

**Document Updates — continued**

<b>Rev</b>	<b>Location</b>	<b>Description</b>
<b>G</b>	<a href="#"><u>PAIC and YAIC Analog I/O Modules</u></a>	Separated IS220PAICH1A and IS220PAICH1B and added terminal boards for use with IS220PAICH1B
		Separated IS220YAICS1A and IS220YAICS1B and added terminal boards for use with IS220YAICS1B
	<a href="#"><u>PDIA and YDIA Discrete Input Modules</u></a>	Separated IS220PDIAH1A and IS220PDIAH1B and added terminal boards for use with IS220PDIAH1B
		Separated IS220YDIAS1A and IS220YDIAS1B and added terminal boards for use with IS220YDIAS1B
	<a href="#"><u>PDOA and YDOA Discrete Output Modules</u></a>	Separated IS220PDOAH1A and IS220PDOAH1B and separated the terminal boards for use per I/O pack
	<a href="#"><u>PSVO Servo Control Module</u></a>	Separated IS220PSVOH1A and IS220PSVOH1B
	<a href="#"><u>PVIB and YVIB Vibration Monitor Modules</u></a>	Separated IS220PVIBH1A and IS420PVIBH1B and added the terminal board for use with IS420PVIBH1B
		Separated IS220YVIBS1A and IS420YVIBS1B and added the terminal board for use with IS420YVIBS1B
	<a href="#"><u>Appendix A Classified Location Certifications, Mark VIe I/O Modules</u></a>	Added terminal boards in the Equipment column for the following I/O modules: IS220PAICH1B, IS220PDIAH1B, IS220PDOAH1B, IS220PSVOH1B, IS420PVIBH1B
	<a href="#"><u>Appendix A Classified Location Certifications, Mark VIeS Safety I/O Modules</u></a>	Added terminal boards in the Equipment column for the following I/O modules: IS220YAICS1A IS220YAICS1B with updated ATEX Zone 2, Group IIC certification IS221YAICS1B updated ATEX Zone 2, Group IIC certification IS220YDIAS1A IS220YDIAS1B specifications and certifications IS220YDOAS1A IS220YDOAS1B with updated ATEX Zone 2, Group IIC certification IS221YDOAS1B updated ATEX Zone 2, Group IIC certification IS420YVIBS1B
	<a href="#"><u>Appendix B Classified Location Standards, Mark VIe I/O Modules</u></a>	Added terminal boards in the Equipment column for the following I/O modules: IS220PAICH1B, IS220PDIAH1B, IS220PDOAH1B, IS220PSVOH1B, IS420PVIBH1B
	<a href="#"><u>Appendix B Classified Location Standards, Mark VIeS I/O Modules</u></a>	Added terminal boards in the Equipment column for the following I/O modules: IS220YAICS1A, IS220YAICS1B, IS220YDIAS1A, IS220YDIAS1B, IS220YDOAS1A, IS220YDOAS1B, IS420YVIBS1B
	<a href="#"><u>Appendix C Equipment Markings, Mark VIe I/O Modules</u></a>	Added terminal boards in the Equipment column for the following I/O modules: IS220PAICH1B, IS220PDIAH1B, IS220PDOAH1B, IS220PSVOH1B, IS420PVIBH1B
<a href="#"><u>Appendix C Equipment Markings, Mark VIeS I/O Modules</u></a>	Added terminal boards in the Equipment column for the following I/O modules: IS220YAICS1A, IS220YAICS1B, IS220YDIAS1A, IS220YDIAS1B, IS220YDOAS1A, IS220YDOAS1B, IS420YVIBS1B	

# 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 <a href="#">Euro Style Box-type Terminal Blocks</a> for wire size and screw torques.
ISx00TBAI_1C	Refer to the table <a href="#">Barrier-type Terminal Blocks</a> 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

# 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

# Appendix D Ambient Temperature Ratings

**Note** In the following tables, **y** = 0 or 1 for module part numbers.

**Ambient Temperature Ratings**

GE Part Number	Ambient Temperature Rating
IS200JPDLG1A	-30 to + 65 °C (-22 to +149 °F)
IS210BAPAH1A	
IS220PAICH1A	
IS220PAOCH1B	
IS220PCLAH1A	
IS220PCLAH1B	
IS220PDIAH1A	
IS220PDIIH1B	
IS220PDIOH1A	
IS220PDIOH1B	
IS220PDOAH1A	
IS220PHRAH1A	
IS220PHRAH1B	
IS220PPDAH1A	
IS220PPRAH1A	
IS220PPRAS1A	
IS220PPRAS1B	
IS220PPROH1A	
IS220PPROS1B	
IS220PRTDH1A	
IS220PRTDH1B	
IS220PSCAH1A	
IS220PSCAH1B	
IS220PSCHH1A	
IS220PSVOH1A	
IS220PSVOH1B	
IS220PTCCH1A	
IS220PTCCH1B	
IS220PTURH1A	
IS220PTURH1B	
IS220PVIBH1A	
IS220YAICS1A	
IS220YDIAS1A	
IS220YDOAS1A	
IS220YHRAS1A	
IS220YPROS1A	
IS220YSILS1A	
IS220YSILS1B	
IS220YTCCS1A	
IS220YTURS1A	
IS220YVIBS1A	
IS221PHRAH1B	