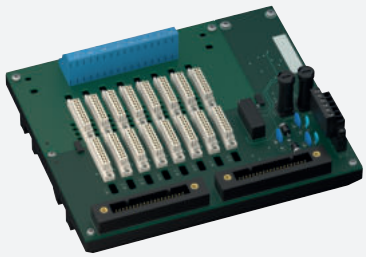
# Termination Board

# HiCTB08-YC3-RRB-KS-CC-AM08



- System board for Yokogawa CENTUM VP
- For 8-channel AI card AAI135
- For 8-channel AI/AO card AAI835
- For 8 modules
- Recommended modules: HiC2025(A) (AI), HiC2031 (AO)
- 24 V DC supply
- Hazardous area: spring terminals, blue
- Non-hazardous area: Yokogawa system connector, 40-pin

## Function

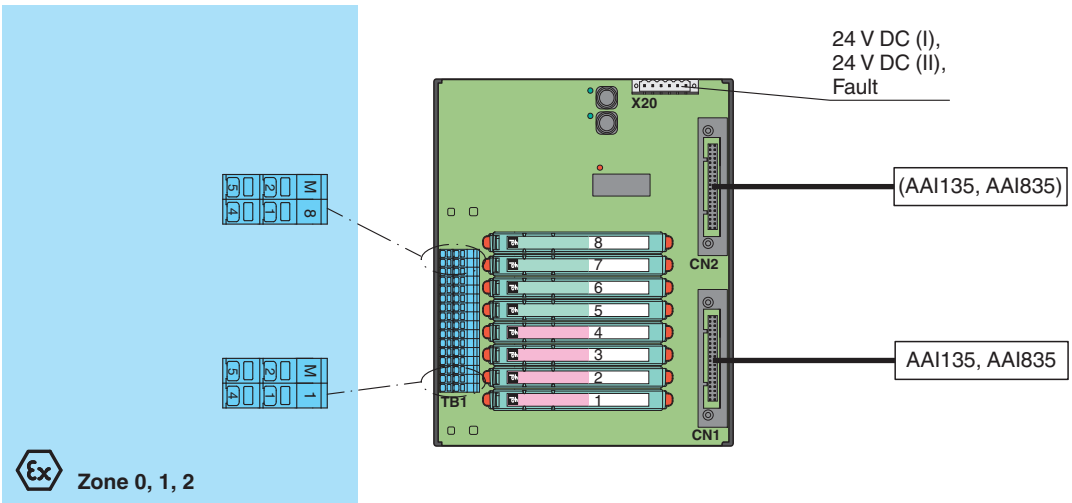
The function of the termination board and the connector pin assignment is exactly fitted to the requirements of the Yokogawa Centum VP system.
The signal is output to the process control system via the system connector.
Information about a missing supply voltage of the isolators is available for the system as a volt-free contact.
Wiring faults from the field side will be reported via the same relay contact, if this function is supported by the isolators.
The termination board has a robust plastic housing.
The termination board is mounted in the switch cabinet on a 35 mm DIN mounting rail according to EN 60175.

## Application

Assembly of the termination board:
AI card AAI135:
- Plug-in position 1 to 8: AI modules

AI/AO card AAI835:
- Plug-in position 1 to 4: AI modules
- Plug-in position 5 to 8: AO modules

## Connection




## Technical Data

| | | |
|---|---|---|
| **Supply** | | |
| Connection | | X20: terminals 3, 5(+); 4, 6(-) |
| Nominal voltage | | 24 V DC , in consideration of rated voltage of used isolators |
| Voltage drop | | 0.9 V , voltage drop across the series diode on the termination board must be considered |

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## Technical Data

| | | |
|---|---|---|
| Ripple | | ≤ 10 % |
| Fusing | | 2 A , in each case for 8 modules |
| Power dissipation | | ≤ 500 mW , without modules |
| Reverse polarity protection | | yes |
| **Redundancy** | | |
| Supply | | Redundancy available. The supply for the isolators is decoupled, monitored and fused. |
| **Fault indication output** | | |
| Connection | | X20: terminals 1, 2 |
| Output type | | volt-free contact |
| Switch behaviour | | no fault: relay contact closed<br>power supply fault: relay contact open<br>module fault: relay contact open |
| Contact loading | | 30 V DC , 1 A |
| **Indicators/settings** | | |
| Display elements | | LEDs PWR ON (Termination Board power supply)<br>- LED power supply I, green LED<br>- LED power supply II, green LED<br>LED FAULT (fault indication), red LED<br>- LED lits: module fault<br>- LED flashes: power supply fault |
| **Directive conformity** | | |
| Electromagnetic compatibility | | |
| Directive 2014/30/EU | | EN 61326-1:2013 (industrial locations) |
| **Conformity** | | |
| Electromagnetic compatibility | | NE 21:2017<br>For further information see system description. |
| Degree of protection | | IEC 60529:2001 |
| **Ambient conditions** | | |
| Ambient temperature | | -20 ... 60 °C (-4 ... 140 °F) |
| Storage temperature | | -40 ... 70 °C (-40 ... 158 °F) |
| **Mechanical specifications** | | |
| Degree of protection | | IP20 |
| Connection | | |
| Field side | | explosion hazardous area: spring terminals , blue |
| Control side | | non-explosion hazardous area: Yokogawa system connector, 40-pin |
| Supply | | pluggable screw terminals , black |
| Fault output | | pluggable screw terminals , black |
| Core cross section | | spring terminals:<br>rigid: 0.2 ... 2.5 mm²<br>flexible: 0.25 ... 1.5 mm² |
| Material | | housing: polycarbonate |
| Mass | | approx. 480 g |
| Dimensions | | 205 x 175 x 153 mm (8.1 x 6.9 x 6.02 inch) (W x H x D) , depth including module assembly |
| Mounting | | on 35 mm DIN mounting rail acc. to EN 60715:2001 |
| **Data for application in connection with hazardous areas** | | |
| EU-type examination certificate | | CESI 06 ATEX 022 |
| Marking | | ⟨Ex⟩ II (1)G [Ex ia Ga] IIC<br>⟨Ex⟩ II (1)D [Ex ia Da] IIIC<br>⟨Ex⟩ I (M1) [Ex ia Ma] I |
| Non-hazardous area | | |
| Maximum safe voltage | | 250 V (Attention! $U_m$ is no rated voltage.) |
| Galvanic isolation | | |
| Field circuit/control circuit | | safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V |
| Directive conformity | | |
| Directive 2014/34/EU | | EN IEC 60079-0:2018+AC:2020 , EN 60079-11:2012 , EN 50303:2000 |
| **International approvals** | | |
| IECEx approval | | |

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## Technical Data

| | | |
|---|---|---|
| IECEx certificate | | IECEx CES 06.0003 |
| IECEx marking | | [Ex ia Ga] IIC<br>[Ex ia Da] IIIC<br>[Ex ia Ma] I |
| **General information** | | |
| Supplementary information | | Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com. |

## Accessories

| | | |
|---|---|---|
|  | **HiALC-HiDTB-SET-150** | Label carrier for HiD termination boards |

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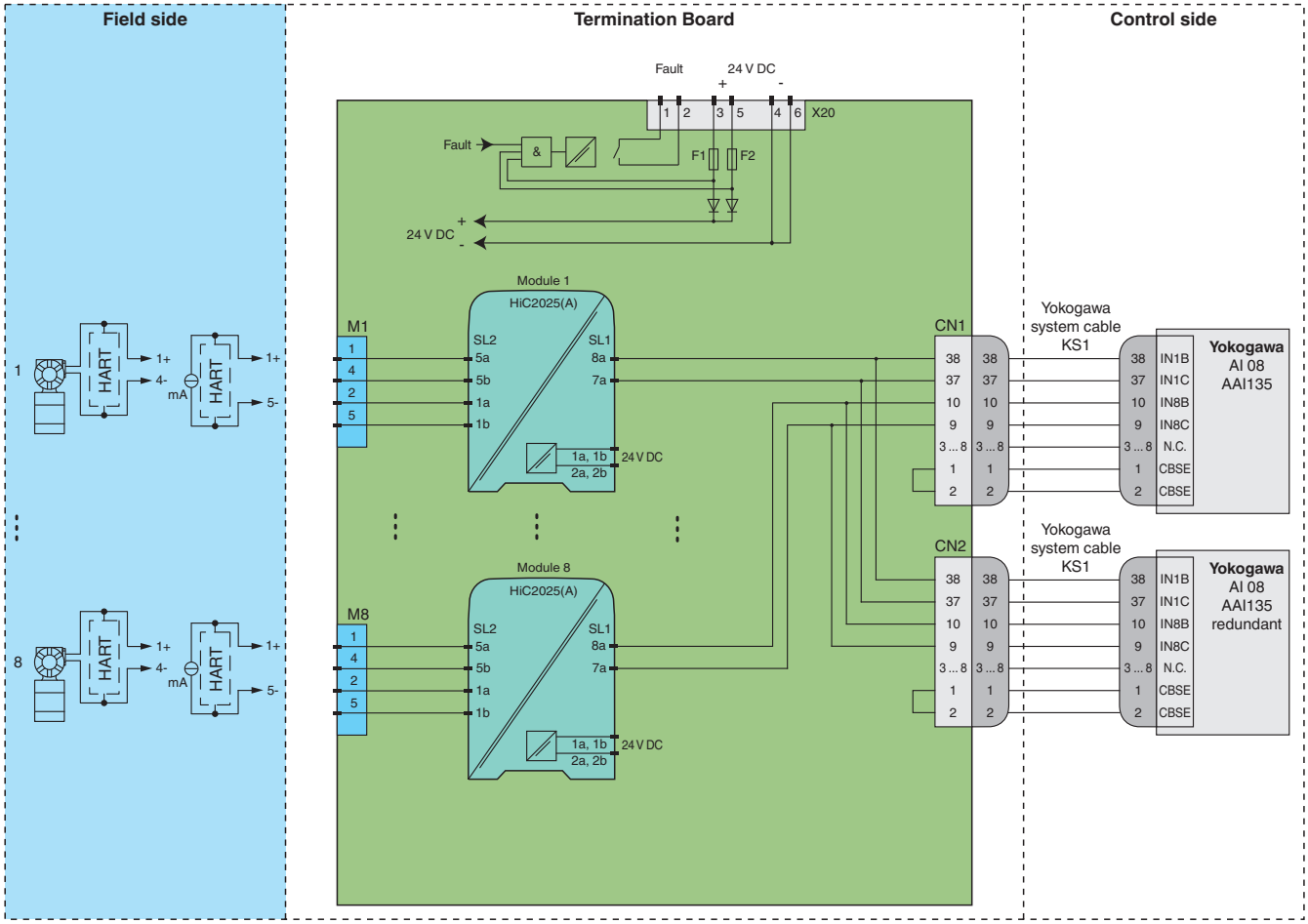
## Application

### Typical input circuit




### Module switch settings

| Type (AI) | DIP switch | Position |
|---|---|---|
| HiC2025, HiC2025A (current source 4 mA ... 20 mA) | S1 | OFF |
| | S2 | OFF |
| | S3 | ON |
| | S4 | OFF |

### Card switch settings

| Type (AI) | Function |
|---|---|
| AAI135 | none |

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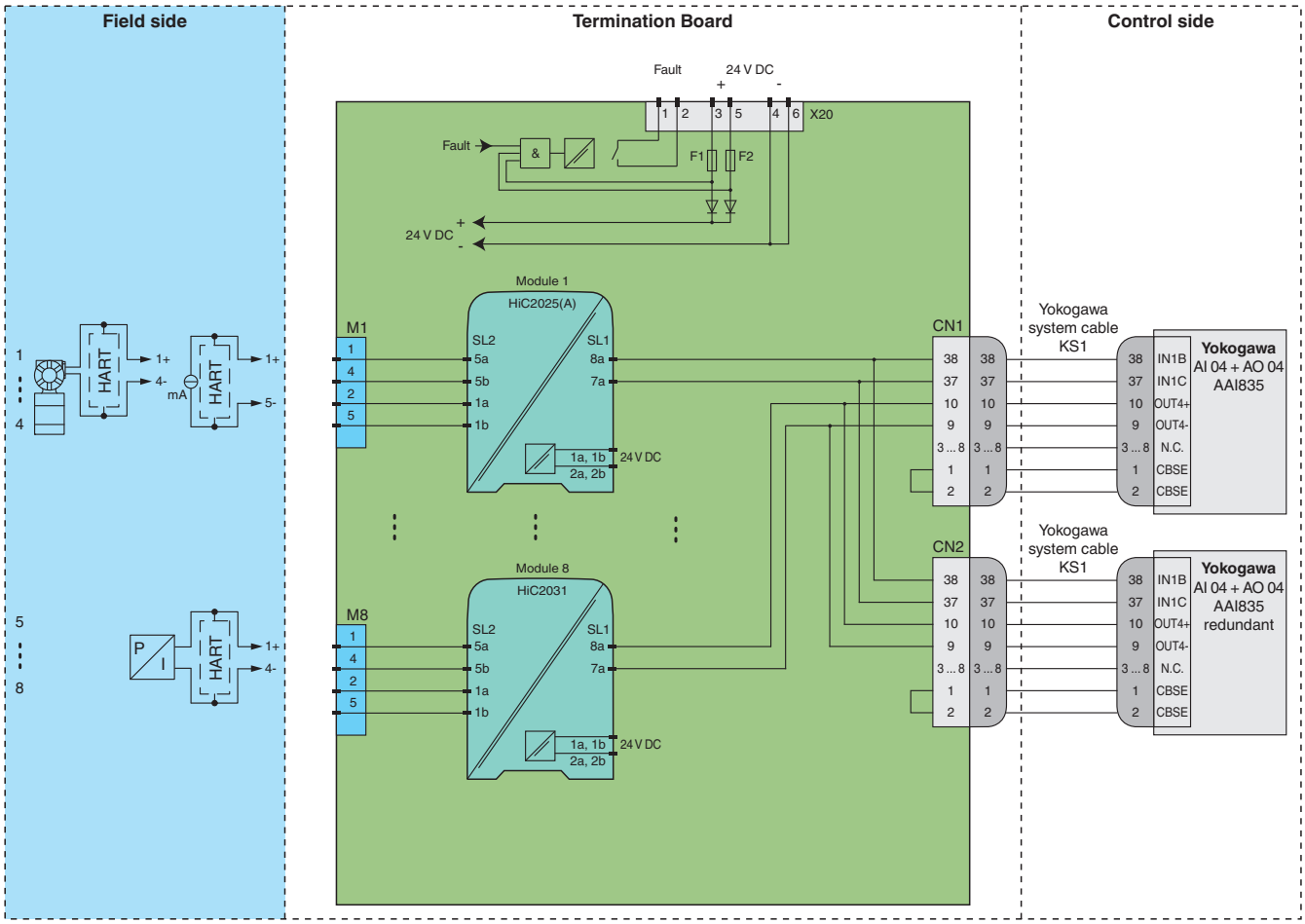
### Typical output circuit




### Module switch settings

| Type (AI) | DIP switch | Position |
|---|---|---|
| HiC2025, HiC2025A (current source 4 mA ... 20 mA) | S1 | OFF |
| | S2 | OFF |
| | S3 | ON |
| | S4 | OFF |

| Type (AO) | |
|---|---|
| HiC2031 | not available |

### Card switch settings

| Type (AI) | Function |
|---|---|
| AAI835 | none |

| Type (AO) | Function |
|---|---|
| AAI835 | none |

*For exact pin assignment for connection to field side and control side, see the documentation of the isolated barrier.*

*The pin-out configuration has to be observed. For information see corresponding pin-out table on www.pepperl-fuchs.com.*

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