DATASHEET

E2639

Evikon

Distributed by AKRIBIS

E2639
Nitrous Oxide Detector

Evikon

Sensor Technologies
Measurement & Control Instrumentation

Standalone and multifunctional

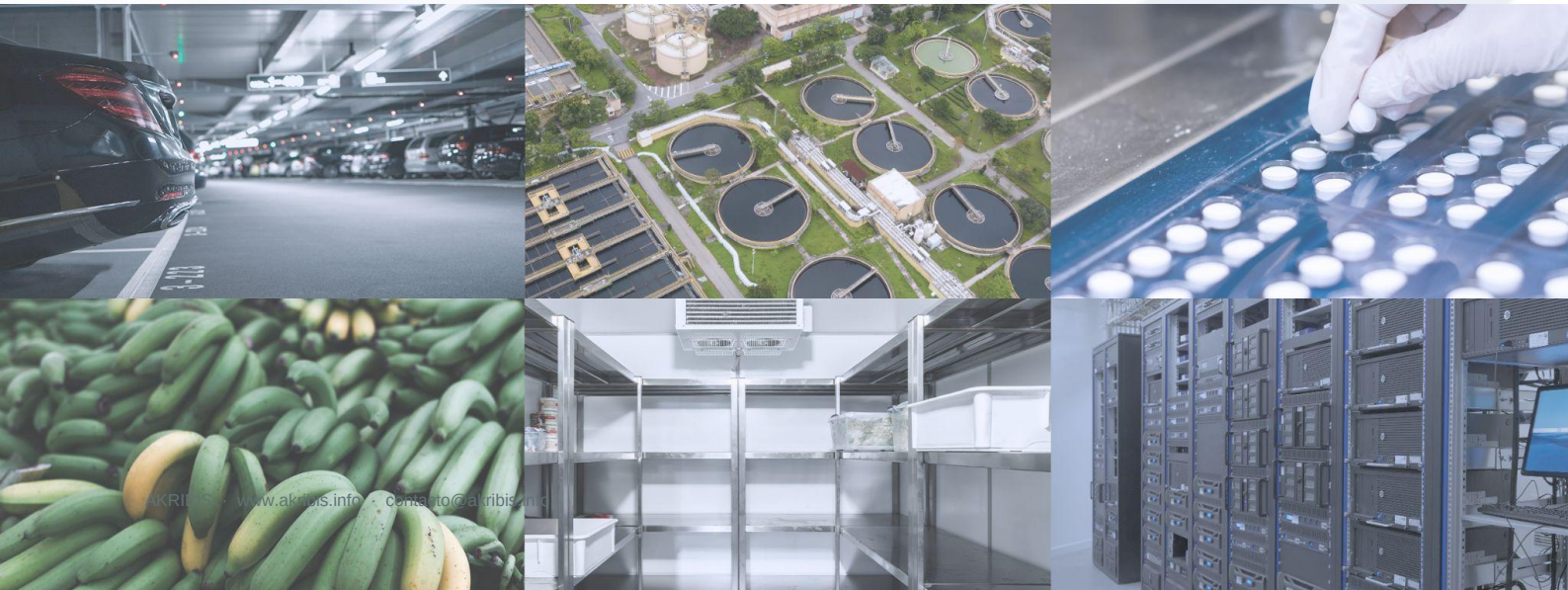
E2639 is a next-generation product developed to deliver reliable detection of toxic and combustible gases in a wide range of market sectors such as:

- HVAC/R
- Agriculture
- Food and beverage
- Healthcare and laboratories
- Process industries

The detector is based on the unified PluraSens® Platform having RS485 Modbus RTU and 2 × 4-20 mA outputs offering customers different possibilities for communication with controllers and SCADA systems.

E2639 is also equipped with 3 x SPDT relays (2 for alarms, 1 for fault) accompanied with 4 x LEDs and a buzzer for better safety and visual, audible indication.

Most of known sensing technologies are implemented providing a possibility to detect more than 20 different gases and gas groups.



Convenience of use

User-oriented installation

E2639 is equipped with **3 x M20 cable glands** and **duplicated terminals** to save time during installation.

Enclosure design features side **mounting brackets** making mounting of the detector easier.

Pre-calibrated Smart Sensors

GSH Smart Sensors come **already pre-calibrated.**

M12 connector enables fast sensor replacement without the need to open the enclosure lid.

Being fully **interchangeable**, any GSH Smart Sensor can be connected to the same E2639 main unit (for example, HFC sensor can be replaced with CO_2 or NH_3 sensor and so on) and purchased separately.

Built-in calendar can notify end customers when calibration is due.

Multiple calibration possibilities

Optional **WiFi module** gives a possibility of connection to a smartphone or tablet PC for convenient calibration and configuration.

No additional apps are required. Access is provided via URL and password protection with multiple levels of access.

GSH Smart Sensors calibration can be done through E2639 or by connecting the GSH module directly to PC using special **configurator (SSI).**

24V OUT · IP65 · 4-20 mA · RS485 Modbus

Nitrous Oxide Detector
E2639-N2O

Features

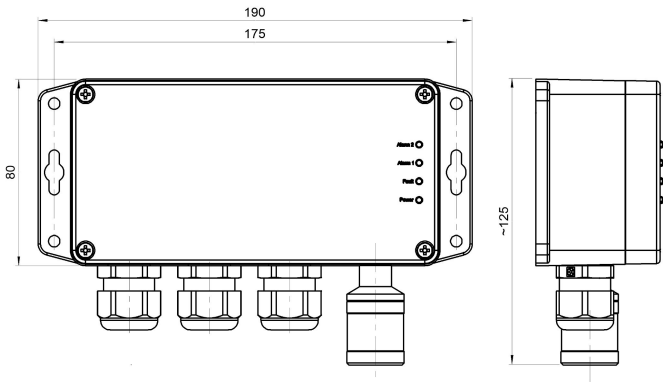
- 2 x 4-20 mA user configurable analog outputs
- RS485 Modbus RTU digital interface
- 3 x SPDT Relays: 2 for alarms, 1 for fault
- 2 x 24 V outputs for controlling alarm signals*
- Magnetic button for alarm reset & WiFi enable
- WiFi interface option for configuration and calibration

Specifications

Calibration	Nitrous oxide N_2O
Sensor type	Infrared (NDIR)
Sampling method	Diffusion
Typical detection ranges	0...1000 ppm
Maximum overload	2000 ppm
Resolution	1 ppm
Response time T90	< 30 s
Signal update	Every 1 second
Sensor lifetime	> 5 years
Maintenance interval	12 months
Self-diagnostics	Full functionality check at start-up
Warm-up time	≤ 1 min
Power supply	14...36 VDC (default) 24 VAC or 230 VAC as options
Power consumption	< 6 VA**
Digital interfaces	RS485, Modbus RTU protocol 2.4 GHz WiFi (802.11 b/g/n) option
Relays	3 × SPDT relays (2 for alarms, 1 for fault)
Outputs	2 × 4-20 mA analog outputs, user configurable 2 x 24 V outputs (for controlling alarm signals)
Output scale width	Recommended: 5-100% of the range; > 10 × resolution in any case
Enclosure	Grey ABS plastic, wall mount, protection class IP65
Dimensions	H80 × W190 × D55 mm (housing only) H109 with cable glands
Operating conditions	-20...+50 °C, 0...95 %RH non-condensing
Alarm signalling	
Visual	4 x LEDs (red, green and yellow)
Acoustic	Buzzer 85 dB
Applicable standards	Directive 2014/30/EU, 2014/35/EU and 2014/53/EU, EN IEC 61010-1:2019, EN IEC 50270:2015, EN IEC 50271, EN IEC 62990-1:2022, EN IEC 60079-29-0:2026, ETSI EN 300 328 V2.2.2

NOTE! Cross-sensitivity to CO2, ask manufacturer for details

Dimensions



* 24V outputs are relative to power supply e.g. supplied voltage of device is transferred to output voltage
** Does not consider 24V output connected device consumption

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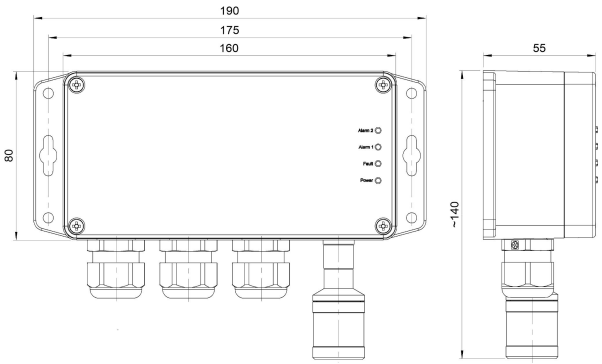
GSH Smart Sensors Specification

Connector	M12 industrial circular
Service counter	Built-in calendar indicates when calibration is due
Calibration	Through E2639 or by connecting to SSC configurator
Remote sensor probe (option)	Shielded cable up to 5 m length
Sensor head dimensions	Ø25 mm, height 54 mm

E2639-GSH Dimensions



Ordering code for E2639-N2O standard version

Target gas	N2O			
Sensor type	-IR (for infrared sensor)			
Detection range	-1000 (for 0…1000 ppm)			
WiFi	-WF (yes)	Leave the field empty (no)		
Power supply	-24VDC	-24VAC	-230VAC	

Code example: E2639-N2O-IR-1000-WF-230VAC

Ordering code for version with Smart Sensor

E2639-GSH main unit *			
WiFi	-WF (yes)	Leave the field empty (no)	
Power supply	-24VDC	-24VAC	-230VAC

* Can be supplied separately

Code example: E2639-GSH-WF-24VDC

GSH-N2O Smart Sensor *				
Target gas	N2O			
Sensor type	-IR (for infrared sensor)			
Detection range	-1000 (for 0…1000 ppm)			
Remote probe (option)	-RP	Leave the field empty (if no remote probe)		
Length of remote probe (m)	-2.5	-5	Other length on request	

* Can be supplied separately

Code example: GSH-N2O-IR-1000-RP-5

Disclaimer

This document is subject to change.

The latest and actual version is located on the Manufacturer's web page.

evikon.eu