

XDI / XDIwin

HAZARDOUS-AREA GAS DETECTOR

The WatchGas XDI / XDIwin range is a versatile fixed gas detection platform designed for reliable monitoring of flammable gases, toxic gases, oxygen, VOCs and carbon dioxide in hazardous industrial environments.

Combining multiple sensor technologies, 4–20 mA and CANbus communication, data logging, optional alarm relays and rugged explosion-proof construction, the XDI / XDIwin range provides flexible and dependable gas detection for a wide range of applications.

Features and Benefits

Wide Gas Detection Capability

Supports multiple sensing technologies for flammable gases, toxic gases, oxygen, VOCs and CO_2. This allows one detector platform to cover a wide range of industrial gas monitoring applications.

Hazardous-Area Protection

Designed for use in hazardous locations with ATEX, IECEx and UKEX approvals available depending on the model. Explosion-proof construction supports reliable operation in demanding industrial environments.

Flexible System Integration

4–20 mA and CANbus communication enable connection to control panels and monitoring systems. Detectors can be used as standalone or addressable devices depending on the installation.

Local Control and Clear Status Display

XDIwin models provide a backlit alphanumeric display for gas readings, alarm status and detector information. Non-intrusive adjustment allows settings to be accessed without removing the enclosure cover.

Integrated Alarm and Data Logging

Built-in data logging stores up to 2,880 readings, while relay options provide local alarm and fault outputs. This supports event tracking and flexible alarm integration.

Rugged Industrial Construction

Robust aluminium housings with optional stainless-steel versions provide durability for industrial installations. Weather-protection options and a wide range of accessories allow the detector to be adapted to different installation conditions.

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Product Specifications

Specification	F1+ XDI / XDIwin	F6 XDI / XDIwin	PID XDI / XDIwin	Red Line Prime Hydrocarbon XDI / XDIwin	Red Line Prime CO_2 XDI / XDIwin
Sensor Technology	Infrared, Electrochemical, Catalytic, Semiconductor, PID	Pellistor catalytic	Photoionisation (PID)	NDIR, dual-wavelength	NDIR, dual-wavelength
Power Supply	18–30 VDC, 24 V nominal	15–30 VDC, 24 V nominal	18–35 VDC, 24 V nominal	18–35 VDC, 24 V nominal	18–35 VDC, 24 V nominal
Analog Output	3-wire 4–20 mA, sink/source	3-wire 4–20 mA	3-wire 4–20 mA	4–20 mA, sink/source	4–20 mA, sink/source
Digital Communication	CANbus				
Relays	Optional 3 selectable relays, 3 A @ 30 VDC	**XDI:** Optional **XDIwin:** Low, High & Fault, 0.5 A @ 30 VDC	**XDI**: Optional **XDIwin**: 3 A @ 30 VDC	**XDI:** Optional **XDIwin:** Low, High & Fault; 0.5 A @ 30 VDC	**XDI:** Optional **XDIwin:** Low, High & Fault; 0.5 A @ 30 VDC
Data Logging	2,880 readings				
Housing Material	Copper-free aluminium alloy; optional stainless steel	Copper-free aluminium alloy; optional stainless steel	Copper-free aluminium alloy; optional stainless steel	Aluminium alloy; optional stainless steel	Aluminium alloy; optional stainless steel
Ingress Protection	IP64; IP65 with water shield; IP66 with hydrophobic screen	IP63; IP64 with universal fitting; IP65 with hydrophobic filter	IP64; IP65 with water shield; IP66 with hydrophobic screen	IP64; IP65 with water shield; IP66 with hydrophobic screen	IP64; IP65 with water shield; IP66 with hydrophobic screen
Cable Entry	2 × M20 × 1.5; optional 25 mm / ¾ NPT	2 × M20 × 1.5; optional 25 mm / ¾ NPT	2 × M20 × 1.5; optional 25 mm / ¾ NPT	**XDI:** 2 × M20 × 1.5/ **XDIwin:** 1 × M20 × 1.5; optional 25 mm / ¾ NPT	1 × M20 × 1.5; optional 25 mm / ¾ NPT
Weight	1.6 kg	1.6 kg	1.6 kg	3.95 kg	3.95 kg
Operating Temperature	–15 to +55°C For hazardous-area use refer to the applicable certification temperature range				
Humidity	5–95% RH, non-condensing	0–99% RH, non-condensing	5–95% RH, non-condensing	5–95% RH, non-condensing	5–95% RH, non-condensing

Certification

	F1+ — XDI / XDIwin	F6 — XDI / XDIwin	PID — XDI / XDIwin	Red Line Prime Hydrocarbon — XDI / XDIwin	Red Line Prime CO_2 — XDI / XDIwin
Hazardous Area Approvals	UKEX / ATEX / IECEx	ATEX	UKEX / ATEX / IECEx	UKEX / ATEX / IECEx	**XDI:** UKEX / ATEX / IECEx **XDIwin:** ATEX / IECEx
Ex Marking	II 2GD Ex db IIC T6...T4 Gb Ex tb IIIC T85°C... T135°C Db	II 2GD Ex db IIC T6...T4 Gb Ex tb IIIC T85°C... T135°C Db	II 2G Ex db IIC T6... T4 Gb II 2D Ex tb IIIC T85°C...T135°C Db	II 2GD Ex db IIC T6...T4 Gb Ex tb IIIC T85°C... T135°C Db	**XDI:** II 2GD Ex db IIC T6...T4 Gb Ex tb IIIC T85°C... T135°C Db **XDIwin**: II 2G Ex db IIC T6...T4 Gb II 2D Ex tb IIIC T85°C...T135°C Db

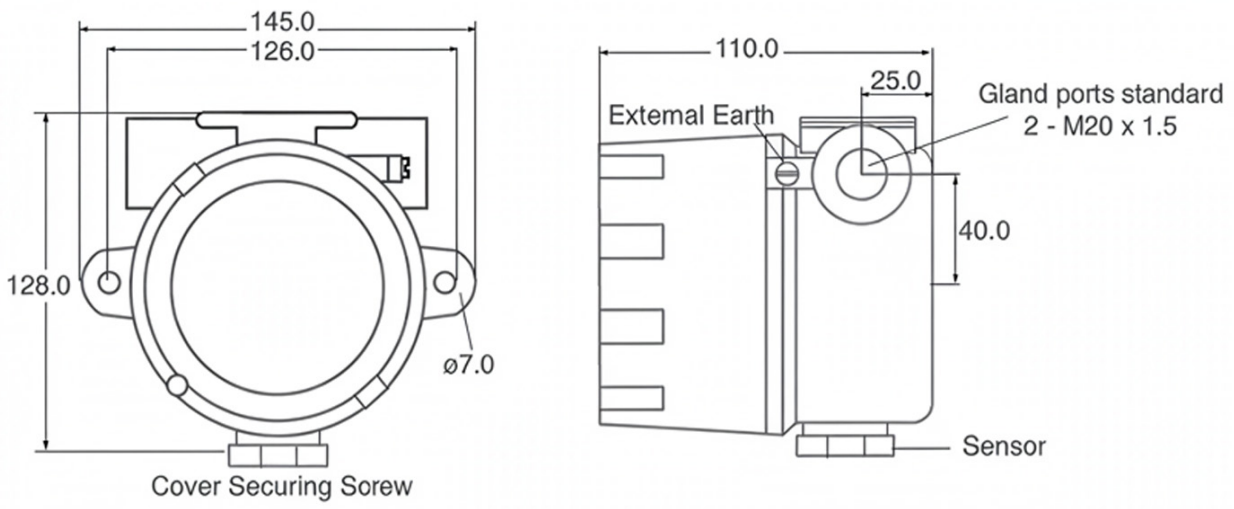
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Detectable Gases

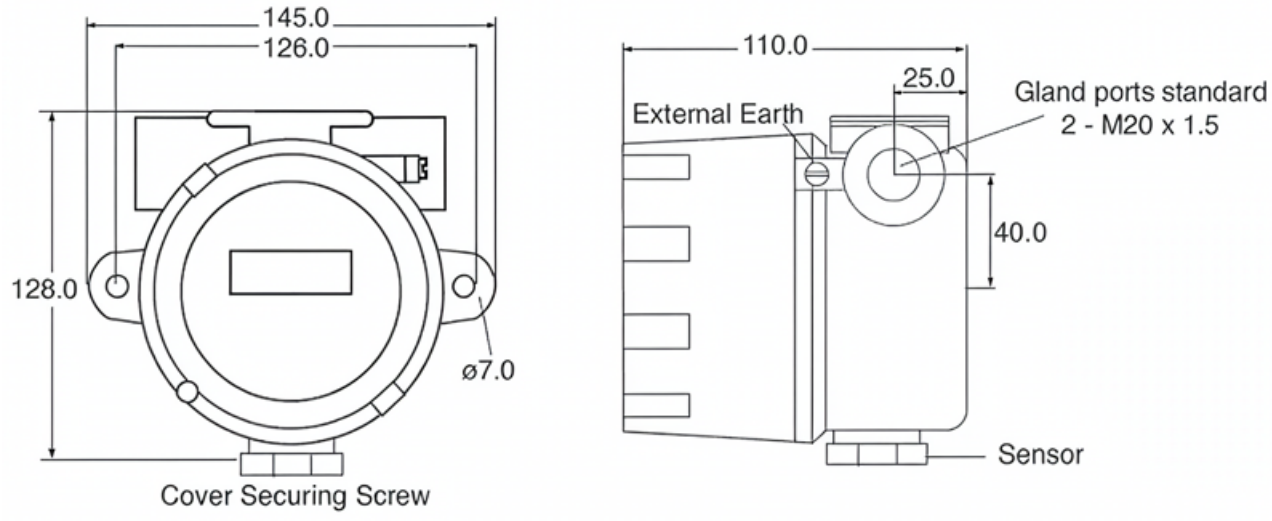
	F1+ — XDI / XDIwin	F6 — XDI / XDIwin	PID — XDI / XDIwin	Red Line Prime Hydrocarbon — XDI / XDIwin	Red Line Prime CO_2 — XDI / XDIwin
Detectable Gases	Flammable gases, Toxic gases, Oxygen, VOCs	Flammable gases	VOCs with ionisation potential <10.6 eV	Most flammable hydrocarbon gases	Carbon Dioxide (CO_2)
Measuring Range	Flammable: LEL / % vol Toxic: ppm / ppb O_2: % vol	0–100% LEL	Isobutylene 5 ppb – 50 ppm 0 – 200 ppm up to 0 – 1000 ppm	0–100% LEL 0–100% vol	0–2000 ppm 0–5000 ppm 0–2 % vol 0–5 % vol 0–10 % vol 0–100% vol

** This table highlights only a selection of available gases. Contact your WatchGas representative for information on our complete portfolio of detectable gases, measurement ranges, and sensor configurations.*

Drawing XDI



Drawing XDIwin



Accessories



Collector Cone



Universal Fitting



Flow Block Unit



SS Water Shield



Thermal Jacket



Mounting Boss

Controllers



WatchGas COMBI



WatchGas 404+



WatchGas DEFENDER



WatchGas 102

Other Fixed Detectors



LEL Point 1000
Flammable Gas Detector



LEL Point 2000
Flammable Gas Detector



TOX Point 1000
Oxygen & Toxic Gas Detector



TOX Point 2000
Oxygen, Toxic & VOC Gas Detector



NDIR Point 3000
Infrared Gas Detector



Multi Point
Universal Multi-Gas Detector

Beacon & Sounders



Beacon Sounder



Beacon Sounder ATEX

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WatchGas is dedicated to continuously improving its products. Therefore, the specifications and features mentioned in this datasheet are subject to change without prior notice.

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