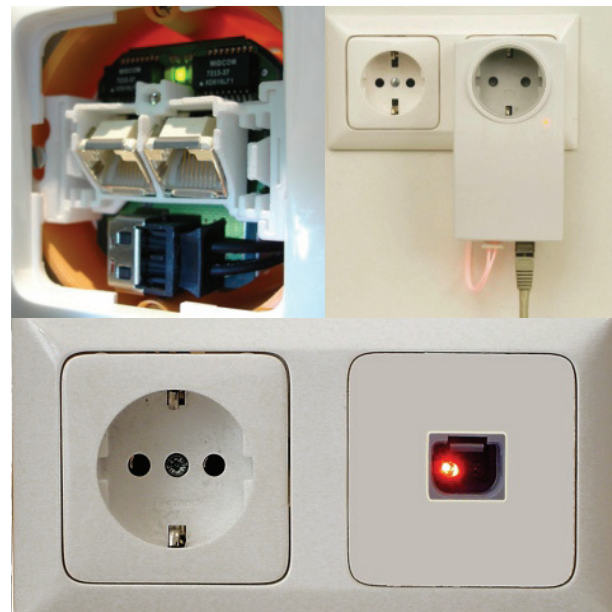


# home**i**bre



# THE NETWORK IS THE KEY TO THE DIGITAL FUTURE HOME

New digital services such as IP-TV, HD-TV, Internet games, Internet TV, HD video telephony or in future 3D TV and 3D games are forcing their way onto the market. As a result of the massive expansion of the access networks with high bandwidths (FTTH, VDSL, etc.), system providers are increasingly offering higher quality services. In addition, personal digital content such as videos, photos, music and data are being stored at home and transmitted to several appliances. In the field of home automation, energy management and safety, systems and applications are increasingly being networked with PC, television and touchscreens.

A stable and reliable infrastructure and transmission technology is therefore required in the home in order to ensure the long-term, consistent and trouble-free functioning of this integration. It should be widely available and offer the largest possible number of connection possibilities. For us at Homefibre, the ideal solution is an optical data backbone.

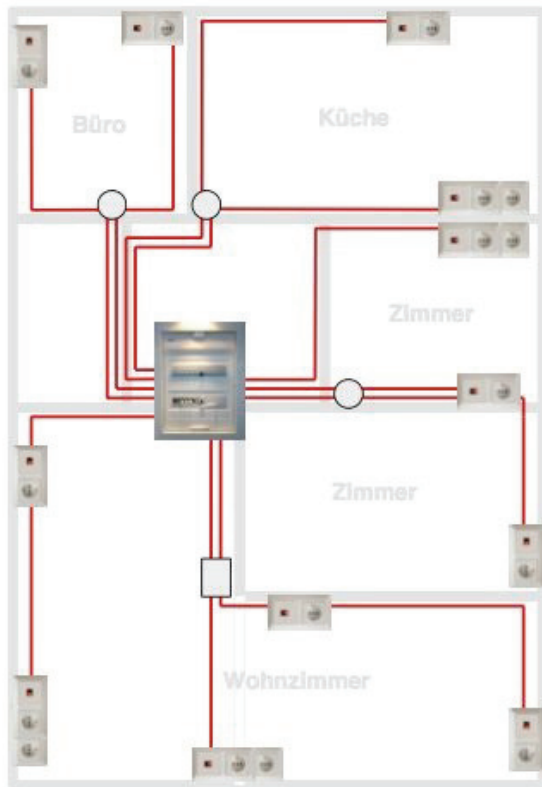
Together with its cooperation partners, Homefibre has set itself the goal of offering innovative products and system solutions, as well as technical support for the installation, that deliver environmentally safe and reliable digital home networking.

With the polymer optical fiber (POF) we use a proven technology that is ideally suited to a new and innovative infrastructure and which satisfies these demands.



A stylized, handwritten signature in dark blue ink, consisting of a large loop followed by a horizontal line that tapers off to the right.

Josef Faller  
President



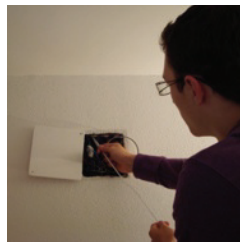
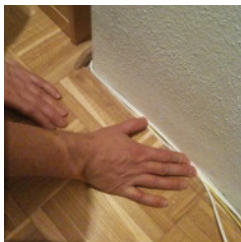
## THE OPTICAL IN-HOUSE BROADBAND NETWORK

With the concept of optical in-house broadband cabling, Homefibre offers a future-proof and easily installed infrastructure solution with which PC, multimedia and home automation systems can be optimally integrated via Ethernet and IP (Internet protocol). The optical cable employed is made of polymer optical fibers (POF) that have been successfully used in the automotive sector and in industry for many years. The POF cable is robust and can be very easily installed and connected. It can be installed separately or drawn into a conduit together with the electrical installation. Every plug socket in the house can thus be inexpensively equipped with a data interface. It is also available for a data connection in all splitter boxes.

All IP-based automation systems in the house can be linked via the optical cable and integrated into one system with PC and multimedia devices.

The benefits of the Homefibre system are:

- \* **Reliable** and **stable** data transmission = no interference
- \* **Unaffected** by electromagnetic interference
- \* **Radiation-free** = no electromagnetic smog via the leads
- \* **Simple** and **variable** installation
- \* **Low power** consumption of the components
- \* **Lightning protected data link** due to galvanic isolated POF cable.



### USER INSTALLATION

Thanks to its simple handling, the POF cable can even be installed by non-experts.

The small cable diameter allows the cable to be placed and concealed behind the skirting board or under the carpet.

Special user installation kits are available for this.

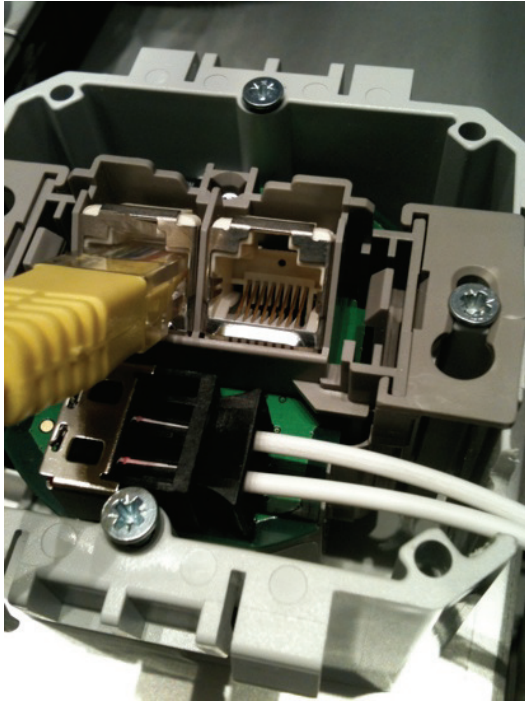
### FOR RETROFITTING

The POF cable can be easily integrated into the existing electrical installation without cutting channels or drilling. Flush-mounting plug sockets, flush-mounting switches or plug socket adapters, developed specially by Homefibre, serve as interfaces between your device and the network and can be installed as standard in your home.

### FOR NEW BUILDINGS

In order to minimize the installation costs of a full-size home network, it is sufficient to lay an inexpensive POF cable together with the electrical cables during the initial installation. A safe optical data port can thus be prepared at each mains plug socket. With the flush-mounted media converters from Homefibre, the connection is thus transformed into a standard Ethernet port with RJ45 jack.





## THE TECHNOLOGY

For the optical transmission, electric signals (data) are converted into optical signals, transmitted by light and converted back into an electric signal by a media converter.

Today, red light with a wavelength of 650 nm is used for the transmission. The transmission protocol to IEEE 802.3.u used is internationally standardized. Homefibre offers a wide range of media converters and optical POF switches for the installation of a network.

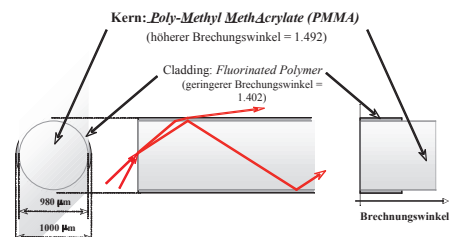
THE CABLE	THE OPTICAL TRANSMISSION	TRANSMITTER AND RECEIVER
<p>The optical cable is sturdy, unaffected by electromagnetic interference and does not conduct electricity. As a result it can be installed combined with the electrical installation, reducing installation cost and time. An optimum network infrastructure is installed at moderate expense.</p> <p>The optical cable can be connected to the optical interface either without plugs (e.g. Optolock™) using a simple cutting tool or with an easily fitted plug (e.g. SMI).</p>	<p>The optical transmission can be tested by measuring the light intensity in dBm at the beginning and end of the optical cable.</p> <p>The typical cable rating is approx. 15 dBm to 18 dBm. Approx. -7 dBm are measured directly at the connection. The receivers can process a signal down to -24 dBm.</p>	<p>The optical interfaces consist of transmitters and receivers.</p> <p>The optical transmission today uses red light with RC-LED (Resonant Cavity Light-Emitting Diode). This transmission using visible light is safe for the human eye and offers easy checking of functions and connections.</p>



## THE OPTICAL CABLE

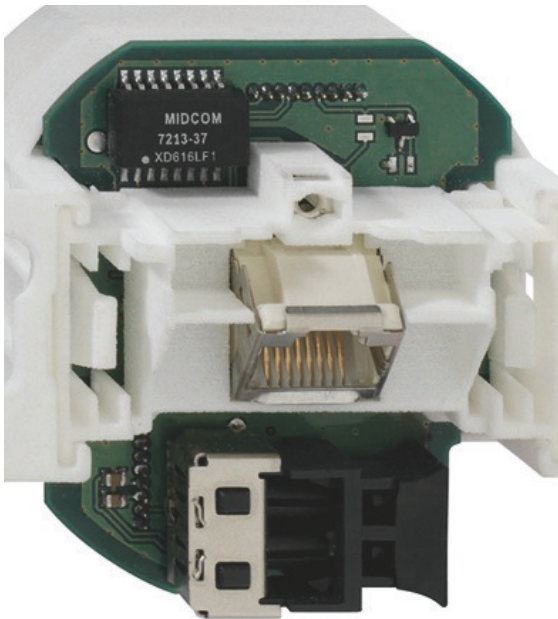
The polymer optical fiber, or POF for short, has proven effective in a vast array of applications. It has been used for years in industry, in the automotive sector and for lighting. The optical cable is a duplex cable. The optical signal is transmitted via one fiber, and received via the other fiber. This ensures an optimum transmission quality and the optimum transmission length.

The POF cable is optimized for use in the home and office environment with the "OPTOHOME" brand from Mitsubishi Rayon. Only high quality POF cable like „OPTOHOME“ guarantees a long term, future proof network performance,



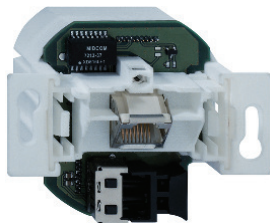
RHEE4002 - POLYMER OPTICAL FIBRE CABLE DUPLEX BUNDLE	RHEE 4002 - POLYMER OPTICAL FIBRE CABLE DUPLEX REEL	BENEFITS
Color: white Numerical Aperture: 0.5 Outer Diameter: 2,2/4,4 mm Delivery Unit: 30m, 50m, 70m, 100m Transmission length: 100 Mbit/s / 80 m (with Homefibre media converters!) Operating Temperature: - 55° C to 70° C	Color: white Numerical Aperture: 0.5 Outer Diameter: 2,2/4,4 mm Delivery Unit: 500m or 1000m Transmission length: 100 Mbit/s / 80 m (with Homefibre media converters!) Operating Temperature: - 55° C to 70° C	<ul style="list-style-type: none"> <li>• simple installation</li> <li>• easy termination</li> <li>• robust, safe &amp; radiation-free</li> <li>• visible light for optical function control</li> <li>• corresponds to class A4a2 for optical fibres (IEC 60794-2-41)</li> </ul>

PRODUCT CODE	CLADDING	OUTER DIAMETER
RHEE 4002-2,2 W	Material: Polyethylen; double cladding; no light leakage	2.2 mm x 4.4 mm
RHEE 4002-1.5W	Material: Polyethylen	1.5 mm x 3.0 mm
RHEE 4002-2,2W	Material: Polyethylen	2,2mm x 4,4 mm
RHV4002 (-WH)	Material: Polyvinylchloride Attribute: fire retardant, UL-VW1	2.2 mm x 4.4 mm



## MEDIA CONVERTERS

The electric data signals (IP packages) are converted into optical signals in media converters and transmitted via the polymer optical fibers (POF), also referred to as plastic fibers. At the receiver, the signal is converted back into electric signals to permit communication. The media converters are available as both surface-mounted variants (with external or integral power supply) and as flush-mounted variants.



OMC100UP - MEDIA CONVERTER WALL MOUNTED FAST ETHERNET	OMC100REG - OPTICAL MEDIA CONVERTER FAST ETHERNET	OMC100SDA - FAST ETHERNET PO- WER ADAPTER
<b>OMC100UP-150</b> OPTOLOCK™ interface 1.5 mm; deli- verable upon request <b>OMC100UP-220</b> OPTOLOCK™ interface 2.2 mm	<b>OMC100REG-150</b> OPTOLOCK™ interface 1.5 mm <b>OMC100REG-220</b> OPTOLOCK™ interface 2.2 mm	<b>OMC100SDA-150</b> OPTOLOCK™ interface 1.5 mm <b>OMC100SDA-220</b> OPTOLOCK™ interface 2.2 mm <b>OMC100SDA-SMI</b> SMI interface
<b>BENEFITS</b> <ul style="list-style-type: none"> <li>• for installation with electrical wiring</li> <li>• all cables behind the wall</li> <li>• cover plate for multiple vendors</li> <li>• secure, radiation-free data transfer</li> <li>• optical function control</li> <li>• stable and safe optical link</li> </ul>	<b>BENEFITS</b> <ul style="list-style-type: none"> <li>• DIN rail mounting</li> </ul>	<b>BENEFITS</b> <ul style="list-style-type: none"> <li>• for user installation or with electrical wiring</li> <li>• easy installation with slim POF cable</li> <li>• robust, safe &amp; radiation-free</li> <li>• visible light for optical function control</li> <li>• no additional power supply needed - no cables hanging around</li> <li>• no loss of power socket</li> </ul>



#### OMC100D - OPTICAL MEDIA - CONVERTER FAST ETHERNET

##### OMC100D-150

OPTOLOCK™ interface 1.5 mm

##### OMC100D-220

OPTOLOCK™ interface 2.2 mm

##### BENEFITS

- easy installation with slim POF cable
- robust, reliable & radiation-free
- visible light for optical function control
- wall mounting fixture
- optical link control

#### MCE300T - OPTICAL MEDIA - CONVERTER FAST ETHERNET

##### MCE300T-150

OPTOLOCK™ interface 1.5 mm

##### MCE300T-220

OPTOLOCK™ interface 2.2 mm

##### BENEFITS

- easy installation with slim POF cable
- visible light for optical function control
- secure, radiation-free data transfer
- robust and secure connection

#### MCE300T - MEDIA CONVERTER SET

##### MCE300T-150-30SI

OPTOLOCK™ interface 1.5 mm

##### MCE300T-220-30SI

OPTOLOCK™ interface 2.2 mm

##### SET INCL.

- 2 x MCE300T incl. power supply
- 30m RHEE 4002 bundle
- 1 x POF-Unicut
- 2 x RJ45 Patch cable
- user manual

**NEW**



On request also  
available for various  
international power  
plug interfaces !

#### OMC 200 GIG- OPTICAL MEDIA CONVERTER 200 MBIT/S - GIGABIT

##### OMC200 GIG - 220

OPTOLOCK™ Interface 2.2 mm

200Mbps duplex / optical

1 Gbps RJ45

##### BENEFITS

- for user installation or with electrical wiring
- easy installation with slim POF cable
- robust, safe & radiation-free
- visible light for optical function control
- external power supply with USB-cable / device can be powered by USP interface (direct connection to PC)
- 200Mbps up to 50m with quality POF RHEE4002 (100Mbps up to 80m)

#### OMC 200 GIG - 30SI MEDIA CONVERTER KIT

##### OMC200GIG-220

OPTOLOCK™ interface 2,2 mm

##### SET INCL.

- 2 x OMC200GIG incl. power supply
- 2 x USB cable for 5V power
- 30m RHEE 4002 white bundle
- 1 x POF-Unicut
- 2 x RJ45 Patch cable
- user manual

#### OMC100SDA-CH - FAST ETHERNET POWER ADAPTER SWISS

##### OMC100SDA-220-CH

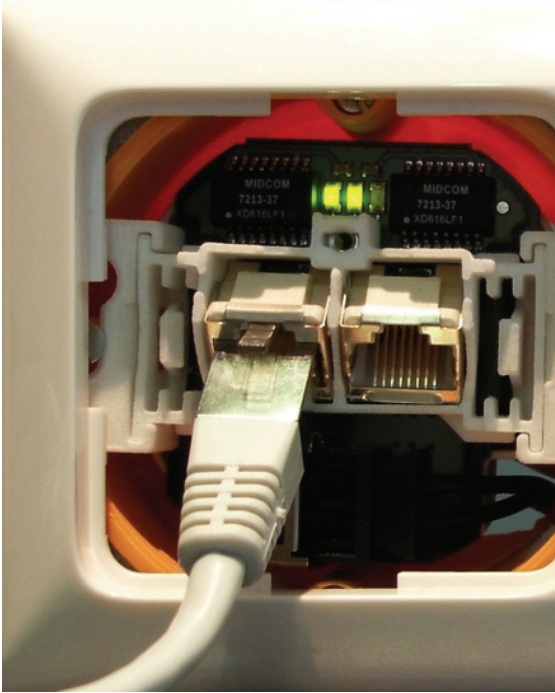
OPTOLOCK™ interface 2.2 mm

##### OMC100SDA-SMI-CH

SMI interface (on request, leadtime !)

##### BENEFITS

- for user installation or with electrical wiring
- easy installation with slim POF cable
- robust, safe & radiation-free
- visible light for optical function control
- no additional power supply needed - no cables hanging around
- no loss of power socket



## SWITCHES

The network components for integrating several digital terminals or network segments into a local network. The optical switches with integrated media converter functions are available as Layer-2 or smart switches (OMS126), as surface-mounted, flush-mounted or desktop variants. Thanks to their small dimensions, the desktop variants can also be installed in compact distribution cabinets.



### OMS113 - 3 POF AND 1 RJ45 FAST ETHERNET MEDIA SWITCH

**OMS113-220**  
OPTOLOCK™ interface 2.2 mm

**OMS113-150**  
OPTOLOCK™ interface 1.5 mm

#### FUNCTION

- 3x POF Port with OPTOLOCK™ interface
- 1x RJ45 Port for UTP cable up to 100m
- IEEE 802.3 Ethernet and IEEE 802.3u
- Store und Foreward Switching with 1K MAC Adress Tabelle
- Auto MDI/MDI-X at UTP Port

### OMS105 - FAST ETHERNET OPTICAL MEDIA SWITCH

**OMS105-220**  
OPTOLOCK™ interface 2.2 mm

**OMS105-150**  
OPTOLOCK™ interface 1.5 mm

#### FUNCTION

- 5x POF Port with OPTOLOCK™ interface
- IEEE 802.3 Ethernet and IEEE 802.3u Fast Ethernet Standard compliant
- Store and Foreward Switching with 1K MAC Adress Tabelle

### OMS126 - FAST ETHERNET OPTICAL MEDIA SWITCH

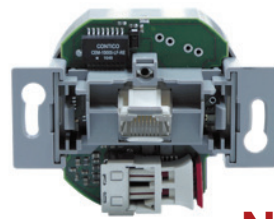
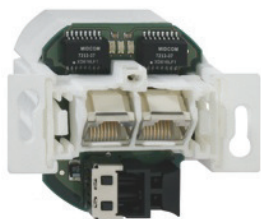
**OMS126-220**  
OPTOLOCK™ interface 2.2 mm

**OMS126-150**  
OPTOLOCK™ interface 1.5 mm

#### FUNCTION

- 6x POF Port with OPTOLOCK™ interface
- 1x Ethernet Port – RJ45 Standard
- IEEE 802.3 Ethernet and IEEE 802.3u Fast Ethernet Standard compliant
- Gigabit RJ45; SFP Gigabit
- Smart Switch
- with Webinterface programmable
- Store and Foreward Switching with 1K MAC Adress Table
- IGMP Snooping





**NEW**

OMS121UP - POF WALL MOUNTED SWITCH	OMS112AP -OPTICAL MEDIA CONVERTER WALL MOUNTED	OMA111-WLAN POF WALL MOUNTED WLAN ACCESS POINT
<p><b>OMS121UP-220</b> OPTOLOCK™ interface 2.2 mm</p> <p><b>OMS121UP-150</b> OPTOLOCK™ interface 1.5 mm (deliverable of 1,5mm upon request)</p> <p><b>FUNCTION</b></p> <ul style="list-style-type: none"> <li>• 1x POF Port with OPTOLOCK™ Interface</li> <li>• 2x Ethernet Port – RJ45 Standard</li> <li>• IEEE 802.3 Ethernet and IEEE 802.3u Fast Ethernet Standard compliant</li> <li>• Port based VLAN configuration factory-provided (on request)</li> <li>• integrated power supply</li> </ul>	<p><b>OMS112AP-220</b> OPTOLOCK™ interface 2.2 mm</p> <p><b>OMS112AP-150</b> OPTOLOCK™ interface 1.5 mm (deliverable upon request)</p> <p><b>FUNCTION</b></p> <ul style="list-style-type: none"> <li>• 2x POF Port with OPTOLOCK™ interface</li> <li>• 1x Ethernet Port – RJ45 Standard</li> <li>• IEEE 802.3 Ethernet and IEEE 802.3u Fast Ethernet Standard compliant</li> </ul>	<p><b>OMA111-WLAN-220</b> OPTOLOCK™ Interface 2.2 mm</p> <p><b>OMA111-WLAN-150</b> OPTOLOCK™ Interface 1.5 mm (Delivery of 1,5mm upon request)</p> <p><b>FUNCTION</b></p> <ul style="list-style-type: none"> <li>• 1x POF Port with OPTOLOCK™ Interface</li> <li>• 1x Ethernet Port – RJ45 Standard</li> <li>• 1x integrated W-LAN</li> <li>• IEEE 802.11 g,h,n</li> <li>• integrated antenna</li> <li>• integrated power supply</li> </ul>



## TOOLS

The POF cable can be laid in a conduit together with the electrical installation cables or on the surface. This method offers cost savings, less installation work and maximum safety and efficiency. A safe broadband port can thus be created at any mains plug socket in your home or office within a minimum of time.

This can even be carried out by the user, as shown in our videos under <http://www.youtube.com/homefibre>.

The tools described here simplify the installation and testing of the optical POF network.



### POF CUTTER

### POF 600 004 - POF CONNECTING TOOL

Length: 190 mm  
Weight: 495 & 505 g  
Capacity: Ø 2,3 mm  
Material: Special tool steel

### POF 600 006-2-3 - POF CONNECTING TOOL

Length: 195 mm  
Weight: 535 g  
Capacity: Ø 2 x 2,2 mm

### POF-UNICUT

### POF 600 004-1-3

Tool with safety cutting system

### POF 600 004-2-3

Tool with safety cutting system and stripping aid

### FEATURES

- Tool for cutting the fibre

### FEATURES

- with integrated cutting system for cutting, stripping of LWL-cable for Ø 2,3 mm max.
- stripping free of damage, exact adjustment of cable
- exact cut surface by special cutting system
- no polishing of cut surface necessary, immediate subsequent treatment possible
- bronzed with two-component handle bars

### FEATURES

- tool for cutting, stripping of DUPLEX cables 2 x Ø 2,2 mm
- exact adjustment of cable
- exact cut surface by special cutting system
- no polishing of cut surface necessary, immediate subsequent treatment possible
- stripping free of damage
- bronzed with two-component handle bars



**OFT-820 POF SERIES  
PLASTIC OPTICAL FIBER –LOSS  
TEST SET**

Photodetector: 3 mm SI  
Wavelength: 650 nm, 850 nm typ.  
Metering range: -35 dBm bis +10 dBm  
Operating temperature: -10° to + 50°C  
Dimensions: 165 x 80 x 50 mm

**OFT-420 POF SERIES  
PLASTIC OPTICAL FIBER INDICATOR**

Photodetector: 3 mm SI  
Wavelength: 650 nm, 850 nm typ.  
Metering range: -30 dBm bis +10 dBm  
Operating temperature: - 10° to + 50°C  
Dimensions: 95 x 65 x 28 mm

**OFT-820-POF-OL2-LD650**

OFT-820 with OptoLock 2.2 mm and 650 nm LED

\* other types of connectors available upon request

**FEATURES**

- combines 2 optical test equipments - Light Source and Power Meter in the same box
- Absolute and Relative optical power measurement
- storage and uploading of up to 3000 measurements to the PC
- „SmartProtocol PC“ evaluation software supports test reporting generation

**OFT-420-POF**

**FEATURES**

- simple optical power Indication by color LEDs (red, yellow, green)



## PLUG & CONNECTOR ACCESSORIES

Accessories for optical cables, media converters and switches.

The flush-mounted devices are manufactured in close cooperation with Rutenbeck. As a result, cover plates suitable for Rutenbeck flush-mounted plug sockets and available in the switch product ranges of leading manufacturers can be employed. The standard Rutenbeck covers are available from Homefibre as shown below.



### WALL PLATE

Dimensions: 81 x 81 x 5 mm  
Weight: 12 g



### ZST UAE 8 - STANDARD CENTER PLATE FOR 1 RJ45 INTERFACE

Dimensions: 50 x 50 x 13 mm  
Weight: 6g



### ZST UAE 8/8 - STANDARD CENTER PLATE FOR 2 RJ45 INTERFACES

Dimensions: 50 x 50 x 13 mm  
Weight: 6g

**AP** : 100 100 01  
similar RAL 1010; pearl white  
**AP RW** : 100 100 51  
similar RAL 9010; pure white

**ZST UAE 8** : 130 100 02  
similar RAL 1013; pearl white  
**ZST UAE 8 RW** : 130 100 52  
similar RAL 9010; pure white

**ZST UAE 8/8** : 130 100 03  
similar RAL 1013; pearl white  
**ZST UAE 8/8 RW** : 130 100 53  
similar RAL 9010; pure white



### UAE-6APG RW - SURFACE MOUNTING HOUSING

Dimensions: 81 x 81 x 46 mm  
Weight: 93 g



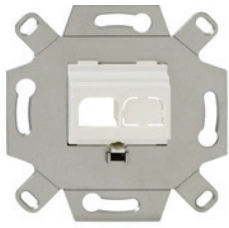
### INTERMEDIATE FRAME CH

Intermediate frame for Swiss standard  
Color: pure white

**UAEAPG** : 135 105 03  
similar RAL 1010; pearl white  
**UAEAPG RW** : 135 115 03  
similar RAL 9010; pure white

**INTERMEDIATE FRAME CH**  
similar RAL 1013; pearl white  
**INTERMEDIATE FRAME CH RW**  
similar RAL 9010; pure white





**UAE-6APG RW - MOUNTING FRAME  
FOR WALL OUTLET**

Dimension: 81 x 81 x 46 mm  
Weight: 93 g

**SMI - SMI ADAPTER**  
2 x SMI female connector

**SMI CONNECTOR**  
short version,

**POF-MA UP ; 180 100 01**  
Color Center Plate: pure white

**KM-POF SMI 2.2 MM ; 180 100 02**  
black

**POF SMI ; 180 003 00**  
black; Crimp Connector



**POF MOUNTING CLIP  
SELF-ADHESIVE**

POF Clip 1,5mm for POF Cable  
Jacket Diameter 1,5mm  
POF Clip 2,2mm for POF Kabel  
Jacket Diameter 2,2mm

**SMI100 - SMI CRIMP CONNECTOR  
POF**

POF Core Diameter: 1 mm  
Cable Jacket Diameter 2.2 mm

**SMI ADAPTER**  
Clip Mounting

**POF Clip 1,5 mm**  
**POF Clip 2,2 mm**  
Packaging Unit: 30 pcs.

**POF SMI Adapter**  
Color: Grey



**DIN NORM MOUNTING FRAME FOR  
OPTOLOCK KEYSTONE**

Dimension: 70 x 61 x 39 mm  
Weight: 74g / 101g

**CENTER PLATE FOR OPTOLOCK  
KEYSTONE**

ZSt UM-MA 2UP for 2 Modules  
ZSt UM-MA 3UP für 3 Modules

**POF OPTOLOCK KEYSTONE**  
Optolock to Optolock Connector  
av. Attenuation: ca. 2,5 dBm

**POF-MA 2UP ; 139100 01**  
Mounting Frame for 2 Modules

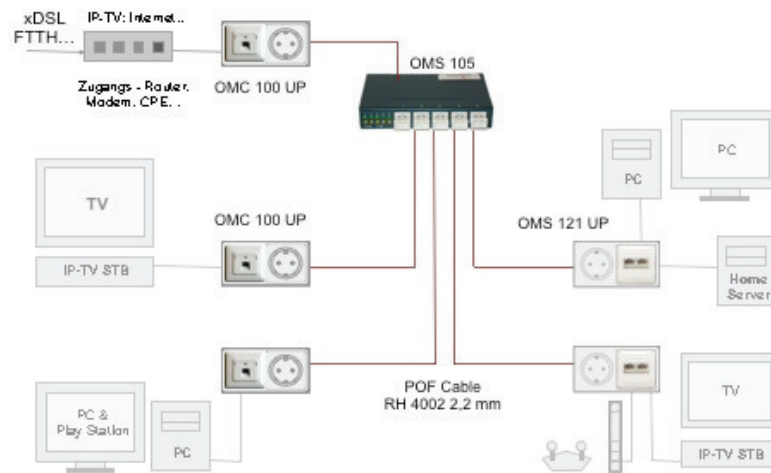
**ZST UM-MA 2 RW; 139 100 03**  
Center Plate, pure white

**POF OPTLOCK KEYSTONE**  
Color: black

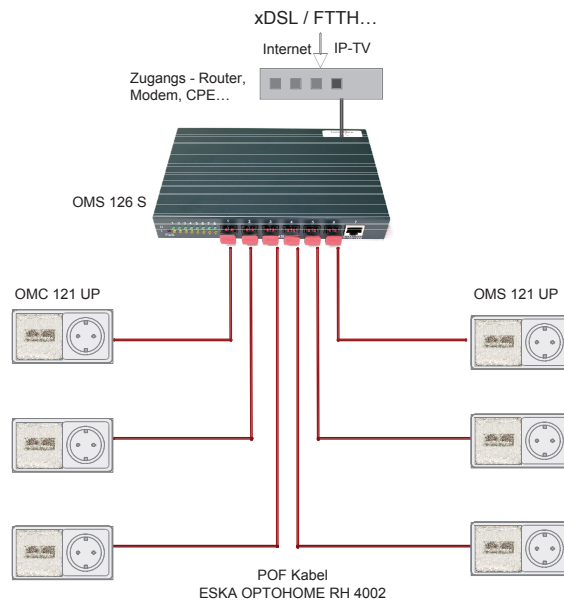
**POF-MA 3UP ; 139100 02**  
Mounting Frame for 3 Modules

**ZST UM-MA 3 RW; 139 100 02**  
Center Plate. pure white

## APPLICATION EXAMPLES

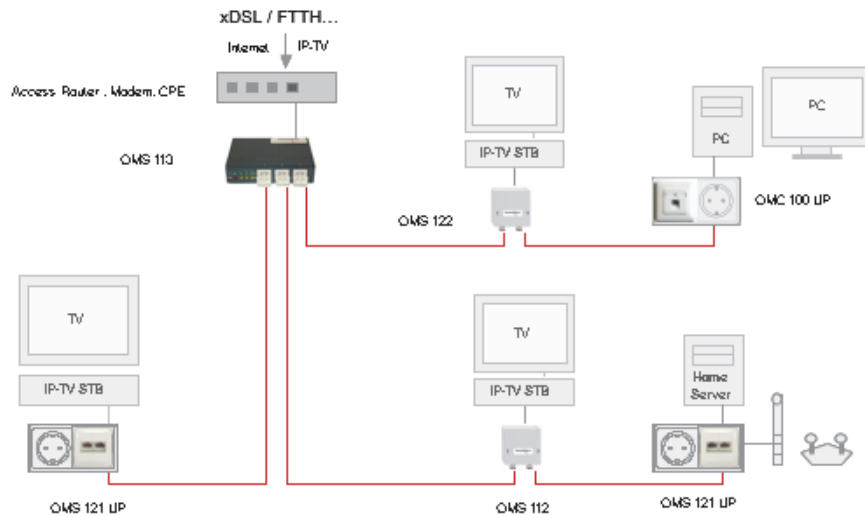


In this example, the access modem is connected indirectly via a POF flush-mounted socket (OMC100UP) to the POF switch (OMS105). Four further POF flush-mounted sockets (OMC100UP) or flush-mounted switches (OMS121UP) are connected to the POF switch so that up to six (6) digital devices can be integrated into the optical broadband network using RJ45 patch cables. If the POF cables are laid together with the electrical installation, the POF switch (OMS105) can be installed centrally, for example in the electrical distribution cabinet.

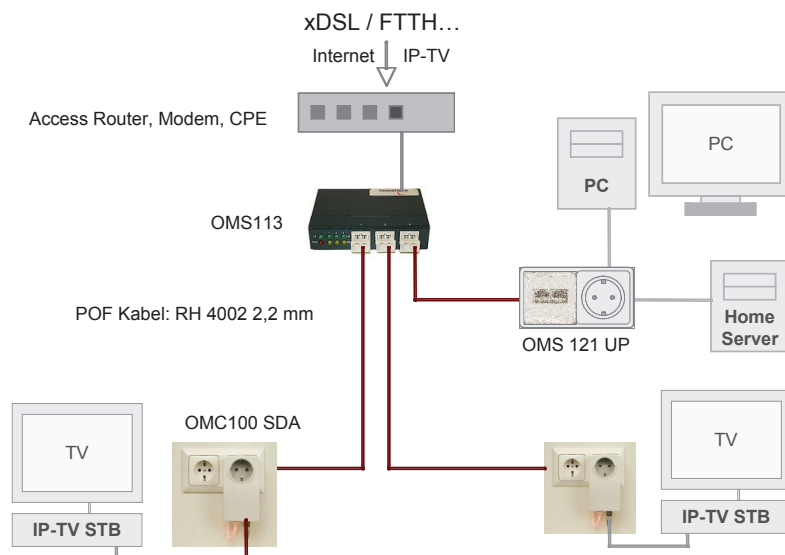


This example shows the direct connection of the access modem to a POF switch (OMS126) using an RJ45 patch cable. Six (6) further POF flush-mounted switches (OMS121UP) are connected to the POF switch so that up to twelve (12) digital devices can be integrated into the optical broadband network using RJ45 patch cables. The POF switch (OMS126) is best located close to the access modem. It can also be connected to a glass fiber access network via the SFP port.

## APPLICATION EXAMPLES



This example shows that the use of the POF switch OMS112AP allows not only pure star wiring, but also "bus-oriented" wiring. Rooms can thus be connected to the network, for example, in which there is little capacity in the electric conduit for additional POF cables. The access modem is connected directly to a POF switch (OMS113) by means of an RJ45 patch cable. Three (3) further POF switches (1 OMS121UP and 2 OMS112AP) are connected directly to the POF switch, and a POF flush-mounted plug socket (OMC100UP) and a POF flush-mounted switch (OMS121UP) are connected in turn to the two OMS112AP switches. The digital devices are integrated into the optical broadband network using RJ45 patch cables.



This example shows star wiring using a POF switch (OMS113). Two (2) external POF media converters (OMC100SDA) and one (1) POF flush-mounted switch (OMS121UP) are connected to the POF switch so that up to four (4) digital devices can be integrated into the optical broadband network using RJ45 patch cables.

## SPECIFICATION - OPTICAL CABLE

PARAMETER	RH4002	RHEE4002	RHV4002	RHVV4002
Fibre				
Core material	Polymethyl-Metharcrylate Resin (PMMA)			
Cladding	Flourinated Polymer			
Core Refractive Index	1,49			
Refractive Index Profile	Step Index			
Numerical Aperture	0,5			
Core diameter (µm)	Min. 920 typ. 980 Max. 1040			
Diameter with Cladding (µm)	Min. 940 typ. 1000 Max. 1060			
Jacket				
Material	Polyethelene high density	Polyethylene, double jacketing	Polyvinylchloride	Polyvinylchloride, double jacketing
Color	white			
Dimension (mm)	Minor Achse - Min. 2,13 typ. 2,2 Max. 2,27 Major Achse - Min. 4,3 typ. 4,4 Max. 4,5			
Fibre identification	One fibre of the duplex cable has following indication in pink ... ESKA OPTOHOME MITSUBIS-HI RAYON			
Weight (g/m)	ca. 7,5			
Reel	500 meter			
Characteristics	low costs	low costs, no light leakage on bendings	fire retardant, UL-VW1	fire retardant, UL-VW1, no light leakage on bendings
Mechanics				
Operating Temperature	-55/+70°C (in a dry climate) Max. 60°C (up to 95% humidity)			
Transmission losses	170dB/km (at 650nm)			
Bandwidth	Launch NA = 0,65; up to 100 Mbps Fast Ethernet			
Minimum bend radius	Loss <= 0,5dB 25mm @100% Transmission (Quarter bending)			
Tensile strength	Tensile force @ 5% elongation - 140N			
Compression (at 50kg weight)	0,4dB increasing attenuation			



## SPECIFICATION - MEDIA CONVERTER

PARAMETER	OMC100UP	OMC100REG	OMC100SDA	OMC100D	OMC200GIG
Standard	IEEE 802.3, IEEE 802.3.u				
Certification	FCC Part 15, Class B, EN 55022, Class B				
Standard / Classification	Class A4a2 - according IEC 60793-2-40 Part 2-40				
Optical Interface	OPTOLOCK™				
Wavelength	650 nm typ.				
Electrical data socket	RJ45				
Power Supply	integrated power supply 240 V-AC	4.5 – 6 V DC; external power supply	integrated power supply 240V-AC	4.5-6 V DC; external power supply	4-5 – 6 V DC; external power supply
Power consumption typ.	0,9 W	0,9 W	0,9 W	0,9 W	0,9 W
Operating Temperature	- 5° up to + 45°C	- 5° up to + 45°C	- 20° up to + 60°C	- 20° up to + 60°C	- 20° up to + 60°C
Mechanical dimensions	DIN Flush Wallbox	ca. 70 x 73 x 18 mm	ca. 120 x 79 x 50 mm	ca. 90 x 39 x 30 mm	ca. 35 x17x11 mm
Color	grey	white	white	white	white
Recommended POF cable	Step Index Fibre; e.g. Mitsubishi ESKA OPTOHOMERHEE 4002 (NA 0,5)				
Applications	Optimized for IP-TV and Multimedia; PC and Office networks				
Characteristics	Transmission distance: up to 100m with RHEE 4002 cable	Transmission distance: up to 100m with RHEE 4002 cable	Transmission distance: up to 100m with RHEE 4002 cable  main power interface for nationale standards available	Transmission distance: up to 100m with RHEE 4002 cable	Transmission distance 200Mbps: 50m with RHEE4002 cable Transmission in combination with 100Mbps converter: 80m/ 100Mbps with cable RHEE 4002

## SPECIFICATION - SWITCH

PARAMETER	OMS113	OMS105	OMS126	OMS121UP	OMS112AP
Standard	IEEE 802.3, IEEE 802.3.u				
			IEEE 802.3.ab, IEEE 802.3.z		
QoS			IEEE 802.1Q, IEEE 802.1p		
			port based VLAN	port based VLAN <sup>1</sup>	
			IGMP snooping support		
Certification	FCC Part 15, Class B, EN 55022, Class B				
Optical interface OPTO-LOCK™	3	5	6	1	2
Optical interface SFP			1		
Wavelength	650 nm typ.				
Electrical data socket RJ45	1		1	2	1
Power supply	5V DC; external power supply	5V DC; external power supply	5V DC; external power supply; 1.6A max.	integrated po- wer supply 240 V-AC	12V DC; exter- nal power supply
Power consumption typ.				0,9 W	0,9 W
Operating temperature	0 to + 50°C	0 to +50°C	- 10° to + 70°C	-5° to + 45°C	- 5° to + 45°C
Mechanical dimensions	ca. 84 x 61 x 20 mm	ca. 120 x 80 x 20 mm	ca. 196 x 124 x 30 mm	applicable for DIN wall-outlet	ca. 80 x 80 x 33,5 mm
Recommended POF cable	Step Index Fibre; z.B. Mitsubishi ESKA OPTOHOMERHEE 4002 (NA 0,5)				
Applications	Optimized for IP-TV and Multimedia; PC and office networks				

<sup>1</sup> Configuration factory provided

## SPECIFICATION - WIRELESS ACCESS POINT

PARAMETER	OMA111 UP WLAN
Type	OMA111UP-WLAN-220 (2,2mm cable)
Function	Access Point, Repeater, Bridge
Security	WEP, WPA, WPA2
Datarate	150Mbps
Standard	IEEE 802.3, IEEE 802.3.u
	IEEE 802.3.b,g,n
Certification	FCC Part 15, Class B, EN 55022, Class B
Optical Interface OPTOLOCK™	1
WLAN Interface	1
Wavelength	650 nm typ.
Electrical data socket RJ45	1
Power Supply	Integrated Power Supply 100 - 240 V - AC
Power Consumption typ.	ca. 1,2 W bis <3 W
Operating temperature	- 5° to + 45°C
Dimension	for DIN wall outlet
Recommended POF cable	Step Index Fibre; z.B. Mitsubishi ESKA OPTOHOMERHEE 4002 (NA 0,5)
Application	Optimize for IP-TV and Multimedia; PC und Office LAN



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