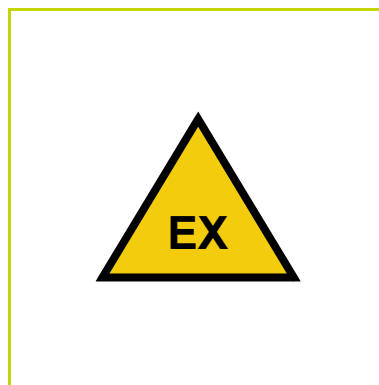


EX CERTIFICATE – IECEx

vibro-meter®


IECEx LCIE 21.0006X
for
IQS9xx signal conditioners



Note: Although the Ex certificate may be included in more than one language, the liability of the notified body applies only on the text of the original copy of the certificate that it published.

Document reference IECEx LCIE 21.0006X
Edition 3 – January 2024

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IECEX Certificate of Conformity

Page 2 of 4
Issue No: 2

Certificate No.: IECEX LCIE 21.0006X
Date of issue: 2023-11-17

Manufacturer: MEGGITT SA
 Route de Moncor 4
 1752 Villars-sur-Glâne
 Switzerland

Manufacturing locations:

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
IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "I"
 Edition:7.0
 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 Reports: FR/LCIE/EXTR21.0015/00
 FR/LCIE/EXTR23.0018/01

Quality Assessment Report: FR/LC/QAR06.0006/17



IECEX Certificate of Conformity

Page 1 of 4
Issue No: 2

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
 for rules and details of the IECEX Scheme visit www.ieceex.com

Certificate No.: IECEX LCIE 21.0006X
Status: Current
Date of issue: 2023-11-17


Applicant: MEGGITT SA
 Route de Moncor 4
 1752 Villars-sur-Glâne
 Switzerland

Equipment: IQS 9** Signal conditioner
Optional accessory:

Type of Protection: Ex Ia
Marking: Ex Ia IIC T6 or T5 Ga
 Ex Ia IIIC T200 80°C...T200 115°C Da

(Refer to the annex of the certificate for the full marking)



Approved for issue on behalf of the IECEX Certification Body: Julien GAUTHIER
Position: Certification Officer



LABORATOIRE CENTRAL DES INDUSTRIES ELECTRIQUES
 S.A.S au capital de 15 945 984 €
 33 Avenue du General Leclerc
 FR-92260 Fontenay-aux-Roses
 F. + 33 1 47 35 40 00

Signature: (for printed version)
Date: (for printed version) 2023-11-17

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.ieceex.com or use of this QR Code.

Certificate issued by:
Laboratoire Central des Industries Electriques (LCIE)
 33 Avenue du General Leclerc
 FR-92260 Fontenay-aux-Roses
 France



**IECEx Certificate
of Conformity**


Page 4 of 4
Issue No: 2

Certificate No.: **IECEx LCIE 21.0006X**

Date of issue: 2023-11-17

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
 Editorial correction of the report (EXTR No. FR/LCIE/EXTR23.0018/01).

Annex:
[Annex 01 to Certificate LCIE 21.0006X issue 02.pdf](#)



**IECEx Certificate
of Conformity**

Page 3 of 4
Issue No: 2

Certificate No.: **IECEx LCIE 21.0006X**

Date of issue: 2023-11-17

EQUIPMENT:
 Equipment and systems covered by this Certificate are as follows:
 The IQS 9** is a signal conditioner which is used in a proximity measurement system.
 The signal conditioner is composed of an aluminum enclosure, which houses an encapsulated printed circuit board, two terminal blocks -J1 and -J2, one connector -J0* and with an optional clip for DIN rail.
 The signal conditioner can be power supplied with two configuration, either by 2 wire transmission (I/P) or 3 wire transmission (OP).

Refer to the annex of the certificate for the full description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The apparatus must only be connected to galvanically isolated associated intrinsically safe apparatus or simple apparatus. This combination must be compatible as regard the intrinsic safety rules according to requirements of IEC 60079-25 standard.
- Temperature class of the signal conditioner depending on the ambient operating temperature range:

Temperature class	Ambient temperature
Gas	T6 $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +70^{\circ}\text{C}$
	T5 $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +85^{\circ}\text{C}$
Dust	T ₂₀₀ 80°C $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +50^{\circ}\text{C}$
	T ₂₀₀ 95°C $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +65^{\circ}\text{C}$
	T ₂₀₀ 115°C $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +85^{\circ}\text{C}$

- The enclosure of the signal conditioner is made of aluminium. It must be mounted in such a manner as to eliminate the risk of sparks caused by impact or friction.
- The apparatus must be installed per drawing n° PZ 9010 rev. 00 dated 2021/03/25.





**Annex 01 to Certificate
IECEX LCIE 21.0006X issue 02**

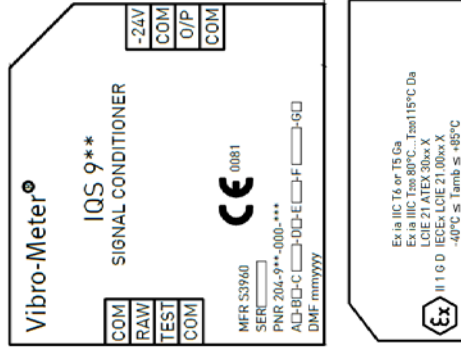
MARKING

Complete marking:

vibro-meter® or MEGGITT SA or MFR S3960
 Address: ...
 Type: 204-9**-000-*** (1)
 Serial number: ...
 Year of construction: ...
 Ex ia IIC T₂₀₀ 80°C...T₂₀₀ 115°C Da (2)
 IECEX LCIE 21.0006 X
 -40°C ≤ T_{amb} ≤ +85°C
 U_i; ...; I_n; ...; P_i; ...; C_i; ...; L_i; ... (3)
 U₀; ...; I₀; ...; P₀; ...; C₀; ...; L₀; ... (3)
 (1): completed with type designation,
 (2): see the specific conditions of use,
 (3): completed by intrinsic safety electrical parameters of the connection concerned.

Reduced marking:

vibro-meter® or MEGGITT SA or MFR S3960
 Type: 204-9**-000-*** (1)
 Serial number: ...
 Year of construction: ...
 Ex ia IIC T₂₀₀ 80°C...T₂₀₀ 115°C Da (2)
 IECEX LCIE 21.0006 X
 -40°C ≤ T_{amb} ≤ +85°C
 (1): completed with type designation,
 (2): see the specific conditions of use



RANGE DETAILS

204 - 9 * * - 000 - * * *	<p>Minor modification number (FFF = Form Fit Function) 0 to 9 (Each modification increase the number by 1)</p> <p>Customized version (special target material or mounting) 00 to 99</p> <p>Conditioner type 00 = Analog output 10 = 4-20mA output</p>
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**Annex 01 to Certificate
IECEX LCIE 21.0006X issue 02**

FULL EQUIPMENT DESCRIPTION

The IQS 9** is a signal conditioner which is used in a proximity measurement system.
 The signal conditioner is composed of an aluminum enclosure, which houses an encapsulated printed circuit board, two terminal blocks "J1 and J2", one connector "J0" and with an optional clip for DIN rail.
 The signal conditioner can be power supplied with two configurations, either by 2 wire transmission (I/P) or 3 wire transmission (O/P).

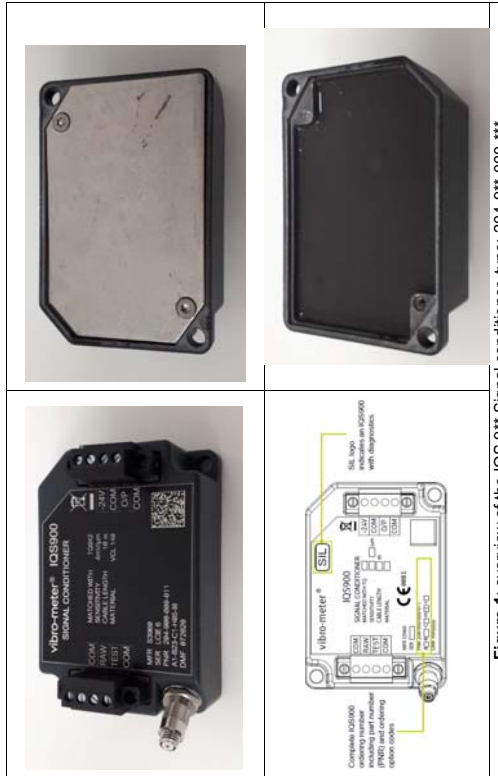


Figure 1: overview of the IQS 9** Signal conditioner, type: 204-9**-000-***



**Annex 01 to Certificate
IECEX LCIE 21.0006X issue 02**



RATINGS

IQS900	
Connection	Intrinsic safety electrical parameters
Terminal block "J1" - 2 wire transmission I/P	U_i : 28 V; I_i : 100 mA; P_i : 700 mW; L_i : 4.96 μ H; C_i : 2.2 nF
Terminal block "J1" - 3 wire transmission (O/P)	U_i : 28 V; I_i : 100 mA; P_i : 700 mW; L_i : 9.92 μ H; C_i : 4.4 nF
Terminal block "J2" - Raw O/P	U_o : 28 V; I_o : 4.57 mA; P_o : 32 mW; L_o : 1.7 H; C_o : 82 nF
Terminal block "J2" - Test I/P	U_o : 28 V; I_o : 0.057 mA; P_o : 0.4 mW; L_o : 11098 H; C_o : 82 nF
Connector "J0" - Sensor I/P	U_o : 28 V; I_o : 53.2 mA; P_o : 372.4 mW; L_o : 12.5 mH; C_o : 82.4 nF
IQS910	
Connection	Intrinsic safety electrical parameters
Terminal block "J1" - 4-20mA 2 wire transmission	U_i : 28 V; I_i : 100 mA; P_i : 700 mW; L_i : 9.92 μ H; C_i : 4.4 nF
Terminal block "J2" - Raw O/P	U_o : 28 V; I_o : 4.57 mA; P_o : 32 mW; L_o : 1.7 H; C_o : 82 nF
Terminal block "J2" - Test I/P	U_o : 28 V; I_o : 0.29 mA; P_o : 2.03 mW; L_o : 11098 H; C_o : 82 nF
Connector "J0" - Sensor I/P	U_o : 28 V; I_o : 53.2 mA; P_o : 372.4 mW; L_o : 12.5 mH; C_o : 82.4 nF



**Annex 01 to Certificate
IECEX LCIE 21.0006X issue 02**



FULL CONDITIONS OF CERTIFICATION

- a) The apparatus must only be connected to galvanically isolated associated intrinsically safe apparatus or simple apparatus. This combination must be compatible as regard the intrinsic safety rules according to requirements of IEC 60079-25 standard.
- b) Temperature class of the signal conditioner depending on the ambient operating temperature range:

	Temperature class	Ambient temperature
Gas	T6	$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +70^{\circ}\text{C}$
	T5	$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +85^{\circ}\text{C}$
Dust	$T_{200} 80^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +50^{\circ}\text{C}$
	$T_{200} 95^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +65^{\circ}\text{C}$
	$T_{200} 115^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +85^{\circ}\text{C}$
- c) The enclosure of the signal conditioner is made of aluminium. It must be mounted in such a manner as to eliminate the risk of sparks caused by impact or friction.
- d) The apparatus must be installed per drawing n° PZ 9010.