



NetSource's PLC Splitter Guide

Overview

Optical splitters are essential components in fiber optic networks, used to efficiently distribute optical signals across multiple pathways. They play a crucial role in Fiber-To-The-Home (FTTH) networks and comply with ITU-T PON standards such as GPON and XGS-PON. These splitters enable scalable and dependable data transmission in central offices, fiber distribution hubs, and both inside plant (ISP) and outside plant (OSP) environments.

NetSource offers three types of splitters to meet diverse network needs:

- 1.) Ruggedized
- 2.) Bare
- 3.) Connectorized



This product complies with BABA standards and is available for quoting. For more information, reach out to our sales team at 1-(800) 557-8818 or info@netsource-inc.com.

PLC Splitters						
Parameter	1x2	1x4	1x8	1x16	1x32	1x64
Working Wavelength (nm)	1260-1650					
Fiber Type	G657A2					
Insertion Loss (dB) Max w/o connectors	3.8	7.1	10.2	13.5	16.8	20.2
Insertion Loss (dB) Max with connectors	4.1	7.4	10.5	13.8	17.1	20.5
Uniformity (dB)	≤0.4	≤0.5	≤0.8	≤1.0	≤1.5	≤1.8
Polarization Dependent Loss (dB)	≤0.25	≤0.25	≤0.25	≤0.3	≤0.3	≤0.35
Return Loss (dB)	≥55					
Directionality (dB)	≥55					
Temperature Stability (dB)	-40°C to 85°C (≤0.5)					
Working Temperature °C	-40°C to 85°C					
Storage Temperature °C	-40°C to 85°C					
Maximum Power (nW)	1,000					

Ruggedized PLC Splitters

Ruggedized splitters are specifically designed for outdoor enclosures, providing enhanced protection and reliability in demanding environments. When used within IP-rated enclosures, they are ideal for fiber distribution hubs, handholes, pedestals, and aerial installations.

Key Benefits include:

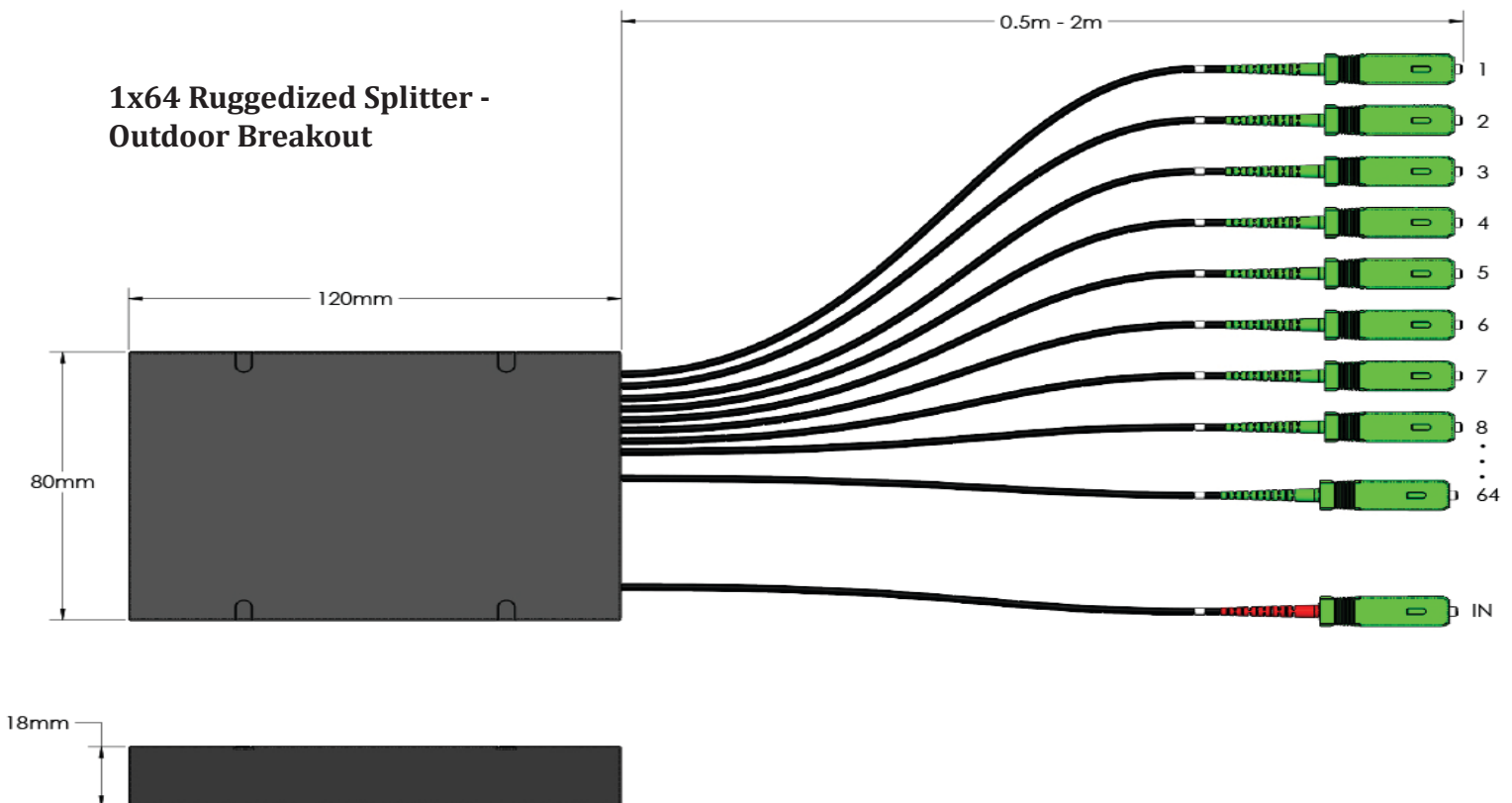
- **Durable Construction:** Engineered to withstand extreme conditions, including buried and pole-mounted installations.
- **Long-Term Reliability:** Delivers consistent performance in large-scale broadband deployments.
- **Enhanced Protection:** Effectively resists moisture, temperature fluctuations, and other environment hazards for superior durability.

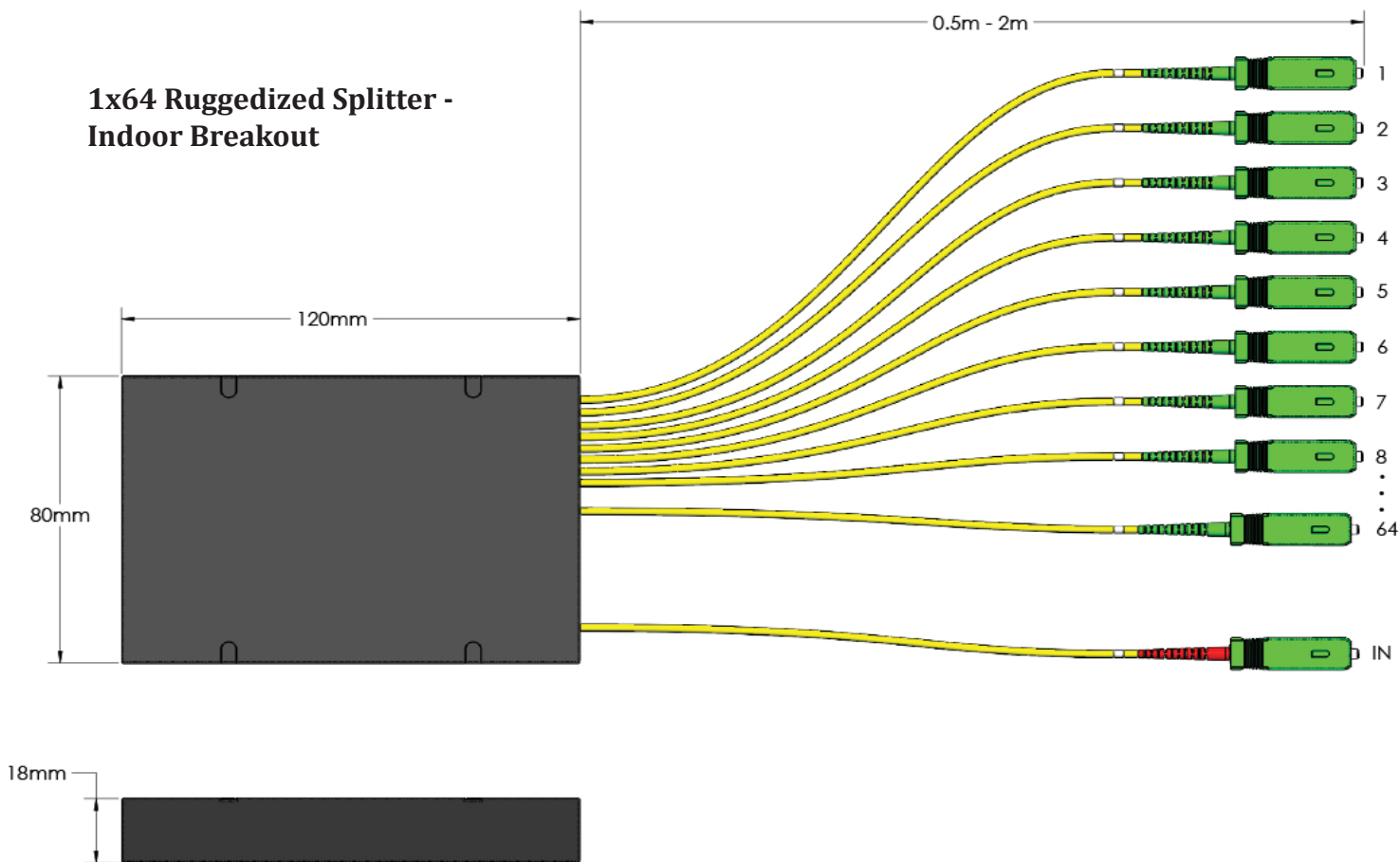
Note: To ensure optimal performance and protection, ruggedized splitters must be installed within a properly sealed IP-rated enclosure.

With their robust design, ruggedized splitters provide a dependable solution for broadband network applications, offering long-term resilience and uninterrupted connectivity.

Features

- PLC Splitters: 1x16, 1x32, and 1x64
- Connector: SC/APC, SC/UPC, LC/APC, or LC/UPC
- Jacket OD: 2mm or 3mm ruggedized jacket
- Red-booted input leg
- Telcordia GR-326 and GR-1209/1221 Compliant





Part Number Chart

PLC-SP	-	Input Fibers	-	Output Fibers	-	Input Connector Type	-	Output Connector Type	-	Input Breakout Length	-	Output Breakout Length	-	Breakout
		1		16		SA:SC/APC		SA:SC/APC		03: .3M (1FT)		03: .3M (1FT)		RG:3MM Outdoor
				32		SC:SC/UPC		SC:SC/UPC		05: .5M (1.64FT)		05: .5M (1.64FT)		2:2MM Indoor
				64		LA:LC/APC		LA:LC/APC		01: 1M (3.28FT)		01: 1M (3.28FT)		
						LC:LC/UPC		LC:LC/UPC		15: 1.5M (5FT)		15: 1.5M (5FT)		
										02: 2M (6.56FT)		02: 2M (6.56FT)		

Bare PLC Splitters

Bare splitters offer a cost-effective option for controlled environments, such as fiber distribution hubs, splice closures, and central offices. Their compact design allows easy integration into splice trays and enclosures, making them ideal for high-density installations.

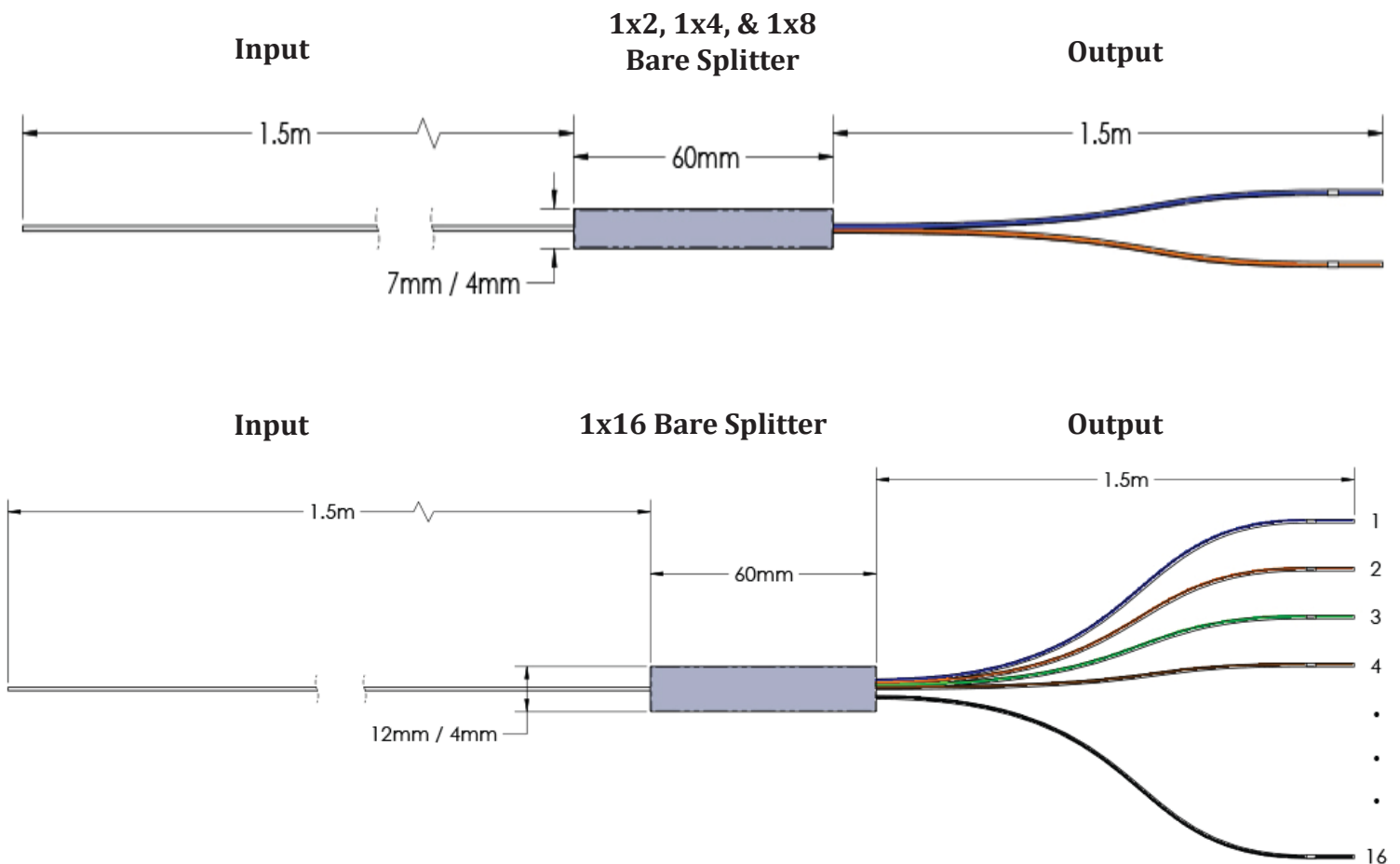
Key Benefits include:

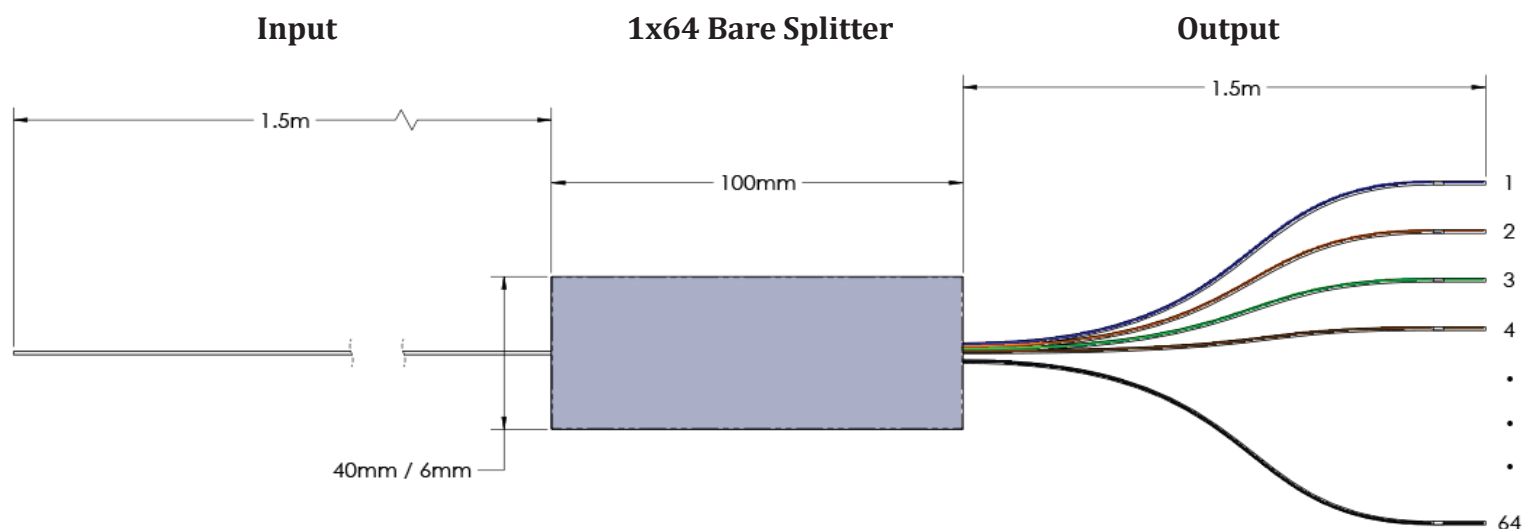
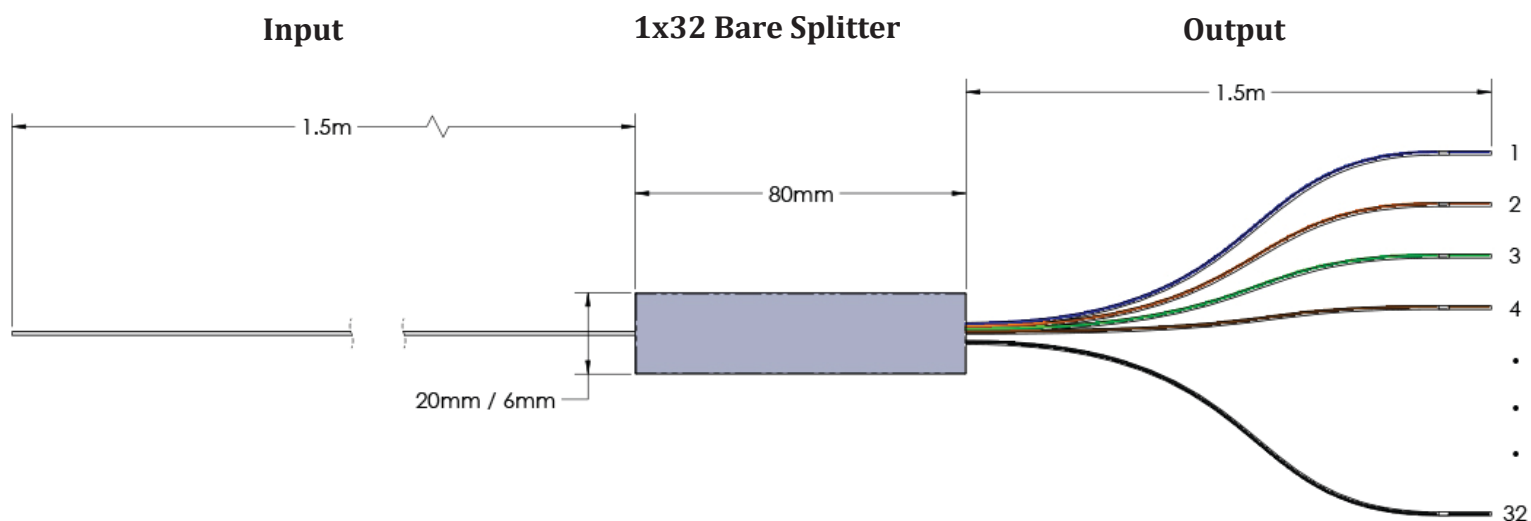
- **Direct Splicing:** Supports direct splicing into network fibers, reducing excess lengths and ensuring precise breakout configurations.
- **Low Insertion Loss:** Without connector interfaces, these splitters optimize network efficiency.
- **Lightweight and Compact:** Ideal for deployments where existing enclosures provide physical protection.

Bare splitters are a practical and affordable choice for environments where durability is ensured by external enclosures.

Features

- PLC Splitters: 1x2, 1x4, 1x8, 1x16, 1x32, and 1x64
- Jacket OD: 250um or 900um
- Input/Output 1.5M
- Telcordia GR-1209/1221 Compliant





Part Number Chart

PLC-SP	-	Input Fibers	-	Output Fibers	-	Input Type	Output Type	-	Input Breakout Length	Output Breakout Length
		1		2		X: Bare 250UM	X: Bare 250UM		15: 1.5M (5FT)	15: 1.5M (5FT)
				4		Y: Bare 900UM	Y: Bare 900UM			
				8						
				16						
				32						
				64						

Connectorized PLC Splitters

Connectorized splitters are designed for quick and efficient broadband installations in central offices, fiber distribution hubs, and multi-dwelling units (MDUs). These splitters feature pre-terminated connectors, which reduce installation time and labor costs, supporting modular network setups that scale with demand.

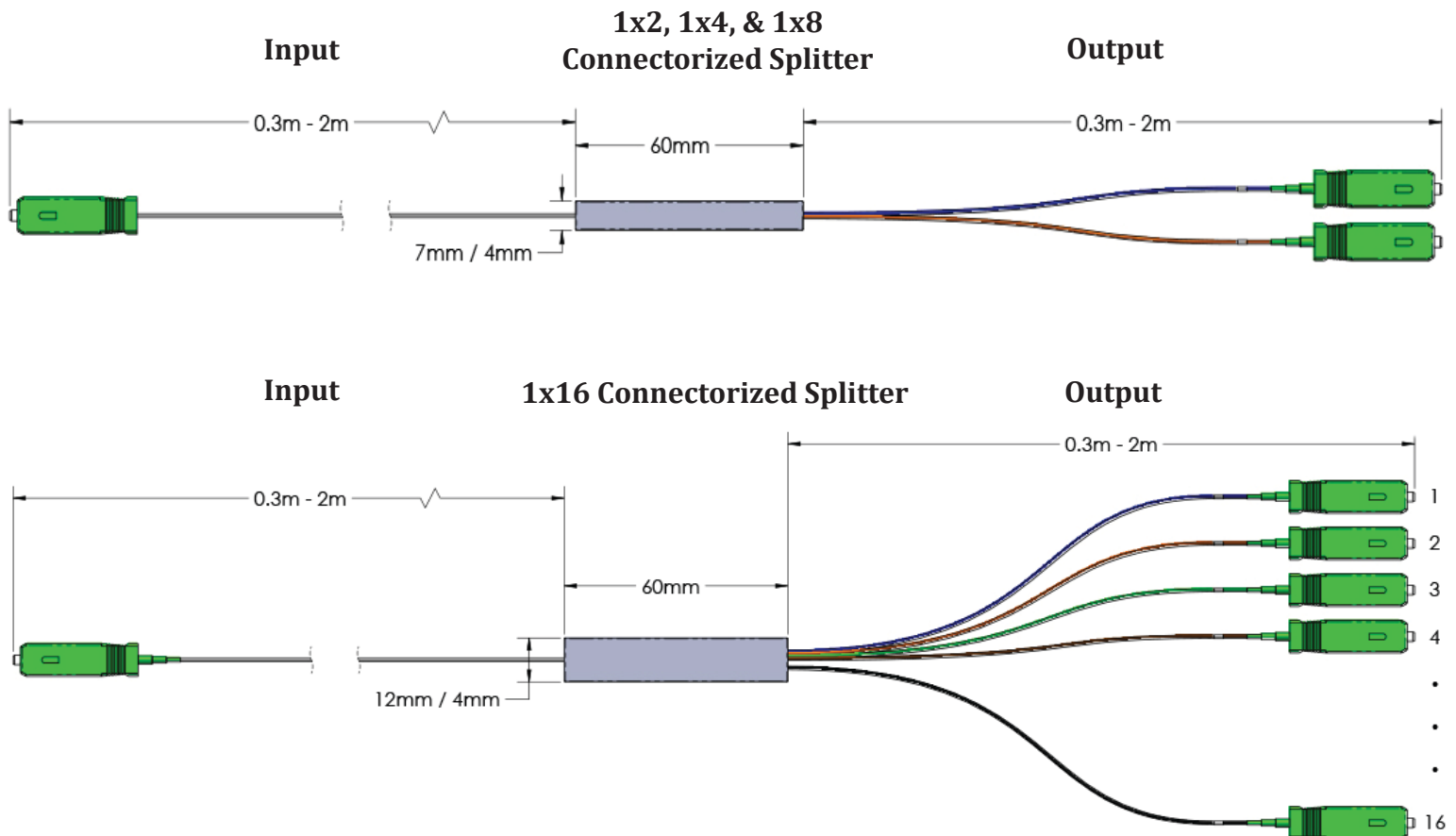
Key Benefits include:

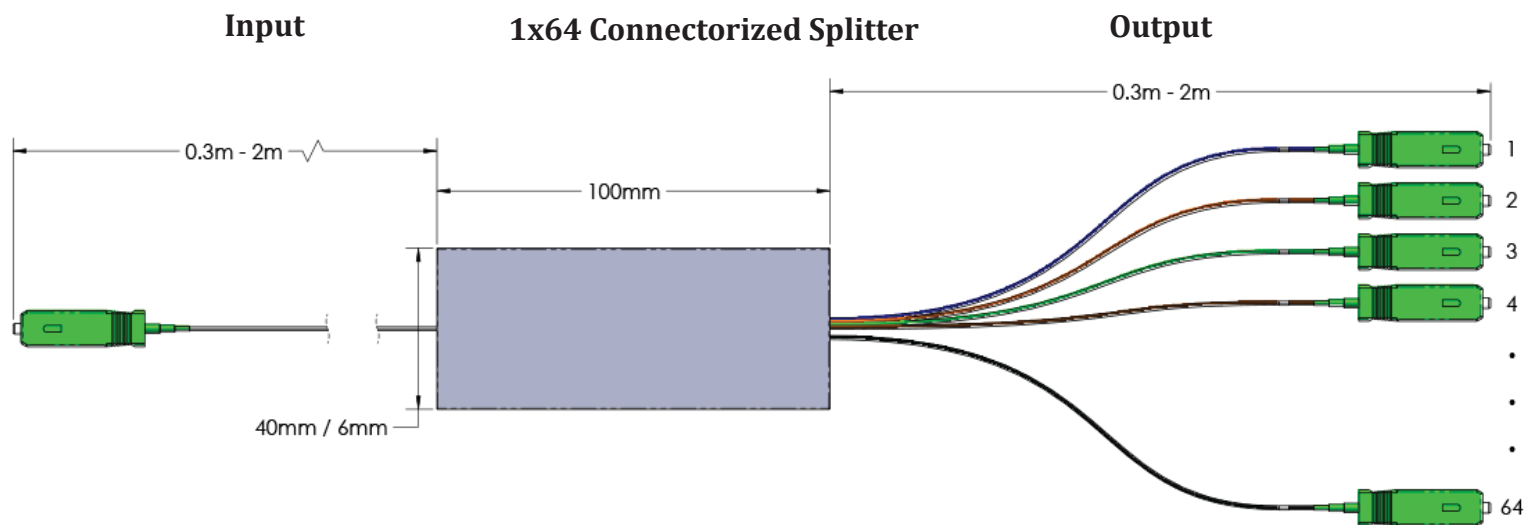
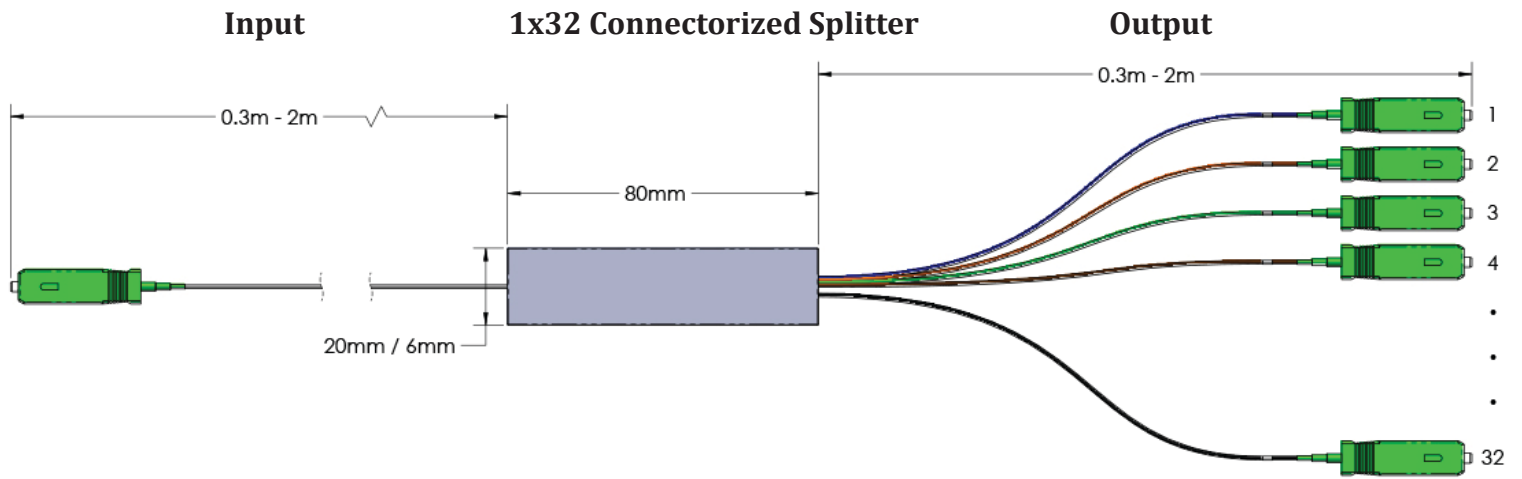
- **Plug-and-Play Integration:** Pre-terminated connectors simplify installations and maintenance, enabling fast replacements and reconfigurations.
- **Compact Design:** Supports high-density networks, optimizing space in distribution panels and enclosures.
- **Consistent Performance:** Factory-terminated connectors ensure precise performance and minimize signal loss.

Connectorized splitters provide a seamless solution for scalable and high-performance network deployments.

Features

- PLC Splitters: 1x2, 1x4, 1x8, 1x16, 1x32, and 1x64
- Connector: SC/APC, SC/UPC, LC/APC, or LC/UPC
- Jacket OD: 900um, 2mm, or 3mm
- Indoor
- Telcordia GR-1209/1221 Compliant





Part Number Chart

PLC-SP	-	Input Fibers	-	Output Fibers	-	Input Connector Type	Output Connector Type	-	Input Breakout Length	Output Breakout Length	Breakout
		1		2		SA: SC/APC	SA: SC/APC		03: .3M (1FT)	03: .3M (1FT)	900: 900UM
				4		SC:SC/UPC	SC: SC/UPC		05: .5M (1.64FT)	05: .5M (1.64FT)	
				8		LA: LC/APC	LA: LC/APC		01: 1M (3.28FT)	01: 1M (3.28FT)	
				16		LC: LC/UPC	LC: LC/UPC		15: 1.5M (5FT)	15: 1.5M (5FT)	
				32		X: Bare 250UM			02: 2M (6.56FT)	02: 2M (6.56FT)	
				64		Y: Bare 900UM					