# Refractometer STRUB E short

Hand refractometer

**Art.-No. 952041**

## Description
For fast determination and control of the concentration in water-mixed cooling lubricants and other industrial fluids.

The measuring method is based on the principle of total reflection of light beams, which impinge on the liquid layer to be examined or measured at a certain angle and are refracted depending on the concentration. The measurement results in a bright boundary line that can be easily read on the scale of the instrument. The concentration is determined from the reading value and the relevant concentrate factor..

## Advantages
- Exact control of the concentration
- Clean measuring method with smallest quantities
- Easy handling and maintenance
- Suitable for all water-mixed cooling lubricants, including semi and fully synthetic ones.
- Can also be used with other industrial fluids such as those used for washing, pickling and hardening. The liquids to be measured must not be aggressive, as they will attack the prism or the light incident plate.
- Accurate determination method, tolerance +/-0.1% or 0.2% referred to
- to the concentrate content

## Application
1. Open the light incidence plate and apply the test liquid to the prism (3) and close it again. Contaminated media must be filtered beforehand.

2. Focus the eyepiece (5) and read off the scale value. Ensure sufficient lighting conditions. If the limit line is too blurred (difficult to read) despite filtration, it is recommended to dilute the liquid with the same amount of water and to double the reading value accordingly.

3. determine the concentration value by multiplying the reading value by the factor of the concentrate concerned, or read it from the nomogram or diagram prepared.

## Adjust
Before determining and checking the concentration of a liquid, the refractometer should be warmed up to room temperature. The instrument is surrounded by a ribbed plastic jacket, which has the task of preventing the hand heat transfer to the prism, otherwise the measuring accuracy would not be guaranteed. The scale must be checked at certain intervals, especially if there are large differences in room temperature. If the limit line does not pass through "O" during determination tests with pure water, this value must be set using the adjustment screw (1).



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## Cleaning and maintenance

After use, the prism surface as well as the underside of the light incidence plate must be cleaned of liquid residues with water and dried again. Do not immerse the instrument in water. The measuring instrument must be stored in a dry place.

## Technical dataTechnische Daten

| | |
|---|---|
| Unit of measurement | Brix |
| Measuring range | 0 - 32 % |
| Measurement accuracy % | 0.2 |
| Dimension mm | Diameter 29 x 160 |
| Weight g | 175 |
| Temperature compensation | YES |



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