



**Fully customizable Plastic Optical Fiber (POF) assemblies and harnesses are a rugged, cost-effective solution offering maximum flexibility for optical cabling in many industrial, medical, transportation, renewable energy, smart grid and consumer applications**

Molex offers fully customizable, cost-competitive Plastic Optical Fiber (POF) cable-assembly and harnesses solutions, providing maximum flexibility to customers specifying optical cabling in industrial, medical, renewable energy, power and data transmission, transportation and consumer applications including controls, drives, factory automation, high-speed trains, sensors and imaging. Plastic optical fiber (POF) cables, made from light-conducting plastics, are used for optical cabling networks over short distances, while glass fiber-optic cables are used for long distances.

Customers are able to specify assemblies and harnesses in terms of connector types, jacket material and color, temperature range, UL certification, cable lengths and tolerances. Molex SMI connectors, plus a wide range of connectors from different manufacturers, are available to answer specific application requirements at a competitive cost.

Purchasing fully customized cable solutions from Molex can allow customers to simplify their supply-chain through vendor reduction and remove third-party margins/ costs. For additional information visit: [www.molex.com/link/pof.html](http://www.molex.com/link/pof.html)

**Features and Benefits**

UL cable certification	Meets globally recognized safety standards
Industrial and extended temperature ranges from -55 up to +105°C	Withstands harsh environments
Choice of polymer and metal connectors from a wide range of manufacturers	Offers robust Insertion Loss (IL) performance, less than 2.8dB per connector, through cost-effective components selection
Custom cable lengths and length tolerances	Provides full design flexibility while meeting precise application requirements
Bare-fiber assembly capabilities	Ideal solution for sensor applications

**Applications**

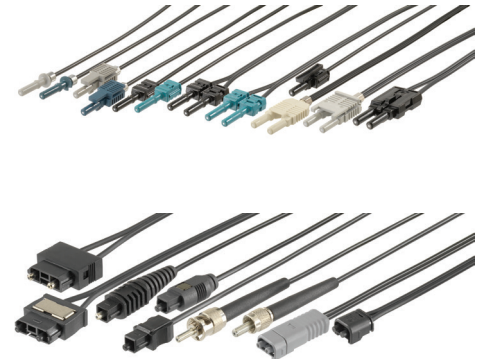
- Alternative Energy Solution:  
Wind Turbines
- Control systems
  - Power electronics/ IGBT/ IGCT
  - Sensors (*structural health monitoring*)
  - Inverters/ drives
  - Pitch control

- Industrial Automation
- Factory automation
  - Ethernet based applications
  - Robotics
  - Fieldbuses
  - Sensors

- Medical
- Imaging
  - Galvanic Isolation
  - Optical sensors

- Transportation
- Traction, high-speed trains
  - Rolling stock
  - Rail infrastructure

**Customized POF Cable Assemblies & Harnesses**



Customized POF Cable Assemblies



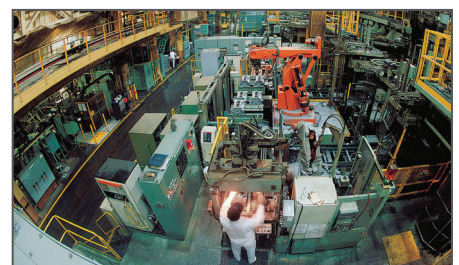
Wind Turbines



Rail infrastructure and Rolling Stock



Medical Imaging



Industrial Automation



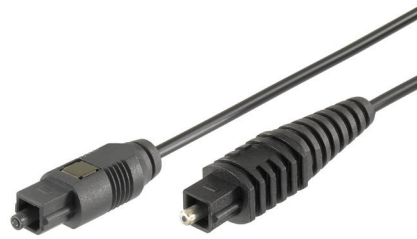
ST POF connector



FSMA POF connector



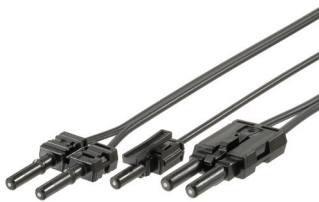
Toslink F07 duplex POF connectors



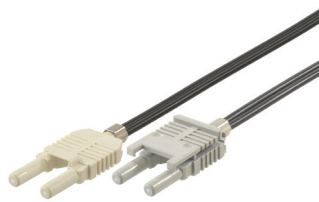
Toslink F05 simplex connectors



Toslink F05 simplex connector, crimpless



Avago crimpless simplex & duplex solution, with or without latching



Avago duplex/ crimp ring with or without latching



Avago simplex/crimp ring with latching



Avago simplex connector/crimp ring

## Specifications

### REFERENCE INFORMATION

UL Approval: Yes  
(cable jacket dependent)

### IL parameters

Less than 2.8 dB/connector

RoHS: Yes

Halogen Free: On request

### PHYSICAL

Connector types include:

SMI, Avago VL, SMA, ST; FC,  
Toslink F05, F07, additional types  
on request

Jacket type: PE, CPE, PVC, PA

Operating Temperatures:

-55 to +85°C or -55 to +105°C

## Ordering Information

CONTACT MOLEX.