

UK Type Examination Certificate CML 21UKEX2001 Issue 2**United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **ExTemp Series Infrared Temperature Sensor**
- 3 Manufacturer **Calex Electronics Ltd**
- 4 Address **Leedon House,
Billington Road,
Leighton Buzzard,
Bedfordshire,
LU7 4TN, UK**

- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-11:2012

- 10 The equipment shall be marked with the following:



II 1 G D

Ex ia IIC T4 Ga

Ex ia IIIC T135°C IP65 Da

Ta= -20°C to +70°C





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11 Description

The ExTemp is a series of intrinsically safe two-wire infra-red temperature sensors. The two wires are used for both the 4-20mA power/analogue output and digital communication for configuration of settings such as emissivity.

The device consists of a PCB assembly housed in a cylindrical stainless-steel enclosure of IP65 rating. The enclosure incorporates a lens at one end behind which is located an infra-red thermopile mounted on a daughter PCB. The permanently attached cable of up to 25m length exits through a cable gland at the other end of the enclosure.

The ExTemp Series (alternatively known as OSAT Series) is supplied in a number of configurations defined by the model number,

EX-FFF-TT-C-LL-XXX or OSAT-FFF-TT-C-LL-XXX

where

FFF = Field of view
TT = Measurement temperature range
C = Configurable
LL = Cable length
XXX = Other options

There are no differences between models prefixed with 'EX-' or 'OSAT-'.

The equipment has the following safety description:

Ui = 28V
Ii = 93mA
Pi = 0.651W
Ci = 8nF
Li = 0

Variation 1

This variation introduces the following modification:

- i. To recognise a typographic error in the evaluation report issue date; the issue date previously listed "01 Jan 2020" was corrected to "01 Jan 2021".

Variation 2:

This variation introduces the following modifications:

- i. Introduction of a new option of lens material and changes to the general assembly drawing.
- ii. Additional information relating to PCB copper thickness has been added to the drawings.
- iii. Change to the specification of a non-safety related component.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	01 Jan 2021	R13543B/00	Issue of Prime Certificate
1	23 Sep 2021	-	Variation 1. No evaluation report required/issued.
2	23 Jan 2026	R19426A/00	Introduction of Variation 2.

Note: Drawings that describe the equipment are listed in the Annex.



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13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. Production units must be capable of meeting the dielectric strength requirement of EN 60079-11:2012, Clause 6.3.13.

14 Specific Conditions of Use

None.

Certificate Annex

Certificate Number CML 21UKEX2001
Equipment ExTemp Series Infrared Temperature Sensor
Manufacturer Calnex Electronics Ltd



The following documents describe the equipment defined in this certificate:

Issue 0

For drawings relating to this issue, refer to certificate CML 14ATEX2079 Issue 2 and the associated reports. In addition to the drawings associated with CML 14ATEX2079 Issue 2, the following drawing includes the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
IRI-00021-EX	1 of 1	F	22 Dec 2020	ATEX/IECEx Label marking drawing

Issue 1

No drawings were introduced or revised for this certificate issue.

Issue 2

Drawing No.	Sheets	Rev	Approved date	Title
IRI-00020-EX	1 of 1	G	23 Jan 2026	ExTemp General Arrangement Drawing
IRI-00023-EX	1 of 1	D	23 Jan 2026	Board Layout
IRI-00024-EX	1 of 1	D	23 Jan 2026	Safety Distances
IRI-00025-EX	1 to 3	E	23 Jan 2026	ExTemp PCB Parts List