FUNCTIONAL SAFETY

CERTIFICATE

CERTIFICATO – ZERTIFIKAT – CERTIFICADO – CERTIFICAT

The product:

Industrial Seismic Accelerometer SA6200A

Manufactured by:

Metrix Instruments Co.
8824 Fallbrook Dr. Houston, TX 77064
United States of America

suitable for the following safety function(s):

To monitor constantly the machine vibration level at the portion where the device is installed and to provide an analog voltage output proportional to the measured vibration (mV/g)

has been assessed per the relevant requirements of

IEC 61508:2010 Parts 1 to 2

and meets the requirements providing the following:

Systematic Capability: The compliance with the requirements for the avoidance of systematic faults and the requirements for the control of systematic faults have been achieved following the compliance route 1_S.	SC 3
Hardware Safety Integrity: The constraints on hardware safety integrity have been verified in order to achieve a sufficiently robust architecture taking into account the level of element and subsystem complexity following the compliance Route 1_H and Route 2_H.	Type A
Random Safety Integrity: The estimated safety integrity, for each safety function, due to random hardware safe and dangerous failures rates (excluding "no part" and "no effect" contribution).	See page 2

The architectural constraints and the effects of random failures (PFH/PFD_{AVG}) must be verified for each specific application and safety function implemented by the E/E/PE safety-related system.

Certified by:

BYHON

BYHON Certification Director:

Rosati Francesco

CERTIFICATE No:
MTXI-6200A-ENS-B01

Issued:
June 19th, 2025

Valid until:
June 18th, 2028

The owner of a valid certificate for an assessed product is authorized to affix the following mark to all recognized devices which are identical to the product assessed.

BYHON SIL

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17065
PRODUCT CERTIFICATION BODY
#8914

METRIX DOC NO: 1930402
REV: B

The design of each Safety Instrumented Function (SIF) shall meet the requirements listed in the reference standards that shall be selected by taking into account the specific application. Specific activities necessary to investigate and reach a judgment on the adequacy of the functional safety achieved by the E/E/PE safety-related system or compliant items (elements/subsystems) has been conducted by an independent assessor.

The following failure rates data shall be used to the PFH/PFD_{AVG} estimation, taking into consideration all parameters such as redundancy, architectural constraints, diagnostic capability, also introduced by the whole system, including the considerations about the proof test and its effectiveness, mean time of restoration, up to the maintenance capability and its minimum characteristics.

Device failure rates

Configuration	λ_S	λ_{DU}	λ_{DD}
With external out-of-range diagnostics	-	64	102
Without external diagnostics	-	166	-

Note:

- All failure fates are in FIT (Failure In Time 1 FIT = 1 failure / 10^9 hours).
- The prescriptions contained in the safety manual no. QP064-45 shall be followed.
- The device can be used up to SIL 2 application with HFT=0 and up to SIL 3 application with HFT=3.

CERTIFICATE NO:
MTXI-6200A-ENS-B01
Revision: A

Issued:
June 19th, 2025

Valid until:
June 18th, 2028

The Functional Safety Assessment report no.

25-MTX-6200A-FSA-01

dated:
June 19th, 2022

is an integral part of this certificate

Mod_12_CB Rev09

BYHON
Via Lepanto 23, 59100
Prato (PO)
ITALY

The following pages are the prior revisions of this certificate.

FUNCTIONAL SAFETY

CERTIFICATE

CERTIFICATO – ZERTIFIKAT – CERTIFICADO – CERTIFICAT

The product:

Industrial Seismic Accelerometer SA6200A

Manufactured by:

Metrix Instruments Co.
8824 Fallbrook Dr. Houston, TX 77064
United States of America

suitable for the following safety function(s):

To monitor constantly the machine vibration level at the portion where the device is installed and to provide an analog voltage output proportional to the measured vibration (mV/g)

has been assessed per the relevant requirements of

IEC 61508:2010 Parts 1 to 7

and meets the requirements providing the following:

Systematic Capability: The compliance with the requirements for the avoidance of systematic faults and the requirements for the control of systematic faults have been achieved following the compliance route 1_S.	SC 3
Hardware Safety Integrity: The constraints on hardware safety integrity have been verified in order to achieve a sufficiently robust architecture taking into account the level of element and subsystem complexity following the compliance route 1_H.	Type A
Random Safety Integrity: The estimated safety integrity, for each safety function, due to random hardware safe and dangerous failures rates (excluding "no part" and "no effect" contribution).	See page 2

The architectural constraints and the effects of random failures (PFH/PFD_{AVG}) must be verified for each specific application and safety function implemented by the E/E/PE safety-related system.

Certified by:

BYHON

BYHON Certification Director:

Rosati Francesco

CERTIFICATE No:
MTXI-6200A-ENS-E01
Revision: A

Issued:
June 15th, 2022

Valid until:
June 14th, 2025

The owner of a valid certificate for an assessed product is authorized to affix the following mark and relative ID number, to all recognized devices which are identical to the product assessed.

BYHON SIL ✓
ID.N°010522EN06A

ANSI ACCREDITED
#8914
ISO/IEC 17065
Product Certification Body

METRIX DOC NO: 1930402
REV: A

The design of each Safety Instrumented Function (SIF) shall meet the requirements listed in the reference standards that shall be selected by taking into account the specific application. Specific activities necessary to investigate and reach a judgment on the adequacy of the functional safety achieved by the E/E/PE safety-related system or compliant items (elements/subsystems) has been conducted by an independent assessor.

The following failure rates data shall be used to the PFH/PFD_{AVG} estimation, taking into consideration all parameters such as redundancy, architectural constraints, diagnostic capability, also introduced by the whole system, including the considerations about the proof test and its effectiveness, mean time of restoration, up to the maintenance capability and its minimum characteristics.

Device failure rates

Configuration	λ_S	λ_{DU}	λ_{DD}
With external out-of-range diagnostics	-	64	102
Without external diagnostics	-	166	-

Note:

- All failure fates are in FIT (Failure In Time 1 FIT = 1 failure / 10^9 hours).

The prescriptions contained in the safety manual no. QP064-45 shall be followed.

CERTIFICATE NO:
MTXI-6200A-ENS-E01
Revision: A

Issued:
June 15th, 2022

Valid until:
June 14th, 2025

The Functional Safety Assessment report no.

22-MTX-6200A-FSA-01

dated:
June 14th, 2022

is an integral part of this certificate

Mod_12_CB Rev03

BYHON
Via Lepanto 23, 59100
Prato (PO)
ITALY

METRIX DOC NO: 1930402
REV: A