



转矩转角传感器

产品特点

- 可测量转矩或同时测量转矩与转角
- 电动工具的工业级检验，紧固件测试应用
- 内置智能芯片，简化设置与标定
- RS科技的紧固件，螺栓连接分析，工具校准与很多传统的应变仪都符合工业级标准
- 2 mV/V输出，配合分路校准

应用

- 电动工具的校准与性能验证
- 螺纹紧固件测试
- 螺栓连接故障诊断



RS科技是PCB® Load & Torque的一个分部。转矩转角传感器广泛的应用于紧固件的装配中，用于验证手动与电动工具的性能。经久耐用的应变传感器装配在手动或电动工具中，测量工具施加在紧固件上的实际装配扭矩。这种测量为切断工具动力源提供重要信息，用于制定合理装配技术规范。

转矩转角传感器也是螺纹紧固件转矩与轴力测试设备的关键部件。他们用于测量施加在螺纹紧固件上的扭矩，确定被测紧固件的转矩轴力性能。此数据还能用于计算紧固件的头下与螺纹摩擦系数。

RS科技还提供扭矩与力传感器的标定服务，标定实验室通过了A2LA的授权，位于密西根州的法明顿。

PCB® 提供无与伦比的技术支持和服务，包括免费的客服电话咨询、24小时传感器热线、遍布全球的分销网络。众多服务只为确保客户100%的满意。





转矩转角传感器

转矩		
型号	尺寸	量程
039030-50002	1/4-inch Hex	32 ozf-in (0.2 Nm)
039030-50021	1/4-inch Hex	20 lbf-in (2.3 Nm)
039025-50051	1/4-inch Square	50 lbf-in (5.7 Nm)
039030-50101	1/4-inch Hex	100 lbf-in (11.3 Nm)
039025-50101	1/4-inch Square	100 lbf-in (11.3 Nm)
039030-51015	1/4-inch Hex	132 lbf-in (15 Nm)
039025-51015	1/4-inch Square	132 lbf-in (15 Nm)
039037-50022	3/8-inch Square	200 lbf-in (22.6 Nm)
039037-50051	3/8-inch Square	50 lbf-ft (68 Nm)
039050-50101	1/2-inch Square	100 lbf-ft (136 Nm)
039050-51201	1/2-inch Square	148 lbf-ft (200 Nm)
039075-50301	3/4-inch Square	300 lbf-ft (406 Nm)
039075-51501	3/4-inch Square	369 lbf-ft (500 Nm)
039075-53601	3/4-inch Square	600 lbf-ft (814 Nm)
039001-53102	1-inch Square	1000 lbf-ft (1356 Nm)
039001-01302	1-inch Square	2213 lbf-ft (3000 Nm)
039001-53033	1-inch Square	3000 lbf-ft (4068 Nm)
039001-01103	1 1/2-in Square	7376 lbf-ft (10,000 Nm)
039025-00183	2 1/2-in Square	18,000 lbf-ft (24,000 Nm)

转矩与转角		
型号	尺寸	量程
039230-50002	1/4-inch Hex	32 ozf-in (0.23 Nm)
039230-50021	1/4-inch Hex	20 lbf-in (2.3 Nm)
039225-50051	1/4-inch Square	50 lbf-in (5.7 Nm)
039230-50101	1/4-inch Hex	100 lbf-in (11.3 Nm)
039225-50101	1/4-inch Square	100 lbf-in (11.3 Nm)
039230-51015	1/4-inch Hex	132 lbf-in (15 Nm)
039225-51015	1/4-inch Square	132 lbf-in (15 Nm)
039237-50022	3/8-inch Square	200 lbf-in (22.6 Nm)
039237-50051	3/8-inch Square	50 lbf-ft (68 Nm)
039250-50101	1/2-inch Square	100 lbf-ft (136 Nm)
039250-51201	1/2-inch Square	148 lbf-ft (200 Nm)
039275-50301	3/4-inch Square	300 lbf-ft (406 Nm)
039275-51501	3/4-inch Square	369 lbf-ft (500 Nm)
039275-53601	3/4-inch Square	600 lbf-ft (814 Nm)
039201-53102	1-inch Square	1000 lbf-ft (1356 Nm)
039201-01302	1-inch Square	2213 lbf-ft (3000 Nm)
039201-53302	1-inch Square	3000 lbf-ft (4068 Nm)
039301-01103	1 1/2-in Square	7376 lbf-ft (10,000 Nm)
039625-00183	2 1/2-in Square	18,000 lbf-ft (24,000 Nm)

尺寸 (in.)										
	1/4 inch Hex	1/4 inch Square	3/8 inch	1/2 inch	3/4 inch	1 inch (1000 lbf-ft)	1 inch (2213 lbf-ft)	1 inch (3000 lbf-ft)	1-1/2 inch	2-1/2 inch
总长度	4.25	3.23	3.23	3.23	4.13	4.00	4.42	4.33	5.50	9.48
Housing Length	2.30	2.30	2.30	2.30	2.69	2.00	2.42	2.44	2.63	4.62
Housing Height	2.00	2.00	2.00	2.00	2.94	3.63	3.63	4.74	4.88	7.25
Housing Width	1.50	1.50	1.50	1.50	2.50	3.25	3.25	3.88	4.26	6.50
Male Drive Length	0.98	0.29	0.42	0.58	0.84	1.06	1.06	1.12	1.60	2.25

规格参数

转矩

灵敏度	2 mV/V $\leq$ 0.25% FS
分流校准	Matched 2mV/V $\leq$ 0.25% with 43.575 kOhm Precision Resistor
可交换性	Matched for mV/V and Shunt Calibration $\leq$ 0.30% FS
非线性	$\leq$ 0.25% FS
迟滞	$\leq$ 0.25% FS
激励电压 [1]	10 VDC
桥路电阻	350 Ohm
补偿温度范围	+70 - +150°F +21 - +66°C
工作温度范围	0 - +200°F -18 - +93°C
接头	PT02H-12-10P

转角

编码器	1/4 inch, 3/8 inch and 1/2 inch Drive – 360 Poles 3/4 inch Drive – 540 Poles 1 inch and 1-1/2 inch Drive – 720 Poles 2-1/2 inch Drives – 900 Poles
输出	A-B Track 90 Degrees Phase Difference Flat Over Operating Speed Range
每圈脉冲数	1/4 inch, 3/8 inch, 1/2 inch Drive – 1440, 1/4 Degree 3/4 inch Drive – 2160, 1/6 Degree 1 inch and 1-1/2 inch Drive – 1/8 Degree 2-1/2 inch Drive – 1/10 Degree
输出电压	High 5.0V, Low 0.5V
所需电源	5 VDC @ 120 mA Maximum

推荐最大转速

1/4-inch Drive	5000
3/8-inch Drive	2500
1/2-inch Drive	2500
3/4-inch Drive	2000
1-inch Drive	1000
1 1/2-inch Drive	750
2 1/2-inch Drive	500

提供附件

校准电阻, A2LA 标定报告。

推荐附件

Model 920 Portable Digital Transducer	080920-01000
Model 962 Data Recorder	080962-01000
Cable Assembly, 10' Coiled, PT to DB15 Male	097000-34445
Mating Connector	PT06A-12-10S(SR)

备注

[1] Calibrated a 10 VDC, usable 5 to 20 VDC or VAC RMS

PCB LOAD & TORQUE

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■ ISO 9001 CERTIFIED ■ A2LA ACCREDITED to ISO 17025

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LT-RS-PC9000Series-0412

Printed in China

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