

<b>Title</b>	<b>Demonstrate knowledge of signal conditioners, trending recorders, and alarm systems</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	<p>This unit standard covers signal conditioning equipment, recorders, and alarm systems. However, it excludes transmitters and controllers.</p> <p>People credited with this unit standard are able to demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>– analogue signal conditioners;</li> <li>– trending recorders; and</li> <li>– alarm systems.</li> </ul>
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<b>Classification</b>	Industrial Measurement and Control > Industrial Measurement and Control - Theory
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<b>Available grade</b>	Achieved
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**Guidance Information**

None.

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**Outcomes and performance criteria**

**Outcome 1**

Demonstrate knowledge of analogue signal conditioners.

**Performance criteria**

1.1 Identify signal conditioning functions and uses.

Range equipment – square root extractor, integrator, summer, current to pressure converter, pressure to current converter, function generator, multiplier divider, ratio module, booster relay, ratio relays, switching relays, current repeaters (isolators).

1.2 Describe the operation of signal conditioning modules with the aid of functional diagrams.

Range current to pressure, pressure to current.

1.3 Plot input versus output characteristics from selected signal conditioning modules.

Range module types may include – square root extractor, integrator, summer, current to pressure converter, pressure to current converter, function generator, multiplier divider, ratio module; evidence of two module types is required.

## Outcome 2

Demonstrate knowledge of trending recorders.

### Performance criteria

2.1 Describe function and uses of trending recorders.

## Outcome 3

Demonstrate knowledge of alarm systems.

### Performance criteria

3.1 Describe operation of alarm systems with the aid of a functional diagram.

3.2 Explain terms associated with alarm systems.

Range first out, accept, fail-safe modes, alarm priorities.

<b>Planned review date</b>	31 December 2021
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### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	31 October 1995	31 December 2013
Revision	2	30 October 1997	31 December 2013
Revision	3	3 April 2001	31 December 2013
Review	4	22 June 2001	31 December 2013
Review	5	19 May 2008	31 December 2019
Review	6	28 November 2013	N/A
Rollover and Revision	7	28 June 2018	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0003
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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**Comments on this unit standard**

Please contact The Skills Organisation [reviewcomments@skills.org.nz](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard.