

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEx UL 09.0003U	Issue		Certificate history:
Status:	Current			Issue No. 3 (2018-11-02) Issue No. 2 (2011-10-27)
Date of Issue:	2018-11-02	Page		Issue No. 1 (2009-12-30) Issue No. 0 (2009-09-01)
Applicant:	Adalet/Scott Fetzer Co. 4801 W. 150th Street Cleveland, OH 44135 United States of America			
Equipment: <i>Optional accessory:</i>	E-Series Pilot Lights			
Type of Protection:	Encapsulation "mb", Dust Protection by Enclosure "tb", Increased Safety "eb"			
Marking:	Ex mb IIC Gb			
	Ex eb mb IIC Gb			
	Ex tb IIIC Db			
Approved for issue on Certification Body:	behalf of the IECEx	Lucy Frieders		
Position:		Staff Engineer		
Signature: (for printed version)		Amybrieda	5	
Date:		2018-11-02		

1. 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 the Official IECEx Website.

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 44135 United States of America	

Additional Manufacturing location(s):

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 apparatus 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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-18 : 2014 Edition:4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

This Certificate does not indicate compliance with electrical 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/ExTR09.0003/03

Quality Assessment Report:

US/UL/QAR08.0003/08



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Schedule

#### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The E-Series pilot lights are 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 maximum of 7 LEDs, and an amber, green, red, or white cap. The 7 LEDs are encapsulated through the base of the pilot light. The pilot light has an AL 6061 T6 metallic body and a Lexan 101, 103, or 143 plastic cap.

Please see Annex for additional information and Schedule of Limitations.

SPECIFIC CONDITIONS OF USE: NO



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#### DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1: EL - T Models have been added to the E - Series pilot lights. The only difference between the new EL - T Series and models currently certified is that the EL - T series utilizies a terminal block instead of having loose leads. The terminal block is an Ex Component of protection type "e."

Issue 2: All models are manufactured without a socket; connection leads are directly soldered to LED lamp assembly using lead free solder. A gasket was added to prevent epoxy leakage. Gasket provides no Hazardous Locations protection.

Issue 3: Added two new encapsulant options for EL 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.



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Additional information:

Annex:

Annex to IECEx UL 09.0003U Issue 3.pdf

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### TYPE DESIGNATION

Nomenclature for E-Series Pilot Lights:

ELAT120IPilot Light SeriesELSeries DesignationIIPilot Light ColorAAmberGGreenRRedWWhiteIIITerminal BlockTPilot light provided with terminal blockBlankPilot light provided with leads

IV – 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, 0.6 W, 24 V AC/DC, 0.6W, 120 VAC/DC, 1.2W

### MARKING

ADALET CAT NO: EL SERIES VOLT	
CI I, Div 2, Grp ABCD CI II Grp EFG (CANADA ONLY) Type 4,4X,12,13 Class 1, Zone 1, AEx mb IIC T6 Gb $-34^{\circ}C \le Ta \le +60^{\circ}C$ Ex mb IIC T6 Gb X $-34^{\circ}C \le Ta \le +60^{\circ}C$	Ex mb IIC Gb -34 °C ≤ Ta ≤ +60 °C Ex tb IIIC Db IP66 IECEX UL 09.0003U 0539@II 2 G Ex mb IIC Gb -34 °C ≤ Ta ≤ +60 °C 0539@II 2 D Ex tb IIIC Db IP66 DEMKO 09 ATEX 146638U
ADALET CAT NO: ELT SERIES VOLT	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 eb mb IIC T6 Gb -34 °C $\leq$ Ta $\leq$ +60 °C Ex eb mb IIC T6 Gb X -34 °C $\leq$ Ta $\leq$ +60 °C HOLDER H HAZARODUB LICEN HAZARODUB	Ex eb mb IIC Gb -34 *C ≤ Ta ≤ +60 *C Ex tb IIIC Db IP66 IECEX UL 09.0003U 0539 ©II 2 G Ex eb mb IIC Gb -34 *C ≤ Ta ≤ +60 *C 0539 ©II 2 D Ex tb IIIC Db IP66 DEMKO 09 ATEX 146638U



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### **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 E-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.

### **SCHEDULE OF LIMITATIONS**

- Device must be mounted on a flat surface in a suitable 'Ex e' increased safety enclosure and installed in accordance with installation instructions DS844.
- The device reaches a maximum temperature of 76 °C corresponding to a temperature code of T6.
- To maintain IP66 rating and/or Dust protection method 'tD', a minimum of one gasket must be installed in accordance with applicable installation instructions DS844.
- 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.