



PCE Americas Inc.  
711 Commerce Way  
Suite 8  
Jupiter  
FL-33458  
USA  
From outside US: +1  
Tel: (561) 320-9162  
Fax: (561) 320-9176  
info@pce-americas.com

PCE Instruments UK Ltd.  
Units 12/13  
Southpoint Business Park  
Ensign way  
Hampshire / Southampton  
United Kingdom, SO31 4RF  
From outside UK: +44  
Tel: (0) 2380 98703 0  
Fax: (0) 2380 98703 9  
info@pce-instruments.com

[www.pce-instruments.com/english](http://www.pce-instruments.com/english)  
[www.pce-instruments.com](http://www.pce-instruments.com)

## Technical Refractometer PCE-DRS 1

### PCE-DRS 1 Handheld Digital Refractometer

IP65-rated salinity or salt content (%, ‰) / specific gravity (SG) / refractive index (nD)  
refractometer with easy-to-read LCD

PCE-DRS 1 is a handheld digital refractometer used to determine the salinity or salt content (%, ‰), specific gravity (SG) and refractive index (nD) of liquid. This IP65-rated digital refractometer features automatic temperature compensation (ATC) from +10 ... +40 °C / +50 ... +104 °F, as well as a large, easy-to-read LCD that shows both the measured value and the temperature.

- Automatic temperature compensation (ATC) from +10 ... +40 °C / +50 ... +104 °F
- Handheld and portable
- User-friendly 3-button operation
- Fast and precise measuring results in approx. 1 sec.
- ABS plastic housing with IP65 ingress protection rating against water and dust
- Large, easy-to-read digital LCD shows both the measured value and the temperature
- Average function measures same sample 15 times and displays the mean value
- Stainless-steel ring on sample well protects glass prism from damage
- Internal light source for improved accuracy
- Small liquid sample size of just 4 to 5 drops
- Easy calibration with distilled water
- Battery-saving automatic power off after 1 min. of inactivity

#### Technical specifications:

##### Measuring range

0 ... 28 %, 0 ... 280 ‰ salinity (salt content)

1.000 ... 1.217 SG (specific gravity)

1.3330 ... 1.3900 nD (refractive index)

0 ... +40 °C / +32 ... +104 °F temperature

##### Resolution

0.1%, 1 ‰ / 0.001 SG / 0.0001 nD / 0.1 °

##### Accuracy

±0.2 %, ±2 ‰ / ±0.002 SG / ±0.0003 nD / ±0.5 °C

#### General specifications

Automatic temperature compensation (ATC) range: +10 ... +40 °C / +50 ... +104 °F

Measurement speed: Approx. 1 sec.

Sample size: 4 to 5 drops of liquid

Sample well: Stainless steel ring over glass prism

Housing: ABS plastic, IP65 ingress protection rating against water and dust

Power supply: 1 x 1.5V AAA battery

Dimensions: Approx. 121 x 58 x 25 mm / 4.76 x 2.28 x 0.98"

Weight: Approx. 90 g / 0.2 lb (without battery)

#### Delivery contents:

1 x PCE-DRS 1 handheld digital refractometer

1 x pipette

1 x prism cover

1 x 1.5V AAA battery

1 x user manual

1 x carrying case