



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 15ATEX1192X** Issue: **0**

4 Equipment: **U2-101\*S-PF Flame Monitoring Viewing Head**

5 Applicant: **Maxon Corporation**

6 Address: **A Honeywell Company  
201 E. 18th Street,  
Muncie  
Indiana 47302  
USA**

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

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012

EN 60079-1:2014

EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment 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 and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2 GD

Ex d IIC T6 Gb

Ex tb IIIC T85°C Db

IP66

Ta = -40 °C to +70 °C

Project Number 70026870

C Ellaby  
Deputy Certification Manager

This certificate and its schedules may only be reproduced in its entirety and without change.

Sira Certification Service

Unit 6, Hawarden Industrial Park,  
Hawarden, CH5 3US, United Kingdom



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 15ATEX1192X  
Issue 0

13 DESCRIPTION OF EQUIPMENT

The U2-101\*S-PF model series Flame Monitoring Viewing Head and Signal Processor is a flameproof "d" and dust ignition "t" enclosure.

The asterisk (\*) shown above may be replaced by digits: 0, 2, 6 or 8 corresponding to the type of sensor(s) employed. The U2-101\*S-PF may be followed by a hyphen and a two to four digit number: 00 to 1000 indicating the length of provided cable in feet.

The U2-S series is part of a flame monitoring or burner control system which senses the presence of ignition via Ultraviolet (UV) photo detector and/or Infrared (IR) solid state sensor and/or UV solid state sensor. The permanently mounted single-compartment cylindrical enclosure includes a threaded cover, two cemented window joints, and one 3/4 NPT conduit nipple / strain relief with flying lead conductors. The internal circuitry consists of the UV and/or IR sensors, the signal processor which can communicate externally via 2-wire Modbus, two sealed output relays, and a touch-sensitive touchwheel control with numeric display.

The overall physical dimensions of the U2-S series enclosure are 11.7 cm x 15.5 cm (Ø x L) cylindrical. The mass is approximately 2.8 kg.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	22 July 2015	R70026870A	The release of the prime certificate.

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

15.1 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.

15.2 The flameproof U2-101\*S-PF model series is provided with flying lead conductors exiting the 3/4 NPT conduit nipple / strain relief. A suitably certified Ex d conduit seal or cable gland shall be provided in the end installation within 50 mm of the enclosure.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

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## SCHEDULE

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- 17.3 In accordance with EN 60079-1:2014 clause 16, each U2-101\*S-PF model series enclosure shall be subjected to an Overpressure Test using a test pressure of 210 PSI (1448 kPa) for a minimum duration of 10 seconds. The test may be conducted at normal ambient temperatures. Individual parts of the flameproof enclosure may be tested separately. There shall be no permanent deformation of the joints or damage to the enclosure.

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# Certificate Annexe



Certificate Number: Sira 15ATEX1192X

Equipment: U2-101\*S-PF Flame Monitoring Viewing Head

Applicant: Maxon Corporation

## Issue 0

Drawing	Rev.	Pages	Date (Sira Stamp)	Title / Description
32-00015	03	1 to 16	30 Jun 15	U2-S series user manual
50108549-001	01	1 of 1	29 Jun 15	U2-S series enclosure bi-convex lens
50108556-001	A02	1 of 1	29 Jun 15	U2-S series enclosure cover machining
50108557-001	B01	1 of 1	29 Jun 15	U2-S series enclosure window
50110252-001	01	1 of 1	29 Jun 15	U2-S series enclosure window retention ring
50110254-001	A02	1 of 1	29 Jun 15	U2-S series enclosure convex lens retention ring
50121837-001-01	B01	1 to 6	20 Jul 15	U2-S series sensor board BOM
50121837-001-03	B01	1 to 3	20 Jul 15	U2-S series sensor board schematic
50121838-001-01	A01	1 to 4	29 Jun 15	U2-S series display board BOM
50121838-001-03	A01	1 to 2	29 Jun 15	U2-S series display board schematic
50122050-001	00	1 of 1	29 Jun 15	U2-S series enclosure body machining
50122054-001	00	1 to 6	29 Jun 15	U2-S series assembly
50122494-001	00	1 of 1	29 Jun 15	U2-101*S-PF 3/4 NPT conduit nipple / strain relief assembly
50122719-001-01	A01	1 of 1	29 Jun 15	U2-S series touchwheel board BOM
50122719-001-03	00	1 of 1	29 Jun 15	U2-S series touchwheel board schematic
50122725-001	A01	1 of 1	30 Jun 15	U2-1010S-PF marking label
50122727-001	A01	1 of 1	30 Jun 15	U2-1012S-PF marking label
50122729-001	A01	1 of 1	30 Jun 15	U2-1016S-PF marking label
50122731-001	A01	1 of 1	30 Jun 15	U2-1018S-PF marking label
50125696-001	00	1 of 1	02 Jul 15	U2-101*S-PF warning label
50125698-001	00	1 of 1	30 Jun 15	U2-S series flamepath drawing

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