

PRODUCT BROCHURE

OPTICS ORA 4FB

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ENGLISH



Refractive index measurement for laboratories and the industry

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PRODUCT SHOWCASE



DESCRIPTION

- The models in the KERN ORA-F range are universal, maintenance-free analogue manual refractometers
- The handy and robust design allows the easy, efficient and sustainable use in everyday life
- Manually calculated conversions and errors of the user are avoided by multiple selectable scales.
- These scales are especially developed, exactly calculated and checked. They are also characterized by their thin and clear lines.
- The optical system and the prism cover are made of special material which allows a low-tolerance measuring.
- All models are fitted with an eyepiece which can be adjusted easily and smoothly to different visual capacities
- Included with the delivery:
 - Storage box
 - Calibration solution
 - Pipette
 - Screwdriver
 - Cleaning cloth
- Further accessories are available optionally.
- This model is particularly suitable for measuring and determining glycol concentration, battery fluid (BF) and measuring the freezing point of screen wash (CW). Furthermore, these models are suitable for measuring temperature-exchange systems.
- Main scope of applications:
 - Automotive industry: Car-workshops and producers
 - Chemical industry
 - Solar industry: Antifreeze monitoring

SPECIFICATIONS

Article codes, product groups & Status information

Model article-code	ORA 4FB
Model-Serie	ORA-U
Assortment	Optics
Product Type	Refractometers
Product group	Analogue refractometers
Product usage type	Main article
EAN code (Model)	4045761160071
Successor Model	ORA 4FA-2023a
Customs tariff number	90275000
Country of Origin	CN

Technical data - Primary

Scales	EG PG CW BF
Scale Range	-50 °C - 0 °C -50 °C - 0 °C -40 °C - 0 °C 1,10 kg/l - 1,40 kg/l

Technical data - Construction

Type	Handheld refractometer
Display scale	Analogue
Dimensions (W×D×H)	160×40×40 mm

Technical data - Measuring system

Measuring method	Light refraction
Measuring Temp min	10 °C
Measuring Temp max	30 °C

Readout 1 °C 1 °C 5 °C 0.01 kg/l

Technical data - Environmental conditions

Storage Temp Min	-5 °C
Storage Temp Max	40 °C

Technical data - Packing & Shipping

Dimensions packaging (W×D×H)	215×94×65 mm
Gross weight	0.35 kg
Net weight	0.30 kg
Shipping method	Parcel service
Packaging component - by weight - paper	888.76 mg
Packaging component - by weight - cardboard	49.9797 g
Packaging component - by weight - plastics	1.41156 g
Packaging component - by weight - styrofoam	0 g
Packaging component - by weight - foam	0 g
Delivery time	1 d

Optional Services

ISO Calibration	961-290
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FUNCTIONS

Standard	
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ACCESSORIES

Model	Description
ORA-A1101	Prism cover ORA-A1101
ORA-A2103	Leather bag ORA-A2103
ORA-A1010	Liquid KERN ORA-A1010
OCS 901	Cleaning Sets for Microscopes KERN OCS 901
OCS-A1101	Cleaning liquid KERN OCS-A1101

SERVICES

Model	Description
961-290	Factory calibration KERN 961-290
961-290R	Factory calibration KERN 961-290R

SPARE PARTS

Model	Description
ORA-A1001	Liquid KERN ORA-A1001
ORA-A2001	Prismatic flap ORA-A2001
ORA-A2002	Cover ORA-A2002
ORA-A2003	Eyepiece - rubber ORA-A2003
ORA-A2004	Rubber grip (40 mm) ORA-A2004
ORA-A2101	Refractometer box ORA-A2101
ORA-A2105	Single shipping box ORA-A2105
ORA-A2010	Pipette ORA-A2010