

# DEUTSCH High Density Optical In-Line Dry-Mate Connector (ILC)

High Performance Multichannel Fiber Optic Connectors

# DEUTSCH High Density Optical In-Line Dry-Mate Connector



## RELIABLE TECHNOLOGY

- Derivative technology from multi-FO HP/HT Feedthrough System
- Stable performance for strain & temperature monitoring
- Low insertion loss and back reflection

## KEY FEATURES

- Optimized for subsea flexibles and umbilical terminations
- Cost effective product for renewable systems
- Bulkhead receptacle offers full pressure integrity up to 450bar
- Connector can be terminated either with cable or hose
- All connectors are delivered with transportation and dust caps

## OPTIONAL DEVELOPMENTS

- Fiber count up to 48
- ATEX or IECEx certification for explosion proof area

## High Pressure/High Temperature Performance

Developed from subsea and high pressure/high temperature (HP/HT) fiber optic (FO) technology, this optical in-line dry-mate high density connector is suitable for applications where space and weight restrictions are an issue. This connector has Angled Physical Contacts (APC) offering very low insertion loss and low back reflection. Mechanical interface compatible with TE Connectivity (TE)'s DEUTSCH established dry-mate connector.

## Markets

- Oil & Gas (Topside & Subsea)
- Marine Defense
- Oceanology & Marine Research
- Offshore Renewables

## ENVIRONMENTAL CHARACTERISTICS

- **Rated Pressure:** up to 450 bar (6,526 psi)
- **Operating Temperature:** Receptacle up to -30°C to 121°C with HT fiber Plug - In accordance with the cable temperature range
- **Mate/ Demate Cycle:** 100 minimum

Note: Operating temperature and pressure can be dependent on the type of fiber, the cable rating and the connector configuration

## MECHANICAL CHARACTERISTICS

- **12 (up to 24 FO)**
- **SM (single mode) and/or MM (multi-mode) Fiber Optics**

## OPTICAL PERFORMANCE

- **Insertion Loss:** -0,5dB (<0,3dB typical and 0,8dB max)
- **Back Reflection:** < -45dB (Full APC)

## MATERIALS

- **Housing:** AISI 316L / SuperDuplex
- **Coupling Parts:** Marine bronze

## TE Components . . . TE Technology . . . TE Know-how . . .

AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | DEUTSCH  
SEACON Phoenix | Phoenix Optix | SEACON

Empower Engineers to Solve Problems, Moving the World Forward.



## Standard Product Range



### Examples

1. Straight Cable Termination Plug *ILC-PSC-S12*
2. Straight Cable Termination Receptacle *ILC-RSC-S12*
3. Straight Hose Fitting Plug *ILC-PSH-S12*
4. Straight Hose Fitting Receptacle *ILC-RSH-S12*
5. 90° Angled Hose Fitting Plug *ILC-PAH-S12*
6. 90° Angled Cable Termination Plug *ILC-PAC-S12*
7. 90° Angled Cable Termination Receptacle *ILC-RAC-S12*
8. 90° Angled Hose Fitting Plug Receptacle *ILC-RAH-S12*
9. Bulkhead Receptacle *ILC-RB-S12*
10. Test Connector Plug *ILC-PTEST-S12*
11. Test Connector Receptacle *ILC-RTEST-S12*
12. Plug Pressure Cap *ILC-PCAP*
13. Receptacle Pressure Cap *ILC-RCAP*



### Part Numbering System :

**ILC -P SC -S12 -01**

**Range**

ILC Optical In-Line Connector

**Connector Gender**

P Plug  
R Receptacle

**Type of Connector**

B Bulkhead  
AC 90° Angled Cable termination  
SC Straight Cable termination  
AH 90° Angled Hose fitting  
SH Straight Hose fitting  
LB Looped Back (FO Shunted 1-2; 3-4;...)  
TEST Test Connector  
CAP Pressure Cap

**Optical Configuration**

S12 Single mode S XX : with number of fibers (standard = 12)  
M12 Multi-mode M XX : with number of fibers (standard = 12)  
SXXMXX Applicable for Mixing FO configuration (S10M02; S08M04; S06M06;...)

**Termination Type**

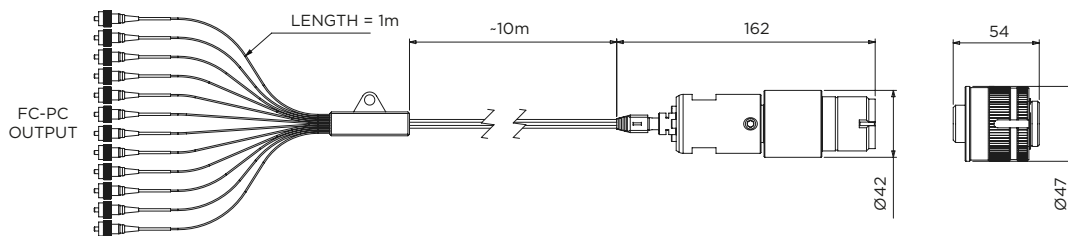
00 FO pigtail - 5 metres  
01 Cable Type 1  
02 Cable Type 2

### Examples

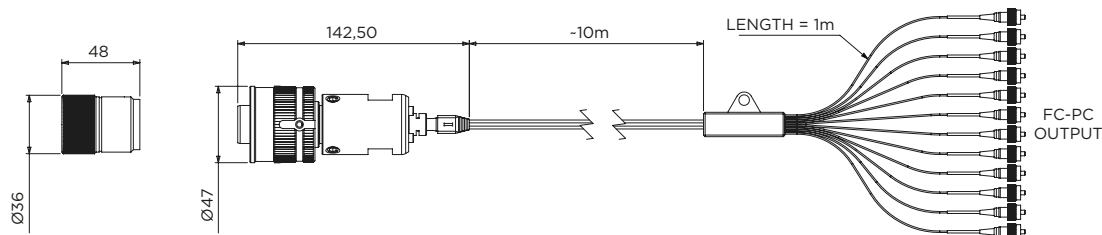
- Receptacle Bulkhead 12 Single Mode FO with pigtail ILC-RB-S12-00
- Standard Plug with Straight Cable 12 Multi-Mode FO ILC-PSC-M12-01
- Standard Plug with 90° Angle Hose with 6 Single Mode & 6 Multi-Mode FO ILC-PAH-S06M06-00
- Plug Test Connector 12 Single Mode FO - to be mated with Receptacle ILC-PTEST-S12

### Product Dimensions

#### ILC 12FO Test Receptacle

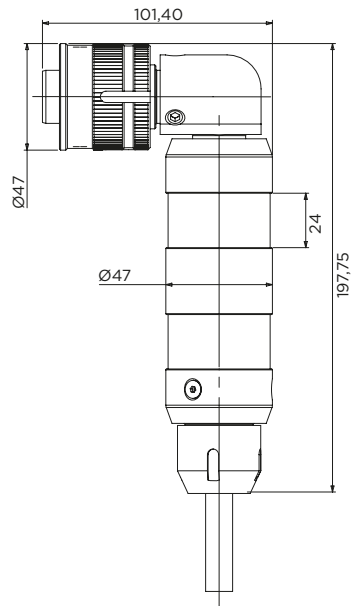


#### ILC 12FO Test Plug

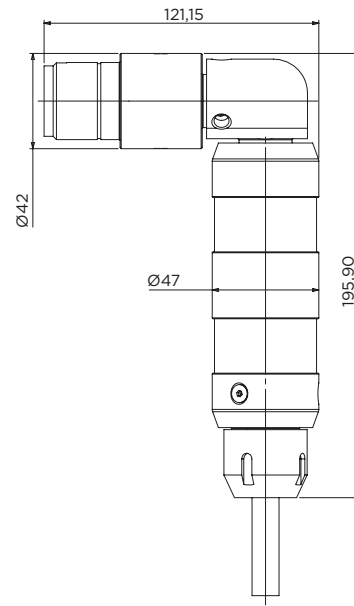




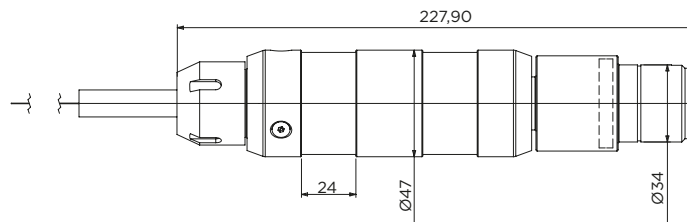
ILC Optical Plug Right Angle  
Connector 12FO



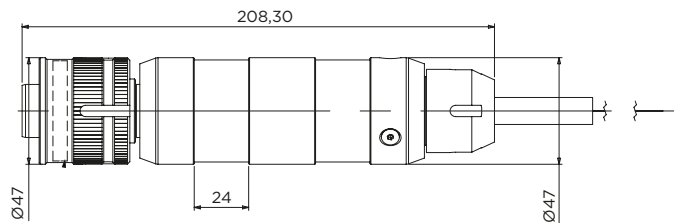
ILC Optical Receptacle Right Angle  
Connector 12FO



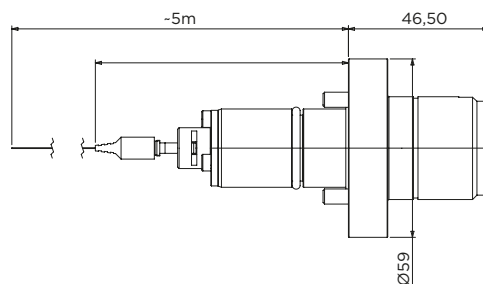
ILC Optical Receptacle Straight Connector 12FO



ILC Optical Plug Straight Connector 12FO



ILC Optical Receptacle Bulkhead Connector 12FO



## LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit [www.te.com/industrial](http://www.te.com/industrial) to chat with a Product Information Specialist.

## Technical Support

[te.com/support-center](http://te.com/support-center)

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EMEA/South Africa	+800 0440 5100	Australia	+61 2 9554 2695
EMEA (Toll)	+31 73 624 6999	New Zealand	+64 (0) 9 634 4580
India (Toll-Free)	+800 440 5100		

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Consult TE for the latest dimensions and design specifications.