Certificate of Compliance

Certificate: 70172674 **Master Contract:** 251186 (251186)

Project: 70172674 **Date Issued:** 2018-03-21

Issued to: **SENKO Co., Ltd.**
73 Oesammi-ro
15 Beon-gil
Osan-si, Gyeonggi-do 18111
SOUTH KOREA
Attention: Taemyung Kwon

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: *Gary Benden*
Gary Benden

PRODUCTS

CLASS 2258 03 PROCESS CONTROL EQUIPMENT – Intrinsically Safe and Non-Incendive Systems – For Hazardous Locations

CLASS 2258 83 PROCESS CONTROL EQUIPMENT – Intrinsically Safe and Non-Incendive Systems – For Hazardous Locations – Certified to U.S. Standards

Class I, Division 1, Groups A, B, C, and/or D, T4
Ex ia IIC T4 Ga
Class I, Zone 0, AEx ia IIC T4 Ga

Portable Multi-Gas Detector, Model SP-MGT-N, Rated 3.8 Vdc, Ambient -20°C ≤ Ta ≤ +50°C.
Multi-gas detector for monitoring up to four gasses simultaneously and continuously, i.e., oxygen (deficiency / enrichment), combustible hydrocarbons, carbon monoxide, and hydrogen sulphide. Intrinsically safe when powered by non-user replaceable battery pack 1465MGTB565-100, utilizing one Samsung lithium-polymer cell, part number ICP103450S. The SP-MGT-N is marked Ex ia IIC T4 Ga when using IrDA-type combustibles sensor MIPEX-02-1-II-1.1 A

Certificate: 70172674 **Master Contract:** 251186
Project: 70172674 **Date Issued:** 2018-03-21

Class I, Division 1, Groups A, B, C, and/or D, T4
Ex da ia IIC T4 Ga
Class I, Zone 0, AEx da ia IIC T4 Ga

Portable Multi-Gas Detector, Model SP-MGT-P, Rated 3.8 Vdc, Ambient -20°C ≤ Ta ≤ +50°C.
Multi-gas detector for monitoring up to four gasses simultaneously and continuously, i.e., oxygen (deficiency / enrichment), combustible hydrocarbons, carbon monoxide, and hydrogen sulphide. Intrinsically safe when powered by non-user replaceable battery pack 1465MGTB565-100, utilizing one Samsung lithium-polymer cell, part number ICP103450S. The SP-MGT-P is marked Ex da ia IIC T4 Ga (when using pellistor-type combustibles sensor Korea New Ceramics Co. KGS 701)

Notes:

1. This equipment has not been evaluated to the requirements of the CSA/UL 60079-29 series of standards, therefore, "LEL" and "combustible gas detector performance" are not the subject of this test report.
2. The equipment shall only be charged while in the non-hazardous area, using a charger specifically supplied for use with the unit (for example part number ICP12-060-1200D, manufactured by Shenzhen Shi Ying Yuan Electronics Co, LTD), approved as SELV or Class 2 equipment against CSA/UL 60950, CSA/UL 61010-1, or equivalent CSA/UL standards. The maximum voltage and current from the charger shall not exceed 6.3 Vdc plus tolerances and 1.2 A respectively, and shall be further limited by the charging system to U_m = 6.3 Vdc. The ambient temperature during charging shall be in the range 0°C to 45°C.
3. The IR Communications feature of the product shall only be used in a non-hazardous area.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10 *Reaffirmed 2015*	General requirements – Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 60079-0:15 *October 2015*	Explosive atmospheres – Part 0: Equipment – General requirements
CAN/CSA-C22.2 No. 60079-1:16 *May 2016*	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"
CAN/CSA-C22.2 No. 60079-11:14 *February 2014*	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"
CAN/CSA-C22.2 No. 61010-1-12 *Reaffirmed 2017*	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements
ANSI/UL 913 – Eighth Edition *December 2013*	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations
ANSI/UL 60079-0 – Sixth Edition *July 2013*	Explosive atmospheres – Part 0: Equipment – General requirements
ANSI/UL 60079-1 – Seventh Edition *September 2015*	Explosive Atmospheres – Part 1: Equipment Protection by Flameproof Enclosures "d"
ANSI/UL 60079-11 – Sixth Edition *February 2013*	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety "i"
ANSI/UL 61010-1 – Third Edition *May 2012*	Electrical Equipment For Measurement, Control, and Laboratory Use; Part 1: General Requirements

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The following markings are provided on an adhesive nameplate, manufactured by Daehung Special Printing, and used with the printer and ribbon specified in the listing, designated type 01, 02, 03, or 05 (PET 25-75um), which is suitable for indoor use on polycarbonate surfaces, at a service temperature range of -20°C to +60°C. The nameplate is affixed to the upper clear polycarbonate surface of the rear shell (cover) of the equipment. See manufacturer's label drawing 1495MGTB595-300, and certified listings in Supporting Documentation folder: PGJI2.MH60636 and PGJI8.MH60636.

- Manufacturer's name: "Senko", or CSA Master Contract Number "251186", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model number: As specified in the PRODUCTS section, above.
- Electrical ratings: Charger rated "U_m = 6.3 Vdc".
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date in MMYY format, or serial number, traceable to year and month of manufacture.
- The CSA Mark with or without 'C' and/or 'US' indicators, as shown on the Certificate of Conformity.
- Hazardous Location designation: As specified in the PRODUCTS section, above (may be abbreviated).
- Temperature code: As specified in the PRODUCTS section, above.
- "CSA 18.70172674X" adjacent to the CSA Mark.

An operating manual shall be supplied with each unit, containing the following minimum information:

- A recapitulation of the information with which the equipment is marked.
- Instructions for safety, such as putting into service, operation, maintenance and repair.
- Training instructions if necessary.
- Where applicable, specific conditions of use.
- Where applicable, any special conditions of use, including particulars of possible misuse.
- Where necessary, the essential characteristics of tools which may be fitted to the equipment.
- A list of the standards, including the issue date, with which the equipment is declared to comply. The certificate can be used to satisfy this requirement.

- Manufacturer's name and address.
- A description of the intended use of the equipment.
- A statement that if the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- A description of all connections, including proper charging instructions.
- Specification of electrical ratings, as specified in the MARKINGS section, above.
- Specification that the power to this equipment (when charging the battery pack) must be supplied by a source that is categorized as "CLASS 2" and "SELV" as specified in the Canadian Electrical Code, C22.1 and the National Electrical Code NFPA 70.
- Specifications for the range of environmental conditions for which the equipment is designed including the following:
    - Specification of the Pollution Degree: "2"
    - Specification of the Overvoltage Category: II (applicable when charging the battery pack)
    - Specification for the maximum use altitude: 2000 m above sea level.
    - Specification for ambient temperature rating, as specified the PRODUCTS section, above.
- Specific commissioning instructions and, if necessary for safety, warnings against hazards which could arise during commissioning or use of the equipment.
- Explanation of symbols related to safety which are used on the equipment;
- ISO 3864 Symbol B.3.1 ⚠ or ISO 7000 symbol 0434 ⚠ (triangle with exclamation point) with a statement that the manual must be consulted in all cases where this symbol is marked, in order to find out the nature of the potential HAZARDS and any actions which have to be taken to avoid them.
- Instructions for interconnection to accessories and other equipment, including indication of suitable accessories, detachable parts and any special materials.
- Identification and description of operating controls and their use in all operating modes.
- Instructions for cleaning and decontamination of the equipment.
- Guidance on how to determine that the equipment is functioning correctly when used in applications where a hazard could be caused by an incorrect reading when measuring, indicating or detecting harmful or corrosive substances, or hazardous live electrical quantities.
- Instructions in sufficient detail to permit safe maintenance and inspection of the equipment, and to ensure continued safety of the equipment after the maintenance and inspection procedure.
- Specification of any parts which are required to be examined or supplied only by the manufacturer or his agent.
- Instructions on the following subjects shall be provided for service personnel, as necessary to permit safe servicing and continued safety of the equipment after servicing if the equipment is suitable to be serviced:
    - Product-specific risks that may affect the service personnel.
    - Protective measures for these risks.
    - Verification of the safe state of the equipment after repair.

Supplement to Certificate of Compliance

Certificate: 70172674 **Master Contract:** 251186 (251186)

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
70172674	2018-03-21	North American certification of models SP-MGT-N and SP-MGT-P portable multi-gas detectors as follows: Model SP-MGT-N, Ex ia IIC T4 Ga, Class I, Zone 0, AEx ia IIC T4 Ga, Class I, Division 1, Groups A, B, C, and/or D, T4. Model SP-MGT-P, Ex da ia IIC T4 Ga, Class I, Zone 0, AEx da ia IIC T4 Ga, Class I, Division 1, Groups A, B, C, and/or D, T4. This project does not include any LEL standards or associated performance testing.