

# *The new generation of Oil Mist Detectors:*

## Visatron VN301plus



**Safety for you  
and your engine**

Oil mist detector  
Visatron VN301plus for  
2 and 4- stroke engines

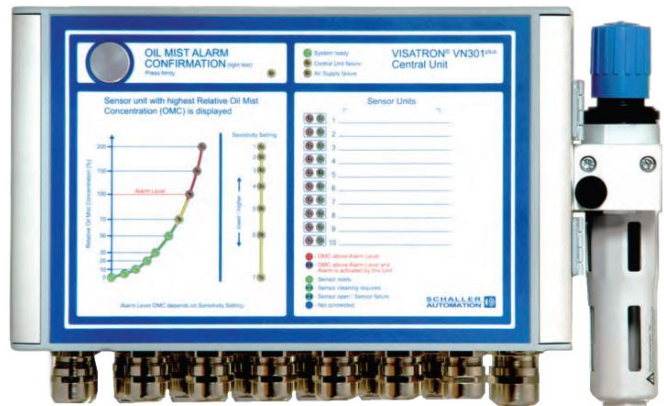
### Function overview:

The day- to-day mission of Schaller & Engine Protection Partner is to detect potentially harmful operating conditions in which hazardous oil mist is released because of bearing damage. In extreme cases, these oil mists, which consist of tiny oil particles, have a tendency to cause an explosion in the crankcase of the engine- Schaller oil mist detection systems represent the last reliable safeguard against such accident.

In order to respond to today's market demands, we at Schaller & Engine Protection Partner have to put considerable thought into how we could make our product even safer and simpler.

For Schaller & Engine Protection Partner, "safety first" is not just an empty phrase or marketing slogan, it has been part and parcel of our corporate culture and practiced every day for more than 60 years. The VN301plus is based on 50 years' experience in oil mist detection.

The VN301plus system consist of a central unit which up to 20 sensors (master slave version) can be connected. Each sensor monitors one crankcase compartment independently and is an standalone unit. When a sensor is replaced, the surrounding sensors ensure that the crankcase is monitors under safe conditions.

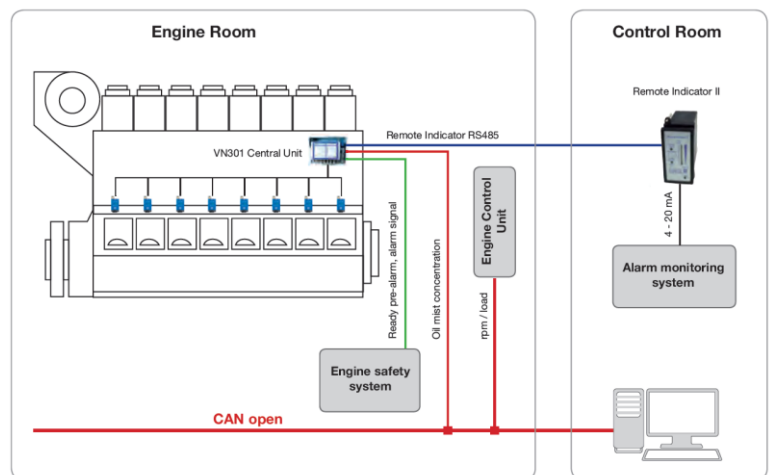


### Flexibility and outstanding safety

Our hybrid cable solution offers flexible installation options and, as always , offers the benefits of our technology which is based on the Venturi principle. And what's more, there are no wear parts or time- consuming repairs. We use fresh air to keep our sensors completely clear of dirt. This reduces maintenance overheads significantly and rules out false alarms.

The no-frills display of our central unit means you quickly gain an overview of the system status. Our products are geared towards Industry 4.0 due to our CAN and Modbus interface options.

All of our Know-how and many decades of experience has gone into making this product which means we can confidently say, ONE engine; ONE VN301plus- FOR LIFE...



## The sensor

The sensor consist of 3 parts

- Engine wall screw fitting
- Sensor
- Hybrid cable

Flexibility, simplicity and reliability – this is how we control your operating cost more effectively!  
The engine wall screw fitting allows the sensor to be mounted on the engine and also the intake and return of the crankcase atmosphere.



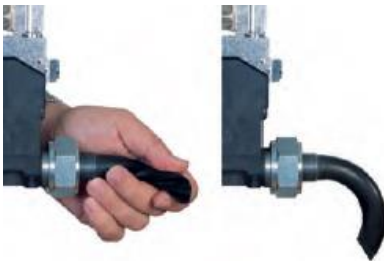
The engine wall screw fitting with its flexible intake funnel is mounted from the outside. Its form prevents splash oil from being drawn in and a false alarm being triggered. We can offer you a suitable engine wall screw fitting to match the engine wall thickness.

Thanks to the rugged compact design of our sensor, it can easily be mounted on every engine. Our VN301plus can be attached to diesel/gas and dual-fuel engines- UNIVERSAL SOLUTION!

Schaller has developed a sensor based on the Venturi principle that reduces spare parts and maintenance. It has been redesigned in order to also achieve a significant reduction in air consumption. Keeping your operating cost under control.

The sensor is connected to the central unit using our hybrid cable. The cable supplies compressed air and power to the sensor and facilitates exchange of data with the central unit. This means that our products can communicate with Modbus or CAN Bus.

Our hybrid line allows fast installation, adapts to every engine configuration and, due to its structure, protects the cable from damage due to external factors.



Easy installation of all types of engines!



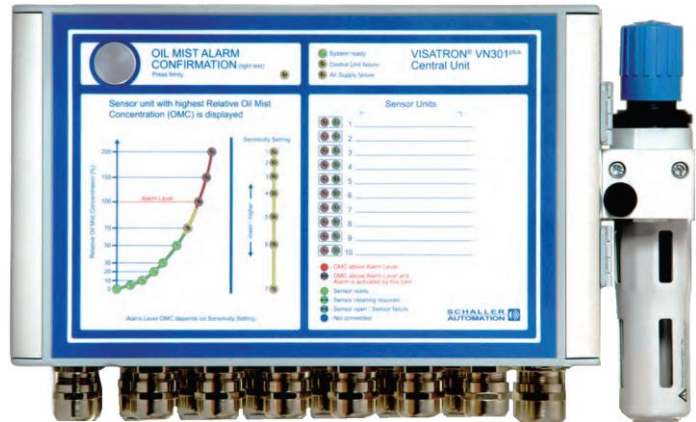
The new designed hybrid cable supplying compressed, power and signals!

## Central unit

The central unit of the VN301plus system has the following functions:

- Disturbing power supply to the sensors
- Providing the operator with necessary information on system status
- Programming and adjustment

The central unit is designed to withstand extreme conditions such as vibrations or high temperature at the engine. All important information is available at a glance. Up to 10 sensors can be connected to the central unit, and up to 20 as master slave version.



Our new software makes it possible to calibrate the sensors so they are always perfectly adjusted to the engine operating conditions. Our tried and tested "floating zero algorithm" adapts to the opacity in the crankcase arising from the operation conditions and therefore prevents false alarms.

The Remote Indicator II can be connected as an option.

The central unit can communicate with modern control systems via ModBus or CAN bus.

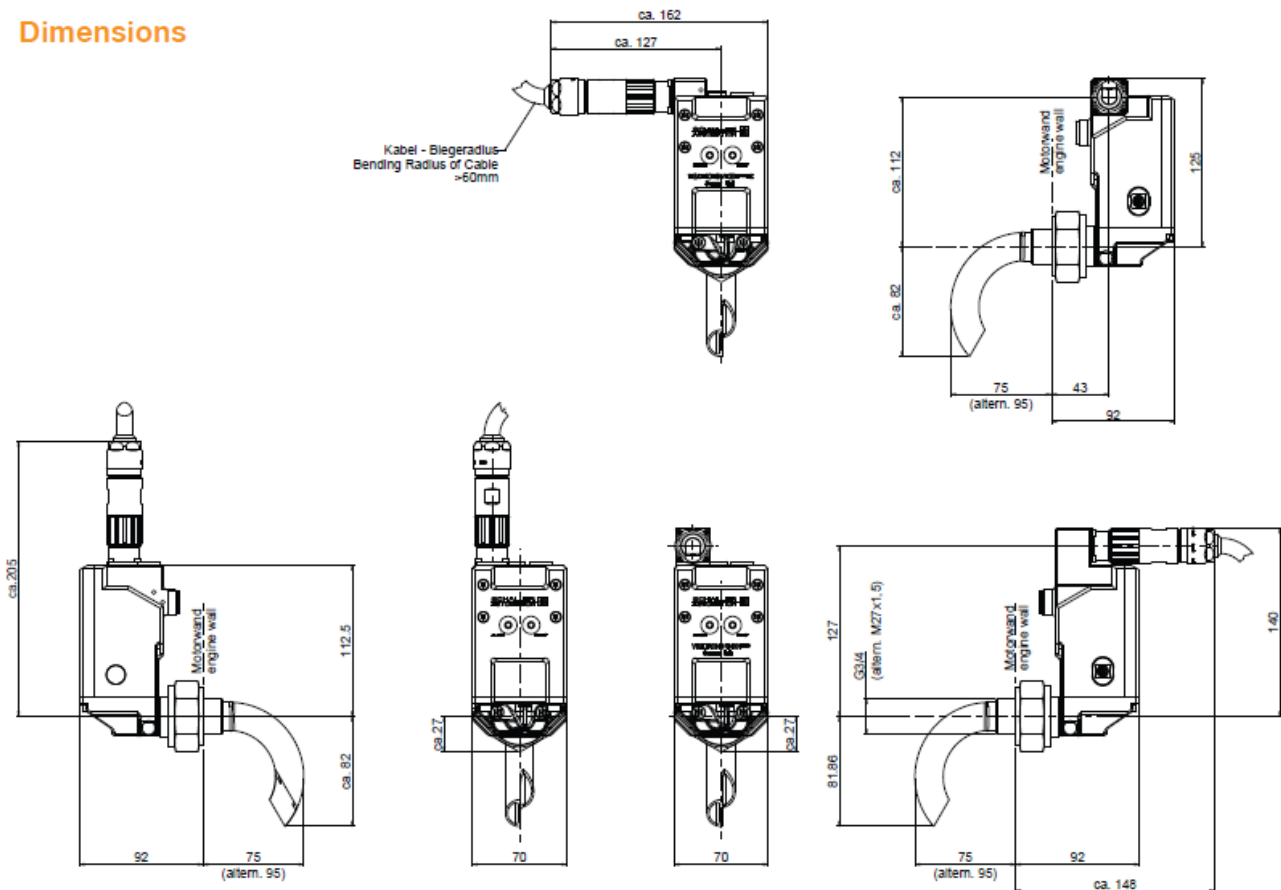
All data in the system is stored in the central unit for analysis.



### VN301plus/ VN301plus EX sensor unit

<b>Sensor</b>	
Type	Sensor VN301plus
Communication sensor- central unit	RS485
Display	Green: Ready / Red: Alarm
Installation:	G ¾ M27 x 1,5
IP	IP 65
Housing	PPA + GF, halogen- free
Air pressure	2,5 bar
Weight	Sensor: 850 g- Engine wall screw fitting: 350 g.
Operating temperature	5- 70 degrees Celsius
Max. length of hybrid cable	30 m
Atex classification (VN301plus)	II -/2G Ex OP IS IIB T4-/ GB

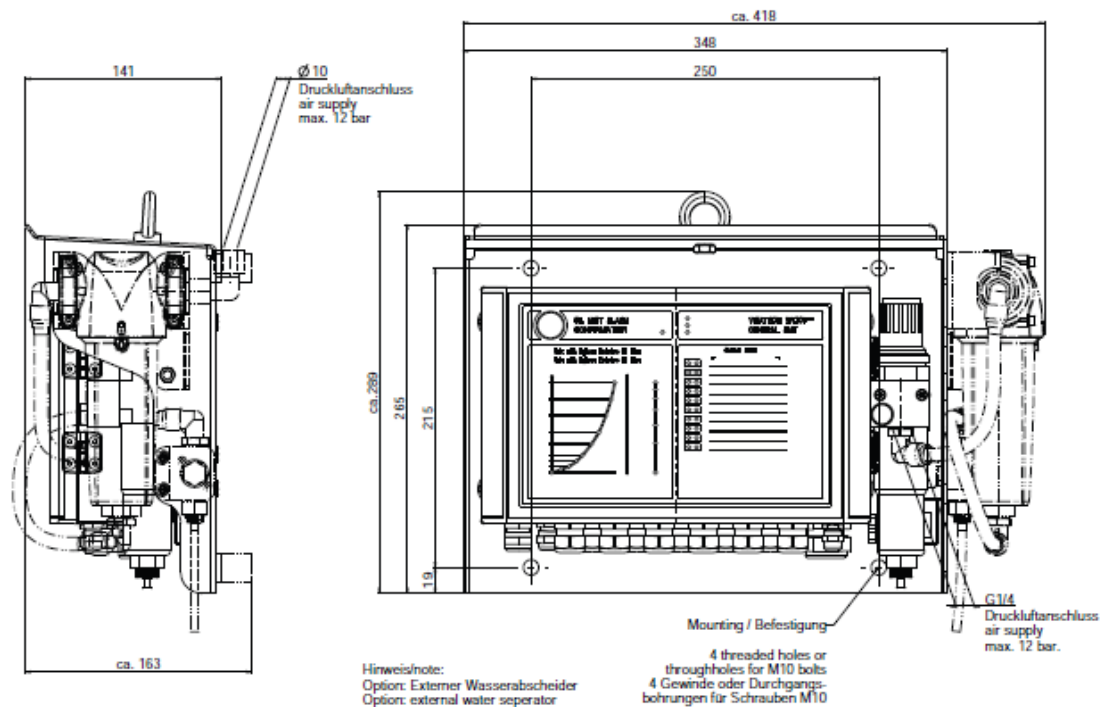
### Dimensions



## VISATRON® VN301plus central unit

<b>Central unit</b>	
Type	Central unit VN301plus
Communication interface	CANopen/ MODBUS (RE485)
Installation	4 x M10
Display	Oil concentration- Alarm localization- Pressure setting- System status & Installation
IP	IP 65
Housing	Aluminum
Voltage	18- 32 VDC
Current	Max. 3A.
Air pressure	Max. 12 bar
Air pressure connection, pressure regulator	G ¼
Weight	7.00 kg.
Vibration	+/- 1,6 mm displacement or 4 G (5-100 Hz)
Operating temperature	+5- + 70 degrees Celsius
Number of sensors	10- 20 in master slave configuration
Relay output	2 x Oil Mist Alarm- 1 x Ready- 1 x Pre-alarm
Storage	Events: 8000
Air humidity	Max. 95%
Communication cable to sensor	Schaller hybrid cable

## Dimensions



# Safety for you and your engine: Worldwide

Engine Protection Partner AS is Schaller Automations largest and most important partner with responsibility for countries and sites as:

- Norway
- Svalbard & Jan Mayen
- Sweden
- Denmark
- Finland
- Iceland
- Faroe Island
- Aaland Islands
- Greenland
- Estonia
- Latvia
- Lithuanian



Engine Protection Partner AS is a part of the Schaller organization- covering the worldwide service locations with partners in over 50 countries with main activities in:

- Singapore
- China
- Europe
- India
- USA
- Canada
- Australia

*Wherever your ships are located around the world,  
we support you through the  
**SCHALLER AUTOMATION network!***

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