

LBB 4414/xx and PRS-FINMO Fiber Interface

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- ▶ Redundant network connection
- ▶ Power 'ON' indication
- ▶ Error indication
- ▶ Two supervised control inputs (not LBB 4414/10)
- ▶ Can use a local power supply

Most of the Praesideo system units have plastic fiber optic interfaces. Plastic fiber is used to interconnect nodes which are less than 50 meters apart. For distances of more than 50 meters, glass fiber optic cable is used. A fiber interface converts from plastic to glass fiber, and vice versa. The fiber interface has a power supply input to provide power to remote network sections, and two control inputs. The control inputs can pass on supervision information about the power supply connected to the fiber interface.

Functions

The unit interfaces glass fiber optical cable with plastic fiber optical cable, and supports redundant wiring topology. In many applications this is necessary, because glass fiber can bridge much longer distances than plastic fiber. Any conversion to glass fiber must be converted back to plastic fiber before any Praesideo equipment can be attached, since they all have plastic fiber interfaces. This means that these units are always used in pairs.

The interface can use an external 48 VDC power supply to provide power for itself, as well as for remote parts of the network. If there is no external power source, the interface uses power from the network controller. The LBB 4414/00 and PRS-FINMO have two control inputs. These can be used to connect to the fault output of the external power supply (UPS), allowing the units to monitor the power, reporting faults to the network controller. The fiber interfaces have two LEDs for diagnostic purposes.

The LBB 4414/10 is the same as the LBB 4414/00 except that it has no network node address. This has the advantage that the unit does not occupy one of the 60 possible addresses in the network. It also has the disadvantage that without an address, it is not possible to access the status of the two control inputs, as it is with the LBB 4414/00.

The PRS-FINMO is the same as the LBB 4414/00, except that it accepts monomode glass optical fiber instead of multimode glass optical fiber. However, this does not increase the maximum permitted cable length of a Praesideo network.

Controls and indicators

- Power status LED
- Network status LED

Interconnections

- Network connection for plastic optical fiber
- Network connection for glass optical fiber
- External power supply input
- Two control inputs

Certifications and approvals

Safety	acc. to IEC 60065-98
Eye safety	acc. to IEC 60825-1
Immunity	acc. to EN 55103-2
Emissions	acc. to EN 55103-1 / FCC-47 part 15B
EVAC (TÜV certified)	acc. to IEC 60849 / BS 5839-8

Region	Certification
Europe	CE

Installation/configuration notes

The LBB 4414/10 and the LBB 4414/00 are often used in combination. The LBB 4414/10 is placed in the local (POF) network, and connected to a (remote) LBB 4414/00, which can then provide remote monitoring.

The PRS-FINMO is mostly used in installations where monomode (single mode) glass fiber is already present. Otherwise multimode glass fiber is a cheaper alternative.

Parts included

Quantity	Component
1	LBB 4414/xx or PRS-FINMO Fiber Interface
1	Mounting bracket
1	Control input connector
1	Power supply connector

Technical specifications

Electrical

Power consumption	4.6 W (DC)
External power supply	
Voltage	24 to 56 VDC, 48 VDC nominal

Current	2.5 A maximum (5 A peak <2 s)
Control inputs	2 x
Connector	Screw terminals
Operation	Closing contact (with supervision)
Glass optical fiber interface	
Connector (LBB 4414/xx)	SC (Avago AFBR-5803Z transceiver)
Connector (PRS-FINMO)	SC (Avago AFCT-5805BZ transceiver)
Wavelength	1300 nm
Cable type (LBB 4414/xx)	62.5/125 µm or 50/125 µm multimode
Cable type (PRS-FINMO)	9/125 µm monomode/single mode

Mechanical

Dimensions (H x W x D)	28.9 x 200 x 82.5 x mm (1.1 x 7.9 x 3.2 in)
Weight	0.3 kg (0.66 lb)
Mounting	2 screws in bracket
Color	Charcoal

Environmental

Operating temperature	-5 °C to +45 °C (+23 °F to +113 °F)
Storage temperature	-20 °C to +70 °C (-4 °F to +158 °F)
Humidity	15% to 90%
Air pressure	600 to 1100 hPa

Ordering information

LBB 4414/00 Fiber Interface

full network address, multimode
Order number **LBB4414/00**

LBB 4414/10 Fiber Interface

Fiber Interface without network address, multimode.
Order number **LBB4414/10**

PRS-FINMO Fiber Interface

full network address, monomode
Order number **PRS-FINMO**

Represented by:

Americas:

Bosch Security Systems, Inc.
12000 Portland Avenue South
Burnsville MN 55337, USA
Phone: +1-800-392-3497
Fax: +1-800-955-6831
audiosupport@us.bosch.com
www.boschsecurity.com

Europe, Middle East, Africa:

Bosch Security Systems B.V.
P.O. Box 80002
5617 BA Eindhoven, The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Asia-Pacific:

Robert Bosch (SEA) Pte Ltd, Security
Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia

China:

Bosch (Shanghai) Security Systems Ltd.
201 Building, No. 333 Fuquan Road
North IBP
Changning District, Shanghai
200335 China
Phone +86 21 22181111
Fax: +86 21 22182398
www.boschsecurity.com.cn

America Latina:

Robert Bosch Ltda Security Systems Division
Via Anhanguera, Km 98
CEP 13065-900
Campinas, Sao Paulo, Brazil
Phone: +55 19 2103 2860
Fax: +55 19 2103 2862
latam.boschsecurity@bosch.com
www.boschsecurity.com