Advanced Technology for Construction layout
Eliminate the guesswork. With its bright, autofocusing green laser, the RTS873 heightens layout precision on the jobsite.

- **100% Robotic Operation**
  Trimble VISION™ provides you with the ability to direct layout with live video images on the Trimble Field Tablet, maximizing your command of the job.

- **Visual Verification**
  To provide an accurate documentation of the design and field image that is displayed within the Trimble Field Link software, job data including points and linework are overlaid on the camera image.

**GREEN LASER POINTER**
Improve layout accuracy and speed of DR layout. The RTS873 autofocusing green beam optimizes visibility of placement points at all distances.

**UNEVEN SURFACE CORRECTION**
Combined with Trimble Field Link running on the tablet, this system will compensate for uneven floors and ceilings to ensure positioning accuracy.

**BUILT FOR CONSTRUCTION**
For construction applications, you need a measurement solution with optimal speed, accuracy and reliability. Combine the Trimble DR HP Precision EDM with Trimble VISION and you have the flexibility to tackle the most demanding projects.

- Visually mark points, with high precision, using the Auto-focusing Class 2 Green Laser Pointer.
- **Automatic Servo Focus** sets the optical focus for quick manual aiming when laying out points in DR mode.
- Combine with Trimble Field Link software running on the Trimble Field Tablet to optimize your accuracy and productivity.

<table>
<thead>
<tr>
<th>EDM</th>
<th>Servo Control</th>
<th>Angle Accuracy</th>
<th>Hardware Options</th>
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</thead>
<tbody>
<tr>
<td>DR HP</td>
<td>Robotic, Autolock</td>
<td>3”</td>
<td>Trimble VISION</td>
</tr>
</tbody>
</table>
GENERAL SPECIFICATIONS

PERFORMANCE

Angle measurement accuracy (standard deviation) based on DIN 18723: 3" (1.0 mgon)
Angle display (least count): 0.1" (0.01 mgon)

Distance measurement

Typical Accuracy

<table>
<thead>
<tr>
<th>Distance</th>
<th>50 m (164 ft)</th>
<th>100 m (328 ft)</th>
<th>200 m (656 ft)</th>
<th>300 m (984 ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prism mode Standard</td>
<td>2 mm (0.04&quot;)</td>
<td>3 mm (0.04&quot;)</td>
<td>4 mm (0.15&quot;)</td>
<td>6 mm (0.15&quot;)</td>
</tr>
<tr>
<td>Tracking</td>
<td>2 mm (0.08&quot;)</td>
<td>3 mm (0.08&quot;)</td>
<td>5 mm (0.20&quot;)</td>
<td>6 mm (0.24&quot;)</td>
</tr>
<tr>
<td>DR mode Standard</td>
<td>3 mm (0.08&quot;)</td>
<td>4 mm (0.15&quot;)</td>
<td>5 mm (0.20&quot;)</td>
<td>6 mm (0.24&quot;)</td>
</tr>
<tr>
<td>Tracking</td>
<td>10 mm (0.4&quot;)</td>
<td>10 mm (0.4&quot;)</td>
<td>11 mm (0.44&quot;)</td>
<td>12 mm (0.48&quot;)</td>
</tr>
</tbody>
</table>

Measuring time

<table>
<thead>
<tr>
<th>Mode</th>
<th>Standard</th>
<th>Tracking</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prism</td>
<td>2.5 s</td>
<td>0.4 s</td>
<td>2.5 s</td>
</tr>
<tr>
<td>DR</td>
<td>3-15 s</td>
<td>0.4 s</td>
<td></td>
</tr>
</tbody>
</table>

Range (under standard clear conditions) 1, 2

- Prism mode: 1 prism = 3,000 m (9,800 ft)
- Shortest range = 1.5 m (4.9 ft)

EDM SPECIFICATIONS

Light source: Laser diode 660 nm; Laser class 1 in Prism mode; Laser class 2 in DR mode

Laser pointer coaxial (standard): Autofocusing green laser class 2

Beam divergence Prism mode

- Horizontal: 4 cm/100 m (0.13 ft/328 ft)
- Vertical: 4 cm/100 m (0.13 ft/328 ft)

Beam divergence DR mode: Autofocusing atmospheric correction: 130 ppm to 160 ppm continuously

CAMERA

- Chip: Color Digital Image Sensor
- Resolution: 2048 x 1536 pixels
- Focal length: 23 mm
- Depth of field: 3 m to infinity
- Field of view: 15.5 deg x 12.3 deg
- Digital zoom: 4-step (1x, 2x, 4x, 8x)
- Video streaming: 5 frames/sec

GENERAL SPECIFICATIONS

Leveling

- Circular level in tribrach: 8'/2 mm (8'/0.007 ft)
- Automatic level compensator
  - Type: Centered dual-axis
  - Accuracy: ±0.5" (0.15 mgon)
  - Range: ±5.4" (±100 mgon)

Servo system: MagDrive servo technology, integrated servo/angle sensor; electromagnetic direct drive

Rotation speed: 115 degrees/s (128 gon/s)

Rotation time Face 1 to Face 2: 2.6 s

Positioning speed: 180 degrees (200 gon): 2.6 s

Centering

- Centering system: Trimble 3-pin optical plummet: Built-in optical plummet

Magnification/shortest focusing distance: 2.3x/0.5 m to infinity (1.6 ft to infinity)

Operating temperature: –20º C to +50º C (–4º F to +122º F)

Dust and water proofing: Dust and water proofing

Humidity: 100% condensing

Power supply: Internal battery: Rechargeable Li-Ion battery 11.1 V, 5.0 Ah

Operating time 4

- One internal battery: Approx. 6.5 hours
- Three internal batteries in multi-battery adapter: Approx. 18 hours

Robotic holder with one internal battery: 13.5 hours

Operating time with video robotic: One battery: 5.5 hours

Three batteries in multi-battery adapter: 17 hours

Weight

- Instrument (Servo/Autolock®): 5.15 kg (11.35 lb)
- Instrument (Robotic): 5.25 kg (11.57 lb)
- Trimble CU controller: 0.4 kg (0.88 lb)
- Tribach: 0.7 kg (1.54 lb)
- Internal battery: 0.35 kg (0.77 lb)
- Trunnion axis height: 0.196 mm (7.71 in)
- Communication: USB, Serial, Bluetooth®
- Security: Dual-layer password protection

ROBOTIC RANGE

Autolock and Robotic range 2

- Passive prisms: 500–700 m (1,640–2,297 ft)
- Trimble MultiTrack™ Target: 800 m (2,625 ft)
- Trimble point projection at 200 m (656 ft): (standard deviation) 0.007 mm (0.007 ft)
- Passive prisms: <2 mm (0.007 ft)
- Trimble MultiTrack™ Target: <2 mm (0.007 ft)
- Shortest search distance: 0.2 m (0.65 ft)
- Search time (typical): 2–10 s

1. Standard clear: No haze, Overcast or moderate sunlight with very light heat shimmer.
2. Range and accuracy depend on atmospheric conditions, size of prisms and background radiation.
4. The capacity in –20 ºC (–5 ºF) is 75% of the capacity at +20 ºC (68 ºF).
5. Bluetooth type approvals are country specific. Contact your local Trimble Authorized Distribution Partner for more information.
6. Depending on selected size of search window.

Specifications subject to change without notice.

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