

Technical Specification Optical Fiber Distribution Box

MCR ODB-16G5



Contents

- 1. General..... 3
 - 1.1 Description..... 3
 - 1.2 Standards Comply..... 3
 - 1.3 Applications Environment 3
- 2. Characteristics..... 4
- 3. Specifications..... 4
 - 3.1 Mechanical specifications..... 4
 - 3.2 Optical specifications..... 5
- 4. Splicing tray 6
- 5. Routing diagram 6
 - 5.1 Product cable ways: 6
 - 5.2 Fast Plug 7
 - 5.3 Fiber optic cable bifurcation..... 7
 - 5.4 Cable outlet..... 8
- 6. Configuration..... 8
 - 6.1 Main parts 8
 - 6.2 Accessories 9
- 7. Installation 9
 - 7.1. Wall-mounted installation 9
 - 7.2. Pole-mounted installation 10
 - 7.3. The overhead structure 10
- 8. Package..... 10

1. General

1.1 Description

Fiber distribution box as the most important FTTX network distribution node equipment, provide quick and reliable connection, good protection and management for the FTTX network.



Pic.1 MCR ODB-16G5 appearance

1.2 Standards Comply

The production is designed, manufactured and tested according to the standards as follows:

IEC 62134-1-2002	Fiber optic enclosures - Part 1: Generic specification
IEC61300-2	Fiber optic interconnecting devices and passive components - Basic test and measurement procedures
IEC60068-2	Basic environmental testing procedures for electric and electronic products

1.3 Applications Environment

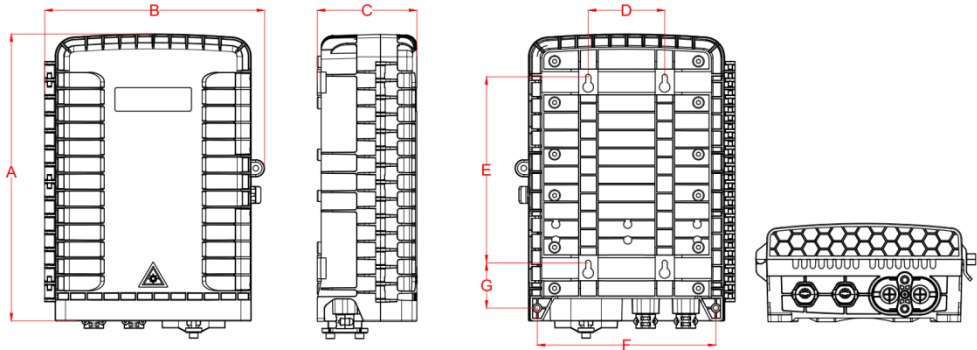
Item	Value
Operation temperature	-40 °C~+65 °C
Installation temperature	-15 °C~+40 °C
Storage temperature	-45 °C~+70 °C
Relative humidity	≤85% (+30°C)
Atmospheric pressure	70KPa~106Kpa

2. Characteristics

- 1. Advanced structure design, easy operation and reasonable routing.
- 2. Material: PP.
- 3. Moisture proof, waterproof, dust-proof, anti-aging.
- 4. Protection level up to IP65.
- 5. There are many kinds of cable inlets.
- 6. Installation method: pole-mounted, aerial-mounted, wall-mounted.

3. Specifications

3.1 Mechanical specifications



Pic.2 MCR ODB-16G5 dimensions

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Item	Specifications	Remark
Material of housing	PP	
Material of internal components	ABS / PC+ABS	
Material of metal accessory	High-quality stainless steel	
External dimension(mm)	303*230*104 mm	A*B*C
Installation hole position(mm)	80*196*187*48 mm	D*E*F*G
Color	Black	
Number of pass through cable port	1	
Number of branch cable port	2	Interface 1 and Interface 3
	8	Interface 2
Fiber cable diameter of the uncut pass through port(mm)	ϕ 8~ ϕ 12(Existing products)	MAX : ϕ 18mm
Fiber cable dimension of branch cable port (mm)	ϕ 5~ ϕ 12	Interface 1
	ϕ 8	Interface 2
	ϕ 12	Interface 3
Cable outlet size(mm)	2*3 or ϕ 5mm	
Number of drop cable ports	16	
Fusion capacity(Max)	24	
Micro PLC Splitter	1x2	Plug-in type optical splitter, 2PCS
	1x4	
	1x8	
	1x16	Plug-in type optical splitter, 1PCS
IP grade	IP65	
Flammability	UL-94HB	Default
Neutral salt spray test (NSS)	48h	


3.2 Optical specifications

Splitter or pigtail	IL(dB)	RL(dB)	IL(dB)	Test method
	Pigtail/Splitter		Distribution box	
Pigtail-SC/APC-00-SM-SX(1C1F)-OD0.9MM-PVC-G657A2-Cable Color(Default)-Indoor-RoHS-1.5m	\leq 0.3	\geq 55dB	\leq 0.5	IL: IEC61300-3-4 Method B RL: IEC61300-3-6 Method 1
1x2 PLC Splitter, with SC/APC connector	\leq 4.0	\geq 55dB	\leq 4.2	
1x4 PLC Splitter, with SC/APC connector	\leq 7.4	\geq 55dB	\leq 7.6	
1x 8 PLC Splitter, with SC/APC connector	\leq 10.5	\geq 55dB	\leq 10.7	
1x 16 PLC Splitter, with SCAPC connector	\leq 13.5	\geq 55dB	\leq 13.7	

The optical parameters shown in the table above are default values, and can be customized according to requirements.

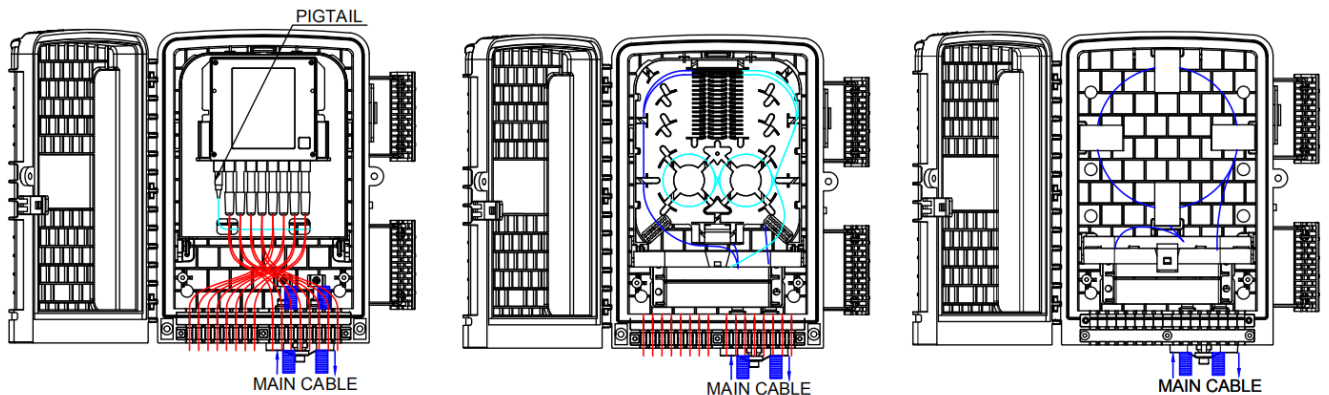
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4. Splicing tray

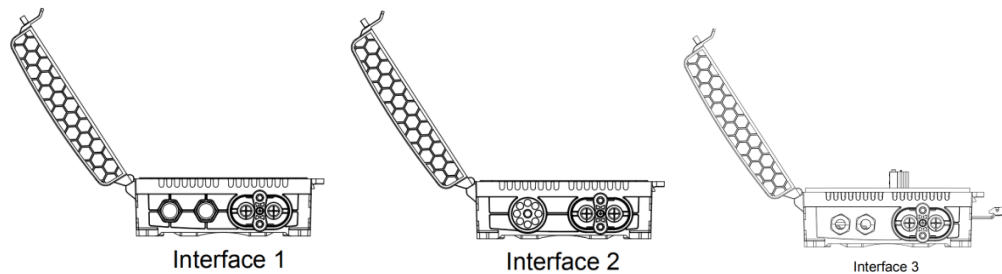
Item	Splicing tray A
Dimensions(H*W*D, mm)	0.09
Net weight (kg)	197.3 X 166.4 X 34.5
Picture	
Color	RAL7035
Material	ABS
Splicing capacity of a tray(cores)	32 (2 layer of heat shrinkable protective sleeve)
Splitter capacity of a tray(PCS)	/
Maximum(PCS)	1
Default(PCS)	1

5. Routing diagram

5.1 Product cable ways:

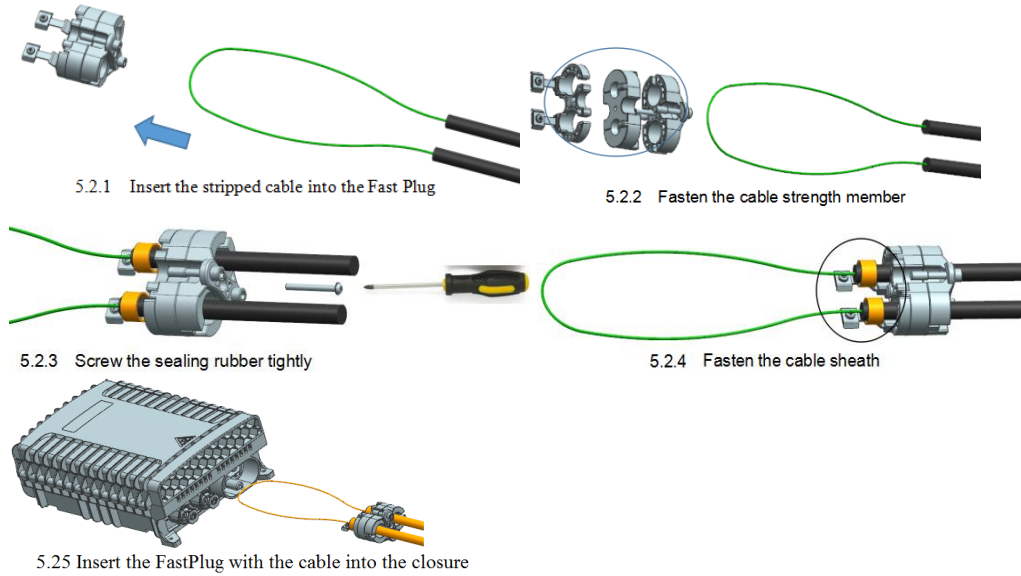


Pic.3 MCR ODB-16G5 Routing diagram



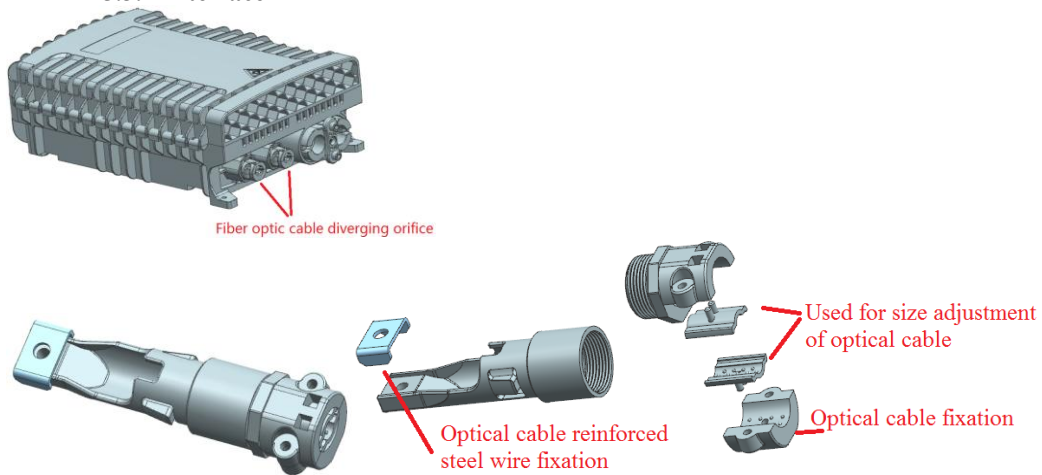
5.2 Fast Plug

Fast installation, fastening, and sealing of straight-through optical cable with the Fast Plug.

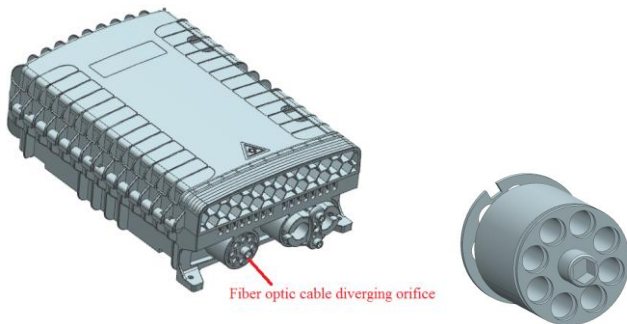


5.3 Fiber optic cable bifurcation

5.3.1 Interface 1

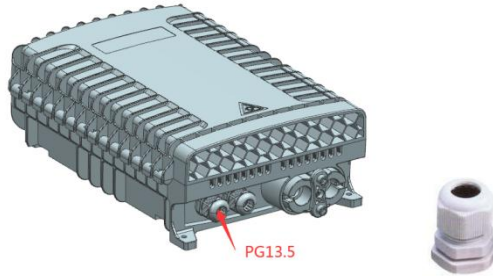


5.3.2 Interface 2

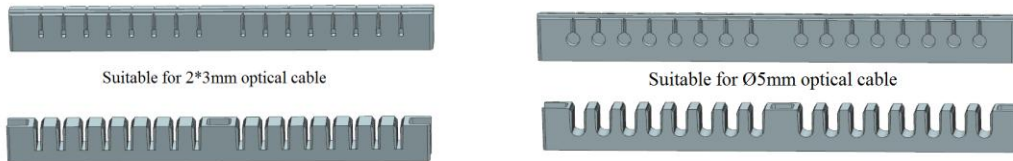


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5.3.3 Interface 3



5.4 Cable outlet

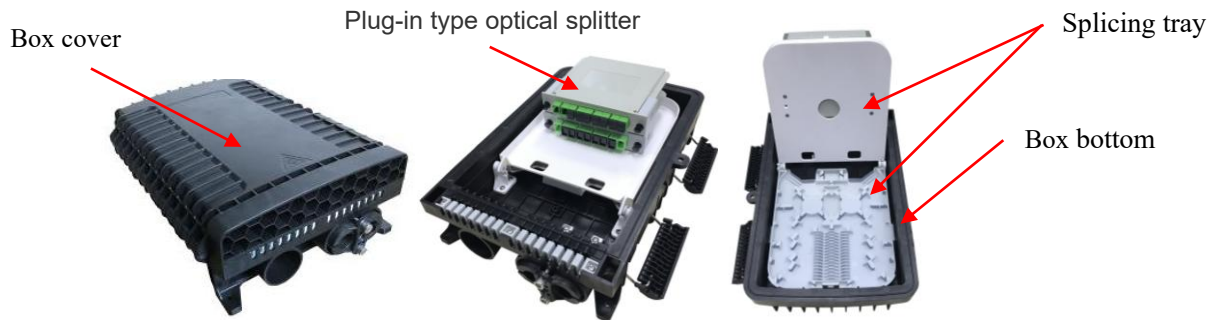


Selection

6. Configuration

6.1 Main parts







No.	Part name	Unit	Quantity	Remark
1	Box bottom	pcs	1	
2	Box cover	pcs	1	
3	Splicing tray	pcs	1	
4	SC/APC adapter	pcs	16	



Pic.4 Structure of MCR ODB-16G5

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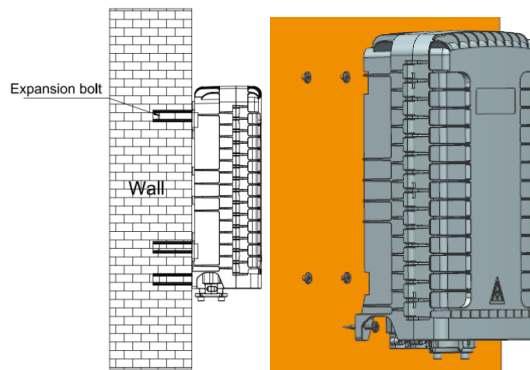
6.2 Accessories

No.	Part name	Reference picture	Unit	Quantity	Remark
1	Users' manual	/	pcs	1	EN
2	Splitter test report	/	pcs	1	EN
3	Heat-shrinkable protection sleeve		pcs	4	L=60mm
4	Nylon cable tie		pcs	10	3x100mm
5	Bare fiber protection tube		pcs	1	OD5mm x 50cm
6	Hoop		pcs	2	∅13-19mm
7	Wall-mounted kit		set	1	Optional as customer's request. (Expanded plastic plug $\Phi 7.5 \times 40$ mm, Phillips self-tapping screws M4x40mm.)
8	Pole-mounted kit		set	1	Optional as customer's request

7. Installation

7.1. Wall-mounted installation

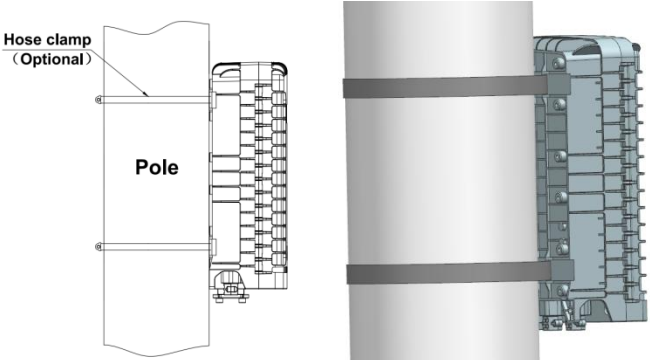
Drill 3 holes in the wall according to the dimension in table 2, place the expansion plug $\Phi 7.5 \times 40$, place the box to match up the holes and use screws to fasten. (Pic.5)



Pic 5 Wall mounted installation

7.2. Pole-mounted installation

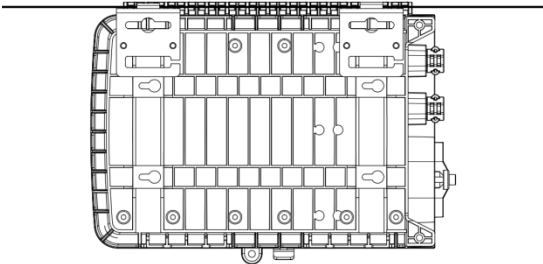
Pass the stainless steel belt through the slot of the back plate and fix it on the pole (Pic.6)



Pic 6 Pole mounted installation

7.3. The overhead structure

Tie the two installed on the chassis of the overhead hung on the wire, and then bolted, prevent the case fall off.(Pic 7)



Pic 7 The overhead structure

8. Package

Item	Material	Size(mm)	Quantity	Gross weight(kg)
Independent product packaging	Carton	340*245*140	1	2.4
Outer packaging carton	Carton	510*360*750	10	25