1 # EU - TYPE EXAMINATION CERTIFICATE

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

3	EU - Type Examination Certificate Number:	**SGS24ATEX0124**
4	Product:	**HEX Series Hall Effect Sensors**
5	Manufacturer:	**Logitech Electronics Ltd**
6	Address:	**Lane End, Church Aston, Newport, Shropshire, TF10 9JJ, UK**

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

8 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/ExTR24.0171/00**

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 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.

12 The marking of the product shall include the following:

Ⓔx 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 Fimko Oy Customer Reference No. **7900** Project File No. **24/0242**

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13 # Schedule

14 ## Certificate Number SGS24ATEX0124

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

GB/SGS/ExTR24.0171/00

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
1.2.7	Protection against other hazards (LVD type requirements, etc.)
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
HEX_01	1 of 1	1.0	24/07/2024	HEX Circuit Diagram
HEX_02	1 of 1	1.0	29/06/2024	HEX PCB
HEX_03*	1 of 1	1.0	02/10/2024	HEX Label Control Drawing
HEX_04	1 of 1	1.0	20/06/2024	HEX Body
HEX_05	1 of 1	1.0	03/10/2024	HEX Terminations
HEX_06	1 of 1	1.0	09/10/2024	HEX Typical Construction

These drawings are common to IECEx SGS 24.0048.

*This drawing is common to SGS24UKEX0123.