VECTOR™
THE SAFER WAY TO OBSERVE AND MEASURE WITH SPEED AND PRECISION

VECTOR is an easy-to-use multifunctional optronic device that replaces four separate devices. The reduced weight and volume translate into greater mobility, agility and operational readiness.

Essential capabilities
- A 100% eyesafe laser rangefinder: VECTOR IV (diode laser), VECTOR 21 (diode laser), VECTOR 23 (fibre laser). These technologies provide the longest service life and consume the least energy.
- Two seven times (7 x) magnifying eyepieces. The large exit pupils of 6mm diameter are extremely easy to place so that both eyes receive as much light as possible.
- Two 42 mm objectives with extended contrast – even when scene illumination is not ideal.
- A digital magnetic compass (DMC) incorporating magnetic and gravitation sensors for azimuth, bank and inclination (±45°).
- The image intensified night operation will still leave power for 2,000 measurements.
- The image intensifier tube integrated in VECTOR IV Nite or VECTOR 21 Nite creates night capabilities.

Power concept
- One 6 V battery lasts for more than 5,000 measurements. The 2CR5 is a standard type with worldwide commercial availability for quick and easy procurement/replacement. VECTOR Nite: Even 24 hours of image intensified night operation will still leave power for 2,000 measurements.

Communication
- Wired data-transfer via RS232
- Optional Bluetooth wireless technology eliminates cables for data transfer between VECTOR and peripheral devices.

Available accessories and options
- Binocular Enhancer increases the magnification by 40 % to 10x, with a 25 % gain in distance measurement.
- VECTOR 21 AERO features an increased elevation range from -30° to +90° (zenith).
- Communication with widely used GPS receivers converts measured vector data into target grid coordinates.
- Fall-of-shot software computes and displays the corrections from a missed round to the target.
- Data Recall software
- Bluetooth for VECTOR IV and VECTOR 21
- Night Vision for VECTOR IV and VECTOR 21 (integrated I²-tube)

Night option
- The image intensifier tube integrated in VECTOR IV Nite or VECTOR 21 Nite creates night capabilities.

Measurements
- Measured data is displayed in the field of view and simultaneously can be sent to a computer, data terminal or GPS receiver.
- Night: 10 mlux, quarter moon
- Day: NATO Target (2.3 x 2.3 m, reflectivity 10%), observer visibility 10 km
- Night: 10mlux, quarter moon
- Distance measurement under ideal conditions
  - Clear atmosphere, overcast sky or twilight
  - Good reflectivity of target object (smooth, bright wall)
  - Target surface roughly perpendicular to laser beam
  - Steady hold or support (to ensure that the laser beam will not miss the target)

Range Performance
- Range performance is the chief distinction between the various models within the VECTOR family. The more sophisticated the design, the smaller the divergence of the laser beam and the greater the maximum measurable distance.

Battlefield-tested
- VECTOR has earned the confidence of military users from special forces to engineers, infantry, artillery, air force, navy and UN peacekeepers
- More than 35,000 units sold
- In service within more than 55 nations including 17 NATO countries

Handling
- Two-button control reduces the training and retraining effort allowing new users to operate quickly and correctly in any situation.
- Digital output via RS232 port for instant, error-free data transfer.

Find more information under www.vectronix.ch

5 km
10 km
15 km
20 km
25 km
30 km
35 km
40 km
45 km
50 km
55 km
60 km
65 km
70 km
75 km
80 km
85 km
90 km
95 km
100 km
105 km
110 km
115 km
120 km
125 km
130 km
135 km
140 km
145 km
150 km
155 km
160 km
165 km
170 km
175 km
180 km
185 km
190 km
195 km
200 km

Distance Measurements

Geographic Information System (GIS)
- VECTOR captures data for geographic information systems (GIS) with speed and from a convenient distance for such subjects as volcanos, whales, penguins, trees, archeological sites, etc.

Observation Range
- 2 km
- 6 km
- 12 km
- 25 km
- 3 km
- 9 km
- 25 km
- 8 km
- 25 km
- 2 km
- 6 km
- 12 km
- 25 km
- 8 km
- 25 km
- 2 km
- 6 km
- 12 km
- 25 km

Find more information under www.vectronix.ch
## VECTOR TECHNICAL DATA

### Optics

<table>
<thead>
<tr>
<th></th>
<th>VECTOR IV</th>
<th>VECTOR IV Nite</th>
<th>VECTOR 21</th>
<th>VECTOR 21 Nite</th>
<th>VECTOR 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnification (day)</td>
<td>7 x</td>
<td>7 x</td>
<td>7 x</td>
<td>7 x (optional 10 x)</td>
<td>7 x</td>
</tr>
<tr>
<td>Magnification (night)</td>
<td>4.5 x</td>
<td>4.5 x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field of View (day)</td>
<td>120mil / 6.75°</td>
<td>120mil / 6.75°</td>
<td>120mil / 6.75°</td>
<td>120mil / 6.75°</td>
<td>120mil / 6.75°</td>
</tr>
<tr>
<td>Field of View (night)</td>
<td>125mil / 7°</td>
<td>125mil / 7°</td>
<td></td>
<td></td>
<td>(84mil / 4.7°)</td>
</tr>
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</table>

### Rangefinder

<table>
<thead>
<tr>
<th></th>
<th>VECTOR IV</th>
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<th>VECTOR 21 Nite</th>
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</thead>
<tbody>
<tr>
<td>Laser Type</td>
<td>1,550 nm</td>
<td>1,550 nm</td>
<td>1,550 nm</td>
<td>1,550 nm</td>
<td>1,550 nm</td>
</tr>
<tr>
<td>Range capability</td>
<td>5 m to 6,000 m</td>
<td>5 m to 6,000 m</td>
<td>5 m to 12,000 m</td>
<td>5 m to 12,000 m</td>
<td>25 m to 25,000 m</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±2 m (50 m to 2,000 m)</td>
<td>±2 m (50 m to 2,000 m)</td>
<td>±5 m</td>
<td>±5 m</td>
<td>±5 m (500 to 12,000 m)</td>
</tr>
<tr>
<td></td>
<td>±3 m (&lt; 50 m / &gt; 2,000 m)</td>
<td>±3 m (&lt; 50 m / &gt; 2,000 m)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Digital Magnetic Compass

<table>
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<th>VECTOR 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azimuth accuracy (1σ)</td>
<td>±10 mil / ± 0.6°</td>
<td>±10 mil / ± 0.6°</td>
<td>±10 mil / ± 0.6°</td>
<td>±10 mil / ± 0.6°</td>
<td>±10 mil / ± 0.6°</td>
</tr>
<tr>
<td>Azimuth accuracy (1σ) with PPS calibration on tripod, typical</td>
<td>±5 mil / ± 0.3°</td>
<td>±5 mil / ± 0.3°</td>
<td>±5 mil / ± 0.3°</td>
<td>±5 mil / ± 0.3°</td>
<td>±5 mil / ± 0.3°</td>
</tr>
<tr>
<td>Inclination accuracy</td>
<td>±3 mil / ± 0.2°</td>
<td>±3 mil / ± 0.2°</td>
<td>±3 mil / ± 0.2°</td>
<td>±3 mil / ± 0.2°</td>
<td>±3 mil / ± 0.2°</td>
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### Physical

<table>
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<th>VECTOR 21 Nite</th>
<th>VECTOR 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (L x W x H) (mm)</td>
<td>205 x 178 x 82</td>
<td>205 x 178 x 82</td>
<td>205 x 178 x 82</td>
<td>205 x 178 x 82</td>
<td>205 x 178 x 82</td>
</tr>
<tr>
<td>Dimensions (L x W x H) (in)</td>
<td>8.1 x 7.0 x 3.2</td>
<td>8.1 x 7.0 x 3.2</td>
<td>8.1 x 7.0 x 3.2</td>
<td>8.1 x 7.0 x 3.2</td>
<td>8.1 x 7.0 x 3.2</td>
</tr>
<tr>
<td>Weight (with battery)</td>
<td>&lt; 1.7 kg / 3.75 lbs</td>
<td>&lt; 2.0 kg / 4.4 lbs</td>
<td>&lt; 1.7 kg / 3.75 lbs</td>
<td>&lt; 2.0 kg / 4.4 lbs</td>
<td>&lt; 1.8 kg / 3.97 lbs</td>
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### Data interface

<table>
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<th>VECTOR 21 Nite</th>
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</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Bluetooth 2.0</td>
<td>Bluetooth 2.0</td>
<td></td>
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For further specifications please refer to the product technical data sheet.