Certificate of Compliance

Certificate: 2066361 **Master Contract:** 224176

Project: 70129645 **Date Issued:** June 04, 2018

Issued to: **BARTEC BENKE GmbH**
Borsigstrasse 10
Reinbek / Hamburg D-21465
GERMANY

Attention: Gerd Buttner

The products listed below are eligible to bear the CSA Mark shown

Issued by: E Giusti
E Giusti

PRODUCTS

CLASS 9098-01 Miscellaneous for Hazardous Locations.
CLASS 9098-81 Miscellaneous for Hazardous Locations certified against U.S. standards.

Ex db eb ib * pxb * IIC T3 resp. T4 and AEx db eb ib* pxb * IIC T3 resp. T4
Class I, Division 2, Group B,C and D.
* : can be mb if used by option solenoid valve, can be [op-is] if used by otion optical link

- Vapor Pressure Process Analyzer model RVP-4, rated 100VAC …230VAC, 30A, 50/60Hz
  Temperature code T4 for an ambient temperature range : +5 C … +40 C
- Viscosity Process Analyzer model VISC-4, rated 100VAC …230VAC, 30A, 50/60Hz

Temperature code T3 or T4 for an ambient temperature range: +5 C … +40 C

Model Code:

VISC – 4 x x

- ***t*** = viscosity: 0,7 … 30 cSt
- ***v*** = viscosity: 10 … 800 cSt
- ***L*** = MT +20°C … MT +60°C (MT = Measurement temperature of the product)
- ***M*** = MT +41°C … MT +60°C
- ***H*** = MT +50°C … MT +100°C

Generation

Viscosity Process Analyzer

- Cold Filter Plugging Point Analyzer model CFPP-4, rated 100VAC …230VAC, 30A, 50/60Hz
Temperature code T4 for an ambient temperature range : +5 C … +40 C

Class I, Division 2, Group B,C and D.
Ex px mb de IIB+H2 T3 or T4 and AEx px mb de IIB+H2 T3 or T4

- Chiller for Liquids •KS • -KWS- /• /•
Rated 100VAC …230VAC, 1 phase, 50/60Hz, 0,3…1,4 kW, 1…20A,
Rated 200VAC …600VAC, 3 phase, 50/60Hz, 0,3…10kW, 1…30A

Temperature code T3 or T4 for an ambient temperature range: -20°C … +55°C

Model Code:

•KS • – KWS - /• /•

- **S** = control unit in the Ex e / Ex d enclosure
- **P** = control unit in the Ex p enclosure
- **0** = without heating system
- **1** = with hot gas – bypass heating system
- = cold water treatment
- = cooling capacity 0,3 / 0,5 / 1,4 / 2,4 / 4 / 6 / 10 / kW
- **F** = fluid refrigerant cooling system
- **L** = air cooled cooling system

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APPLICABLE REQUIREMENTS

. CAN/CSA - C22-2 No. 0-M91	General Requirements - Canadian Electrical Code, Part II
. CAN/CSA - C22.2 No. 100-14	Motors and Generators
. LTR No. E-22	Motors and Generators for use in Class I, Division 2 and Class II, Division 2 Hazardous Locations
. CAN/CSA-C22.2 No.14-13 (R2018)	Industrial Control Equipment
. CAN/CSA E60079-0:15	Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
. CAN/CSA E60079-1-16	Electrical apparatus for explosive gas atmospheres. PART 1: Flameproof enclosures “d”.
. CAN/CSA E60079-2-16	Electrical apparatus for explosive gas atmospheres. PART 2: Pressuzed enclosures “p”.
. CAN/CSA E60079-7-16	Electrical apparatus for explosive gas atmospheres. PART 7: Increased safety “e”.
. CAN/CSA E60079-18-12	Electrical apparatus for explosive gas atmospheres. PART 18: Encapsulation “m”.
. CAN/CSA E60079-11-14	Electrical apparatus for explosive gas atmospheres. PART 11: Intrinsic safety “i”.
. CAN/CSA E60079-15-16	Electrical apparatus for explosive gas atmospheres. PART 15: Non incendive “n”.
. CAN/CSA-C22.2 No.213-2017	Non Incendive Electrical Equipment for use in Class I, Division 2 Hazardous Locations
. UL 1004-Ed.2	Motors and Generators
. NFPA 496-2017	Pressurized enclosures
. UL SU1836	Motors and Generators for use in Class I, Division 2 and Class II, Division 2 Hazardous Locations
. UL 60079-0:Ed.6	Electrical Apparatus for Explosive Gas Atmospheres - Part 0:General requirements
. UL 60079-1:Ed.7	Electrical Apparatus for Explosive Gas Atmospheres - Part 1:flameproof equipments “d”
. UL 60079-2:Ed.6	Electrical apparatus for explosive gas atmospheres. PART 2: Pressuzed enclosures “p”.
. UL 60079-7:Ed.5	Electrical Apparatus for Explosive Gas Atmospheres - Part 7: Increased safety “e”
. UL 60079-18: Ed.4	Electrical apparatus for explosive gas atmospheres. Part 18: Encapsulation “m”.
. UL 60079-11: Ed.6	Electrical Apparatus for Explosive Gas Atmospheres - Part 11: Intrinsically safe “i”
. UL 60079-15:Ed.4	Electrical Apparatus for Explosive Gas Atmospheres - Part 15: Nonincendive equipments “n”

MARKINGS

Product markings shall be in accordance with the related standards. In addition, it shall be the responsibility of the manufacturer to provide additional markings on the product to comply with the requirements of the local regulatory authorities. For example, in Canada, any caution and warning markings must be provided in French and English.

The products listed 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.

The manufacturer is required to apply the following markings:

The following information appear on permanent adhesive nameplates shown in illustrations:

For the RVP, VISC and CFPP:

- Submittor's name, trademark adjacent to CSA US mark
- Catalogue, Model, designation
- Serial number
- Electrical ratings
- Hazardous location Code/designation: Ex db eb ib * pxb * IIC T3 resp. T4 and AEx db eb ib* pxb * IIC T3 resp. T4
  * : can be mb if used by option solenoid valve, can be [op-is] if used by otion optical link
  T3 code by VISC if be used a hesting systen HSB

On the separate components of the analyzers:

1- PUC2 Purged Universal Cabinet Ex p enclosure

- Submittor's name, trademark adjacent to CSA US mark
- Catalogue, Model, designation
- Serial number
- Min & max overpressure
- Leakage flow rate
- Purge flow rate
- Purge time
- Hazardous location Code/designation: Ex pxb [ia] IIC T4 and AEx pxb [ia] IIC T4 Ex pxb [op is Ga] IIC T4 Gb and AEx pxb [op is Ga] IIC T4 Gb
  WARNINGS:
  Explosion hazard from ignition sources! This pressurized enclosure contains hot surfaces and residual charges on electrical components inside the housing can ignite a potentially explosive atmosphere.
  Wait 5 minutes before opening, shut off the power supply and secure against switching on again.

2- CB2 Control Box Ex e enclosure

- Submittor's name, trademark adjacent to CSA US mark
- Catalogue, Model, designation
- Serial number
- Electrical ratings
- Hazardous location Code/designation: Ex e [ib] IIB+H2 T4 and AEx e [ib] IIB+H2 T4

WARNINGS:
Danger of death due to electrical current! Touching not intrinsically safe voltage-conducting parts can cause an electrical current, which causes fatal injury. For this reason:
Do not open the box while non intrinsically safe electric circuits are under voltage!

3- ASU Air Saturation Unit

- Submittor's name, trademark adjacent to CSA US mark
- Catalogue, Model, designation
- Serial number
- Electrical ratings
- Hazardous location Code/designation:

For the chiller:

1- Model FKSx,x-KWS-/x/x

- Submittor's name, trademark or the CSA Master Contract adjacent to the CSA US mark
- Catalogue, Model, or series designation
- Month and year of manufacture
- Serial number or date code
- Electrical ratings
- Hazardous location Code/designation
  Chiller : Ex px mb de IIB+H2 T3 or T4 and AEx px mb de IIB+H2 T3 or T4
  Control Unit : Ex de [ia] IIB+H2 T4 and AEx de [ia] IIB+H2 T4
- Effective cooling capacity (if applicable)
- Operating pressure(if applicable) of refrigerant
- Refrigerant (if applicable)

WARNINGS:
Danger of explosion due to ignition sources!
The refrigerant contains ignition sources. It is protected by static pressurization. For this reason:
Make sure that no potentially explosive atmosphere is present during filling the refrigerant circuit.
Observe manual!
Danger of death due to electrical current! Touching not intrinsically safe voltage-conducting parts can cause an electrical current, which causes fatal injury. For this reason:
Do not open the box while non-intrinsically safe electric circuits are under voltage!

2- Model LKS 0,3 - KWS- / 0 / x

- Submittor's name, trademark or the CSA Master Contract adjacent to the CSAus mark
- Catalogue, Model, or series designation
- Month and year of manufacture
- Serial number or date code
- Electrical ratings
- Hazardous location Code/designation:
  Air Cool: Ex de IIB+H2 T3 or T4 and AEx de I IIB+H2 T3 or T4
  Control Unit : Ex de [ia] IIB+H2 T4 and AEx de [ia] IIB+H2 T4

The installation instructions shall include the bilingual caution and warning for use in hazardous locations, the following statement:

- "WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT WHILE CIRCUIT IS LIVE UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS" and "AVERTISSEMENT: RISQUE D'EXPLOSION. NE PAS DÉBRANCHER TANT QUE LE CIRCUIT EST SOUS TENSION, À MOINS QU'IL NE S'AGISSE D'UN EMPLACEMENT NON DANGEREUX", or equivalent.
- "WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY"
- AVERTISSEMENT. LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SÉCURITÉ INTRINSÈQUE

Notes:
The products listed 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.

Jurisdictions in Canada may require these markings to also be provided in French language. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and add bilingual wording to the "Markings".