#### INTRODUCTION

This document explains how to install the Furse Lightning Strike Counter:

## **ESP LSC-B**







# 1. Safety note:

Warning! Installation by person with electrotechnical expertise only.

Warnung! Installation nur durch elektrotechnische Fachkraft.

Avvertenza! Fare installare solo da un elettricista qualificato.

Avertissement! Installation uniquement par des personnes qualifiées en électrotechnique.

Advertencia! La instalación deberá ser realizada únicamente por electricistas especializados.

# 2. Before installation

2.1 The Furse ESP LSC-B lightning strike counter is supplied as a complete unit comprising electronic counter display in protective housing.

# 3. Installation

## 3.1 Location

The ESP LSC-B unit as supplied is designed to be installed on:

- (a) External or internal flat tape and round (cable & wire and solid circular) down conductors (see Figure 1)
- (b) Earth cables leading to Surge Protective Devices (SPDs)

#### 3.2 Connection - new installations

The ESP LSC-B unit is supplied with a mounting plate at the rear for attachment to the conductor.

For new installations, the unit should be mounted onto the conductor in the preferred location whilst the external Lightning Protection System (LPS) is being fitted.



Figure 1: Furse ESP LSC-B secured to the down conductor of a building's lightning protection system.

Maximum conductor sizes (including PVC covering) are shown in the Conductor Size table (above right).

The mounting plate includes two screws which can be unfastened to enable the ESP LSC-B unit to be located onto the conductor without removing the enclosure (see Figure 2).

Conductor Size	
Flat Tape:	30 x 6 mm
Solid Circular:	6-10 mm Ø
Cable & Wire:	6-10 mm Ø

Tighten the screws on the mounting plate to secure the unit before setting the conductor against the wall. The mounting plate screws should be tightened to a maximum of 2 Nm.

Note: The ESP LSC-B unit must always be installed on straight conductors, at least 25 cm away from any bends in the conductor.

Secure the ESP LSC-B unit in place on the conductor using a down conductor clip placed 25 cm either side the unit. Contact Furse for advice on suitable clips.

# 3.3 Connection - existing installations

The ESP LSC-B unit should be fitted to the LPS using the mounting plate to secure the unit.

The mounting plate screws should be tightened to a maximum of 2 Nm.



Rear of ESP LSC-B showing mounting plate.

For simplicity of installation, the ESP LSC-B unit is best sited in a suitable position above the test clamp of the down conductor (for convenient periodic inspection).

The test clamp point is where the conductor can be easily disconnected.

The unit must be installed where the conductor is straight, and therefore should be sited at least 25 cm away from any bends, including the test clamp.

For additional security, install down conductor clips 25 cm either side of the unit.

Contact Furse for advice on suitable clips. Ensure the conductor is reconnected to the test clamp after installation of the ESP LSC-B unit.

### 3.4 Lightning strike counter

The ESP LSC-B unit features an electronic strike counter, situated within a protective polycarbonate enclosure.

The display is factory set to zero, and has a maximum display capability of 999999 lightning strikes.

The display cannot be manually adjusted and should be returned to the manufacturer if resetting is required.

Contact Furse for assistance.

## 3.5 Battery performance

The internal battery for ESP LSC-B unit has a design life up to 12 years. The battery is situated within the protective enclosure. Note: There are no user-serviceable parts within the ESP LSC-B unit and the unit should be returned to Furse for maintenance/battery replacement.

# Environment

Notes

Consider the protection of the environment!
Used electrical and electronic equipment
must NOT be disposed of with domestic waste. The
device contains valuable raw materials which can be
recycled. Therefore, contact ABB for disposal of this
equipment.



INSTALLATION INSTRUCTIONS

Lightning Strike

Counter

ESP LSC-B



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