



## Mark\* V1e 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\* V1e and Mark V1eS Safety control system. To meet the requirements for speed and functionality, the following features are provided:



IS420ESWAH#A



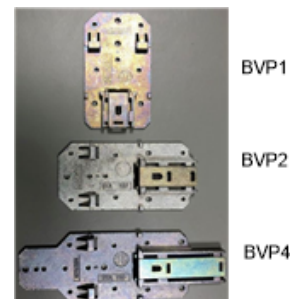
IS420ESWBH#A

- 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 V1eS Functional Safety Systems for General Market Volume II System Guide for General-purpose Applications* (GEH-6855\_Vol\_II), the chapter *Unmanaged Ethernet Switches*.

**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-interfering				
Hazardous Locations Capability	Class 1, Div 2 / Class 2, Zone 2 / ATEX For ratings and further details, refer to the <i>Mark VIeS Functional Safety System Equipment in Hazardous Locations (HazLoc) Instruction Guide</i> (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-interfering				
Hazardous Locations Capability	Class 1, Div 2 / Class 2, Zone 2 / ATEX For ratings and further details, refer to the <i>Mark VIeS Functional Safety System Equipment in Hazardous Locations (HazLoc) Instruction Guide</i> (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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