1 # UK-TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 UK-Type Examination Certificate Number: **SGS24UKEX0123 Issue 0**

4 Product: **HEX Series Hall Effect Sensors**

5 Manufacturer: **Logitech Electronics Ltd**

6 Address: **Lane End, Church Aston, Newport, Shropshire, TF10 9JJ United Kingdom**

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

8 SGS United Kingdom Limited (incorporating Baseefa Ltd), Approved Body number 1180, in accordance with Regulations 42 and 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in a confidential report identified in the revision table at item 20.

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

EN IEC 60079-0: 2018 IEC 60079-11: 2023

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

10 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.

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

12 The marking of the product shall include the following:

II 1GD Ex ia IIC T6…T3 Ga (-40°C ≤ Ta ≤ See Schedule)

Ex ia IIIC T Da (-40°C ≤ Ta ≤ +110°C) ** See Schedule**

SGS Customer Reference No. **7900** Project File No. **24/0242**

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UKAS PRODUCT CERTIFICATION
0191

Phil Oates
Certification Manager
On behalf of SGS United Kingdom Limited

13 # Schedule

14 ## Certificate Number SGS24UKEX0123 – Issue 0

15 Description of Product

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 completely encapsulated in epoxy resin in a stainless steel housing.

The equipment has 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 shown 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

16 Report Number

See Item 20 – Certificate History

17 Specific Conditions of Use

None.

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
13	Protection against other hazards (LVD type requirements, etc.)
14	Overloading of equipment (protection relays, etc.)
21 (1)	External effects
21 (2)	Aggressive substances, etc.

19 Drawings and Documents

Other than for Issue 0, Drawings and Documents that are introduced at a new edition of the certificate are marked with an asterisk symbol:

Number	Sheet	Issue	Date	Description
HEX_03	1 of 1	1.0	02/10/2024	HEX Label Control Drawing

The above drawing is common to IECEx SGS 24.0048 and SGS24ATEX0124.

20 Certificate History

Certificate No.	Date	Comments
SGS24UKEX0123 Issue 0	25 November 2024	Prime Certificate Report Number: GB/SGS/ExTR24.0171/00 Project Number: 24/0242 Original issue of the certificate
For drawings applicable to each issue, see original of that issue.		