

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.

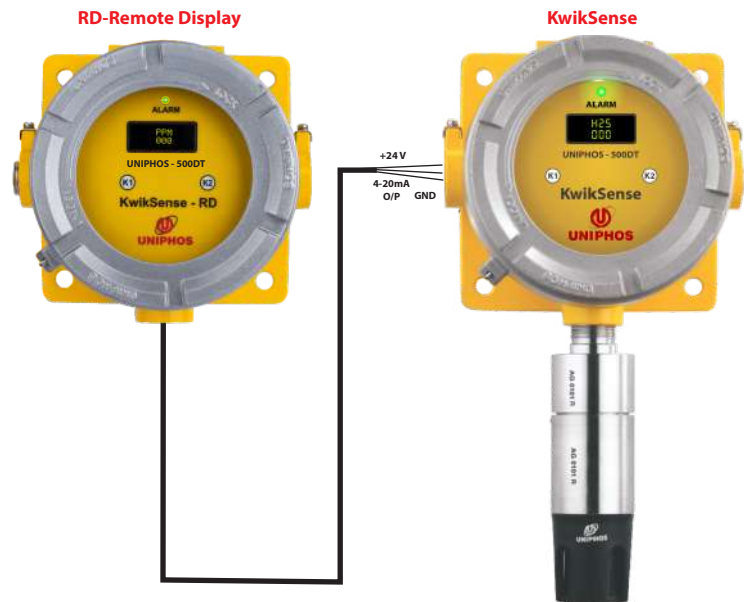
The KwikSense Lite comes with a single gas swappable sensor facility and a single potential free relay contact for alarm.

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
074A	Acetic Acid	0-30 ppm	0.1 ppm	EC
099C	Acetylene	0-100% LEL	1% LEL	Pellistor
082A	Ammonia	0-100 ppm	1 ppm	EC
082B	Ammonia	0-1000 ppm	1 ppm	EC
099V	Butadiene	0-50 ppm	1 ppm	PID
099S	Butadiene	0-100% LEL	1% LEL	NDIR
061A	Bromine	0-20 ppm	0.1 ppm	EC
099D	Butanol	0-100% LEL	1% LEL	Pellistor
025A	Carbon Dioxide	0-5% v/v	0.01 %v/v	NDIR
025B	Carbon Dioxide	0-100% v/v	1% v/v	NDIR
021A	Carbon Disulfide	0-50 ppm	1 ppm	PID
021B	Carbon Disulfide	0-100 ppm	1 ppm	EC
020D	Carbon Monoxide	0-100 ppm	1 ppm	EC
020E	Carbon Monoxide	0-200 ppm	1 ppm	EC
020F	Carbon Monoxide	0-300 ppm	1 ppm	EC
020B	Carbon Monoxide	0-500 ppm	1 ppm	EC
020A	Carbon Monoxide	0-1000 ppm	1 ppm	EC
020C	Carbon Monoxide	0-2000 ppm	1 ppm	EC
060B	Chlorine	0-10 ppm	0.1 ppm	EC
060A	Chlorine	0-20 ppm	0.1 ppm	EC
062A	Chlorine Dioxide	0-1 ppm	0.1 ppm	EC
097A	Ethylene	0-1500 ppm	5 ppm	EC
083A	ETO	0-20 ppm	0.1 ppm	EC
083B	ETO	0-100 ppm	1 ppm	EC
098A	Formaldehyde	0-10 ppm	0.1 ppm	EC
099A	Hydrocarbon (Methane)	0-100% LEL	1% LEL	Pellistor
099G	Hydrocarbon (Methane)	500-10000 ppm	10 ppm	SS
Ask	Hydrocarbon (MPS)	0 - 100% LEL	1% LEL	MPS
099H	Hydrocarbon	50-1000 ppm	1 ppm	SS
090A	Hydrogen (IIC)	0-1000 ppm	1 ppm	EC
090B	Hydrogen (IIC)	0-100% LEL	1% LEL	EC
090C	Hydrogen (IIC)	0-100% LEL	1% LEL	Pellistor
070A	Hydrogen Chloride	0-20 ppm	0.1 ppm	EC
075B	Hydrogen Cyanide	0-30 ppm	0.1 ppm	EC
075A	Hydrogen Cyanide	0-100 ppm	1 ppm	EC
072A	Hydrogen Fluoride	0 - 10 ppm	0.1 ppm	EC
030A	Hydrogen Sulphide	0-100 ppm	1 ppm	EC
030B	Hydrogen Sulphide	0-20 ppm	1 ppm	EC
099O	Iso-Butane	0-100% LEL	1% LEL	Pellistor
099B	LPG	0-100% LEL	1% LEL	Pellistor
099T	LPG	0-100% LEL	1% LEL	NDIR
099P	MEK	0-100% LEL	1% LEL	NDIR
099E	Methane	0-100% LEL	1% LEL	NDIR
099F	Methane	0-100% v/v	1% v/v	NDIR
099K	Methanol	0-100 ppm	1 ppm	EC
099M	Methanol	0-500 ppm	1 ppm	EC
099U	Methanol	0-100% LEL	1% LEL	PID
035A	Mercaptan*	0-20 ppm	0.1 ppm	EC
051A	Methyl Bromide	0-200 ppm	1 ppm	SS
087A	Mono Methyl Amine	0-100 ppm	1 ppm	EC
099N	N-Butane	0-100% LEL	1% LEL	Pellistor
Ask	Methanol	0 - 100 ppm	1 ppm	EC
081A	Nitrogen Dioxide	0-20 ppm	0.1 ppm	EC
010A	Oxygen	0-25% v/v	0.1 %v/v	EC
015A	Ozone	0-1 ppm	0.01 ppm	EC
071A	Phosphorus Trichloride	0-10 ppm	1 ppm	EC
055A	Phosgene	0-1 ppm	0.01 ppm	EC
050A	Phosphine	0-10 ppm	0.01 ppm	EC
050B	Phosphine	0-20 ppm	0.1 ppm	EC
050C	Phosphine	0-20 ppm	0.01 ppm	EC
050D	Phosphine	0-5000 ppm	10 ppm	EC
050E	Phosphine	0-2000 ppm	1 ppm	EC
073A	Phosphorus Oxychloride	0-20 ppm	1 ppm	EC
099I	Propane	0-100% LEL	1% LEL	NDIR
099J	Propane	0-100% LEL	1% LEL	Pellistor
099L	Propylene	0-2% v/v	0.01% v/v	NDIR
053A	Silane	0-15 ppm	1 ppm	EC
040A	Sulphur Dioxide	0-20 ppm	0.1 ppm	EC
022A	Vinyl Chloride (Vinyl Chloro Monomer)	0-100 ppm	1 ppm	EC
100C	VOC (Benzene)	0-20 ppm	0.1 ppm	PID
100F	VOC (Benzene)	0-1000 ppm	1 ppm	PID
100B	VOC (Isobutylene)	0-40 ppm	0.1 ppm	PID
100E	VOC (Isobutylene)	0-100 ppm	1 ppm	PID
100A	VOC (Isobutylene)	0-1000 ppm	1 ppm	PID
100D	VOC (Isobutylene)	0-4000 ppm	1 ppm	PID
100G	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
Sensor technology	EC/PEL/NDIR/PID/SS/MPS	EC/PEL/NDIR/PID/SS	NA
Operating Voltage	18V to 30 VDC	18V to 30 VDC	18V to 30 VDC
System Type	µController based instrument (non intrusive calibration)	µController based instrument (non intrusive calibration)	µController based instrument (non intrusive operation)
Display	8 x 2 OLED Display	8 x 2 OLED Display	8 x 2 OLED Display
Sampling type	Diffusion	Diffusion	NA
Sensor	Swappable Smart Sensor	Swappable Smart Sensor for single gas	NA (Industrial std. 4-20mA input)
LED's	Tri-color LED	Tri-color LED	Tri-color LED
Alarms	Two user settable alarms	Two user settable alarms	Two user settable alarms
Output	4-20mA MODBUS over RS-485 HART over 4-20 mA	4-20 mA	4-20mA MODBUS over RS-485
Relays	3-potential free contacts	1-potential free relay	3-potential free contacts
Load resistance	600 Ω (max)	600 Ω (max)	600 Ω (max)
Power Consumption	< 3 W	< 3 W	< 3 W
Enclosure	Flameproof Cast Aluminium alloy/SS-316	Flameproof Cast Aluminium alloy	Flameproof Cast Aluminium alloy/SS-316
Ingress protection	IP 66	IP 66	IP 66
Dimensions (mm)	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)
Wire configuration	3/4 wires	3 wires	3/4 wires
Interface	Calibration & configuration via non-intrusive magnetic wand	Calibration & configuration via non-intrusive magnetic wand	Configuration via non-intrusive magnetic wand
Operating Temp.	-40 to +65 ° C (depend on sensor)	-40 to +65 ° C (depend on sensor)	-40 to +65 ° C (depend on sensor)
Operating Pressure	Ambient ± 10 %	Ambient ± 10 %	Ambient ± 10 %
Operating Humidity	0-95 %RH (Extended exposure to extreme humid conditions may degrade sensor performance)		
Cable entries	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)
Certifications	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
Weight	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_{amb} = -40°C to +55°C)
Ex db IIC T5 Gb (T_{amb} = -40°C to +70°C)
Ex db IIC T4 Gb (T_{amb} = -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_{amb} = -40°C to +55°C)
Ex db IIC T5 Gb (T_{amb} = -40°C to +70°C)
- MED is applicable for KwikSense
Ex db IIC T4 Gb (T_{amb} = -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_{amb} = -40°C to +55°C)
Ex db IIC T5 Gb (T_{amb} = -40°C to +70°C)
Ex db IIC T4 Gb (T_{amb} = -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_{amb} = -40°C to +55°C)
Ex db IIC T5 Gb (T_{amb} = -40°C to +70°C)
Ex db IIC T4 Gb (T_{amb} = -40°C to +85°C)



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