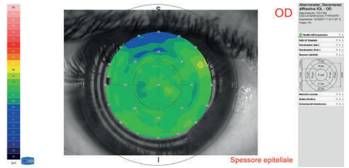
MS-39

AS-OCT

Is the most advanced device for the analysis of the anterior segment of the eye. MS-39 combines Placido disk corneal topography, with high resolution OCT-based anterior segment tomography. The clarity of the cross-sectional images, with a 16 mm diameter, along with the many details of the cornea structure and layers revealed by the MS-39, will be appreciated by anterior segment specialists. MS-39 provides information on pachymetry, elevation, curvature and dioptric power of both corneal sufaces. In addition to anterior segment clinical diagnostics, MS-39 can be used in corneal surgery for refractive surgery planning. An IOL calculation module is also available, based on Ray-Tracing techniques, Additional tools allow MS-39 to perform accurate pupil diameter measuremets and the advanced analysis of tear film.

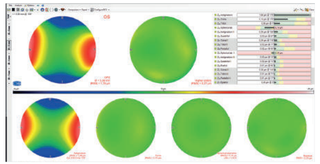
EPITHELIAL AND STROMAL MAP

MS-39 includes the advanced measurement of the epithelial and stromal layer. The epithelial masking effect is known, so knowledge of its morphology is very useful assess abnormalities of the corneal surface.



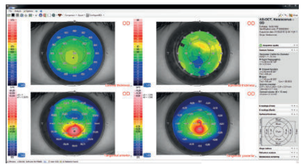
CORNEAL ABERROMETRY

Aberrometric analysis offers a complete overview of the corneal aberrations. It is possible to select the contribution of the anterior, posterior or total cornea for different pupil diameters. The OPD/WFE maps and the visual simulations (PSF, MTF, image convolution) can help the clinicain in understanding or explaining the patient's visual problems.



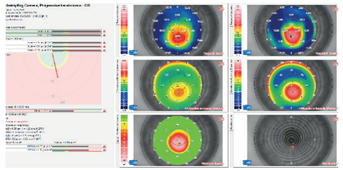
FEATURES OF THE PHOENIX SOFTWARE

MS-39 uses the Phoenix software platform allowing patient data to be saved for future review and analysis, shared by all CSO devices.



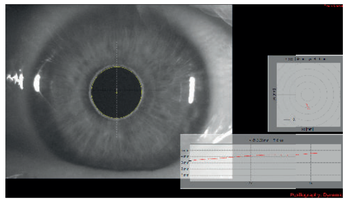
KERATOCONOUS SCREENING *

Keratoconous screening provides the clinician with important information about the patinets cornea. Understanding this can help prevent complications associated with ectasia before corneal surgery is undertaken.



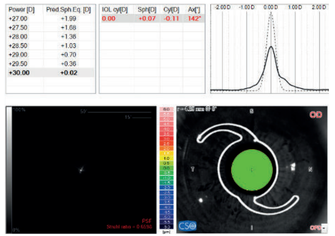
PUPILLOGRAPHY

MS-39 has builtin pupillography measurement software. The measurement of the pupil in scotopic, mesopic, photopic conditions and in dynamic mode. Knowing the center and the diameter of the pupil, is essential for many clinical procedures which seek to optimize vision quality.



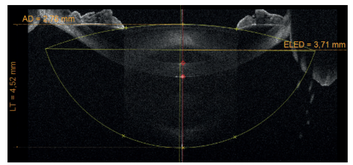
IOL CALCULATION MODULE

This module is based on Ray-Tracing techniques, regardless of the state of the cornea (untreated or previously treated for refractive purposes), provides the calculation of the spherical and toric power of the intraocular lens.



CRYSTALLINE BIOMETRY

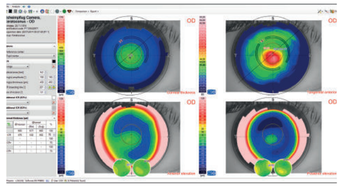
In order to more accurately determine the ELED, and consequently to refine the intra-ocular lens calculation, MS-39 provides an acquisition mode to measure the crystalline lens thickness, its distance from the cornea and its equator.



* This features are not available for sale in the U.S

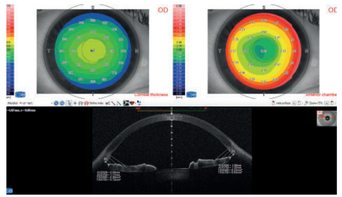
INTRASTROMAL RINGS

On the basis of the pachymetry map and corneal altimetric data, MS-39 allows for intrastromal rings system planning, which maybe an option for the correction of refractive defects and some forms of keratoconus.



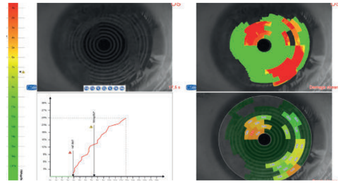
GLAUCOMA SCREENING *

For glaucoma specialists MS-39 enables the measu- rement of AOD, TISA and corneal pachymetry. These values are useful in the diagnosis of the disease.



ADVANCED ANALYSIS OF THE TEAR FILM

Placido disk technology allows for the advanced analysis of the tear film, such as NIBUT (Non Invasive Break-up Time). Based on the Ocular Surface Disease Index questionnaire (OSDI), limbal and conjunctival hyperaemia, Meibomian glands analysis, tear meniscus



analysis and tear osmolarity, calculated merging together all partial scores, provides an owerall evaluation of the clinical condition of the patient for a comprehesive diagnosis of the dry eye disease.

MS-39
AS-OCT

TECHNICAL DATA

Data transfer	USB 3.0
Power supply	external power source 24 VDC In: 100-240Vac - 50/60Hz - 2A - Out: 24Vdc - 100W
Power cable	IEC C14 plug
Dimensions (HxWxD)	505 x 315 x 251mm
Weight	10.4Kg
Chin rest movement	70mm ± 1mm
Minimum height of the chin cup from table	23cm
Base movement (xyz)	105 x 110 x 30mm
Working distance:	74mm
LIGHT SOURCES	
Placido disk illumination	Led @635nm
OCT source	SLed @845nm
Pupillographic illumination	Led @950nm
TOPOGRAPHY	
Placido disk rings	22
Measured points	31232 (anterior surface) 25600 (posterior surface)
Topographic covering	10mm
Dioptric measurement range	from 1D to 100D
Measurement accuracy	Class A according to UNI EN ISO 19980-2012
SECTION	
Image field	16mm x 8mm
Axial resolution	3.6 µm (in tissue)
Transversal resolution	35 µm (in air)
Image(s) resolution	Keratoscopy (640x480) + 25 radial scans on a 16mm transversal field (1024 A-scan) - Section: on 16mm (1600 A-scan) on 8mm (800 A-scan)
Operating system	Windows 10 (64 bit)

**The specifications and the images are not contractually binding and can be modified without notice. Windows® is a Microsoft Corporation trade mark.*

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