

# HAZARDOUS AREAS COMPEX COMPETENCE BASED COURSE GAS & VAPOURS (Modules Ex01 – Ex04)

Course Code: CP 5001



Course Duration (Days)	Training Hours	Practical Content (%)	Theoretical Content (%)
05	35	50	50

## TARGET AUDIENCE

CompEx Ex01-04 (Gas & Vapors) Course is designed for individuals involved in the selection, installation and inspection of equipment used in hazardous areas. Electrical and instrumentation personnel who conducts electrical installation or inspection of hazardous areas should apply.

## COURSE OBJECTIVES

Candidates are required to complete the electrical installation exercises involving wiring, glanding, installation and inspection skills to the required standards.

The purpose of the course is to raise the competency levels of personnel carrying out installation, inspection and maintenance of electrical apparatus in explosive gas atmospheres (other than mines) to the IEC 60079 series of standards.

## COURSE CONTENT

- General principles, ignition properties and apparatus protection, sources of ignition
- Standards, certification and marking
- Flameproof Ex 'd' protection
- Increased safety Ex 'e' protection
- Type Ex 'n' protection
- Pressurisation Ex 'p' protection
- Intrinsic safety Ex 'i' protection
- Other methods of protection, Ex 'o', Ex 'q' and Ex 'm'
- Combined (hybrid) methods of protection
- Installation and Wiring systems to IEC 60079-14
- Inspection and maintenance to IEC 60079-17
- Induction to competence validation testing
- Permit-to-work system and safe isolation

## Competency Assessments

- EX01 Preparation and Installation of Ex 'd' 'e' 'n' and 'p' Systems
- EX02 Inspection and Maintenance of Ex 'd' 'e' 'n' and 'p' Systems
- EX03 Preparation and Installation of Ex 'i' Systems
- EX04 Inspection and Maintenance of Ex 'i' Systems

**\*\*Practical skills are necessary for the preparation and installation of Ex equipment.**

**\*\* Candidates are required to provide their own personal protective equipment (PPE).**

## DELIVERY:

Teaching aids such as slides and videos, Ex equipment samples, practical demonstrations, questionnaires, practical competency assessment

## FOR APPLICATION - DOCUMENT SUBMISSION:

Electrical / instrumentation qualifications and;  
Employment letter to endorse the electrical / instrumentation working experience of recent years

## CERTIFICATION :

On successful completion of this course, candidates will be awarded an industry-wide recognised certificate.  
CompEx – Certificate of Core Competence  
(with validity of 5 years)

**Minimum Number Of Participants Required Per Event**  
8

**Times Of Training**  
08:30 to 17:00 hrs

**Venue**  
No 3, Buroh Street, Singapore 627566

**Dates And Prices**  
Please check with course administrator

## FUNDING INCENTIVES:

**Skills Future Credit (SFC) for Singapore citizen only.**  
The credits can be used to top up existing course fee. This is only applicable for self-sponsored applicants.