



Australian Government

MEM12004 Perform precision electrical/electronic measurement

Release: 1

MEM12004 Perform precision electrical/electronic measurement

Modification History

Release 1. Supersedes and is equivalent to MEM12004B Perform precision electrical/electronic measurement

Application

This unit of competency defines the skills and knowledge required to undertake precision measurements across a range of frequencies on the full range of electrical/electronic equipment including a.c., d.c., analogue, digital and microwave equipment.

Where interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band:

This unit has dual status and is to be regarded as both a specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).

Unit Weight: 4

Pre-requisite Unit

MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

Competency Field

Measurement

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
---	---

- | | | | |
|---|----------------------|-----|---|
| 1 | Determine job | 1.1 | Follow standard operating procedures (SOPs) |
|---|----------------------|-----|---|

Elements describe the essential outcomes.

requirements

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | | |
|---|--|-----|--|
| | | 1.2 | Comply with work health and safety (WHS) requirements at all times |
| | | 1.3 | Use appropriate personal protective equipment (PPE) in accordance with SOPs |
| | | 1.4 | Identify job requirements from specifications, sketches, job sheets or work instructions |
| 2 | Use equipment for precision measurement | 2.1 | Select appropriate equipment to achieve specified outcome |
| | | 2.2 | Check the accuracy of the measuring equipment |
| | | 2.3 | Use correct and appropriate measuring techniques |
| | | 2.4 | Interpret readings and measurements |
| 3 | Maintain precision equipment | 3.1 | Set up equipment to specifications utilising manufacturers' specifications or standard techniques |
| | | 3.2 | Adjust and maintain measuring equipment to required accuracy, utilising manufacturers' specifications or standard techniques |
| | | 3.3 | Undertake care and storage of equipment to manufacturers' specifications or SOPs |

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Equipment for precision measurement includes one (1) or more of the following:

- analogue and digital meters
- cathode ray oscilloscopes
- bridges and potentiometers
- wattmeters
- digital probes

Measurement includes one (1) or more of the following:

- peak and transient voltages
- transient frequencies
- digital wave form analysis

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM12004B Perform precision electrical/electronic measurement

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>