

# Marco **AUTOMATED** LM-Series **LENSMETERS**



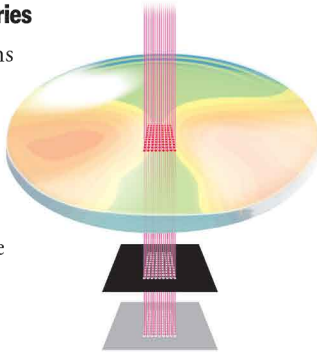
# LM-SERIES

## INTELLIGENT TECHNOLOGY



### The Marco Automated Lensmeter Series

represents the latest technology in lens measurement, providing simple and rapid operation. Faster detection and measurement acquisition offers unparalleled functionality and performance versatility, making it the most advanced automated lensmeter series available on the market today.



### User Friendly

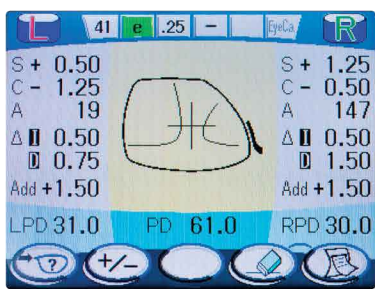
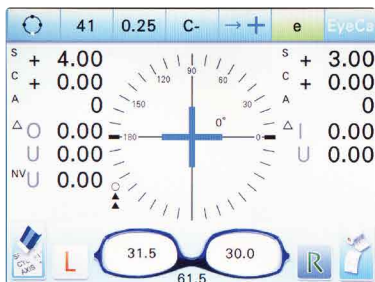
**Hartmann-Shack sensor with 108 measurement points** Advanced simultaneous measurement of 108 points within the nosepiece provides easier and faster measurements with greater accuracy and reliability.

**Automatic Lens Type Detection** Placing a lens on the nosepiece activates the auto lens detection mode, which determines if a lens is a single vision or progressive lens. The LM automatically adjusts to the appropriate measuring mode for the lens type.

**Green Measurement Light** is a special wavelength of light that is used when measuring high index lenses—closer to E-line. The ISO standard gives a more precise measurement value without having to change the Abbe Value.

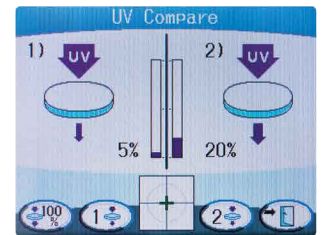
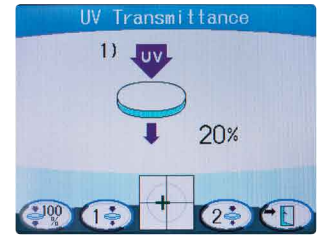
**Full Color & Graphic LCD** display offers clear and easy recognition of various values, from single-vision lens to progressive lens. Superior LCD brightness and horizontal/vertical viewing angle.

**5.7" Tilt LCD Touch Monitor (1800 only)** with enhanced viewing angle allows operator to sit or stand..



### UV Transmittance Measurement

UV transmittance is reported in 1 or 5% increments over a range of 0-100%. The measured data can be saved and the UV transmittance of multiple lenses can be compared.



### Wide Prism Measurement Range

Prism measurement range is expanded to 20 diopters in both horizontal and vertical directions, offering greater versatility.



### Ergonomic Design

#### Built-in IC Card (Eye Care

Card) Reader A Built-In IC Card Reader is located under the LCD monitor, providing quick and easy wireless data transfer to auto refractors and refraction systems. Ethernet interface available on 1800 only.



# UNIQUE FEATURES

**The Marking System** is easy-to-use and can successfully mark even lenses that have a water repellent coating/finish.

## High-Speed Printer with Automatic Cutter

The high-speed printer is fast and has easy-to-read printouts. Replacing a new roll of paper is easy and takes only a few seconds. Available on all models except 600.



## Easy PD measurement (LM-600PD and 1800PD only)

Pupillary Distance (PD) can be measured easily – for both near and distance. Both lensmeters offer an automatic Right/Left detection with a special PD slider, which assists the operator in holding glasses while measuring.



# SAMPLE PRINTOUT

Printout sample in measurement of progressive power lenses

< PROGRESSIVE >		
RIGHT		LEFT
+1.25	SPH	+0.50
-0.50	CYL	-1.25
142°	AXS	20°
I 0.50	PSM	I 0.75
D 1.75		D 0.75
+1.50	ADD	+1.50
15%	UV	20%
-----	PD	-----
30.0	62.0	32.0
N I D E K L M - 6 0 0 P D		

FEATURES	LM-600	LM-600P	LM-600PD	LM-1800P	LM-1800PD
Hartmann-Shack Principle	✔	✔	✔	✔	✔
Automatic Lens Detection	✔	✔	✔	✔	✔
Full Color & Graphic LCD	✔	✔	✔	✔	✔
Marking System	✔	✔	✔	✔	✔
UV Transmittance	✔	✔	✔	✔	✔
Green Measurement Light	✔	✔	✔	✔	✔
Built-in IC Card Reader	✔	✔	✔	✔	✔
Wide Prism Measurement Range	✔	✔	✔	✔	✔
Printer w/Automatic Cutter		✔	✔	✔	✔
PD Measurement			✔		✔
Enlarged LCD Screen				✔	✔
Tilttable LCD Monitor				✔	✔
Ethernet Interface				✔	✔



LM-600 Series



LM-1800 Series



# LM-Series SPECIFICATIONS



MODEL	LM-1800P, LM-1800PD	LM-600, 600P, 600PD
<b>Measurable Range</b>		
Sphere (Spectacle lenses)	-25 to +25 D	
Sphere (Contact lenses)	-25 to +25 D (BC=6.0 to 9.0), (0.01 / 0.06 / 0.12 / 0.25 D increments)	
Cylinder	0 to ±10 D (-, MIX, +), (0.01 / 0.06 / 0.12 / 0.25 D increments)	
Axis	0 to 180° (1° increments)	
ADD	0 to +10 D (Add, Ad2)	
Prism	0 to 20Δ, (0.01 / 0.06 / 0.12 / 0.25Δ increments)	
<b>Prism mode</b>	Δ, θ, Base In / Out, Base Up / Down	
<b>PD measurement (LM-1800PD and LM-600PD)</b>	20.0 to 49.5 mm (monocular), Single vision PD, Progressive lens far vision PD	
<b>UV transmittance</b>	0 to 100% (1 or 5% increments)	
<b>Measurable lens diameter</b>		
Spectacle lenses	20 to 120mm	
Contact lenses	Larger than the inner diameter of the nosepiece (ø5 mm)	
<b>Measurable transmittance</b>	10% and over (20% and over for ±15 to ±20 D)	
<b>Compensation function for high index lenses</b>	The abbe number is changeable in the range of 20 to 60.	
<b>Marking system</b>	Ink cartridge type	
<b>Wavelength / Points measured</b>	535 nm (green) / 108 within nosepiece	
<b>Printer</b>	Thermal line printer with auto cutter (paper width: 58 mm)	
<b>Power supply</b>	AC 100 to 240 V, 50 / 60 Hz	
<b>Display</b>	5.7-inch color full graphic TFT-LCD, 640 x 480 dots with LED backlight	Full graphic LCD with 4.7-inch color screen
<b>Interface</b>	RS-232C, USB2.0 HOST, USB2.0 FUNC, 0/100BASE-T Ethernet - 1 port each	RS-232C, USB
<b>Measuring time</b>	0.06 second ±10% (minimum)	0.09 sec. (minimum)
<b>Power Consumption</b>	60 VA	40 VA
<b>Dimensions / Weight</b>	220 (W) x 252 (D) x 430 (H) mm / 5.0 kg 8.7 (W) x 9.9 (D) x 16.9 (H) " / 11.0 lbs.	7.64"(W) x 16.07"(H) x 8.27"(D) 7.94 – 8.82 lbs.
<b>Standard Accessories</b>	Printer paper, Power code, Dust cover, Nosepiece for contact lenses, Measuring Progressive Power Lenses explanation guide	Dust cover (1), fuse (2) power cord (1), contact lens holder (1) printer paper (4)
<b>Optional accessories</b>	IC card (Eye Care card), Interface cable, USB, cable, Foot switch, Ink cartridge (Red/Blue), Ink cartridge, Ink pad type marking unit, Barcode scanner, Magnetic card reader	RS-232C interface cable, USB cable (with driver), foot switch, marking cartridge (Blue & Red), IC card reader



All automated Marco technologies share data and integrate with leading EMR programs via Marco Connect software.

