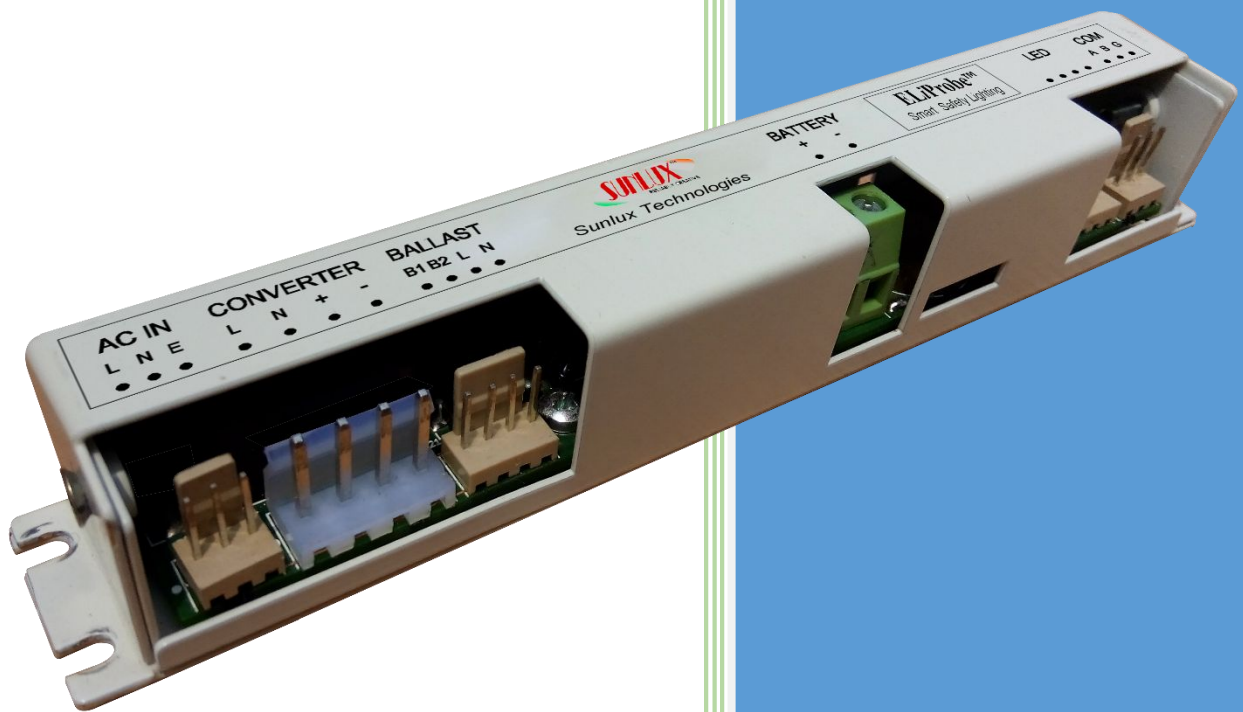


ELiProbe™ V1

Smart Safety Lighting



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1. Introduction

Emergency Light Built-In Self-Test (ELiProbe™) is a smart device which can enable the maintained or non-maintained luminaires to perform self-tests and report the health condition of each component of the luminaire to a remotely located ELiProbe™ Archiver.

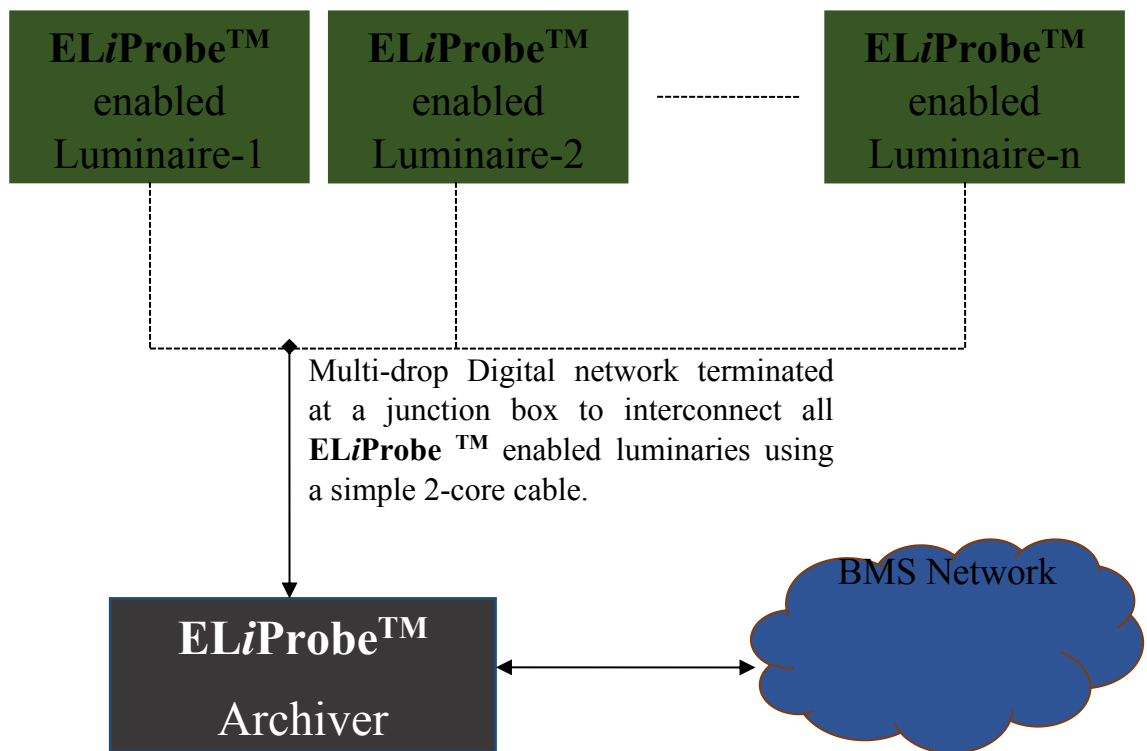
Following are the salient features of the ELiProbe™:

- ELiProbe™ can perform self-tests at pre-configured schedules such as
 - 1 minute test every week
 - 10 minute test every month
 - 30 minute test every 3 months
 - 180 minute / full discharge test every year
- ELiProbe™ can perform the test and determine the following health conditions:
 - Battery State of Health
 - Charger Health
 - Ballast Health
 - Lamp Health
 - AC Mains presence
- ELiProbe™ can store the test results up to 2 years with real time stamp in its non-volatile memory.
- ELiProbe™ can communicate with a remote ELiProbe™ Archiver on serial network by enabling the user to perform following operations remotely
 - Configuring the Test Schedule
 - Manually triggering a Functional Test
 - Retrieving the Test Results
- Multiple ELiProbe™ enabled luminaires can be connected on a common network.
- ELiProbe™ is designed to be fail safe, such that even if it fails, the luminaire operation does not get affected.

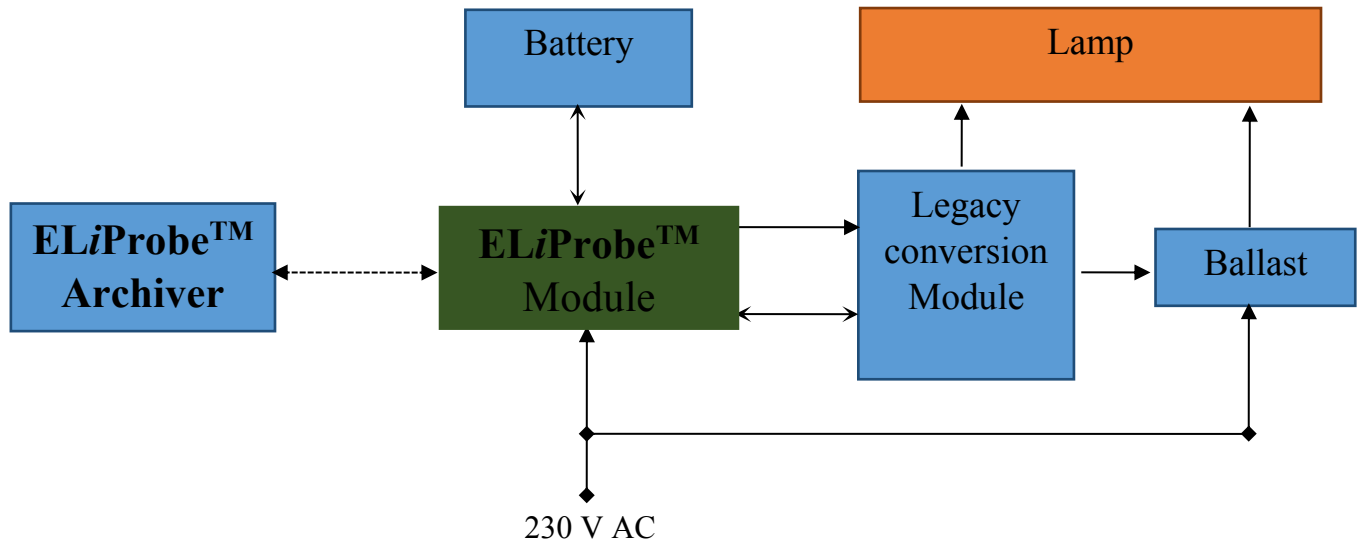
Following are the salient features of ELiProbe™ Archiver:

- Can collect all the Test Data from the ELiProbe™ modules on the network
- Can Store up to 10 years Test Data
- Web based application software for monitoring and configuration of the ELiProbe™ modules makes it easy to access the information
- Configuration of a new ELiProbe™ through a dedicated port and software tool.

2. System Architecture



3. Luminaire Architecture



4. Technical Specifications of ELiProbe™

a. Electrical Specifications

Input Power	12V or 6V DC System (5-16VDC)
Lamp Wattage	Max. 80W for 12V Max. 40W for 6V
Lamp Types	CFL or LED
CFL Ballast	Magnetic or Electronic
AC Mains Detection	85-265VAC, 47-63Hz, 1-ph Optically Isolated (1kVAC)
ELiProbe™ Power Consumption	Max. 0.6W
Communication	2-Wire Serial Multi Drop
Max. Nodes on the Network	60
Max. Length between Extreme Nodes	600m
LED Indicators	1x Green, 1x Red, 1x Amber



Connectors	1x RMC for Charger and Ballast 1x RMC for LEDs 1x RMC for Communication 2x Screw Terminals for Battery
Protection	Reverse Polarity protection Overload up to 120% Short Circuit Protection 4kV ESD Protection for Power & Communication lines 1kV Isolation for AC Mains detection

b. Mechanical Specifications

Dimension	150mm x 22mm x 20mm (approx.)
ELiProbe™ weight	100g

c. Environmental Specifications

Operating Temperature	0°C - 60°C
Operating Humidity	10 % - 95 % RH

d. Life

RTC Battery	5 years ⁽¹⁾
Module Life	10 years ⁽¹⁾

NOTE:

1. Subjected to normal operation



5. Technical Specifications of ELiProbe™ Archiver

a. Electrical Specifications

Input Power	12-24VAC/DC 85-265VAC, 47-63Hz (Optional)
Communication Ports	1x RS485 for ELiProbe™ Comm. 1x RS485 for ELiProbe™ Config. 1x 10/100MBPS Ethernet for Web Access
LED Indicators	1. Status LED 2. Power LED 3. Test-in-Progress LED
Connectors	3x Screw Terminals ELiProbe™ Comm Port 3x Screw Terminals ELiProbe™ Config Port 2x Screw Terminals Power 1x RJ45 Ethernet
Protection	Reverse Polarity protection Short Circuit Protection 4kV ESD Protection for Power & Communication lines

b. Mechanical Specifications

Dimension	100mm x 100mm x 60mm (approx.)
Weight	300g
Mounting	DIN Rail

c. Environmental Specifications

Operating Temperature	0°C - 60°C
Operating Humidity	10 % - 95 % RH

6. Connection Diagram

