

IXD 2100-0 Optical IR

Fixed-Point Flammable Gas Detector



Pollution Protection Systems
Mumbai Pvt. Ltd.



Dual heated optics stability

Multi-beam, dual-compensated, non-focusing infrared absorption Technology with Heated Optics.



Flexible output options

4–20 mA current output with HART superimposed, plus optional RS-485 MODBUS.



Certified flameproof design

Ex db IIC T6 flameproof construction with ATEX, IECEx, CIMFR and PESO approvals, EN 60079-29-1 Performance and EN IEC 61508 functional safety SIL2 Certified.



Non-intrusive calibration

One-man calibration and program setting via magnetic key and LCD — no need to open the flameproof enclosure and no hot-work permit required.

SPECIFICATIONS

GENERAL & PERFORMANCE SPECIFICATIONS

Application	Flammable gas detector
Model	IXD 2100-0
Measuring range	0 – 100% LEL
Resolution	1% LEL
Accuracy	± 2% FSD
Repeatability	± 2% FSD
Zero drift	± 2% FSD per year maximum
Display	8 × 2 alphanumeric LCD
Indications	Alarm 1 – Blue, Alarm 2 – Red, Over Range & Fault – Yellow
Warm-up time	30 sec
Alarm level	Adjustable from 0 to 99% of full range
Over range fault	Display shows ‘Over Range’
Sensor open fault	Display shows ‘Sens Fault’
Signal output	4–20 mA (non-isolated) / HART (superimposed on 4–20 mA)
Serial communication	RS-485 MODBUS protocol (optional)
HART	HART 7

MECHANICAL & ENCLOSURE SPECIFICATIONS

Enclosure of sensor	Flameproof per EN IEC 60079-0 (2018), EN 60079-1:2014 & EN 60079-31:2014
Construction material of Transmitter	SS316L / Aluminium
Ingress protection	IP66
Size	131 × 145 × 184 mm approx.
Weight	1 kg approx.
Electrical connection	Three M20 or ½” NPT cable gland entries; certified removable plug on left-hand entry

Sensing Technology	Multi-beam, dual-compensated, non-focusing infrared absorption Technology.
Optical design	Dual Optics – dual beam for high stability and strong anti-interference.
Heated Optics	Integrated optics heater with intelligent temperature control and anti-condensation
Detection gas	CH ₄ (Methane), Hydrocarbons, Vapours (C1 - C12)
Detection method	Natural diffusion
Response time	T90 < 4 s
Sensor service life	> 10 years
Warranty	5 Years
Sensor material	SS316 stainless steel
Dirty Optics Diagnostic	The detector continuously monitors the optical signal level to identify contamination on the optical window. Dust, oil, moisture, or other deposits that reduce the optical transmission are detected and reported as a dirty optics fault.

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OPTIONAL RELAYS

Alarm relays	SPDT (5A @ 230 VAC / 5A @ 30 VDC)
Fault relay	SPDT (5A @ 230 VAC / 5A @ 30 VDC)
Relay configuration	Latching or non-latching

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-40°C to +60°C
Storage temperature	0°C to +50°C
Operating humidity	0% to 99% RH, non-condensing

ELECTRICAL SPECIFICATIONS

Supply voltage	14–30 VDC, 24 VDC (nominal)
Power dissipation	2.49 W approx.
Supply current	104 mA @ 24 VDC
Supply fuse rating	500 mA
Electrical connections	3C × 1.5 sq.mm copper armoured shielded cable
Analog output load	700 Ω max

CERTIFICATIONS

ATEX & IECEx	Ex db IIC T6 Gb & Ex tb IIIC T80°C Db, IP66 (-40°C ≤ Ta ≤ +60°C); EN IEC 60079-0 (2018), EN 60079-1:2014 & EN 60079-31:2014
CIMFR	IS/IEC 60079-1 (2014)
PESO	IS/IEC 60079-1 (2014)
Performance Certified	BS EN 60079-29-1 (CH ₄)
Functional safety (SIL2) Certified	BS EN IEC 61508

This datasheet contains only a general description of the product shown. Products shall not be used by untrained or unqualified individuals, or until the product instructions / user manual have been thoroughly read and understood. Specifications are subject to change without prior notice.

**** We reserve the right to change, modify and alter specifications / external features of the product.****

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