IECEx Certificate of Conformity

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 No.:2	Certificate history: Issue No. 2 (2011-10-27) Issue No. 1 (2009-12-30) Issue No. 0 (2009-9-1)
Status:	**Current**		
Date of Issue:	**2011-10-27**	Page 1 of 5	

Applicant: **Adalet/Scott Fetzer Co.**
4801 W. 150th Street
Cleveland, OH 44135
United States of America

Electrical Apparatus: **E-Series Pilot Lights**
Optional accessory:

Type of Protection: **Encapsulation "mb", Protection by Enclosure "tD", Increased Safety "e"**

Marking: **Ex mb IIC**
Ex e mb II
Ex tD A21 IP66

Approved for issue on behalf of the IECEx Certification Body: Erin O'Shea

Position: Project Engineer

Signature: (for printed version) Erin O'Shea

Date: 2011-10-27

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:

Underwriters Laboratories Inc (UL)
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America

Working for a safer world

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Manufacturer: **Adalet/Scott Fetzer Co.**
4801 W. 150th Street
Cleveland, OH 44135
United States of America

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 electrical 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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-18 : 2004 Edition: 2.0	Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation 'm' electrical apparatus
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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/ExTR09.0003/00 US/UL/ExTR09.0003/01 US/UL/ExTR09.0003/02

Quality Assessment Report:

US/UL/QAR08.0003/03

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

Description
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.

Nomenclature for E-Series Pilot Lights:

EL A T 120
I II III IV

I – Pilot Light Series
EL – Series Designation
II – Pilot Light Color
A – Amber
G – Green
R – Red
W – White
III - Terminal Block
T - Pilot Light provided with Terminal Block
Blank - Pilot Light provided with leads
IV – Voltage Option
120 – 120 V AC/DC
12 – 12 V AC/DC
24 – 24 V AC/DC

CONDITIONS OF CERTIFICATION: NO

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EQUIPMENT(continued):

Temperature Range
The ambient temperature range is -55°C to +60°C.

Electrical Data
120 V AC/DC, 1.2 W
12 V AC/DC, 0.6 W
24 V AC/DC, 0.6 W

Routine 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.

Conditions for safe use:
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.

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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.