

# Outdoor Plug & Socket Optical Fiber Connector

## 1. Product Description

Conventional ordinary optical fiber connectors or optical fiber fusion splicing are externally connected by adding special materials. The optical fiber connectors that can be used under harsh conditions are called prefabricated optical fiber connectors. The outdoor special prefabricated optical fiber connector launched by SHKE has extremely strong anti-rust and anti-corrosion capabilities and excellent mechanical properties, and can be used under harsh conditions.

Connector	Name	Optical patch cord	Name
	Outdoor Square socket		Φ0.9-LC optic patch Cord
	Outdoor Square socket		Φ2.0/3.0-LC optic patch Cord
	Outdoor extension		Φ6.5-LC optic patch Cord
	Outdoor plug		Φ6.5-LC optic patch Cord
	Outdoor MT Square socket		Φ2.0/3.0-MPO/MTP-LC Optic patch cord

	<p>Outdoor MT plug</p>		<p>Φ7.0-MPO/MTP Optic patch cord</p>
	<p>Outdoor extension</p>		<p>Φ6.0-LC Optic patch cord</p>

## 2.Product Features

### Metal connector

- 1.Contacts use standard LC, MT ferrule interface, LC ferrule interface up to 4 cores, MT ferrule interface. up to 24 cores, reliable performance, simple operation and high integration.
- 2.Made of stainless steel SUS316, anti-corrosion, in good mechanical properties.
- 3.Mechanical thread locking mechanism can ensure long-term reliable connection.
- 4.Designed with guide pins, easy to insert and fast connection.
- 5.Sealed design: with dustproof and waterproof features, the protection level can reach IP67.
- 6.It is compact in size, easy to operate, and durable.
- 7.Perforated seal design, you can fix the socket connector on the device by screws.
- 8.No welding, plug and play, convenient and fast.
- 9.The optical cable assembly can be made into various standard connectors.

### Plastic material connector

- 1.Good flame retardancy, oil and chemical resistance, tear resistance, low temperature flexibility, strong elasticity, good stress buffering.
- 2.Optional LC/SC/MPO/MTP interface.
- 3.The use of high-strength fatigue-resistant optical fiber ensures the reliability and life of the optical cable under various harsh service conditions.
- 4.Special coating structure can absorb mechanical and environmental stress.
- 5.Small pitch optical fiber SZ stranding and aramid reinforced fiber single spiral stranding.
- 6.The number of optical fiber cores is 2 24 cores, which can be customized according to requirements.

### 3. Product Application



Intelligent substation control system



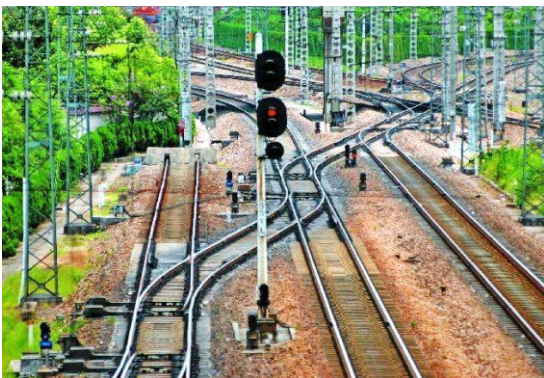
Remote communication base station, fiber to the tower (FTTA).



Aerospace communication system



Military field communication



Railway communication system



Mine communication system



Oil field communication system



Shipborne surveillance, control and Communication system.

## 4. Connector Parameter

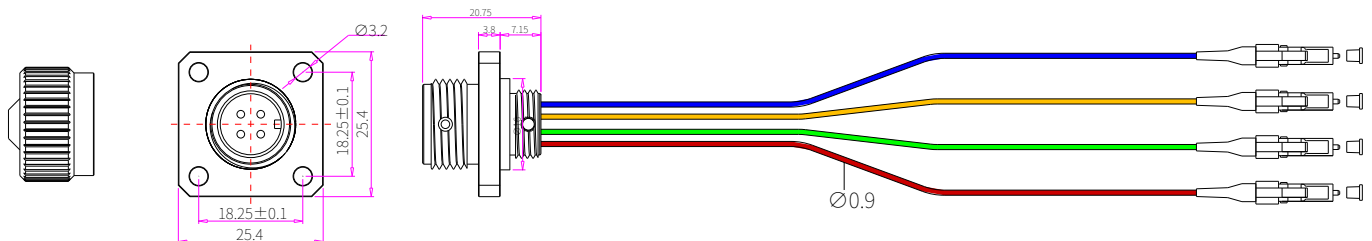
ITEM	Metal connector	Plastic connector
Insertion Loss	Outdoor_LC SM 0.7dB	Outdoor_MT SM 1.5dB
	Outdoor_LC MM 0.6dB	Outdoor_MT MM 1.2dB
Return Loss	Outdoor_LC SM 50dB	Outdoor_MT SM 50dB
	Outdoor_LC MM ≥35dB	Outdoor_MT MM 25dB
Tensile resistance	6.0 ≥500N; 3.0 ≥100N; 2.0 ≥80N	6.0 500N
Resistant to salt spray	Lasts 1000h	Lasts 1000h
Operating temperature	-40℃ ~ +85℃	-40℃ ~ +70℃
Protection class	IP67	IP67
Environmental RHOS	Materials all meet RHOS standards	Materials all meet RHOS standards

## 5. Related Optical Cable Parameter

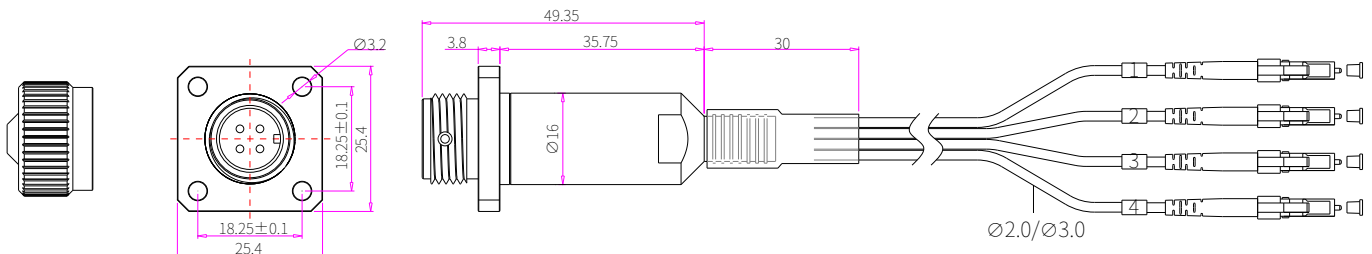
ITEM	CHARACTERISTICS
Cable Diameter	6.5mm or other
Sheath Material	LSZH or TPU
Tensile unit	KELVR
Fiber type	9/125;50/125;62.5/125
Tensile strength	Short term 500N ; long term 200N
Allow flattening force	1000N/100mm
Operating temperature	-40 ~ +80

## 6. Connector Drawing

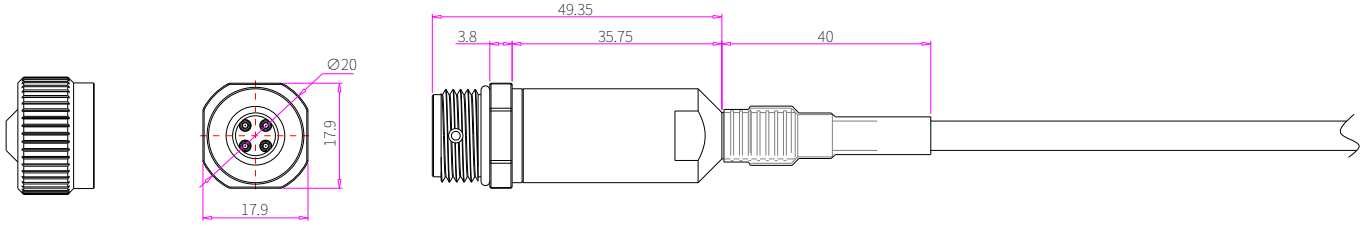
Outdoor Square socket Φ0.9-LC optic patch cord



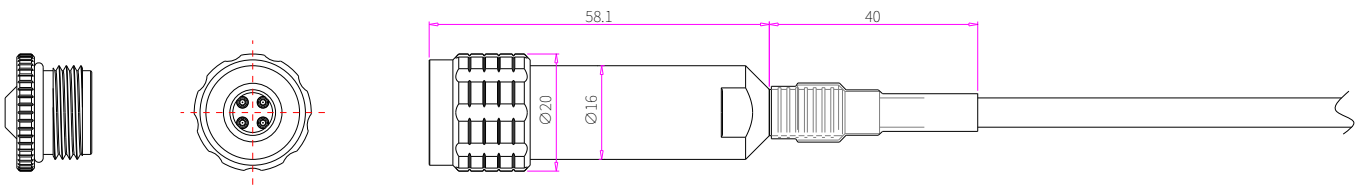
Outdoor Square socket Φ2.0/3.0-LC optic patch cord



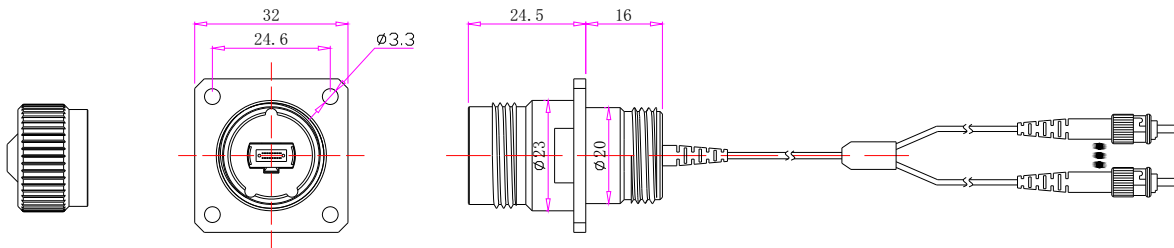
Outdoor extension  $\Phi 6.5$ -LC optic patch cord



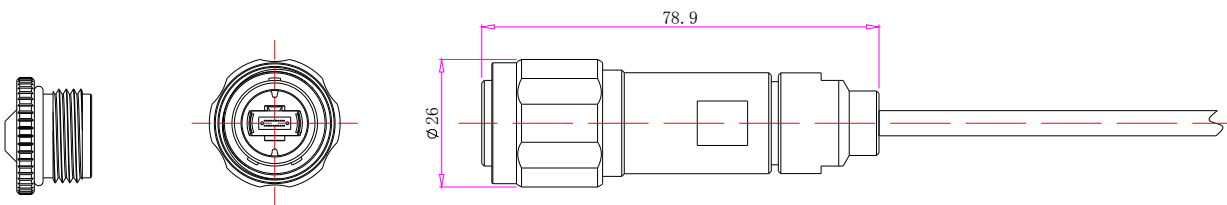
Outdoor plug  $\Phi 6.5$ -LC optic patch cord



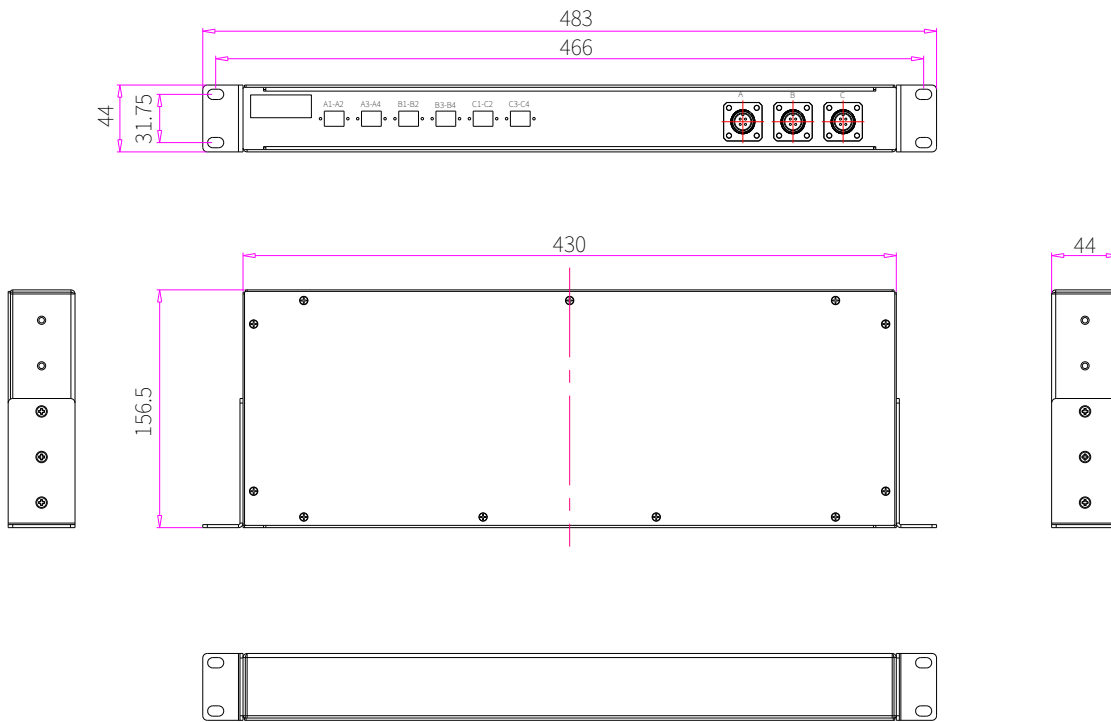
Outdoor MT Square socket  $\Phi 2.0/3.0$ -MT optic patch cord



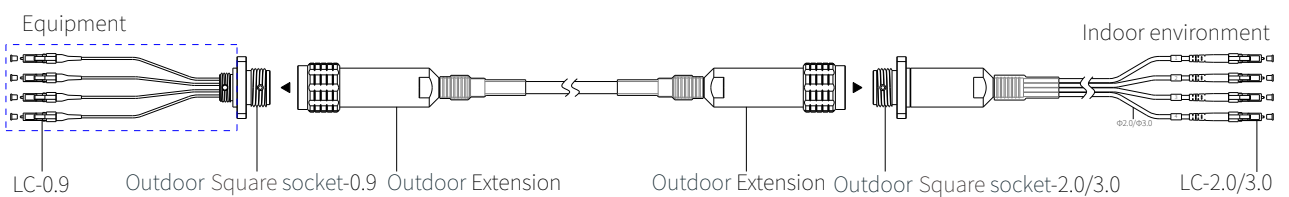
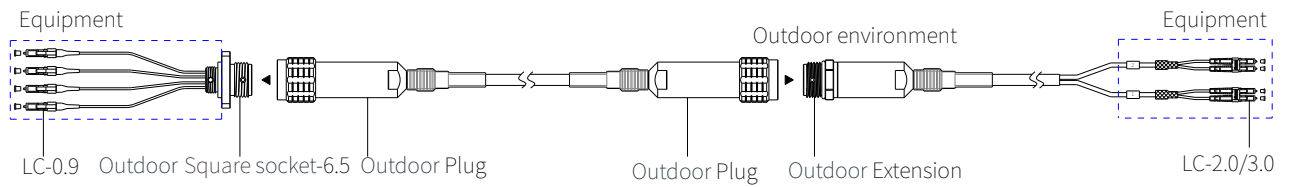
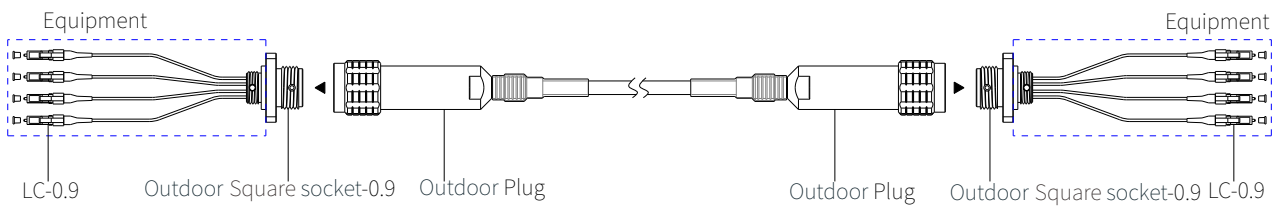
Outdoor MT plug  $\Phi 7.0$ -MT optic patch cord



## 3x4LC-Outdoor patch panel

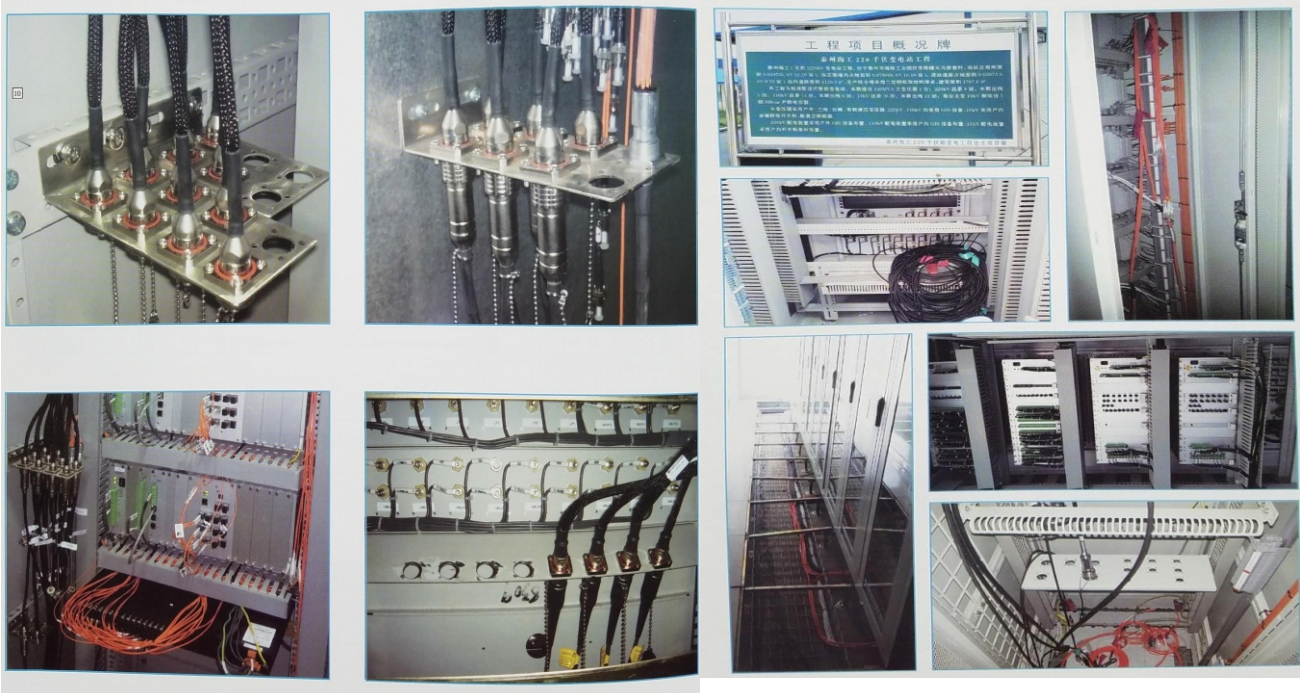


## 7. Routine application



## 8. Installation project site

Actual picture taken at the completion of the construction



schematic diagram of base station use

