

# AdBlue/DEF/AUS32 Urea Tester

## Operating Instructions

The AdBlue/DEF/AUS32 refractometer is a new hand held meter developed to address the growing need to check the urea concentration in **AdBlue / DEF / AUS32**.

**Diesel Exhaust Fluid (DEF)** is an aqueous urea solution used in Selective Catalytic Reduction (SCR) to lower NO<sub>x</sub> concentration in the exhaust emissions from diesel engines. The solution may also be referred to as **AUS32**, shorthand for **Aqueous Urea Solution**, 32.5%, or as **AdBlue**, a **trademark** held by the German **Association of the Automobile Industry (VDA)**, which ensure quality standards are maintained in accord with ISO 22241 specifications. Initially the specification was described in DIN 70070. In 2006 the worldwide ISO 22241 standard was introduced, which also stipulates analytical test protocols to verify adherence to specifications, as well as requirements for storage, transport and handling of the fluid.

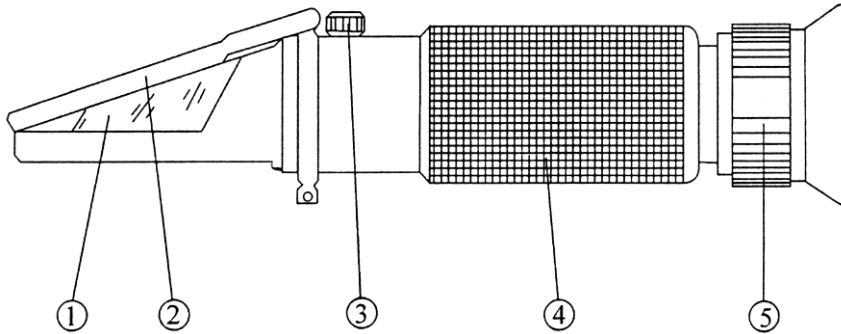
### Model

Model	Range	Resolution	Size	Weight
AMR001	Urea: 0~40%	0.2%	27×40×160mm	175g
AMR002	Urea: 0~40% EG: -60°F~32°F PG: -50°F~0°F	0.2% 10°F 10°F	27×40×160mm	175g
AMR003	Urea: 0~40% EG: -50°C~0°C PG: -50°C~0°C CW: -40°C~0°C	0.2% 5°C 5°C 10°C	27×40×160mm	175g
AMR004	Urea: 30~35% EG: -50°C~0°C PG: -50°C~0°C CW: -40°C~0°C BF: 1.10~1.40KG/L	0.2% 5°C 5°C 10°C 0.01KG/L	27×40×160mm	175g

### Calibration:

In 20°C room, open the cover plate (2), put one or two drops of distilled water on the prism. Closed cover plate and press it lightly, then adjust the zero adjustment screw (3) until the light/dark border line coincides with the zero line. To get high accuracy of test result, better to test all in 20°C room.

## List of Components



1.Prism 2.Cover plate 3.Calibration 4.Mirror tube 5.Eyepiece(Focusing)

## Method of Operation:

1. Open the cover plate (2), clean and dry the surface of the prism with a soft cloth or tissue. Place one or two drops of solution to be measured onto prism. Closed the prism cover plate, press the cover plate down lightly, then read the corresponding value where the light/dark border line indicates with the scale.
2. After the measurement, clean away the tested sample which will be on both the prism and the cover plate using a moist soft cloth or tissue. After drying, the refractometer should be stored in a clean, dry environment.

## Care and Maintenance

1. Zero adjustment and sample measurements should be carried out at same temperature, if this varies considerably, then the zero point should be checked and adjusted at least every 30 minutes.
2. Do not immerse the refractometer in water to clean.
3. As the unit is a precision optical instrument, it should be handled with care, do not touch or scratch the optical surface. Store the refractometer in a dry non-corrosive atmosphere.
4. If the instrument is used in accordance with the manufactures instructions, the optical performance should not change.

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