

KERN ORM 1SW

KERN

Digital measurement of refraction index for universal application



Category

Brand	Optics
Product category	Refractometer
Product group	Digital refractometer
Product family	ORM-SW

Measuring System

Area of application	Salt
Measuring method	Total reflection
Automatic temperature compensation (ATC)	✓

Scales

Refractive index
Brix
spec. gravity
Salzgehalt Meerwasser
Chlorgehalt Meerwasser

Measuring ranges

1,3330 nD - 1,4200 nD
0,0 % - 50,0 %
1,000 sg - 1,070 sg
0 ‰ - 100 ‰
0 ‰ - 57 ‰

Readabilities [d]

0,0001 nD
0,1 %
0,001 sg
1 ‰
1 ‰

Precision

0,0003 nD
0,2 %
0,002 sg
2 ‰
2 ‰

Appropriate calibration liquid 0 % (distilled water)

Measurement temperature [Min] (°C) 0 °C

Measurement temperature [Max] (°C) 40 °C

Brix scale ✓

Measuring range Brix [Min]	0 %
Measuring range Brix [Max]	50 %
Readout Brix	0,1 %
Accuracy Brix	±0,2 %
Scale for Refractive index	✓
Measuring range refractive index [Min]	1,3330 nD
Measuring range refractive index [Max]	1,4200 nD
Readout refractive index	0,0001 nD
Accuracy refractive index	±0,0003 nD
Scale for chlorine content of seawater	✓
Measuring range chlorine content of seawater [Min]	0 ‰
Measuring range chlorine content of seawater [Max]	57 ‰
Readout chlorine content of seawater	1 ‰
Accuracy chlorine content of seawater	±2 ‰
Scale salinity of sea water	✓
Measuring range salinity of sea water [Min]	0 ‰
Measuring range salinity of sea water [Max]	100 ‰
Readout salinity of sea water	1 ‰
Accuracy salinity of sea water	±2 ‰
Scale salinity (spec. weight)	✓
Measuring range salinity (spec. weight) [Min]	1,000
Measuring range salinity (spec. weight) [Max]	1,070
Readout salinity (spec. weight)	0,001
Accuracy salinity (spec. weight)	±0,002

Construction

Dimension (W×D×H)	121×58×25 mm
Refractometer type	Handheld refractometer
Scale - Display type	Digital
Prism lid	✓
Material prism	ZLaF3 lanthanum flint glass nd=1.85544

Functions

Averaging measurement	✓
Averaging measurement amount	15
IP protection - complete device	IP65

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Auto-off interval(s) in battery mode/rechargeable battery mode 60 sec

Power Supply

Supplied power supply	Battery
Battery / accumulator type	Alkali(-Manganese)
Battery connection	Pad + Spring
Battery capacity	1.300 mAh
Battery voltage	1,5 V

Environmental conditions

Storage temperature [Min]	-5 °C
Storage temperature [Max]	40 °C

Approval

CE mark	✓
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Services (optional)

Article number for factory calibration	961-290
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Packing & Shipping

Dimensions transport container (W×D×H)	170×110×50 mm
Delivery time	1 d
Dimensions packaging (W×D×H)	170×110×50 mm
Shipping method	Parcel service
Net weight approx.	0,15 kg
Gross weight approx.	0,35 kg
Shipping weight	0,31 kg

Pictograms

STANDARD

