

3500/33E 16-Channel Relay Module

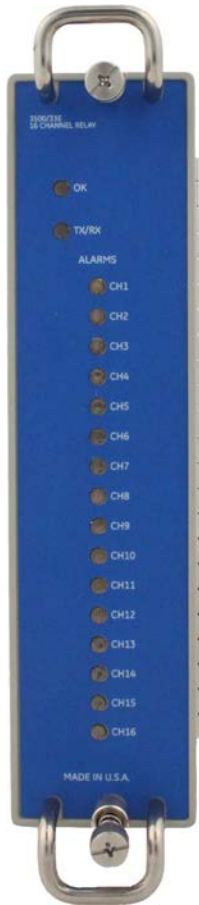
Bently Nevada* Asset Condition Monitoring

Description

The 16-Channel Relay Module is a full-height module that provides 16 relay outputs. Any number of 16-Channel Relay Modules can be placed in any of the slots to the right of the Transient Data Interface Module. Each output of the 16-Channel Relay Module can be independently programmed to perform needed voting logic.

Each relay utilized on the 16-Channel Relay Module includes "Alarm Drive Logic".

Programming for the Alarm Drive Logic uses AND and OR logic, and can use alarming inputs (Alert and Danger statuses), Not- OK, or individual PPLs from any monitor channel or any combination of monitor channels in the rack. Users program this Alarm Drive using the 3500 Rack Configuration Software to meet the specific needs of the application.



Specifications

Inputs

Power Consumption:

5.8 watts typical.

Outputs

OK LED:

Illuminated when module is functioning properly.

TX/RX LED:

Transmit and Receive. Flashes to indicate proper communications between this module and other modules within the rack.

CH ALARM LED:

Illuminated to indicate that the Relay Channel is in an alarm state.

Relays

Type:

Single-pole, double-throw (SPDT) relays.

Environmental Sealing

Epoxy-sealed.

Arc Suppressor

250 Vrms, installed as standard.

Contact Life

100,000 cycles @ 5 A, 24 Vdc or 240 Vac.

Operation

Four groups of four channels are switch selectable for Normally De-energized or Normally Energized.

Environmental Limits

Operating

Temperature:

-30 °C to +65 °C
(-22 °F to +150 °F).

Storage

Temperature:

-40 °C to +85 °C
(-40 °F to +185 °F).

Humidity:

95%, non-condensing.

Compliance and Certifications

EMC

Standards:

EN 61326-1:2006
Emissions and Immunity

European Community Directives:

EMC Directive 2004/108/EC

Electrical Safety

Standards:

EN 61010-1: 2010

European Community Directive:

2006/95/EC Low Voltage

For further certification and approvals information please visit the following website:

www.ge-mcs.com/bently

Hazardous Area Approvals

North American

Approval Option (01)

Class I, Div 2

Groups A, B, C, D

T4 @ Ta = -0 °C to +65 °C

(32 °F to +150 °F)

Contact Ratings for Standard Systems

Standard Relays (Resistive load):

Max switched Voltage:

dc: 300V
ac: 250V

Max switched current:

dc: 5A
ac: 5A

Max switched VA:

dc: 150VA
ac: 1500VA

Min switched Current:

dc: 100mA / 12V

Physical

Main Module:

Dimensions (Height x Width x Depth):

235 mm x 44.5 mm x 292 mm
(9.25 in. x 1.75 in. x 11.5 in).

Weight:

1.16 kg (2.55 lb).

I/O Module:

Dimensions (Height x Width x Depth):

209.5 mm x 44.5 mm x 152.4 mm
(8.25 in. x 1.75 in. x 6 in).

Weight:

0.86 kg (1.9 lb).

Application Advisory

Due to the potential for varying voltage levels, please review the following:
It is possible to connect field wiring to the 3500/33E relays such that conductors are exposed to potential human contact. This could present a shock hazard at high voltages. Customers who wish to use the 3500/33E relays at higher voltages up to 300 Vdc should be advised that the hardware is perfectly capable of handling this voltage but that appropriate safety precautions should be taken with respect to the shock hazard. **Note: maximum allowable power (P) is restricted to 120W. Voltage (V) and/or current (I) must not exceed this limit. (P=IV)**

Rack Space Requirements

Main Module:

1 full-height front slot.

I/O Modules:

1 full-height rear slot.

Ordering Considerations

The 3500/33E requires 3500 Rack Configuration software, version 4.6 or later.

Ordering Information

3500E 16-Channel Relay Module

3500/33E -AXX-BXX

A: Output Module

01 16-Channel Relay Output Module

B: Agency Approval Option

00 None
01 CSA/NRTL/C (Class 1, Div 2)

Spares

100M2197-01

Spare 16-Channel Relay Control Module

100M2196-01

Spare 16-Channel Relay Output Module

04425545

Grounding Wrist Strap (single use)

100M3283-01

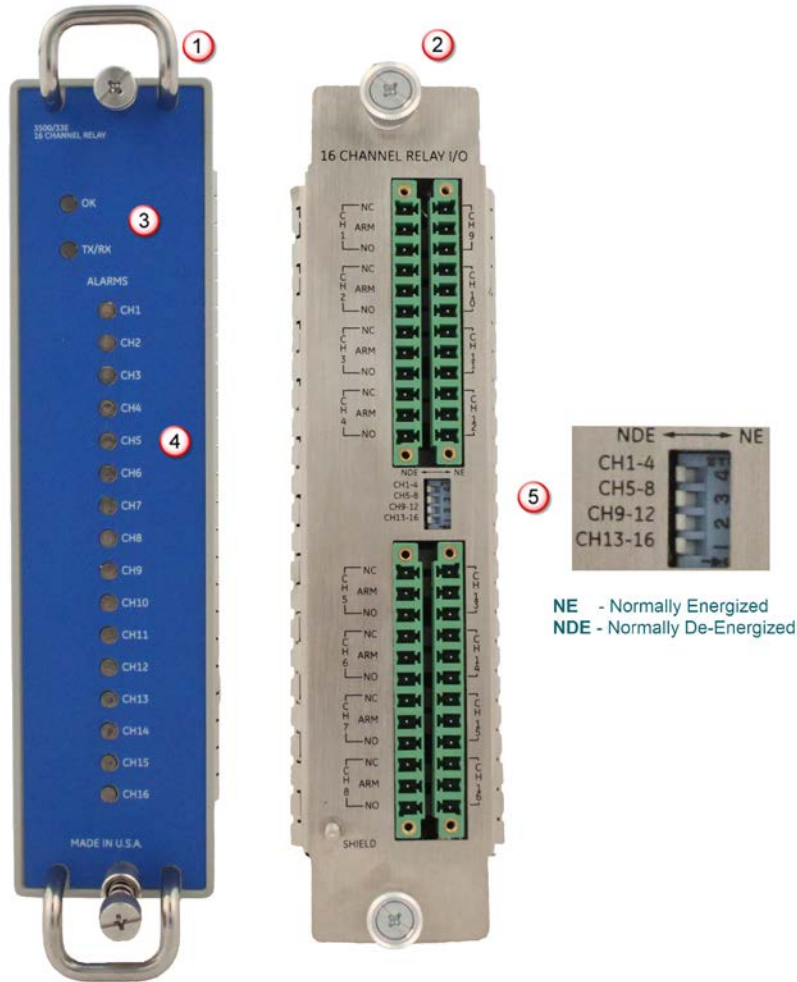
16-Channel Relay Module Manual

177440

Connector Header, Internal
Termination, 16-position, Green

Graphs and Figures

Figure 1: Front and rear view of the 16-Channel Relay Module



1. Relay module
2. I/O module
3. Status LEDs
4. Relay channel LEDs
5. Relay mode selection switch

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