



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX EXV 23.0038X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2023-09-06
Applicant: **Southland Sensing Ltd.**
4045 E. Guasti Rd.
#203
Ontario, CA 91761
United States of America
Equipment: **625 Series Gas Analyzer, Models OMD-625 and H2S-625**
Optional accessory:
Type of Protection: **Flameproof "d", Intrinsic safety "i"**
Marking: Ex db ib IIB+H2 T4 Gb (Ta = -20°C to +50°C)

Approved for issue on behalf of the IECEx
Certification Body:

Sean Clarke CEng MSc MIET

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

ExVeritas Limited
Units 16-18 Abenbury Way
Wrexham Ind. Est.
Wrexham LL 139UZ
United Kingdom





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Manufacturer: **Southland Sensing Ltd.**
4045 E. Guasti Rd.
#203
Ontario, CA 91761
United States of America

Manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[GB/EXV/ExTR23.0073/00](#)

Quality Assessment Report:

[GB/EXV/QAR23.0003/00](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The 625 Series Gas Analyzers detect percentage of gases in a sample process stream. The H2S-625 detects and measures percentages of hydrogen sulfide. The OMD-625 detects and measures percentages of Oxygen. Construction is the same except for the sensing element itself and minor electrical component changes to accommodate the different sensing elements. Power enters an Ex d enclosure onto a power PCB and this has I.S. outputs to intrinsically safe circuits that exit through an Ex d bushing. The I.S. circuits are contained within a neighbouring sheet metal enclosure that provides IP20 protection and is fitted with the gas sensing element. Both enclosures are mounted upon a stainless steel backplate for wall mounting.

As an option, mechanical components may also be mounted to the backplate such as simple valves and rotameter to facilitate the customer introducing sample streams into the sensing element. The sheet metal enclosure is also fitted with a simple LED screen HMI.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Only cable glands and conduit sealing fittings certified for protection types 'd' and have an IP66 rating may be used.
- All unused device openings must be fitted with a certified close-up plug with protection types 'd' and have an IP66 rating.
- Only one Hazardous Location Solutions reducer shall be used with any single cable entry on the associated equipment.
- The cable specific minimum ambient temperature is marked on the line bushing and it is detailed in the shipping documents.
- Stopping plugs are not used in conjunction with any other cable entry device.
- Potential Electrostatic Charging Hazard – See Instructions

Annex:

[IECEX EXV 23.0038X Annex.pdf](#)

Description Continued:																														
Model Nomenclature:																														
<div style="border: 1px solid black; padding: 5px;"> <p>Order Information: Record Part Number with selected options in Blank Indicated Area of Form</p> <hr/> <p>Model Number: H2S-625 H2S Analyzer</p> <p>Selected Range & Sensor:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">1</td> <td style="width: 95%;">0 - 200 PPM; H2S-1x PPM H2S Sensor (Ranges: 0 - 10 ppm, 0 - 50 ppm, 0 - 100 ppm, 0 - 200 ppm)</td> </tr> <tr> <td>2</td> <td>0 - 2000 PPM; H2S-2x PPM H2S Sensor (Ranges: 0 - 100 ppm, 0 500 ppm, 0 - 1000 ppm, 0 - 2000 ppm)</td> </tr> <tr> <td>3</td> <td>0 - 10000 PPM; H2S-3x PPM H2S Sensor (Ranges: 0 - 1000 ppm, 0 - 2000 ppm, 0 - 5000 ppm, 0 - 10000 ppm)</td> </tr> </table> <p>Electronics Package:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">4</td> <td style="width: 95%;">12 - 24V DC Input Power</td> </tr> <tr> <td>4M</td> <td>12 - 24V DC Input Power + MODBUS RS485 RTU</td> </tr> <tr> <td>7</td> <td>100 - 240 VAC Input Power</td> </tr> <tr> <td>7M</td> <td>100 - 240 VAC Power + MODBUS RS485 RTU</td> </tr> </table> <p>Gas Connections:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">4</td> <td style="width: 95%;">1/4" Compression Tube Fittings with Sample / Span Valve & Flowmeter</td> </tr> <tr> <td>6</td> <td>6 mm Compression Tube Fittings with Sample / Span Valve & Flowmeter</td> </tr> <tr> <td>D</td> <td>Delete Sample / Span Valve & Flow Meter, 1/8" Compression Tube Fittings</td> </tr> </table> <p style="margin-top: 10px;">H2S-625 - _____ - _____ - _____ Use This Part Number When Ordering</p> </div>		1	0 - 200 PPM; H2S-1x PPM H2S Sensor (Ranges: 0 - 10 ppm, 0 - 50 ppm, 0 - 100 ppm, 0 - 200 ppm)	2	0 - 2000 PPM; H2S-2x PPM H2S Sensor (Ranges: 0 - 100 ppm, 0 500 ppm, 0 - 1000 ppm, 0 - 2000 ppm)	3	0 - 10000 PPM; H2S-3x PPM H2S Sensor (Ranges: 0 - 1000 ppm, 0 - 2000 ppm, 0 - 5000 ppm, 0 - 10000 ppm)	4	12 - 24V DC Input Power	4M	12 - 24V DC Input Power + MODBUS RS485 RTU	7	100 - 240 VAC Input Power	7M	100 - 240 VAC Power + MODBUS RS485 RTU	4	1/4" Compression Tube Fittings with Sample / Span Valve & Flowmeter	6	6 mm Compression Tube Fittings with Sample / Span Valve & Flowmeter	D	Delete Sample / Span Valve & Flow Meter, 1/8" Compression Tube Fittings									
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<div style="border: 1px solid black; padding: 5px;"> <p>Order Information: Record Part Number with selected options in Blank Indicated Area of Form</p> <hr/> <p>Model Number: OMD-625 Oxygen Analyzer OMD-625D Oxygen Analyzer (Delete Sample System, 1/8" Compression Tube Gas Inlets)</p> <p>Selected Range & Sensor:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">3T</td> <td style="width: 45%;">Trace Analysis Standard (TO2-133):</td> <td style="width: 50%;">0 - 10ppm, 0 - 100ppm, 0 - 1000ppm, 0 - 10000 PPM 0 - 25%</td> </tr> <tr> <td>4T</td> <td>Trace Analysis Standard (TO2-233):</td> <td>0 - 10ppm, 0 - 100ppm, 0 - 1000ppm, 0 - 10000 PPM 0 - 25%</td> </tr> <tr> <td>5T</td> <td>Trace Analysis < 500 PPM H2S (TO2-238):</td> <td>0 - 10ppm, 0 - 100ppm, 0 - 1000ppm, 0 - 10000 PPM 0 - 25%</td> </tr> <tr> <td>5P</td> <td>Percent Analysis Standard (PO2-160):</td> <td>0 - 1%, 0 - 5%, 0 - 10%, 0 - 25%, 0 - 100%</td> </tr> <tr> <td>6P</td> <td>Percent Analysis Standard (PO2-24):</td> <td>0 - 1%, 0 - 5%, 0 - 10%, 0 - 25%, 0 - 100%</td> </tr> </table> <p>Electronics Package:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">4</td> <td style="width: 95%;">12 - 24V DC 4-wire Power</td> </tr> <tr> <td>4M</td> <td>12 - 24V DC Power w/ Bi-Directional MODBUS RS485 RTU</td> </tr> <tr> <td>7</td> <td>100 - 240V AC Power</td> </tr> <tr> <td>7M</td> <td>100 - 240V AC Power w/ Bi-Directional MODBUS RS485 RTU</td> </tr> </table> <p>Gas Connections:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">4</td> <td style="width: 95%;">1/4" Compression Tube Fittings</td> </tr> <tr> <td>6</td> <td>6mm Compression Tube Fittings</td> </tr> <tr> <td>8</td> <td>1/8" Compression Tube Fittings</td> </tr> </table> <p style="margin-top: 10px;">OMD-625 - _____ - _____ - _____ Use This Part Number When Ordering</p> </div>		3T	Trace Analysis Standard (TO2-133):	0 - 10ppm, 0 - 100ppm, 0 - 1000ppm, 0 - 10000 PPM 0 - 25%	4T	Trace Analysis Standard (TO2-233):	0 - 10ppm, 0 - 100ppm, 0 - 1000ppm, 0 - 10000 PPM 0 - 25%	5T	Trace Analysis < 500 PPM H2S (TO2-238):	0 - 10ppm, 0 - 100ppm, 0 - 1000ppm, 0 - 10000 PPM 0 - 25%	5P	Percent Analysis Standard (PO2-160):	0 - 1%, 0 - 5%, 0 - 10%, 0 - 25%, 0 - 100%	6P	Percent Analysis Standard (PO2-24):	0 - 1%, 0 - 5%, 0 - 10%, 0 - 25%, 0 - 100%	4	12 - 24V DC 4-wire Power	4M	12 - 24V DC Power w/ Bi-Directional MODBUS RS485 RTU	7	100 - 240V AC Power	7M	100 - 240V AC Power w/ Bi-Directional MODBUS RS485 RTU	4	1/4" Compression Tube Fittings	6	6mm Compression Tube Fittings	8	1/8" Compression Tube Fittings
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Routine Tests:
1. None.

Manufacturer's documents:			
Title:	Drawing No.:	Rev	Date:
625 Series Bill of Materials	625-0001	1.03	07/01/2023
625 Series Mechanical Assembly (sheet 7)	625-0002	1.02	07/01/2023
XJDH N4 Approval For Southland ATEX / IECEx	SB4649	A	11/08/2022
625 Series Power Supply Schematic	EX-PCB-10041-SCH	B5	08/09/2023
625 Series Power Supply Bill of Materials	EX-PCB-10041-BOM	1.00	08/09/2023
625 Series Power Supply Layout	EX-PCB-10041-BRD	A	08/16/2023
625 Series Power Supply Gerber Files (ZIP)	EX-PCB-10041-GBR	B5	08/16/2023

Manufacturer's documents:			
Title:	Drawing No.:	Rev	Date:
625 Series Main Board Schematic	EX-PCB-10047-SCH	B3	08/11/2023
625 Series Main Board Bill of Materials	EX-PCB-10047-BOM	1.00	08/09/2023
625 Series Main Board Layout	EX-PCB-10047-BRD	B3	08/11/2023
625 Series Main Board Gerber Files (ZIP)	EX-PCB-10047-GBR	B3	08/11/2023
625 Series Modbus / PicoPort Schematic	EX-PCB-10049-SCH	A	04/21/2023
625 Series Modbus / PicoPort Bill of Materials	EX-PCB-10049-BOM	1.00	07/10/2023
625 Series Modbus / PicoPort Layout	EX-PCB-10049-BRD	A	04/21/2023
625 Series Nameplate Drawing	625_Series_Nameplate_2023	1.00	07/06/2023