

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

Sept 2020



3.11 PPRA Emergency Turbine Protection Module

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

- Turbine protection I/O pack **IS220PPRAH1A** with terminal board (accessory) **IS200TREA H1A** and daughter board (accessory) **IS200WREA H1A**
- Turbine protection I/O pack **IS220PPRAS1A** or **IS220PPRAS1B** with terminal board (accessory) **IS200TREA S1A** and daughter board (accessory) **IS200WREA S1A**

3.11.1 Electrical Ratings

Item	Min	Nominal	Max	Units
<i>Power Supply</i>				
Voltage	27.4	28.0	28.6	V dc
Current	—	—	0.5	A dc
<i>Contact Inputs (TREA)</i>				
Voltage	0	—	32	V dc
<i>Voltage Detection Inputs (TREA)</i>				
Voltage	16	—	140	V dc
<i>E-stop Input (TREA)</i>				
Voltage	18	—	140	V dc
<i>Speed Inputs (TREA, WREA)</i>				
Voltage	-15	—	15	V dc
<i>Contact Outs 1-2 (TREA)</i>				
Voltage	—	—	28	V dc
Current	—	—	7	A dc
<i>Contact Out 3 (WREA)</i>				
Voltage	—	—	28	V dc
Current	—	—	5	A dc
<i>Contact Wetting Outputs (WREA)</i>				
Voltage	—	—	32	V dc
Current	—	—	13.2	mA dc

3.11.2 Field Wire Connections

For the TREA terminal board (accessory) certified for HazLoc, refer to the table [Euro Style Box-type Terminal Blocks](#) for wire size and screw torques.

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
IS220PDOAH1B Accessories: IS200TRLYH2E IS200TRLYH3E IS200TRLYH1F IS200TRLYH2F IS200SRLYH1A IS200SRLYH2A IS400SRLYH1A IS400SRLYH2A IS40yWROBH1A IS40yWROFH1A IS40yWROGH1A IS40yWROHH1A	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X
IS221PDOAH1B Accessories: IS201TRLYH2E IS201TRLYH3E IS201TRLYH1F IS201TRLYH2F	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X
IS220PHRAH1A Accessories: IS200SHRAH1A IS200SHRAH2A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS220PHRAH1B Accessories: IS200SHRAH1A IS200SHRAH2A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS221PHRAH1B Accessories: IS201SHRAH1A IS201SHRAH2A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS220PPRAH1A Accessories: IS200TREA1A IS200WREA1A	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
IS221PDOAH1B Accessories: IS201TRLYH2E IS201TRLYH3E IS201TRLYH1F IS201TRLYH2F	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
IS220PHRAH1A Accessories: IS200SHRAH1A IS200SHRAH2A	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
IS220PHRAH1B Accessories: IS200SHRAH1A IS200SHRAH2A	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
IS221PHRAH1B Accessories: IS201SHRAH1A IS201SHRAH2A	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
IS220PPRAH1A Accessories: IS200TREA1A IS200WREA1A	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
IS220PPRAS1A Accessories: IS200TREAS1A IS200WREAS1A	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
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