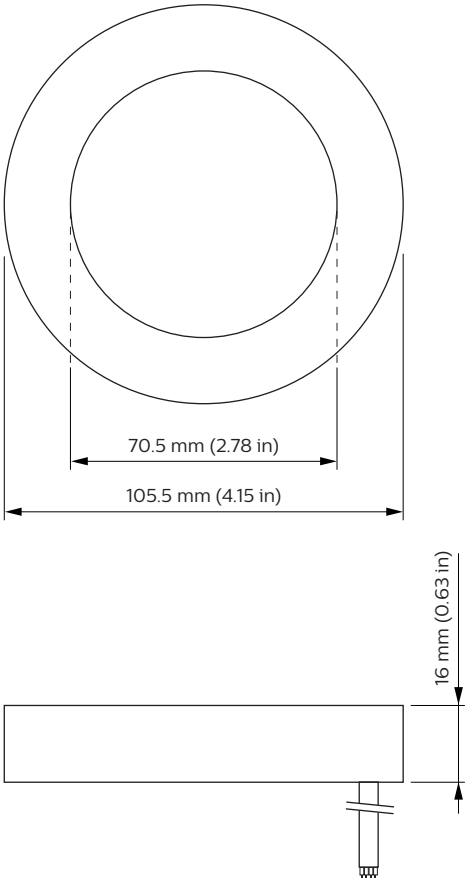
Specification Sheet

LCU7591
Leak Coil

The Leak Coil / current-sensor can be used in combination with the Current to measure the leakage current, in order to monitor possible failures and unsafe situations. The leakage current threshold value can be configured to fit specific needs with a web application that runs on a central server. The 3-phase coil must be used in combination with the Current. In - a centralized streetlight control system - the Current is used for monitoring the individual control cabinets. The Current can be used for a wide range of monitoring purposes. Power failures, cable breakages, street lamp failures, leakages, etc. are immediately reported to the central server. Direct communication between the modules takes place by means of an A-Bus interface, which is based on the industrially proven RS-485 technology. The A-Bus interface is also used to power supply the other modules.

For more detailed information, see the specific manuals and guides.

Dimensional drawing



Functionality

Communication	The Leak Coil is an AC measurement coil. The output signal represents the wave-form of the leakage current that can be interpreted by the Current.

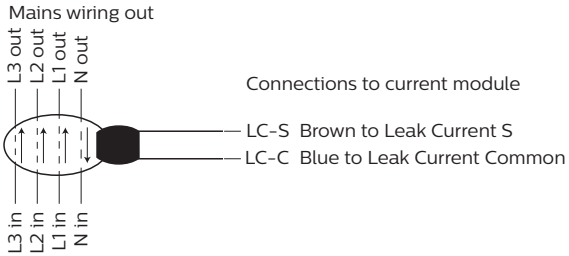
Installation

The Leak Coil should be protected from dust and water, preferably by enclosing the system in a metal IP class 65 (NEMA type 4) outdoor cabinet.

Warning

Do not cut the cable connected to the sensor.
Make sure all sensor wires are connected to the right input of the Current.
Don't leave wires of the sensor floating!
Never connect the sensor wires while mains is connected!

Wiring



Connection wires: 0.5 mm² (AWG 20)

Specifications

Environmental conditions

Storage temperature	-40 to 85 °C (-40 to 185 °F)
Operating temperature	-20 to 60 °C (-4 to 140 °F)
Max humidity	90% (non-condensing) (IP protection level 54)

Supply characteristics

Current sensor specifications	
Frequency range	48 to 62 Hz
Transformer ratio	200 : 1 (primary : secondary)
Maximum primary voltage	600 Vrms
Rated primary current	10 A, cat III (maximum leakage current, not the individual current per conductor)
Maximum primary current	100 A
Nominal secondary current	0 to 100 mA
Accuracy	1.5% (in combination with Current)
Insulation between primary and secondary	≥ 4 kV

Mechanical

Mounting	No mounting holes of flanges present, only fix with insulating materials
Color	black
Cable Length	3,000 mm ±50mm (9.8 ft ±2 in)
Cores	0.5 mm^2 (AWG 20)
Colors	Black PVC sheath, cores: blue and brown
Weight	425 g (15 oz)

Robustness and reliability

Operational lifetime	70,000 hrs
Lifetime failure rate	<=10%

Connections

Stripped length	Outer insulator (sheath) 40 mm ±5 mm (1.6 in ±0.2 in) Core insulators (wires) 5 mm ±1 mm (0.2 in ±0.04 in)

Standards and approvals

2006/95/EC, Low Voltage Directive (LVD)
2004/108/EC, EMC Directive
1999/5/EC, R&TTE Directive
2002/95/EC, RoHS Directive
2006/121/EC, REACH directive
UL 916
C22.2 No.205-M1983

Packing data

Type	Box dimensions	Qty	Material	Weight	
				net	gross
LCU7591 Leak Coil	360 x 285 x 180 mm (14.1 x 11.2 x 7.1 in)	18	Cardboard	7.65 kg (16.9 lb)	8.28 kg (18.2 lb)

Ordering Data

Type	MOQ	Ordering number	EAN code level 1	EAN code level 3	EOC
LCU7591 Leak Coil	1	9137 003 41903	8727900 947748	8727900 947755	947748 00