METRONOR

DATA SHEET

SOLO

Single camera electro-optical portable coordinate measuring system

- **Portable 3D measurements**
- **Best-in-class price/performance**
- **Light-weight - 11 kg (24 lbs)**
- **Extremely easy to use**
- **Large object measurement**
- **Ideal for rough environments**

SOLO is a portable CMM system based on Metronor's patented principle that allows for accurate 3D measurements with just a single camera and a hand-held probe. SOLO offers full CMM capability including comparison of just any geometry to CAD data or blueprint.

Ideally suited where fast set-up, ease of use and high portability is critical, SOLO offers a superior working volume and can be operated through a wireless connection - without cumbersome arms to balance or cables to untangle.

Highly affordable, SOLO provides excellent return on investment in industries as diverse as automotive, forging, machining, casting, energy and aerospace – as well as in numerous special applications such as high-radiation nuclear power plant maintenance or custom-fit boat decks.

While highly capable on its own, SOLO is also a very flexible investment and a wide range of options and upgrade paths are offered, permitting SOLO to grow along with future requirements or needs.

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**

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Technical Specifications

SOLO

APPLICATION	SPECIFICATION	COMMENT
Small volume - 3D	±0.12 [mm]	• Volume up to 1.5 x 1.5 x 1.5 m^3 • Accuracy of 3D length • 2 sigma (U95)
Casting volume - 3D	±0.20 [mm]	• Volume up to 3.0 x 3.0 x 3.0 m^3 • Accuracy of 3D length (typical)
Profile measurements	±0.16 [mm] (5 m from camera) ±0.21 [mm] (10 m from camera) ±0.43 [mm] (20 m from camera)	• 600mm wide profile orthogonal to camera optical axis • 2 sigma (U95)
Parallelism	±0.0033 [deg]	• Parallelism between 2 planes, 1000 mm size • 2 sigma (U95)
Planarity	±0.06 [mm]	• Planarity of single plane, size 2x2m^2 • 2 sigma (U95)
RANGE		
	Distance from sensors	1.5 - 30 m (5 - 100')
ENVIRONMENT		
	Operating Temperature Storage Temperature Operating Humidity Pressure, Humidity, Temperature Vibration Stability Control (option) No warm-up	10 to 45°C (32 to 113°F) -25 to 65°C (-13 to 150°F) < 95% relative humidity, non-condensing No effect on measurement accuracy 0 - 100 Hz, < 3 mm amplitude
ELECTRICAL POWER		
	Auto switching (Battery operation optional)	100-240 V AC, 50-60 Hz
PACKAGING		
	System weight (excl. cases) Shipping weight	11 kg (24 lbs) 24 kg (53 lbs)
COMPUTING UNIT		
	Type	High performance laptop, Windows XP
SENSOR UNIT (1 INCL.)		
	Type Optical settings Field of View Effective Resolution Unit Net weight	CCD-based digital camera Fixed aperture and focus, factory optimized 38° x 32° 640,000 x 512,000 0,80 kg (2 lbs)
PROBING UNIT		
	Type Material Styli Styli type Hidden point capability Unit Net weight	Wireless Handheld, with quick-change styli Carbon fibre w/embedded active targets User configurable set of 7 w/ titanium extensions/angles Ruby spheres (incl.), scribe tip (incl.), edge styli (opt.) 600 mm (24") - longer with optional probes 0.52 kg (1.2 lbs)

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