

Leica Geosystems Construction Products Comparison



- when it has to be **right**

Leica
Geosystems

Contents

2 Leica Lino Family



3 Leica Roteo Family



5 Leica Optical Levels



6 Leica Digital Levels



10 Leica DigiSystem™



12 Leica Construction Lasers



14 Leica Single and Dual Grade Lasers



16 Leica Rod Eye Family



18 Total Stations - Leica Builder



20 Leica GS09 SmartAntenna



22 Total Stations - Leica FlexLine



22 Leica DISTO™ Family



Leica Lino Family



Technical data	P3	P5	L2	L2G	L2P5
Range	Up to 15 m*				
Range with detector	>30 m				
Levelling accuracy @ 5 m	± 1.5 mm	± 1.5 mm	± 1 mm	± 1.5 mm	± 2 mm
Self-levelling range	4° ± 0.5°				
Accuracy of plumb point @ 5 m	± 1.5 mm	± 1.5 mm			± 1.5 mm
Accuracy of horizontal line @ 5 m	± 1.5 mm				
Vertical accuracy @ 3 m line length	± 0.75 mm				
Number of laser points	3	5			4
Number of laser lines			2	2	2
Beam direction	up, down, forward	up, down, forward, right, left	vertical, horizontal	vertical, horizontal	vertical, horizontal, up, down, right, left
Laser type	635 nm, laser class II			532 nm, laser class II	635 nm, laser class II
Batteries	Type AA 3 x 1.5 V				Type AA 4 x 1.5 V
Protection class splash water/dustproof	IP54				
Operation temperature	- 10 to 40 °C			0 to 40 °C	- 10 to 40 °C
Storage temperature	-25 to 70 °C				
Dimensions (H x D x W)	99.1 x 108.1 x 59.3 mm		96 x 91 x 54 mm		117.8 x 130.7 x 75.4 mm
Weight without batteries	310 g	320 g	321 g	350 g	370 g
Tripod thread	1/4"				

* Depending on lighting conditions



Leica Roteo Family



Technical data	Leica Roteo 35 WMR	Leica Roteo 35G	Leica Roteo 20HV	Leica Roteo 25H
Range	Up to 300 m (1000') diameter with laser receiver	Up to 300 m (1000') diameter with laser receiver	Up to 300 m (1000') diameter with laser receiver	Up to 300 m (1000') diameter with laser receiver
Self-levelling accuracy	± 3 mm at 30 m (± 1/8" at 100')	± 3 mm at 30 m (± 1/8" at 100')	± 3 mm at 30 m (± 1/8" at 100')	± 3 mm at 30 m (± 1/8" at 100')
Automatic self-levelling laser	Horizontal and vertical	Horizontal and vertical	Horizontal and vertical	Horizontal
Self-levelling range	± 4.5°	± 4.5°	± 4.5°	± 4.5°
Rotation speed	Variable 0, 150, 300, 450, 600 rpm	Variable 0, 150, 300, 450, 600 rpm	Variable 0, 150, 300, 450, 600 rpm	600 rpm
Scanning angle	Variable between 2° and 36°	Variable between 2° and 36°	Variable between 2° and 36°	
Wall mount bracket	Motorised	Motorised	Manual	
Laser dimensions (H x W x D without wall mount bracket)	189 x 136 x 208 mm (7.4 x 5.4 x 8.2")	189 x 136 x 208 mm (7.4 x 5.4 x 8.2")	189 x 136 x 208 mm (7.4 x 5.4 x 8.2")	189 x 136 x 208 mm (7.4 x 5.4 x 8.2")
Weight with batteries	1.7 kg (3.7 lbs)	1.7 kg (3.7 lbs)	1.7 kg (3.7 lbs)	1.7 kg (3.7 lbs)
Battery types	Alkaline D cells, 2 x 1.5 V or rechargeable battery pack (NiMH)	Alkaline D cells, 2 x 1.5 V or rechargeable battery pack (NiMH)	Alkaline D cells, 2 x 1.5 V	Alkaline D cells, 2 x 1.5 V or rechargeable battery pack (NiMH)
Battery life	50 hours (rechargeable), up to 160 hours (alkaline batteries)	25 hours (rechargeable), up to 40 hours (alkaline batteries)	up to 160 hours (alkaline batteries)	50 hours (rechargeable), up to 160 hours (alkaline batteries)
Protection class	IP54, dust and splash-proof	IP54, dust and splash-proof	IP54, dust and splash-proof	IP54, dust and splash-proof

Laser class 3R in accordance with IEC 60825-1 and EN 60825

Leica Roteo 35 Accessories



R250 laser detector with clamp for Roteo 20HV/25H/35 WMR. For locating the red reference laser beam.



RRC350 combined remote control/detector with clamp for Roteo 20HV/25H/35 WMR. For locating the red reference laser beam.



RRC350 remote control. For operating the rotating laser from a distance.



Leica Optical Levels



Applications	Jogger 20	Jogger 24	Runner 20	Runner 24	NA720	NA724	NA728	NA730	NA2	NAK2
Daily levelling tasks: site foremen, carpenters, construction companies, landscaping	■	■	■	■	■	■	■	■		
Daily levelling tasks: with high demand for product robustness e.g. for construction of roads, railways and buildings					■	■	■	■		
High accuracy levelling for building or engineering surveyors							■	■	■	■
Precision levelling for settlement determinations on building, deformation measurement and monitoring bridges									■	■
Features										
Water resistant	■	■	■	■	■	■	■	■	■	■
Waterproof (immersion) and dustproof					■	■	■	■		
Shock resistant					■	■	■	■		
Rough/fine focus							■	■		
Parallel-plate micrometer for precise levelling (optional)									■	■
Magnification	20x	24x	20x	24x	20x	24x	28x	30x	32x	32x
Angle measurement	360°	360°	360°	360°	360°	360°	360°	360°		360°
Standard deviation (per km double-run)	2.5 mm	2.0 mm	2.5 mm	2.0 mm	2.5 mm	2.0 mm	1.5 mm	1.0 mm	0.7 mm/km	0.7 mm/km
Dust/water protection	IP54	IP54	IP55	IP55	IP57	IP57	IP57	IP57	IP53	IP53
Working temperature	-20 to +40 °C	-20 to +40 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Weight	1.5 kg	1.5 kg	2.0 kg	2.0 kg	1.6 kg	1.6 kg	1.7 kg	1.7 kg	2.4 kg	2.4 kg



Leica Digital Levels



Applications	Sprinter 50	Sprinter 150	Sprinter 150M	Sprinter 250M
Error-free levelling for all construction applications e.g. construction off road, railways and buildings	■	■	■	■
Error-free levelling for all construction applications with demand for storage and transfer e.g. road and building construction			■	■
High accuracy levelling in all application areas e.g. road and building construction, civil engineering, topography and cadastral				■
High accuracy levelling in all areas with demand for data storage and transfer e.g. architecture and engineers survey				■
Features				
Optical staff reading	■	■	■	■
Automatic staff reading	■	■	■	■
Inverse staff measuring	■	■	■	■
Automatic calculation of heights and distances	■	■	■	■
Delta height		■	■	■
Multi-lingual function		■	■	■
Tracking		■	■	■
Cut and fill and monitoring			■	■
Line levelling application software			■	■
Technical data				
Height accuracies	Standard deviation height measurement per 1 km double run (ISO 17123-2)			
Electronic measurement*	2.0 mm	1.5 mm	1.5 mm	1.0/0.7* mm
Optical measurement	With standard aluminum e-scale/numeral staff: 2.5 mm			
Single staff reading	Standard deviation: 0.6 mm (electronic) and 1.2 mm (optical) at 30 m			
Distance accuracies	Standard deviation distance measurement 10 mm for D ≤ 10 m and (distance in m x 0.001) for D > 10 m			
Range	2 - 100 m (electronic)			
Measuring modes	Single and tracking			
Time for single measurement	< 3 sec			
Compensator	Magnet damped pendulum compensator (range ± 10 min)			
Telescope	Magnification (optical) 24x			
Data storage	Up to 1'000 points			
Environmental conditions	IP55			

* With Sprinter aluminium barcode staff, 0.7 mm can be achieved with Sprinter fibre glass barcode staff (3 m, 1 section)

Leica Pipe Laser

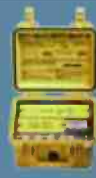


Features	
Laser diode	635 nm (red)
Laser output	4.75 mW maximum
Working range	200 m (650')
Grade range	-10% to +25%
Self-levelling range	-15% to +30%
Line movement	6 m at 30 m (20' at 100')
Battery*	Lithium-ion, 7.4 V/3.8 Ah
Operation/charge	40 h/4 h
Operating temperature	-20 to +50 °C (-4 to +122 °F)
Dimensions (diameter x length)	96 x 267 mm (3.8 x 10.5")
Weight	2 kg (4.4 lbs)
Construction	Cast aluminium
Seal	IPX8
Wireless remote	Front, up to 150 m (500') Back, up to 10 m (35')



* Battery life is dependent upon environmental conditions

Leica DigiSystem™



Features		Digicat™ 100	Digicat™ 200	Digitex™ 8/33	Digitrace™ 30/50/80	Signal Clamp	Digimouse™ (Sonde)	Property Connection
Frequency	Power mode	50/60 Hz	50/60 Hz	8 or 33 kHz			8 or 33 kHz	
	Radio mode	15 - 33 kHz	15 - 33 kHz	Constant Dual Frequency Available in Connection Mode			Constant Dual Frequency Available	
	Generator mode	8 or 33 kHz	8 or 33 kHz					
Tracing range	Induction typically			150 m			>3 m	
	Connection typically			250 m				
Depth		Power to 3 m Radio to 2 m Generator to 3 m	Power to 3 m Radio to 2 m Generator to 3 m					
Included accessories				Crocodile-equipped connection cable set with earth spike	Connections to Digitrace 8/33 kHz cable set			
Depth estimation with Digitrace 33 kHz mode or dual frequency Sonde 33 kHz mode			To 3 m within 10% accuracy (typical)					
Protection		Conforms to IP54	Conforms to IP54	Conforms to IP57 (with the lid shut)	Conforms to IP57		Conforms to IP68	
Batteries supplied		6 x AA alkaline (IEC LR6)	6 x AA alkaline (IEC LR6)	4 x C alkaline (IEC LR14)			1 x AA alkaline (IEC LR6)	
Battery life		30 Hours	30 Hours	30 Hours			40 Hours in 33 kHz mode and 10 Hours in 8 kHz mode	
Weight		2.83 kg including batteries	2.83 kg including batteries	2.95 kg including standard accessories and batteries	3.0/3.25/3.5 kg		120 g including battery	
Application guide								
Energised main electricity cable		■	■					
Metal pipe and non-energised main cables		■	■					
Copper telecom cables		■	■	■		■		
Tracing non-metallic drains and pipes	1	■	■	■	■			
	2	■	■				■	
Metallic gas pipes		■	■	■	■			
Point of damage (tree root ingress, etc) to surface or foul water sewers (usually non-metallic)	1	■	■	■	■			
	2	■	■				■	
Property electrical distribution		■	■	■				■
Fibre optic telecom cables (only possible if there are trace cables laid alongside)		■	■	■				
Plastic ducting (with access)	1	■	■	■	■			
	2	■	■				■	
Depth estimation			■					

1) + 2) are alternative methods

Leica Construction Lasers



Applications	Rugby 50	Rugby 100	Rugby 100LR	Rugby 55	Rugby 200
General construction: excavators, footing, concrete forming	■	■	■	■	■
Civil engineering: parking lots, runways, sports fields			■		
Interior construction				■	■
Installing ceiling grids				■	■
Transferring points from floor to ceiling				■	■
Machine control of excavators, graders, dozers and similar equipment	■	■	■		
Agricultural applications such as land levelling or tilling			■		
Features					
Waterproof and dustproof	IP55	IP56	IP56	IP55	IP56
Co-molded rubber bumpers		■	■		■
Elevation alert	■	■	■	■	■
Scan function				■	■
Remote control				■	■
Manual grade capability		■	■	■	■
Two-year knockdown warranty		■	■		■
Operating range	300 m	300 m	750 m	300 m	300 m
Accuracy	2.6 m @ 30 m	2.6 m @ 30 m	1.5 m @ 30 m	2.6 m @ 30 m	1.5 m @ 30 m
Self-levelling	Horizontal	Horizontal	Horizontal	Horizontal and vertical	Horizontal and vertical
Operating 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 +122 °F)	-20 to +50 °C (-4 to +122 °F)
Align beam					■
Laser diode	780 nm (infrared)	635 nm visible	780 nm invisible (infrared)	635 nm (bright red)	635 nm visible
Battery type	Two D-cells or NiMH pack	Alkaline/NiMH options	Alkaline/NiMH options	Two D-cells or NiMH pack	Alkaline/NiMH options
Battery life	Alkaline: 60 hours NiMH: 35 hours	60 hours with alkaline batteries, 35 hours with rechargeable batteries	60 hours with alkaline batteries, 35 hours with rechargeable batteries	Alkaline: 50 hours NiMH: 30 hours	50 hours with alkaline batteries, 30 hours with rechargeable NiMH batteries
Weight with batteries	4.0 lb (1.85 kg)	5.5 lb (2.5 kg)	5.5 lb (2.5 kg)	4.0 lb (1.85 kg)	6.5 lb (2.95 kg)



Leica Single and Dual Grade Lasers



Applications	Rugby 260SG	Rugby 270SG	Rugby 280DG	Rugby 320SG	Rugby 410DG	Rugby 420DG
General construction: excavators, footing, concrete forming	■	■	■	■	■	■
Civil engineering: parking lots, runways, sports fields				■	■	■
Installing septic and gravity flow pipes for drainage	■	■	■	■	■	■
Machine control of excavators, graders, dozers and similiar equipment	■	■	■	■	■	■
Agricultural applications such as land levelling or tilling				■	■	■
Features						
Waterproof and dustproof	IP67	IP67	IP67	Watertight to IPX-7 standard	Watertight to IPX-7 standard	Watertight to IPX-7 standard
High impact composite housing	■	■	■			
Elevation alert	■	■	■	■	■	■
Working range up to diameter	600 m	700 m	700 m			
Scan modes			■			
Remote control			■		■	■
Grade entry with display	■	■	■	■	■	■
Dual grade			■	■	■	■
Two-year knockdown warranty	■	■	■	Additional 3 years on request		
Operating range	300 m*	350 m*	350 m*	900 m*	800 m*	1100 m*
Accuracy	±1.5 mm per 30 m**	±1.5 mm per 30 m**	±1.5 mm per 30 m**	±1.6 mm per 30 m**	±1.6 mm per 30 m**	±1.6 mm per 30 m**
Self-levelling	H+Grade	H+Grade	H+Grade	H+Grade	H+Grade	H+Grade
Operating 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 +122 °F)	-20 to +50 °C (-4 to +122 °F)	-20 to +50 °C (-4 to +122 °F)
Laser diode	635 nm	635 nm	635 nm	635 nm visible red laser	780 nm invisible (IR)	635 nm visible red laser
Grade capability	Single axis ± 10%	Single axis ± 15%	Dual axis ± 15%	-5 to +25%	-5 to +25% in either axis (-5 to +15% in both axes)	
Battery type	Alkaline or rechargeable NiMH	Alkaline or rechargeable NiMH	Alkaline or rechargeable NiMH	Alkaline or NiMH	Alkaline or NiMH	Alkaline or NiMH
Battery life	70 hours alkaline 40 hours rechargeable***	70 hours alkaline 40 hours rechargeable***	70 hours alkaline 40 hours rechargeable***	Up to 130 hours with alkaline up to 100 hours with rechargeable***		
Weight	6.5 lb (2.95 kg) with batteries	6.5 lb (2.95 kg) with batteries	6.5 lb (2.95 kg) with batteries	11 lb (5 kg) without batteries	11 lb (5 kg) without batteries	11 lb (5 kg) without batteries

* Tested with Leica receivers. ** Accuracy is defined at +25 °C. *** Battery life is dependent upon environmental conditions



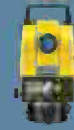
Leica Rod Eye Family



Features	Digital	Plus	Basic
Working radius	450 m (1500')	450 m (1500')	150 m (500')
Detection height	127 mm (5")	50 mm (2")	36 mm (1.4 0")
Numeric readout height	102 mm (4")		
Detectable spectrum	610 nm to 780 nm	610 nm to 900 nm	
Detection accuracies	Ultra fine 0.5 mm (0.02")	Fine ± 1 mm (± 0.04 ")	Fine ± 1 mm (± 0.04 ")
	Super fine 1.0 mm (0.05")	Medium ± 2 mm (± 0.08 ")	Fine ± 3 mm (± 0.12 ")
	Fine 2.0 mm (0.10")	Coarse ± 3 mm (± 0.12 ")	
	Medium 5.0 mm (0.20") Coarse 10.0 mm (0.50")		
Audio volumes	High 110 dBA Medium 95 dBA Low 65 dBA, Off	High 100 dBA Low 70 dBA Off	High Low Off
Automatic shutoff	30 minutes, 24 hours, none	30 minutes	10 minutes
Digital readout	Yes (mm, cm, in, fractions, ft)	No	No
Arrow display	Twenty-one channels	Nine channels	Five channels
LED display	Yes, five channels	Yes, five channels	No
Anti-strobe protection	Yes	Yes	No
Memory, last beam strike	Yes	Yes	No
Beam Finding (double beep)	Yes	Yes	No
Laser low battery indicator	Yes	Yes	No
Warranty	Three years	Two years	One year
Environmental	IP67	IP67	IP66
Batteries	60+ hours (2 x 1.5 V "AA")	70+ hours (2 x 1.5 V "AA")	50 hours (1 x 9 V type)
Dimensions	168 x 76 x 36 mm (6.6 x 3.0 x 1.4")	152 x 74 x 30 mm (6.0 x 2.9 x 1.2")	150 x 80 x 35 mm (5.9 x 3.1 x 1.5")
Operating temperature	-20 to +60 °C (-4 to +140 °F)	-20 to +60 °C (-4 to +140 °F)	-20 to +50 °C (-4 to 122 °F)
Rod camp	Yes, with reversible jaw	Yes, with reversible jaw	Yes



Total Stations - Leica Builder



Specifications	Builder 100	Builder 200	Builder 300	Builder 400	Builder 500
Full Power Site Software					■
Accuracy up to 1.5 mm @ 100 m distance					■
Wireless communication					■
-30 °C ready					■
Full RedDot range					■
Prism measurement mode				■	■
Full internal memory				■	■
MEAS/REC switch key				■	■
Cell-phone style use				■	■
Extended RedDot range			■	■	■
Industrial USB memory stick			■	■	■
USB Type A and mini B			■	■	■
Volumes calculation			■	■	■
Data Import/Export to USB stick			■	■	■
Call up plan data and record points			■	■	■
Direct DFX download			■	■	■
1-Man station		■	■	■	■
Serial interface		■	■	■	■
Tracking mode		■	■	■	■
Laser pointer switch key		■	■	■	■
PC/Handheld interface		■	■	■	■
Laser distance measure		■	■	■	■
Control line set-up		■	■	■	■
Free choice set-up		■	■	■	■
Theft protection	■	■	■	■	■
Pitstop alert	■	■	■	■	■
3 languages	■	■	■	■	■
Levelling aid	■	■	■	■	■
Sector beep	■	■	■	■	■
Dual axis compensator	■	■	■	■	■
Endless drives	■	■	■	■	■
Laser plummet	■	■	■	■	■
Display heating and illumination	■	■	■	■	■
Li-Ion batteries	■	■	■	■	■
Set delivery	■	■	■	■	■
Data storage/communication					
Internal memory [points]			15'000	50'000	50'000
Angle measurement					
Accuracy/Option	9"/6"	9"/6"	9"/6"	9"/5"	9"/5"/3"
Distance measurement					
Laser pointer		■	■		■
Without reflector (90% reflective)		80 m	120 m	15 m	250 m
To reflective tape (60 mm x 90 mm)		250 m	250 m	15 m	250 m
To glass prism				500 m (3500 m)	500 m (3500 m)
Laser dot size		At 30 m: approx. 7 mm x 10 mm, At 50 m: approx 8 mm x 20 mm			
General					
Weight incl. battery and tribrach	4.4 kg	5.1 kg			
Operating temperature	-20 to +50 °C				
Battery type/life	Li-ion/approx. 20 hours ¹				
Environmental	IP55				
Keyboard full	Standard			Alphanumeric	
Switch key	Single function			Dual function	

¹ Single measurement every 30 second at 25 °C with GEB221. Battery time may be shorter if battery is not new

Leica GS09 SmartAntenna



GNSS technology

Measurement engine	Leica patented SmartTrack+ technology	<ul style="list-style-type: none"> • Jamming resistant measurements • High precision pulse aperture multipath correlator • Excellent low elevation tracking technology 	<ul style="list-style-type: none"> • Very low noise GNSS carrier phase measurements with <0.5 mm precision • Minimum acquisition time
	No. of channels Reacquisition time	120 channels < 1 sec	
GNSS measurements	Satellite signals tracking	GPS: L1, L2, L2C (C/A, P, C Code) GLONASS: L1, L2 (C/A, P narrow Code)	

Measurement performance

Accuracy ¹	DGPS/RTCM	Typically 25 cm (rms)
	RTK Rapid static (phase) Static mode after initialization	Horizontal: 5 mm + 0.5 ppm (rms) Vertical: 10 mm + 0.5 ppm (rms)
	RTK Kinematic (phase) Moving mode after initialization	Horizontal: 10 mm + 1 ppm (rms) Vertical: 20 mm + 1 ppm (rms)
	Post Processing (phase) Static with long observations	Horizontal: 3 mm + 0.5 ppm (rms) Vertical: 6 mm + 0.5 ppm (rms)
	Post Processing (phase) Rapid static mode	Horizontal: 5 mm + 0.5 ppm (rms) Vertical: 10 mm + 0.5 ppm (rms)
On-The-Fly initialization	Reliability	Better than 99,99% using Leica SmartCheck+ technology
	Time for initialization	Typically 8 sec ²
	RTK baseline range	Up to 50 km

Hardware

User interface	Keys	On/Off key
	LED status indicator	Satellite tracking, Bluetooth® communication and battery power
	Communication ports	<ul style="list-style-type: none"> • Combined USB/Power port with 8-pin Lemo plug • Integrated Bluetooth® port <ul style="list-style-type: none"> • 5-pin clip on contacts for Leica SmartStation set-up
Physical	Weight	1.05 kg including battery
	Dimension (diameter x height)	186 mm x 89 mm
Environmental specifications	Temperature, operating	-40 to +65 °C (-40 to +149 °F) ³
	Temperature, storage	-40 to +80 °C (-40 to +176 °F) ³
	Humidity	100% ⁴
	Sealed against water	IP67: Temporary submersion into water (max. depth 1 m)
	Sealed against sand and dust	Dust-tight, protection against blowing dust
	Vibration	Withstands vibrations in compliance with ISO9022-36-08
	Drops	Withstands 1 m drop onto hard surface
	Topple over	Withstands topple over from a 2 m survey pole onto hard surface
Power management	Functional shock	No loss of lock to satellite signals when used on a pole set-up and submitted to pole bumps up to 150 mm
	Supply voltage	Nominal 12 V DC, Range 10.5 – 28 V DC
	Power consumption	Typically: 1.8 W, 150 mA
	Internal power supply	Removable and rechargeable Li-Ion battery, GEB211 2.2 Ah/7.4 V or GEB212 2.6 Ah/7.4 V
	Operation time	Up to 7 hours using GEB212 battery ⁵

Communications

RTK transmission	Source	Direct from GS09 (No datalogger required)
	RTK format	Leica Lite propriety format
	Radio modems	All Satellite and Pacific Crest radios in GFU or standard housing
Integration with TPS	SmartStation functionality	Connects to Leica TPS1200, TS30 and TM30 instruments

¹ Measurement precision and accuracy in position and accuracy in height are dependent upon various factors including number of satellites, geometry, observation time, ephemeris accuracy, ionospheric conditions, multipath etc. Figures quoted assume normal to favorable conditions. Times required are dependent upon various factors including number of satellites, geometry, ionospheric conditions, multipath etc. GPS and GLONASS can increase performance and accuracy by up to 30% relative to GPS only.

² May vary due to atmospheric conditions, multipath, obstructions, signal geometry and number of tracked signals.
³ Compliance with ISO9022-10-08, ISO9022-11-special and MIL-STD-810F Method 502.4-II, MIL-STD-810F Method 501.4-II
⁴ Compliance with ISO9022-13-06, ISO9022-12-04 and MIL-STD-810F Method 507.4-I
⁵ May vary with temperature and battery age.

Total Stations - Leica FlexLine



Leica FlexLine total stations provide complete flexibility in configuring each total station. The following table shows the standard (■) and optional (●) features for each total station in the FlexLine family.

	TLC2	TLC4	TLC6
High accuracy instrument			
1" angular accuracy			■
1 mm +1.5 ppm distance measurement accuracy			■
Distance measurement			
Prism: 3500 m range	■	■	■
Non-prism: 30 m FlexPoint including Laserpointer	●	■	■
Non-prism: >400 m PinPoint - Power	●	●	●
Non-prism: >1000 m PinPoint - Ultra	●	●	●
Data storage/communication			
Internal memory	■	■	■
Enhanced internal memory		■	■
Removable USB memory stick, mini-USB port	●	●	■
Integrated Bluetooth® wireless technology	●	●	■
Keyboard			
Alpha numerical	●	■	■
Second keyboard	●	●	■
1-functionTrigger key	■	■	■
2-functionTrigger key		■	■
FlexField onboard software			
Orientation and surveying, stake out, resection, height transfer, construction, area (plan and surface), volume calculation, tie distance (MLM), remote height, hidden point, offset, reference line	■	■	■
Reference arc, reference plane, COGO, Road 2D	●	■	■
Roadworks 3D, TraversePRO		●	■
Emitting Guide Light (EGL)			
Emitting Guide Light (EGL) for stake out	●	●	■
Arctic version			
Temperature -35 °C (operation)	●	●	●

Leica DISTO™ Family



Functions	D2	D3	D5	D8
Minimum/maximum measurements	■	■	■	■
Continuous measurement	■	■	■	■
Addition/subtraction	■	■	■	■
Area/volume measurements	■	■	■	■
Room dimensions		■	■	■
Indirect measurements using Pythagoras	■	■	■	■
Horizontal distance past obstructions		■	■	■
Trapezium measurements			■	■
Indirect measurements using tilt sensor				■
Technical data				
Typical measuring accuracy	± 1.5 mm	± 1.0 mm	± 1.0 mm	± 1.0 mm
Range	0.05 - 60 m	0.05 - 100 m	0.05 - 200 m	0.05 - 200 m
Power Range Technology™		■	■	■
Distance in m	10, 50, 100 m		10, 50, 100 m	
Ø of the laser dot in mm	6, 30, 60 mm		6, 30, 60 mm	
Tilt sensor		± 45°	± 45°	360°
Measuring range		± 0.3°	± 0.3°	0.1°/+ 0.2°
Accuracy to the laser beam		± 0.3°	± 0.3°	± 0.1°
Accuracy to the housing				
Units in the tilt sensor		0.0°, 0.0%	0.0°, 0.00% mm/m, in/ft	0.0°, 0.00% mm/m, in/ft
4-fold digital viewfinder			■	■
Store constant values		1	1	1
Recall last values	10	20	20	30
Time delay release (timer)	■	■	■	■
Display illumination	■	■	■	■
Measuring units	m, ft, in	m, ft, in	m, ft, in, yd	m, ft, in, yd
Free software				■
Data interface*				BLUETOOTH® (Class 2)
Measurements per set of batteries	up to 5,000	up to 5,000	up to 5,000	up to 5,000**
Multifunctional end-piece	Manual	Automatic	Automatic	Automatic
Tripod thread		Plastic	Metal	Metal
Batteries	Type AAA 2 x 1.5V	Type AAA 2 x 1.5V	Type AA 2 x 1.5V	Type AA 2 x 1.5V
Splash-proof/ dust-protected IP54	■	■	■	■
Dimensions	111 x 42 x 23 mm	125 x 45 x 24 mm	143.5 x 55 x 30 mm	143.5 x 55 x 30 mm
Weight with batteries	90 g	110 g	195 g	205 g

* System requirements and recommended Pocket PCs can be found under: www.disto.com
** Reduced in BLUETOOTH® mode

Whether you have to precisely layout a construction site, perform control measurements, collect height and angle data, align concrete forms, install ceilings and partitions, lay gravity flow pipes, locate underground services or complete site preparation and earthworks – Leica Geosystems offers the right instrument, construction laser or machine control installation specifically designed for your construction application.

Easy-to-use, jobsite tough, accurate and reliable – Leica Geosystems instruments and lasers ensure the efficient use of your materials and resources. High quality products, such as optical and electronic levels, construction lasers, total stations and machine automation systems, provide fast results, keep you working and increase your profitability.

When it has to be right.

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Piper, Rugby 55/200:
Laser class 3R in accordance with
IEC 60825-1 and EN 60825-1
Laser class IIIa in accordance with
FDA 21CFR CH I § 1040

**Distance meter (PinPoint R100/R300)
of TPS400/800:**
Laser class 3R in accordance with
IEC 60825-1 and EN 60825-1



**Distance meter(RL) of Builder,
Laser plummet of Builder,
TPS400/800, LINO L2:**
Laser class 2 in accordance with
IEC 60825-1 and EN 60825-1

**Distance meter(IR) of
TPS400/800, Rugby 50/300/400:**
Laser class 1 in accordance with
IEC 60825-1 resp EN 60825-1

**Guide light (EGL), of
TPS400/800:**
LED class 1 in accordance with
IEC 60825-1 resp EN 60825-1

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