

# CERTIFICATE OF COMPLIANCE

**Certificate Number:** SGSNA/24/CA/00008X

**Contract Number:** 802468  
**Certificate Project Number:** BAS-CERT240700006

**Certified Product:** Digital Gas Transmitter/Detector  
**Trademarks:** -  
**Model(s):** UNIPHOS 501DT - KwikSense Pro, UNIPHOS 501DT - KwikSense Lite, UNIPHOS 501DT - KwikSense RD, UNIPHOS 501DT - KwikSense AT  
**Technical Data:** 18 to 30V DC, 3W;

**USA:**  
 Class 1, Zone 1 AEx db IIC T6 Gb (-40°C ≤ Ta ≤ 55°C)  
 Class 1, Zone 1 AEx db IIC T5 Gb (-40°C ≤ Ta ≤ 60°C)  
 Class 1, Zone 1 AEx db IIC T4 Gb (-40°C ≤ Ta ≤ 60°C)  
 Class 1, Division 2 Groups A, B, C, D

**Canada:**  
 Ex db IIC T6 Gb (-40°C ≤ Ta ≤ 55°C)  
 Ex db IIC T5 Gb (-40°C ≤ Ta ≤ 60°C)  
 Ex db IIC T4 Gb (-40°C ≤ Ta ≤ 60°C)

**Certificate Holder:** Uniphos Envirotronic Pvt. Ltd.  
 P.O Nahuli, Tal. Umbergaon, 396105, Dist. Valsad, Gujarat, India

*This certificate supercedes previous certificates issued with the same certificate number. Certification is valid when products are indicated on the SGS directory of certified products at [www.sgs.com](http://www.sgs.com) or using the QR code below. The product is certified according to ISO/IEC Guide 17067, Conformity assessment - Fundamentals of product certification, System 3, and in accordance with:*

UL 60079-0, 7th Ed. Rev. April 15, 2020  
 CAN/CSA C22.2 No. 60079-0:19 (R2024)  
 CAN/CSA C22.2 No. 60079-1:16  
 UL 60079-1, 7th Ed. Rev. Jan. 23, 2020

**Certification Condition**

1. The sensor housing must not be opened in a potentially explosive atmosphere unless the equipment is fully de-energized. The equipment may not be re-energized until the sensor housing is fully assembled.
2. The coin cell fitted in the main enclosure of the explosion proof Gas Transmitter / Detector fitted with the 501DT Gas Detector shall not be replaced by the end user. Consult the manufacturer to arrange a replacement coin cell.
3. The integral external cable and potting of the remote sensor shall be protected from impact.



**Certification Body**

Connectivity & Products, a division of SGS North America Inc.  
 620 Old Peachtree Road, Ste. 100, Suwanee, GA 30024, USA  
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4. Installation of the remote sensor shall be undertaken at temperatures greater than  $-5^{\circ}\text{C}$  due to the flexing capability of the integral external cable. Once installed, the integral cable shall be fixed by installation.
5. The flameproof joints on the equipment are not intended to be repaired.
6. Temperatures could exceed  $60^{\circ}\text{C}$  at the cable gland or at the branching point, suitably rated cable must be selected.
7. It is the manufacturers responsibility to maintain the Ordinary Locations certificate SGSNA/25/SUW/00109X.

Authorized by:

Effective date: 14 January 2026

A handwritten signature in black ink, appearing to read 'Brearley'.

David Brearley  
Certifier

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## Additional Information:

### General product information:

#### UNIPHOS 501DT:

This gas transmitter/ detector is a field mounted gas detector for the continuous monitoring of Oxygen, flammable and a number of toxic gases. It provides an industry standard 4-20 mA output signal and MODBUS digital signal (optional) that can be connected to any control system (Uniphos Controller, DCS, PLC, etc.). The non-intrusive calibration feature allows for calibration in hazardous (explosive) locations.

Following are the variants of UNIPHOS 501DT.

- a) UNIPHOS 501DT – KwikSense Pro: It is three wire/ four wire Gas Detector with an industry standard 4-20mA as well as MODBUS output. It has three relays for Low Alarm, High Alarm & Fault respectively. It consists of two components – a universal gas transmitter and a smart sensor module. This smart sensor module is available for flammable gases, Oxygen and a variety of toxic gases.
- b) UNIPHOS 501DT- KwikSense Lite: It is three wire Gas Detector with industry standard 4- 20 mA output. It consists of two components – a universal gas transmitter and a smart sensor module. This smart sensor module is available for flammable gases, Oxygen and a variety of toxic gases. It has either 1/2/3 relays based on the requirement.
- c) UNIPHOS 501DT - KwikSense AT: It is two wire microcontroller-based Gas Detector with industry standard 4-20 mA output
- d) UNIPHOS 501DT - KwikSense RD: It has remote monitoring capabilities which takes the 4-20mA output from any device, like UNIPHOS 501DT – KwikSense Pro/ UNIPHOS 501DT - KwikSense AT/ UNIPHOS 501DT - KwikSense Lite etc. as input and provides industry standard 4-20 mA output signal.

The Explosion Proof Gas Transmitter / Detector is rated at 12/24Vdc, 100mA, 3W Max.

The Explosion Proof Gas Transmitter / Detector comprises an aluminium alloy or stainless steel cylindrical flameproof enclosure featuring an M95 x1.5P threaded aluminium alloy or stainless-steel lid. A stainless steel M3 grub screw is used to secure the lid against unintentional removal.

The lid houses a sodium silicate toughened glass window, which is cemented in place, in order to view the internal electronic indications. Two PCBs are used inside the main housing enclosure, for connecting the gas sensor.

The main enclosure has two M25 or M20 or ¾” NPT or ½” NPT threaded cable entries, one at either side, for the provision of electrical connections.

The enclosure also has an M25 or ¾” NPT threaded entry at the bottom, for the connection of one of the 501DT gas sensor housing.

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The 501DT gas sensor has an external M25 or ¾" NPT thread form for connection to the main housing enclosure.

The rear housing of the gas sensor holds an electronic connection facility to connect the PCBs inside the gas sensor to the main PCB in the main enclosure of the Gas Transmitter / Detector.

Filling compound is used in the rear gas sensor enclosure and provides separation of the two flameproof enclosures. The cable connections pass through the filling compound.

The 501DT gas sensor can also be assembled remotely with the use of LAPP (UL certified) ref. 0044712 / 0044716 / 0044851 or equivalent.

When assembled remotely the cable must enter the main housing enclosure through a suitable UL certified flameproof cable gland.

The front housing of the gas sensor incorporates a sinter. The front and rear gas sensor housings are threaded to enable assembly and have provision of a locking screw to prevent loosening. The sensor housing may be unscrewed to gain access to the internal sensor module, which can be swapped with other sensors.

The Cable entry holes in the main Gas Transmitter / Detector enclosure are provided as specified on the certified drawings for the accommodation of flameproof cable entry devices, with or without the interposition of a flameproof thread adapter. Unused entries are to be fitted with suitable UL certified flameproof stopping plugs.

The cable entry devices, thread adapters and stopping plugs shall be suitable for the equipment, the cable and the conditions of use and shall be certified as Equipment (not a Component).

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