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 24.0048**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2024-11-25

Applicant: **Logitech Electronics Ltd**
Lane End
Church Aston
Newport
Shropshire TF10 9JJ
United Kingdom

Equipment: **HEX Series Hall Effect Sensors**

Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ia IIC T6…T3 Ga (-40°C ≤ Ta ≤ See Schedule)**
Ex ia IIIC T Da (-40°C ≤ Ta ≤ +110°C) ** See Schedule**

Approved for issue on behalf of the IECEx Certification Body: **P Oates**

Position: **Certification Manager**

Signature: (for printed version)



Date: (for printed version) 25/11/2024

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: **Logitech Electronics Ltd**
Lane End
Church Aston
Newport
Shropshire TF10 9JJ
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Manufacturing locations: **Logitech Electronics Ltd**
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Church Aston
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United Kingdom

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 60079-11:2023 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:7.0

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/ExTR24.0171/00

Quality Assessment Report:

GB/BAS/QAR21.0002/03

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The HEX Series Hall Effect Sensors are designed to detect the rotational speed of either ferrous or magnetic targets, for example gear wheels. They give a pulse output, approximately equal to the supply voltage, the frequency of which is proportional to the rotational speed of the target. They are intended to provide an output current of 80mA maximum.

The sensor consists of a Hall effect IC and a HEX682 PCB, which are housed in a stainless steel housing completely encased in epoxy resin.

The equipment has a three different termination options: Captive cable type, Flying lead type or Integral connector type.

Input Parameters:

U_i	=	30V
I_i	=	200mA
P_i	=	see below
C_i	=	25.8nF + Cable C (See Note below)
L_i	=	0 + Cable L (See Note below)

Note: Models of the equipment fitted with an integral cable can be fitted with up to 20 metres of cable at 260pF/m and 1µH/m. The relevant Cable C & Cable L for the cable length must be added to the Ci & Li figures defined above.

The relationship between maximum input power, maximum ambient temperature and corresponding temperature class for Gas atmospheres is shown in the table below:

Power, W	Maximum ambient temperature, °C			
	T3	T4	T5	T6
0.9	125	103	68	53
0.75	125	107	72	57
0.5	125	113	78	63
0.25	125	121	86	71

The relationship between the maximum input power and the maximum surface temperature of the equipment at a maximum ambient temperature of +110°C for Dust atmospheres is presented in the table below:

Power, W	Maximum ambient temperature +110°C
0.9	T_{200}172°C
0.75	T_{200}160°C
0.5	T_{200}139°C
0.25	T_{200}127°C

SPECIFIC CONDITIONS OF USE: NO