Mark VIe Industrial Ethernet / IONet Switches Summary Sheet*

GE's product line of industrial, unmanaged Ethernet 10/100 switches, ESWA and ESWB, are specifically designed to meet the needs of real-time industrial control solutions and are required for all IONet switches used in a Mark* VIe and Mark VIeS Safety control system. To meet the requirements for speed and functionality, the following features are provided:

IS420ESWAH#A

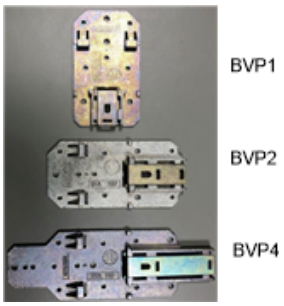
IS420ESWBH#A

- 802.3, 802.3u, and 802.3x compatibility
- 10/100 base copper with auto negotiation
- Full/half duplex auto-negotiation
- 100 Mbps FX uplink port
- HP-MDIX auto sensing
- LEDs to indicate status of Link Presence, Activity and Duplex, and Speed per port (each LED has two colors)
- LED to indicate power status
- Minimum 256 KB buffer with 4 K media access control (MAC) addresses
- Redundant power supply inputs (Diode-OR'd)

The GE Ethernet/IONet switches are available in two hardware forms: ESWA and ESWB. Each hardware form is available in five versions (H1A through H5A) that vary in fiber-optic port configuration options, which include no fiber ports, multi-mode fiber ports, or single-mode (longer distance) fiber ports. Refer to the *IS420ESWAH#A IONet Switch Specifications table* and the *IS420ESWBH#A IONet Switch Specifications table* for these fiber option details.

The ESWx switches can be DIN-rail mounted using one of three GE qualified DIN-rail mounting clips, depending on the hardware form (ESWA or ESWB) and the selected DIN-rail mounting orientation. The clips are ordered separately, in accordance with the following table. Mounting screws are included with each switch.

Clip Part #	Switch Usage	Mounting Orientation
259B2451BVP1	ESWA (8-port) or ESWB (16-port)	Long edge of switch body parallel to rail
259B2451BVP2	ESWA (8-port)	Long edge of switch body perpendicular to rail
259B2451BVP4	ESWB (16-port)	Long edge of switch body perpendicular to rail



For more information on the ESWx switches, refer to the *Mark VIeS Functional Safety Systems for General Market Volume II System Guide for General-purpose Applications* (GEH-6855_Vol_II), the chapter *Unmanaged Ethernet Swtiches*.

IS420ESWAH#A IONet Switch Specifications

Item	IONet Switch				
	IS420ESWAH1A	**IS420ESWAH2A**	**IS420ESWAH3A**	**IS420ESWAH4A**	**IS420ESWAH5A**
Product Name	Mark VIe IONet Switch	Mark VIe IONet Switch	Mark VIe IONet Switch	Mark VIe IONet Switch	Mark VIe IONet Switch
Life-cycle Status	Active	Active	Active	Active	Active
Copper Ports	8 ports 10/100Base-TX copper, RJ-45	8 ports 10/100Base-TX copper, RJ-45	8 ports 10/100Base-TX copper, RJ-45	8 ports 10/100Base-TX copper, RJ-45	8 ports 10/100Base-TX copper, RJ-45
Fiber Ports	1 port 100Base-FX, multi-mode fiber, LC-type connection	2 ports 100Base-FX, multi-mode fiber, LC-type connection	No fiber ports	1 port 100Base-LX10, -mode fiber, LC-type connection	2 ports 100Base-LX10, single-mode fiber, LC-type connection
Power Requirements	24 / 28 V dc, 1 A max, TB1 and TB2 provide inputs for two independent power sources that are Diode-OR'd for redundant power				
Power Supply Connector	Phoenix® contact (MC 1.5/S-STF-3.81) (qty 2, Included)				
Dimensions (H x W x D)	13.8 x 8.6 x 5.6 cm (5.4 x 3.40 x 2.20 in)				
Copper Cables	Cat 5e UTP cable with RJ-45 connectors (8P8C)				
Cooling	Convection cooled				
Safety Rated	Non-interferring				
Hazardous Locations Capability	Class 1, Div 2 / Class 2, Zone 2 / ATEX For ratings and further details, refer to the *Mark VIeS Functional Safety System Equipment in Hazardous Locations (HazLoc) Instruction Guide* (GEH-6861).				
G3 Compliant	Yes				
Ambient Operational Temperature	-40 to 70°C (-40 to 158 °F)				
Storage Temperature	-40 to 85°C (-40 to 185 °F)				
Mounting Method	DIN-rail mounted with separately purchased mounting clip				
Switch Replacement Part Number	IS420ESWAH1A	IS420ESWAH2A	IS420ESWAH3A	IS420ESWAH4A	IS420ESWAH5A

IS420ESWBH#A IONet Switch Specifications

Item	IONet Switch				
	IS420ESWBH1A	**IS420ESWBH2A**	**IS420ESWBH3A**	**IS420ESWBH4A**	**IS420ESWBH5A**
Product Name	Mark VIe IONet Switch	Mark VIe IONet Switch	Mark VIe IONet Switch	Mark VIe IONet Switch	Mark VIe IONet Switch
Life-cycle Status	Active	Active	Active	Active	Active
Copper Ports	16 ports 10/100Base-TX copper, RJ-45	16 ports 10/100Base-TX copper, RJ-45	16 ports 10/100Base-TX copper, RJ-45	16 ports 10/100Base-TX copper, RJ-45	16 ports 10/100Base-TX copper, RJ-45
Fiber Ports	1 port 100Base-FX, multi-mode fiber, LC-type connection	2 ports 100Base-FX, multi-mode fiber, LC-type connection	No fiber ports	1 port 100Base-LX10, single-mode fiber, LC-type connection	2 ports 100Base-LX10, single-mode fiber, LC-type connection
Power Requirements	24 / 28 V dc, 1 A max, TB1 and TB2 provide inputs for two independent power sources that are Diode-OR'd for redundant power				
Power Supply Connector	Phoenix contact (MC 1.5/S-STF-3.81) (qty 2, Included)				
Dimensions (H x W x D)	18.8 x 8.6 x 5.6 cm (7.40 x 3.40 x 2.20 in)				
Copper Cables	Cat 5e UTP cable with RJ-45 connectors (8P8C)				
Cooling	Convection cooled				
Safety Rated	Non-interferring				
Hazardous Locations Capability	Class 1, Div 2 / Class 2, Zone 2 / ATEX For ratings and further details, refer to the *Mark VIeS Functional Safety System Equipment in Hazardous Locations (HazLoc) Instruction Guide* (GEH-6861).				
G3 Compliant	Yes				
Ambient Operational Temperature	-40 to 70°C (-40 to 158 °F)				
Storage Temperature	-40 to 85°C (-40 to 185 °F)				
Mounting Method	DIN-rail mounted with separately purchased mounting clip				
Switch Replacement Part Number	IS420ESWBH1A	IS420ESWBH2A	IS420ESWBH3A	IS420ESWBH4A	IS420ESWBH5A

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Please send comments or suggestions to controls.doc@ge.com
For further assistance or technical information, contact the nearest GE Sales or Service Office, or an authorized GE Sales Representative.

Public Information