

# Uniphos

## KwikSense

### Smart Digital Gas Transmitter



Engineered to deliver in the most challenging conditions and safeguard your valuable assets.



Delivering  
**Excellence**  
for over 25 years

## Uniphos KwikSense Smart Digital Gas Transmitter

The KwikSense smart digital gas transmitter is a universal transmitter which is compatible with all our smart gas sensors and capable of accepting more than 100 smart gas sensors. It is a field mountable device suitable for the detection and continuous monitoring of hazardous gases at industrial plant locations.

KwikSense is available for a large number of gases which include oxygen, toxic gases, combustible gases and volatile organic compounds (VOCs).



• Digital Communication on MODBUS over RS 485



• 3 potential free relay contacts



• Industry standard 4-20mA analog output



• Pre-Calibrated Smart Sensor capable of swapping between any sensor technology



**Sensor Technologies available**  
- Electrochemical, NDIR,  
Pellistor, PID, Solid State

**Non-intrusive Calibration**

**Bright OLED display**



# Multiple Variants Singular Reliability

## Uniphos KwikSense LITE Digital Gas Transmitter



The KwikSense LITE is the latest transmitter from Uniphos Envirotronic and is designed to meet the various needs of our customers.

The digital transmitter is housed in an explosion-proof ("Exd" certified) wall-mountable enclosure and is virtually maintenance-free.

### Specifications

- Fixed single gas sensors
- Sensor Technology – Comes in five technologies i.e., EC/PEL/NDIR/PID/SS
- Industrial standard 4-20 mA output helps to connect with all the controllers
- Tri-color LEDs have been provided to signal the alarm condition

## Uniphos KwikSense RD Remote Transmitter



The KwikSense RD is a remote transmitter that bridges the detector and controller. It consists of an OLED display to indicate the gas concentration detected by the detector on field.

The remote transmitter is housed in an explosion-proof ("Exd" certified) wall-mountable enclosure.

### Specifications

- Configuration via non-intrusive magnetic wand
- Industrial standard RS-485 Modbus/ 4-20 mA output and input are available to connect controller as well as the detector
- Tri-color LEDs have been provided to signal the alarm condition

# KwikSense Smart Sensors

Sensor Technology at its best



## Smart Sensor Modules available for Gases

Code	Gas Name	Range	Resolution	Type
010A	Oxygen	0 - 25% V/V	0.1% V/V	EC
015A	Ozone	0 - 1 PPM	0.01 PPM	EC
020A	Carbon Monoxide	0 - 1000 PPM	1 PPM	EC
021A	Carbon Disulfide	0 - 100 PPM	1 PPM	EC
022A	Vinyl Chloro Monomer*	0 - 100 PPM	1 PPM	EC
023A	Styrene*	0 - 100 PPM	1 PPM	EC
024A	Acrylonitrile*	0 - 100 PPM	1 PPM	EC
025A	Carbon Dioxide	0 - 5% V/V	0.01% V/V	NDIR
025B	Carbon Dioxide	0 - 100% V/V	1% V/V	NDIR
030A	Hydrogen Sulfide	0 - 100 PPM	1 PPM	EC
035A	Mercaptan	0 - 20 PPM	0.1 PPM	EC
040A	Sulphur Dioxide	0 - 20 PPM	0.1 PPM	EC
050A	Phosphine	0 - 10 PPM	0.01 PPM	EC
055A	Phosgene	0 - 1 PPM	0.01 PPM	EC
060A	Chlorine	0 - 20 PPM	0.1 PPM	EC
061A	Bromine	0 - 20 PPM	0.1 PPM	EC
070A	Hydrogen Chloride	0 - 20 PPM	0.1 PPM	EC
071A	PCl <sub>3</sub> *	0 - 10 PPM	1 PPM	EC
072A	Hydrogen Fluoride	0 - 10 PPM	0.1 PPM	EC
073A	POCl <sub>3</sub> *	0 - 20 PPM	1 PPM	EC
075A	Hydrogen Cyanide	0 - 100 PPM	1 PPM	EC
081A	Nitrogen Dioxide	0 - 20 PPM	0.1 PPM	EC
082A	Ammonia	0 - 100 PPM	1 PPM	EC
082B	Ammonia	0 - 1000 PPM	1 PPM	EC
090A	Hydrogen	0 - 1000 PPM	1 PPM	EC
090B	Hydrogen	0 - 100% LEL	1% LEL	EC
090C	Hydrogen	0 - 100% LEL	1% LEL	Pellistor
098A	Formaldehyde*	0 - 10 PPM	1 PPM	EC
099A	HC (Methane)	0 - 100% LEL	1% LEL	Pellistor
099B	LPG	0 - 100% LEL	1% LEL	Pellistor
099C	Acetylene	0 - 100% LEL	1% LEL	Pellistor
099D	Butanol	0 - 100% LEL	1% LEL	Pellistor
099E	Methane	0 - 100% LEL	1% LEL	NDIR
099F	Methane	0 - 100% V/V	1% V/V	NDIR
099G	HC (Methane)*	500 - 10000 PPM	10 PPM	Solid State
099H	Hydrocarbon*	50 - 1000 PPM	1 PPM	Solid State
100A	VOC (Isobutylene)	0 - 1000 PPM	1 PPM	PID
100B	VOC (Isobutylene)	0 - 4000 PPM	1 PPM	PID



- Multiple Sensor Technologies; Electrochemical, NDIR, Pellistor, PID and Solid State
- Easy to calibrate with plug and play capability

Sensors we use in our KwikSense Transmitters can be considered the heart of the transmitter. We develop and manufacture most of our smart sensors. Backed with our vast experience, we offer dependable and proven digital gas sensors that can detect even small concentrations of gas accurately and rapidly.

*EC: Electro Chemical, NDIR: Non-Dispersive Infrared, PID: Photo Ionization Detection*

*Note : Please contact us for any other special gas requirements other than that specified in the table.*

*\* Please consult factory for more information*

# Do more with an exclusive range of Accessories

## KwikSense

### Premium Accessories

There are a range of accessories for the KwikSense transmitter that can be used in a wide variety of applications. These include mounting bracket, collection cone, duct mounting kit and weather shield/ calibration adapter.



### Weather Shield

Designed to protect the sensor from changes in environmental conditions. This is recommended to be fitted to a KwikSense transmitter sensor for outdoor exposed applications.



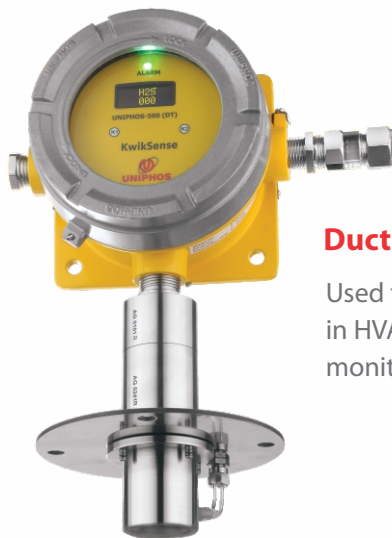
### Pipe Mounting Bracket

Allows the KwikSense transmitter to be installed onto a dedicated mounting post or existing structure at the desired location.



### Collection Cone

Designed for use with gases lighter than air. It is an optional accessory that may be fitted to the KwikSense transmitter.




### Duct Mounting Kit

Used to mount the transmitter in HVAC systems, allowing monitoring of gases inside it.

## General Specifications

Parameter	KwikSense	KwikSense-Lite	KwikSense-RD
<b>Sensor technology</b>	EC/PEL/NDIR/PID/SS	EC/PEL/NDIR/PID/SS	NA
<b>Operating Voltage</b>	18V to 30 VDC	18V to 30 VDC	18V to 30 VDC
<b>System Type</b>	µController based instrument (non intrusive calibration)	µController based instrument (non intrusive calibration)	µController based instrument (non intrusive operation)
<b>Display</b>	8 x 2 OLED Display	8 x 2 OLED Display	8 x 2 OLED Display
<b>Sampling type</b>	Diffusion	Diffusion	NA
<b>Sensor</b>	Swappable Smart Sensor	Fixed Single gas sensor	NA (Industrial std. 4-20mA input)
<b>LED's</b>	Tri-color LED	Tri-color LED	Tri-color LED
<b>Alarms</b>	Two user settable alarms	Two user settable alarms	Two user settable alarms
<b>Output</b>	RS-485 MODBUS / 4-20mA Current	4-20 mA Current	RS-485 MODBUS / 4-20mA Current
<b>Relays</b>	3-potential free contacts	1-potential free contact (opt.)	3-potential free contacts
<b>Load resistance</b>	600 Ω (max)	600 Ω (max)	600 Ω (max)
<b>Power Consumption</b>	< 3 W	< 3 W	< 3 W
<b>Enclosure</b>	Flameproof Cast Aluminium alloy/SS-316	Flameproof Cast Aluminium alloy/SS-316	Flameproof Cast Aluminium alloy/SS-316
<b>Ingress protection</b>	IP 66	IP 66	IP 66
<b>Dimensions (mm)</b>	Approx. 250 x170 x 105 (WO cable gland & stopper)	Approx. 250 x170 x 105 (WO cable gland & stopper)	Approx. 250 x170 x 105 (WO cable gland & stopper)
<b>Wire configuration</b>	3/4 wires	3 wires	3/4 wires
<b>Interface</b>	Calibration & configuration via non-intrusive magnetic wand	Calibration & configuration via non-intrusive magnetic wand	Configuration via non-intrusive magnetic wand
<b>Operating Temp.</b>	-20 to 60 °C	-20 to 60 °C	-20 to 60 °C
<b>Operating Pressure</b>	Ambient ± 10 %	Ambient ± 10 %	Ambient ± 10 %
<b>Operating Humidity</b>	0-95 %RH (non-condensing)	0-95 %RH (non-condensing)	0-95 %RH (non-condensing)
<b>Cable entries</b>	½" NPT (2 entries) / ¾" NPT (2 entries)	½" NPT (2 entries) / ¾" NPT (2 entries)	½" NPT (2 entries) & ¾" NPT (1 entry)
<b>Certifications</b>	1. CCOE 2. ATEX/IECEX + PESO 3. CIMFR 4. SIL2 5. INMETRO	1. ATEX/IECEX + PESO 2. CIMFR	1. ATEX/IECEX + PESO
<b>Weight</b>	2.5 kg (Approx.)	2.5 kg (Approx.)	2.5 kg (Approx.)

### Certifications

- CCOE & CIMFR certified to Exd IIC, T6, IP 66
- ATEX  certified by SGS BASEEFA Certificate No: Baseefa 14ATEX 0304X  
  -  II 2 G Ex db IIC T6 Gb (T<sub>amb</sub> = -20°C to +40°C)
  - Ex db IIC T5 Gb (T<sub>amb</sub> = -20°C to +55°C)
  - Ex db IIC T4 Gb (T<sub>amb</sub> = -20°C to +85°C)
- IECEX Certified Certificate No: IECEX BAS 14.0148X  
  - Ex db IIC T6 Gb (T<sub>amb</sub> = -20°C to +40°C)
  - Ex db IIC T5 Gb (T<sub>amb</sub> = -20°C to +55°C)
  - Ex db IIC T4 Gb (T<sub>amb</sub> = -20°C to +85°C)
- SIL-2 Certified Reference Standard IEC 61508:2010  
by TUV SUD Italia Certificate No: C-IS-722165195

Due to continuous development, we reserve the right to change specifications without prior notice.



Marketing Office:  
Uniphos Envirotronic Pvt. Ltd  
Readymoney Terrace, 167,  
Dr. Annie Besant Road, Worli,  
Mumbai 400 018, India.  
Tel. : +91(22) 6123 3500  
Fax : +91 (22) 2497 8119

Manufactured By:  
Uniphos Envirotronic Pvt. Ltd  
P.O. Nahuli - 396 108,  
Tal. Umbergaon,  
Dist: Valsad, Gujarat, India  
Tel. : +91 99099 94042  
+91 75748 39945



Safety & Environmental Monitoring Solutions



IND17.5449/U/Q



IND17.5519/U/E