



Ex db IIC T6 Gb



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Ex tb IIIC T85°C Db



LOM 08ATEX2059 X

Safety grade A2/A3 refrigerant gas detector using infrared technology with flameproof housing for use in explosive or flammable gas atmospheres and with a high level of protection, offering protection against financial, environmental, and safety risks derived from leaks of these gases.

There is a version of the detector, also ATEX certified, with a high level of protection and moreover intended for use in explosive or flammable atmospheres with a high **dust** content.

They are available in **RS485** format, addressable, with 4-wire connections, compatible with **DURGAS** control units, and with up to 16 detectors installable in the same loop to control up to four different refrigerant gases, up to a distance of 1km.

They incorporate internal optical fault indicators and digital communication of the different statuses to the control unit

Local alarm relay output.

Detection range from 0 to 100% L.F.L*

*L.F.L: lower flammable limit

The sensor controlled by a microprocessor incorporates internally all the necessary electronics for its correct operation, linearisation of the measurement, temperature compensation, memorisation of calibration parameters, etc.

The sensors used in the manufacture of this equipment have SIL2 certification.

AVAILABLE GASES

R-32/R-1234yf/R-1234ze/R-452b/R-454A/R-454B and R-454C, others please check

APPLICATIONS

Refrigerated installations in general, machine rooms, refrigerated chambers, supermarket rows, etc

LOCATION / HEIGHT OF INSTALLATION

Protect all possible sources of leaks, connections, elbows, gas inlets and outlets, valves, welds, compressors, etc... avoiding draughts.

Although most refrigerants are heavier than air check the molecular weight or density in relation to the air in each case.

MAINTENANCE

The **DIREX-X** detectors have been factory-calibrated with span gas and do not require recalibration in the initial start up of the installation.

Their maintenance is more affordable as it is possible to proceed to replace the sensor already calibrated in the installation without the need to use gas.

Revise **DIREX-X** detectors at least once every 3 years and follow the installation manual's instructions for verification and recalibration operations whenever necessary, or in accordance with current standards.

WARNING

- Use the appropriate diameter of cable hose for the cable gland's inlet.
- Do not under any circumstances immerse in water or in any other liquid.
- Do not install where it is contemplated that there may be draughts
- If DIREX-X is installed in false ceilings bear in mind during maintenance tasks that refrigerants displace oxygen.

TECHNICAL CHARACTERISTICS

Technology	Dual wavelength infrared sensor with temperature compensation and 12bit SIL2* microprocessor	Humidity range	0 to 95% HR no condensation
Supply voltage	From 10V to 30V DC	Atmospheric pressure limit	80 to 110kPa (0.8 to 1.1 bar)
Maximum consumption	80mA at 12V DC/100mA activated relay	RS485 connections	4 wires
Measurement range	0-100% L.F.L -linear full scale-	Optical fault indicators and sensor	Internal/Digital to control unit
Resolution	>1% of measurement range	Optical indicator of communication statuses	Internal: digital transmission of statuses to the control unit
Zero drift	±2% F.S. max / year at 20°C	Alarm relay	20% L.F.L. A2 group.
Span drift	±0.1% F.S./ year	Protection grade	IP65
Stabilisation time	< 30 min. -all specifications-	Box material	Aluminium / Stainless steel
Resistance to H₂S	Yes totally immune	Standard code for explosive atmospheres (gas/dust)	Ex db IIC T6 Gb /Ex tb IIIC T85°C Db
Response Time T50/T90	<15 and <30 respectively	Cable diameter	10.1-13mm ²
Useful life (MTBF)	> 5 years	Cable type RS485	4 wires 2 x 1.5mm - 2 x 0.25mm ø
Maintenance periods	Every 3 years -recommended- or according to current standards	Installation max. distance	1,000m (RS485)
Temperature range	-20°C to +50°C	Dimensions (mm)	155 x 180 x 110
		Weight (g)	1,700 approx.

*SIL2 sensor
L.F.L. lower flammable limit

WARRANTY

DIREX-X detectors are guaranteed against any manufacturing defect for 1 year from the date of purchase of the equipment. The warranty conditions are set out in the detector's installation manual.

ORDER INFORMATION

When placing your order please provide the correct code for the product required and verify that its description is in order.

DIREX-X RS485 REFRIGERANTS

CODE	DESCRIPTION
DIRYLXREFr*	Infrared flameproof RS485 detector for refrigerant gases with relay output

* The gas must be specified, for example DYRYLXREFr-R32

I-fichadirexX-v13r



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