

# PLC Splitter Module P1C

## Silica-on-Silica Planar Lightwave Circuit (PLC) Splitter

- 1x4, 1x8, 1x16, 1x32, 1x64 modules\*
- Packaged Optical Waveguide chips based on Patented Plasma Chemical Vapor Deposition (P-CVD) technology for stable optical characteristics and high reliability
- Low Insertion Loss (IL) and Polarization Dependant Loss (PDL)
- High port uniformity
- Tested to Telcordia GR1209 & GR1221
- Optional custom packaging available including; chip only metal fittings and connectorized cassette



\*Splitter chip available by special order

## Applications

- Power Splitting and Coupling for FTTx
- Passive and Digital Access Distribution Networks (ATM, WDM, Ethernet EPON), BPON, GEAPON, GPON
- Local, Wide & Metropolitan Networks (LAN/WAN/MAN)
- Cable/Community, Access Television systems and links (CATV, Video signal distribution)
- Multiplexer
- Optical Amplifier
- Test Equipment
- Protection (restoration)
- Fiber Optic Sensors

## Ordering Information

P1C□A-□□□□

1 2 3 4 5

### 1. Number of Channels

4, 8, 16, 32, 64

### 2. Configuration

M: Module  
S: Bare splitter

### 3. Pitch

H: 125μm  
F: 250μm

### 4. Type of fiber/Bend radius

A: R30  
B: R15

### 5. Fiber color (U.S. Standard)

U1: 8 core = Blue, Orange, Green, Brown, Slate, White, Red, Black  
4 core = Blue, Orange, Green, Brown  
Single core = Blue  
U2: 8 core and 4 core, same as above.  
Single core = Clear

## Specifications

### Characteristics

Product Model	P1C4A-MFAU1	P1C8A-MHAU1	P1C16A-MHAU1	P1C32A-MHAU1	P1C64A-MHAU1
Operating Wavelength	1260 - 1360 nm, 1480 - 1610 nm				
Insertion Loss (IL) Max	≤ 7.5dB	≤ 11.0dB	≤ 13.7dB	≤ 17.0dB	≤ 20.4dB
Insertion Loss (IL) Unif	≤ 0.8dB	≤ 1.0dB	≤ 1.0dB	≤ 1.3dB	≤ 2.0dB
Polarization Dependant Loss (PDL)	≤ 0.3dB				
Return Loss (RL)	≥ 50dB		≥ 55dB		
Directivity	≥ 55dB				

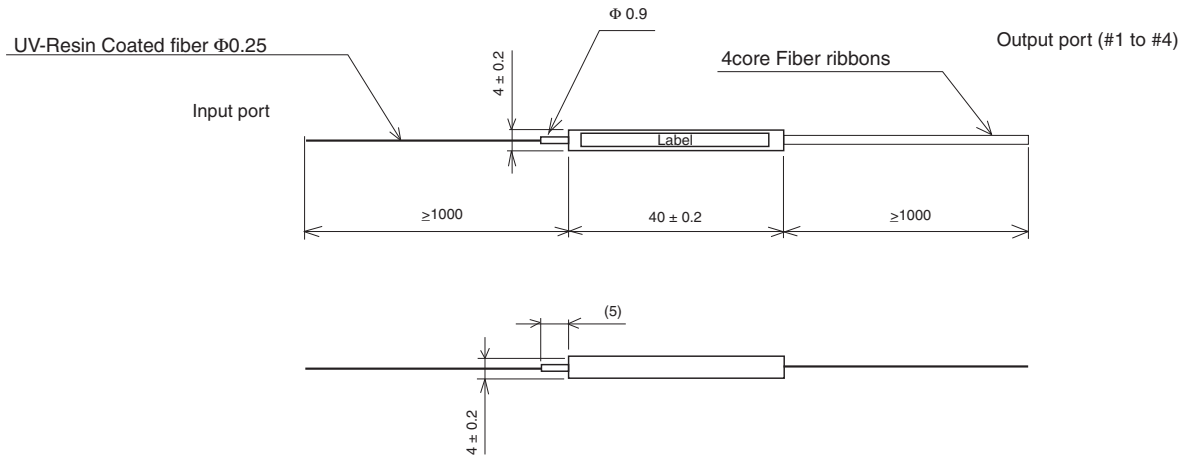
## ■ Operating Conditions

Operating Temperature	-40°C to +85°C (without freezing or condensation)
Storage Temperature	-40°C to +85°C (without freezing or condensation)
Humidity	85% RH max
Mounting Direction	Free
Optical input-output direction	Bi-directional

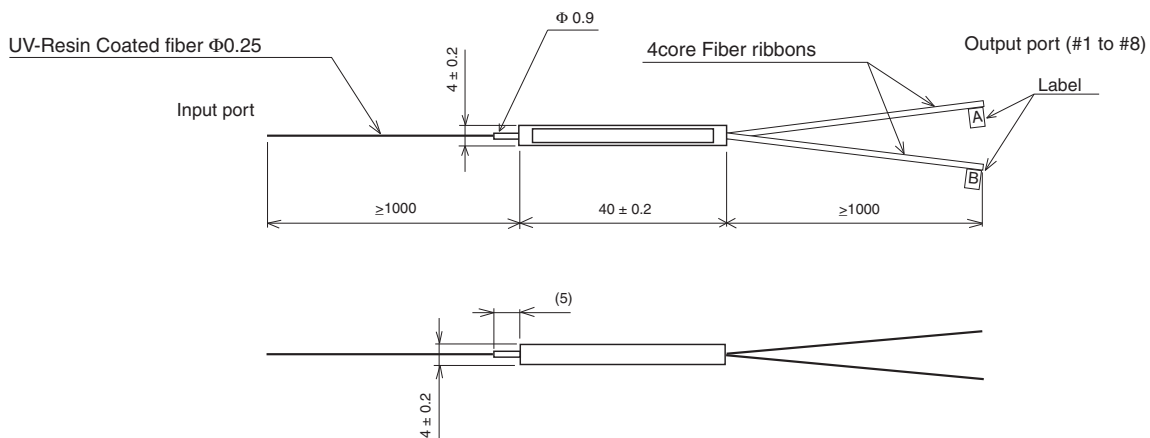
## Dimensions

UNIT: mm

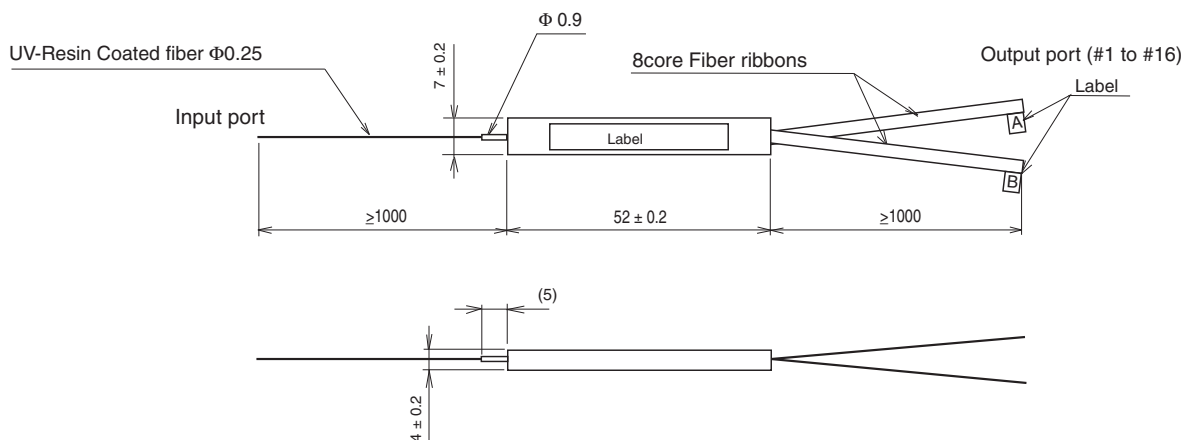
### 1 x 4 Splitter Module (P1C4A-MFAU1)



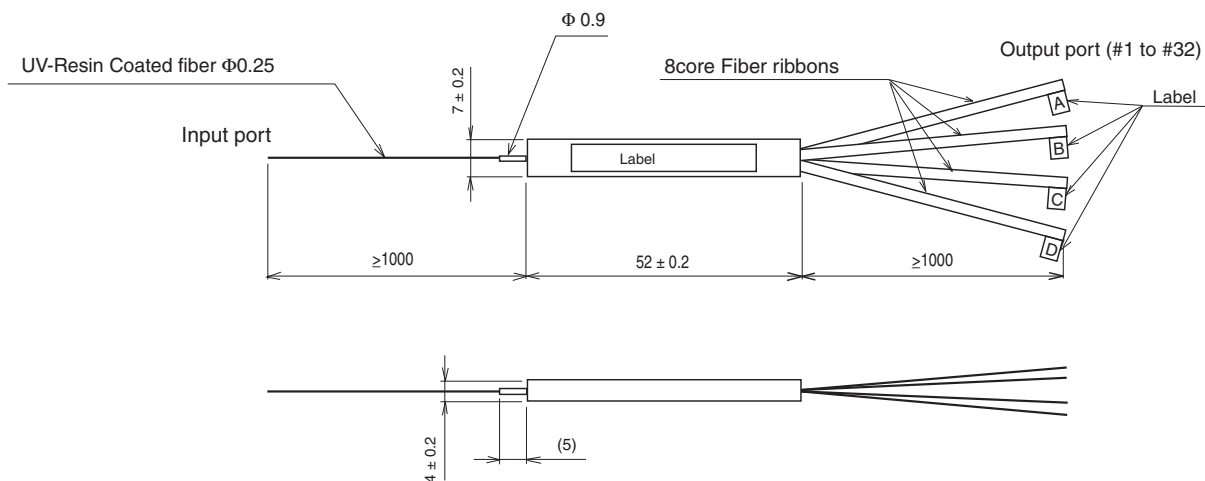
### 1 x 8 Splitter Module (P1C8A-MHAU1)



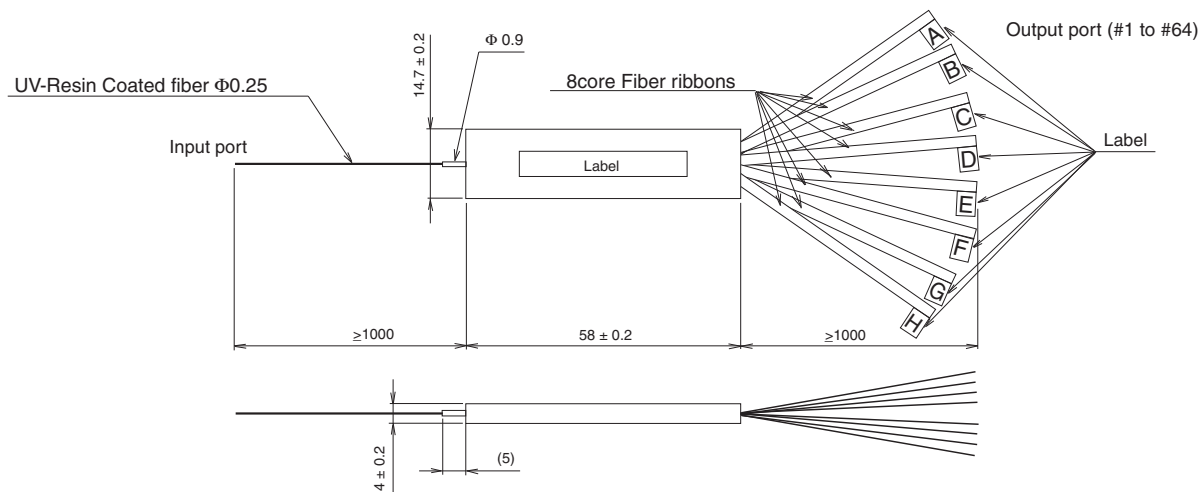
### 1 x 16 Splitter Module (P1C16A-MHAU1)



**1 x 32 Splitter Module (P1C32A-MHAU1)**



**1 x 64 Splitter Module (P1C64A-MHAU1)**



# Omron Electronic Components, LLC

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### I. GENERAL

- Definitions:** The words used herein are defined as follows.
  - Terms:** These terms and conditions
  - Seller:** Omron Electronic Components LLC and its subsidiaries
  - Buyer:** The buyer of Products, including any end user in section III through VI
  - Products:** Products and/or services of Seller
  - Including:** Including without limitation
- Offer: Acceptance:** These Terms are deemed part of all quotations, acknowledgments, invoices, purchase orders and other documents, whether electronic or in writing, relating to the sale of Products by Seller. Seller hereby objects to any Terms proposed in Buyer's purchase order or other documents which are inconsistent with, or in addition to, these Terms.
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  - All sales and shipments of Products shall be FOB shipping point (unless otherwise stated in writing by Seller), at which point title to and all risk of loss of the Products shall pass from Seller to Buyer, provided that Seller shall retain a security interest in the Products until the full purchase price is paid by Buyer;
  - Delivery and shipping dates are estimates only; and
  - Seller will package Products as it deems proper for protection against normal handling and extra charges apply to special conditions.
- Claims:** Any claim by Buyer against Seller for shortage or damage to the Products occurring before delivery to the carrier or any claim related to pricing or other charges must be presented in detail in writing to Seller within 30 days of receipt of shipment.

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- Suitability:** IT IS THE BUYER'S SOLE RESPONSIBILITY TO ENSURE THAT ANY OMRON PRODUCT IS FIT AND SUFFICIENT FOR USE IN A MOTORIZED VEHICLE APPLICATION. BUYER SHALL BE SOLELY RESPONSIBLE FOR DETERMINING APPROPRIATENESS OF THE PARTICULAR PRODUCT WITH RESPECT TO THE BUYER'S APPLICATION INCLUDING (A) ELECTRICAL OR ELECTRONIC COMPONENTS, (B) CIRCUITS, (C) SYSTEM ASSEMBLIES, (D) END PRODUCT, (E) SYSTEM, (F) MATERIALS OR SUBSTANCES OR (G) OPERATING ENVIRONMENT. Buyer acknowledges that it alone has determined that the Products will meet their requirements of the intended use in all cases. Buyer must know and observe all prohibitions of use applicable to the Product/s.
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  - Outdoor use, use involving potential chemical contamination or electrical interference.

- Use in consumer Products or any use in significant quantities.
  - Energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
  - Systems, machines, and equipment that could present a risk to life or property.
- Prohibited Use:** NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.
  - Motorized Vehicle Application:** USE OF ANY PRODUCT/S FOR A MOTORIZED VEHICLE APPLICATION MUST BE EXPRESSLY STATED IN THE SPECIFICATION BY SELLER.
  - Programmable Products:** Seller shall not be responsible for the Buyer's programming of a programmable Product.

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- Intellectual Property:** The intellectual property embodied in the Products is the exclusive property of Seller and its affiliates and Buyer shall not attempt to duplicate it in any way without the written permission of Seller. Buyer (at its own expense) shall indemnify and hold harmless Seller and defend or settle any action brought against Seller to the extent that it is based on a claim that any Product made to Buyer specifications infringed intellectual property rights of another party.
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- Waiver:** No failure or delay by Seller in exercising any right and no course of dealing between Buyer and Seller shall operate as a waiver of rights by Seller.
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- Severability:** If any provision hereof is rendered ineffective or invalid, such provision shall not invalidate any other provision.

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  - (ii) Energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
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  - (iv) Systems, machines and equipment that could present a risk to life or property. Please know and observe all prohibitions of use applicable to this product.

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**ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.**

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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