OdorPrep

Automated Odor Emission Sampler

V3

Datasheet

ODORPREP®
Automated Odor Emission Sampler V3

www.odorprep.eu

The integrated system for continuous air quality monitoring and on-demand sampling of olfactory harassments.

OdorPrep® V3 is equipped with an integrated control panel and comes with its own dedicated mobile applications for the remote control of the system, allowing the operation of all sample lines, or individually as required. The OdorPrep application is available via Play Store©.

3 sampling methods are available.

Image for illustrative purposes

On-demand odor sampling method to EN13725 (Nalophan™ bags)

The sampling line has an adjustable flow valve allowing sampling versatility. Duplicate or individual samples can be taken to allow for maximum flexibility and improved collection of the odorous air. The sampling lines are equipped with a protection system to preserve the sample following collection.

The sampling, storage and transport containers of the sample are rigid and sealed to avoid exposure to direct sunlight (two containers included for each sampling line), in order to minimize any chemical (photo)reactions and diffusion (as foreseen in the standard EN13725). The containers are returned for analysis in an accredited laboratory.

Sampling module on Nalophan bag™

Sampling method	Lung principle	Material	Nalophan™ bag (*not included*)
Nominal flow	8.5 l/min.	Collection tube	PVC stiff and opaque
Operating flow	1.2 – 5.6 l/min.	Tube dimension (cm)	82 H x 15 ID x 19 OD
Volumetric capacity	10 l	Weight	Approx. 5 Kg

On-demand sampling module on thermal or chemical desorption cartridge

The sampling line on cartridge (thermal desorption or sorbent tube) includes a high-quality vacuum pump and mass flow controller for ensuring the correct flow rate is maintained and a record of the total sampling volume is provided.

Sampling module on cartridge

Sampling	Solid adsorption support (*not included*)
Operating flow	20 ml/min. – 1300 ml/min.

On-demand sampling module on Canister

The sampling line is equipped with a control unit for the remote opening and closing of the specialist valve, a dedicated digital pressure sensor monitors any vacuum losses while the sampler is operational.

The duration of the sampling depends on the restrictor used. Below are some examples of sampling durations depending on the restrictor and the Canister volume.

Critical orifice diameter of the restrictor vs. flow rate					
Orifice Diameter	Flow Rate Range	Canister Volume / Sampling Time			
(in.)	(mL/min.)	1L	3L	6L	15L
0.0008	0.5–2	24 hr.	48 hr.	125 hr.	—
0.0012	2–4	4 hr.	12 hr.	24 hr.	60 hr.
0.0016	4–8	2 hr.	6 hr.	12 hr.	30 hr.
0.0020	8–15	1 hr.	4 hr.	8 hr.	20 hr.
0.0030	15–30	—	2 hr.	3 hr.	8 hr.
0.0060	30–80	—	—	1.5 hr.	4 hr.
0.0090	80–340	—	—	0.5 hr.	1 hr.

The canister sampling lines are independent. Sampling can be performed on several lines simultaneously or in sequence. The sampling unit is equipped with a temperature control system to allow the correct storage of the samples and the sampling temperature above the dew point, avoiding condensation. At the end of the sampling period a notification is sent to the operators so that collection of the canisters can be arranged.

Different configurations available for on-demand sampling are shown below.

Available sampling lines   Abbreviation
Rigid and opaque vacuum tube for sampling on Nalophan$^©$ bag   T
Sampling module on a thermal-chemical desorption cartridge   F
Sampling module on Canister   C

Configuration	I° Line	II° Line	III° Line	IV° Line
TT	Nalophan™	Nalophan™	X	X
FF	Cartridge	Cartridge	X	X
CC	Canister	Canister	X	X
TF	Nalophan™	Cartridge	X	X
TC	Nalophan™	Canister	X	X
FC	Cartridge	Canister	X	X
TFC	Nalophan™	Cartridge	Canister	X
TTF	Nalophan™	Nalophan™	Cartridge	X
FFC	Cartridge	Cartridge	Canister	X
CCF	Canister	Canister	Cartridge	X
CCFF	Canister	Canister	Cartridge	Cartridge

OdorPrep V3 – On-demand sampling system
Power supply   220 VAC ; 24 VDC ; 50-60 Hz
Dimension (L x H x D)   82 cm x 125 cm x 50 cm (sampling point excluded)
Communication   3G / 4G (*SIM card not included*)
Protection   IP65 – Key box panel lock
Weight   100 Kg
Transport   Cart with 4 swivel and self-locking wheels

Sampling unit set-up
Temperature control of the sample storage system.
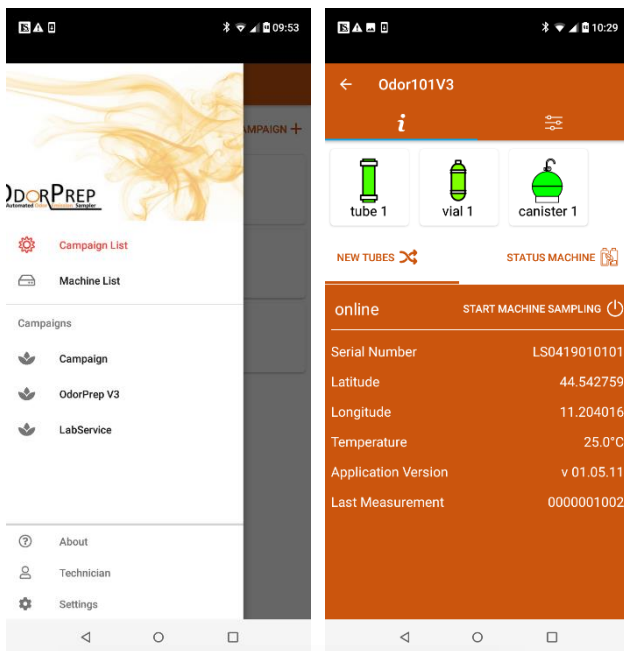On-board computer and control panel for manual management of the sampling unit.
OdorPrep® mobile application – Remote management of on-demand sampling and monitoring systems.
OdorAlert mobile application - Collection of reports from qualified receptors and sampling activation.
OdorSens mobile application - Integration of sensors (e.g. MSEM 3200, NETPID, OdorMeteo, Fidas 200) for monitoring the air quality, the meteorological data, the detection of odors and for the activation of the on-demand sampling once thresholds limits are exceeded.
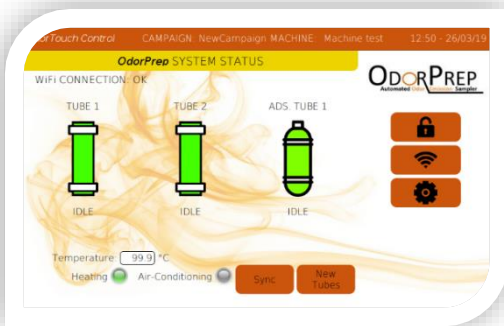OdorBot - Collection and management of odor signals via Telegram ™ and on-demand sampling activation.

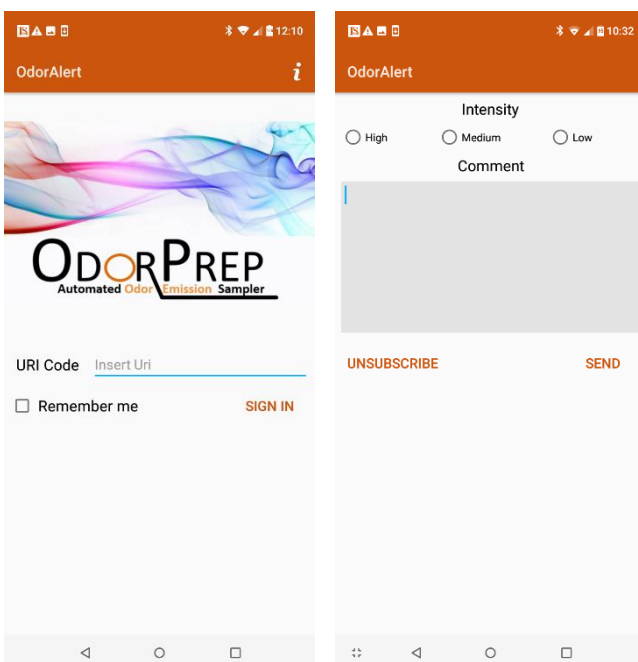## OdorPrep® App. – The status of the monitoring campaign on your smartphone

OdorPrep® mobile application can be downloaded for free from the Play Store. The access to the application functions is included with the purchase of the OdorPrep® V3.

The mobile application allows the management of the sampling units, the on-demand sampling on one or more lines, as well as the creation and the management of monitoring campaigns.

Sampling can be performed manually too. OdorPrep® system may be activated in the field by accessing the on-board computer, equipped with the dedicated management software.

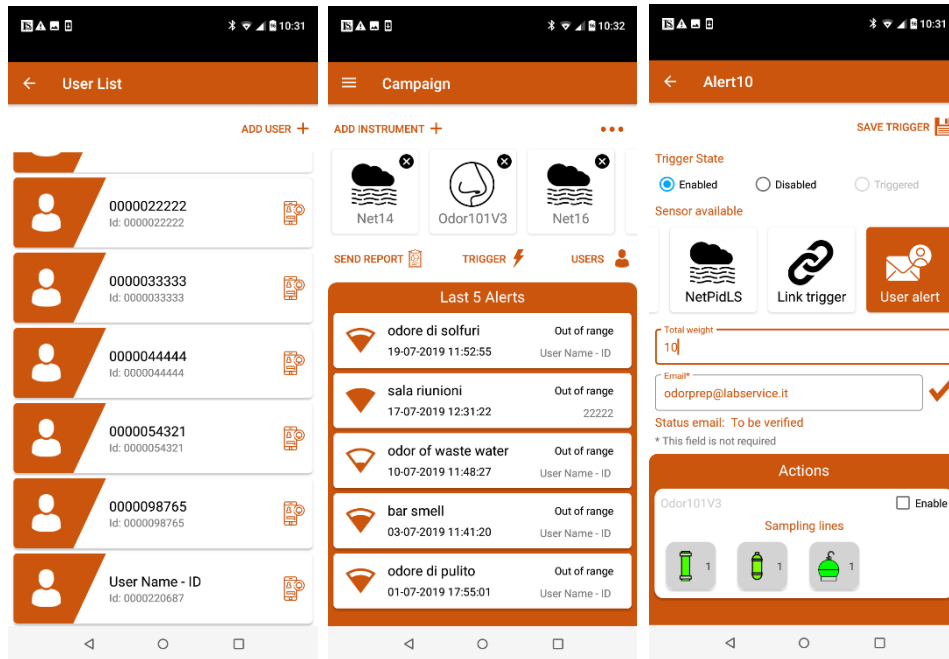## OdorAlert - Collection of reports via mobile application

OdorAlert is the optional module of the OdorPrep® mobile application that allows to receive and view reports of authorized receptors in real time.
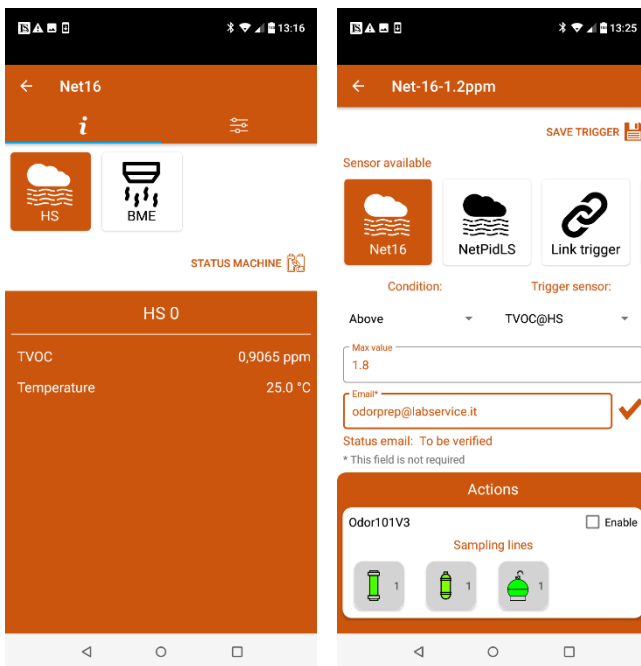
Authorized receptors can send reports by downloading the free OdorAlert mobile application, available on Play Store.

Each report contains information about the level of intensity of the perceived odor and any comment by the receptor.

Through the optional OdorAlert module it's possible to activate the threshold limits, after which the system automatically triggers one or more samplers and sends push notifications or e-mails to the operators.
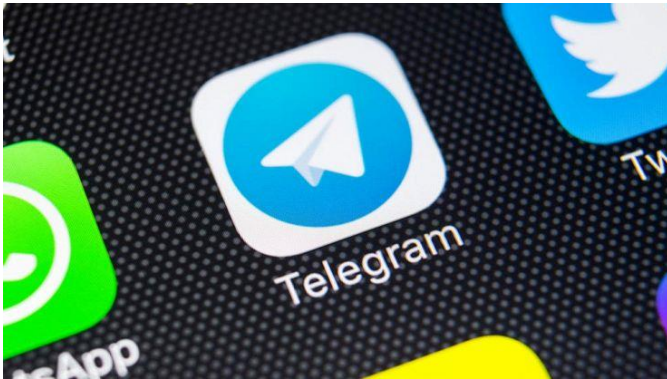

OdorSens – IT Platform for monitoring air quality and odors in real time

OdorSens is the optional module of the OdorPrep® mobile application that allows real-time display and recording of data coming from sensors and weather stations via the OdorPrep® mobile application.

Where values exceed the concentration limit values or the occurrence of conditions predefined by the operator, the system is able to automatically trigger the OdorPrep®. Type and technical requirements of sensors can be selected depending on the use case.

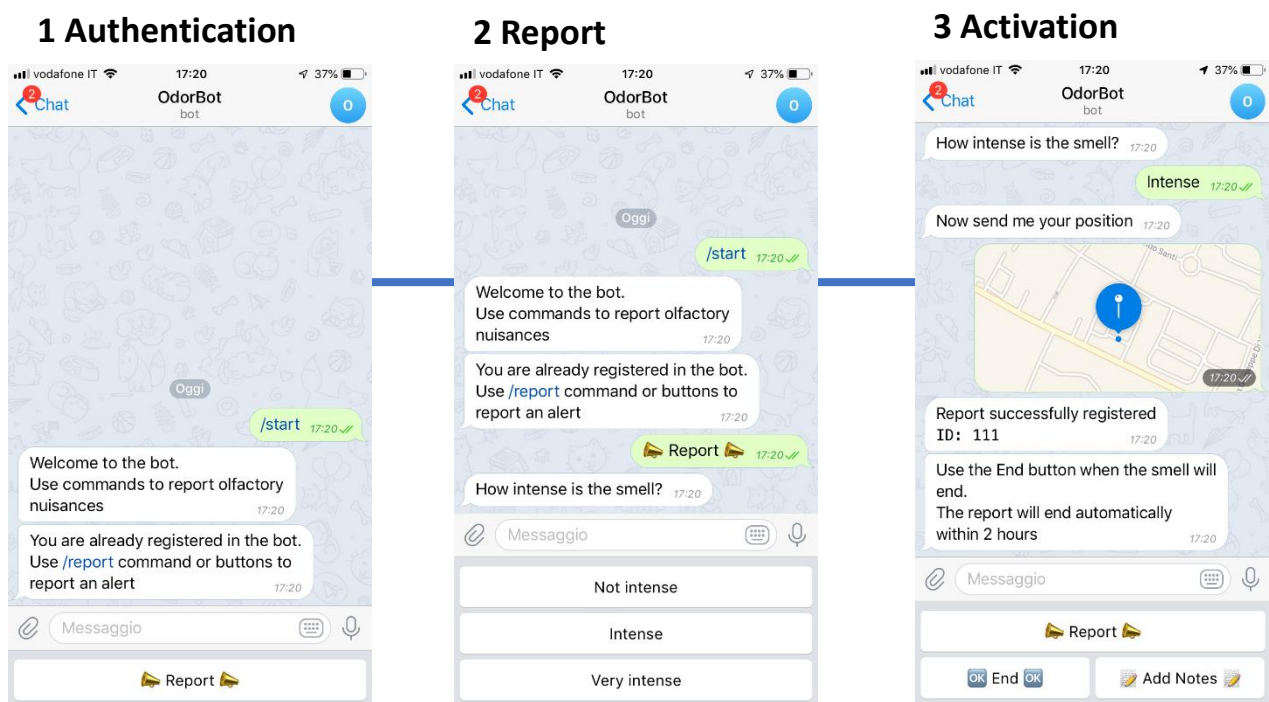# OdorPrep® BOT – The collection of reports via instant messaging

OdorPrep® BOT is a Telegram™ system operated by specific software. The program allows
the recording of reports caused by odour nuisance. The BOT is also able to start the on- demand sampling in the event of exceeding a threshold value set by the operator.

Two access mode are available: the identification code and the nickname.

Only users with an identification code will participate in the calculation of the reporting threshold for the start of sampling. Users with nicknames will not participate in the calculation of the threshold and will only be used for statistical purposes.

The system settings are completely customizable and it's possible to assign roles and relevance of alerts for each user. The system automatically generates a daily report of the reports, exportable in Excel format.

1 Authentication

2 Report

3 Activation

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