



EMWS

Encoder with Measuring Wheel Solution

Designed for light to medium duty sensing applications, the Model MWS encoder with measuring wheel is compact in size and easy-to-use. It features a built-in spring-loaded torsion arm that provides a simple-to adjust torsion load, allowing the unit to be mounted in almost any orientation, including upside down. Using one of two 6" measuring wheels, the MWS can be used on almost any surface, while operating at speeds up to 3000 feet per minute. The housing is a durable, conductive composite material that will eliminate static build up. Whether you need to measure speed, position, or distances, the Model MWS is the ideal solution. For other pulse rates and/or wiring configurations, contact the factory for further details.



- COMPACT SIZE**
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- QUADRATURE OUTPUT**
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- BUILT-IN SPRING TENSIONING**
- VERTICAL, HORIZONTAL, OR**
- UPSIDE-DOWN MOUNTING**
-
- REDUCES INSTALLATION TIME**



02/28/05



Cut To Length!



The KEP MINIcontrol (MRT) controller and Tru-trac encoder are the perfect combination for Cut-To-Length applications. The MRT is easily programmed from the front keypad making setpoint entry a snap.

Controller
MINIcontrol (MRTA3)
 Pulse Input
 DC Output
 Input Scaling
 Relay Outputs

Encoder
Tru-Trac-x
 Pulse Output
 DC Input

Position Monitor!



If you're looking for a quick and simple position monitoring system... Look no further! The 520 display along with the Tru-Trac with quadrature output provide a simple solution. The compact size of both units make for easy mounting and setup!

Display
K520
 Quad. Pulse Input
 DC Input

Encoder
Tru-Trac-x
 Quad. Pulse Output
 DC Input

Speed Monitor!

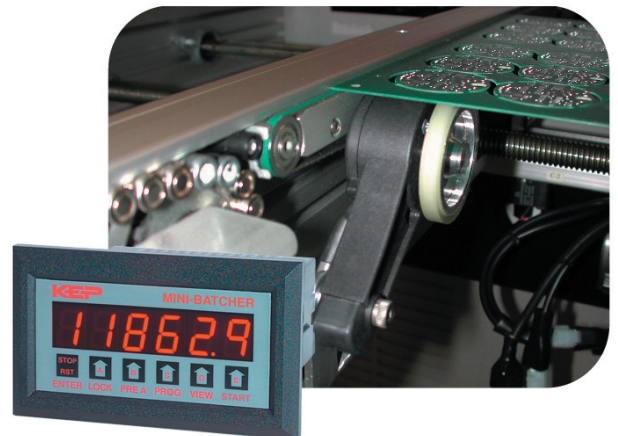


The KEP TR-545 and Tru-trac encoder are a great match for speed monitoring applications. The large LED display makes the speed easy to read from a distance. The Tru-trac is easy to mount in almost any position.

Display
TR-545
 Pulse Input
 DC Output
 Input Scaling

Encoder
Tru-Trac-x
 Pulse Output
 DC Input

Batch Control!



Batch counting and control has never been easier now that the MINIBatcher (MB2) can be paired with the Tru-trac encoder. Simply key in the batch amount, Press "start" and the batch process is up and running!

Controller
MB2A3
 Pulse Input
 DC Output
 Input Scaling
 Relay Outputs

Encoder
Tru-Trac-x
 Pulse Output
 DC Input

ELECTRICAL SPECIFICATIONS

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 (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.

OUTPUT TYPE:

Open Collector; 20 mA max per channel

FREQUENCY RESPONSE:

200 KHz standard

NOISE IMMUNITY:

Tested to BS EN61000-6-2; BS EN50081-2; BSEN61000-4-2; BS EN61000-4-3; BS EN61000-4-6, BS EN500811

SYMMETRY:

180° (±18°) electrical

QUADRATURE:

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)

ENVIRONMENTAL SPECIFICATIONS

OPERATING TEMPERATURE:

-20° to +85° C for standard models; -40° to +85° C for low temperature option; -20° to +100° C for high temperature option

STORAGE TEMPERATURE:

-25o to +85o C

HUMIDITY:

98% RH non-condensing

VIBRATION:

10 g @ 58 to 500 Hz

SHOCK:

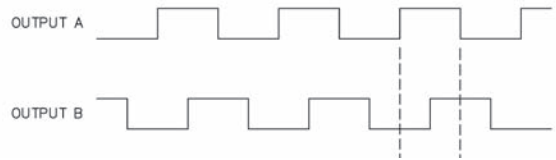
80 g @ 11 msec duration

SEALING:

IP50 standard; IP65 available

WAVEFORM DIAGRAM

INCREMENTAL SIGNALS



MECHANICAL SPECIFICATIONS

MAXIMUM MECHANICAL SPEED:

6000 RPM. Higher speeds may be achievable, contact the factory.

SHAFT MATERIAL:

Stainless Steel

SHAFT TOLERANCE:

+0.0000/-0.0004" (+0.000/-0.010 mm)

RADIAL SHAFT LOAD: 5 lb. max. Rated load of 2 to 3 lb for bearing life of 1.2 x 10¹⁰ revolutions

AXIAL SHAFT LOAD:

5 lb. max. Rated load of 2 to 3 lb for bearing life of 1.2 x 10¹⁰ revolutions

STARTING TORQUE:

IP50 0.05 oz-in; IP65 0.4 oz-in

ELECTRICAL CONNECTION:

2 meter Cable, (foil and braid shield, 24 AWG conductors). Drain wire internally connected.

MOUNTING:

Pivot Shaft can be mounted from either side of the housing and is field reversible

HOUSING:

Stainless steel fibers in a high temperature nylon composite

OPERATING TEMPERATURE:

-20o to +85o C



WEIGHT:

5 oz typical

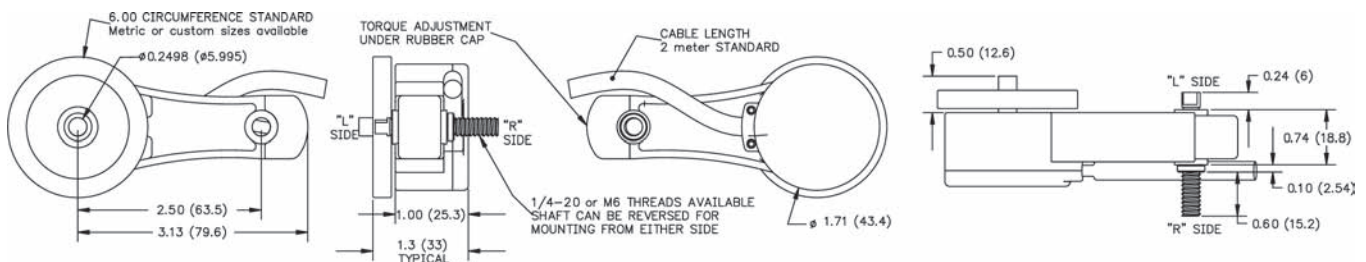
WIRE DESIGNATION

CABLE WIRE COLOR	FUNCTION
Black	Com
Red	+VDC
White	A
Green	B
Bare	Shield

ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PPR	PART NUMBER
EMWS	Miniature Encoder with Measuring Wheel and Quadrature Output	250	EMWS-250
		500	EMWS-500
		1000	EMWS-1000
	Urethane (6" Circumference) Wheel	-	161360
	Knurled (6" Circumference) Wheel	-	161401
	EMWS Mounting Bracket allows for a variety of mounting positions and makes installation even easier.	-	140104

DIMENSIONS



Note: All dimensions are in inches (mm) with a tolerance of +0.005" or +0.01" unless otherwise specified.