Total Performance

The Trimble RTS773 robotic total station features advanced technologies to deliver accurate and reliable layout fast, to ensure that design intent is executed correctly the first time.

Video-Assisted Control
Trimble VISION™ gives you the power to see everything the instrument sees without a trip back to the tripod. View your layout with live video images on the Trimble Field Tablet. Now you are free to capture measurements to prism or reflectorless surfaces, with point and click efficiency.

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.

LAYOUT TECHNOLOGY

FOR CONTRACTORS
Trimble MagDrive™ Servo Technology provides for exceptional speed and accuracy with smooth, silent operation. Trimble SurePoint™ Technology ensures accurate measurements by automatically correcting for unwanted movement due to wind, sinkage, and other factors. Trimble MultiTrack™ technology locks on and tracks passive prisms for control measurements and active targets for dynamic measurement, stakeout and grade control.

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, at greater range, with the Class 2 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.
GENERAL SPECIFICATIONS

PERFORMANCE

<table>
<thead>
<tr>
<th></th>
<th>Typical</th>
<th>Accuracy</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</td>
<td></td>
<td>Standard</td>
<td>2.5 mm (180 gons)</td>
<td>3.0 mm (216 gons)</td>
<td>3.0 mm (216 gons)</td>
<td>3.0 mm (216 gons)</td>
</tr>
<tr>
<td>DR mode</td>
<td></td>
<td>Standard</td>
<td>3 mm (1/8&quot;)</td>
<td>4 mm (5/32&quot;)</td>
<td>5 mm (13/64&quot;)</td>
<td>6 mm (15/64&quot;)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tracking</td>
<td>10 mm (25/64&quot;)</td>
<td>10 mm (25/64&quot;)</td>
<td>11 mm (7/16&quot;)</td>
<td>12 mm (15/32&quot;)</td>
</tr>
</tbody>
</table>

DR mode

- **Shortest range (under standard clear conditions)**
  - **Prism mode**: 1 prism 3,000 m (9,842 ft)
  - **DR mode**: 1.5 m (4.9 ft)

**EDM SPECIFICATIONS**

- **Light source**: Laser diode 660 nm, Laser class 1
- **Beam divergence**: Prism mode, Horizontal: ±4 cm/m/100 m (±0.13 ft/m/328 ft), Vertical: ±4 cm/m/100 m (±0.13 ft/m/328 ft)
- **Beam divergence DR mode**: Horizontal: ±2 cm/m/50 m (±0.066 ft/m/164 ft), Vertical: ±2 cm/m/50 m (±0.066 ft/m/164 ft)
- **Atmospheric correction**: −130 ppm to 160 ppm continuously
- **Magnifying lens**: 30 x
- **Illuminated crosshair**: Standard
- **Automatic level compensator**: 1.8 mm (1/40")
- **Optical plummet**: Built-in optical plummet
- **Clamps and slow motions**: Servo-driven, endless fine adjustment
- **Rotation speed**: 115 degrees/s (128 gon/s)
- **Servo-controlled**: Servo-driven, endless fine adjustment

**CAMERA**

- **Chip**: 2048 x 1536 pixels
- **Resolution**: 4-step (1x, 2x, 4x, 8x)
- **Video streaming**: 4–8 frames/sec
- **Digital zoom**: 4-step (1x, 2x, 4x, 8x)

**TECHNICAL SPECIFICATIONS**

- **Weight**
  - Instrument (Robotic) 5.15 kg (11.35 lb)
  - Robotic holder with one internal battery 13.5 hours
- **Operating time**
  - 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

- **Optics**
  - **Magnification**: 2 to 10 x
  - **Illuminated crosshair**: Standard
  - **Automatic level compensator**: 1.8 mm (1/40")
  - **Optical plummet**: Built-in optical plummet
- **Centering system**: Trimble 3-pin
- **Beam divergence**: Prism mode, Horizontal: ±4 cm/m/100 m (±0.13 ft/m/328 ft), Vertical: ±4 cm/m/100 m (±0.13 ft/m/328 ft)
- **Atmospheric correction**: −130 ppm to 160 ppm continuously

**COMMUNICATION**

- **Interface**: USB, Serial, Bluetooth
- **Trunnion axis height**: 196 mm (7.71 in)
- **Operating time**
  - One internal battery Approx. 6.5 hours
  - Three internal batteries in multi-battery adapter Approx. 18 hours

**PERFORMANCE**

- **Operating time**
  - One internal battery Approx. 6.5 hours
  - Three internal batteries in multi-battery adapter Approx. 18 hours

**WEIGHT**

- **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)
  - Tribrach 0.7 kg (1.54 lb)
  - Internal battery 0.35 kg (0.77 lb)
  - Trunnion axis height 196 mm (7.71 in)
  - Autolock and Robotic range 1.800.234.3758

**NORTH AMERICA**

Trimble Navigation Limited
10368 Westmoor Drive
Westminster, CO 80021
1.800.234.3758
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**Dust and water proofing**

- **Dust and water proofing**: IP55

**Power supply**

- **Power supply**: Rechargeable Li-Ion battery
  - 11.1 V, 5.0 Ah
  - 6 hours

**Camera features**

- **Video streaming**: 4–8 frames/sec
- **Digital zoom**: 4-step (1x, 2x, 4x, 8x)

**Specifications**

Specifications subject to change without notice.

1. **Standard clear**: No haze. Overcast or moderate sunlight with some heat shimmer.
2. **Normal**: Normal visibility, light haze, normal background radiation.
3. **Haze**: Object in moderate sunlight, average background radiation.
4. **Object in haze**: Object in haze, average background radiation.
5. **Object in average background radiation**: Average background radiation.

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