

# UG-3-O UNIGUARD SUPERFLOW

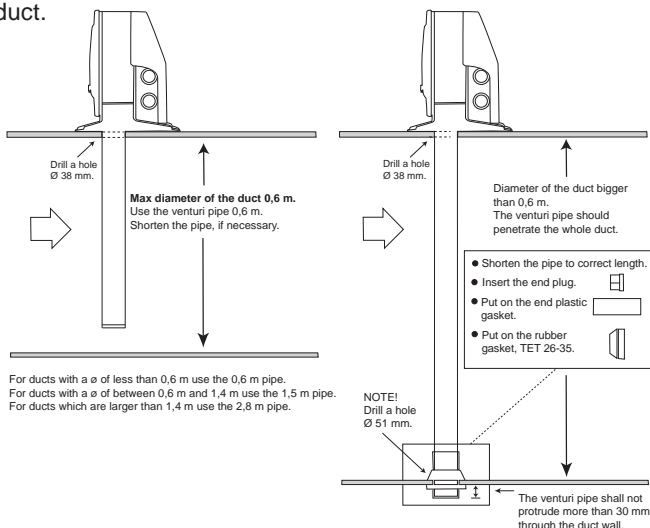
Optical smoke detector with service alarm for duct installation.



## TECHNICAL DATA

<b>Detector type:</b>	Optical UG-3-O
<b>Operating Voltage</b>	
<b>Detector:</b>	24VDC from control unit
<b>Operating current:</b>	~ 0,04 mA
<b>Service alarm current:</b>	~ 13 mA
<b>Fire alarm current:</b>	~ 48 mA
<b>Operating temperature:</b>	-20°C to +50°C
<b>Maximum humidity:</b>	99% rH
<b>Duct air velocity range:</b>	Approx. 0,2 to 20 m/s
<b>Approvals</b>	
<b>UG-3-O:</b>	VdS (Germany)
<b>Detector head:</b>	EN-54-7
<b>LED on smoke detector:</b>	Green - service alarm Red - smoke alarm
<b>LED on PCB:</b>	Yellow - service alarm Red - smoke alarm
<b>Adaptor housing:</b>	ABS
<b>Protection:</b>	IP-54
<b>Weight:</b>	800g
<b>Air sampling pipe:</b>	Aluminium.
	Standard length 0,6 m. Hole diameter 38 mm.

The length of the venturi pipe shall be chosen based upon how wide the ventilation duct is. The venturi pipes are available in 3 lengths; 0,6, 1,5 and 2,8 m. When the ventilation duct is wider than 0,6 m (dia), the venturi pipe should penetrate the **whole** duct.



## CHARACTERISTICS

- Patented venturi pipe and duct housing
- One-pipe air sampling system Uniguard Superflow
- New cross-section (shape) of the venturi pipe gives an optimum of venturi effect
- Service alarm
- Automatic sensitivity adjustment
- Test hole on cover
- Simple installation
- Sensitive flow indicator
- Simple service and maintenance
- Installer-friendly connection of cables
- Foolproof installation of venturi pipe

## FUNCTION

Uniguard has been developed to detect smoke in ventilation ducts and combines a smoke detector and an adaptor system where both venturi pipe and housing are specially designed for optimum airflow through the smoke detector.

Uniguard is used together with a control unit; e.g. ABAV-S3 to control fire-safety dampers, to stop ventilation fans, and to activate acoustic and optical alarms etc.

The detector UG-3-O contains an intelligent controlling circuit. This circuit is adjusting the sensitivity to give an optimal function during the whole life time of the detector. When the controlling circuit can no longer compensate for contamination, a service alarm is indicated.

Uniguard Superflow has 4 premounted IP67 approved cable entries with built-in cable anchorage for diameter 4-11 mm, type Klikseal.

The detector has a bayonet fitting to simplify mounting and removal.

## ACCESSORIES

Item code	Designation
UG-MB	Mounting bracket (for insulated/circular ducts)
UG-COVER	Waterproof housing (for mounting outdoors, in cold attics etc.)
VR-0.6M	Venturi pipe (length 0,6 m)
VR-1.5M	Venturi pipe (length 1,5 m)
VR-2.8M	Venturi pipe (length 2,8 m)

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Optical smoke detector with service alarm for duct installation.



## BASIC PRINCIPLES FOR POSITIONING

For the airflow through the adaptor to be representative of the airflow in the ventilation duct, install the detector at a place where normally flow meters etc. should be mounted, please see our installation instructions.

You can also use your national or local rules for moutnage according to "Methods for measuring airflow in ventilation systems".

## INSTALLATION

The venturi pipe is made of aluminium and can easily be shortened to suit the diameter of the duct. Hole diameter is 38 mm. For insulated or circular ducts - use the mounting bracket, hole diameter is then 51 mm.

## MAINTENANCE

When the detector becomes contaminated, sensitivity is increased, triggering the service alarm. This can be avoided for a considerable time by cleaning the detector once a year with a vacuum cleaner.

## AIR FLOW MONITORING

The detector is fitted with a red plastic switch tongue. When the detector is correctly installed, the tongue is bent outwards by the air flow. The switch tongue provides a simple confirmation that there is no leakage and that the air flow from the duct is in fact flowing through the housing.

## FUNCTION TEST

When installation is complete, the detector should be tested. This can be carried out with smoke or suitable testspray, for example RDP-300 (from Calectro), using the test hole on cover. **Do not forget to refit the plastic plug after test.**

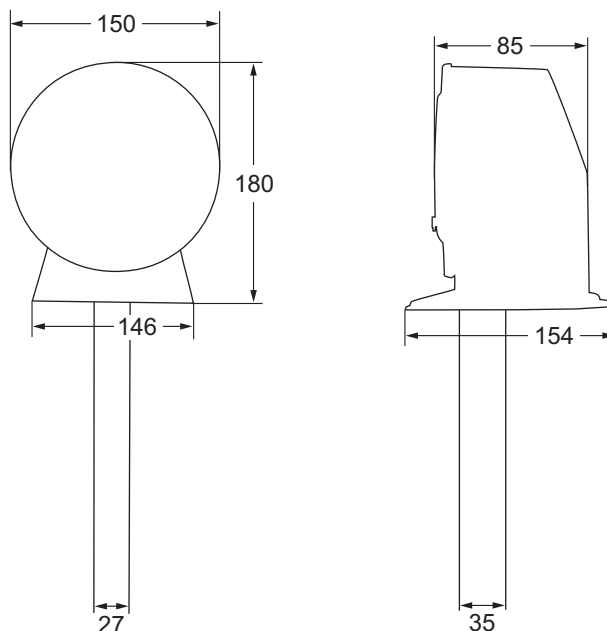
**NB:** When installing outdoors or in cold attics etc., where there is a risk for condensation, the detector should be insulated from the surrounding air with e.g. our weatherproof housing UG-COVER. In such cases it should also be marked with an extra indicator lamp, LED-03 and a sign marked "Hidden Detector".

## VENTURI EFFECT

The new cross-section (shape) of the venturi pipe gives an optimum of venturi effect. The slots alongside the venturi pipe, for the inlet and the outlet of the venturi air stream, gives maximum air flow and makes the venturi pipe self-adjusting with a stable and uniform flow from the whole cross section of the ventilation duct.

## DIMENSIONS

(mm)



## WIRING DIAGRAM

