BOSCH
Invented for life

PRS-FIN, PRS-FINNA and PRS-FINS Fiber Interfaces

▸ **Redundant network connection**

▸ **Indicators for power and fault status**

▸ **Two supervised control inputs (not PRS-FINNA)**

▸ **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 interfaces have 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

These units interface glass fiber optical cable with plastic fiber optical cable, and support 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 other Praesideo units can be attached, since they all have plastic fiber interfaces. This means that these units are always used in pairs.

Each 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 PRS-FIN and PRS-FINS have two control inputs. These can be used to accept e.g. the fault output of the external

power supply (UPS), allowing the units to monitor the power supply and report faults to the network controller. The fiber interfaces have two LEDs for diagnostic purposes.

The PRS-FINNA is the same as the PRS-FIN 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 PRS-FIN.

The PRS-FINS is the same as the PRS-FIN, except that it accepts single-mode glass optical fiber instead of multi-mode 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 (not PRS-FINNA)

Certifications and Approvals

Region	Certification	
Europe	CE	
	TUEV-SUED	TUV Certificate IEC60849
	GL	GL-SOLAS
Safety	acc. to IEC 60065 / EN 60065	
Immunity	acc. to EN 55103-2 / EN 50130-4 / EN 50121-4	
Emissions	acc. to EN 55103-1 / FCC-47 part 15B	
Emergency	acc. to EN 60849 / EN 54-16 / ISO 7240-16	
Maritime	acc. to IEC 60945	

Installation/Configuration Notes

The PRS-FINNA and the PRS-FIN are often used in combination. The PRS-FINNA is placed in the local (POF) network, and connected to a (remote) PRS-FIN, which can then provide remote monitoring.

The PRS-FINS is mostly used in installations where single-mode (mono-mode) glass fiber is already present. Otherwise multi-mode glass fiber is a cheaper alternative.

Parts Included

Quantity	Component
1	PRS-FIN Fiber Interface or PRS-FINNA Fiber Interface Non-Addressable or PRS-FINS Fiber Interface Single Mode
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 (PRS-FIN and PRS-FINNA)	SC (Avago AFBR-5803Z transceiver)
Connector (PRS-FINS)	SC (Avago AFCT-5805BZ transceiver)
Wavelength	1300 nm
Cable type (PRS-FIN and PRS-FINNA)	62.5/125 µm or 50/125 µm multi-mode
Cable type (PRS-FINS)	9/125 µm single-mode

Mechanical

Dimensions (H x W x D)	
Without bracket	27 x 243 x 80 mm (1.1 x 9.6 x 3.1 in)
With bracket	34 x 243 x 84 mm (1.3 x 9.6 x 3.3 in)
Weight	0.7 kg (1.5 lb)
Mounting	Bracket (2 screws)
Color	Charcoal

Environmental

Operating temperature	-5 ºC to +55 ºC (+23 ºF to +131 ºF)
Storage temperature	-20 ºC to +70 ºC (-4 ºF to +158 ºF)
Humidity	15% to 90%
Air pressure	600 to 1100 hPa

Ordering Information

PRS-FIN Fiber Interface full network address, multi-mode	**PRS-FIN**
PRS-FINNA Fiber Interface Non-Addressable no network address, multi-mode	**PRS-FINNA**
PRS-FINS Fiber Interface Single Mode full network address, single-mode	**PRS-FINS**