Certificate of Compliance

Certificate: 70060171 **Master Contract:** 238631

Project: 70217119 **Date Issued:** 2019-09-23

Issued To: **OleumTech Corp**
19762 Pauling
Foothill Ranch, California, 92610
United States

Attention: Patrick Clark

Issued by: *Jignesh Dabhi*
Jignesh Dabhi

PRODUCTS

CLASS - C225803 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non Incendive Systems - For Hazardous Locations
CLASS - C225883 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe and Non-Incendive Systems-For Hazardous Locations-Certified to U.S. Standards

Class I, Division 1, Groups C, D T4;
Ex ia IIB T4 Ga; Class I, Zone 0, AEx ia IIB T4 Ga

Resistive type hard-wired liquid level sensor and transmitter, models HW5800-RL3, and HW5800-RL4. Provided with rigid sensor probes, part number 60-400a-xxx, where a = 0 (0.25 inch resolution), or 1 (0.5 inch resolution), or 2 (0.25 inch resolution segmental), or 3 (0.5 resolution segmental), and xxx represents the length of the probe in inches, from 024 to 252. -40 °C ≤ Tamb ≤ 70 °C. MWP 569 PSI (3.92 MPa). Max process temp 120°C. Or provided with flexible sensor probes, part number 60-410a-xxx, where a = 1 (0.5 inch resolution), or 2 (0.25 inch resolution segmental), or 3 (0.5 resolution segmental), and xxx represents the length of the probe in inches, from 096 to 720. -40 °C ≤ Tamb ≤ 70 °C. MWP 142 PSI (0.98 MPa). Max process temp 120°C. IP66. 6 – 30 V dc, 0.015A Class 2/SELV. Intrinsically Safe when powered by certified barriers as specified on Intrinsically Safe Control Drawing 09-0219-001.

Conditions of Safe Use

1) This equipment shall not be used in the presence of the following chemicals: Ethyl Ether, Ethyl Acetate, Methyl Ethyl Ketone, Vinyl Acetate, and Gasoline.
2) The enclosure is manufactured from aluminum, with maximum 0.5% Mg. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if the equipment is installed in a zone 0 location.
3) Under certain extreme circumstances, the non-metallic coating applied to the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth. This is particularly important if the equipment is installed in a zone 0 location.
4) When equipped with the flexible probe assembly, the flexible probe shall not be installed in an area that is subject to sunlight or ultraviolet light sources.
5) The transmitter is IP 66 rated only when connected with sensor probe 60-400a-xxx or 60-410a-xxx.
6) 60-400a-xxx or 60-410a-xxx are intrinsically safe only when connected with transmitter HW5000-RL3, HW5000-RL4, HW5800-RL3, or HW5800-RL4.
7) Terminals V+, V-: Shall be supplied from a suitably certified linear shunt Zener diode barrier with a minimum source resistance "R" of 187.5Ω for 30V option and 53.4Ω for 16V option. The source resistance "R" shall be such that it is ≥ Uo/Io. Trapezoidal and rectangular supplies are not permitted.
8) Terminals 485/TR+, 485/TR-: Shall be supplied from a suitably certified linear shunt Zener diode barrier with a minimum source resistance "R" of 90Ω. The source resistance "R" shall be such that it is ≥ Uo/Io. Trapezoidal and rectangular supplies are not permitted.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10 *November 2014*	General requirements — Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 61010-1-12 *(r2017)*	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
CAN/CSA-C22.2 No. 60529:05 *(July 2005)*	Degrees of protection provided by enclosures (IP Code)
CAN/CSA-C22.2 No. 60079-0:11 *(December 2011)*	Explosive atmospheres – Part 0: Equipment – General requirements
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. 157-92 *(Reaffirmed 2012)*	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.
ANSI/UL 61010-1-2012 *Third Edition (May 11, 2012)*	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
ANSI/IEC 60529-2004	Degrees of Protection Provided by Enclosures (IP Code)
ANSI/UL 60079-0-2013	Explosive atmospheres –

Sixth Edition (July 26, 2013)	Part 0: Equipment – General requirements
ANSI/UL 60079-11 *Sixth Edition (September 6, 2013)*	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety "i"
ANSI/UL 913 *(Seventh Edition)*	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations

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 a 0.4 mm thick aluminum tag that is permanently attached to the transmitter housing enclosure with two fasteners or Brady B-428 adhesive backed label with R4300 ribbon or B-423 (THT-17-423-3) with R6200 ribbon:

- Manufacturer's name: "OleumTech", or CSA Master Contract Number "238631", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model number: As specified in the PRODUCTS section, above.
- Electrical ratings: 6 – 30 V dc, 0.015A Class 2/SELV.
- 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 "US" indicators, as shown on the Certificate of Conformity.
- CSA year and certificate number: "16.70060171X" adjacent to the CSA mark.
- Hazardous Location designation: "Class I, Division 1, Groups C, D T4" (The words Class, Division, and Groups may be abbreviated).
- Method of Protection markings: "Ex ia IIB T4 Ga; Class I, Zone 0, AEx ia IIB T4 Ga"
- Enclosure Ingress Protection (IP) rating: "IP66".
- ISO 3864 Symbol B.3.1 ⚠ or ISO 7000 symbol 0434 ⚠ (triangle with exclamation point)
- Terminal Designations adjacent to each field wiring terminal.
- ISO 60417, Symbol 5031 ⎓ adjacent to the DC input terminal rating.
- The following words:
  - "Exia".

- "INTRINSICALLY SAFE" and "SECURITE INTRINSEQUE"
- "Install per drawing 09-0219-001."
- "WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY" and "AVERTISSEMENT : LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SECURITE INTRINSEQUE".
- "TO PREVENT STATIC DISCHARGE, WIPE WITH DAMP CLOTH", and "POUR EVITE RUNE DECHARGE STATIQUE, ESSUYER AVEC UN CHIFFON HUMIDE".

ISO 60417, Symbol 5019 ⏚ shall be permanently marked adjacent to the equipment ground (protective conductor) terminal on the exterior of the transmitter enclosure.

The following markings are provided on a CSA Accepted adhesive nameplate, manufactured by Brady, part number THT-17-423-3 permanently affixed around the top of the sensor probe surface:

- Manufacturer's name: "OleumTech", or CSA Master Contract Number "238631", adjacent to the CSA Mark in lieu of manufacturer's name.
- Probe part number: 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 "US" indicators, as shown on the Certificate of Conformity.
- CSA year and certificate number: "16.70060171X" adjacent to the CSA mark.
- Hazardous Location designation: "Class I, Division 1, Groups C, D T4" (The words Class, Division, and Groups may be abbreviated).
- Method of Protection markings: "Ex ia IIB T4 Ga; Class I, Zone 0, AEx ia IIB T4 Ga"
- Enclosure Ingress Protection (IP) rating: "IP66".
- Maximum Working Pressure rating: As specified in the PRODUCTS section, above.
- The words: "THIS UNIT CONTAINS NO SERVICEABLE COMPONENTS".
- The words: "Install per drawing 09-0219-001."

An installation manual or data sheet shall be supplied with each unit, containing the following minimum marking information:

- Manufacturer's name and address.
- Electrical ratings: 6 – 30 V dc, 0.015A Class 2/SELV
- Specification for ambient temperature rating: -40°C ≤ Tamb ≤ 70°C.
- Specification for process pressure rating: as specified in the PRODUCTS section, above.
- Max process temp: 120°C.
- Ingress Protection rating: IP66
- Specifications for the following conditions of use
  - Pollution degree 2;
  - Installation category II;
  - Maximum Altitude 2000m;
  - Maximum Humidity 95% rh, non-condensing.
- The words: "This equipment shall not be used in the presence of the following chemicals: Ethyl Ether, Ethyl Acetate, Methyl Ethyl Ketone, Vinyl Acetate, and Gasoline", or equivalent wording.
- 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.
- Instructions for lifting and carrying.
- Mounting and installation instructions, including dimensions.
- Specification for the weight of the equipment (kg)
- Supply wiring instructions, including:
  - Specification that installer must use wire type that has a temperature rating ≥ 70°C
  - Specification for appropriate wiring to the connector, including definition of pin functions, and specification for wire gauge.
- Instructions for proper grounding of the equipment.
- A description of all input and output connections.
- Specification of materials in contact with the process fluids or gasses.
- Specific commissioning instructions and, if necessary for safety, warnings against hazards which could arise during installation or commissioning of the equipment.
- It is recommended to add a statement in the documentation for the installation that the safety of any system incorporating the equipment is the responsibility of the assembler of the system.
- 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.
- Instructions for cleaning and decontamination of the equipment.
- Detailed instructions about risk reduction procedures relating to flammable liquids that are used in or with 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:
  a) product-specific risks that may affect the service personnel.
  b) protective measures for these risks.
  c) verification of the safe state of the equipment after repair.
- Statement specifying that if the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- Specification for appropriate wiring to the connector, including definition of terminal functions, and specification for wire gauge.
- ISO 3864 Symbol B.3.1 ⚠ or ISO 7000 symbol 0434 ⚠ (triangle with exclamation point) followed by these words, or suitable equivalent:

- "WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY" and
- "AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SECURITE INTRINSEQUE"