KONGSBERG

Kongsberg Maritime Part no. 324400

330111/C

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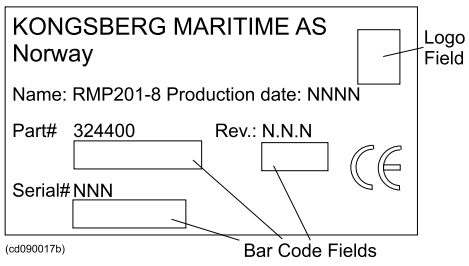
Glossary

Overview

Document user

Module identification (when contacting KM)

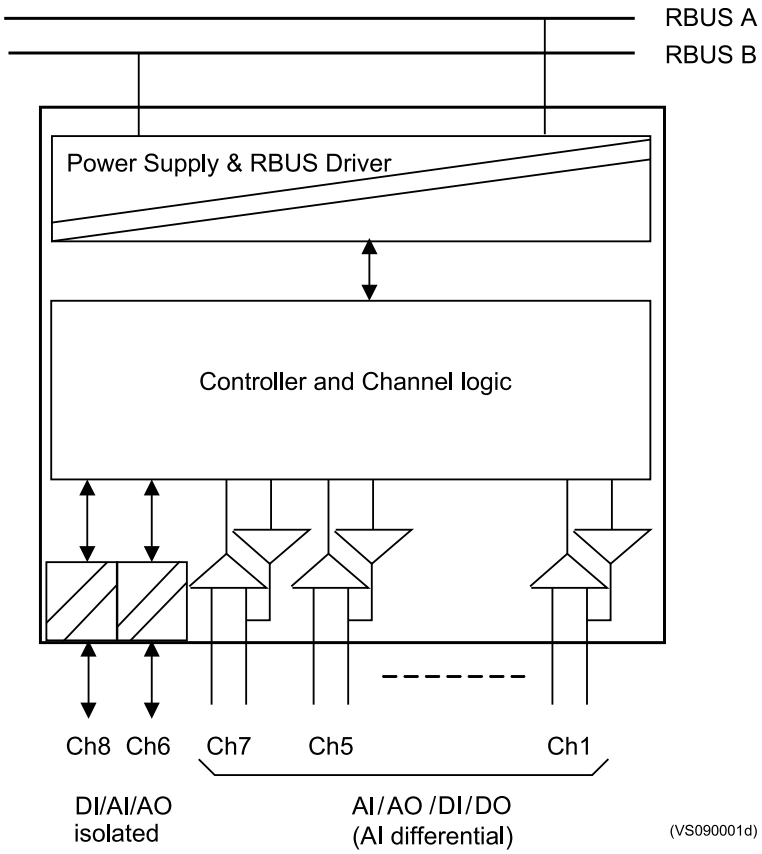
Figure 1 Module identification label



Module description

Function

Figure 2 RMP201-8 function diagram

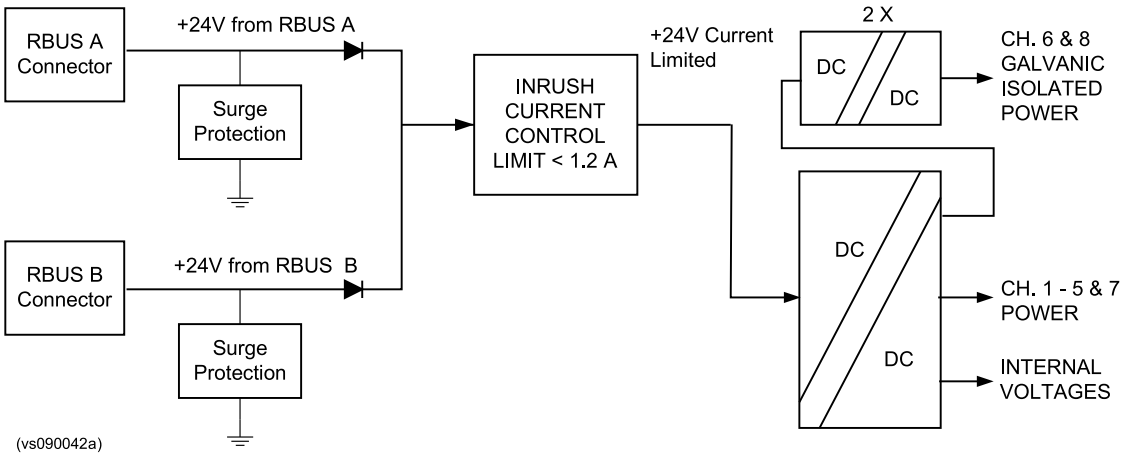


Power supply input

Note

Power supplies used together with this module must have a voltage rise time at power-on that does not exceed 20 ms/V monotonic change.

Figure 3 Power block diagram for RMP201-8



RBUS interfaces

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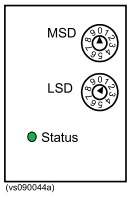
RBUS A and RBUS B connector

Module address



Status LED

Table 1 Status indicators (LED) on module front

I/O channels

HW0 **HW1**

HW0

HW1

Common isolated channels 1–5 and 7

Figure 4 Loop principles for channels 1–5 and 7: AI and DI

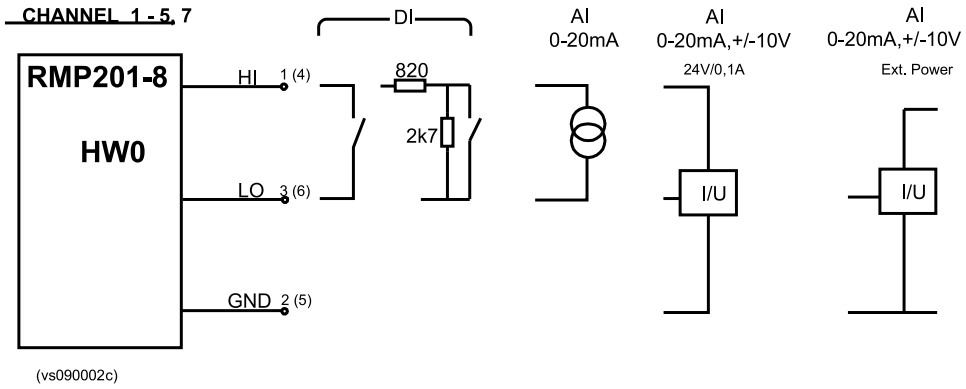


Figure 5 Loop principles for channels 1–5 and 7: AO and DO

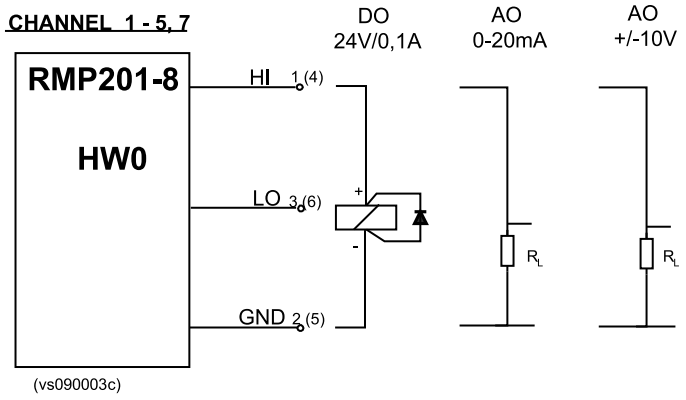
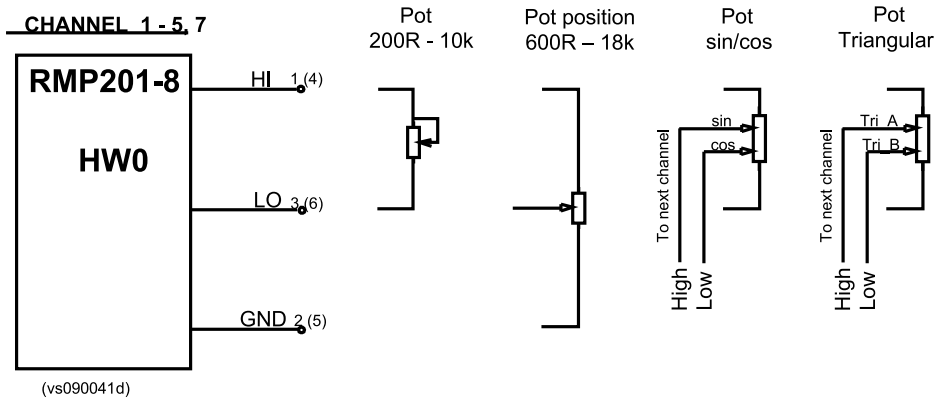
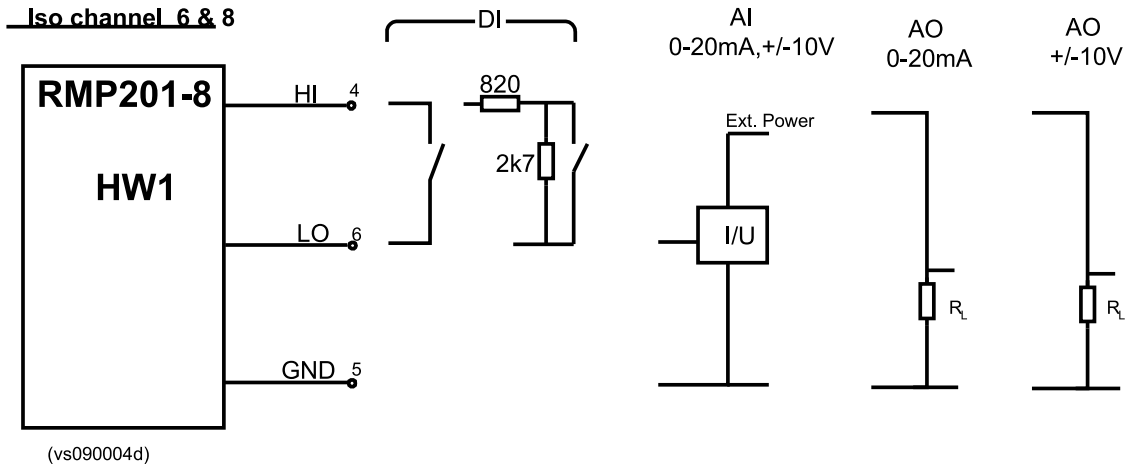


Figure 6 Loop principles for channels 1–5 and 7: Potentiometers



Individually isolated channels 6 and 8

Figure 7 Loop principles for individually isolated channels 6 and 8



Failure handling

Software controlled fail-safe

Major failure

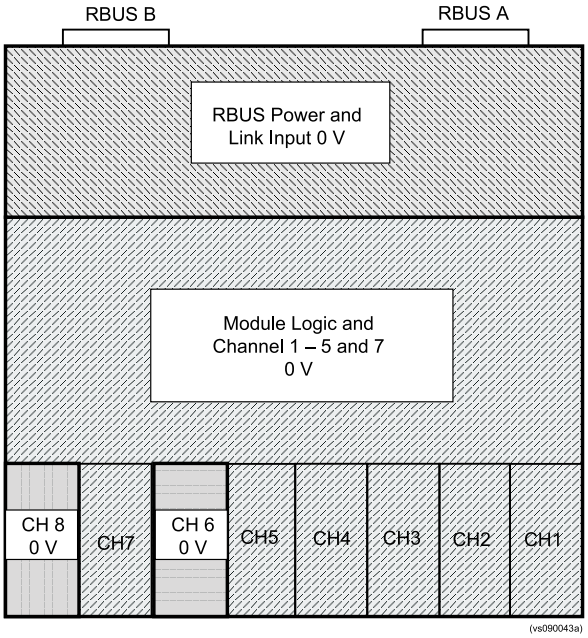
Note

If a serious HW error occurs in the module, all output channels are set to high impedance.

Power ON/OFF

Module power system

Figure 8 Module power systems



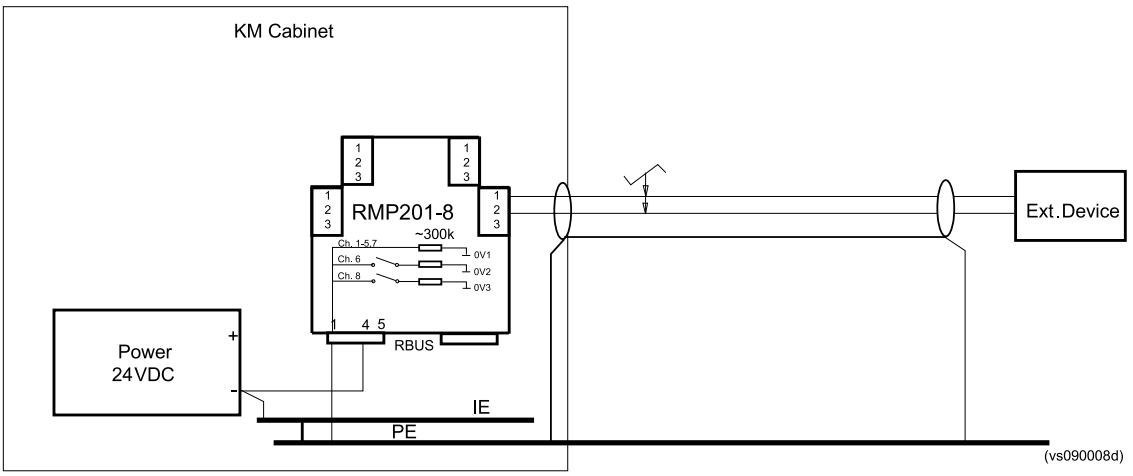
Module grounding

Note

In a "floating" system, current will flow through all parasitic capacitors (Cp) if there is a potential difference, also known as common mode voltage. There are no practical ways to get rid of the Cps, so the best solution is to reduce the common mode voltage by grounding, or reduce the influence by proper shielding. In order to avoid noise, the best way is to use a common ground together with proper shielding.

Floating external device, cable grounded at both ends

Figure 9 Floating external device, cable grounded at both ends

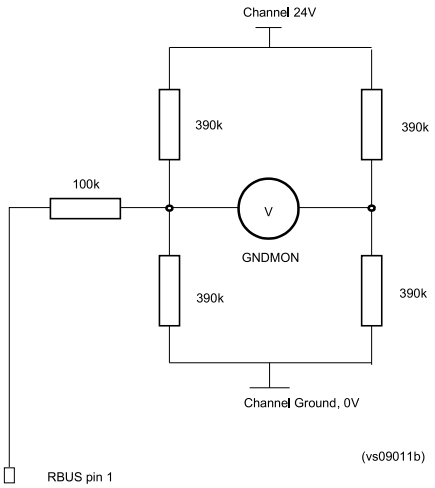


Note

RMP201–8 ground monitoring has to be configured off, if interfaced field side equipment is implemented with ground monitoring functionality.

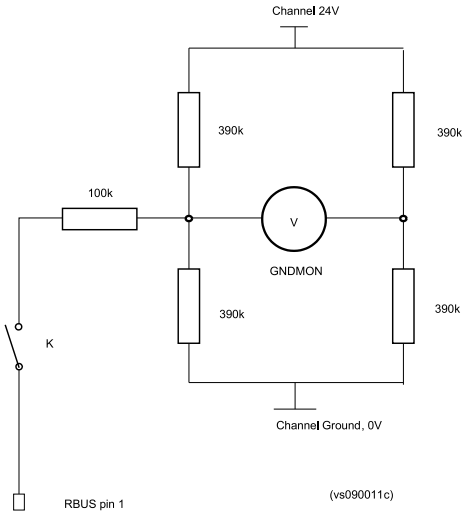
Monitored ground

Figure 10 Ground monitoring circuit diagram



Floating ground isolation

Figure 11 Floating ground circuit diagram



Note

The default setting of the switch K is 'off'.

Self diagnostics

Module identification code

Fail-safe

Status shown on front LED

Status LED

I/O loop status

Internal circuitry tests

Running diagnostics

Calibration

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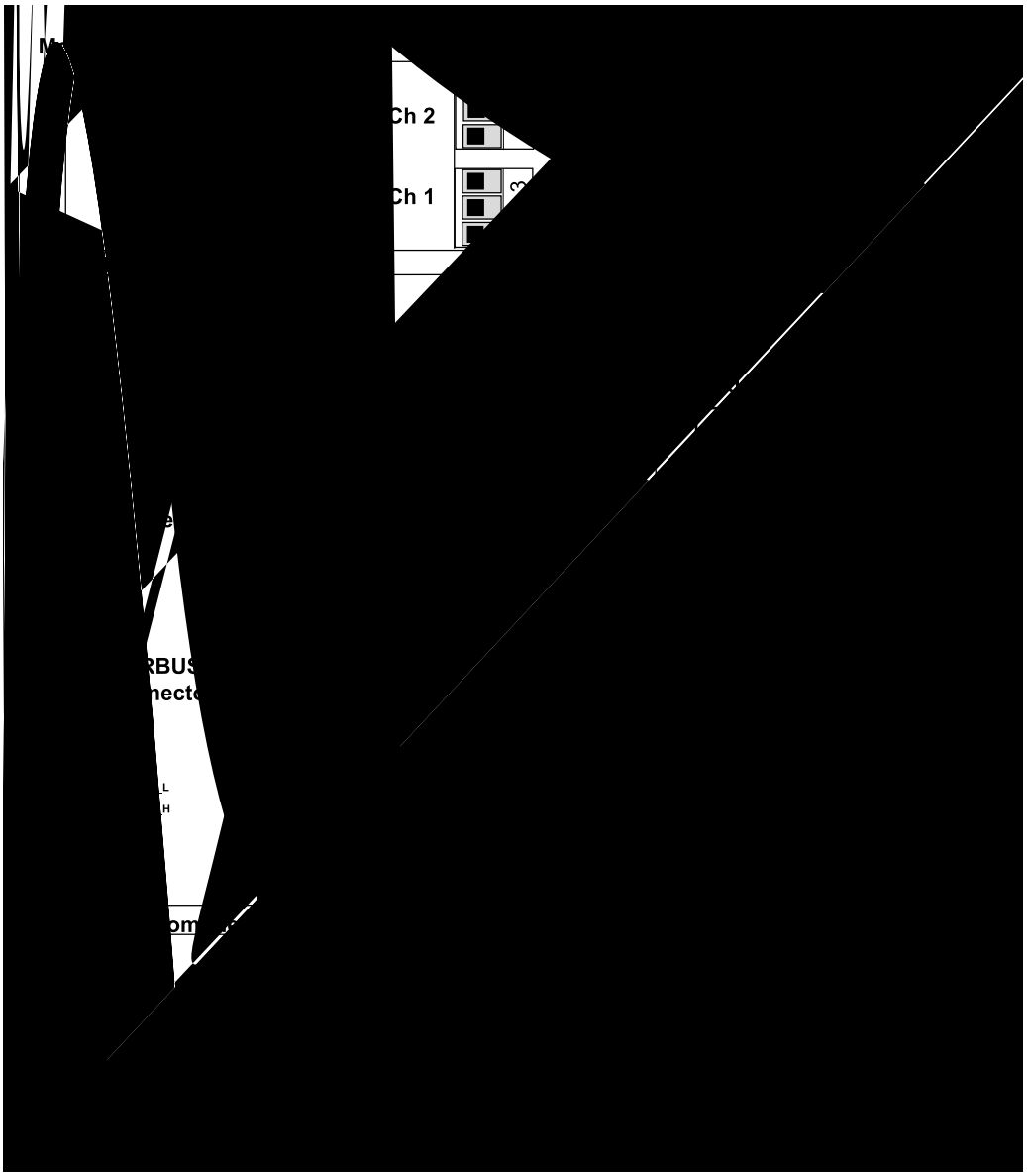
Temperature

Technical specifications

Configuration

Figure 12 Layout of the RMP201-8



RBUS A and RBUS B connector

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Figure 13 RBUS A and B T-BUS™rail connector terminal layout

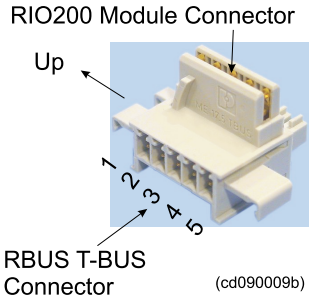


Table 2 RBUS A and RBUS B connector terminal allocation

X1 to X4 terminal rows

Figure 14 X1 to X4 terminal layout

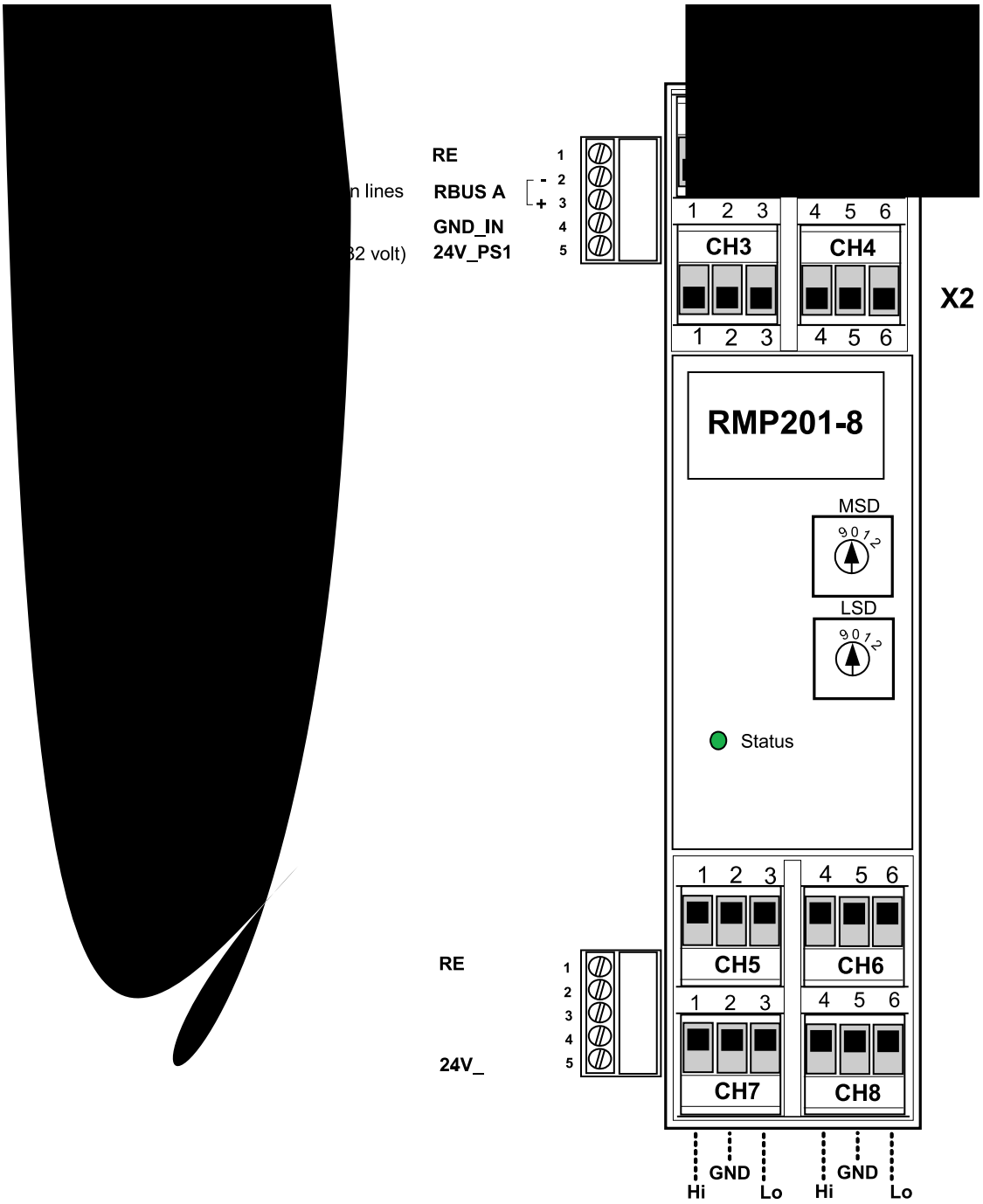


Table 3 X1 and X2 terminal rows terminal allocation

Note

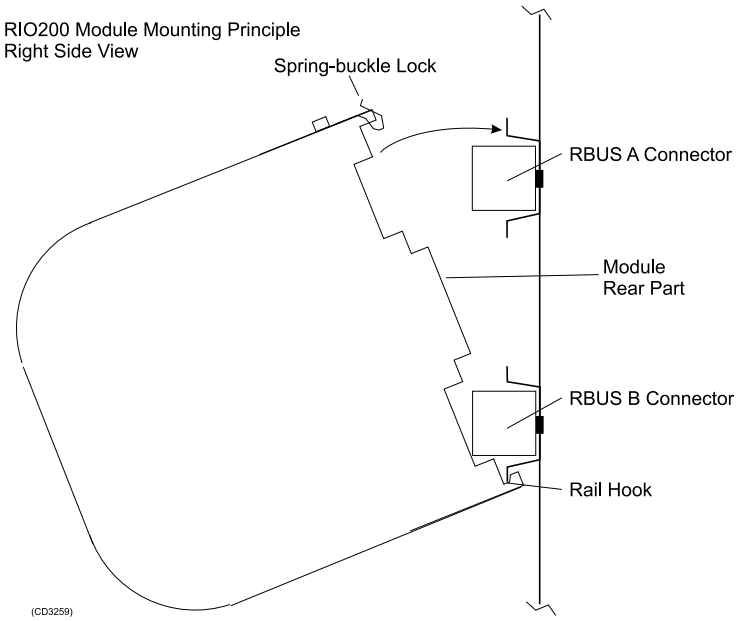
Channel 6 and 8 in the following list are the two individually galvanic isolated channels.

Table 4 X3 and X4 terminal rows terminal allocation

Installation

Caution

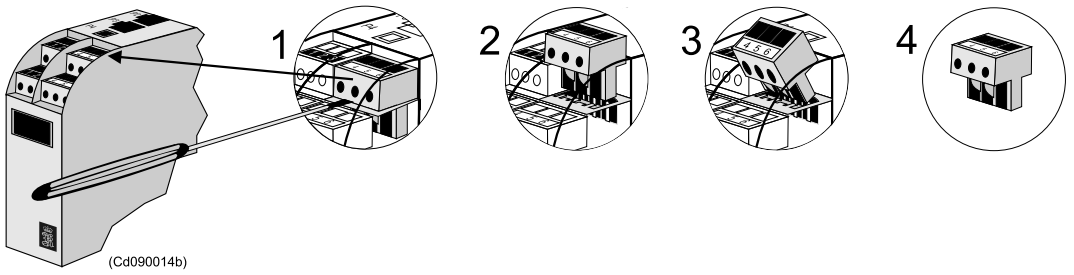
The module can be unpacked and handled without ESD protection, but electrostatic discharge can damage components on the module when terminating wires and cables to it. Therefore always wear a correctly-connected earthing strap when working on the module.

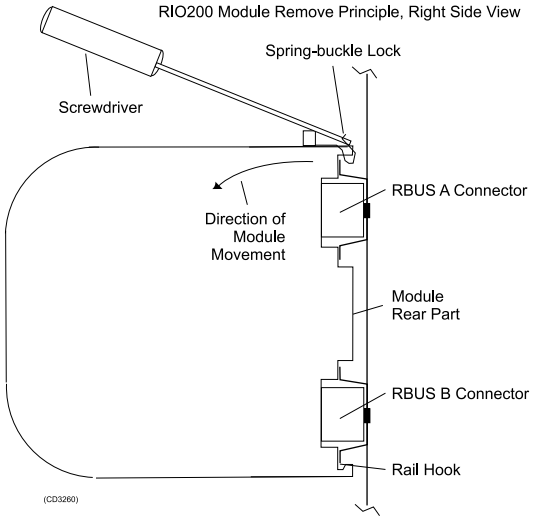


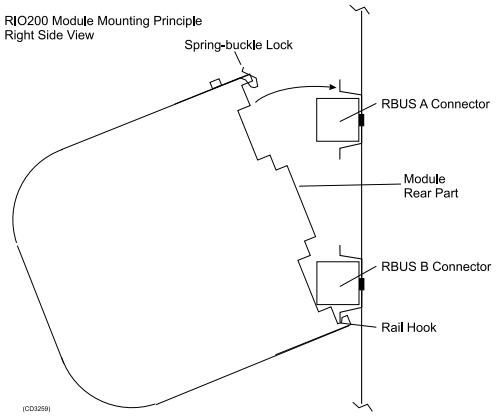
Replacement

Caution

The module can be unpacked and handled without ESD protection, but electrostatic discharge can damage components on the module when terminating wires and cables to it. Therefore always wear a correctly-connected earthing strap when working on the module.







Note

The terminal block headers are coded so there is only one way to enter all four headers on one side of the module.