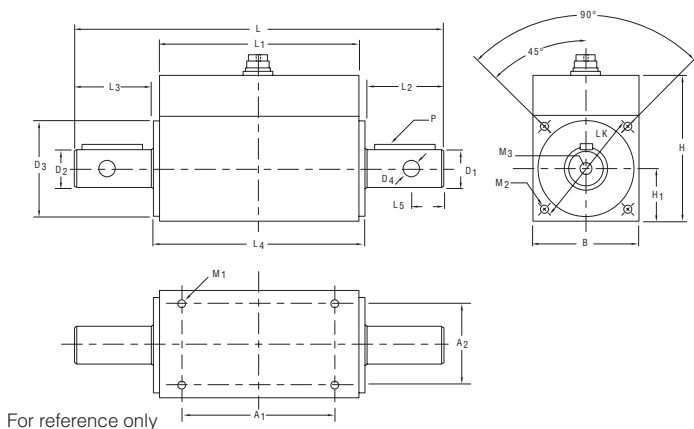
Model	Range (Nm)	Spring constant C (Nm/rad)	Mass moment of inertia (g/cm ²)	Maximum permissible axial load (N)	Maximum permissible radial load (N)
1701	0 to 0,1	80	1,84	16	16
1701	0 to 0,2	80	1,84	16	16
1701	0 to 0,5	100	1,85	20	20
1701	0 to 1	175	1,93	40	40
1701	0 to 2	248	2,11	77	77
1702	5	979	67,7	32	32
1702	10	2167	68,1	66	66
1702	20	4052	69,1	65	65
1703	50	17307	692,4	56	56
1703	100	30603	700,7	272	272
1703	200	55353	727,7	567	567
1703	300	68185	755,0	822	822
1706	500	265661	3977	749	749
1706	1000	396759	9586	1465	1465
1706	1500	460206	9828	2147	2147

Non-Contact/Amplified Output Torque Transducer

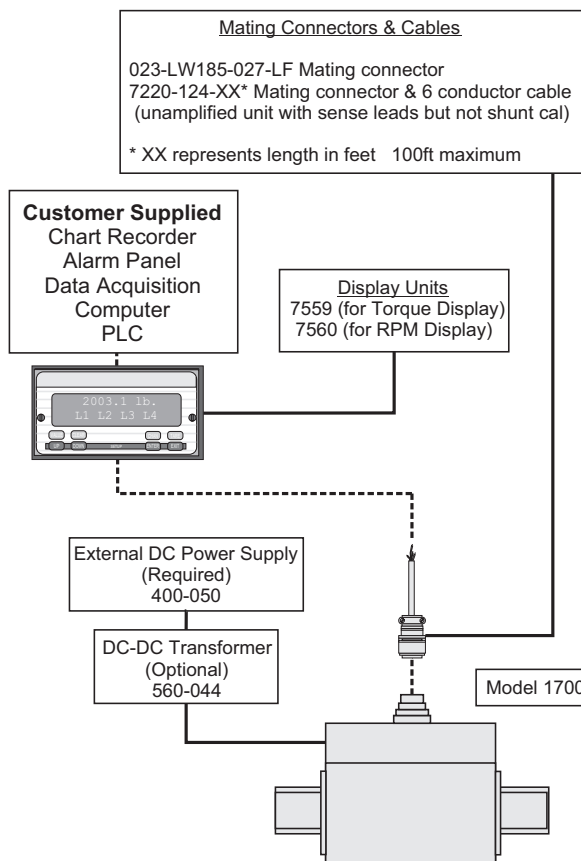
MOUNTING DIMENSIONS

	1700	1701	2 Nm	1702	1703	1706
Model dimensions	0.02/0.05 Nm	0.1/0.2/0.5/1 Nm	2 Nm	5/10/20 Nm	50/100/200/300 Nm	500/1000/1500 Nm
L mm	70	89	95	145	170	270
B mm	32	28	28	42	56	88
H mm	46	48,5	48,5	58	73	104
H1 mm	14	14	14	21	28	44
D1 g6 mm	Ø3	Ø5	Ø6	Ø15	Ø26	Ø45
D2 g6 mm	Ø3	Ø8	Ø8	Ø15	Ø26	Ø45
D3 -0,1 mm	Ø15	Ø27	Ø27	Ø38	Ø54	Ø80
D4 H7 mm	-	Ø2	Ø2.5	-	-	-
LK ±0,1 mm	*	Ø32	Ø32	Ø46	Ø65	Ø98
L1 mm	51	62	62	79	72	84
L2 mm	7.5	10	14	30	45	85
L3 mm	7.5	11	14	30	45	85
L4 mm	55	66	66	83	78	90
L5 -0,1 mm	-	4	5	-	-	-
A1 mm	38	40	40	60	42	46
A2 mm	24	22	22	32	40	70
M1	M2.5 x 5 deep	M3 x 5 deep	M3 x 5 deep	M3 x 6 deep	M4 x 8 deep	M6 x 12 deep
M2	M2.5 x 5 deep	M3 x 6 deep	M3 x 6 deep	M3 x 6 deep	M4 x 8 deep	M6 x 12 deep
M3	-	-	-	-	M8 x 15 deep	M10 x 20 deep
P (DIN6885)	-	-	-	2 x A5 x 5 x 25	2 x A8 x 7 x 40	4 x A14 x 9 x 80

* consult factory



TYPICAL SYSTEM DIAGRAM



Warranty. Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

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Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

For more information about Sensing and Control products, visit www.honeywell.com/sensing or call +1-815-235-6847
Email inquiries to info.sc@honeywell.com

WARNING

PERSONAL INJURY

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARNING

MISUSE OF DOCUMENTATION

- The information presented in this catalogue is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.