






# Technical Specifications

					
Technical data	Rugby 610	Rugby 620	Rugby 640	Rugby 670	Rugby 680
Dimensions	212×239×192 mm				
Weight	2.38 kg / 5.2 lbs	2.38 kg / 5.2 lbs	2.56 kg / 5.6 lbs	2.56 kg / 5.6 lbs	2.56 kg / 5.6 lbs
Functionality	Self-levelling horizontal, one button laser	Self-levelling horizontal & manual slope in one axis	Self-levelling horizontal, vertical, 90° and manual slope in dual axis	Self-levelling horizontal, dial-in grade in single axis	Self-levelling horizontal, dial-in grade in dual axis
Product type	General construction	General construction	Multipurpose / H.V.	Semi-auto grade	Semi-auto grade
Laser class	Class 2				
Laser type	635 nm (visible)				
Plumb up	-	-	Yes	-	-
Measured at 20°C (horizontal / vertical)	± 2.2 mm at 30 m (± 3/32" at 100 ft)		± 1.5 mm at 30 m (± 1/16" at 100 ft)		
Grade range	-	-	-	± 8% SG	± 8% DG
Smart Slope	-	-	-	Yes	Yes
Rotation - RPS	10	10	0, 2, 5, 10	10	10
Scanning - degrees	-	-	10, 45, 90	-	-
Scan90	-	-	Yes	-	-
Beam down	-	-	Yes	-	-
Sleep mode	-	-	Yes	-	-
Range (diameter) - Basic	500 m (1.650 ft)	600 m (2.000 ft)	500 m (1.650 ft)	600 m (2.000 ft)	600 m (2.000 ft)
Range (diameter) - RE140/160	1.100 m (3.600 ft)				
RF remote control (diameter)	-	-	200 m (650 ft)	-	-
Li-Ion batt. / hours operation	40+	40+	40+	40+	40+
Alkaline batt. / hours operation	60+	60+	60+	60+	60+
Working temperature range	-10 to +50 °C (14 to +122 °F)	-20 to +50 °C (-4 to +122 °F)	-20 to +50 °C (-4 to +122 °F)	-20 to +50 °C (-4 to +122 °F)	-20 to +50 °C (-4 to +122 °F)
Storage temperature range	-20 to +70 °C (-4 to +158 °F)	-40 to +70 °C (-40 to +158 °F)	-40 to +70 °C (-40 to +158 °F)	-40 to +70 °C (-40 to +158 °F)	-40 to +70 °C (-40 to +158 °F)
Seal (both excluding and including battery pack)	IP67	IP67	IP67	IP67	IP67
Warranty	3 years no cost (see PROTECT by Leica Geosystems policy for life time coverage)				

## Laser Receivers

			
Technical data	Rod Eye Basic	Rod Eye 140 Classic	Rod Eye 160 Digital
Working diameter	600 m (2.000 ft)	1.350 m (4.430 ft)	1.350 m (4.430 ft)
Extended detection window	36 mm / 1.4 in	120 mm / 5 in	120 mm / 5 in
Numeric readout height	-	-	90 mm / 3.5 in
Detectable spectrum	600 nm to 800 nm	600 nm to 800 nm	600 nm to 800 nm
Detection accuracies			
Very fine	-	-	± 0.5 mm / ± 0.02 in
Fine	± 1.0 mm / ± 0.04 in	± 1.0 mm / ± 0.04 in	± 1.0 mm / ± 0.04 in
Medium	-	± 2.0 mm / ± 0.08 in	± 2.0 mm / ± 0.08 in
Coarse	± 3.0 mm / ± 0.12 in	± 3.0 mm / ± 0.12 in	± 3.0 mm / ± 0.12 in
Very coarse	-	-	± 5.0 mm / ± 0.20 in