

4 Port Gigabit Ethernet Switch, M12, X-Coded

3x 1Gbps Ethernet M12 X-Coded Connectors
1x 100Mbps Ethernet M12 A-Coded Connector

P/N: AX140723

Applications

- Connect multiple Ethernet devices (cameras, displays, etc.) in:
 - Off-highway equipment;
 - Autonomous vehicles;
 - Agricultural equipment; or
 - Mining equipment.
- Suitable for harsh environments with power transients and high humidity, vibrations, and shocks

Ordering Part Number

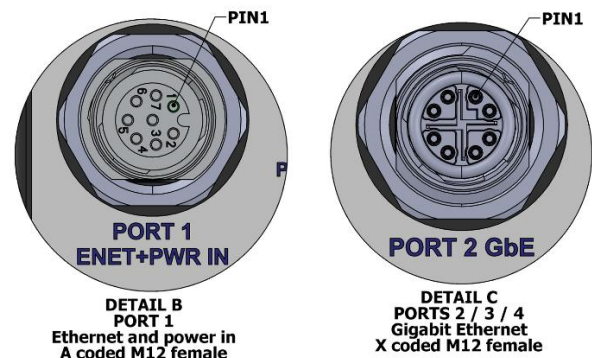
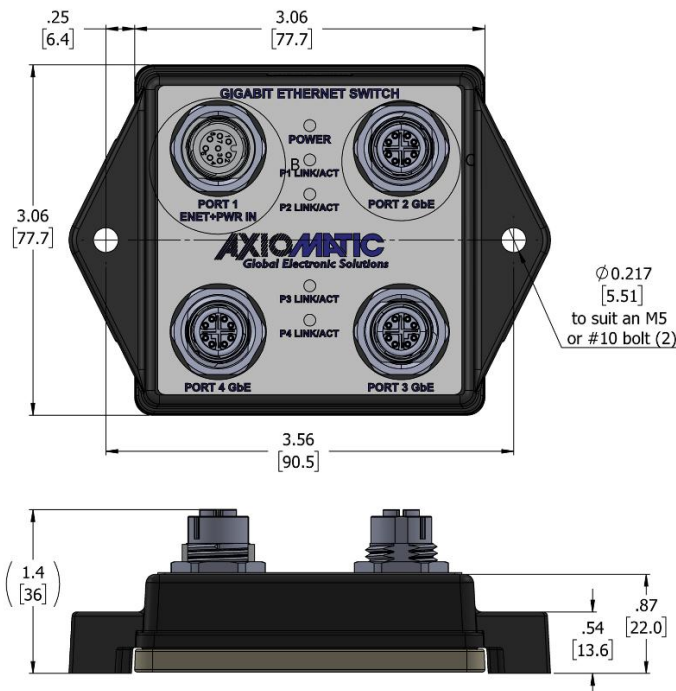
4 Port Gigabit Ethernet Switch, M12, X-Coded - P/N: **AX140723**

4 Port Gigabit Ethernet Switch, M12, A-Coded - P/N: **AX140720**

Features

- 12 or 24 V_{DC} input power for connection to a battery (8 to 36 V_{DC} range)
- 3x Gigabit Ethernet ports, M12, 8-pin, female, shielded, X-coded
- 1x Ethernet port, M12, 8-pin, female, shielded, A-coded
- Surge, reverse polarity, undervoltage, and overvoltage protection
- 5x status LED indicators
- Compact, IP67
- Suitable for high vibration and shock environments

Dimensional Drawing



bottom of unit label

Figure 1.0 – Dimensional Drawing

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/>.

Power Input

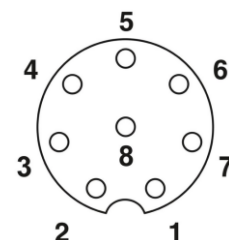
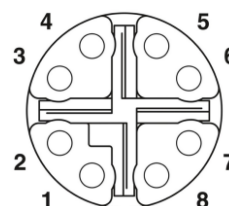
Power Supply Input	12 or 24 V _{DC} nominal (8 to 36 V _{DC} range)
Quiescent Current	60 mA @ 12 V _{DC} ; 33 mA @ 24V _{DC}
Protections	Surge and transient protection Reverse polarity protection from 9 to 36 V Undervoltage shutdown at 5.2 V Overvoltage shutdown at 42.6 V

Ethernet

Gigabit Ethernet Ports	3x ports (1 Gbit/s, 100 Mbit/s, or 10 Mbit/s) 1000BASE-T / 100BASE-TX / 10BASE-T
Ethernet Port	1x port (100 Mbit/s or 10 Mbit/s) 100BASE-TX / 10BASE-T
Switch and PHY	MaxLinear GSW145
Protection	ESD Protected

General Specifications

LED Indicators	Power LED (Green), ON = Power ON 4x bi-colour (red / green) Ethernet LED indicators RED = 10 or 100 Mbps, GREEN = 1 Gbps, SOLID = Link, FLASHING = Activity																																								
Compliance	CE / UKCA marking EMC: ISO 13766-1:2018 RoHS																																								
Protection	IP67																																								
Operating Temperature	-40 to 70 °C (-40 to 158 °F)																																								
Storage Temperature	-40 to 85 °C (-40 to 185 °F)																																								
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																																								
Weight	0.136 kg (0.3 lb.) preliminary																																								
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																																								
Installation	The device should be installed after a protective power supply to avoid damage from load dump voltage fluctuations.																																								
Connections	3x M12 female sockets, 8-pin, X-coded, Shielded, Phoenix Contact - P/N: 1237405 <table border="1"> <thead> <tr> <th colspan="2">Gigabit Ethernet Connectors</th> </tr> <tr> <th>Pin</th><th>Description</th></tr> </thead> <tbody> <tr><td>1</td><td>BI DA +</td></tr> <tr><td>2</td><td>BI DA -</td></tr> <tr><td>3</td><td>BI DB +</td></tr> <tr><td>4</td><td>BI DB -</td></tr> <tr><td>5</td><td>BI DD+</td></tr> <tr><td>6</td><td>BI DD -</td></tr> <tr><td>7</td><td>BI DC -</td></tr> <tr><td>8</td><td>BI DC +</td></tr> </tbody> </table> 1x M12 female socket, 8-pin, A-coded, Shielded, Phoenix Contact - P/N: 1456543 <table border="1"> <thead> <tr> <th colspan="2">Power and 100 Mbps Ethernet Connector</th> </tr> <tr> <th>Pin</th><th>Description</th></tr> </thead> <tbody> <tr><td>1</td><td>Battery +</td></tr> <tr><td>2</td><td>Battery -</td></tr> <tr><td>3</td><td>Battery -</td></tr> <tr><td>4</td><td>TXD N</td></tr> <tr><td>5</td><td>RXD P</td></tr> <tr><td>6</td><td>TXD P</td></tr> <tr><td>7</td><td>Battery +</td></tr> <tr><td>8</td><td>RXD N</td></tr> </tbody> </table>	Gigabit Ethernet Connectors		Pin	Description	1	BI DA +	2	BI DA -	3	BI DB +	4	BI DB -	5	BI DD+	6	BI DD -	7	BI DC -	8	BI DC +	Power and 100 Mbps Ethernet Connector		Pin	Description	1	Battery +	2	Battery -	3	Battery -	4	TXD N	5	RXD P	6	TXD P	7	Battery +	8	RXD N
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Mating Cables	Not supplied																																								



Form: TDAX140723-07/27/2026