

Model TR3 - Heavy Duty Tru-Trac™

Model TR3 Tru-Trac™ Specifications

Electrical

- Input Voltage.....4.75 to 28 VDC max for temperatures up to 85° C
4.75 to 24 VDC for temperatures between 85° C to 100° C
- Input Current.....100 mA max (85 mA typical) with no output load
- Output Format.....Incremental- Two square waves in quadrature with channel A leading B for clockwise shaft rotation, as viewed from the wheel side. See *Waveform Diagrams* below.
- Output Types.....Open Collector- 20 mA max per channel
Push-Pull- 20 mA max per channel
Pull-Up- Open collector with 2.2K ohm Pull-Up
20mA max per channel
Line Driver- 20 mA max per channel (Meets RS 422 at 5 VDC supply)
- IndexOnce per revolution.
0190 to 10,000 CPR: Gated to output A
0001 to 0189 CPR: Ungated
See *Waveform Diagrams* below.
- Max. FrequencyStandard Frequency Response is
200 kHz for CPR 1 to 2540
500 kHz for CPR 2541 to 5000
1 MHz for CPR 5001 to 10,000
Extended Frequency Response (optional) is 300 kHz for CPR 2000, 2048, 2500, and 2540
- Noise ImmunityTested to BS EN61000-6-2; BS EN50081-2;
BS EN61000-4-2; BS EN61000-4-3;
BS EN61000-4-6, BS EN500811
- Symmetry.....180° (±18°) electrical
- Quad. Phasing.....90° (±22.5°) electrical
- Min. Edge Sep.....67.5° electrical
- Accuracy.....Within 0.017° mechanical or 1 arc-minute from true position. (for CPR>189)

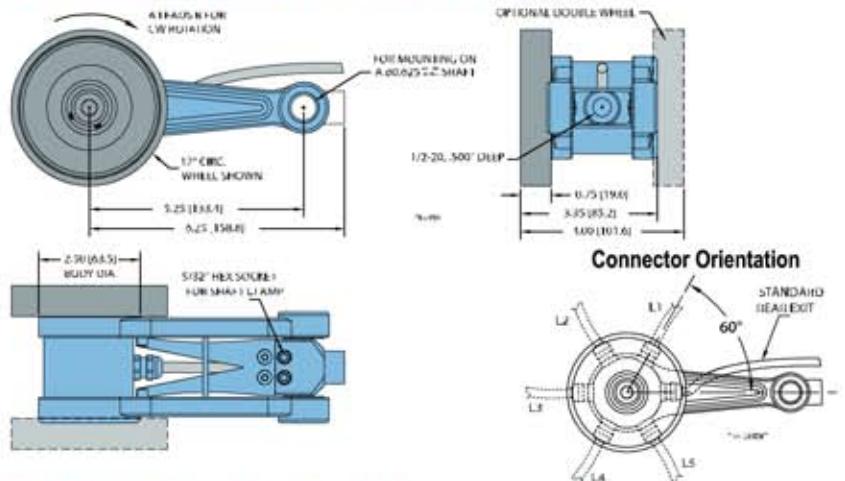
Mechanical

- Max Linear Speed...3000 FPM not to exceed a maximum shaft speed of 6000 RPM.
- Shaft MaterialStainless Steel
- Shaft Size.....ø0.375"
- Radial Shaft Load ..Up to 10 lb max. Controlled by spring torsion feature
- Starting Torque.....1.0 oz-in typical with IP50 seal
2.5 oz-in typical with IP66 seal and single wheel
4.0 oz-in typical with IP66 seal and dual wheel
- Electrical Conn.....18" cable (foil and braid shield, 24 AWG conductors)
- Mounting5/8" diameter thru hole with clamp
- Housing.....Powder coated aluminum
- Wheel Width.....3/4" standard
- Weight.....2.5 lb typical with single wheel
3.0 lb typical with dual wheel

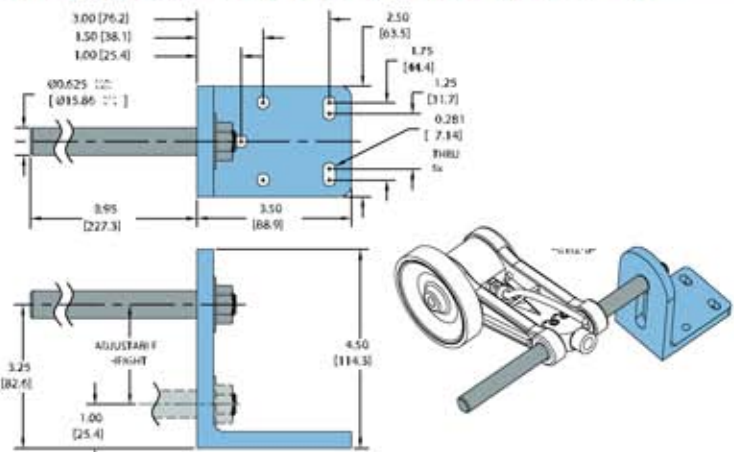
Environmental

- Operating Temp.....-20° to +85° C for standard models
-40° to +85° C for low temperature option
-20° to +100° C for high temperature option
- Storage Temp.....-25° to +85° C
- Humidity98% RH non-condensing
- Vibration.....10 g @ 58 to 500 Hz
- Shock.....80 g @ 11 ms duration
- Sealing.....IP50 standard; IP66 available

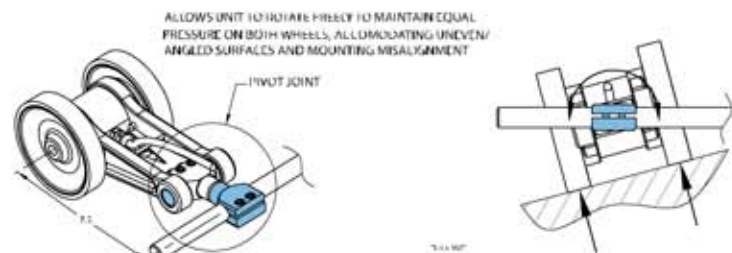
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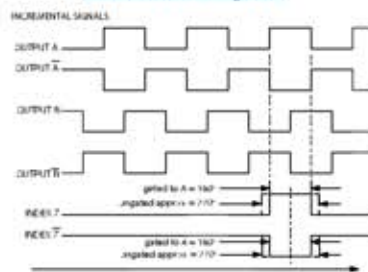
Model TR3 Mounting Bracket (Order #176389-01)



Model TR3 Double Wheel Pivot (Order #176391-01)



Waveform Diagram



Clockwise rotation as viewed from the single wheel side.
Note: All degree references are electrical degrees.
Waveform shown with optional complementary signals A, B, Z for HV and OD outputs only.

Wiring Table

Function	Cable Wire Color
Com	Black
+VDC	White
A	Brown
A'	Yellow
B	Red
B'	Green
Z	Orange
Z'	Blue
Shield	Bare *

* CE Option: Cable Shield (bare wire) is connected to internal case.