

## 3.5 PCNO CANopen® Master Gateway Module

The following I/O pack and terminal board combinations are approved for use in hazardous locations:

- CANopen I/O pack **IS220PCNOH1A** or **IS220PCNOH1B** with accessory ID board **IS200SPIDG1A**

### 3.5.1 Electrical Ratings

*Power Supply*

Item	Min	Nominal	Max	Units
Voltage	27.4	28.0	28.6	V dc
Current	—	—	0.17	A dc

## 3.6 PDIA and YDIA Discrete Input Modules

The following I/O pack and terminal board combinations are approved for use in hazardous locations:

- Mark VIe Discrete I/O pack **IS220PDIAH1A**  
with terminal boards (accessories) **IS200STCIH1A**, **IS200STCIH2A**, **IS200STCIH8A**, **IS200TBCIH2C**, or **IS200TBCIH4C**
- Mark VIe Discrete I/O pack **IS220PDIAH1B**  
with terminal boards (accessories) **IS200STCIH1A**, **IS200STCIH2A**, **IS200STCIH8A**, **IS200TBCIH2C**, **IS400TBCIH2C**, **IS200TBCIH4C**, **IS400STCIH1A**, **IS400STCIH2A**, or **IS400STCIH8A**
- Coated Mark VIe Discrete I/O pack **IS221PDIAH1B**  
with coated terminal boards (accessories) **IS201STCIH1A**, **IS201STCIH2A**, **IS201STCIH8A**, **IS201TBCIH2C**, or **IS201TBCIH4C**
- Mark VIeS Safety Discrete I/O pack **IS220YDIAS1A**  
with terminal boards (accessories) **IS200STCIS1A**, **IS200STCIS2A**, **IS400STCIS1A**, **IS400STCIS2A**, **IS200TBCIS2C**, or **IS400TBCIS2C**
- Mark VIeS Safety Discrete I/O pack **ISx2yYDIAS1B** (where x = 2 or 4 and y = 0 or 1)  
with terminal boards (accessories) **ISx0ySTCIS1A**, **ISx0ySTCIS2A**, **IS40ySTCIS4A**, **ISx0yTBCIS2C**, or **IS40yTBCIS3C**

### 3.6.1 Electrical Ratings

**PDIAH1A and PDIAH1B**

Item	Min	Nominal	Max	Units
<i>Power Supply</i>				
Voltage	PDIAH1B: 22.5 PDIAH1A: 27.4	PDIAH1B: 24.0/28.0 PDIAH1A: 28.0	28.6	V dc
Current	—	—	0.24	A dc
<i>Contact Inputs</i>				
Voltage	0	—	32	V dc
<i>STCIH1A, STCIH2A, TBCIH2C Contact Wetting Outputs</i>				
Voltage	18.5	—	32	V dc
Current	—	—	110	mA dc
<i>STCIH8A, TBCIH4C Contact Wetting Outputs (1-21)</i>				
Voltage	—	—	31	V dc
Current	—	—	10	mA dc
<i>STCIH8A, TBCIH4C Contact Wetting Outputs (22-24)</i>				
Voltage	—	—	31	V dc
Current	—	—	41	mA dc

**YDIAS1A**

Item	Min	Nominal	Max	Units
<i>Power Supply</i>				
Voltage	27.4	28.0	28.6	V dc
Current	—	—	0.24	A dc
<i>Contact Inputs</i>				
Voltage	0	—	32	V dc
<i>Contact Wetting Outputs</i>				
Voltage	PDIA	—	32	V dc
Current	—	—	110	mA dc

**YDIAS1B**

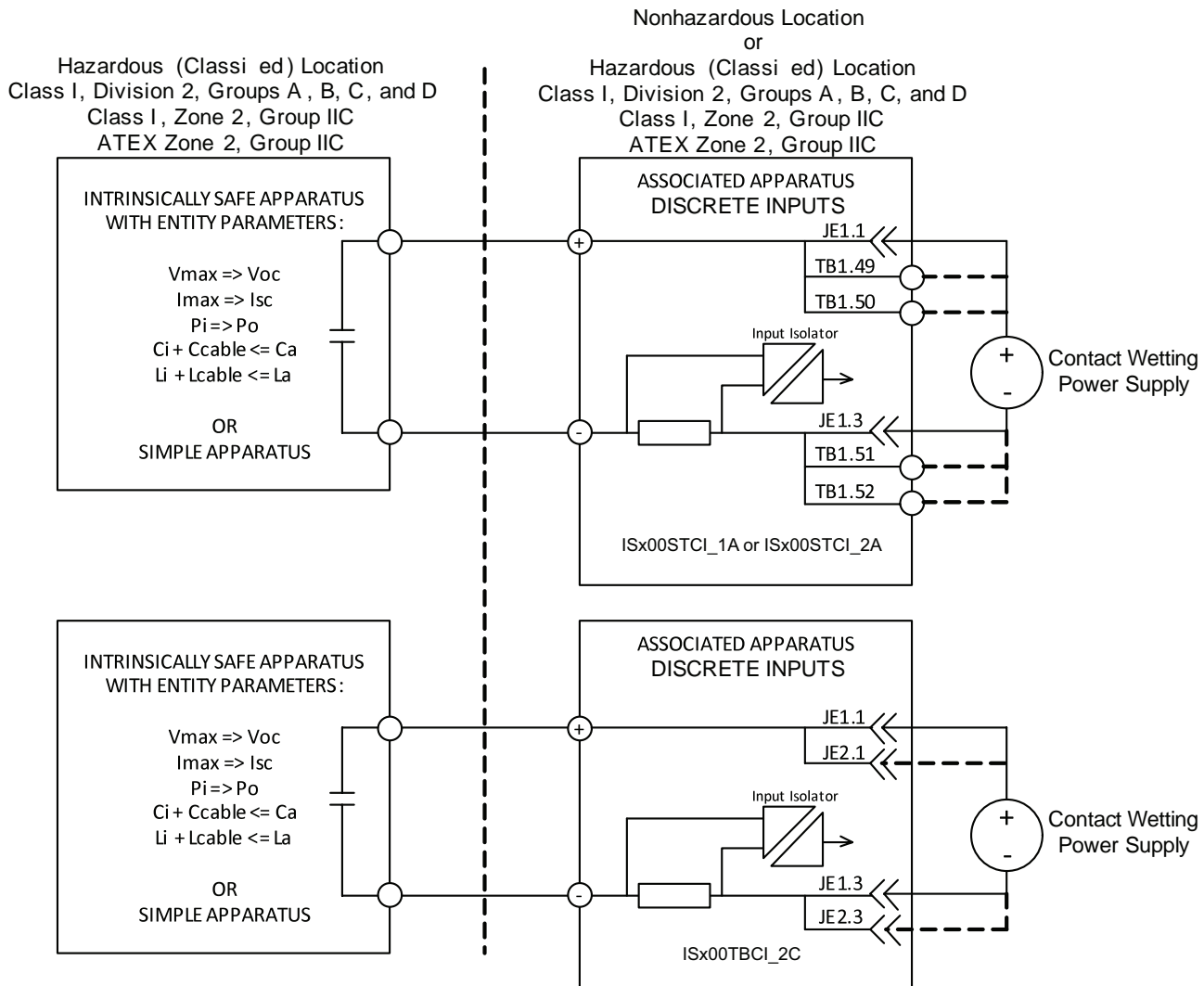
Item	Min	Nominal	Max	Units
<i>Power Supply</i>				
Voltage	22.5	28.0	28.6	V dc
Current	—	—	0.24	A dc
<i>Contact Inputs/Wetting (via JE1) STCIS1, STCIS2, TBCIS2</i>				
Voltage	20	24	32	V dc
Current	—	—	110	mA dc
<i>Contact Inputs/Wetting (via JE1) STCIS4, TBCIS3</i>				
Voltage	43	48	52.8	V dc
Current	—	—	110	mA dc

### 3.6.2 Field Wire Connections

Terminal Board	Terminal Block Type
STCI	Refer to the table <a href="#">Euro Style Box-type Terminal Blocks</a> for wire size and screw torques.
TBCI	Refer to the table <a href="#">Barrier-type Terminal Blocks</a> for wire size and screw torques.

### 3.6.3 Intrinsic Safety “ic” for Accessory Terminal Boards ISx0ySTCI\_1A, ISx0ySTCI\_2A, ISx0yTBCI\_2C

#### Wiring Diagram



#### Entity Parameters

Discrete Inputs	Inputs 1–21 Value	Inputs 22–24 Value	Unit
Voc or Uo	32	32	V
Isc or Io	3.3	13.4	mA
Po	0.11	0.43	W
Ca or Co	0.18	0.18	uF
La or Lo	100	100	mH

**Note 1.** The contact wetting power supply shall be isolated from ground.

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**Note 2.** For North American locations, if contact wetting power is supplied to the accessory terminal board through connector JE1 or JE2, the wire harness specified on drawing 336A4937FJ shall be used, and the wetting power source shall be current limited by either a UL recognized fuse rated at not more than 3 A, or one of the following power supplies:

- UL R/C, Phoenix Contact GmbH & Co Kg, model QUINT-PS-100-240AC/24DC/5 GE
  - UL R/C, Convertec Ltd., model TIS 150-124
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**Note 3.** The output current of this associated apparatus is limited by a resistor such that the output voltage-current plot is a straight line drawn between open-circuit voltage and short-circuit current.

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**Note 4.** This associated apparatus may also be connected to simple apparatus as defined in Article 504.2 and installed and temperature classified in accordance with Article 504.10(B) of the National Electrical Code (ANSI/NFPA 70), or other local codes, as applicable.

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**Note 5.** Only resistive simple apparatus (such as relay contacts or switches) shall be connected to discrete inputs.

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**Note 6.** Each cable used to connect the simple apparatus must have suitable insulation as required by the applicable local electrical codes.

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