



# LC Automation

control & safety

CERTIFIED

## ▶ City & Guilds 4 Day Machinery Safety Course

LC Automation - together with Pilz - are pleased to offer a course which is accredited by City & Guilds and conveys all of the expertise needed to safeguard Machinery and Plant.

You will gain comprehensive knowledge from Risk Analysis to development of Safety Concepts through to correct safe implementation of Machinery and Plant.



Developed by Pilz,  
quality approved  
and certified by  
City & Guilds

### Safety begins with the Concept

Effective reduction of risk begins at the concept stage of a machine. The demands of Engineers and Operators must be determined early on in order to develop cost effective Safety Concepts. The correct application of Standards and Regulations is of particular importance in this process.

### Gain a Machinery Safety Certificate!

Acquire the knowledge necessary to reduce risk and secure economic success. Important tips from experienced specialists are on hand to help with implementation.

By completing the course, you will gain the necessary knowledge to understand the complete Machinery Safety Lifecycle from design to modification through to decommissioning.

### Certified in only 4 Days

Seven modules (see diag.) are covered with a combination of classroom sessions, practical exercises and examinations. A City & Guilds Machinery Safety Certificate will be issued on successful completion of all seven modules.

### Be prepared with the Pilz Safety Compendium

We recommend that you read the Pilz Safety Compendium in preparation for the course. For further information and to download a copy, either visit [www.pilz.co.uk](http://www.pilz.co.uk) and search Safety Compendium or contact LC Automation.



## Course Contents

### Day 1

- ▶ Introduction
- ▶ Management of Health and Safety at Work Regulations
- ▶ CE Marking requirements covering Machinery, EMC and Low-Voltage Directives
- ▶ Harmonised standards structure
- ▶ Tests on modules completed throughout the day

### Day 2

- ▶ EN 60204-1 Safety of Machinery - Electrical equipment of Machinery
- ▶ EN ISO 13849-1 Safety of Machinery - Safety related parts of control systems
- ▶ Principles and aspects of machine guarding
- ▶ Tests on modules completed throughout the day

### Day 3

- ▶ Practical wiring exercises to the categories of the standard for E-stop circuits including fault monitoring
- ▶ Practical wiring session on guard switches, 2 hand control systems etc, including fault indication and monitoring
- ▶ Provision and Use of Work Equipment Regulations 1998
- ▶ Tests on modules completed throughout the day

### Day 4

- ▶ Risk assessments concepts and theory, including EN ISO 12100.
- ▶ Practical method of risk assessment
- ▶ Temporary safety measures

### Target groups

- ▶ Electrical Engineers
- ▶ Mechanical Engineers
- ▶ Engineering Managers

### Notes

A City & Guilds Certificate will be issued on successful completion of all modules

## Benefits to you

- ▶ Comprehensive knowledge covering the complete safety lifecycle of a machine or plant
- ▶ Enhanced technological competence when preparing safety solutions
- ▶ Highly practical approach
- ▶ Certification in just 4 days

### Course Dates:

- ▶ 7th - 10th September 2020
- ▶ 23rd - 26th November 2020

### Duration:

- ▶ 4 days
- ▶ Mon to Thurs: 9:00 - 17:00

### Fee:

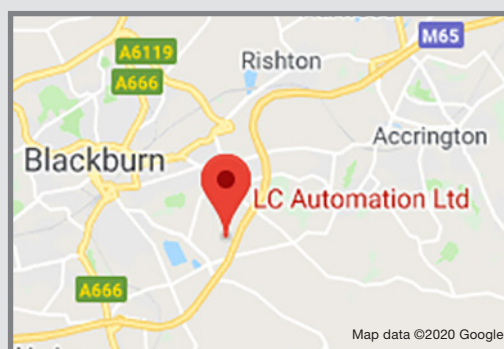
- ▶ £1,400 +VAT per person<sup>1)</sup>

### Participants:

- ▶ Up to 8

### Location:

- ▶ LC Automation, Blackburn Head Office, Duttons Way, Shadsworth Business Park, Blackburn, Lancashire, BB1 2QR.



### For further information and to book:

- ▶ Call 01254 685900 - Option 1 for Sales
- ▶ Email [sales@lca.co.uk](mailto:sales@lca.co.uk)
- ▶ Web [www.lcautomation.com](http://www.lcautomation.com) - Training



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<sup>1)</sup> Includes the training material and the issuing of the certificate

