

# Metronor One

*Single camera electro-optical portable coordinate measuring system*

- **BEST-IN-CLASS PRICE/PERFORMANCE**
- **EXCEPTIONALLY EASY TO USE**
- **2.5 x 2.5 x 2.5m REAL VOLUME MEASUREMENT**
- **LIFE-LONG ACCURACY**
- **HANDHELD WIRELESS PROBE - 600g (1.3lbs)**
- **STICKER-FREE TECHNOLOGY**
- **LIGHTWEIGHT - 10kg (22lbs) TOTAL**

---

Metronor One is a portable CMM that uses electro-optics and photogrammetry (the science of precisely determining the location of items based on images) for accurately calculating where the handheld probe (called Lightpen) is located – both in terms of position and orientation.

The advantages? The measuring process is fast and reliable – with no linkages or moving parts, accuracy is secured for life. Just take Metronor One out of its box, turn the PC and Lightpen on, place the camera on the tripod and start measuring. Your system arrives ready to use – software, laptop and all necessary parts are included.

The handheld Lightpen is battery operated, wireless and light, making it comfortable to use also for long periods of time. And unlike articulated arms, there are no joints and movement restrictions to cause operator fatigue.

And when the time for expansion comes, you can upgrade Metronor One to other systems with larger volume without losing your initial investment.



---

## APPLICATIONS INCLUDE:

- Prototyping
- Tool and die inspection
- Tube & pipe measurement
- In-process inspection
- On-machine inspection
- Fixture inspection
- As-built documentation
- Assembly alignment
- Tool building
- Reverse engineering

---

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



## Technical Specifications

### Metronor One

#### PERFORMANCE SPECIFICATIONS

|                             |                  |  |
|-----------------------------|------------------|--|
| <b>Measurement Volume</b>   | 15m <sup>3</sup> | 552ft <sup>3</sup>   |
| <b>Accuracy</b>             |                  | Accuracy of 3D length  |
| <b>3D Length</b>            | ±0.08mm          | 2 sigma (U95)  |
| <b>Accuracy Parallelism</b> | ±0.0025deg       | Parallelism between 2 planes, 600mm size<br>2 sigma (U95)              |
| <b>Accuracy Planarity</b>   | ±0.025mm         | Planarity of single plane, size 0.6x0.6m <sup>2</sup><br>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)           | 0-100Hz, <3mm amplitude                         |
|                              | No warm-up                                     |   |
| <b>Electrical Power</b>      | Auto switching<br>(Battery operation optional) | 100-240V AC, 50-60Hz                            |
| <b>Packaging</b>             | System weight (excl. cases)                    | 10kg (22lbs)                                    |
|                              | Shipping weight                                | 18kg (40lbs)                                    |
| <b>Computing Unit</b>        | Type   | Laptop, Windows 10 Professional 64 bit          |
| <b>Sensor Unit (1 incl.)</b> | Type   | CCD-based digital camera                        |
|                              | Optical settings                               | Fixed aperture and focus, factory optimized     |
|                              | Field of View                                  | 38°x32°   |
|                              | Effective Resolution                           | 640,000x512,000                                 |
|                              | Unit Net weight                                | 800g (2lbs)                                     |
| <b>Probing Unit</b>          | Type   | Wireless Handheld, with quick-change styli      |
|                              | Material                                       | Carbon fibre w/embedded active targets          |
|                              | Styli  | 25mm and 125mm included, other lengths optional |
|                              | Styli type                                     | 5mm ruby sphere                                 |
|                              | Unit Net weight                                | 600g (1.8lbs)                                   |