



1. EC-TYPE EXAMINATION CERTIFICATE

2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3. **EC-Type Examination Certificate Number:** ITS13ATEX27806X

4. **Equipment or Protective System:** MPEX RANGE OF MAGNETIC PICKUPS

5. **Manufacturer:** LOGITECH ELECTRONICS LIMITED

6. **Address:** 121 Trench Road, Trench, Telford, TF2 7DP

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8. Intertek Testing and Certification Limited, notified body number 0359 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.


The examination and test results are recorded in confidential Intertek Report G101117289, Issue 1, dated June 2013.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN60079-0:2012, EN60079-11: 2012 and EN60079-26: 2007 except in respect of those requirements referred to at item 16 of the Schedule.

10. If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11. This EC Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12. The marking of the equipment or protective system shall include the following:-

 II 1 G Ex ia IIC T6...T3 Ga

(Refer to product description, section 14 for ambient temperature ranges and T classes.)

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P Moss
Certification Officer
03 September 2013

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SCHEDULE

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13. Description of Equipment or Protective System

The MPEX range of magnetic pickups consists of a wire coil with a ferrous pole piece and a PCB assembly. The equipment is housed in a metal enclosure and the PCB is fully encapsulated. The equipment has a range of different Coil options and two different PCB options depending on the size and shape of the enclosure. A number of variants of the enclosure are available. The equipment utilises the Intrinsic Safety Protection Concept Ex ia, and has maximum input parameters.

U_i: 30V
 I_i: 160mA
 P_i: 0.75W

The MPEX magnetic pickups generate an internal voltage dependant on the speed of the target object passing the pole piece. The maximum output voltage generated is internally limited by safety components to be no greater than 4.97V.

The ambient temperature ranges depend on temperature class and PCB used as follows:

Models using the ATEX10 PCB or having diameter <14mm.
 (MPEX11nn, MPEX11nnS, MPEX41nn, MPEX41nnS, MPEX41nnE)

T6 -20°C ≤ Ta ≤ +49°C
 T5 -20°C ≤ Ta ≤ +64°C
 T4 -20°C ≤ Ta ≤ +99°C
 T3 -20°C ≤ Ta ≤ +120°C

Models using the ATEX16 PCB or having diameter greater than 14mm:
 (MPEX06nn, MPEX08nn, MPEX06nnS, MPEX08nnS, MPEX06nnY, MPEX08nnY, MPEX16nn, MPEX16nnS, MPEX16nnY, MPEX18nn, MPEX18nnS, MPEX18nnY, MPEX36nn, MPEX38nn, MPEX36nnS, MPEX36nnY, MPEX38nnS, MPEX38nnY, MPEX56nn, MPEX58nn, MPEX56nnS, MPEX58nnS, MPEX66nn, MPEX66nnS, MPEX68nn, MPEX68nnS, MPEX76nn, MPEX78nn, MPEX76nnS, MPEX78nnS, MPEX76nnY, MPEX78nnY, MPEX34nn(L)X, MPU36nn(L)X)

T6 -20°C ≤ Ta ≤ +57°C
 T5 -20°C ≤ Ta ≤ +72°C
 T4 -20°C ≤ Ta ≤ +107°C
 T3 -20°C ≤ Ta ≤ +120°C

Product Model Nomenclature: MPEX 1 2 nn A -B

1: one digit - Termination type.
 2: one digit - Body thread type.
 nn: two to three digits - Thread length (mm).
 A: optional alpha characters - Material or other build detail.
 -B: one character - (I or M) Metric or Imperial.

The pickup must be connected via an ATEX certified Ex ia barrier with output not exceeding the parameters detailed above.

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14. **Report Number**

Intertek Report Ref: G101117289, Issue: 1, Dated: June 2013

15. **Conditions of Certification**

(a). Special Conditions for safe use

- This equipment has an electrically isolated pole piece having capacitance of up to 17pF. The user must determine the suitability of the equipment for the specific application. Precaution must be taken to avoid the accumulation of electrostatic charge on this part.
- Where the equipment enclosure is made from aluminium, the user must ensure that the equipment is protected from impact or abrasion that could cause incendive sparks.
- The label supplied with this equipment must be affixed immediately to the electrical cable.

(b). Conditions of Manufacture (Routine Tests)

- A dielectric strength test of 500Vac rms (48 – 62Hz) or 700V dc must be applied to every unit between the Circuit and the Enclosure and between the circuit and the pole piece. The voltage shall be applied for a period of 60 seconds. Leakage current must not exceed 5mA as per the requirements of Clauses 6.3.13 and 10.3 of EN60079-11: 2012.

16. **Essential Health and Safety Requirements (EHSR's)**

The relevant EHSR's have been identified and assessed in Intertek Report Ref: G101117289, Issue: 1, Dated: June 2013

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17. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
MPEX Label Control Drawing	MPEX Label	1.0	28/06/2013
Ex PCB Control Drawing	MPEX IS Detail	1.0	25/06/2013
EX requirements for construction of infallible coil	MPEX - Infallible coil construction	1.0	17/06/2013
General Assembly Drawing of EX certified product	MPEX06nn / 08nn series	1.0	07/05/2013
General Assembly Drawing of EX certified product	MPEX06nnS / 08nnS series	1.0	07/05/2013
General Assembly Drawing of EX certified product	MPEX06nnY / 08nnY series	1.0	07/05/2013
General Assembly Drawing of EX certified product	MPEX11nn series	1.0	01/05/2013
General Assembly Drawing of EX certified product	MPEX11nnS series	1.0	01/05/2013
General Assembly Drawing of EX certified product	MPEX16nn / 18nn series	1.0	07/05/2013
General Assembly Drawing of EX certified product	MPEX16nnS / 18nnS series	1.0	07/05/2013
General Assembly Drawing of EX certified product	MPEX16nnY / 18nnY series	1.0	07/05/2013
General Assembly Drawing of EX certified product	MPEX34nn(L)X / 36nn(L)X	1.0	16/04/2013
General Assembly Drawing of EX certified product	MPEX36nn / 38nn series	1.0	15/04/2013
General Assembly Drawing of EX certified product	MPEX36nnS / 38nnS series	1.0	15/04/2013
General Assembly Drawing of EX certified product	MPEX36nnSY / 38nnSY series	1.0	15/04/2013
General Assembly Drawing of EX certified product	MPEX36nnY / 38nnY series	1.0	15/04/2013
General Assembly Drawing of EX certified product	MPEX 41nn series	1.0	09/05/2013
General Assembly Drawing of EX certified product	MPEX 41nnE series	1.0	09/05/2013
General Assembly Drawing of EX certified product	MPEX 41nnS series	1.0	09/05/2013
General Assembly Drawing of EX certified product	MPEX56nn / 58nn series	1.0	03/05/2013
General Assembly Drawing of EX certified product	MPEX56nnS / 58nnS series	1.0	03/05/2013
General Assembly Drawing of EX certified product	MPEX66nn / 68nn series	1.0	03/05/2013
General Assembly Drawing of EX certified product	MPEX66nnS / 68nnS series	1.0	03/05/2013
General Assembly Drawing of EX certified product	MPEX76nn / 78nn series	1.0	15/04/2013
General Assembly Drawing of EX certified product	MPEX76nnS / 78nnS series	1.0	15/04/2013
General Assembly Drawing of EX certified product	MPEX76nnSY / 78nnSY series	1.0	15/04/2013
General Assembly Drawing of EX certified product	MPEX76nnY / 78nnY series	1.0	15/04/2013

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