



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 SGS 24.0004X	Page 1 of 3	Certificate history:
Status:	Current	Issue No: 0	
Date of Issue:	2024-07-15		
Applicant:	STI Vibration Monitoring Inc. 1010 East Main Street League City Texas 77573 United States of America		
Equipment:	CMCP422/IS Series Accelerometers		
Optional accessory:			
Type of Protection:	Intrinsic Safety		
Marking:	Ex ia I Ma (-40°C ≤ Ta ≤ +60°C) Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +60°C) Ex ia IIIC T80°C IP65 Da (-40°C ≤ Ta ≤ +60°C)		

Approved for issue on behalf of the IECEx
Certification Body:

P Oates

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

15/7/2024

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:

SGS United Kingdom Ltd
Rockhead Business Park
Staden Lane
Buxton, Derbyshire SK17 9RZ
United Kingdom





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Manufacturer: **STI Vibration Monitoring Inc.**
1010 East Main Street
League City
Texas 77573
United States of America

Manufacturing
locations: **STI Vibration Monitoring Inc.**
1010 East Main Street
League City
Texas 77573
United States of America

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 60079-11:2011](#) 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/SGS/ExTR24.0014/00](#)

Quality Assessment Report:

[US/ETL/QAR20.0001/05](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The CMCP422/IS Series Accelerometers are designed to measure velocity or acceleration by converting the signal generated by the compression of a piezo electric crystal by a given seismic mass and output a 4 to 20mA signal proportional to velocity or acceleration to the monitoring equipment.

The accelerometer comprises a piezo electric crystal connected to a signal conditioning board all contained within a stainless-steel enclosure of various shapes measuring approximately 33cm³. The enclosure is a fully welded construction.

Electrical connections are made to the apparatus either via an IP65 rated connector or via an integral cable which is encapsulated in the end of the apparatus.

The CMCP422IS Series Accelerometers is designed to measure velocity and acceleration respectively and output a 4 to 20mA output. A variant of the accelerometer is also available with an integral temperature sensor.

Input Parameters

The Group II & III versions of the CMCP422/IS Series Accelerometer (excluding cable) have the following terminal parameters:

$U_i = 28V$ $C_i = 0$
 $I_i = 115mA$ $L_i = 0$
 $P_i = 0.65W$

The Group I versions of the CMCP422/IS Series Accelerometer (excluding cable) have the following terminal parameters:

$U_i = 16.5V$ $C_i = 0$
 $P_i = 1.74W$ $L_i = 0$

The apparatus must be powered from a power limited source such as an appropriately certified fuse assembly containing a $\leq 62mA$ fuse, 1.74W (16.5V x 62mA x 1.7).

The Group I version of the apparatus (excluding cable) has the following alternative terminal parameters:

$U_i = 28V$ $C_i = 0$
 $I_i = 115mA$ $L_i = 0$
 $P_i = 0.65W$

The capacitance and inductance to resistance ratio of the different versions have the following parameters:

	Integral Cable or 2-Pin Mil Spec Connector with cable				4-Pin M12 Connector
	Polyurethane Cable	Silicone Cable	Armoured Cable	PUR Cable	Polyurethane Cable
C_i	= 160pF/m	= 370pF/m	= 290pF/m	= 884pF/m	= 120pF/m
L_i	= 0.72mH/m	= 0.5mH/m	= 0.5mH/m	= 0.6mH/m	= 0.7mH/m
L_i/R_i	= 8.32 μ H/ Ω	= 15.4 μ H/ Ω	= 15.4 μ H/ Ω	= 6.1 μ H/ Ω	= 11.7 μ H/ Ω

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The free end of the cable on the integral cable version of the apparatus must be terminated in an appropriately certified dust proof enclosure.