



cCSAus certificate:

EN

70059792

for

**VSI010, VSB010
and VSF00x**



Meggitt SA
Route de Moncor 4
PO Box 1616
CH - 1701 Fribourg
Switzerland

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Certificate of Compliance

Certificate: 70059792 **Master Contract:** 175074
Project: 70059792 **Date Issued:** 2017-02-16
Issued to: Meggitt SA
 Rte de Moncor 4
 Villars-sur-Glane, Fribourg 1752
 SWITZERLAND
Attention: Carlo Pellegrinelli

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: *Ҳоссеин Саҳаб*
 Hossein Saleh

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 2, Groups A, B, C, and D
Ex ic nA IIC T6...T4 Gc
Class I, Zone 2, AEx ic nA IIC T6...T4 Gc

VibroSmart Distributed Monitoring System consists of modules for measuring vibration on rotating machinery and interfacing with a control system over specific field buses. The VSI010 is supported by a dedicated base, VSB010. The base VSB010 provides external connections for buses, power supplies, digital inputs and relay contacts. The base VSB010 can be installed without the electronic module VSI010.

Ratings: 32 Vdc, 7.8W, 0.75A.

Connector J3 must be connected to intrinsically safe associated apparatus per installation drawing PZ 6993.

Entity parameters for each relay contacts on Connector J3, Pins 1, 2, 3 for RLY1 and Pins 4, 5, 6 for RLY2:
 U_i, V_{imax} = 45V; I_i, I_{max} = 0.95 A; C_i = 0; L_i = 0.

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The processing is performed in VSI010 electronic module, RS232 drivers are installed in VSB010 as well as an external adaptor, RS485 driver is mounted in a different external adaptor.

Type designation:

- VSI010: Electronic module
- VSB010: Base
- Two possible adaptors for fieldbus installations:
 - o VSF001: Serial Fieldbus Adaptor
 - o VSF002: Ethernet Fieldbus Adaptor

-25°C ≤ T_a ≤ +70°C

Temperature code depending on T_a:


T Code	T 6	T 5	T 4
Permissible ambient temperature on the electronics	- 25°C... + 35°C	- 25°C... + 50°C	- 25°C... + 70°C

Notes:

1. The above model is: fixed connection, Pollution Degree 2, Installation Category I.
2. Mode of operation: Continuous.
3. Environmental Conditions: Extended: Indoor use; -25°C to +70°C; altitude up to 2000m; RHP% of 0 - 95% (non-condensing).

Conditions of Acceptability

- To be supplied by a Class 2 or limited-energy source according to CSA 61010-1-12/ISA 61010-1 3rd Edition.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.
- Connector J3 (the relay contact connector) shall be used only with the pre-fabricated mating plug.
- The equipment shall be used in an area of not more than pollution degree 2 as defined in IEC 60664-1.
- This device shall be installed within a fixed end-use enclosure that provides a degree of protection not less than IP54 according to CSA/UL 60079-0, CSA/UL 60079-11, and CSA/UL 60079-15. The suitability of the enclosure is subject to investigation by the local authorities having jurisdiction at the time of installation.
- Under certain extreme circumstances, exposed plastic and unearthed metal parts of an end-use enclosure may store an ignition-capable level of electrostatic charge. Therefore such enclosure shall not be installed in a location where the external conditions can cause build-up of electrostatic charge on such surfaces. In addition, such enclosure shall only be cleaned with a damp cloth.
- The pluggable communication modules (i.e., RJ-45) and the fieldbus adaptors (i.e., VSF001, and VSF002) shall not be connected or disconnected in hazardous locations.
- The dip switches located on VSB010 and VSF001 shall not be toggled in hazardous locations.




Supplement to Certificate of Compliance

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

Project	Date	Description
70059792	2017-02-16	Original C-US Certification of VibroSmart DMS (Distributed Monitoring System) that includes the following electronic modules and accessories: VS1010, VSB010, VSF001, and VSF002 for: Class I, Division 2, Groups A, B, C, and D; Ex ic nA IIC T6...T4 Gc; Class I, Zone 2 AEx, ic nA IIC T6...T4 Gc; With temperature code depending on the ambient temperature as specified below: T6 for -25°C ≤ Tamb ≤ +35°C; T5 for -25°C ≤ Tamb ≤ +50°C; T4 for -25°C ≤ Tamb ≤ +70°C.

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 Project: 70059792 Date Issued: 2017-02-16

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10	General Requirements – Canadian Electrical Code, Part II
CAN/CSA C22.2 No. 61010-1-12	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part I: General Requirements - Third Edition
CSA Std. C22.2 No. 213-16	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA-C22.2 No. 60079-0:15	Explosive Atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-1:14	Explosive Atmospheres - Part 1: Equipment protection by intrinsic safety "i"
CAN/CSA-C22.2 No. 60079-15:16	Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection "n" electrical apparatus
ANSI/ISA-61010-1 3rd Edition	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part I: General Requirements - Third Edition
ANSI/ISA-12.12.01-2015	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
ANSI/UL 60079-0:13	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
ANSI/UL 60079-1:13	Electrical apparatus for Explosive Gas Atmospheres - Part 1: Intrinsic Safety "i"
ANSI/UL 60079-15:13	Electrical apparatus for Explosive Gas Atmospheres - Part 15: Type of Protection "n"

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