PHILIPS

LFC7520

Product Guide

Switch

The Switch is a client interface module in the Cabinet Control. It consists of two individually controllable relays. These relays are galvanically isolated and are used for switching minor loads on and off directly and three-phase or larger loads via an intermediate breaker. One of the two relays provides both NO and NC functionality; the other one only provides NO.

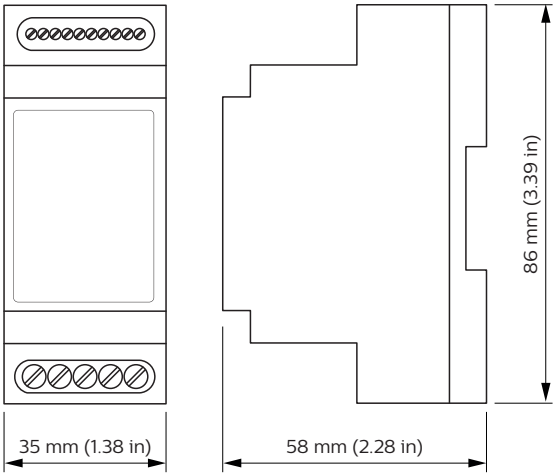
The Switch can be used for a wide range of purposes that require stable and reliable control. In the Cabinet Control, this module is used for controlling lights via a breaker.

All modules in the Cabinet Control incorporate an A-Bus interface which is based on the industrially proven RS-485 technology. The A-Bus interface is used for power supply and for direct communication between the modules.

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

LFC7520

Dimensional drawing



Functionality

Communication	A-Bus two-way communication with A-Bus masters (the SCU).
Auto discovery	The module is automatically discovered by the SCU. In case a module is disconnected from the SCU, this is reported to the server application and the module is listed as missing. If the module is reconnected to the SCU or another SCU, it will be rediscovered by the system.
LED	Status LED (green): indicates whether the A-Bus is up and running.

Connections

A-Bus	A-Bus client module, check SCU specification for details
Switch	
contact ratings	5 A (NO) /3 A (NC) at 277 VAC resistive. 10A (NO) at 125 VAC resistive
Max. Switched Voltage	AC: 277 V
Max. Switched Current	10 A (NO) / 3 A (NC)
Max. Switched Power	1400 VA, 150 W (NO); 850 VA, 90 W (NC)
Endurance on given maxima	100,000 operations

Contact your local Signify representative for information about other types of loads.

Reliability & Maintainability

Software upgrade	The software on the Switch can be updated remotely from the central server.
Installation of new software	New software is transferred without interrupting the normal functionality of the Switch. When the software has been transferred, the integrity of the software is checked and the software is installed.
Self-test	A built-in self-test is performed after power-up.
Watchdog and brown-out reset	Watchdog and brown-out reset ensure that the system is up and running at all times.

Installation

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

Warning
The two independent relay contacts may only be connected to the same mains phase, the voltage between contacts may not exceed 277 Vac.

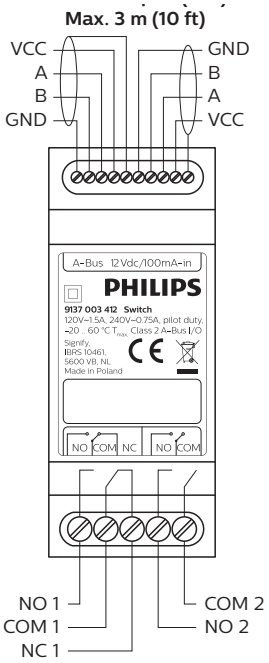
Warning
Risk of Electric Shock - More than one disconnect switch may be required to de-energize the equipment before servicing.

If it is needed to install multiple Switch modules, it is required to install the modules with the serial numbers in increasing order (from left to right).

Use shielded cables, with the shield connected to GND (pin 5 and 10 for the A-Bus). If the use of shielded cables is not possible keep the cable length as short as possible and avoid placement close to sources of interference, such as RF antennas and mains power lines.

A-Bus cable	Use shielded twisted pair (2x2) cable the Switch can be connected to any master module in the Cabinet Control, such as the SCU. Double connections on the A-Bus makes daisy-chaining of the signals easy. For detailed information, see wiring diagrams.
A-Bus cable length	< 3 m (10 ft)
Switch connection cable length	< 3 m (10 ft)
Switch connection cable	Use copper conductors only and wires rated at 65 °C (149 °F) minimum.

Wiring



Switch connection

Terminals: 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)

Supply characteristics

Input voltage	12 Vdc via A-Bus
Current	Typical 20 mA Maximum 100 mA

Mechanical

Housing	Top part Gray (RAL 7035) Lexan 940 Base part Black (RAL 7021) Noryl VO 1550 Coating Conformal coated
Mounting	DIN-rail (EN50022)
Weight	64 (2.3 oz)

Connections

Switch connector	0.14 to 1.5 mm² (AWG 26 to 16) solid/ stranded; copper conductors only, wire rating 65 °C (149 °F) min.; wire strip length: 6mm; screwdriver, bladed, size 0.4 x 2.5 VDE insulated; tightening torque: min 0.5 Nm, max 0.6 Nm (4.5 to 5.3 lb in)
A-Bus connector	0.14 to 0.5 mm² (AWG 26 to 20) solid/ stranded; copper conductors only, wire rating 65 °C (149 °F) min.; wire strip length: 4.5 mm; screwdriver, bladed, size 0.4 x 2.0; tightening torque: min 0.12 Nm, max 0.15 Nm (1.1 to 1.3 lb 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
LFC7520	395 x 290 x 205 mm (15.6 x 11.4 x 8.1 in)	60	Cardboard	3.84 kg (8.47 lb)	4.74 kg (10.4 lb)

Ordering Data

Type	MOQ	Ordering number	EAN code level 1	EAN code level 3	EOC
LFC7520/00 Switch	1	9137 003 41203	8727900 947540	8727900 947557	947540 00