

DUCT SMOKE DETECTOR

UG8-U-24

Optical stand alone smoke detector for duct installation. Sampling tube included.



UG8-U-24

■ Description

Calectro's UG8-U-24 has been developed to detect smoke in ventilation ducts.

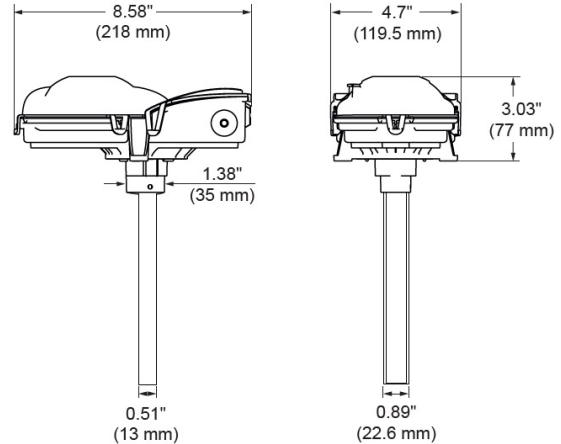
The sampling tube uses the Venturi principle, which creates an airflow that goes through the UG8, when mounted in the duct. The UG8 and the design of the sampling tube ensure detection even at very low air velocities, down to 100 ft/min (0.5 m/s).

The sampling tube and its rotation part is mounted separately on the duct, facilitating installations in very tight places. The UG8 is only 76 mm high and can be turned in any direction (360°) on the rotation part, which makes installation and cable connection very convenient.

To make installations and service easy, the UG8 is equipped with snap-on lids over both the detector chamber and the connection terminals, as well as push-in terminals. UG8 has built-in relays for direct connection of safety functions, such as fire dampers and for contamination/system-failure indication. Reset of a smoke alarm is done via the reset button or a short circuit between RST and RST GND on the PCB.

Additional features of the UG8, which are beyond the UL requirements, are a Low Airflow Alarm and an Automatic Sensitivity Adjustment. To activate the built-in Low Airflow alarm, remove the jumper. The Low Airflow alarm relay will activate below approximately. 250 ft/min (1.3 m/s) air velocity in the ventilation duct. The Automatic Sensitivity Adjustment is achieved by a built-in intelligent controlling circuit in the UG8. This enables a longer lifespan of the detector and fewer false alarms due to contamination.

■ Dimensions



■ Features

- Sampling Tube for all ducts over 8" included
- Single tube system
- IP65 dust and water proof
- Easy installation
- 360° mounting possibilities
- Patent pending rotation & mounting device
- Automatic sensitivity adjustment
- Contamination alarm
- Built-in alarm-relays
- 4 relay contacts
- Easy service and maintenance
- Test port for aerosol spray on cover

■ Ordering Information

Item code	Designation
UG8-U-24	Duct smoke detector 24V AC/DC. Including: Power Sampling Tube (PST195 - length 8 in / 195 mm) and Rotation & Mounting device

[ACCESSORIES]

Item code	Designation
ST280:	Sampling tube length: 1 ft (280 mm)
ST580:	Sampling tube length: 2 ft (580 mm)
ST-EXTEND:	Extension of sampling tube ST, 1.06M

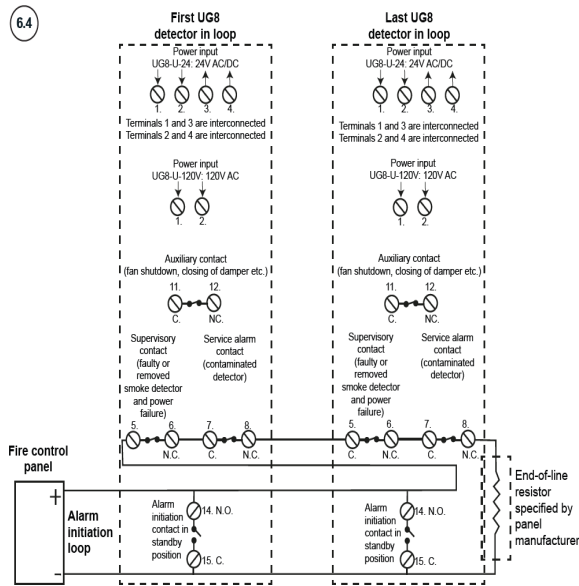
UG-MB-8: Mounting bracket
(for insulated/circular ducts)

UG-COVER-75: Insulation cover
(for mounting outdoors, in cold attics etc)

NOT TO BE USED FOR INSTALLATION PURPOSES.

Nittan reserves the right to make changes at any time without notice in prices, colours, materials, components, equipment, specifications and models and also to discontinue models.

■ Wiring Diagram

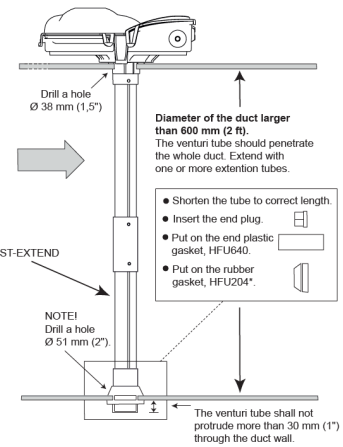


*As for terminal information, please refer to the installation

■ Air Sampling Tube

Strong vibrations can arise inside a duct due to the air currents. When the diameter of the duct is larger than 2 ft. the sampling tube should penetrate the whole duct. Drill a 2 inches hole in the opposite side of the duct. Mount the rubber gasket HFU204* in the hole. Put on the long plastic end plug HFU640 on the sampling tube. The sampling tube should not protrude more than 1 inch through the duct wall in order to avoid air leakage.

NOTE!*
HFU204 must be ordered separately.



Contact ratings	
Alarm initiation contacts (SPST & SPST)	8.0 A @ 24V DC (resistive) 8.0 A @ 120V AC (resistive)
Supervisory contacts (SPST)	1.0 A @ 24V DC (resistive) 1.0 A @ 120V AC (resistive)
Alarm auxiliary contacts (DPDT)	10 A @ 30V DC (resistive) 10 A @ 120V AC (resistive)

■ Specifications

Specifications	UG8-U-24		UG8-U-120
	Power supply voltage	24V DC (-5/+20%)	24V AC (±10%) 50-60 Hz
Reset time (by power down)	1 sec. max.		
Power up time	1 minutes		
Sensitivity test	Nominal sensitivity 0.74-1.19%/ft		
Max. standby current	70 mA	180 mA	55 mA (at 120V AC)
Max. alarm current	85 mA	235 mA	70 mA (at 120V AC)
Operating temperature	32°F to 100°F (0°C to 38°C)		
Storage temperature	-22°F to 158°F (-30°C to 70°C)		
Humidity	0 to 95% RH		
Duct air velocity range	100 - 4000 ft/min. (0.51 - 20,32 m/sec.)		
Dimensions (LxWxD)	8.58x4.7x3.03" (218x119.5x77mm)		
Weight	UB8-U-24:0.465kg, UB8-U-120: 0.485kg		
Air sampling tube	Aluminium. Hole diameter 1.5" (38 mm).		

All specifications are subject to change without any notice.
For more information, contact with NITTAN.

NITTAN

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