



Australian Government

MEM12002 Perform electrical/electronic measurement

Release: 1

MEM12002 Perform electrical/electronic measurement

Modification History

Release 1. Supersedes and is equivalent to MEM12002B Perform electrical/electronic measurement

Application

This unit of competency defines the skills and knowledge required to use basic electro-measuring devices to check variables and applies to the measurement of voltage, current, resistance, power and frequency on a.c. and d.c. circuits up to 1000 volts.

Measurement skills for specific applications and context are covered by other units.

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

Where simple measurement tasks such as reading of fixed devices, testing continuity, and tasks requiring the use of devices mounted in for example measuring jigs unit MEM12001 Use comparison and basic measuring devices and unit MEM12023 Perform engineering measurements, should also be selected as appropriate.

Where electrical/electronic measuring devices require the connection or disconnection of circuitry appropriate units should also be selected.

In circumstances where the application of this unit or legislation dictates, relevant units covering first aid and/or emergency procedures should also be considered.

Some jurisdictions may require the holder of this unit to be licensed or certified and users should check with the relevant authorities.

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM11011	Undertake manual handling
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 requirements	1.1	Follow standard operating procedures (SOPs)
		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 electro-measuring devices to measure variables	2.1	Select appropriate device or equipment and setting to obtain required measurement
		2.2	Make appropriate connections to obtain required measurement using safe work practices
		2.3	Obtain readings and correctly interpret and make conversion into the required units of measurement, as necessary
3	Maintain electro devices	3.1	Undertake routine care and storage of devices to manufacturer's 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.

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.

Appropriate device or equipment includes one (1) or more of the following:

- analogue/digital multimeters
- clip-on meter
- oscilloscopes
- potentiometers

Routine care includes the following:

- zero and linear adjustments, inspection, check for serviceability and safe operation

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM12002B Perform 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>