

# Uniphos

## KwikSense

Smart Digital Gas Transmitter



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




Delivering  
**Excellence**  
 for over 30 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 plants.


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

 Industry standard 4-20mA analog output  
 HART 7.0 Compliant

 3 potential free relay contacts

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

- Sensor Technologies Available
  - Electrochemical
  - NDIR
  - Pellistor
  - PID
  - Solid State
  - MPS
- Non-intrusive Calibration
- Bright OLED display

# Multiple Variants Singular Reliability

## Uniphos KwikSense Lite Digital Gas Transmitter



The Uniphos KwikSense Lite Transmitter offers users a low-cost solution to their gas monitoring needs.

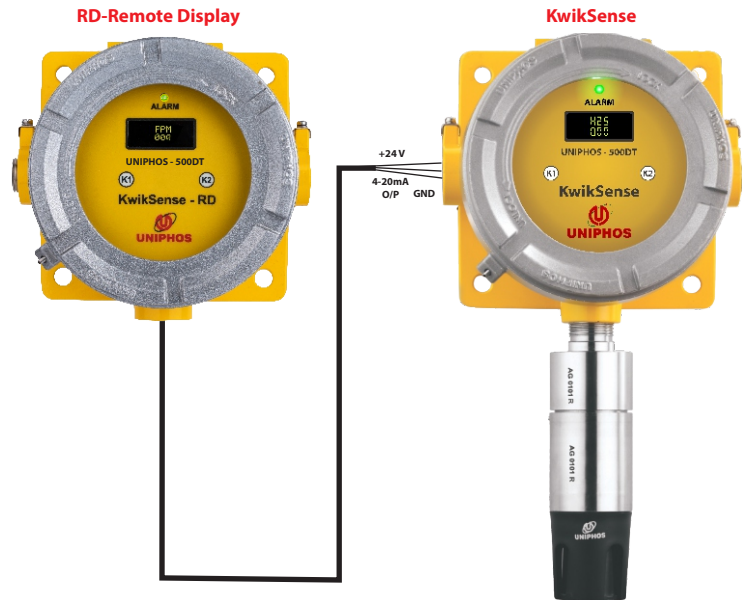
The KwikSense Lite comes with a single gas swappable sensor facility and a single potential free relay contact for alarm.

MED certification is applicable for Oxygen and Flammable gases.

### Specifications

- Fixed single gas sensors
- Sensor Technologies available: EC, PEL, NDIR, PID & SS
- Industrial standard 4-20 mA output
- Tri-color LEDs indicate alarm

## Uniphos KwikSense RD Remote Display



The Uniphos KwikSense RD enables users to duplicate the transmitter display at a second remote location.

This is particularly useful if the gas transmitter is located in a location where its display is difficult to view or in case a second display is required.

It can act as a controller or as a bridge between the detector and controller.

### Specifications

- Configuration via non-intrusive magnetic wand
- It accepts industry standard 4-20mA input available from detector and provides RS-485 MODBUS and 4-20mA output to connect with the controller
- 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



Ordering code	Gas Name	Range	Resolution	Technology
SSA0074A	Acetic Acid	0-30 ppm	0.1 ppm	EC
SSA0099C	Acetylene	0-100% LEL	1% LEL	Pellistor
SSA0082A	Ammonia	0-100 ppm	1 ppm	EC
SSA0082B	Ammonia	0-1000 ppm	1 ppm	EC
SSA0099V	Butadiene	0-50 ppm	1 ppm	PID
SSA0099S	Butadiene	0-100% LEL	1% LEL	NDIR
SSA0061A	Bromine	0-20 ppm	0.1 ppm	EC
SSA0099D	Butanol	0-100% LEL	1% LEL	Pellistor
SSA0025A	Carbon Dioxide	0-5% v/v	0.01 %v/v	NDIR
SSA0025B	Carbon Dioxide	0-100% v/v	1% v/v	NDIR
SSA0021A	Carbon Disulfide	0-50 ppm	1 ppm	PID
SSA0021B	Carbon Disulfide	0-100 ppm	1 ppm	EC
SSA0020D	Carbon Monoxide	0-100 ppm	1 ppm	EC
SSA0020E	Carbon Monoxide	0-200 ppm	1 ppm	EC
SSA0020F	Carbon Monoxide	0-300 ppm	1 ppm	EC
SSA0020B	Carbon Monoxide	0-500 ppm	1 ppm	EC
SSA0020A	Carbon Monoxide	0-1000 ppm	1 ppm	EC
SSA0020C	Carbon Monoxide	0-2000 ppm	1 ppm	EC
SSA0060B	Chlorine	0-10 ppm	0.1 ppm	EC
SSA0060A	Chlorine	0-20 ppm	0.1 ppm	EC
SSA0062A	Chlorine Dioxide	0-1 ppm	0.1 ppm	EC
SSA0097A	Ethylene	0-1500 ppm	5 ppm	EC
SSA0099AJ	Ethylene Dichloride	0-100% LEL	1% LEL	NDIR
SSA0083A	ETO	0-20 ppm	0.1 ppm	EC
SSA0083B	ETO	0-100 ppm	1 ppm	EC
SSA0098A	Formaldehyde	0-10 ppm	0.1 ppm	EC
SSA0099A	Hydrocarbon (Methane)	0-100% LEL	1% LEL	Pellistor
SSA0099G	Hydrocarbon (Methane)	500-10000 ppm	10 ppm	SS
SSA0099AS	HC & H2	0-100% LEL	0.1% LEL	0.2 MPS
SSA0099H	Hydrocarbon	50-1000 ppm	1 ppm	SS
SSA0090A	Hydrogen (IIC)	0-1000 ppm	1 ppm	EC
SSA0090B	Hydrogen (IIC)	0-100% LEL	1% LEL	EC
SSA0090C	Hydrogen (IIC)	0-100% LEL	1% LEL	Pellistor
SSA0070A	Hydrogen Chloride	0-20 ppm	0.1 ppm	EC
SSA0075B	Hydrogen Cyanide	0-30 ppm	0.1 ppm	EC
SSA0075A	Hydrogen Cyanide	0-100 ppm	1 ppm	EC
SSA0072A	Hydrogen Fluoride	0-10 ppm	0.1 ppm	EC
SSA0030A	Hydrogen Sulphide	0-100 ppm	1 ppm	EC
SSA0030B	Hydrogen Sulphide	0-20 ppm	1 ppm	EC
SSA0099O	Iso-Butane	0-100% LEL	1% LEL	Pellistor
SSA0099B	LPG	0-100% LEL	1% LEL	Pellistor
SSA0099T	LPG	0-100% LEL	1% LEL	NDIR
SSA0099P	MEK	0-100% LEL	1% LEL	NDIR
SSA0099E	Methane	0-100% LEL	1% LEL	NDIR
SSA0099F	Methane	0-100% v/v	1% v/v	NDIR
SSA0099K	Methanol	0-100 ppm	1 ppm	EC
SSA0099M	Methanol	0-500 ppm	1 ppm	EC
SSA0099U	Methanol	0-100% LEL	1% LEL	PID
SSA0035A	Mercaptan*	0-20 ppm	0.1 ppm	EC
SSA0051A	Methyl Bromide	0-200 ppm	1 ppm	SS
SSA0087A	Mono Methyl Amine	0-100 ppm	1 ppm	EC
SSA0099N	N-Butane	0-100% LEL	1% LEL	Pellistor
SSA0081A	Nitrogen Dioxide	0-20 ppm	0.1 ppm	EC
SSA0080B	Nitric Oxide	0-200 ppm	1 ppm	EC
SSA0089A	Nitrous Oxide	0-1000 ppm	10 ppm	NDIR
SSA0010A	Oxygen	0-25% v/v	0.1 %v/v	EC
SSA0015A	Ozone	0-1 ppm	0.01 ppm	EC
SSA0055A	Phosgene	0-1 ppm	0.01 ppm	EC
SSA0050A	Phosphine	0-10 ppm	0.01 ppm	EC
SSA0050B	Phosphine	0-20 ppm	0.1 ppm	EC
SSA0050C	Phosphine	0-20 ppm	0.01 ppm	EC
SSA0050D	Phosphine	0-5000 ppm	10 ppm	EC
SSA0050E	Phosphine	0-2000 ppm	1 ppm	EC
SSA0099I	Propane	0-100% LEL	1% LEL	NDIR
SSA0099J	Propane	0-100% LEL	1% LEL	Pellistor
SSA0099L	Propylene	0-2% v/v	0.01% v/v	NDIR
SSA0053A	Silane	0-15 ppm	1 ppm	EC
SSA0040A	Sulphur Dioxide	0-20 ppm	0.1 ppm	EC
SSA0100C	VOC (Benzene)	0-20 ppm	0.1 ppm	PID
SSA0100F	VOC (Benzene)	0-1000 ppm	1 ppm	PID
SSA0100B	VOC (Isobutylene)	0-40 ppm	0.1 ppm	PID
SSA0100E	VOC (Isobutylene)	0-100 ppm	1 ppm	PID
SSA0100A	VOC (Isobutylene)	0-1000 ppm	1 ppm	PID
SSA0100D	VOC (Isobutylene)	0-4000 ppm	1 ppm	PID
SSA0100G	VOC (VCM)	0-100 ppm	1 ppm	PID



- Multiple Sensor Technologies; Electrochemical, NDIR, Pellistor, PID, Solid State & MPS
- 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: Electrochemical, NDIR: Non-Dispersive Infrared, PID: Photo Ionization Detection, SS: Solid State, MPS: Molecular Property Spectrometer

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

# 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 cum calibration adapter.



### Weather Shield cum Calibration Adapter

Designed to protect the sensor from water splashes and 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.



### Flow Through Adapter

Allows KwikSense transmitter to be used with gas sampling system, making it suitable for process gas monitoring applications.



### 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/MPS	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	Swappable Smart Sensor for single gas	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>	4-20mA MODBUS over RS-485 HART over 4-20 mA	4-20 mA	4-20mA MODBUS over RS-485
<b>Relays</b>	3-potential free contacts	1-potential free relay	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	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>	-40 to +65 ° C (depend on sensor)	-40 to +65 ° C (depend on sensor)	-40 to +65 ° C (depend on sensor)
<b>Operating Pressure</b>	Ambient ± 10 %	Ambient ± 10 %	Ambient ± 10 %
<b>Operating Humidity</b>	0-95% RH	0-95% RH	0-95% RH
<b>Cable entries</b>	½" NPT (M20) - 2 entries / ¾" NPT (M25) - 2 entries	½" NPT (M20) - 2 entries / ¾" NPT (M25) - 2 entries	½" NPT (2 entries) & ¾" NPT (1 entry)
<b>Certifications</b>	1. ATEX/IECEX + PESO 2. PESO 3. CIMFR 4. SIL2 5. INMETRO 6. MED 7. HART 8. CE	1. ATEX/IECEX + PESO 2. CIMFR 3. MED 4. CE	1. ATEX/IECEX + PESO
<b>Weight</b>	LM6 : 2.6 kg (Approx.) SS : 5.5 kg. (Approx.)	LM6 : 2.6 kg (Approx.)	LM6 : 2.2 kg (Approx.) SS : 5.0 kg (Approx.)

### Certifications: KwikSense

- 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> = -40°C to +55°C)  
Ex db IIC T5 Gb (T<sub>amb</sub> = -40°C to +70°C)  
Ex db IIC T4 Gb (T<sub>amb</sub> = -40°C to +85°C)  
- Not applicable with remote sensor option
- IECEX Certified Certificate No: IECEX BAS 14.0148X  
Ex db IIC T6 Gb (T<sub>amb</sub> = -40°C to +55°C)  
Ex db IIC T5 Gb (T<sub>amb</sub> = -40°C to +70°C)
- MED is applicable for KwikSense  
Ex db IIC T4 Gb (T<sub>amb</sub> = -40°C to +85°C)  
- Not applicable with remote sensor option
- SIL-2 Certified

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

### KwikSense Lite & KwikSense RD

- ATEX  certified by SGS BASEEFA  
 II 2 G Ex db IIC T6 Gb (T<sub>amb</sub> = -40°C to +55°C)  
Ex db IIC T5 Gb (T<sub>amb</sub> = -40°C to +70°C)  
Ex db IIC T4 Gb (T<sub>amb</sub> = -40°C to +85°C)  
- Not applicable with remote sensor option  
MED Certified is applicable for KwikSense Lite only
- IECEX Certified  
Ex db IIC T6 Gb (T<sub>amb</sub> = -40°C to +55°C)  
Ex db IIC T5 Gb (T<sub>amb</sub> = -40°C to +70°C)  
Ex db IIC T4 Gb (T<sub>amb</sub> = -40°C to +85°C)



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