DIGITAL REFRACTOMETER

PCE-DRU 1



- **fast and precise results**
- **large LCD (reading and temperature)**
- **waterproof ABS housing IP 65**
- **automatic temperature compensation**
- **small amount of sample**
- **simple calibration with distilled water**
- **stainless steel sample tray with glass prism**
- **easy operation with three buttons**
- **battery control system**
- **automatic shutdown after 1 min. of no-operation**

Refractometer
AdBlue, a mixture of distilled water and synthetic urea (Urea), is used in the automotive industry as a diesel additive. It is used to reduce the nitrogen oxide emissions and to comply with the legally prescribed emission standards. The digital AdBlue refractometer from PCE Instruments has been specially designed to perform a precise analysis of the urea solution. In this way, with the help of the AdBlue refractometer, the user can carry out an uncomplicated quality control, check the urea concentration of the diesel additive AdBlue and determine whether the solution meets the requirements of the automotive industry.
The AdBlue refractometer is a precision measuring instrument that is based on the measurement of the refractive index of a liquid and ensures maximum reliability even under complicated measuring conditions. Even when a small amount of sample is available, the user can measure the urea concentration in a liquid with the help of the AdBlue refractometer. To get a meaningful result, it is sufficient to trickle a few drops of the AdBlue into the stainless steel tray of the device. In the sample tray there is a prism enclosed, and thus, by means of the light refraction, the urea content is measured.

Specification

Urea	
Measuring range	0 ... 51 %
Resolution	0,1 %
Accuracy	±0.2%
Refractive index	
Measuring range	1,333 ... 1,4056 nD
Resolution	0,0001 nD
Accuracy	0.0003 nD

General technical data	
Temperature compensation NEW	automatic 10 ... 40 °C
Display Typ	LCD
Response time	1 s
Automatic power-off	1 min.
Housing	ABS
Sample quantity	4 ... 5 drops
Sample tray	Stainless steel ring with glass prism
Menu language	English (US), English (GB)
Protection class (device)	IP65
Battery/battery	1 x 1,5 V AAA Battery (1,5V) , Alkali-Manganese
Battery capacity	1200 mAh
Operating conditions	10 ... 40 °C , 0 ... 80 %RH
Storage conditions	-10 ... 50 °C , 0 ... 80 %RH
Dimensions (L x W x H)	125 x 62 x 28 mm
Weight	144 g

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