

Issue No: 2

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

EX COMPONENT CERTIFICATE

Certificate No.: IECEx UL 11.0013U Page 1 of 4 Certificate history:

Issue 1 (2018-11-02) Issue 0 (2011-04-26)

Status: Current

Date of Issue: 2019-12-16

Applicant: Adalet/Scott Fetzer Co.

4801 W. 150th Street Cleveland, OH 48135 United States of America

Ex Component: Push-To-Test Pilot Lights ELP-Series

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: Flameproof "db", Increased Safety "eb", Encapsulation "mb" and Dust Ignition Protection by Enclosure "tb"

Marking: Ex db eb mb IIC Gb

Ex tb IIIC Db

Approved for issue on behalf of the IECEx

Certification Body:

Position:

Signature:

(for printed version)

Date:

Katy A. Holdredge

Senior Staff Engineer

Kety a Halbridge

2019-12-16

.. This certificate and schedule may only be reproduced in full.

2. This certificate is not transferable and remains the property of the issuing body.

3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

UL LLC 333 Pfingsten Road Northbrook IL 60062-2096 United States of America





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Manufacturer: Adalet/Scott Fetzer Co.

4801 W. 150th Street Cleveland, OH 48135 United States of America

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements Edition:6.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" Edition:7.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"

Edition:4.1

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7:2017

Edition:5.1

Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

US/UL/ExTR11.0018/02

Quality Assessment Report:

US/UL/QAR08.0003/09



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Ex Component(s) covered by this certificate is described below:

The ELP-Series push-to-test pilot lights are intended for connection to the Cat. No. EBT contact block via a mounting bracket, both manufactured by Adalet, and intended to be mounted in an increased safety enclosure. The pilot light comes in 120 V, 12 V, or 24 V AC/DC versions, with a single LED and an amber, green, red or white cap. The LED is encapsulated through the base of the pilot light. The pilot light has an AL 6061 T6 metallic body and a Lexan 103 or 143 plastic cap.

Please see Annex for additional information and Schedule of Limitations.

SCHEDULE OF LIMITATIONS:

- Device must be mounted on a flat surface in a suitable 'Ex eb' increased safety enclosure and installed in accordance with installation instructions DS848.
- To maintain IP66 rating and/or Dust protection method 'tb', a minimum of three gaskets must be installed in accordance with applicable installation instructions DS848.
- All power is to be shut off before connecting/disconnecting the conductors from the terminals.
- For ambient temperatures below –10 C°, use field wiring suitable for the minimum ambient temperature.
- The water absorption test per Clause 8.1 of IEC 60079-18 has not been performed on this device due to the encapsulant being housed entirely within the pilot light cap and body.
- Only for use with the Cat. No. EBT contact block. One provided as standard.
- The Cat. No. EBT contact block will accommodate wire sizes from 22 AWG (0.5 mm²) to 12 AWG (4 mm²), with a maximum of two wires per terminal. Strip wire insulation 10-12 mm. Tighten terminal screws 7 to 10 in-lbs (0.8 to 1.2 N-m).
- The Cat. No. EBT contact block must be mounted to provide a minimum of 10 mm clearance to any conductive surfaces.
- When used with the Cat. No. EBT contact block, the device reaches a maximum temperature of 64°C corresponding to a temperature code of T6.
- During installation, wire leads from the LED circuit may be terminated on the EBT contact block or may utilize appropriate crimping or soldering facilities.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Added two new encapsulant options for ELP Series Pilot lights. Updated IEC 60079-0 4th Edition to IEC 60079-0 6th Ed. and updated IEC 61241-0 and IEC 61241-1 to IEC 60079-31 2nd Ed. Updated applicable marking strings and drawings with requirements for new editions of the standards.

Issue 2: Minor drawing updates. Updates IEC 60079-7, Ed. 5.0 to 5.1 and updates IEC 60079-18, Ed. 4.0 to Ed. 4.1.

Annex:

Annex to IECEx UL 11.0013U Issue 2.pdf



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TYPE DESIGNATION

Nomenclature for ELP-Series Pilot Lights:

ELP A 120

I – Push-To-Test Pilot Light Series ELP – Series Designation

II - Pilot Light Cap Color

A – Amber

G - Green

R - Red

W - White

III – Voltage Option

120 - 120 V AC/DC

12 - 12 V AC/DC

24 - 24 V AC/DC

PARAMETERS RELATING TO THE SAFETY

12 VAC/DC, 0.31 W, 24 V AC/DC, 0.58 W, 120 VAC/DC, 1.53 W

MARKING

ADALET CAT NO: ELP SERIES VOLT 4801 W 150TH, CLEVELAND, CH 44135 USA WATT	SEE INSTALLATION INSTRUCTION DOCUMENT
CI I, Div 2, Grp ABCD CI II Grp EFG (CANADA ONLY) Type 4,4X,12,13 Class 1, Zone 1, AEx db eb mb IIC T6 Gb -40 °C ≤ Ta ≤ +60 °C Ex db eb mb IIC T6 Gb X -40 °C ≤ Ta ≤ +60 °C EXECUTE: STEP 4578 NO CONT EQ FOR USE IN HAZARDOUS LOCATIONS	Ex db eb mb IIC Gb -40 °C ≤ Ta ≤ +60 °C Ex tb IIIC Db IP66 IECEX UL 11.0013U VEAR 0539 Il 2 G Ex db eb mb IIC Gb 0539 Il 2 D Ex tb IIIC Db IP66 DEMKO 11 ATEX 1005210U

ROUTINE EXAMINATIONS AND TESTS

- A visual inspection of the encapsulant is required per Clause 9.1 of IEC 60079-18. No damage shall be
 evident such as cracks, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling
 decomposition, failure in adhesion or softening.
- A routine dielectric test according to IEC 60079-18, Clause 9.2, is required on the ELP-Series pilot lights. The devices shall withstand 1500 V r.m.s. for at least 1 second or 1800 V r.m.s. for 100 ms without dielectric breakdown or arcing occurring.

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LIST OF CERTIFIED COMPONENTS

The following additional previous editions of Standards noted under the "Standards" section of the Certificate were applied to integral Components as itemized below. There are no significant safety related changes between these previous editions and the editions noted under the "Standards" section.

EBT Contact Block IEC 60079-1: 2007, IEC 60079-7:2006