

Title	Prepare and interpret diagrams for instrumentation and control systems		
Level	3	Credits	3

Purpose	<p>This unit standard covers drawing and interpreting diagrams used to document the operation and connection of instrumentation and control systems.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – prepare diagrams of industrial measurement and control systems; and; – interpret diagrams of industrial measurement and control systems.
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Classification	Industrial Measurement and Control > Industrial Measurement and Control - Theory
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Available grade	Achieved
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Guidance Information

1 Definitions

IEC – International Electrotechnical Commission.

Industry requirements – includes all asset owner requirements; manufacturers' specifications; enterprise requirements which cover the documented workplace policies, procedures, specifications, and business requirements; and quality management requirements relevant to the workplace in which the assessment is carried out.

ISA – International Society for Automation.

ISO – International Organisation for Standardisation.

2 Range

- a Diagrams may include but are not limited to – piping and instrumentation diagrams (P & ID); process flow diagrams; single-line diagrams; loop diagrams.
- b Diagrams must include all relevant details and principal elements appropriate to the type of drawing.
- c All diagrams must comply with industry or site standards.
- d Neat sketches will be adequate to demonstrate competence.

Outcomes and performance criteria

Outcome 1

Prepare diagrams of industrial measurement and control systems.

Range evidence of a minimum of four diagrams is required, which may all relate to the same part of a system.

Performance criteria

- 1.1 Draw diagrams relating to the process operation using standard symbols and formats.
- 1.2 Draw diagrams with layouts that aid interpretation of measurement and control systems.

Outcome 2

Interpret diagrams of industrial measurement and control systems.

Range evidence of at least four diagrams of different types is required.

Performance criteria

- 2.1 Interpret a diagram to explain system operation.
- 2.2 Explain system functions and items included in a diagram in accordance with industry requirements.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 May 2008	31 December 2019
Review	2	28 November 2013	31 December 2027
Rollover	3	28 June 2018	31 December 2027
Review	4	30 January 2025	31 December 2027

Consent and Moderation Requirements (CMR) reference

0003

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.