



BLRTSX-R/RA

**Brushless Rotary Torque & Angle Shaft Transducer
with ARCII Technology**

SPECIFICATIONS

| |
|--|
| Rated Output: $\pm 5\text{VDC} \pm 0.2\%$ FS |
| Excitation Recommended: 11VDC to 26VDC (pole secure) |
| Nonlinearity: $+ 0.2\%$ FS |
| Usable Temperature Range: 41 - 122° F |
| Mating Connector: Tuscel Series 581 (98-2030-09-12) |
| Safe Overload: 150% of Rated Output |

NOTE!

For optimum performance, it is recommended to utilize coupling in order to minimize extraneous load & moments due to misalignment. Contact customer service for information.

CERTIFIED

Supplied with NIST-Traceable Certification of Calibration

EZ PLUG & PLAY

BLRTSX-R/RA CABLE

Item #072001

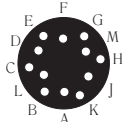
For connecting a BLRTSX-R/RA to the PTT or LTT.

BLRTSX-R PIN CONNECTION

- A = Ground (Shunt Calibration)
- C = Torque Output
- D = Ground (Torque Output)
- E = Ground (Supply)
- F = Supply, 11-26 VDC, 1 W
- K = Shunt Calibration
- M = Shield
- B/G/H/J/L = N/A

BLRTSX-RA PIN CONNECTION

- A = Ground (Shunt Calibration)
- B = Angle I Speed
- C = Torque Output
- D = Ground (Torque Output)
- E = Ground (Supply)
- F = +12V (Supply)
- G = Angle 2 (90° running after Angle 1)
- H = +5V (Angle Voltage)
- K = Shunt Calibration
- M = Shield
- J/L = N/A



KEY FEATURES

Accuracy $\pm 0.2\%$ of full scale.

Non-contact signal transfer and maintenance free.

Compact design & bi-directional.

Used in-line with rotating shafts or nutrunners for feed back control. Motor testings, high RPM Tools or rotational measurement applications.

RA Models:

- Angle output 2-channel quadrature
- 360 pulses per rotation
- Ability to measure the rotation angle of a fastener
- Joint rate & breakaway torque can be measured too

Features "ARCII" technology, an instant auto-recognition system of the BLRTSX-R/RA connected to the PTT or LTT.

| Model | Item # | Torque Ranges | |
|---------------|--------|-----------------|-------------------|
| | | American | S.I. |
| BLRTSX140z-R | 170260 | 25 - 140 ozf.in | 18 - 98.8 cN.m |
| BLRTSX140z-RA | 170261 | 25 - 140 ozf.in | 18 - 98.8 cN.m |
| BLRTSX18i-R | 170262 | 2 - 18 lbf.in | 22.5 - 203 cN.m |
| BLRTSX18i-RA | 170263 | 2 - 18 lbf.in | 22.5 - 203 cN.m |
| BLRTSX44i-R | 170264 | 4 - 44 lbf.in | 45.2 - 497 cN.m |
| BLRTSX44i-RA | 170265 | 4 - 44 lbf.in | 45.2 - 497 cN.m |
| BLRTSX89i-R | 170266 | 10 - 89 lbf.in | 113 - 1005 cN.m |
| BLRTSX89i-RA | 170267 | 10 - 89 lbf.in | 113 - 1005 cN.m |
| BLRTSX177i-R | 170268 | 18 - 177 lbf.in | 203.4 - 2000 cN.m |
| BLRTSX177i-RA | 170269 | 18 - 177 lbf.in | 203.4 - 2000 cN.m |
| BLRTSX36F-R | 170270 | 4 - 36 lbf.ft | 5 - 50 N.m |
| BLRTSX36F-RA | 170271 | 4 - 36 lbf.ft | 5 - 50 N.m |
| BLRTSX73F-RA | 170272 | 8 - 73 lbf.ft | 10 - 100 N.m |
| BLRTSX148F-RA | 170273 | 15 - 148 lbf.ft | 20 - 200 N.m |
| BLRTSX368F-RA | 170274 | 37 - 368 lbf.ft | 50 - 500 N.m |
| BLRTSX738F-RA | 170275 | 74 - 738 lbf.ft | 100 - 1000 N.m |

R models are Torque only transducers.

RA models are Torque & Angle transducers.

* With feather keyways (2x180°)

DIMENSIONS

| Model | A | B | C | D | E | F | G | N |
|---------------|-----|----|----|----|----|------|----|-------|
| BLRTSX140z-R | 92 | 28 | 52 | 10 | 16 | 17 | 58 | Shaft |
| BLRTSX140z-RA | 92 | 28 | 52 | 10 | 16 | 17 | 58 | Shaft |
| BLRTSX18i-R | 92 | 28 | 52 | 10 | 16 | 17 | 58 | Shaft |
| BLRTSX18i-RA | 92 | 28 | 52 | 10 | 16 | 17 | 58 | Shaft |
| BLRTSX44i-R | 92 | 28 | 52 | 10 | 16 | 17 | 58 | Shaft |
| BLRTSX44i-RA | 92 | 28 | 52 | 10 | 16 | 17 | 58 | Shaft |
| BLRTSX89i-R | 92 | 28 | 52 | 10 | 16 | 17 | 58 | Shaft |
| BLRTSX89i-RA | 92 | 28 | 52 | 10 | 16 | 17 | 58 | Shaft |
| BLRTSX177i-R | 108 | 38 | 58 | 19 | 30 | 32 | 44 | * |
| BLRTSX177i-RA | 104 | 38 | 58 | 16 | 20 | 23 | 59 | * |
| BLRTSX36F-R | 108 | 38 | 58 | 19 | 30 | 32 | 44 | * |
| BLRTSX36F-RA | 104 | 38 | 58 | 16 | 20 | 23 | 59 | * |
| BLRTSX73F-RA | 125 | 58 | 76 | 28 | 27 | 30.5 | 64 | * |
| BLRTSX148F-RA | 125 | 58 | 76 | 28 | 27 | 30.5 | 64 | * |
| BLRTSX368F-RA | 197 | 73 | 90 | 42 | 58 | 62 | 73 | * |
| BLRTSX738F-RA | 197 | 73 | 90 | 42 | 58 | 62 | 73 | * |

