



UV4H

Flame detector

UV4H

Flame detector

Index

Description.....	2
Features.....	2
Technical specifications	3
Optional	4
Ordering Information	4
Standards and approvals	4

Description

UV4H is a flame sensor to be used with burner control system CFK. It is designed for detection of flame of gas, oil and mixed burner and suitable for industrial plant.

Features

The core component is a glass bulb filled with gas, containing two electrodes. When appropriate voltage is applied between electrodes, if an ultraviolet electromagnetic radiation hits the bulb, there is a current flow. This UV radiation is emitted by combustion flame.

The bulb is protected with a quartz glass with suitable transmittance.

The body is made of thermal isolating material so that sensor can be used till 90°C. If temperature is higher, the cooling joint with filtered air has to be added.

UV4H is very sensitive in a small region of ultraviolet spectrum, so it is sensitive to flame of gas and oil, but blind to light from sun or tungsten lamps. This sensor is able to detect flame presence with high safety. Picture below give further details about sensor sensitivity and light emission by flame, sun and tungsten lamps.

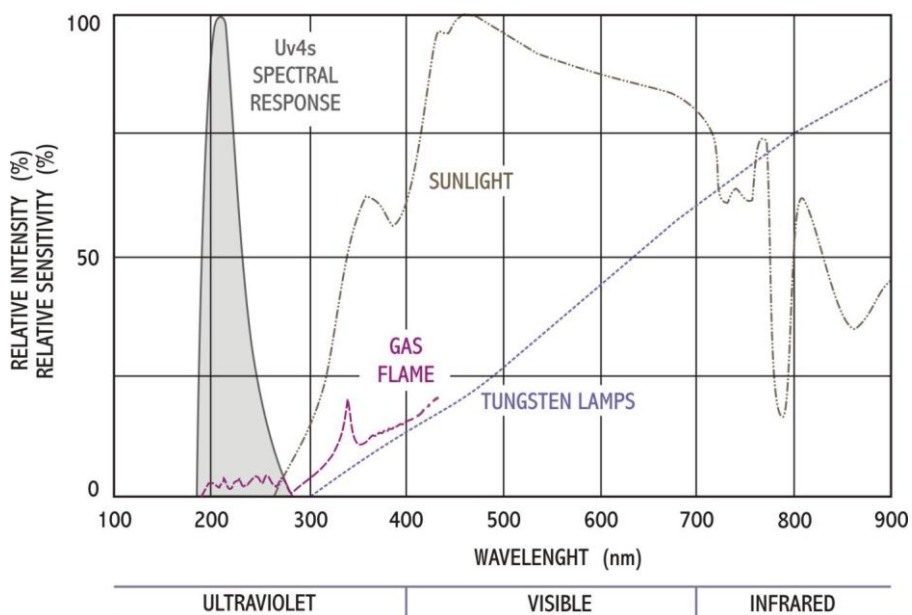


Fig. 1



WARNING

This control must be installed in compliance with the rules in force.

Technical specifications

Tab. 1

Spectral Response	185 ... 260 nm
Operating voltage	200 ... 280 VAC Higher is the voltage, higher is sensor sensitivity. It is very important that operating voltage is always within range above, to avoid malfunctions and damages.
Sensitivity	10.000 cpm
Operating temperature	-20 ... +90°C -20 ... +125° C whit joint with cooling air
Protection class	IP65
Operating life	> 25.000 hours @ 50°C ¹
Vibration	0,5 g MAX
Relative humidity	10 ... 90% (NON CONDENSING)
Mounting position	ANY ²
Weight	0,16 Kg

Note 1: operating life is strictly connected with operating temperature: it is advisable to always substitute the sensor after 25.000 h, in some applications the substitution can be necessary in shorter time.

Note 2: do not install on top of burner in vertical position because combustion products can dirty the sensor. Choose mounting position so that sensor can see only flame of burner, not the ignition spark or flame of other burners and dirty can not accumulate on sensor. Connecting pipes of sensor and burner shall not be reflective inside.

Dimensions:

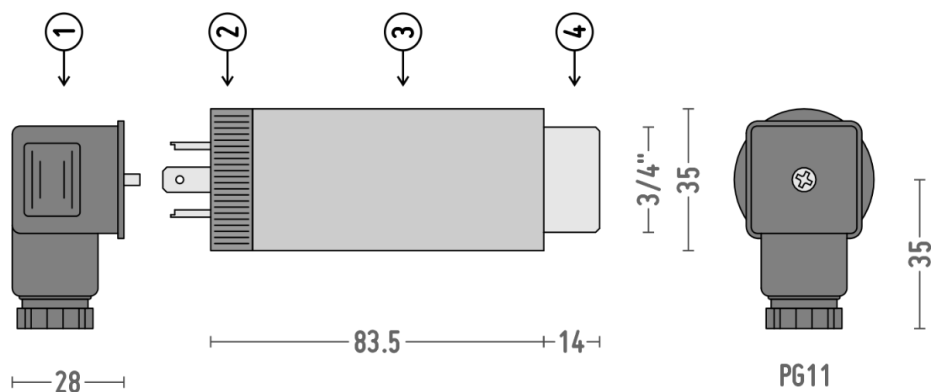
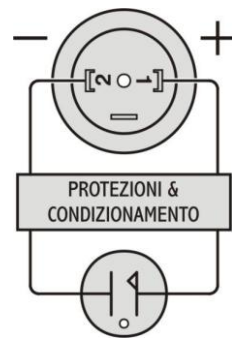


Fig. 2

- 1 - 2 plug and socket DIN 43650 – ISO4400 2 poles + ground
- 3 thermal isolating body
- 4 metallic connection

Wiring diagram:



1 Positive terminal

Usually connected to Ground

2 Negative terminal

Usually connected to Flame Input of burner control (CFK - terminal 10)

In case of reversed connection, the sensor is not damaged, but flame is not detected.

Class II device

Connection to protection ground is not required.

Fig. 3

Optional

A joint can be supplied so that detector can be cooled with air, in case of ambient temperature higher than 90°C.

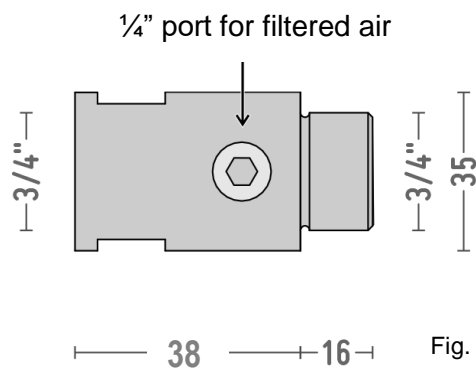


Fig. 4

Ordering Information

UV4 H – flame detector

UR – joint for cooling air for UV4H

Standards and approvals

UV4H has been tested with burner control CFK on the basis of the norm EN 298. The detector can work with other device (see Tab.1 for features), but no warranty can be made in this case.

Quality management system certified in accordance with EN ISO 9001.

The information in this document contains general descriptions of technical options available and based on current specifications. ELETTROMECCANICA DELTA S.p.A. reserves the right to update or make any technical changes without prior notice.

Elektrogas is a trademark of:

Elettromeccanica Delta S.p.A.
Via Trieste 132
31030 Arcade (TV) – ITALY
tel +39 0422 874068
fax +39 0422 874048

www.delta-elektrogas.com
info@delta-elektrogas.com

Copyright © 2023
Tutti i diritti riservati