

Description

Solvent vapour detector E2610-VOC is a member of new PluraSens® family of multifunctional measurement instruments. The detector is intended for use in solvent storages, painting chambers and other confined spaces, where toxic or potentially explosive concentration of volatile organic compounds can accumulate.

The instrument utilises novel fully calibrated and temperature compensated electrochemical gas sensor with excellent repeatability, stability and long lifetime.



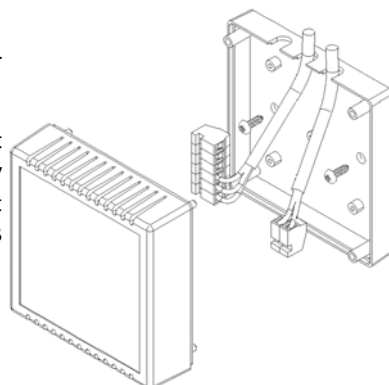
Specifications

Default calibration	toluene						
Detection range	0...100 %LEL of target gas						
Resolution	0,1 %LEL of target gas						
Accuracy	± 2 %LEL of target gas						
Response time	~30 seconds, warm-up time < 1 minute						
Sensor type	metal-oxide semiconductor, lifetime > 10 years						
Operating conditions	dry rooms, -30...+70 °C, 0...95 %RH, non-condensing						
Power supply	11...30 V DC/AC (version -24) or 90...265 VAC (version -230)						
Electromagnetic compatibility	according to Directive 2004/108/EC, 2014/30/EU and EN61326-1 standard requirements						
Wall-mount enclosure	interior use, light grey slotted ABS 71x71x27 mm, IP20						
LEDs	green/red (operation/fault), red (gas alarm)						
Buzzer	2 kHz, 85 dBi						
Relays	2 x SPDT, max 5A, 30 VDC / 250 VAC						
Digital interface	UART						
Default alarm setpoints	<table border="0"> <tr> <td>LOW</td> <td>RE1:</td> <td>10% LEL of target gas</td> </tr> <tr> <td>HIGH</td> <td>RE2:</td> <td>25% LEL of target gas</td> </tr> </table>	LOW	RE1:	10% LEL of target gas	HIGH	RE2:	25% LEL of target gas
LOW	RE1:	10% LEL of target gas					
HIGH	RE2:	25% LEL of target gas					

Installation

Detach the base of the enclosure by gently pulling along four guiding pins. Fix the base on the wall with two screws.

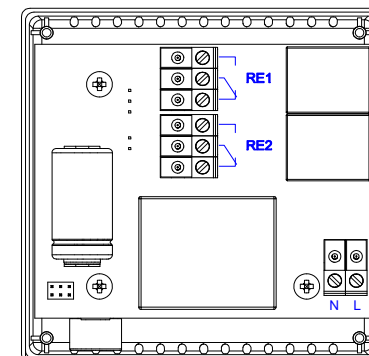
The terminal blocks are pluggable type for more convenient wiring. Detach the terminal blocks from the PCB board by pulling them off the pins. Connect power supply and relay output cables to the terminal blocks, attach the blocks back to the PCB and push the enclosure to the base.



Connections

Connect power terminals **N** and **L** to the 24 V AC/DC source if you are using detector version **-24** or to 230 VAC mains if you are using detector version **-230**.

Relay switch-over outputs may be used to control directly 24 V or 230 V powered alarm sirens, ventilation fans, shut-off valves or other actuators.



Operation

During first 30 seconds after powering on E2610-VOC performs a warming-up and self-diagnostic routine, indicated by flashing each LED. The upper dual-color LED remains continuously green in normal operation and blinks red in case of device or sensor fault.

If the gas concentration exceeds the LOW alarm setpoint, the bottom red LED starts flashing at a rate 1 Hz, and the relay RE1 switches over. The first alarm stops automatically when gas level falls below 80% of the LOW alarm setpoint.

If gas concentration exceeds the HIGH alarm setpoint, the bottom red LED starts flashing and the buzzer starts beeping at a rate 2 Hz, and also the relay RE2 switches over. The HIGH alarm stops automatically (option **-A**) or can be stopped only by brief pushing the button (option **-M**), on condition that the gas level has fallen below 80% of the LOW alarm setpoint.

Holding down the button for 3...9 seconds and releasing causes E2610-VOC to reset and perform the self-diagnostic routine for testing purposes.

When holding the button down for over 10 seconds, E2610-VOC imitates the reaching of the HIGH setpoint with the respective light and sound indication and switching over the relays.

To ensure accuracy E2610-VOC should be calibrated annually by qualified technician using standard calibration gas mixtures. Refer the manufacturer for calibration guides. The calibration should be performed by an authorized specialist. The metal oxide gas sensor lifetime is over 10 years, the sensor is not replaceable.

Warranty

This product is warranted to be free from defects in material and workmanship for a period of one year from the date of original sale. During this warranty period Manufacturer will, at its option, either repair or replace product that proves to be defective. This warranty is void if the product has been operated in conditions outside ranges specified by Manufacturer or damaged by customer error or negligence or if there has been an unauthorised modification.