

# API

## SmartTrack

The SmartTrack™ Sensor (STS) is a major breakthrough for measurement and alignment applications. The STS combined with an API laser tracker enables users to determine the position (x, y, z) and angular orientation (i, j, k) of robotic movement in real-time.



## SPECIFICATIONS

Pitch:	±55°
Yaw:	±180° (infinite)
Roll:	±60°
Pitch, Yaw & Roll Accuracy:	0.005°
Tracking Distance:	50 meters
Tracking Angular Speed:	50°/second
Measurement Uncertainty = +/- 0.0005 degree:	+/-12.5 µm
Angular Resolution:	± 3.0 arcsec
Weight:	1.4 kg (3.1 lbs)
Mounting Screws:	M6
Size:	12.7 cm x 21.08 cm x 5.84 cm

## SMARTTRACK FEATURES & BENEFITS

### Real-Time Targeting

The SmartTrack's motorized sensor intuitively tracks API's laser beam to expand 3D data by providing angular information in real-time.

### Large Measurement Envelope

The STS has an operating radius of more than 50 meters and infinite yaw articulation, making it the most advanced 6DoF laser tracker sensor in its class.

### Volumetric Robotic Compensation

The accuracy and flexibility of the STS allows certification, calibration, and compensation of robotic programming.

### Unmatched Portability & Mounting Versatility

Weighing only 1.4 kg (3.1 lbs), the patented sensor's compact size allows for easy mounting in any orientation on a variety of robots and machines.

## APPLICATIONS

- Large Assembly Guidance
- Robotic Calibration
- Kinematic Modeling
- DH Modeling
- 6D Adaptive Feedback Control
- Machine Tool Calibration

The SmartTrack (STS) is designed for indoor or outdoor use in altitudes of -700m to 300m and capable of operating in temperatures between -10°C to 45°C with a humidity range of 10-95% (Non-condensating).

Only batteries provided by API may be used with any API product.

For equipment in Europe: Do not replace with inadequate cords that do not meet the product specification. Please call API support for assistance.

Please note that a manual will be provided IN German, French, Italian , Or specified country of sale.

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