

# Pluraluce® HZ Hazardous Compact Battery Unit



Job/Location: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Prepared By: \_\_\_\_\_  
 Model Number: \_\_\_\_\_ Date: \_\_\_\_\_



INDUSTRIAL APPLICATION EMERGENCY

## EXTERNAL SPECIFICATIONS

The **PLURALUCE® HZ** is engineered to protect the unit in environments where hazardous gas or dust may be present. The compact NEMA 4X design of the **PLURALUCE® HZ** is fully gasketed for protection against wet and dust-filled environments. The aluminum cover comes standard in a grey powder coat with optional painted or brushed finishes. Housing design acts as a large heat sink ensuring efficient thermal management and long operating life of the LEDs. An external test switch allows maintenance personnel to quickly perform testing and determine the operational status by way of a multi-coloured diagnostic LED.

## INTERNAL SPECIFICATIONS

The **PLURALUCE®** series is configured with two-wire 120-347VAC 60 Hz input. Solid state microprocessor controlled circuitry also includes line latch, brownout protection, battery and charge circuit monitoring, LED failure detection and reverse polarity protection. Ni-MH batteries are standard.

## INSTALLATION

The **PLURALUCE® HZ** unit is suitable for hazardous location surface wall and ceiling mounting. Suitable for NEMA 4X installations, Class I, Division 2, Groups A-D, Class II, Division 2, Groups E-G and Class III; T4.

## LED TECHNOLOGY

The **PLURALUCE®** is illuminated with four 2.5W Samsung LEDs. Under any operation, the **PLURALUCE®** delivers up to 845 lm. Each pair of LEDs are laid out in parallel on the LED module so if one pair fails, the other will remain illuminated. A high-efficiency LED driver is used to maintain a constant output current to all LEDs.

## AC INPUT RATINGS

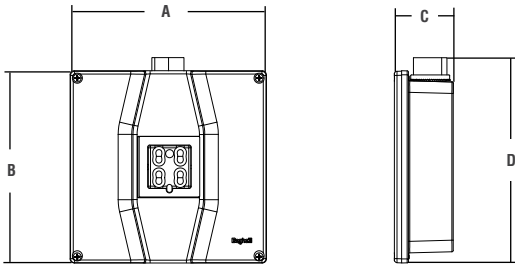
Operation	Voltage (VAC)	Wattage (W)	Rated Current (A)
AC Only	120/277/347	13.0/13.1/13.4	0.25/0.15/0.10
ACEM	120/277/347	17.3/17.0/17.1	0.35/0.25/0.15
EM	120/277/347	4.5/5.0/5.1	0.15/0.10/0.05

## ORDERING INFORMATION

Series	Operation	Voltage	Options
PL-HZ	EM (Emergency / AC fail only)	120-347V	AT (Auto-test)
	AC (Normally on)		90SP (90 min. emergency)
	*ACEM (Normally on / EM backup)		120SP (120 min. emergency)
			CC (Custom Colour - specify)
			BA (Brushed aluminum finish)
			TP (Tamper proof screw)

NOTE: \*Unswitchable EXAMPLE: PL-HZ-AC-120-347V  
 DESCRIPTION: Pluraluce® Hazardous surface mount, Normally-on mode, 120-347VAC

**DIMENSIONS (MM, IN.)**



Series	A	B	C	D
PL-HZ	184mm	181mm	54mm	190.5mm
	7 1/4"	7 1/8"	2 1/8"	7 1/2"

**NEMA 4X DESIGN**

The **PLURALUCE® HZ** has been designed to perform in applications with a wet or dust-filled environment. The entire internal cavity of the unit is protected from moisture ingress by an extremely resilient gasket. The gasketing always holds its original form and has “memory retention”.

**LENSES**

The **PLURALUCE®** surface is supplied with 3 lenses for a choice of distribution patterns. These custom designed lenses are constructed of optical grade polycarbonate. The symmetrical ceiling distribution is suitable for use in open areas with spacing of up to 28' on centre. The asymmetrical ceiling distribution is designed for use in hallways and corridors with spacing of up to 55' on centre. The asymmetrical wall distribution provides 35' on centre with a 6' wide path of egress. For AC and ACEM operations frosted lenses are provided.

**CHARGER SPECIFICATIONS**

The **PLURALUCE®** series utilizes a high-efficiency two stage charger providing precise float voltage control with low voltage disconnect protection. Program controlled trickle charge current is provided by the charging unit in order to maintain the optimum performance of the Ni-MH battery. All components used in the circuitry are temperature compensated. The charger also has brownout and short circuit protection. Charger status is easily

determined via a multi-coloured diagnostic LED indicator which displays AC/ON and High Charge. An external push button test switch allows maintenance personnel to quickly activate any manual tests on the fixture.

**BATTERY TECHNOLOGY**

The **PLURALUCE®** EM and ACEM versions come standard with a Ni-MH battery pack that provides a minimum of 30 minutes emergency duration. Optional 90 or 120 minute Ni-MH batteries are available. The maximum battery operating temperature is +40°C and the minimum is +10°C.

**BEGHELLI AUTO-TEST (AT)**

The Beghelli auto-test system automatically performs one 5 minute discharge test monthly and every 6 months it performs two full discharge tests, 24 hours apart. This tests both full battery capacity and recharge capability. The information is communicated simply and intuitively to maintenance personnel via a single multi-colour LED.

A manual Test feature is included when the Auto-test option is selected. The manual test will run a 30 second, 15 minute or 90 minute test by pressing the correct sequence of the test switch.

**OPERATION**

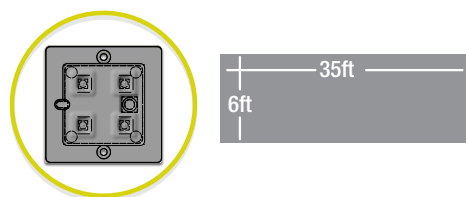
The **PLURALUCE®** is available with a choice of operations; EM, ACEM and AC. They have all achieved a truly universal AC input with a voltage design of 120 to 347VAC. EM and ACEM come with Ni-MH batteries and optional Auto-test and self-diagnostics circuitry. Under the EM operation, the unit is normally-off and will illuminate under an AC failure only. Under AC only operation, the unit is normally-on and does not illuminate under an AC failure. ACEM is normally-on under normally utility power. When AC power fails the unit will automatically provide emergency light.

**FCC**

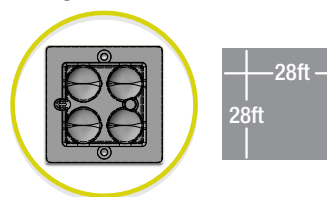
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**LENS DISTRIBUTION PATTERNS**

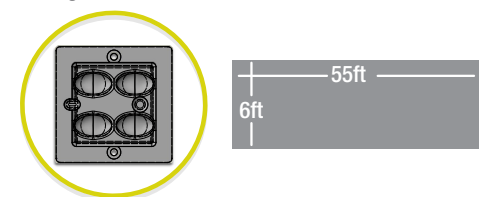
Wall:



Ceiling:



Ceiling:



Reflectancies are 80 x 50 x 20, measurements are not to scale