# **Connectix Training Programmes** Fibre Optic Training Course

### Part 1 - Theory

Fibre optic links are becoming an increasingly common part of cabling infrastructures. Installers have to be competent when specifying, terminating, testing and installing fibre optics.

The Connectix Fibre Optic Course provides delegates with the hands-on practical experience (Part 2) and theoretical knowledge (Part 1) needed to successfully deploy fibre links on a site.

## **Features and Benefits**

- Delegates get an understanding of how to plan, install and test fibre optic cables and connectors successfully.
- The relationship of fibre optic cabling to commonly specified cabling standards will be understood.
- Fibre optic technology overview with theory of operation relating to real world applications.
- Certificate awarded for successful completion based on a test pass.
- Pre-requisite for Connectix Approved Installer Status
- An 'optional' pre-requisite for our passive optical course (PON)

The Connectix Fibre Optic Theory Course has the following key elements (many more than this):

#### Introduction to Connectix

- Background, history and activities
- Information with regards to 25 Year Warranties

#### **Course Introduction**

Course materials, objectives, test information

#### Fibre Optic Cabling Theory

- What is fibre, how is it constructed?
- How does it compare to copper and where is it used?
- Basic and general theory
- Multimode and Singlemode, what is the difference ?
- Fibre within the structured cabling standards
- Selecting the right fibre and grade for the installation
- Fibre types, construction and common terminology
- Armoured cables, why, which and where ?
- Terminating hardware (patch panels and hardware)
- Loss budgets, what does it all mean, how to calculate, do we need to?
- Blown fibre, PON and other fibre developments
- Testing overview, Why test? What to test?

Overall, the 2 parts of the fibre course aim to offer a balanced mix of theory and practice relating to the use of fibre optic cabling within the enterprise/commercial sector. Application standards are also introduced with regard to the importance of their consideration when specifying fibre cable and connector types for particular applications.

This course requires no prior knowledge or experience. Inexperienced delegates will leave with adequate knowledge and confidence for specification and successful installation of fibre optic links.

The 'Part 2' practical course will be a natural progression for those who need a hands on practical experience. Delegates new to fibre optic cabling and those already experienced in practical installation will improve their formal knowledge of the theory behind the operation of fibre and the choices available in selection of fibre and the choices available in

selection of fibre and termination methods.

The course is run by a fully qualified Connectix Cabling Systems trainer who is well versed in installations and is constantly updated in line with the rapidly changing standards, technologies and terminologies.

Questions during the course are actively encouraged.





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## Part 2 - Practical Only

After successfully completing the theory element (Part 1) and passing the short test delegates will complete 'Part 2' for practical training.

## **Features and Benefits**

- Gives delegates confidence to terminate and test fibre optic cables and connectors successfully.
- The relationship of fibre optic cabling to commonly specified cabling standards will be understood.
- Hands-on termination using a fusion splicer and mechanical terminations
- Testing using a power meter and Fluke OLTS
- Certificate awarded for successful completion

The Connectix Fibre Optic Termination Course is a mixture of practical work and hands on exercises used to relate theory and practise to real world scenarios with the following key elements (many more than this):

#### Fibre Optic Cabling Theory

• Brief 're-cap' of Part One

#### Practical Detail

- Fibre cable construction and selection
- Fibre connectors
- Presentation of installed fibre links into panels
- Fibre termination health and safety considerations
- Review of termination methods with summary
- Fibre preparation for termination
- Cleaning fibre ends and understanding the importance
- Practical termination exercises
- Fusion splicing, mechanical terminating
- Rapid fibre

## Training Centre Opening/Course Time Tables

The training centre will be open from 8:45am with a selection of tea and coffee available. A lunch consisting of sandwiches/drink will be supplied.

Courses start at 9am. Courses aim to finish by 5:00pm with the training centre being closed by 5:30pm.

The course timetable may be flexible during the day however we have to start promptly, please ensure you can arrive at the start time specified in the course itinerary.

### **Course Availability**

Please contact Connectix Cabling Systems for up-to-date course availability information.

Telephone: 01376 346600 Fax: 01376 346620 Email: training@connectix.co.uk

## **General Guidance & Information**

Training is primarily held at the Connectix Training Centre based at the Connectix HQ in Braintree, Essex.

If required, courses can be held externally at a customer's site. Typically, 6 or more delegates will be required to justify an external course.

Please note that while external courses aim to provide the same value as those held in our training centre the practical exercises may not be as comprehensive or offer the same level of learning benefit.



#### Fibre Link Testing

- Why test? What to test?
- Methods of testing
- Different types of test equipment
- Testing exercise
- Loss testing with light source and meter and Fluke OLTS