

3 Distributed I/O Module Instructions

The equipment listed in this chapter is certified for use in certain specified hazardous (classified) locations. Follow all applicable instructions in [Conditions of Safe Use](#) and within the specific section for each piece of equipment for proper use of this equipment in these locations.

3.1 PAIC and YAIC Analog I/O Modules

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

- Mark VIe Analog I/O pack **IS220PAICH1A**
with terminal boards (accessories) **IS200STAIH1A**, **IS200STAIH2A**, or **IS200TBAIH1C**
- Mark VIe Analog I/O pack **IS220PAICH1B**
with terminal boards (accessories) **IS200STAIH1A**, **IS200STAIH2A**, or **IS200TBAIH1C**
- Mark VIeS Safety Analog I/O pack **IS220YAICS1A**
with terminal boards (accessories) **IS200STAIS1A**, **IS400STAIS1A**, **IS200STAIS2A**, **IS400STAIS2A**, **IS200TBAIS1C**, or **IS400TBAIS1C**
- Mark VIeS Safety Analog I/O pack **ISx2yYAICS1B** (where x = 2 or 4 and y = 0 or 1)
with terminal boards (accessories) **ISx0ySTAIS1A**, **ISx0ySTAIS2A**, or **ISx0yTBAIS1C**

3.1.1 Electrical Ratings

Item	Min	Nominal	Max	Units
<i>Power Supply</i>				
Voltage	PAICH1B / YAICS1B: 22.5 PAICH1A / YAICS1A: 27.4	PAICH1B / YAICS1B: 24.0/28.0 PAICH1A / YAICS1A: 28.0	28.6	V dc
Current	—	—	0.49	A dc
<i>Analog Inputs (1-8)</i>				
Voltage	-10	—	10	V dc
Current	0	—	20	mA dc
<i>Analog Inputs (9-10)</i>				
Current	-5	—	5	V dc
Current	-1	—	20	mA dc
<i>Analog Outputs</i>				
Voltage	0	—	16.3	V dc
Current	0	—	20	mA dc
<i>Analog Transmitter Power</i>				
Voltage	22.8	24.0	25.2	V dc
Current	—	—	21	mA dc

3.1.2 Field Wire Connections

Terminal Board	Terminal Block Type
ISx00STAI_1A, ISx00STAI_2A	Refer to the table Euro Style Box-type Terminal Blocks for wire size and screw torques.
ISx00TBAI_1C	Refer to the table Barrier-type Terminal Blocks for wire size and screw torques.

Appendix A Classified Location Certifications

Note In the following tables, **x** = 2 or 4 and **y** = 0 or 1 for I/O module part numbers.

Mark VIe I/O Modules

Mark VIe I/O Modules Classified Location Certifications

Equipment	Non-hazardous	Class I, Division 2, Groups A, B, C, D	Class I, Zone 2, Group IIC	ATEX Zone 2, Group IIC
IS210BAPAH1A Accessories: IS210SAMBH1A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS41yBAPBH1A Accessories: IS210SAMBH1A	UL E207685	UL E207685	UL E207685	UL DEMKO 18 ATEX 2032X
IS220PAICH1A Accessories: IS200STAIH1A IS200STAIH2A IS200TBAIH1C	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS220PAICH1B Accessories: IS200STAIH1A IS200STAIH2A IS200TBAIH1C IS400STAIH1A IS400STAIH2A IS400TBAIH1C	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X
IS220PAOCH1B Accessories: IS200STAOH1A IS200STAOH2A IS200TBAOH1C	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X

Appendix B Classified Location Standards

Note In the following tables, **x** = 2 or 4 and **y** = 0 or 1 for I/O module part numbers.

Mark VIe I/O Modules

Mark VIe I/O Modules Classified Location Standards

Equipment	Non-hazardous	Class I, Division 2, Groups A, B, C, D	Class I, Zone 2, Group IIC	ATEX Zone 2, Group IIC
IS210BAPAH1A Accessories: IS210SAMBH1A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010
IS410BAPBH1A Accessories: IS210SAMBH1A	UL 61010-1 Ed. 3 UL 61010-2-201 Ed. 1 CAN/CSA-C22.2 No. 61010-1-12 CAN/CSA-IEC 61010-2-201:14	UL 121201 Ed. 9 CAN/CSA-C22.2 No. 213-17	UL 60079-0 Ed. 6 UL 60079-7 Ed. 5 UL 60079-11 Ed. 6 CAN/CSA-C22.2 No. 60079-0:15 CAN/CSA-C22.2 No. 60079-7:16 CAN/CSA-C22.2 No. 60079-11:14	EN 60079-0:2018 EN 60079-7:2015 EN 60079-11:2012
IS220PAICH1A Accessories: IS200STAIH1A IS200STAIH2A IS200TBAIH1C	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010

Mark VIe I/O Modules Classified Location Standards (continued)

Equipment	Non-hazardous	Class I, Division 2, Groups A, B, C, D	Class I, Zone 2, Group IIC	ATEX Zone 2, Group IIC
IS220PAICH1B Accessories: IS200STAIH1A IS200STAIH2A IS200TBAIH1C IS400STAIH1A IS400STAIH2A IS400TBAIH1C	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010
IS220PAOCH1B Accessories: IS200STAOH1A IS200STAOH2A IS200TBAOH1C	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010
IS220PCLAH1A Accessories: IS210SCLSH1A IS200SCLTH1A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010
IS220PCLAH1B Accessories: IS210SCLSH1A IS200SCLTH1A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010
IS220PCNOH1A Accessories: IS200SPIDG1A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-15:2010
IS220PCNOH1B Accessories: IS200SPIDG1A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-15:2010

Appendix C Equipment Markings

Note In the following tables, **x** = 2 or 4 and **y** = 0 or 1 for I/O module part numbers.

Mark VIe I/O Modules

Mark VIe I/O Modules Equipment Markings

Equipment	US & CAN Class I Div 2	US & CAN Class I Zone 2	ATEX Zone 2
IS210BAPAH1A Accessories: IS210SAMBH1A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA nC [nC] IIC T4, Ex nA nL [nL] IIC T4 Gc X	Ex ic nA [ic] IIC T4 Gc
IS410BAPBH1A Accessories: IS210SAMBH1A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx ic ec [ic] IIC T4 Gc; Ex ic ec [ic] IIC T4 Gc X	Ex ic ec [ic] IIC T4 Gc
IS220PAICH1A Accessories: IS200STAIH1A IS200STAIH2A IS200TBAIH1C	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA nC [nC] IIC T4, Ex nA nL [nL] IIC T4 Gc X	Ex ic nA [ic] IIC T4 Gc
IS220PAICH1B Accessories: IS200STAIH1A IS200STAIH2A IS200TBAIH1C IS400STAIH1A IS400STAIH2A IS400TBAIH1C	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA nC [nC] IIC T4, Ex nA nL [nL] IIC T4 Gc X	Ex ic nA [ic] IIC T4 Gc
IS220PAOCH1B Accessories: IS200STAOH1A IS200STAOH2A IS200TBAOH1C	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA nC [nC] IIC T4, Ex nA nL [nL] IIC T4 Gc X	Ex ic nA [ic] IIC T4 Gc