

S.C. TOP GEOCART S.R.L. – Distribuitorul Autorizat in Romania al Leica Geosystems



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- when it has to be right



# LEICA BLK2FLY

AUTONOMOUS FLYING LASER SCANNER



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## AUTONOMOUS FLYING LASER SCANNER

### DESIGN & PHYSICAL

|                        |                              |
|------------------------|------------------------------|
| Housing                | Carbon and glass fiber frame |
| Dimensions (unfolded)  | 53 x 60 x 19 cm              |
| Dimensions (folded)    | 53 x 32 x 14 cm              |
| Weight (incl. battery) | 2.6 kg                       |

### OPERATION

|                                      |  |
|--------------------------------------|--|
| Remote control                       | BLK2FLY Live App for iPad supporting LTE connectivity (iOS 13 or later). Including flight planning, live 2D and 3D visualization, device status, and data management |
| Communication                        | LTE Bluetooth LE   |
| WLAN frequencies                     | 2.4Ghz access point (flight operation), 5 GHz client (data offload operation)  |
| Max. / typical transmission distance | WLAN: ~100m, line of sight   |
| Internal storage                     | 256 GB   |
| Battery                              | Li-ion 14.8 V, 6.75 Ah, 99.9 Wh  |

### LiDAR & IMAGING

|                        |  |
|------------------------|--|
| Laser class            | 1<br>(in accordance with IEC 60825-1)                      |
| Wavelength             | 830 nm   |
| Field of view          | 360° (vertical)/270° (horizontal)                          |
| Scan range             | Min. 0.5 m - up to 25 m                                    |
| Point measurement rate | 420,000 pts/sec  |
| Vision system          | 5-camera system, 1.6 MP, 300° x 180° total, global shutter |

### SYSTEM PERFORMANCE (SLAM-BASED)

|                              |   |
|------------------------------|---|
| Relative accuracy            | <20 mm*   |
| Absolute accuracy (w/o GNSS) | 40 mm**   |
| Area coverage: Vertical      | 1,550 m <sup>2</sup> in 12 min. (0.5 pts/cm <sup>2</sup> )<br>4,700 m <sup>2</sup> in 12 min. (0.17 pts/cm <sup>2</sup> ) |
| Area coverage: Horizontal    | 1,350 m <sup>2</sup> in 12 min. (0.5 pts/cm <sup>2</sup> )<br>4,100 m <sup>2</sup> in 12 min. (0.17 pts/cm <sup>2</sup> ) |

### ENVIRONMENTAL

|                       |  |
|-----------------------|--|
| Operation temperature | BLK2FLY: +5° to +35°<br>Smart Battery: +10° to +35°***   |
| Storage temperature   | BLK2FLY: -10° to +60° C<br>Smart Battery: -10° to +45° C |
| IP rating             | IP54   |

### DATA PROCESSING

|                                |  |
|--------------------------------|--|
| Data transfer                  | Wireless (WLAN & LTE) and USB 3.1 (USB C)                              |
| Desktop software compatibility | Leica Cyclone REGISTER 360<br>Leica Cyclone REGISTER 360 (BLK EDITION) |
| Cloud solution                 | 1 bDR: 1 hexagon Digital Reality (direct upload WLAN & LTE)            |

### FLIGHT PERFORMANCE

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| Max speed (no obstacle avoidance)     | 5 m/s                             |
| Max speed (obstacle avoidance active) | 3 m/s                             |
| Max wind resistance                   | 12 m/s                            |
| Max flight altitude above sea level   | 1,800 m                           |
| Flight time                           | 13 min*<br>*400 m above sea level |

### AUTONOMY

|  |   |
|--|---|
| Obstacle avoidance coverage                  | Full spherical, 360°  |
| Obstacle avoidance min. distance             | 4 m   |
| Collision avoidance:<br>Undetectable objects | Cables <6mm diameter<br>Radar does not reliably detect very thin objects like cardboard or small tree branches. It might miss glossy, transparent or dark surfaces. |

All specifications are subject to change without notice. All accuracy specifications are one sigma unless otherwise noted.

\*concrete/brick surface

\*\* 4 m distance from object, 2m/s flying speed, 8 min flight, concrete / brick surface

\*\*\* Flight start temperature at +5 °C is allowed, once the temperature of the Smart Battery GEB374 is ≥ 10 °C when flight starts.

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