GEH-6725R

Mark* VIe and Mark VIeS Control Systems Equipment in Hazardous Locations (HazLoc) Instruction Guide

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Public Information

2 Controller and Switch Instructions

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

2.1 UCSA, UCSB, UCSC and UCSD Controllers

The following table lists the controllers that are certified for hazardous location usage.

Note For UCSC, UCEC and UCSD controller conditions of safe use and hazardous locations installation requirements, refer to *UCSC, UCEC and UCSD Installation and Maintenance Requirements* (GFK-3006).

For general application information, refer to the *Mark VIe and Mark VIeS Control Systems Volume II: General-purpose Applications System Guide* (GEH-6721_Vol_II), the section *UCSC Controllers*.

Processor	Part Number	Name
Quad core, 1.2 GHz AMD© G-Series	IS420UCSCH1	Mark VIe controller
Dual core, 1.6 GHz AMD G-Series	IS420UCSCH2	MarkStat controller
Dual core, 1.6 GHz AMD G-Series	IS420UCSCS2	Mark VIeS Safety controller
Quad core, 1.6 GHz AMD V1000–Series	IS420UCSDH1	Mark VIe controller
Quad core, 1.6 GHz AMD V1000–Series	IS420UCSDS1	Mark VIeS Safety controller
600 MHz EP80579 Intel®	IS420UCSBS1A IS421UCSBS1A (conformal coated)	Mark VIeS Safety controller
	IS420UCSBH1A IS421UCSBH1A (conformal coated)	Mark VIe, EX2100e, or LS2100e controller
1066 MHz EP80579 Intel	IS420UCSBH4A IS421UCSBH4A (conformal coated)	
	IS420PPNGH1A	PROFINET gateway module
1200 MHz EP80579 Intel	IS420UCSBH3A	Mark VIe or MarkStat controller
667 MHx PowerQUICC® Pro Freescale	IS220UCSAH1A	Mark VIe controller PAMC Acoustic Monitor (processor) PMVE Migration from Mark V Control (processor)

2.1.1 UCEC Module

The IS420UCECH1 module is certified for hazardous location usage. This module is an IS420UCSCH1 controller coupled with a seven I/O port expansion board. The UCSCH1 controller contained within the UCECH1 module has the same features and benefits as the stand-alone UCSCH1 controller. For further details on the UCECH1 module, refer to the *Mark VIe and Mark VIeS Control Systems Volume II: General-purpose Applications System Guide* (GEH-6721_Vol_II), the section *UCECH1x I/O Port Expansion Module*.

Switches and Controllers

Switches and Controllers 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
IS420ESWAH1A IS421ESWAH1A IS420ESWAH2A IS421ESWAH2A IS420ESWAH3A IS421ESWAH3A IS420ESWAH4A IS420ESWAH5A IS420ESWBH1A IS421ESWBH1A IS420ESWBH2A IS421ESWBH2A IS420ESWBH3A IS421ESWBH3A IS420ESWBH4A IS420ESWBH5A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS220UCSAH1A IS420UCSBH1A IS421UCSBH1A IS420UCSBH3A IS420UCSBH4A IS4210UCSBH4A IS420UCSBS1A IS421UCSBS1A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS420UCSCH1 IS420UCSCH2 IS420UCSCS2	UL E207685	UL E207685	UL E207685	UL DEMKO 20 ATEX 2359X
IS420UCSDH1 IS420UCSDS1	UL E207685	UL E207685	UL E207685	UL DEMKO 20 ATEX 2359X

Switches and Controllers

Switches and Controllers 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
IS420ESWAH1A IS421ESWAH1A IS420ESWAH2A IS421ESWAH2A IS420ESWAH3A IS421ESWAH3A IS420ESWAH4A IS420ESWAH5A IS420ESWBH1A IS421ESWBH1A IS420ESWBH2A IS421ESWBH2A IS420ESWBH3A IS421ESWBH3A IS420ESWBH4A IS420ESWBH5A	 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
IS220UCSAH1A IS420UCSBH1A IS421UCSBH1A IS420UCSBH3A IS420UCSBH4A IS421UCSBH4A IS420UCSBS1A IS421UCSBS1A	 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
IS420UCSCH1 IS420UCSCH2 IS420UCSCS2	UL 61010-1 UL 61010-2-201 CSA-C22.2 No. 61010-1 CSA-C22.2 No. 61010-2-201	 ANSI/ISA-12.12.01-2015 CSA-C22.2 No. 213-15	UL 60079-0 UL 60079-15 CAN-CSA-C22.2 No. 60079-0:11 CAN-CSA-C22.2 No. 60079-15:12	 EN 60079-0:2012+A11:2013 EN 60079-7:2015
IS420UCSDH1 IS420UCSDS1	UL 61010-1 UL 61010-2-201 CSA-C22.2 No. 61010-1 CSA-C22.2 No. 61010-2-201	 ANSI/ISA-12.12.01-2015 CSA-C22.2 No. 213-15	UL 60079-0 UL 60079-15 CAN-CSA-C22.2 No. 60079-0:11 CAN-CSA-C22.2 No. 60079-15:12	 EN 60079-0:2012+A11:2013 EN 60079-7:2015+A1:2018

Ambient Temperature Ratings (continued)

GE Part Number	Ambient Temperature Rating
IS221PRTDH1B	-30 to + 65 °C (-22 to +149 °F)
IS221PSCAH1B	
IS420PPNGH1A	
IS420UCSBH1A	
IS420UCSBH4A	
IS420UCSBS1A	
IS421UCSBH1A	
IS421UCSBH4A	
IS421UCSBS1A	
IS220PCNOH1A	-20 to +55 °C (-4 to +131 °F)
IS220PCNOH1B	
IS220PPRFH1A	
IS220PPRFH1B	
IS220UCSAH1A	0 to 65 °C (32 to 149 °F)
IS420UCSBH3A	
IS41yBAPBH1A	-40 to +70 °C (-40 to 158 °F)
IS41yJPDDG1A	
IS41yJPDDG2A	
IS41yJPDDG3A	
IS41yJPDDG4A	
IS41yJPDEG1A	
IS210JPDHG1A	
IS400JPDHG1A	
IS410JPDHG1A	
IS411JPDHG1A	
ISx2yPAICH1B	
ISx2yPDIAH1B	
ISx2yPDOAH1B	
ISx2yPPDAH1B	
IS42yPSCAH1B	
IS42yPVIBH1B	
IS42yPUAAH1A	
ISx2yYAICS1B	
ISx2yYDIAS1B	
ISx2yYDOAS1B	
IS42yYUAAS1A	
IS42yYVIBS1B	
IS42yESWAH1A	
IS42yESWAH2A	
IS42yESWAH3A	
IS42yESWAH4A	
IS42yESWAH5A	
IS42yESWBH1A	
IS42yESWBH2A	
IS42yESWBH3A	