Leica Rugby 600 Series

Data sheet



Leica Rugby 600 series rotating lasers are designed to achieve any task in all construction applications. They level, align and square quicker than ever before, eliminating costly errors and downtime. These lasers are built to last on tough construction sites with a durable housing and IP67 protection, making them the most rugged and trusted choice for any job.

- Setting foundations and footings has never been more efficient. The Rugby 600 series is fit for any interior and exterior levelling, aligning and squaring application - concrete forming, pad placement and framework levelling.
- Rugby 640G provides outstanding visibility for indoor and outdoor applications with new green beam laser technology
- Rugby 680 provides a semi automatic grade capability in both axis up to 8%.
- Detect the laser beam in any conditions and at any distances with the Leica Rod Eye receiver range – from a convenient offset reading with Rod Eye 120G/120 to working at long distances with Rod Eye 140/160
- Effortlessly perform slope and plumb applications, move scan lines, change rotating speed, and save on battery power whenever needed (Rugby 640/640G) using the Leica RC 400 remote control with increased functionality and application flexibility



- when it has to be **right**



Leica Rugby 600 Series











Functionality Self-levelling horizontal, one button laser specials. Self-levelling horizontal, sorbital, ordinarianal slope in dual axis axis axis axis axis axis axis axis		Rugby 610	Rugby 620	Rugby 640	Rugby 640G	Rugby 680
Laser type 635 nm (red) 635 nm (red) 635 nm (red) 520 nm (green) 635 nm (red) Plumb up - - Yes Yes - Accuracy ± 2.2 mm at 30 m (± 3/32" at 100ft) ± 2.2 mm at 30 m (± 3/32" at 100ft) ± 2.2 mm at 30 m (± 3/32" at 100ft) ± 1.5 mm at 30 m (± 3/32" at 100ft) Self-levelling range - - - - - ± 8% DG Grade range - - - - - ± 8% DG Smart Slope - - - - - Yes Rotation 10 rps 10 rps 0, 2, 5, 10 rps 0, 2, 5, 10 rps 10 rps Scanning - - - - Yes Yes - Plumb down - - - Yes Yes Yes - Sleep mode - - Yes Yes Yes - Max. range (ø) - RE120/120G 800 m (2,600 ft) 800 m (2,600 ft) 500 m (1,650 ft) 400 m (1,300 ft) 900 m (2,950 f	Functionality		& manual slope in one	vertical, 90° and manual	horizontal, vertical, 90° and manual slope in	
Plumb up - - Yes Yes - Accuracy ± 2.2 mm at 30 m (± 3/32" at 100ft) ± 2.2 mm at 30 m (± 3/32" at 100ft) ± 2.2 mm at 30 m (± 3/32" at 100ft) ± 1.5 mm at 30 m (± 3/32" at 100ft) Self-levelling range ± 5° *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** <th>Laser class</th> <th>Class 1</th> <th>Class 1</th> <th>Clas</th> <th>s 2</th> <th>Class 1</th>	Laser class	Class 1	Class 1	Clas	s 2	Class 1
Accuracy ± 2.2 mm at 30 m (± 3/32" at 100 ft) ± 2.2 mm at 30 m (± 3/32" at 100 ft) ± 2.2 mm at 30 m (± 3/32" at 100 ft) ± 1.5 mm at 30 m (± 1/16" at 100 ft) Self-levelling range ± 5° Grade range - - - - ± 8% DG Smart Slope - - - - Yes Rotation 10 rps 10 rps 0, 2, 5, 10 rps 0, 2, 5, 10 rps 10 rps Scanning - - 10, 45, 90° 10, 45, 90° - - Plumb down - - Yes Yes - Sleep mode - - Yes Yes - Max. range (ø) - RE120/120G 800 m (2,600 ft) 800 m (2,600 ft) 500 m (1,650 ft) 400 m (1,300 ft) 900 m (2,950 ft) Max. range (ø) - RE140/160 1,100 m (3,600 ft) 1,100 m (3,600 ft) 600 m (2,000 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - 1,100 m (3,600 ft) Operation time (icition battery) - </th <th>Laser type</th> <th>635 nm (red)</th> <th>635 nm (red)</th> <th>635 nm (red)</th> <th>520 nm (green)</th> <th>635 nm (red)</th>	Laser type	635 nm (red)	635 nm (red)	635 nm (red)	520 nm (green)	635 nm (red)
Self-levelling range	Plumb up	-	-	Yes	Yes	-
Grade range - - - - ±8% DG Smart Slope - - - - Yes Rotation 10 rps 10 rps 0, 2, 5, 10 rps 0, 2, 5, 10 rps 10 rps Scanning - - 10, 45, 90° 10, 45, 90° - - Plumb down - - Yes Yes Yes - Sleep mode - - Yes Yes Yes - Max. range (ø) - RE120/120G 800 m (2,600 ft) 800 m (2,600 ft) 500 m (1,650 ft) 400 m (1,300 ft) 900 m (2,950 ft) Max. range (ø) - RE140/160 1,100 m (3,600 ft) 600 m (2,000 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - Operation time (μί-ιοι battery) 40 h - - - - - - - - - - - - - - - - - - -	Accuracy					
Smart Slope - - - - Yes Rotation 10 rps 10 rps 0, 2, 5, 10 rps 0, 2, 5, 10 rps 10 rps Scanning - - 10, 45, 90° 10, 45, 90° - - Plumb down - - Yes Yes Yes - Sleep mode - - Yes Yes - Max. range (ø) - RE120/120G 800 m (2,600 ft) 800 m (2,600 ft) 500 m (1,650 ft) 400 m (1,300 ft) 900 m (2,950 ft) Max. range (ø) - RE140/160 1,100 m (3,600 ft) 1,100 m (3,600 ft) 600 m (2,000 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - Operation time (Alkaline battery) 40 h - - - - - - - - - - - - - - - - - - - - - - - - - -	Self-levelling range			± 5°		
Rotation 10 rps 10 rps 0, 2, 5, 10 rps 0, 2, 5, 10 rps 10 rps Scanning - - 10, 45, 90° 10, 45, 90° - - Plumb down - - Yes Yes Yes - Sleep mode - - Yes Yes Yes - Max. range (ø) - RE120/120G 800 m (2,600 ft) 800 m (2,600 ft) 500 m (1,650 ft) 400 m (1,300 ft) 900 m (2,950 ft) Max. range (ø) - RE140/160 1,100 m (3,600 ft) 1,100 m (3,600 ft) 600 m (2,000 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - 1,100 m (3,600 ft) Operation time (Li-lon battery) 40 h - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <th>Grade range</th> <th>-</th> <th>-</th> <th>-</th> <th>-</th> <th>±8% DG</th>	Grade range	-	-	-	-	±8% DG
Scanning - - 10, 45, 90° 10, 45, 90° - Plumb down - - Yes Yes Yes - Sleep mode - - Yes Yes Yes - Max. range (ø) - RE120/120G 800 m (2,600 ft) 800 m (2,600 ft) 500 m (1,650 ft) 400 m (1,300 ft) 900 m (2,950 ft) Max. range (ø) - RE140/160 1,100 m (3,600 ft) 1,100 m (3,600 ft) 600 m (2,000 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - - - - - - - - - - - - - - - - - - - - - - - - -	Smart Slope	-	-	-	-	Yes
Plumb down - - Yes Yes - Sleep mode - - Yes Yes - Max. range (ø) - RE120/120G 800 m (2,600 ft) 800 m (2,600 ft) 500 m (1,650 ft) 400 m (1,300 ft) 900 m (2,950 ft) Max. range (ø) - RE40/160 1,100 m (3,600 ft) 1,100 m (3,600 ft) 600 m (2,000 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - Operation time (Li-lon battery) 40 h - 40 h Operation time (Alkaline battery) 60 h - -20 to +50 °C (-4 to +122 °F) -20 to +50 °C (-4	Rotation	10 rps	10 rps	0, 2, 5, 10 rps	0, 2, 5, 10 rps	10 rps
Sleep mode - - Yes Yes - Max. range (ø) - RE120/120G 800 m (2,600 ft) 800 m (2,600 ft) 500 m (1,650 ft) 400 m (1,300 ft) 900 m (2,950 ft) Max. range (ø) - RE140/160 1,100 m (3,600 ft) 1,100 m (3,600 ft) 600 m (2,000 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - Operation time (Li-lon battery) 40 h - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	Scanning	-	-	10, 45, 90°	10, 45, 90°	-
Max. range (ø) - RE120/120G 800 m (2,600 ft) 800 m (2,600 ft) 500 m (1,650 ft) 400 m (1,300 ft) 900 m (2,950 ft) Max. range (ø) - RE140/160 1,100 m (3,600 ft) 1,100 m (3,600 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - Operation time (Li-lon battery) 40 h - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	Plumb down	-	-	Yes	Yes	-
Max. range (ø) - RE140/160 1,100 m (3,600 ft) 1,100 m (3,600 ft) - 1,100 m (3,600 ft) - 1,100 m (3,600 ft) Max. range (ø) - RC400 remote - 200 m (650 ft) 200 m (650 ft) - 200 m (650 ft) - 200 m (650 ft) Operation time (Alkaline battery) 60 h Working temperature -20 to +50 °C (-4 to +122 °F) -20 to +50 °C (-4 to +122 °F) -20 to +50 °C (-4 to +122 °F) (-4 to +122 °F) Protection (with δ w/o battery) IP67	Sleep mode	-	-	Yes	Yes	-
Max. range (ø) - RC400 remote - - 200 m (650 ft) 200 m (650 ft) - Operation time (Li-Ion battery) 40 h - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <	Max. range (ø) - RE120/120G	800 m (2,600 ft)	800 m (2,600 ft)	500 m (1,650 ft)	400 m (1,300 ft)	900 m (2,950 ft)
Operation time (Li-Ion battery) 40 h Operation time (Alkaline battery) 60 h Working temperature -20 to +50 °C (-4 to +122 °F) -20 to +50 °C (-4 to +122 °F) -20 to +50 °C (-4 to +122 °F) Protection (with δ w/o battery) IP67	Max. range (ø) - RE140/160	1,100 m (3,600 ft)	1,100 m (3,600 ft)	600 m (2,000 ft)	-	1,100 m (3,600 ft)
Operation time (Alkaline battery) 60 h Working temperature -20 to +50 °C (-4 to +122 °F) -20 to +50 °C	Max. range (ø) - RC400 remote	-	-	200 m (650 ft)	200 m (650 ft)	-
Working temperature -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 +50 °C (-4 to +122 °F) -20 to +50 °C (-4 to +122 °F) (-4	Operation time (Li-lon battery)			40 h		
(-4 to +122 °F) (-4 to +122 °F) (-4 to +122 °F) (-4 to +122 °F) Protection (with δ w/o battery) (-4 to +122 °F) (-4 to +122 °F) (-4 to +122 °F)	Operation time (Alkaline battery)			60 h		
	Working temperature					
Warranty 3 years no cost (see PROTECT by Leica Geosystems General Terms & Conditions for details) 5 years no cost	Protection (with & w/o battery)			IP67		
	Warranty	3 years no cost (see	PROTECT by Leica Geosy	stems General Terms & Co	onditions for details)	5 years no cost







	Rod Eye 120/120G	Rod Eye 140 Classic	Rod Eye 160 Digital		
Max. working diameter	900 m (2.950 ft) / 400 m (1.300 ft)	1,350 m (4,430 ft)	1,350 m (4,430 ft)		
Extended detection window	70 mm (2.76 in)	120 mm (5 in)	120 mm (5 in)		
Numeric readout height	- / 70 mm (2.76 in)	-	90 mm (3.5 in)		
Detection bandwidth	Fine ± 1 mm Medium ± 2 mm Coarse ± 3 mm	Fine $\pm~1~$ mm Medium $\pm~2~$ mm Coarse $\pm~3~$ mm	Very Fine ± 0.5 mm Fine ± 1 mm Medium ± 2 mm Coarse ± 3 mm Very Coarse ± 5 mm		
Warranty	3 years no cost (see PROTECT by Leica Geosystems General Terms & Conditions for details)				









