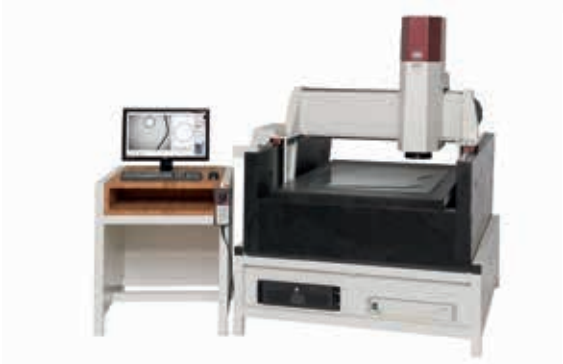
# WM1 Series



## Workshop microscope

Optical image processing or multi-sensor with probe for measurement

- Stamped parts
- Plastic parts
- Rubber parts
- Milled parts
- Tools
- Profiles, boards etc.

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Wir machen Qualität sichtbar
Nous rendons la qualité visible
Making quality visible

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# WM1 Series

More than 1000 devices sold worldwide

## Tailor-made solutions for your measurement task

### High-tech measurement machine – fully configurable to suit any budget

Whether you have your eye on a **manual model or on a CNC-operated model** of the WM1 – in either case, you can benefit from Schneider's powerful software packages SAPHIR and M3! In the entry-level category, the M3 measurement software sets new standards in terms of intuitive design, user friendliness and functionality. If you require particularly smart programming and analysis features, Schneider's 3D measurement software will be your tool of choice. The CNC model can be optionally expanded into a basic multi-sensor device by adding M3 or SAPHIR to a **touch-trigger (tactile) probe.** Series WM1 by Schneider provides tailor-made solutions that can be flexibly adapted to your specific needs.

### Your benefits

- Camera-based acquisition of measurement data
- Precise edge detection in transmitted or incident light thanks to intelligent image analysis algorithms
- Small size – great performance
- Fast and easy handling combined with impressive measurement precision

### WM1 300 / WM1 400 / WM1 500

- Manual axis motion
- M3 measurement software
- High-resolution CCD (matrix array) camera
- 1.5x magnification
- Incident light illumination through LED ring light, 4 sectors and 1 ring – separately switchable
- Precision measurement stage with quick-adjustment mechanism for axes X and Y
- Diode laser installed as a positioning aid
- **Optional: manual zoom lens incl. coaxial incident light illumination**

***WM1 300*** *with M3 measurement software, on a workstation 170*

*Machines shown may include optional accessories.*

## WM1 200 S
## WM1 300 S / WM1 400 S / WM1 500 S

- Manual axis motion
- SAPHIR measurement and analysis software
- High-resolution CCD (matrix array) camera
- 1.5x magnification
- Incident light illumination through LED ring light 4 sectors and 1 ring – separately switchable
- Precision measurement stage with quick-adjustment mechanism for axes X and Y
- Diode laser installed as a positioning aid
- Multi-touch panel PC
- **Optional: manual zoom lens incl. coaxial incident light illumination**

## WM1 200 CNC
## WM1 300 CNC / WM1 400 CNC / WM1 500 CNC

- CNC-controlled axis motion
- SAPHIR measurement and analysis software
- 3-axis CNC control
- High-resolution CCD (matrix array) camera
- 1.5x magnification
- Incident light illumination through LED ring light, 4 sectors and 1 ring – separately switchable
- Precision measurement stage for axes X and Y
- Diode laser installed as a positioning aid
- Joystick and trackball for axis motion control, with fast/slow speed selection
- Multi-touch panel PC
- **Optional: touch-trigger probe TP200**
- **Optional: motorised zoom lens incl. coaxial incident light illumination**

***WM1 400 CNC*** *with SAPHIR measurement and analysis software, on a workstation 170*

*A valuable option for WM1 CNC: Touch-trigger probe* ***TP200***

For more detailed information, please visit our website at **www.dr-schneider.de**

# WM1 accessories

## The right solution for any task!

### Alignment Corner

Alignment corner for quick and precise pre-alignment of workpieces. The parts are manually adjusted in the diagonals.

### Quick Load Corner

The quick load corner has been specially designed for assembly in the lower left corner of the measurement stage. Integrated magnets guarantee a precise positioning of the transparent acrylic base plate every time.
Thus facilitating a quick and simple loading/unloading of the pallet on the measurement stage. The edges are recessed for secure placement of the parts, thus facilitating a quick and simple inspection.

For more detailed information, please visit our website at **www.dr-schneider.de**

# Technical specifications for the WM1 Series

| Model | | | | | | |
|---|---|---|---|---|---|---|
| | M3 manual | - | WM1 300 M3 | WM1 400 M3 | - | WM1 500 M3 |
| | M3 CNC | WM1 200 M3 CNC | WM1 300 M3 CNC | WM1 400 M3 CNC | WM1 400 M3 CNC | WM1 500 M3 CNC |
| | SAPHIR manual | WM1 200 S | WM1 300 S | WM1 400 S | - | WM1 500 S |
| | SAPHIR CNC | WM1 200 CNC | WM1 300 CNC | WM1 400 CNC | WM1 400 CNC | WM1 500 CNC |
| **Measurement range** | X x Y mm | 200 x 100 | 300 x 200 | 400 x 200 | **400 x 300** | 500 x 200 |
| | Z mm | 100 | 200 | 200 | 200 | 200 |
| **Lens** | | other lenses available upon request | | | | |
| magnification | | 0.5x | 1.5x | 3.0x | 5.0x | 10.0x |
| field of view | mm | 12 x 9 | 4.3 x 3.2 | 2.1 x 1.6 | 1.2 x 0.9 | 0.6 x 0.45 |
| working distance | mm | 120 | 77 | 77 | 50 | 24 |
| **Manual zoom** | | | | | | |
| magnification | | 0.7x - 4.5x, 6 steps | | | | |
| field of view | mm | 7.9 x 6.0 - 1.2 x 0.9 | | | | |
| working distance | mm | 86 | | | | |
| **Motorised zoom** | | | | | | |
| magnification | | 0.58x - 7.0x, 8 steps | | | | |
| field of view | mm | 10.1 x 7.6 - 1.5 x 1.1 | | | | |
| working distance | mm | 86 | | | | |
| **Resolution** | mm | 0.0002 | | | | |
| **Workpiece weight max.** | | | | | | |
| on glass plate | kg | 20 | | | | |
| **Length measurement error**[1] | | measurement length L in mm | | | | |
| optical (1D), DIN EN ISO 10360-7[2] | $E_{UX\,MPE}$, $E_{UY\,MPE}$ | (1.9 + L/100 mm) µm | | | | |
| optical (2D), DIN EN ISO 10360-7[2] | $E_{UXY\,MPE}$ | (2.9 + L/100 mm) µm | | | | |
| tactile (1D), DIN EN ISO 10360-2[3] | $E_{OZ\,MPE}$ | (3.9 + L/100 mm) µm | | | | |
| **Dimensions** | mm | W 780 | W 900 | W 1000 | W 1160 | W 1100 |
| | | D 570 | D 950 | D 950 | D 1330 | D 950 |
| | | H 700 | H 950 | H 950 | H 1600 | H 950 |
| **Weight** | kg | 80 | 140 | 160 | 600 | 180 |
| **Electric power supply** | | 220-240 VAC, 50-60 Hz, 1 kW | | | | |

[1] **Admissible ambient temperature** 20 °C ± 1 K, **temperature gradient** $\Delta_{th}$ = 0.5 K/h, $\Delta_{td}$ = 4.0 K/d, **measured with a calibrated standard**
[2] $\beta$ **= magnification factor = 1.5** ≙ lens 1.5x (field of view 4 x 3 mm)
[3] **Option:** TP200: straight touch probe, probe tip ø 2 mm, length 30 mm

# WM1 G Series

# Featuring an inherently rigid granite base and a compact, ergonomic design

## Proven technology in an extensive measurement device

With **WM1 G,** we have complemented the upper range of our successful series WM1 with a real heavyweight. This high-tech tool is THE answer to all your "large-scale" metrological needs – **more than 1000 devices sold worldwide** speak for themselves! WM1 G boasts the tried and tested technology of WM1 in the guise of a gantry-type machine. As is customary at Schneider Messtechnik, client needs and expectations were kept in clear focus throughout the development process: A flexible approach to client-specific requirements was as much a matter of course, as an ergonomic design ensuring user-friendly operation and clear cost structures for an affordable investment. This high-performance package is rounded off by Schneider's **powerful 3D measurement and analysis software SAPHIR** – a valuable asset enabling the user to solve complex tasks easily and intuitively.

Schneider's 3D measurement and analysis software, which features a clearly structured user interface, was specially conceived for multi-sensor environments so that it is capable of controlling any measurement probe installed on the machine. And this is exactly where SAPHIR plays off its particular strengths because no matter which machine or device series you opt for, and regardless of whether the workpieces to be measured are flat, cubic or rotationally symmetric – one and the same smart software will reliably serve as the heart and hub of your quality assurance.

Like the other WM1 models already established in the market, **series WM1 G is built on the principle of "customisation by design"**, i.e. all models can be readily adapted to fit your needs.


For more detailed information, please visit our website at **www.dr-schneider.de**

## WM1 G offers the following standard features:

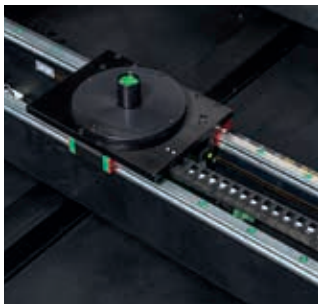
- SAPHIR measurement and analysis software
- 3-axis CNC control
- High-resolution CCD matrix-array camera
- Fixed lens with 1.5-fold magnification
  (≙ approx. 39-fold magnification on the screen)
- LED ring light for incident light illumination,
  4 sectors and 1 ring – separately switchable
- Precision measurement stage made of granite
- Diode laser installed as a positioning aid
- Joystick for axis control, with fast/slow speed selection
- TFT flat screen monitor

## Your benefit

- Camera-based acquisition of measurement data
- Precise edge detection in transmitted or incident light thanks to intelligent image analysis algorithms
- Fast and convenient handling combined with ultra-high measurement precision
- Ready for transformation into a multi-sensor device

## Options of WM1 G Series

- Touch-trigger (tactile) probe TP200
- Motorised zoom lens 0.58x-7x, 8 steps,
  incl. coaxial incident light illumination
- 4-step zoom lens with a field of view
  of up to 65 x 55 mm
- Fixed lens with large field of view



*LED transmitted light synchronised to the camera motion in X and Y direction*

*A valuable option: Touch-trigger probe **TP200***

*Machines shown may include optional accessories.*

SAPHIR

## SAPHIR measurement and analysis software

Since "Schneider" is the German word for "tailor", you can rightly conclude that **SAPHIR** is a truly tailored measurement software that leaves nothing to be desired: SAPHIR is a valuable resource with invaluable features. For further information about this technological gem, please request our free brochure entitled **"SAPHIR – 3D Measurement and Analysis Software".**

## M3 measurement software with image processing feature

This valuable tool enables precise measurement of geometrical elements by means of an intuitive multi-touch application. Among its main strengths are the clear and well-structured user interface as well as its innovative image processing functions that ensure fast and reproducible measurement point acquisition. For more detailed information, please request our free brochure **"M3 measurement Software".**

The latest news and information can also be found on our Facebook page.

A range of interesting product videos and useful information are available on YouTube.

# Technical specifications for the WM1 G Series

| Model | | WM1 707 G CNC | WM1 710 G CNC | WM1 715 G CNC |
|---|---|---|---|---|
| **Measurement range** | X x Y mm | 700 x 700 | 700 x 1000 | 700 x 1500 |
| | Z mm | 200 | 200 | 200 |
| | | | | |
| **Lens** | | other lenses available upon request | | |
| magnification | | 0.5x | 1.5x | 3.0x 5.0x |
| field of view | mm | 12 x 9 | 4.3 x 3.2 | 2.1 x 1.6 1.2 x 0.9 |
| working distance | mm | 97 | 97 | 77 50 |
| | | | | |
| **4-step zoom** | | | | |
| magnification / field of view / working distance | | 0.125x - 1.0x / 65.5 x 55 - 8 x 6.5 mm / 150 mm | | |
| | | | | |
| **Motorzoom** | | | | |
| magnification / field of view / working distance | | 0.58x - 7.0x / 10.1 x 7.6 - 1.5 x 1.1 mm / 86 mm | | |
| | | | | |
| **Resolution** | mm | 0.0002 | | |
| | | | | |
| **Workpiece weight max.** | | | | |
| on glass plate | kg | 20 | | |
| | | | | |
| **Length measurement error**[1] | | measurement length L in mm | | |
| optical (2D), DIN EN ISO 10360-7[2] | $E_{UXY\ MPE}$ | (5.0 + L/250 mm) µm | | |
| tactile (2D), DIN EN ISO 10360-2[3] | $E_{OZ\ MPE}$ | (3.9 + L/150 mm) µm | | |
| | | | | |
| **Dimensions** | mm | W 1310 | W 1610 | W 2110 |
| | | D 1410 | D 1410 | D 1410 |
| | | H 1610 | H 1610 | H 1610 |
| | | | | |
| **Weight** | kg | 1100 | 1400 | 2000 |
| | | | | |
| **Electric power supply** | | 220-240 VAC, 50-60 Hz, 1 kW | | |

[1] **Admissible ambient temperature** 20 °C ± 1 K, **temperature gradient** $\Delta_{th}$ = 0.5 K/h, $\Delta_{td}$ = 4.0 K/d, **measured with a calibrated standard**
[2] β **= magnification factor = 1.5** ≙ lens 1.5x (field of view 4 x 3 mm)
[3] **Option:** TP200: straight touch probe, probe tip ø 2 mm, length 30 mm

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