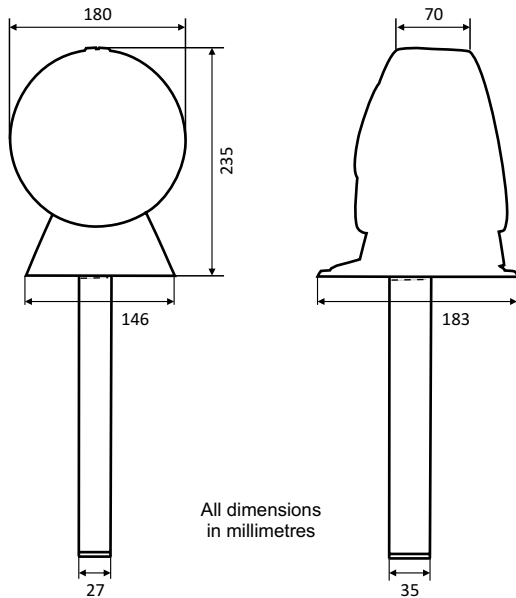
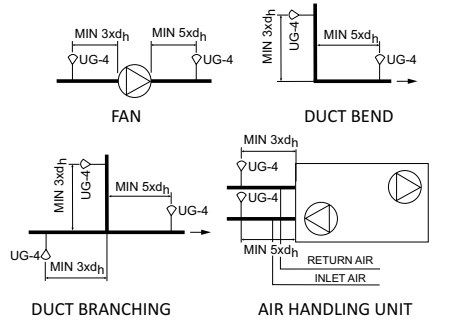
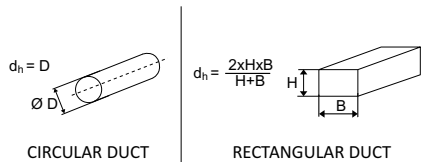


MECHANICAL DETAILS



All dimensions
in millimetres

Hydraulic diameter



UG-4

Duct Smoke Sampling System

UG-4 duct housing is a simple and effective solution to monitor smoke presence in ventilation ducts or other HVAC conducts.

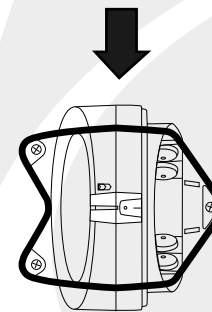
Based in Venturi effect, air sampling it's naturally aspirated because of aerodynamic shape of sampling tube. The venturi tube conducts the air from the duct to the detector housing, which is fitted to the outside of the duct, where a smoke detector detects potential fire particles in the air.

UG-4 should be installed according to air flow direction in the duct but it can be installed on any side of the duct.

We recommend that the UG-4 is mounted at an equal distance from heating, cooling or humidity devices. A distance of 3 times the duct diameter should be left before a damper, filter or change of the duct direction and 5 times the diameter after these devices to assure the presence of laminar flow.



Note: the foot's shape of an arrow, which shall be installed in the



TECHNICAL SPECIFICATIONS

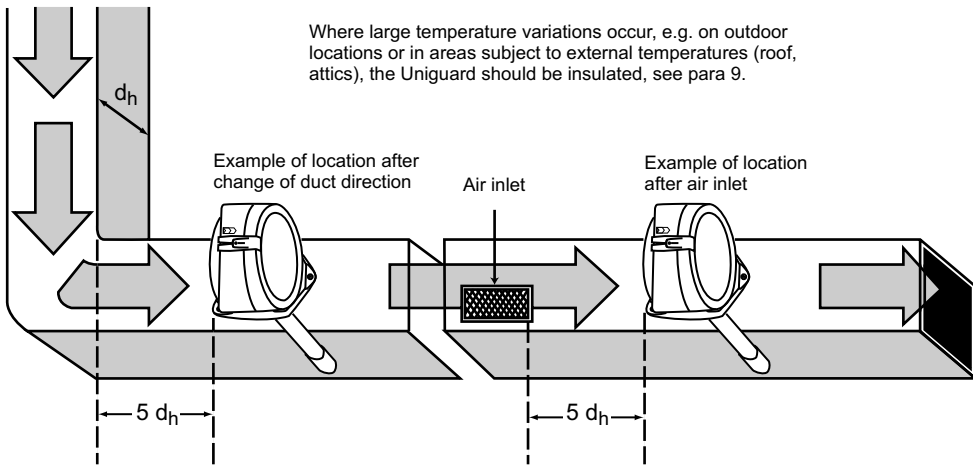
MATERIAL	ABS / Aluminum
WEIGHT: HOUSING	708 g
WEIGHT: VENTURI PIPE	0.6 m - 377 g / 1,5 m - 950 g / 2,8 m - 1760 g
DIMENSIONS: HOUSING	180 (W) x 235 (H) x 183 (D)
DIMENSIONS: VENTURI PIPE	23 (W) x x 35 (D)
ORDER CODE	DESCRIPTION
DUCT HOUSING	DUCT SMOKE SAMPLING SYSTEM
VR-0.6M	Venturi pipe 0.6 meter for UG-4
VR-1.5M	Venturi pipe 1.5 meter for UG-4
VR-2.8M	Venturi pipe 2.8 meter for UG-4

Examples of installation sources of interference:

Fan, damper, silencer, battery, air handling unit, duct bend, duct branching, duct narrowing or expansion.

GLOBAL FIRE EQUIPMENT S.A.

Sítio dos Barrabés, Armazém Nave Y, Caixa Postal 908-Z, 8150-016 São Brás de Alportel - PORTUGAL
Tel: +351 289 896 560 • Sales: sales@globalfire.pt • Technical Support: techs@globalfire.pt • www.globalfire.pt



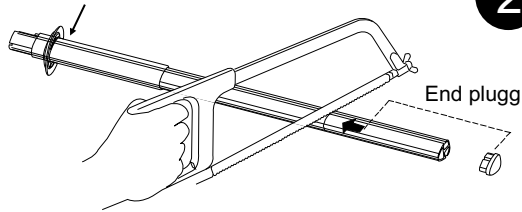
Where large temperature variations occur, e.g. on outdoor locations or in areas subject to external temperatures (roof, attics), the Uniguard should be insulated, see para 9.

1

Drill a hole in the duct:

- Without UG-bracket, $\varnothing 38$ mm.
- With UG-bracket and/or venturi pipe with booster fan, $\varnothing 51$ mm (see para 10).

Do NOT cut this end!

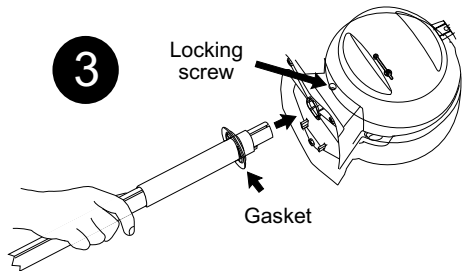


2

- Measure the diameter of the duct.
- Shorten the pipe, if necessary.
- The pipe should penetrate approx 90% of the width of the duct. NOTE! See para 8.
- Insert the end plug

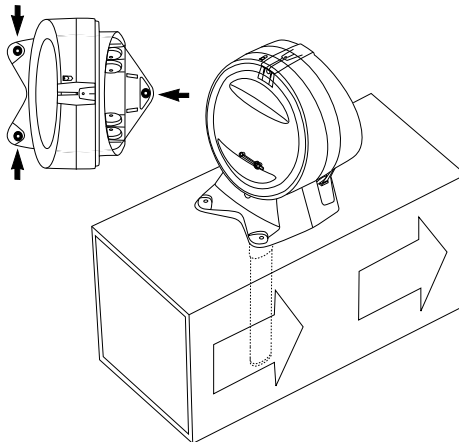
- Mount the black gasket on the pipe.
- Insert the pipe into the bottom of the Uniguard.
- Secure the pipe with the locking screw.

3



- Mount the pipe and the detector on the duct.
- Secure the bottom of the Uniguard with the 3 screws, positions marked.

4

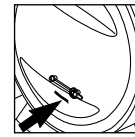


NOTE - IMPORTANT!

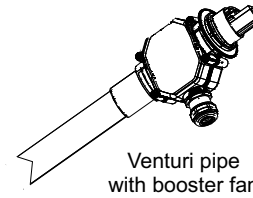
The air flow direction arrows (see the Uniguard foot's shape or on the housing top) must have the same direction as the air flow in the duct.

5

Flow indicator and booster fan pipe*



Flow indicator



Venturi pipe with booster fan

The Uniguard is supplied with an indicator, a red plastic "tongue", which – when the detector is correctly installed – is bent outwards due to the airflow.

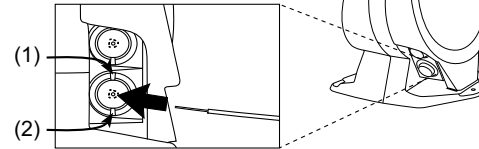
NOTE!

If the indicator does not move, you should consider a new mounting positioning of the Uniguard or install a booster fan venturi pipe.

* A booster fan pipe is a standard venturi pipe including a booster fan, which needs separate 24 AC supply.

6

Snap locking.



Electrical installation

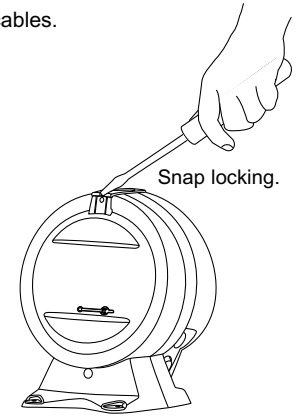
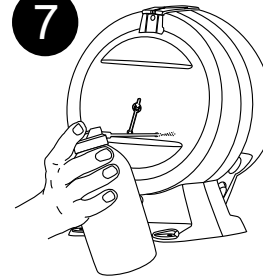
- Remove the back cover by opening the snap locking.
- Enter the cable through one of the cable entries.
- When using another type of cable entry dismount the ones already installed by first pressing one side through the hole and then the other one (1-2).
- Connect the cables.

7

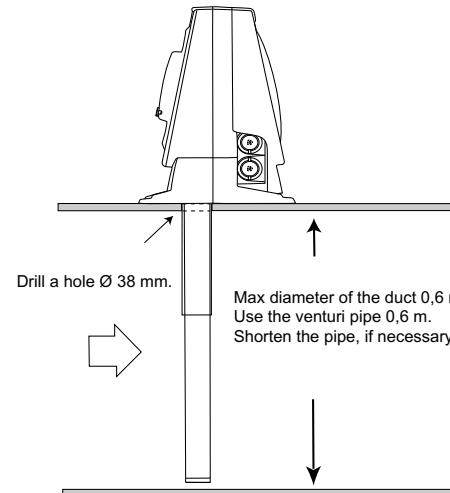
Test of detector

Check the detector with smoke detector tester RDP-300.

- Move the "test hole plug" to the side and briefly release a spray of aerosol.
- **IMPORTANT!** Reassemble the "test hole plug".



Snap locking.



How to open the front cover

The front cover opens as follows, when e.g. replacing smoke detector.

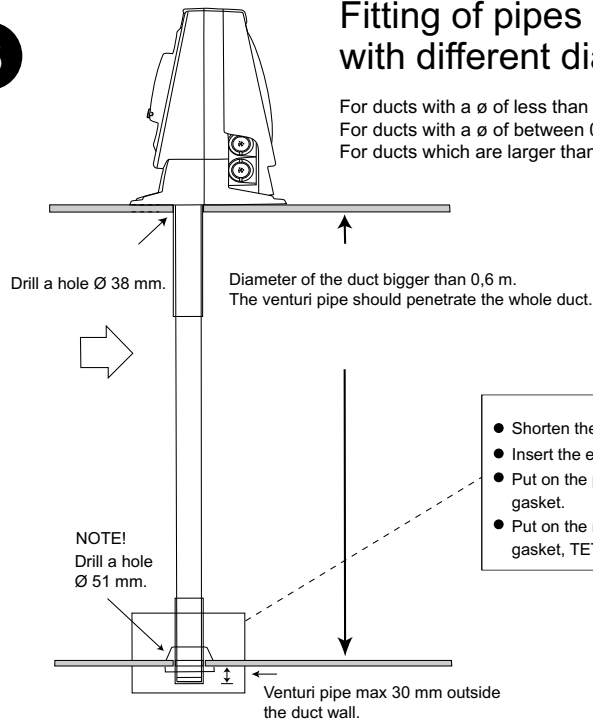
- Remove the cover by opening the snap locking with e.g. a screwdriver and turn the cover, which has bayonet fitting, counterclockwise.

Do not drill any holes in the cover for signs etc. Holes will cause air leakages and seriously disturb the function of the detector.

8

Fitting of pipes in ducts with different diameters

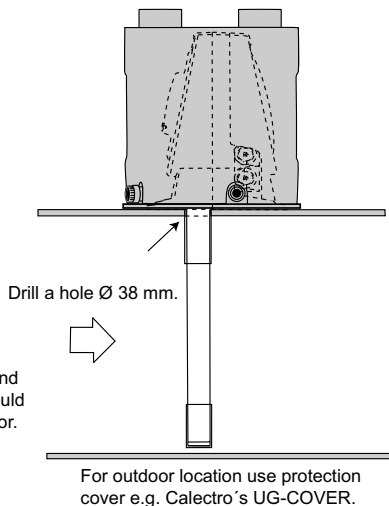
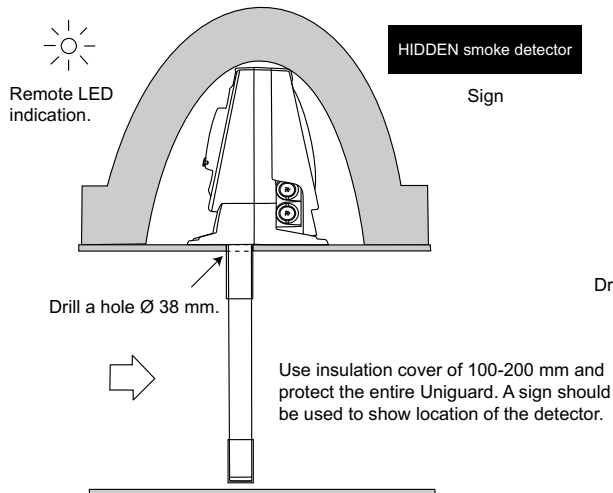
For ducts with a \varnothing of less than 0,6 m use the 0,6 m pipe, standard.
For ducts with a \varnothing of between 0,6 m and 1,4 m use the 1,5 m pipe.
For ducts which are larger than 1,4 m use the 2,8 m pipe.



- Shorten the pipe to correct length.
- Insert the end plug.
- Put on the plastic end gasket.
- Put on the rubber gasket, TET 26-35.

9

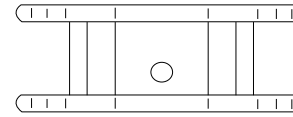
Mounting in places where possible condensation problems could arise, e.g. cold attics or outdoor



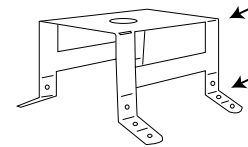
10

UG-bracket for circular or insulated rectangular ducts

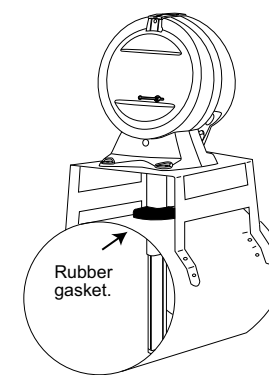
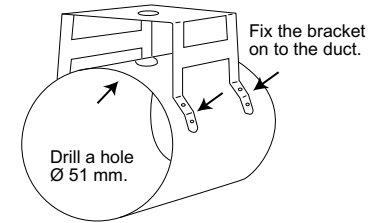
Using the UG-bracket the diameter of the duct can be as small as 100 mm.



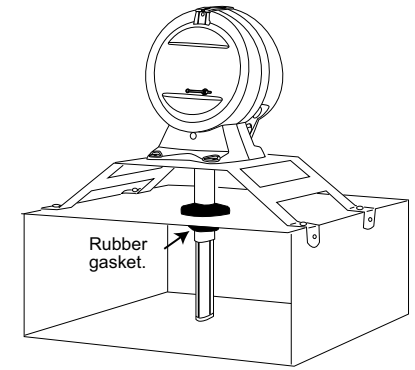
UG-beslaget levereras plant.
The UG-bracket is supplied flat.



UG-beslaget är lätt att böja/forma så att det passar runda eller plana kanaler.
The UG-bracket can easily be bent or shaped to fit circular or rectangular duct.



Circular duct.



Insulated rectangular duct.

FINAL CHECKS

- Check that the air flow direction arrows have the same direction as the air flow in the duct.
- Check that the plastic plug of the test hole is properly mounted.
- Check that the flow indicator oscillates ensuring proper air flow through the detector.
- It is recommended that smoke from a smoke generator is introduced into the duct to check the function of the detector.

Trouble shooting

The smoke detector indicates alarm without smoke.

- Smoke detector is faulty, contaminated with dirt or condensation. See para 9. The detector needs to be replaced.