

Mark* Vle and Mark VleS Control Systems Equipment in Hazardous Locations (HazLoc) Instruction Guide

Sept 2020



3.8 PDIO Discrete Input/Output Module

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

- Discrete I/O pack **IS220PDIOH1A**
with terminal boards (accessories) **IS200TDBSH2A** or **IS200TDBTH2A**
- Discrete I/O pack **IS220PDIOH1B**
with terminal boards (accessories) **ISx0yTDBSH2A**, **ISx0yTDBSH8A**, **ISx0yTDBTH2A**, or **ISx0yTDBTH8A**

3.8.1 Electrical Ratings

PDIOH1A

Item	Min	Nominal	Max	Units
<i>Power Supply</i>				
Voltage	27.4	28.0	28.6	V dc
Current	—	—	0.81	A dc
<i>Contact Inputs</i>				
Voltage	0	—	32	V dc
<i>Contact Outputs</i>				
Voltage	—	—	32.0	V dc
Current	—	—	3.15	A dc
<i>Contact Wetting Outputs</i>				
Voltage	—	—	32	V dc
Current	—	—	110	mA dc

PDIOH1B

Item	Min	Nominal	Max	Units
<i>Power Supply</i>				
Voltage	27.4	28.0	28.6	V dc
Current	—	—	0.81	A dc
<i>Contact Inputs</i>				
Voltage	0	—	32	V dc
<i>TDBSH2A, TDBTH2A Contact Wetting Outputs</i>				
Voltage	16	—	32	V dc
Current	—	—	110	mA dc
<i>TDBSH8A, TDBTH8A Contact Wetting Outputs (1-21)</i>				
Voltage	—	—	31	V dc
Current	—	—	10	mA dc
<i>TDBSH8A, TDBTH8A Contact Wetting Outputs (22-24)</i>				
Voltage	—	—	31	V dc
Current	—	—	41	mA dc
<i>Contact Outputs</i>				
Voltage	—	—	32.0	V dc
Current	—	—	3.15	A dc

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

Equipment	Non-hazardous	Class I, Division 2, Groups A, B, C, D	Class I, Zone 2, Group IIC	ATEX Zone 2, Group IIC
IS221PDIAH1B Accessories: IS201STCIH1A IS201STCIH2A IS201STCIH8A IS201TBCIH2C IS201TBCIH4C	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X
IS220PDIIH1B Accessories: IS200SDIIH1A	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X
IS220PDIOH1A Accessories: IS200TDBSH2A IS200TDBTH2A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS220PDIOH1B Accessories: ISx0yTDBSH2A ISx0yTDBSH8A ISx0yTDBTH2A ISx0yTDBTH8A	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X
IS220PDOAH1A Accessories: IS200TRLYH2E IS200TRLYH3E IS200TRLYH1F IS200TRLYH2F	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X

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
IS220PDIOH1A Accessories: IS200TDBSH2A IS200TDBTH2A	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
IS220PDIOH1B Accessories: ISx0yTDBSH2A ISx0yTDBSH8A ISx0yTDBTH2A ISx0yTDBTH8A	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
IS220PDOAH1A Accessories: IS200TRLYH2E IS200TRLYH3E IS200TRLYH1F IS200TRLYH2F	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
IS220PDOAH1B Accessories: IS200TRLYH2E IS200TRLYH3E IS200TRLYH1F IS200TRLYH2F IS200SRLYH1A IS200SRLYH2A IS400SRLYH1A IS400SRLYH2A IS40yWROBH1A IS40yWROFH1A IS40yWROGH1A IS40yWROHH1A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2017 CAN/CSA-C22.2 No. 213-17	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+A11:2013 EN 60079-11:2012 EN 60079-15:2010

Mark VIe I/O Modules Equipment Markings (continued)

Equipment	US & CAN Class I Div 2	US & CAN Class I Zone 2	ATEX Zone 2
IS221PDIAH1B Accessories: IS201STCIH1A IS201STCIH2A IS201STCIH8A IS201TBCIH2C IS201TBCIH4C	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA [nC] IIC T4, Ex nA [nL] IIC T4 Gc X	Ex nA [ic] IIC T4 Gc
IS220PDIIH1B Accessories: IS200SDIIH1A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC T4 Gc X	Ex nA IIC T4 Gc
IS220PDIOH1A Accessories: IS200TDBSH2A IS200TDBTH2A	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
IS220PDIOH1B Accessories: ISx0yTDBSH2A ISx0yTDBTH2A ISx0yTDBSH8A ISx0yTDBTH8A	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
IS220PDOAH1A Accessories: IS200TRLYH2E IS200TRLYH3E IS200TRLYH1F IS200TRLYH2F	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA nC IIC T4, Ex nA nL IIC T4 Gc X	Ex ic nA IIC T4 Gc