

**EU - TYPE EXAMINATION CERTIFICATE**

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 2014/34/EU**

EU - Type Examination  
Certificate Number: **SGS23ATEX0196X**

Product: **CMCP700/IS Series Accelerometer**

Held by: **STI Vibration Monitoring Inc.**

Address: **1010 East Main Street, League City, Texas 77573, USA**

This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **GB/SGS/ExTR24.0015/00**

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0: 2018 EN 60079-11: 2012**

except in respect of those requirements listed at item 18 of the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following :

**Refer to Certificate Schedule.**

SGS Fimko Oy Customer Reference No. **7977**

Project File No. **23/0479**

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## Schedule

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### 15 Description of Product

The CMCP700/IS Series Accelerometers are designed to measure acceleration or vibration by converting the signal generated by the compression of a Piezo electric crystal by a given seismic mass and outputting a broadband ac signal to the monitoring equipment.

The accelerometer comprises of a piezo electric crystal connected to a signal conditioning board, all contained within a fully welded steel enclosure.

CMCP7XXT/IS versions include a temperature transmitter.

CMCP760T/IS is a tri-axial sensor comprising three individual circuits with common 0V line, sharing a single set of parameters.

Electrical connections are made via a connector or integral cable.

The equipment carries the following markings:

Uni-axial accelerometers with integral cable (with or without temperature sensor)

|                                                                        |                                                          |
|------------------------------------------------------------------------|----------------------------------------------------------|
| $\langle \text{Ex} \rangle$ II 1G Ex ia IIC T6 Ga                      | $-55^{\circ}\text{C} \leq T_a \leq +57^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ II 1G Ex ia IIC T4 Ga                      | $-55^{\circ}\text{C} \leq T_a \leq +103^{\circ}\text{C}$ |
| $\langle \text{Ex} \rangle$ II 1D Ex ia IIIC T <sub>200</sub> 110°C Da | $-55^{\circ}\text{C} \leq T_a \leq +57^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ II 1D Ex ia IIIC T <sub>200</sub> 135°C Da | $-55^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ II 1D Ex ia IIIC T <sub>200</sub> 145°C Da | $-55^{\circ}\text{C} \leq T_a \leq +92^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ I M1 Ex ia I Ma                            | $-55^{\circ}\text{C} \leq T_a \leq +103^{\circ}\text{C}$ |

Uni-axial accelerometers with connectors (with or without temperature sensor)

|                                                                        |                                                          |
|------------------------------------------------------------------------|----------------------------------------------------------|
| $\langle \text{Ex} \rangle$ II 1G Ex ia IIC T6 Ga                      | $-55^{\circ}\text{C} \leq T_a \leq +57^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ II 1G Ex ia IIC T4 Ga                      | $-55^{\circ}\text{C} \leq T_a \leq +103^{\circ}\text{C}$ |
| $\langle \text{Ex} \rangle$ II 1D Ex ia IIIC T <sub>200</sub> 135°C Da | $-55^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ II 1D Ex ia IIIB T <sub>200</sub> 110°C Da | $-55^{\circ}\text{C} \leq T_a \leq +57^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ II 1D Ex ia IIIB T <sub>200</sub> 145°C Da | $-55^{\circ}\text{C} \leq T_a \leq +92^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ I M1 Ex ia I Ma                            | $-55^{\circ}\text{C} \leq T_a \leq +103^{\circ}\text{C}$ |

Tri-axial Accelerometers with integral cable and no temperature sensor:

|                                                                        |                                                          |
|------------------------------------------------------------------------|----------------------------------------------------------|
| $\langle \text{Ex} \rangle$ II 1G Ex ia IIC T6 Ga                      | $-55^{\circ}\text{C} \leq T_a \leq +69^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ II 1G Ex ia IIC T4 Ga                      | $-55^{\circ}\text{C} \leq T_a \leq +104^{\circ}\text{C}$ |
| $\langle \text{Ex} \rangle$ II 1D Ex ia IIIC T <sub>200</sub> 102°C Da | $-55^{\circ}\text{C} \leq T_a \leq +69^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ II 1D Ex ia IIIC T <sub>200</sub> 131°C Da | $-55^{\circ}\text{C} \leq T_a \leq +98^{\circ}\text{C}$  |
| $\langle \text{Ex} \rangle$ I M1 Ex ia I Ma                            | $-55^{\circ}\text{C} \leq T_a \leq +104^{\circ}\text{C}$ |

Triaxial accelerometers with connectors and no temperature sensor:

|                                                                            |                                                          |
|----------------------------------------------------------------------------|----------------------------------------------------------|
| $\langle \varepsilon_x \rangle$ II 1G Ex ia IIC T6 Ga                      | $-55^{\circ}\text{C} \leq T_a \leq +69^{\circ}\text{C}$  |
| $\langle \varepsilon_x \rangle$ II 1G Ex ia IIC T4 Ga                      | $-55^{\circ}\text{C} \leq T_a \leq +104^{\circ}\text{C}$ |
| $\langle \varepsilon_x \rangle$ II 1D Ex ia IIIC T <sub>200</sub> 135°C Da | $-55^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$  |
| $\langle \varepsilon_x \rangle$ II 1D Ex ia IIIB T <sub>200</sub> 102°C Da | $-55^{\circ}\text{C} \leq T_a \leq +69^{\circ}\text{C}$  |
| $\langle \varepsilon_x \rangle$ II 1D Ex ia IIIB T <sub>200</sub> 131°C Da | $-55^{\circ}\text{C} \leq T_a \leq +98^{\circ}\text{C}$  |
| $\langle \varepsilon_x \rangle$ I M1 Ex ia I Ma                            | $-55^{\circ}\text{C} \leq T_a \leq +104^{\circ}\text{C}$ |

The equipment has the following terminal parameters:

Uni-axial accelerometer:

| Connector Only         | ≤ 10m of Cable                  | ≤ 150m of Cable                  | ≤ 300m of Cable                  |
|------------------------|---------------------------------|----------------------------------|----------------------------------|
| $U_i = 28 \text{ V}$   | $U_i = 28 \text{ V}$            | $U_i = 28 \text{ V}$             | $U_i = 28 \text{ V}$             |
| $I_i = 93 \text{ mA}$  | $I_i = 93 \text{ mA}$           | $I_i = 93 \text{ mA}$            | $I_i = 93 \text{ mA}$            |
| $P_i = 0.65 \text{ W}$ | $P_i = 0.65 \text{ W}$          | $P_i = 0.65 \text{ W}$           | $P_i = 0.65 \text{ W}$           |
| $C_i = 1.2 \text{ nF}$ | $C_i = 5.2 \text{ nF}$          | $C_i = 61.2 \text{ nF}$          | $C_i = 64.2 \text{ nF}$          |
| $L_i = 0$              | $L_i = 10 \text{ } \mu\text{H}$ | $L_i = 150 \text{ } \mu\text{H}$ | $L_i = 150 \text{ } \mu\text{H}$ |

Tri-axial accelerometer:

| Connector Only         | ≤ 10m of Cable                  | ≤ 150m of Cable                  | ≤ 300m of Cable                  |
|------------------------|---------------------------------|----------------------------------|----------------------------------|
| $U_i = 28 \text{ V}$   | $U_i = 28 \text{ V}$            | $U_i = 28 \text{ V}$             | $U_i = 28 \text{ V}$             |
| $I_i = 93 \text{ mA}$  | $I_i = 93 \text{ mA}$           | $I_i = 93 \text{ mA}$            | $I_i = 93 \text{ mA}$            |
| $P_i = 0.65 \text{ W}$ | $P_i = 0.65 \text{ W}$          | $P_i = 0.65 \text{ W}$           | $P_i = 0.65 \text{ W}$           |
| $C_i = 3.6 \text{ nF}$ | $C_i = 7.6 \text{ nF}$          | $C_i = 63.6 \text{ nF}$          | $C_i = 66.6 \text{ nF}$          |
| $L_i = 0$              | $L_i = 10 \text{ } \mu\text{H}$ | $L_i = 150 \text{ } \mu\text{H}$ | $L_i = 150 \text{ } \mu\text{H}$ |

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## 17 Specific Conditions of Use

- Where the sensor is supplied with an integral cable, this must be terminated in an enclosure providing at least degree of protection IP20.
- The equipment is marked with reduced certification marking. Refer to Certificate Schedule for full certification markings & applicable temperature classification and associated ambient temperature range.

## 18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

| Clause | Subject                                            |
|--------|----------------------------------------------------|
| 1.2.7  | LVD type requirements                              |
| 1.2.8  | Overloading of equipment (protection relays, etc.) |
| 1.4.1  | External effects                                   |
| 1.4.2  | Aggressive substances, etc.                        |

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**19 Drawings and Documents**

| Number    | Sheet  | Issue | Date     | Description                                                                                               |
|-----------|--------|-------|----------|-----------------------------------------------------------------------------------------------------------|
| M06-108-D | 1 of 3 | D     | 22/03/24 | General arrangement and product information for Group I, Group II and Group III CMCP700/IS Accelerometers |
| M06-108-D | 2 of 3 | D     | 22/03/24 | General arrangement and product information for Group I, Group II and Group III CMCP700/IS Accelerometers |
| M06-108-D | 3 of 3 | D     | 22/03/24 | General arrangement and product information for Group I, Group II and Group III CMCP700/IS Accelerometers |

For all other constructional drawings refer to Baseefa18ATEX0130X