

## DVA 11 DETECTOR

○ Detection of gaseous fluorhydric acid in industrial plants

### □ USES

- Monitoring of manufacturing processes
- Monitoring of workshops
- Implementation of statutory constraints



- Patented detection method using a colorimetric tablet
- The device measures variations of luminous flux produced by **gaseous fluorhydric acid** on a colorimetric tablet.
- The resulting signal is converted to a concentration equivalent and compared to the user-defined threshold. Any value exceeding the threshold will trigger an alarm, transmitted to the security system.
- The use of optical fibre for the transfer of luminous flux allows a positioning of the device in adverse environments.
- The device is simple to use, and managed by a **microcontroller**.
- Communication with the DVA11 is achieved locally with a laptop computer and a screen to display operating conditions.

Specifications



# DVA 11 DETECTOR

# SPECIFICATIONS

**Detection method:**

Patented.  
Type: colorimetric.

**Electro-optics:**

- Light source:  
Electroluminescent diode emitting at 560 nm (green).
- Photoelectric detectors:  
type: photodiode - 1mm<sup>2</sup> detection area  
response proportional to the intensity of the incident luminous flux.
- Light guides  
2 multimode silica optical fibres in protective sheathing.

**Specifications:**

Threshold trigger (HF): adjustable from 1 to 100 ppm.  
Response time: less than 180 s.

**Power supply:**

230 volts AC  
Amperage 200 mA

**Monitoring:**

14 bit RISC based microcontroller with battery backup.

**Alarms**

- threshold exceedance
  - malfunction
- Alarms are available on open contacts when the device is not operating.

**Casing:**

- Materials:  
Body: PTFE / C Carbon doped Teflon  
Casing: blue anodised Duralumin  
Fasteners: inox 304L.  
Seals: Viton and Hypalon  
Watertight  
IP rating: IP65

**-Dimensions:**

128mm diameter, 410 mm length  
28 mm diameter rod  
Weight: 1260 g

**Operating Conditions:**

The device must operate in total darkness.

**Temperatures:**

- storage: 20°C to 50°C
- operation:
  - 0°C to 50°C for the casing.
  - 0°C à 120°C for the pellet bearing rod

Test pressure 5 bars

**Heater Option** (not shown on the photograph)

Prevents the formation of condensation.  
30W heating element  
Power supply 12 Volts AC (not provided).  
Monitoring by a 100 ohms platinum sensor.

**Circulator Option** (not shown on the photograph)

For adaptation on pipes or tubes.

# A C C E S S O R I E S

Blister pack of 6 two-element based detecting tablets.  
(manufactured by the pharmaceutical industry)

Tweezers.

