MODEL TBP138

Compact Panel Mount Trackball

Mechanical

Weight: 3.4 oz, nom

Ball Diameter: 35mm (1.375")

Housing Size: 2.34" square

Tracking Force: .4 oz, typ

Mounting Surface: 45° MAX from horizontal

Electrical

Resolution: 120 cycles per one full revolution of ball

Supply Voltage: +5 VDC @ 10mA

Output : 2 channels in quadrature (TTL/CMOS)

Mouse Compatibility: Microsoft mouse

Interface Connector:

9-Pin single row (Molex connector P/N 14-60-1096 or equivalent, mates with Molex P/N 22-05-3091 or equivalent)

16-pin dual row (Thomas & Betts connector P/N 620-1601M or equivalent)

Environmental

Temperature:
0° to +40°C standard, -20° to +60° C extended

Vibration: 5 to 100 Hz @ 5 G's

Shock: 15 G's 11 msec duration
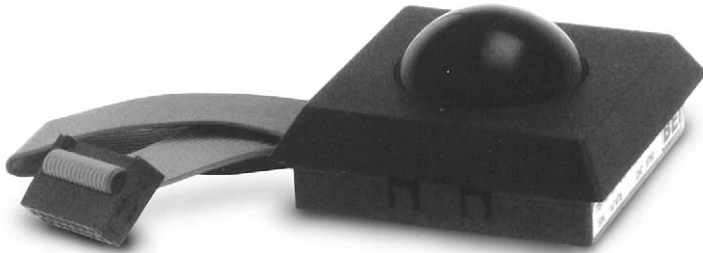
Even with its compact size and easy panel mount configuration, the TBP138 Trackball Series offers the ruggedness and fine control for which all BEI trackballs are recognized. Its easy snap-in mount makes it simple to incorporate high-performance cursor control into small compact packages such as portable defibrillators, medical consoles, graphic keyboards and more.

Built to provide performance and resolution to meet your exacting cursor control requirements, the TBP138 incorporates two accurate encoders as well as a sizable 35mm ball for satisfying tactile feedback. The trackball's 3-point stainless steel ball suspension is designed for mechanical precision and longevity. An optional teflon ball seal is also available for added protection from dust, ultrasound gels and industrial oils.

The TBP138's small size and low profile make it ideal for integration into either a keyboard or console. Built-in locking tabs on either side of the housing facilitate snap-in-place installation into a 2.115" sq. opening. The trackball's low power consumption also makes it ideal for portable or battery-powered systems.

TBP138 Compact Ordering Options

For assistance, call 800-350-2727

Use this diagram, working left to right to construct your model number.
Example: TBP138-120-AB-6-PR9 *(one possible configuration of the TBP3138 Compact)*

TBP138 — ☐ — ☐ — ☐ — ☐ — ☐

HOUSING:
TBP = Trackball, panel mount
138 = 1.38" ball diameter

RESOLUTION:
Cycles per turn
120 = 120 CPT

OUTPUT TYPE:
AB = Dual channel in quadrature
MS = Microsoft mouse compatible

CABLE LENGTH:
Specify in inches
(i.e. 6 = 6inches)

CONNECTOR:
PR9 = 9-pin single row receptacle
PR16 = 16-pin dual row receptacle

SPECIAL FEATURES:
Blank = None
S = Special
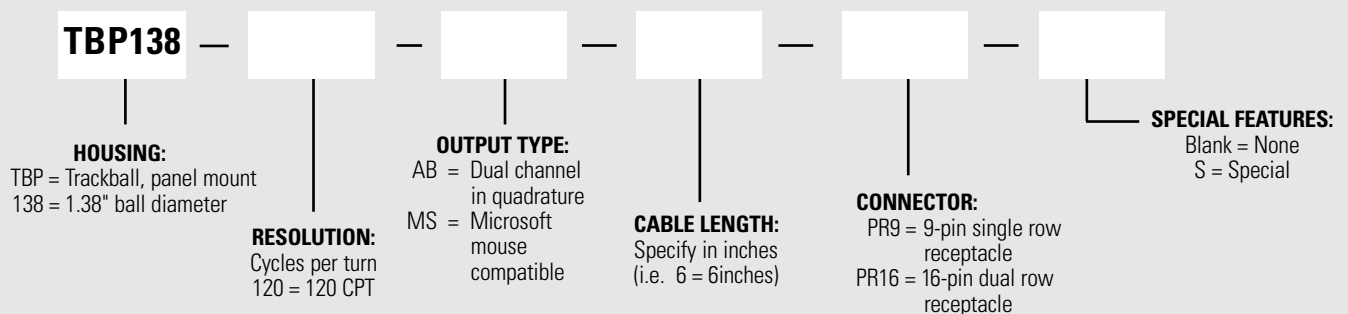
Table 1 TBP138 Connector Pinout Functions

PIN #	AB FUNCTION	MS FUNCTION
1	+5 VDC	TXD
2	NC	NC
3	NC	RXD
4	Y2 (-Y AXIS)	NC
5	NC	DT
6	Y1 (+Y AXIS)	NC
7	X2 (-X AXIS)	CIRCUIT GROUND
8	X1 (+X AXIS)	NC
9	GROUND	SWITCH GROUND
10		NC
11		RTS
12		NC
13		SWITCH INPUT – LEFT
14		NC
15		SWITCH INPUT – MIDDLE
16		SWITCH INPUT – RIGHT

TBP138 Compact Dimensions

C16 CONNNECTOR

PIN 1 FARSIDE
PIN 2 FARSIDE

L

2.34 (TYP)
Y2 (–Y)

9

X1 (+X)

X2 (–X)

1   C09 CONNNECTOR

Y1 (+Y)

MOLEX CONNECTOR 14–60–1096 OR EQUIV. TO MATE WITH MOLEX PN 22–05–3091 OR EQUIV. (7478 SERIES)

Ø 1.375 BALL

.41

.34

.40 (REF)

0.52 COMPONENT PROTRUSION

LOCK TABS 2X (BOTH SIDES) TO RETAIN TRACKBALL IN A 2.10 – 2.13 SQ. OPENING OF A .093 THICK PANEL

2.08 (TYP)