

Model TR3 -Heavy Duty Tru-Trac Encoder and Spring Loaded Measuring Wheel



Features

- Heavy Duty Encoder And Measuring Wheel Solution Integrated Into One Industrial Strength Unit
- Spring Loaded Torsion Arm Makes Wheel Pressure Adjustments So Easy
- Easily Installed In A Vertical, Horizontal, or Upside-Down Orientation
- Operates Over A Variety Of Surfaces At Speeds Up To 1000M Per Minute
- Integrated Module Simplifies Your System Design, Reducing Cost

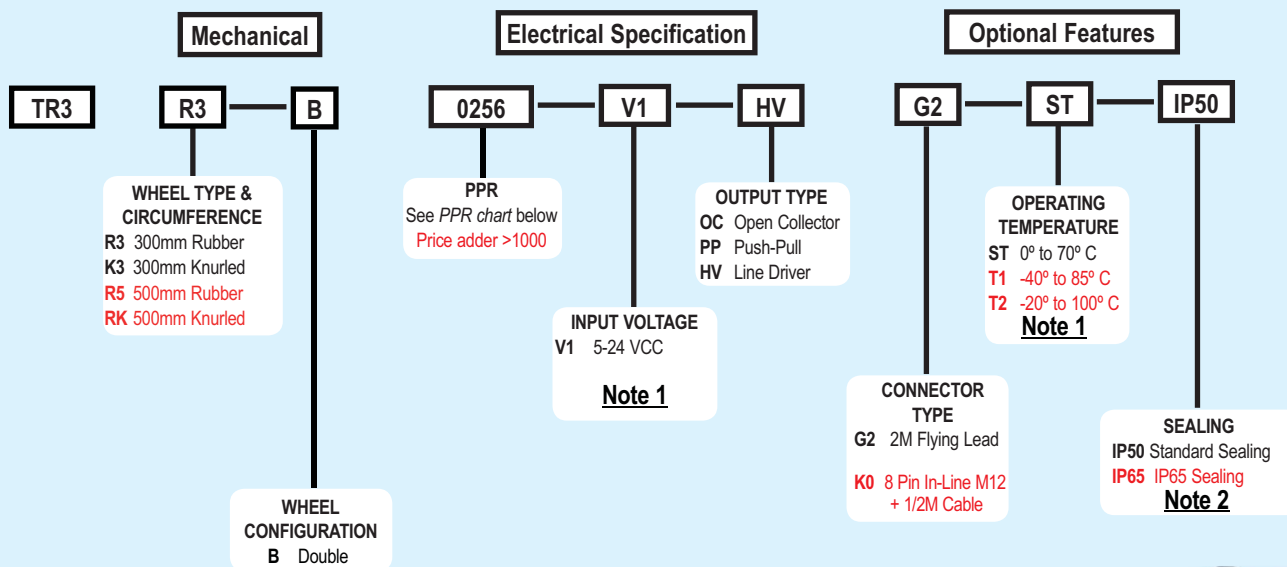
The NEW TR3 Heavy Duty Tru-Trac by EPC / BECo is an integrated heavy duty encoder and spring loaded measuring wheel assembly all in one, easy-to-use, compact unit. Available in a single, or optional dual-wheel format, the TR3 Heavy Duty Tru-Trac is a versatile solution for tracking velocity, position or distance over a wide variety of surfaces in almost any industrial application. Its spring loaded torsion arm provides a simple-to-adjust torsion load, allowing the TR3 to be mounted in any orientation, even upside-down. The TR3 housing is an all metal work horse, specifically designed to take on your toughest application environments at operating speeds up to 1000M per minute. Just one look and it's easy to see the TR3 is the ideal solution for countless applications.

Common Applications

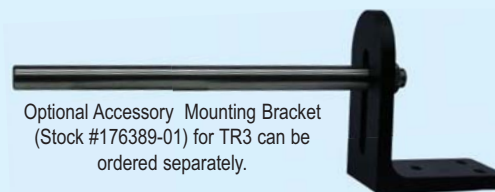
Corrugated, Converting, Metal Roll Forming, Paper Monitoring, Glue Dispensing, Linear Material Monitoring, Conveyor Systems, Printing, Labeling, Mining, Construction

Model TR3-Heavy Duty Tru-Trac Ordering Guide

Red type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.



For specification assistance call Customer Service at +44 (0)1978 262100



Model TR3 PPR Options

0200	0250	0254	0256	0300	0360	0400
0500	0512	0600	0720	0800	0840	1000
1024	1200	1220	1250	1270	1500	1800
2000	2048	2500	2540	3000	4096	5000
6000	8192	10000				

NOTES:

- 1 With input voltage higher than 16 VCC, The operating temperature is limited to 85°C.
- 2 Increased torque with IP65 option.

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**BRITISH
ENCODER**
PRODUCTS COMPANY



Model TR3 Specifications

Electrical

Input Voltage 4.75 to 28 VCC max for temperatures up to 85° C
4.75 to 24 VCC for temperatures between 85° C to 100° C

Input Current 100 mA max (65 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
Line Driver- 20 mA max per channel (Meets RS 422 at 5 VCC supply)

Index Once per revolution.
0200 to 10000 PPR: Gated to output A
See *Waveform Diagrams* below.

Freq. Response 200 kHz standard (up to 1MHz)

Noise Immunity Tested 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.

Mechanical

Max Shaft Speed Not to exceed a maximum shaft speed of 6000 RPM

Shaft Material Stainless Steel

Shaft Tolerance 9.525 g6

Radial Shaft Load .. 5kg max. Controlled by spring torsion.

Starting Torque 7.06 x 10⁻³ Nm for IP50
2.82 x 10⁻² Nm for IP65 seal

Electrical Conn. 2M cable (foil and braid shield, 24 AWG conductors), 8-pin M12 (12 mm) in-line connector with 0.5M cable (braid shield)

Mounting 15.875mm diameter thru hole with clamp

Housing Powder coated aluminium

Wheel Width Up to 20mm

Weight 1.40Kg typical with dual wheel

Environmental

Operating Temp -0° to +70° 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

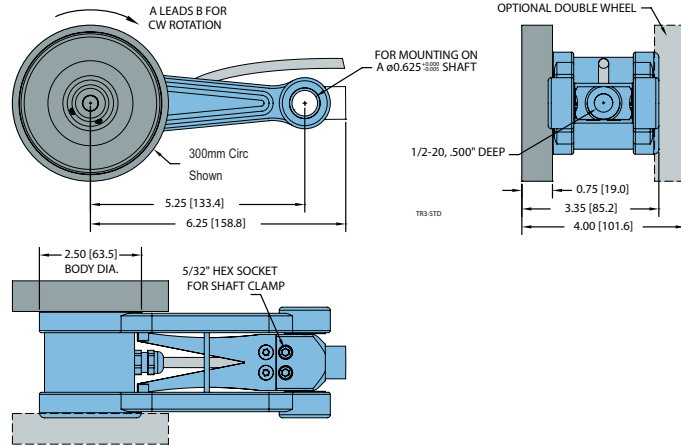
Humidity 98% RH non-condensing

Vibration 10 g @ 58 to 500 Hz

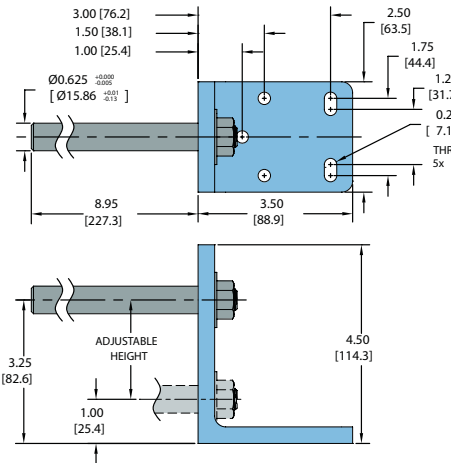
Shock 80 g @ 11 ms duration

Sealing IP50 standard; IP65 available

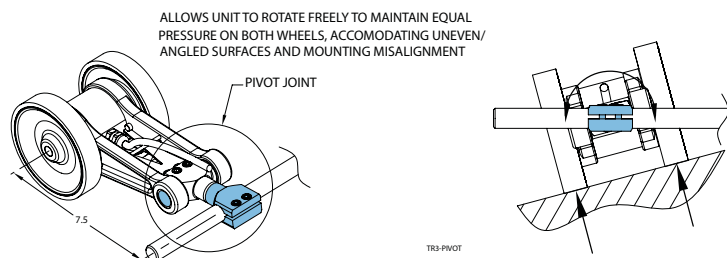
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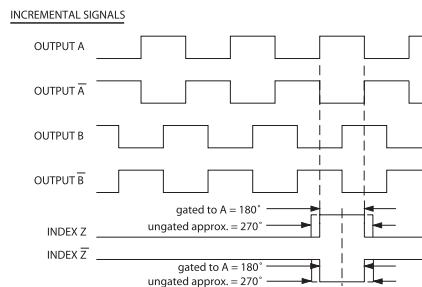
Model TR3 Mounting Bracket (Order #176389-01)



Model TR3 Wheel Pivot (Order #176391-01)



Waveform Diagrams



Wiring Table

Function	Cable Wire Color	8-pin M12**
Com	Black	7
+VDC	White	2
A	Brown	1
A'	Yellow	3
B	Red	4
B'	Green	5
Z	Orange	6
Z'	Blue	8
Shield	Bare *	--