Product Training (P10)

Phoenix Contact Academy Australia and New Zealand

P10 – Product Training

Beginner Course

No.	Business Area	Module	Training Code	Duration
01	Power Reliability	Power Supplies Basic	P10_0101	1 Hour
02	Power Reliability	Redundancy and UPS Basic	P10_0102	1 Hour
03	Power Reliability	Surge Protection Basic	P10_0103	1 Hour
04	Power Reliability	Circuit Breakers Basic	P10_0104	1 Hour
05	Power Reliability	Energy Meters Basic	P10_0105	1 Hour
06	Connectivity	Terminal Blocks and Distribution Basic	P10_0201	1 Hour
07	Connectivity	Field Connectors Basic	P10_0202	30 minutes
08	Automation	Relays Basic	P10_0301	30 minutes
09	Automation	Control, IO and Networks Basic	P10_0302	1 Hour
10	Automation	Motor Switching and Conversion Basic	P10_0303	1 Hour
11	Automation	Signal Conditioners Basic	P10_0304	1 Hour
12	Cabinet Efficiency	Efficiency in Cabinet Building Basic	P10_0401	1 Hour
13	Cabinet Efficiency	Hand Tools and Accessories	P10_0402	1 Hour
14	Cabinet Efficiency	Automatic Tools Basic	P10_0403	1 Hour
15	Cabinet Efficiency	Printing and Marking Basic	P10_0404	1 Hour
16	Cabinet Efficiency	CLIPX Engineer Software Basic	P10_0405	1 Hour
			TOTAL	15 Hours

Module 1: Power Supplies Basics

Business Area: Power Reliability

Training code: P10_0101

Duration: 1 hour

Description

This module is an introduction to the Phoenix Contact families of Power Supplies including:

- Basic, Standard and Maximum functionality (good, better, best)
- Important design and technical parameters.
- The Lifetime Warranty program with our SPD and Power Supplies.
- Which customer applications best suit a particular PS family.

Learning Outcomes

Upon completion of this module the participant will be able to identify the different family and size of Phoenix Contact Power Supply, and their key differences and applications to a basic level. They will also be able to assist their customers in selecting an appropriate Power Supply for their applications.



Figure 1: TRIO, UNO, STEP Power Supplies

Module 2: Redundancy and UPS Basics

Business Area: Power Reliability

Training code: P10_0102

Duration: 1 hour

Description

This module is an introduction to the Phoenix Contact UPS and Redundancy products:

- What are the uses of Redundancy and UPS and how are they installed.
- Important design and technical parameters and USP offerings. Correct sizing and type of UPS Battery or Capacitor with a UPS solution.
- Which are some customer applications for Redundancy and UPS.

Learning Outcomes

Upon completion of this module the participant will be able to identify the different family and sizes of Phoenix Contact UPS and Redundancy models, and their key differences and applications to a basic level. They will also be able to assist their customers in selecting an appropriate UPS or Redundancy solution for their applications.



Figure 2: QUINT Product Range

Module 3: Surge Protection Basics

Business Area: Power Reliability

Training code: P10_0103

Duration: 1 hour

Description

This module is an introduction to Surge Protection and the Phoenix Contact SPD range of products including the following:

- What are the different types of Surge Transients and their effects.
- AS/NZS and IEC Standards introduction and the different SPD types.
- The different types of SPDs and how to select an appropriate SPD.
- Basic overview of SPDs for Power (AC/DC), Data, Signals and Antennas.

Learning Outcomes

Upon completion of this module the participant will have a basic understanding of Surge Protection, the different protections levels required and what Standards are relevant in the selection of SPDs for an installation. They will also be various applications to a basic level.



Figure 3: SEC Family

Module 4: Circuit Breakers Basics

Business Area: Power Reliability

Training code: P10_0104

Duration: 1 hour

Description

This module introduces the participant to the different ranges and types of Circuit Breaker protection in a typical installation.

- What is the most appropriate CB technology to protect each circuit.
- What is a CB “curve” and how do they different CB technologies differ.
- The relationship between our Phoenix Contact Power Supplies and CB Protection.

Learning Outcomes

Upon completion of this module the participant will have a basic understanding of Circuit Protection, the different protection options available and how to select an appropriate circuit breaker for a particular installation to a basic level.



Figure 4: Electronic Circuit Breaker Family

Module 5: PR Energy Meters Basics

Business Area: Power Reliability

Training code: P10_0105

Duration: 1 hour

Description

This module is an introduction to Energy Meters including –

- How and where they are installed and the equipment required.
- The type of information a customer is looking to source for an Energy Meter.
- How is the data from an Energy Meter communicated to the user either locally or remotely via PLC, BMS or Cloud solution.

Learning Outcomes

Upon completion of this module the participant will be able to identify the different types of Energy Meter and their associated accessory equipment, and their key differences and applications to a basic level. They will also be able to assist their customers in selecting an appropriate Energy Meter solution for their applications.



Figure 5: Energy Measuring Devices

Module 6: Terminals and Distribution Basics

Business Area: Connectivity

Training code: P10_0201

Duration: 1 hour

Description

This module introduces the participant to the Phoenix Contact range of Terminals and Distribution modules –

- The different connection technologies and their advantages / disadvantages.
- Complete Line fundamentals and how it applies across the Phoenix Contact ranges.
- Distribution options and the key benefits and advantages.

Learning Outcomes

Upon completion of this module the participant will be able to identify the different types of connection technology and which one is the most suitable for the customers application. They will also have an understanding of the Phoenix Contact Complete-Line range and the Terminals / Accessory and Distribution options available.

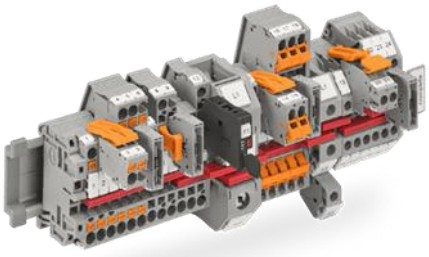


Figure 6: Clipline Complete

Module 7: Field Connectors Basic

Business Area: Connectivity

Training code: P10_0202

Duration: 30 minutes

Description

This module will take participants through the Phoenix Contact range of field connectors including –

- Heavy Duty “Heavy Con” connectors and housings and easy selection via the online configurator.
- Circular connectors for Power, Signal and Data solutions.

Learning Outcomes

Upon completion of this module the participant will be able to specify and select the most appropriate field connectors for a customers application. They will also be able to use the Phoenix Contact online configurators for easy part selection.



Figure 7: HEAVYCON Complete

Module 8: Relays Basic

Business Area: Automation

Training code: P10_0301

Duration: 30 minutes

Description

This module introduces the participant to the concepts around Switching and Relays including –

- what is a relay, the different types and how they are used.
- the critical technical specs and design parameters of relays.
- an introduction to the Phoenix Contact PLC-Logic and software and how it can be used.

Learning Outcomes

Upon completion of this module the participant will be able to identify the different types of Relays and Switching devices, and their key differences and applications to a basic level. They will also have a basic understanding of PLC-Logic and how it can be used to provide solutions to customers applications.



Figure 8: RIFLINE Complete

Module 9: Control, IO and Networks Basic

Business Area: Automation

Training code: P10_0302

Duration: 30 minutes

Description

This module is an overview across a large section of the automation portfolio

- PLCnext Technology
- Axioline and Smart Elements IO
- FL network products

Learning Outcomes

On completion of this module, the participant will be able to identify the different product ranges, where they fit within the complete portfolio.



Figure 9: PLCnext Control and Smart Elements IO

Module 10: Motor Switching and Conversion Basic

Business Area: Automation

Training code: P10_0303

Duration: 1 hour

Description

This module provides an introduction to motor switching and control and the unique offerings Phoenix Contact can offer in this space –

- important considerations in selecting a motor switching solution.
- the key advantages of Phoenix Contact Contactron / Speed Starter vs traditional methods.
- Basic introduction to machine safety and motor switching.

Learning Outcomes

Upon completion of this module, participants will understand the basic concepts around motor switching and speed control, basic safety circuits and the advantages of Phoenix Contact product range.

They will also be able to correct size and spec the correct components for a customers motor switching application.



Figure 10: Contactron

Module 11: Signal Conditioners Basic

Business Area: Automation

Training code: P10_0304

Duration: 1 hour

Description

This module will introduce participants to the specialist area of Signal Conditioners – The different types of Signal Conditions and typical applications. The difference between “active” and “passive” devices. Types of signals and devices where signal conditioners may be used.

Learning Outcomes

Upon completion of this module the participant will be able to identify the different types signals and devices where Signal Conditioners can be used, and the key differences between active / passive devices. Participants will be able to select the correct Signal Conditioners for a customers application for basic installations.



Figure 11: Signal Conditioners

Module 12: Efficiency in Cabinet Building Basic

Business Area: Efficiency in Cabinet Building

Training code: P10_0401

Duration: 1 hour

Description

This Module will introduce the participants to our “Efficiency in Cabinet Building” campaign within the Workshop Productivity functional area – everything from Engineering Design, Procurement, Assembly, Mounting, Wire Preparation and Marking etc. Also included is an overview to the huge range of Cabinet Accessories and Mounting gear to make it quick and easy to install equipment and wiring in any cabinet or switchboard.

Learning Outcomes

Upon completion of this module participants will be able to have a basic understanding of the key areas in improving efficiency within a Cabinet or Switchboard building workshop and be able to make suggestions and product solutions to these builders to streamline their processes.

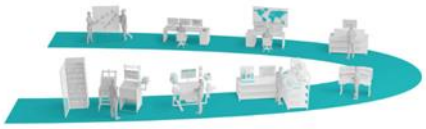


Figure 12: Efficiency in Cabinet Building Graphic

Module 13: Hand Tools and Meters

Business Area: Efficiency in Cabinet Building

Training code: P10_0402

Duration: 1 hour

Description

This module will introduce the participants to the vast range of Phoenix Contact Hand Tools (Pliers, Cutters, Strippers, Crimpers, Screwdrivers etc) and the associated accessories like crimp lugs and ferrules.

Learning Outcomes

Upon completion of this module, participants will be able to select "the right tool for the right job" and have a good understanding of the sort of tools their customers use in their day-to-day work, and how to operate them correctly. They will also be able to specify the

correct lugs and ferrules to match the terminations and the tools needed to crimp them correctly.



Figure 13: TOOL Belt-pouch

Module 14: Automatic Tools Basic

Business Area: Efficiency in Cabinet Building

Training code: P10_0403

Duration: 1 hour

Description

This module provides an introduction to our Automated Tool range, highlighting basic operation and in particular the speed and efficiency benefits to customers like Switchboard Builders. There is also a

focus on how these Automated Tools can be combined as a part of an overall workflow for even higher efficiency and through put in the workshop.

Learning Outcomes

Completion of the module will allow the participant to have a good understanding of our Automated Tool range, their basic operation and the key role they can have in improving efficiency in switchboard and cabinet building.



Figure 14: Automatic Tools

Module 15: Printing and Marking Basic

Business Area: Efficiency in Cabinet Building

Training code: P10_0404

Duration: 1 hour

Description

This training module will introduce the participants to our range of Printers, Printing Software and associated marking material for use with our own range of Phoenix Contact products (ie: Terminal Blocks and accessories, Cabinet equipment etc) as well as Wires and Cables, Cabinets and Enclosures and most other items commonly used in the switchboard and cabinet building industry.

Learning Outcomes

Upon completion, participants will have a basic understanding of our Printer range, and the advantages / disadvantages of the different print technologies for each. They will also have a good introduction to the variety of Marking media and

materials available, as well as our Phoenix Contact Print Software and Apps used to create the Marking labels and sleeves etc.



Figure 15: Marking Desktop Printers

Module 16: CLIPX Engineer Software Basic

Business Area: Efficiency in Cabinet Building

Training code: P10_0405

Duration: 1 hour

Description

In this module we will explore the features and functions within the Phoenix Contact “ClipX Engineer” free software. The participants will follow along with a sample project for a customer control panel from beginning to end, placing Phoenix Contact and 3rd Party components on DIN rails, selecting accessories, adding labels and marking before outputting their design and BOM of parts.

Learning Outcomes

Upon completion of this course, participants will have a good introduction to the Phoenix Contact ClipX Engineer software and will be able to start generating their own projects and applications, as well as demonstrate the software’s capabilities to their customers and clients.



Figure 16: ClipX Engineer

Ongoing communication with customers and partners worldwide

Phoenix Contact is a global, market leader based in Germany. Our group is known for its future-oriented components, systems, and solutions in the

fields of electrical engineering, electronics, and automation.

With a global network reaching across more than 100 countries and 17,400 employees, we can stay in close contact with our customers, something we believe is essential to success.

The wide variety of our innovative products makes it easy for our customers to find future-oriented solutions for multiple applications and industries.

We especially focus on the fields of energy, infrastructure, process, and factory automation.



You will find our complete product range at:

www.phoenixcontact.com.au

PHOENIX CONTACT Pty. Ltd.

CONTACT US

Technical Support number: 1300 786 411

E-mail: customerservice@phoenixcontact.com.au

Website: www.phoenixcontact.com.au

OUR LOCATIONS

SYDNEY

Level 12, 1PSQ,
169 Macquarie Street
PARRAMATTA NSW 2150

ADELAIDE

12B Main Assembly Bldg,
Tonsley Park 1284 South Road,
TONSLEY SA 5042

BRISBANE

Unit 9, 56 Lavarack Avenue
EAGLE FARM QLD 4009

PERTH

Unit 5, 175 Campbell Street
BELMONT WA 6104

MELBOURNE

Unit 1 8-12 Butler Way
TULLAMARINE VIC 3043

TASMANIA

Hobart - Launceston -
Devonport

AU DISTRIBUTION CENTRE

Warehouse 1
2-4 Interchange Drive
EASTERN CREEK NSW 2766

LIFETIME WARRANTY
BUILD WITH CONFIDENCE

PRICE GUARANTEE
BUILD WITH CONFIDENCE

AVAILABILITY GUARANTEE
BUILD WITH CONFIDENCE

E-PLATFORM
BUILD WITH CONFIDENCE

INDUSTRY 4.0
BUILD WITH CONFIDENCE