

R55

Specification

Mechanical

Weight	650 grams
Ball	Thermoset Phenolic, 57 mm, 2 ¼"
Tracking Force	15 grams Nominal Continuous – No seal (IP40)
Ball load	200N Maximum downward pressure (20 Kg) at 20°C
Ball rotation	Continuous and reversible – any direction
Ball speed	200 RPM max
Housing material	ABS
Transducer	Photo – optical encoders with LED
Mounting Position	Horizontal to 30°

Electrical

Standard output connector	2-meter Screened lead to PS/2 6 way Mini Din
Converter	PS/2 to converter block to RS232 9 pin 'D'
Resolution	200 pulses per ball revolution (Other options available upon request)
Switches	3 switches Left, Middle, and Right.
Supply Voltage (PS/2)	5 V DC
(RS232)	+/- 12V DC
Supply current	16 mA typical

Environmental

Operating temperature	-5°C to +70°C
Storage temperature	-10°C to + 85 °C
Humidity	30% min, 95% max, non condensing
Vibration	5G, 2-5 KHz any plane
Shock	50G's – duration 11mS
Lifetime	> 10 million ball revolutions

Standard Product Options

A Top Plate Sealing 1 No seal in top plate IP40	B Electrical Output 0 Quadrature 5 USB only 7 Multi Protocol interface PS/2, RS232 (MS & Microsoft), Sun, DEC 8 Sun Systems	C Integrated Switches 3 Three switches
D Mounting 3 Free Standing	E Top Plate / Body Style 3 Moulded Case Cream	F Ball Colour 0 Black

Product Ordering Code R55 – ABCDEF. Please fill in letters A – F using numbers from the table above

Configuration

Dip Switch Configuration			
Switch	Function	Off	On
1	No Function		
2	Baud rate select	See table	See table
3	Baud rate select	See table	See table
4	Protocol select	See table	See table
5	Middle button latch	Latch off	Latch on
6	Cursor tracking rate	Linear	Ballistic (Exponential)
7	Protocol select	See table	See table
8	TTL output levels	Standard output	Output at TTL level

Default factory settings – Switches: Switch 7 on, all other switches off

Baud rate configuration		
Baud rate	Switch 2	Switch 3
1200	Off	Off
2400	Off	On
4800	On	Off
9600	On	On

Note: Baud rate must only be changed while the device is powered off

Protocol configuration			
Protocol	Switch 4	Switch 7	Switch 8
Auto detect – PS/2, Mouse systems	Off	Off	Off
Sun systems	On	Off	On
Auto detect – Microsoft (RS232), PS/2	Off	On	Off
Mouse systems	On	Off	Off
DEC	On	On	On

Note: Protocol must only be changed while the device is powered off