

# THE AKR THAT GOES BEYOND CONVENTIONAL OBJECTIVE REFRACTION



**AKR 800**NV



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**The AKR 800NV (Near Vision) autokerato-refractometer conducts fast and reliable objective refraction and keratometry.**

The device allows you to conduct in-depth eye assessments for contactology and media opacity screenings thanks to complementary measurements including automatic peripheral keratometry, white-to-white measurement and retro illumination imaging.

Easy-to-use and fully automatic, the AKR 800NV helps you better understand patient needs and guide them towards adapted solutions thanks to advanced features like night vision measurement and objective accommodation evaluation.



3D Auto  
(X-Y-Z directions)

### WHAT IS ACCOMMODATION AND WHY IS IT SO IMPORTANT?

Accommodation is the capacity of the eye to focus on nearby objects. As we get older, the eye's accommodative ability naturally reduces, making it more difficult to focus on close objects.

With the AKR 800NV, you can assess patients' monocular accommodation status, enabling you to optimize your subjective refraction protocol and offer patients adapted solutions to improve their near vision.



# 1

DELIVER RELIABLE  
OBJECTIVE REFRACTION  
WITH GREAT USER  
CONVENIENCE



Deliver fast refraction measurements in less than 20 seconds thanks to **fully-automated alignment, focus and image capture**. This allows you to take measurements in a single click, while benefiting from **intuitive measurement modes** to further gain time.

Rely on **accurate measurements<sup>1</sup>** even for **smaller pupils** ( $\varnothing$  2.0mm), with objective refraction enabling you to optimize subjective refraction assessment.

Benefit from **ease of installation** and a **flexible layout**. Thanks to the device's small footprint and 180° rotating and 40° tiltable screen, it can be conveniently integrated into your store layout.

**The efficiency and reliability you need to optimize day-to-day customer traffic management**

# 2

HIGHLIGHT YOUR  
EXPERTISE WITH  
IN-DEPTH OCULAR  
ASSESSMENT



Strengthen your expertise and precision in contactology thanks to **automatic peripheral keratometry** and **white-to-white measurement**.

Benefit from **accurate corneal measurement** to offer patients a more personalized service and prescriptions.

**Assess media opacity** using **retro-illumination imaging** with LOCS III classification to educate patients about eye opacity while screening them for it and simultaneously secure subjective refraction.

**Strengthen patient confidence through cutting-edge technology and expertise**

# 3

GUIDE PATIENTS  
WITH REFRACTION  
IN EVERYDAY LIFE  
CONDITIONS



**Assess variations in refraction between day and night light conditions** through scotopic, mesopic and photopic environments.

**Evaluate near vision refraction status** by measuring monocular accommodation from infinity to 20cm.

**Raise patient awareness** of night vision and the natural evolution of accommodative capacity and better understand patient needs to guide them towards adapted solutions.

**Establish yourself as a trusted source of advice and guidance**

# TECHNICAL SPECIFICATIONS

## REFRACTION MEASUREMENTS

Sphere	-30D to +22D (step: 0.01/0.12/0.25D)
Cylinder	0 to $\pm 10$ D (step: 0.01/0.12/0.25D)
Axis	0 to 180° (step: 5°/1°unit)
Min pupil diameter	$\varnothing$ 2.0mm
Vertex distance	0mm; 10mm; 12mm; 13.5mm; 15mm
Light environment	Photopic, Mesopic, Scotopic
Auto tracking	3D Auto (X-Y-Z directions) or Manual
Auto shot	Available
Auto transition from right to left eye	Available

## KERATOMETRY MEASUREMENTS

Corneal curvature radius	5.0 to 10.0mm (step: 0.01mm)
Corneal refractivity	33.75 to 67.5D (step: 0.12/0.25D)
Degree of corneal astigmatism	0 to $\pm 10$ D (step: 0.12/0.25D)
Axis Angle	1 to 180° (step: 5°/1°)
Peripheral measurement	$\varnothing$ 7.0mm

## OTHER MEASUREMENTS

Pupillary distance	0mm to 85mm (step:1mm)
Pupil diameter	$\varnothing$ 2.0mm ~ 8.5mm (step: 0.1mm)
Corneal measurement	$\varnothing$ 12mm – (diagonal measurement: $\varnothing$ 14mm (step: 0.1mm))

## ADVANCED FEATURES

Accommodation measurement	0 to 5D
Retro Illumination	Included

## HARDWARE SPECIFICATIONS

Screen	10.4 inches color LCD monitor (TFT) 180° rotatable, 40° tiltable
Chinrest	Motorized
Printer	Thermal line printer with auto-cutter
Data output	LAN, USB-A, RS-232C
Dimensions & weight	271 (W) x 464 (D) x 482-523 (H) mm – 22kg
Power source	100-240V AC, 50/60Hz, 90VA



This is a medical device MDD Class Im. Legal manufacturer : Essilor International.  
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