

# Modular fiber optics system

## Optical PLC splitters so414, so418, so424

### Product description

Planar lightwave circuit (PLC) splitters are intended to use for optical signal power splitting.  
The product is intended for indoor usage only.

### Safety of module

Optical splitter is passive optical network (PON) component and do not emit light energy by himself.  
It can become dangerous when working with high level optical powered laser system.

When operating the equipment note the following:

Most fiber optic laser wavelengths (1260 nm...1650 nm) are totally invisible to the eye and can cause permanent eye damage.

Never look into the end of a fiber on a powered device with any sort of magnifying device. This includes microscopes, eye loupes and magnifying glasses. Always double check that power is disconnected before using such devices.

Always use instruments, such as an optical power meter to verify light output power.

Operate only with the proper optical fiber installed in optical connector.

The laser transmitter should be turned off whenever the optical connector is empty.

Always connect a fiber to the output of the device before power is applied.

Never leave equipment with radiating bare fibres accessible - always cap the connectors.

### Cleaning of optical connectors

The fiber ends can be damaged by the insertion of contaminated connectors. Some types of customer damage to connectors are not covered under warranty. The standard optical connectors WDM duplexers are SC/APC.

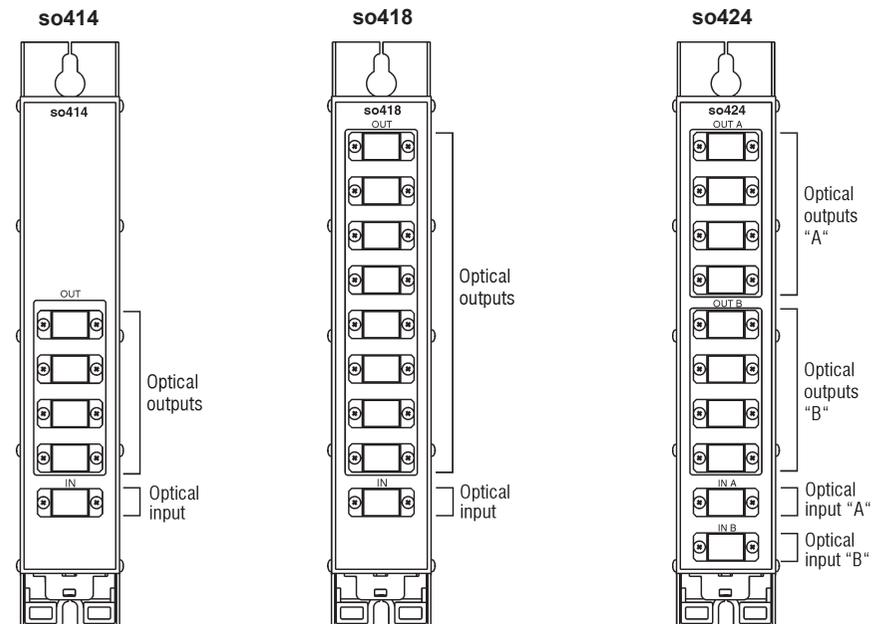
Each fiber connector maybe polluted by dust or dirt in the operation process. Even very micro dust will also affect the transmission quality. Dusty fiber optic connector will pollute other connected optic parts. If optical receive power and output level of the receiver decline, you should clean and maintain fiber active connector.

Always clean all the fiber optic connectors before setting.

Reel cleaners or prepackaged alcohol lint free wipes or swabs are the most convenient means of cleaning optical connectors.  
Fiber connectors should never be left uncovered.

Do not exceed the minimum bending radius when connecting cable to the system.

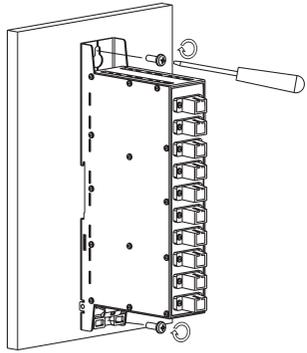
### External view



## Mounting

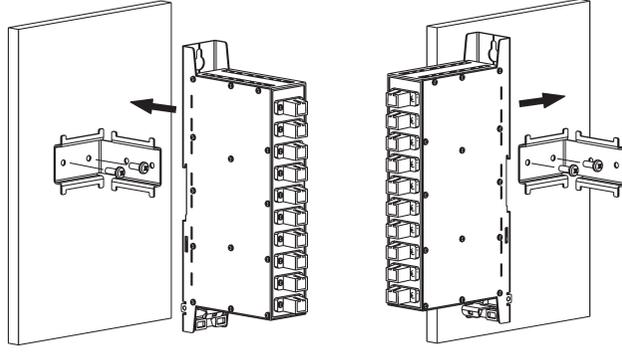
The module or mounting bracket must be fixed with steel screws  $\varnothing$  3.5-4 mm. The screws are not included in a package.

### Mounting on a wall by screws



Perpendicular to the wall

### Mounting on a bracket (supplied)



Parallel to the wall

Figure 1. Mounting of the splitter

### Mounting on DIN rail

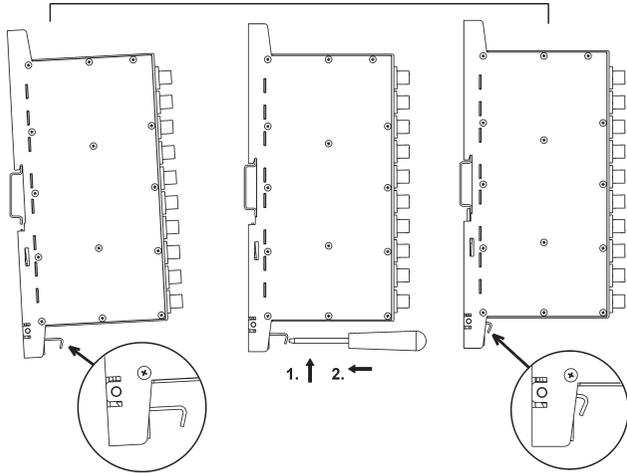


Figure 2. Mounting to DIN rail

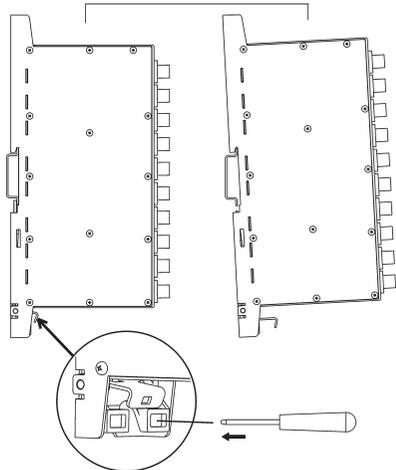


Figure 3. Demounting from DIN rail

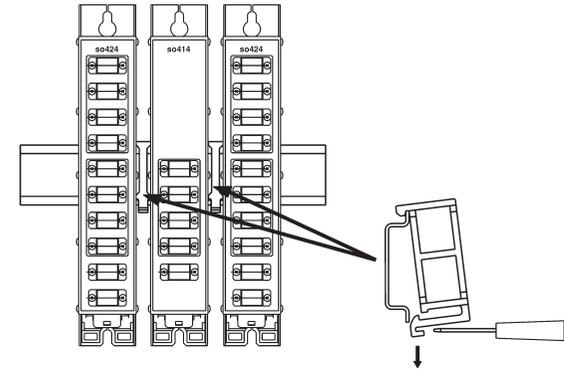


Figure 4. Mounting or removing to/from DIN rail of plastic spacers (supplied).

## Technical specifications

Type	so414	so418	so424	
Splitter	1x4	1x8	1x4 + 1x4	
Operating wave length	1260-1650 nm			
Insertion loss	typical	7.0 dB	10.2 dB	7.0 dB
	maximum value	7.5 dB	10.7 dB	7.5 dB
Loss uniformity	$\leq 0.6$ dB	$\leq 0.8$ dB	$\leq 0.6$ dB	
Return loss	$\geq 50$ dB	$\geq 50$ dB	$\geq 50$ dB	
Wave length dependent loss	$\leq 0.3$ dB	$\leq 0.3$ dB	$\leq 0.3$ dB	
Directivity	$\geq 55$ dB			
Temperature stability -20 to +70° C	$\leq 0.4$ dB			
Optical connectors	SC/APC			
Optical input power, max.	300 mW			
Operating temperature range	-20° ÷ + 50° C			
Dimensions/Weight (packed)	198x116x36 mm/0.65 kg	198x116x36 mm/0.7 kg		



INVISIBLE LASER RADIATION DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.  
Wave length 1270-1610 nm, IEC60825-1:2007



This product complies with the relevant clauses of the European Directive 2002/96/EC. The unit must be recycled or discarded according to applicable local and national regulations.



Equipment intended for indoor usage only.



TERRA confirms, that this product is in accordance to following norms of EU: EMC norm EN50083-2, safety norm EN60065 and RoHS norm EN50581.



TERRA confirms, that this product is in accordance with Custom Union Technical Regulations: "Electromagnetic compatibility of technical equipment" CU TR 020/2011, "On safety of low-voltage equipment" CU TR 004/2011.



TERRA confirms, that this product is in accordance with safety standard AS/NZS 60065 and EMC standards of Australia.