

► KwikSense

Intelligent digital gas transmitter



Technical specifications

Common Features:

Intelligent digital gas transmitter: See gas opposite

Cell type: Catalytic filaments, infrared, electrochemical, PID, or semiconductor following the gas to detect

Interface: Calibration and configuration via a non-intrusive magnet

Supply voltage: 18 V to 30 VDC

Display: 8 x 2 OLED screen + three-colour status LED

Load resistance: 600 Ω (max)

Power consumption: < 3 W

Enclosure: Explosion-proof - Cast aluminium alloy or SS-316

Protection rating: IP66

Cable entries: ½" NPT (2 entries)

Connection: 3 wires

Dimensions:

- Approximate diameter: 150 mm

- Height: 110 mm

Weight:

- Cast aluminium alloy: 2.5 kg

- SS 316: 5.2 kg

Operating conditions:

- Temperature: -20 to 60°C

- Humidity: 0-95% RH (non-condensing)

KwikSense:

- Outputs: 4-20 mA, RS485, HART (option) + 3 alarm relays

- Certifications: ATEX, IECEx, SIL2 (option)

- Sensor: Interchangeable pre-calibrated smart sensor

KwikSense Lite:

- Output: 4-20 mA + 1 alarm relay

- Certifications: ATEX, IECEx, MED

- Sensor: Pre-calibrated smart sensor

Product description

The Uniphos **KwikSense** is an ATEX and IECEx certified universal gas transmitter capable of detecting a wide range of flammable, toxic, asphyxiating gas and volatile organic compounds that may be present in industrial processes and classified sites.

With over 30 cells available, this stand-alone gas detector has a digital display, a set of three-colour LEDs to indicate the transmitter status and one or three alarm relays (depending on the model) for control purposes. It can be installed as a stand-alone measuring point or connected to a gas detection unit or a PLC thanks to its linear 4-20 mA output.

► The KwikSense gas transmitter: 2 versions

- The **KwikSense**: Features intelligent sensor technology that allow to any sensor to be swapped onto the transmitter. It is, therefore, possible to replace an electrochemical cell with a PID lamp or an infrared sensor.

This revolutionary technology of intelligent sensors, pre-calibrated at the factory, automatically sends the parameters (cell type, measurement range, alarm thresholds, etc.) into the gas transmitter. That facilitates the maintenance operations and the associated costs, as there is no need to perform a calibration after their replacement.

The **KwikSense** digital gas transmitter has 3 alarm relays for control, 4-20 mA and MODBUS outputs as standard, HART, and optional SIL2 certification.

- The **KwikSense Lite**: this 'low cost' version offers the same pre-calibrated gas detection cells as the KwikSense but without the possibility of interchanging them. It also has a digital display but only one alarm relay for the controls and 4-20mA output for connection to a gas detection system.

Many accessories are available for both versions of the KwikSense digital gas transmitter depending on the needs and the applications, such as: a calibration cap, a gas manifold, a weather shield, a pipe mounting kit, or a duct mounting kit.

Gas name	Range	Resolution	Type	Code
Acetylene (C2H2)	0 - 100% LEL	1% LEL	Pellister	099C
Ammonia (NH3)	0 - 100 ppm	1 ppm	EC	082A
Ammonia (NH3)	0 - 1000 ppm	1 ppm	EC	082B
Benzene VOC (C6H6)	0 - 20 ppm	0.1 ppm	PID	100C
Bromine (Br2)	0 - 20 ppm	0.1 ppm	EC	061A
Butanol (C4H10O)	0 - 100% LEL	1% LEL	Pellister	099D
Carbon Dioxide (CO2)	0 - 5% v/v	0.01% v/v	NDIR	025A
Carbon Dioxide (CO2)	0 - 100% v/v	1% v/v	NDIR	025B
Carbon Disulfide (CS2)	0 - 50 ppm	0.1 ppm	PID	021A
Carbon Monoxide (CO)	0 - 1000 ppm	1 ppm	EC	020A
Chlorine (Cl2)	0 - 20 ppm	0.1 ppm	EC	060A
Chlorine (Cl2)	0 - 10 ppm	0.1 ppm	EC	060B
Ethanol (C2H6O)	0 - 100 ppm	1 ppm	EC	NC
Ethanol (C2H6O)	0 - 100% LEL	1% LEL	NDIR	NC
Ethylene Oxide (ETO)*	0 - 20 ppm	0.1 ppm	EC	083A
Ethylene Oxide (ETO)*	0 - 100 ppm	1 ppm	EC	083B
Formaldehyde (CH2O)	0 - 10 ppm	0.1 ppm	EC	098A
Hydrocarbons (HC)	50 - 1000 ppm	1 pm	Solid State	099H
Hydrogen (H2)	0 - 1000 ppm	1 ppm	EC	090A
Hydrogen (H2)	0 - 100% LEL	1% LEL	Pellister	090C
Hydrogen Chloride (HCl)	0 - 20 ppm	0.1 ppm	EC	070A
Hydrogen Cyanide (HCN)	0 - 100 ppm	1 ppm	EC	075A
Hydrogen Fluoride (HF)	0 - 10 ppm	0.1 ppm	EC	072A
Hydrogen Peroxid (H2O2)	0 - 100 ppm	1 ppm	EC	084A
Hydrogen Sulphide (H2S)	0 - 100 ppm	1 ppm	EC	030A
Hydrogen Sulphide (H2S)	0 - 20 ppm	1 ppm	EC	030B
Liquefied Petroleum Gas (LPG)	0 - 100% LEL	1% LEL	Pellister	099B
Mercaptan (CH3SH)	0 - 20 ppm	0.1 ppm	EC	035A
Methane (CH4)	0 - 100% LEL	1% LEL	Pellister	099A
Methane (CH4)	500 - 10000 ppm	10 ppm	Solid State	099G
Methane (CH4)	0 - 100% LEL	1% LEL	NDIR	099E
Methane (CH4)	0 - 100% v/v	1% v/v	NDIR	099F
Methanol (CH3O3)*	0 - 100 ppm	1 ppm	EC	NC
Nitrogen Dioxide (NO2)	0 - 20 ppm	0.1 ppm	EC	081A
Oxygen (O2)	0 - 25% v/v	0.1% v/v	EC	010A
Ozone (O3)	0 - 1 ppm	0.01 ppm	EC	015A
Phosgene (COCl2)	0 - 1 ppm	0.01 ppm	EC	055A
Phosphine (PH3)	0 - 10 ppm	0.01 ppm	EC	050A
Phosphorus Trichloride (PCl3)	0 - 10 ppm	1 ppm	EC	071A
Phosphoryl Trichloride (POCl3)	0 - 20 ppm	1 ppm	EC	073A
Propane (C3H8)	0 - 100% LEL	1% LEL	Pellister	099J
Propane (C3H8)	0 - 100% LEL	1% LEL	NDIR	099I
Sulfur Dioxide (SO2)	0 - 20 ppm	0.1 ppm	EC	040A
Vinyl Chloride (C2H3Cl)	0 - 100 ppm	1 ppm	EC	022A
VOC (Isobutylene)	0 - 1000 ppm	1 ppm	PID	100A
VOC (Isobutylene)	0 - 4000 ppm	1 ppm	PID	100D

* Requires time to stabilise during 1 to 24 hours following the gas after a long power outage

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