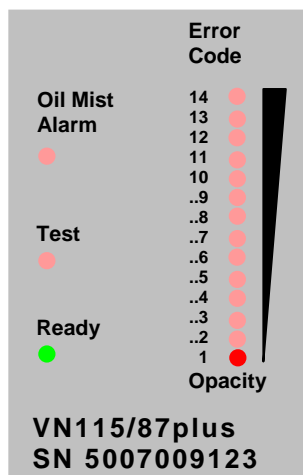


## 4 Operating instructions

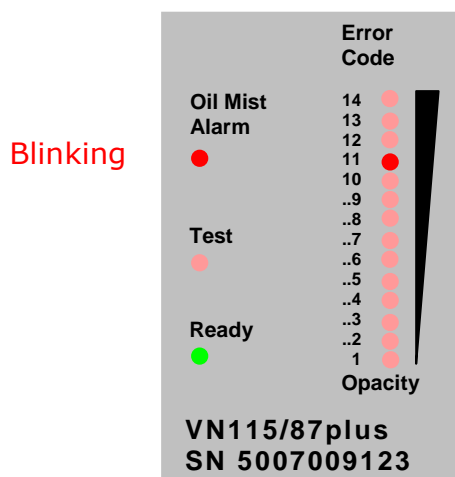
### 4.1 Display

After power-on LED 1 is blinking for 30 seconds. The device will show the following display.



**Figure 40:** Normal display mode

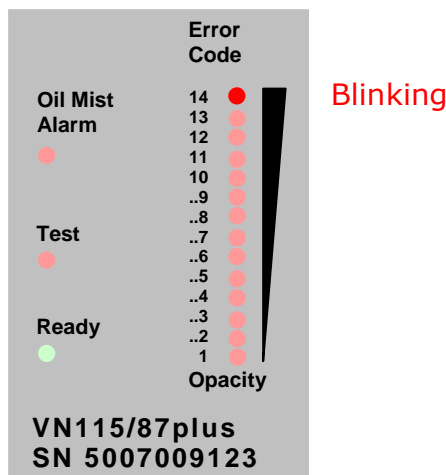
In case of a high oil mist concentration the LED bar goes up and at 70 % opacity compared to the adjusted alarm level the 'Oil-Mist Alarm' LED switches on. At 100% opacity, compared to the alarm level, the 'Oil-Mist Alarm' LED starts blinking. If the opacity later goes down, later the alarm condition will be stored.



**Figure 41:** Example of an oil mist alarm state

The opacity is shown in the right LED bar. If highest LED is switched on the opacity is equal or higher, compared to the alarm level.





**Figure 42:** Device not ready, example of 'Negative pressure too low'


If a device internal error or a system failure occurs the diagnostics system shows the failure condition by a blinking LED on the LED bar. The error codes are shown in Table 3. A detected oil mist alarm is displayed at this time with the 'Test' LED. In this case the alarm relay or shutdown relay is not switched on.

Blinking LED on display	Series VN87plus device failures
14	Negative pressure/airflow too low
13	Optical sensor dirty
12	Voltage of internal battery too low
11	Ambient temperature too low (<0°C)
10	Ambient temperature too high (>70°C)
9	Electronics temperature too low (<0°C)
8	Electronics temperature too high (>75°C)
7	Reset button defective
6	Supply voltage too high
5	Switch for adjusting sensitivity defective
4	Optical sensor defective
3	Airflow-sensor defective
2	Electronic module defective
1	Blinking: Startup phase

**Table 3:** Error codes



4.2 Reset of Oil Mist Alarms

	<p>Ensure, that the oil mist concentration inside the engine has fallen under the <u>L</u>ower <u>E</u>xplosion <u>L</u>evel (LEL) before acknowledging an oil mist alarm by pressing the Oil-Mist-Alarm button. <b>Otherwise you risk an oil mist explosion!</b></p> <p>Follow the instructions of the engine builder, ship yard and ship owner.</p> <p>Use a monitoring device at a safe location to read off the current oil mist concentration. SAB recommends to wait until more than the half of the indication LED's are switched off (VISATRON®-device and Remote Indicator II) or the oil mist alarm level has to reduce below 50% (ReCon DS23).</p>
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The alarm condition can be reset only by pressing the Oil-Mist-Alarm RESET button.



Figure 43: Oil-Mist-Alarm RESET button

