4 Port Gigabit Ethernet Switch

3 Gigabit Ethernet Ports (10/100/1000 Mbps)
1 Ethernet Port (10/100 Mbps)
P/N: AX140720

Features:

- 12V, 24Vdc input power (nominal) for connection to a battery
- 3 Gigabit Ethernet ports (10/100/1000 Mbps)
- 1 Ethernet port (10/100 Mbps)
- Surge, reverse polarity, and input overvoltage protection
- 5 LED indicators; one each for Ethernet ports and for power
- 4 M12 8-pin Phoenix female connectors
- Compact, IP67
- Suitable for high vibration and shock environments

Applications:

- Connect multiple Ethernet devices (cameras, displays, etc.) in
  - Off-highway equipment
  - Mining equipment
- Harsh environments with power transients and high humidity, vibrations, and shock
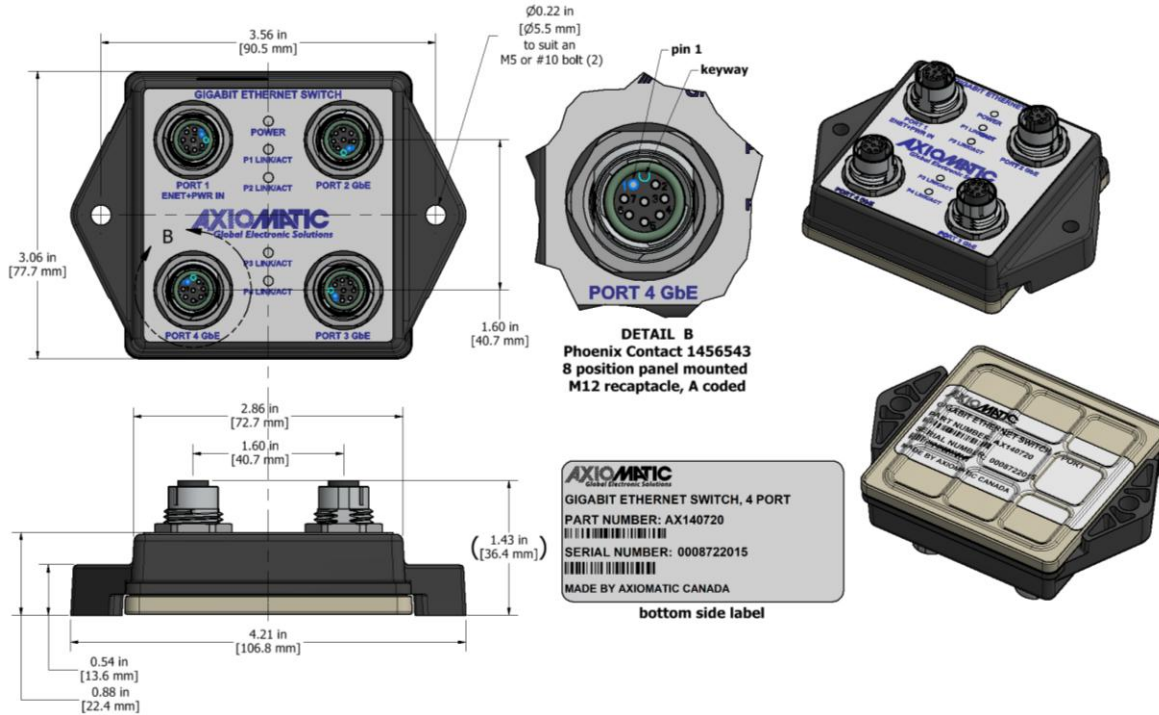
Ordering Part Numbers:

4 Port Gigabit Ethernet Switch: **AX140720**

Description:

The 4 Port Gigabit Ethernet Switch operates as an unmanaged switch. It can connect to 4 different Ethernet capable devices. 3 ports can communicate up to 1000 Mbps (Gigabit Ethernet) and one port can communicate up to 100 Mbps.

Each port has LED indicators showing the status of the ports.

Dimensional Drawing

Ø0.22 in [Ø5.5 mm] to suit an M5 or #10 bolt (2)

3.56 in [90.5 mm]

3.06 in [77.7 mm]

1.60 in [40.7 mm]

GIGABIT ETHERNET SWITCH
POWER
P1 LINK/ACT
PORT 1 ENET+PWR IN
P2 LINK/ACT
PORT 2 GbE
AXIOMATIC Global Electronic Solutions
B
P3 LINK/ACT
P4 LINK/ACT
PORT 4 GbE
PORT 3 GbE

pin 1
keyway
PORT 4 GbE
DETAIL B
Phoenix Contact 1456543
8 position panel mounted
M12 receptacle, A coded

2.86 in [72.7 mm]
1.60 in [40.7 mm]

1.43 in (36.4 mm)

4.21 in [106.8 mm]

0.54 in [13.6 mm]
0.88 in [22.4 mm]

AXIOMATIC Global Electronic Solutions
GIGABIT ETHERNET SWITCH, 4 PORT
PART NUMBER: AX140720
SERIAL NUMBER: 0008722015
MADE BY AXIOMATIC CANADA
bottom side label

Technical Specifications:

Specifications are indicative and subject to change. Actual performance will vary depending on the application and operating conditions. Users should satisfy themselves that the product is suitable for use in the intended application. All our products carry a limited warranty against defects in material and workmanship. Please refer to our Warranty, Application Limitations & Return Materials Process as described on https://www.axiomatic.com/service/.
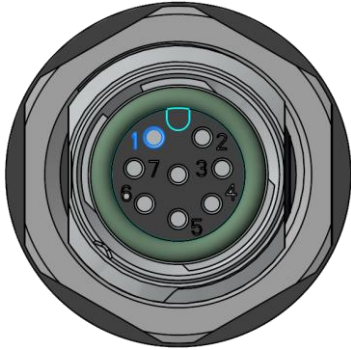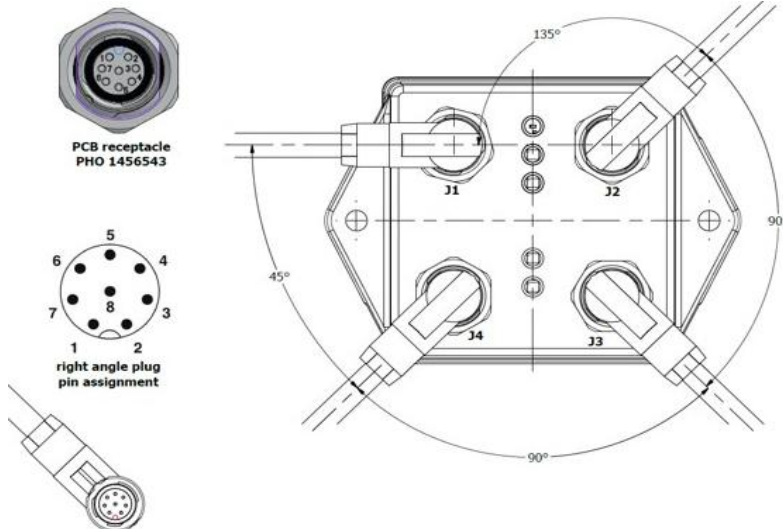
Input Specifications

Power Supply Input	12 or 24 VDC nominal (8 to 36 VDC range)
Quiescent Current Draw	60 mA @ 12 VDC; 33 mA @ 24VDC
Protections	Surge and transient protection is provided. Reverse polarity protection between 9 to 36 V is provided. Undervoltage protection down to 5.2 V is provided. Overvoltage protection up to 42.6 V is provided.

Communications

Ethernet	1 10/100BASE-TX, ESD Protected 3 10/100/1000BASE-T, ESD Protected
Switch and PHY	Maxlinear GSW145

General Specifications

LED Indicators	Power LED (Green), ON = Power ON 4 bi-colour communication LED indicators (Red and Green) RED = 10 Mbps or 100 Mbps, GREEN = 1000 Mbps, Solid = Link, Flashing = Activity
Compliance	CE / UKCA marking EMC: ISO 13766-1:2018 RoHS
Vibration	MIL-STD-202H, method 204D, test condition C 10 g peak (Sine) MIL-STD-202H, method 214A, test condition I/B 7.86 Grms (Random)
Shock	MIL-STD-202H, method 213B, test condition A 50 g peak
Protection	IP67
Enclosure	Injection molded plastic, laser welded PA66, 30% glass fiber reinforced 4.21 in. x 3.06 in. x 1.43 in. (106.8 mm x 77.7 mm x 36.4 mm) L x W x H including connectors. See dimensional drawing. Flammability Rating: UL 94 HB

Weight	0.136 kg (0.3 lb.)
Operating Temperature	-40 to 70 °C (-40 to 155 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Electrical Connections	4 Phoenix 1456543 M12 8-pin female sockets

J1 (Power and Ethernet connector):

Pin	Description
1	Battery +
2	Battery - (These 2 pins are electrically connected)
3	
4	TXD N
5	RXD P
6	TXD P
7	Battery +
8	RXD N

J2, J3, J4 (Gigabit Ethernet connectors):

Pin	Description
1	BI_DC_P
2	BI_DD_P
3	BI_DD_N
4	BI_DA_N
5	BI_DB_P
6	BI_DA_P
7	BI_DC_N
8	BI_DB_N

Mating Cables	Not supplied
Installation	The device should be installed after a protective power supply to avoid damage from load dump voltage fluctuations.

Form: TDAX140720-04/21/2025