

# METRONOR SOLO TWIN

*Double camera electro-optical  
portable coordinate measuring system*

- WIDE-ANGLE POINT-AND-MEASURE
- WIDE 70° FIELD-OF-VIEW
- GO IN CLOSE FOR MAXIMUM ACCURACY
- IDEAL FOR NARROW AND CROWDED SPACES
- ALIGN, INSPECT PARALLEL SHAFTS OR PLANES
- HIGH ACCURACY ON LARGE OBJECT



Metronor SOLO Twin uses two separate cameras to generate each image. By effectively doubling the field-of-view, the camera can be placed closer to the measurement object, increasing accuracy and enabling measurement in one-set-up where several set-ups would otherwise be required.

During normal operation, the two cameras are mounted together on a special carbon fiber bracket ensuring optimal overlap and excellent stability. Using a fast and simple procedure, the alignment between the two cameras can be re-determined anytime and anywhere, keeping system performance consistent over time – and after any rough handling or transportation.

Metronor SOLO Twin also enables special applications where it is critical to have two separate camera axes that are precisely known relative to each other. Such applications include alignment or inspection of parallel objects such as planes or bores – e.g. in gearboxes, thrusters, turbines, or other machinery.

## APPLICATIONS INCLUDE:

- Prototyping
- Tool and die inspection
- Tube & pipe measurement
- In-process inspection
- On-machine inspection
- Fixture inspection
- As built documentation
- Large assembly measurement
- Assembly alignment
- Excess material verification in casting/forging
- On-machine alignment of parts for milling/machining
- Tool building
- Reverse engineering

For more information: [www.metronor.com](http://www.metronor.com)

## Technical Specifications

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### PERFORMANCE SPECIFICATIONS

<b>Range</b>	Distance from sensors	1.5 - 25 m (5 - 80')
<b>Accuracy Small volume - 3D</b>	±0.12 [mm]	Volume up to 1.5 x 1.5 x 1.5 m <sup>3</sup>
		Accuracy of 3D length 2 sigma (U95)
<b>Accuracy Casting volume - 3D</b>	±0.20 [mm]	Volume up to 3.0 x 3.0 x 3.0 m <sup>3</sup>
		Accuracy of 3D length (typical)
<b>Accuracy Profile Measurements</b>	±0.16 [mm] (5 m from camera)	600mm wide profile orthogonal to camera optical axis  2 sigma (U95)
	±0.21 [mm] (10 m from camera)	
	±0.43 [mm] (20 m from camera)	
<b>Accuracy Parallelism</b>	±0.0033 [deg]	Parallelism between 2 planes, 1000 mm size 2 sigma (U95)
<b>Accuracy Planarity</b>	±0.06 [mm]	Planarity of single plane, size 2x2m <sup>2</sup> 2 sigma (U95)

### HARDWARE SPECIFICATIONS

<b>Environment</b>	Operating Temperature	10 to 45°C (50 to 113°F)
	Storage Temperature	-25 to 65°C (-13 to 150°F)
	Operating Humidity	< 95% relative humidity, non-condensing
	Pressure, Humidity, Temperature	No effect on measurement accuracy
	Vibration Stability Control (option)	0 - 100 Hz, < 3 mm amplitude
	No warm-up	
<b>Electrical Power</b>	Auto switching (Battery operation optional)	100-240 V AC, 50-60 Hz
<b>Packaging</b>	System weight (excl. cases)	12 kg (29 lbs)
	Shipping weight	26 kg (57 lbs)
<b>Computing Unit</b>	Type	Laptop, Windows 7 Professional 64 bit
<b>Sensor Unit (2 incl.)</b>	Type	CCD-based digital camera
	Optical settings	Fixed aperture and focus, factory optimized
	Field of View	70° x 32°
	Effective Resolution	1.180.000x 512.000
	Unit Net weight	0.80 kg (2 lbs)
<b>Probing Unit</b>	Type	Wireless Handheld, with quick-change styli
	Material	Carbon fibre w/embedded active targets
	Styli	User configurable set of 7 w/ titanium extensions/angles
	Styli type	Ruby spheres (incl.), scribe tip (incl.), edge styli (opt.)
	Hidden point capability	600 mm (24") - longer with optional probes
	Unit Net weight	0.52 kg (1.2 lbs)