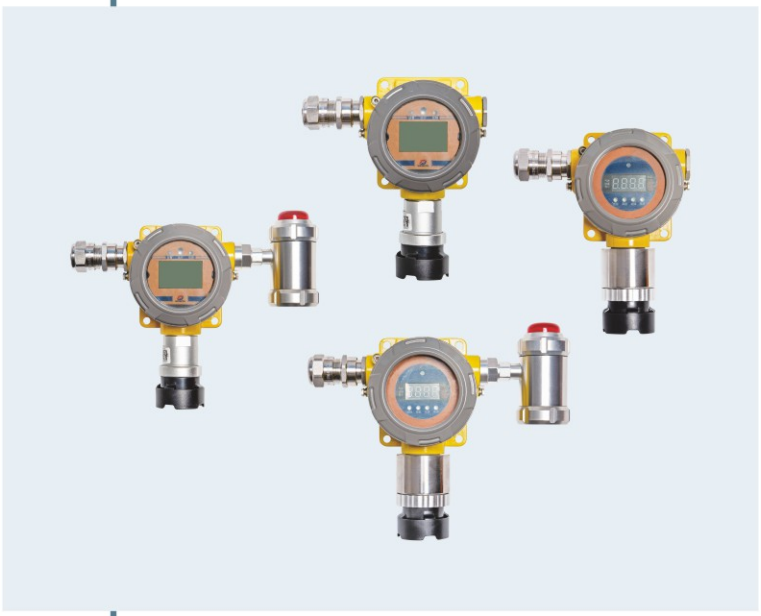
SCS-GDS Combustible/Toxic Gas Detection and Alamm System

G□-WRS Point-type Toxic/Combustible Gas Detectors for Industrial and Commercial (PID Photoionization Type)



- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Explosion-proof design with flameproof enclosure, suitable for indoor and outdoor explosive gas and dust environments, ensuring safety and reliability.
- LCD or LED digital screen for on-site concentration display, LED indicators for on-site status: "Normal" indicated by green light, "Fault" by yellow light, and "Alarm" by red light.

Catalogue number logic

G □ - WRS □ □ □ □ □

Transmission mode	None: Wired transmission W: Wireless transmission
Detection principle	PI: PID Photoionization type
Operating mode	None: Systematic type 3: Standalone type
Alarm mode	1: With concentration display, LED status indication, and audible/visual alarm 2: With concentration display and LED status indication
Display mode	8: LED digital display 9: LCD display
Enterprise dode	
Detectable gas code	T: Methane (natural gas) Y: Propane (liquefied gas) M: Carbon monoxide (artificial coal gas) Q: Other gases (other combustible, toxic, oxygen, etc.)
Application site code	

Product features

- The detector is equipped with an integrated infrared receiving module, enabling on-site zero calibration and other settings via an infrared remote control.
- The sensor module features a hot-swappable design, facilitating easy installation and maintenance; replacement of the module does not require re-calibration and can be used directly.
- The product continuously monitors low-concentration volatile organic compounds in industrial and commercial environments, converting gas concentration and system information into digital signals for transmission to the gas alarm control system, where they are identified, displayed, and processed.
- Utilizing a high-precision, highly sensitive, wide-range, low-power, and broad-spectrum new-generation PID photoionization sensor, the product meets the latest national standards. The PID sensor is a non-destructive sensor; after ionization detection, the gas reverts to its original state as a gas or vapor.

Zones 1&2; 21&22

Technical data

Point-type Toxic/Combustible Gas Detectors for Industrial and Commercial (PID Photoionization Type) G□-WRS

Explosion protection	
Global (IECEx)	IECEx NEP 25.0081X
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80˚C Db
Europe (ATEX)	ACE25ATEX054X
Gas and dust	Ⓔx II 2 G Ex db IIC T6 Gb Ⓔx II 2 D Ex tb IIIC T80˚C Db
Certificates	IECEx; ATEX
Conformity to standards	IEC 60079-0, IEC 60079-1, IEC 60079-31, EN 60079-0, EN 60079-1, EN 60079-31
Power supply	Systematic: 3.7, 12, 24VDC Standalone: 220VAC
Power consumption	<3W
Output signal	Three-wire system: 4~20mA/RS485 (MODBUS protocol), optional relay output function
Inlet specification	M20×1.5 internal, optional NPT1/2"
Transmission method	4G, 5G, NB-Iot, LoraWAN, etc.
Gas to be detected	VOC gases (Refer to VOC gas list)
Detection principle	PID Photoionization type
Measurement range	Refer to VOC gas list
Accuracy	±3%FS
Repeatability	≤2%
Protection rating	IP65/IP66
Temperature range	-40˚C~+55˚C/-40˚C~+70˚C
Humidity range	<95% (no condensation)

VOC Gas List

Gas Name	Measurement Range	Gas Name	Measurement Range	Gas Name	Measurement Range
Benzene	0~5μmol/mol	Phenol	0~7μmol/mol	Cyclohexanone	0~30μmol/mol
	0~10μmol/mol		0~20μmol/mol		0~36μmol/mol
	0~20μmol/mol		0~100μmol/mol		0~100μmol/mol
	0~50μmol/mol		0~200μmol/mol		0~200μmol/mol
	0~100μmol/mol	Ethyl Acetate	0~150μmol/mol	Aniline	0~2.5μmol/mol
Toluene	0~20μmol/mol		0~300μmol/mol		0~5μmol/mol
	0~30μmol/mol		0~500μmol/mol		0~10μmol/mol
	0~40μmol/mol		0~1000μmol/mol		0~20μmol/mol
	0~50μmol/mol	Styrene	0~30μmol/mol		0~50μmol/mol
	0~100μmol/mol		0~50μmol/mol		0~100μmol/mol
Ethylbenzene	0~50μmol/mol		0~100μmol/mol	Xylene	0~20μmol/mol
	0~68μmol/mol	Methylamine	0~10μmol/mol		0~30μmol/mol
	0~100μmol/mol		0~20μmol/mol		0~50μmol/mol
Acetone	0~100μmol/mol		0~50μmol/mol		0~100μmol/mol
	0~200μmol/mol		0~100μmol/mol	Butadiene	0~6μmol/mol
	0~300μmol/mol		0~200μmol/mol		0~10μmol/mol
	0~370μmol/mol		0~400μmol/mol		0~20μmol/mol
	0~500μmol/mol		0~500μmol/mol		

Dimension drawings (all dimensions in mm) - subject to alteration