### Use opa-dens

# **Measure Opacity**



### Zero on Black Background:

Position the aperture on the black reference. Press  $\bigotimes$  *key* while moving the device over the aperture. Keep the device in front position until 0% is displayed.



### Set 100% reference:

Position the aperture on the white reference. Press  $\bigcirc$  key while moving the device over the aperture. Keep the device in front position until 100% is displayed.



### Measure the white opacity:

Position the aperture on the white reference. Move the device over the aperture. Keep the device in front position until 100% is displayed.

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# Adjust the Device

Make sure the zero reference and the white reference are measured before entering the adjustment mode.

Press  $^{\bigcirc}$  key down for at least 5 seconds to **enter** or **exit** the adjust mode. A '~' in the LCD left top corner appears.

## Measure a sample:

Position the aperture on the reference with known opacity. Move the device over the aperture. Keep the device in front position until the percentage number is displayed.

CAUTION: A measurement in this mode will reset all previous adjustments!

Click  $\bigotimes$  key to decrement the dot value, Click  $\bigotimes$  key to increment the dot value. Values can be adjusted between the range of 10%..80%.

 $\operatorname{Click}^{\bigotimes}$  key to save and exit current adjustment.

 $\operatorname{Press} \oslash$  key down for at least 5 seconds to enter or exit the adjust mode.

# Service Device

If BAT appears on the LCD, change the batteries. Open the battery cover and replace batteries with 2 AA (LR6) 1.5V standard batteries.

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If above lines are displayed then the measurement time was too short. Keep the device in front position until the measurement value appears in the display.

The **OPA-DENS** casing can be cleaned with a dry cloth.

**Important:** This manual describes the current version of the **OPA-DENS** hardware and software. Future enhancements or modifications are reserved.

## **Safety Instructions**

For safety reasons it is absolutely necessary to read through the user's guide and all of the instructions it contains. If the safety recommendations and instructions in this User Guide are not complied with, measurement errors or data loss or physical injury or property damage may result.

- OPA-DENS is not intrinsically safe. Therefore the device cannot be used in an environment with explosive vapors where there is a risk of spark ignition or in an area with strong electromagnetic fields. It should be protected against chemicals, corrosive vapors, strong mechanical vibrations and impacts
- Use the OPA-DENS in ambient temperatures between 15°C(59°F) and 40°C (104°F), and do not expose to direct sun light.
- The **OPA-DENS** should never be opened as there are no user-serviceable parts. Doing so voids the guarantee. Contact your authorized dealer if repairs are necessary.
- To avoid incorrect handling, the **OPA-DENS** should only be used by trained personnel
- Use original PERET spare parts and accessories only.
- Use the original packaging exclusively when transporting.

#### **DECLARATION OF CONFORMITY**

The undersigned representing the following manufacturer: *PERET GmbH/S.r.L, Forch Str 6, 39042 Vahrn, ITALY* 

herewith declares that the product **OPA-DENS** is in conformity with the provisions of the following CE directives including all applicable amendments:

77/23/EEC Electrical equipment for use within specified voltage limits 89/336/EEC Electromagnetic compatibility and the standards and technical specifications referenced overleaf have been applied.

Vahrn, July 7, 2016



Konrad Silbernagl, COO