6 Port Ethernet Switch
P/N: AX140700

Features:
- 12V, 24Vdc input power (nominal)
- Optional accessory input switch connection
- 6 ports – Ethernet (10/100 Mbps) for multiple Ethernet devices on a machine
- 2 power outputs (Vps) to power external devices
- LED indicators
- Surge, Reverse polarity, input overvoltage, input undervoltage, and output overcurrent protection
- IP66
- Suitable for high vibration and shock environments
- CE mark
- cURus to UL60950
- EN60950-1
- Suitable for applications -3048 m below sea level to +4572 m above sea level

Applications:
- Off-highway equipment, mining equipment

Description: The Ethernet Switch operates as an unmanaged switch that is capable of handling communication of 6 different Ethernet capable devices. The device can be utilized to reduce machine cabling. Each port can communicate up to 100mbps and has LED indicators showing the status of the ports. This module can be powered through either the power input connector, or through port 1. It can also power two external devices through ports 2 and 3, connecting them to the input power. Each of these two ports has over current protection that triggers at 1A.

Ordering Part Numbers: 6 port Ethernet Switch: AX140700
Technical Specifications: Specifications are indicative and subject to change.

Input Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply Input - Nominal</td>
<td>12V, 24Vdc nominal (8…36VDC power supply range)</td>
</tr>
<tr>
<td>Protections</td>
<td>Surge and reverse polarity protection are provided. Input overvoltage, input undervoltage and output overcurrent protection are provided.</td>
</tr>
<tr>
<td>Accessory Switch Input</td>
<td>Provided 0-36Vdc</td>
</tr>
<tr>
<td></td>
<td>Switch enabled &gt; 2.0 Vdc</td>
</tr>
<tr>
<td></td>
<td>Switch disabled &lt; 0.8 Vdc</td>
</tr>
<tr>
<td></td>
<td>The input accessory switch can shut down the device and Port and 3 power sourcing. If power is applied through port 1, the input accessory switch is ignored.</td>
</tr>
<tr>
<td>Power LED</td>
<td>RED</td>
</tr>
<tr>
<td></td>
<td>ON = Power ON</td>
</tr>
</tbody>
</table>

Output Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Power output is available from Ports 2 and 3, 9…36Vdc (Vps) 1A current maximum</td>
</tr>
</tbody>
</table>

Communications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>6 ports (Ethernet 802.3, 802.3u, 802.3x) 10/100 Mbit Ethernet compliant Auto-MDIX LAN 10/100 Base-T Up to 100m transmission distance 10 or 100 Mbps transmission speed</td>
</tr>
<tr>
<td>LEDs</td>
<td>2 per port GREEN LINK/ACT: ON means connection (LINK) Flashing means activity (ACT) Transmission Speed: 100 Mbit/s = ON 10 Mbit/s = OFF</td>
</tr>
</tbody>
</table>

Dimensional Drawing

[Diagram of the device with dimensions and labels]
**General Specifications**

<table>
<thead>
<tr>
<th>Quiescent Current Draw</th>
<th>47 mA @ 24Vdc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Conditions</td>
<td>-40 to 65 °C (-40 to 149 °F)</td>
</tr>
<tr>
<td>Weight</td>
<td>1.25 lb. (0.56 kg)</td>
</tr>
<tr>
<td>Protection</td>
<td>IP66</td>
</tr>
</tbody>
</table>

**Compliance**
- FCC Part 15
- CE marking
- EMC Directive
- RoHS Directive
- EN60950-1
- cURus to UL60950

**Vibration**
- Random Vibration: TBA Grms peak
- Sinusoidal Component: 8.9 G peak

**Shock**
- 50 G half sine pulse, 6 x 6-20ms

**Atmospheric**
- Tested from 571.6 hPA to 1437.5 hPA @ 30 °C and 40% Humidity
  (Simulates -3048 m below sea level to +4572 m above sea level)

**Enclosure and Dimensions**
- See dimensional drawing. Cast aluminum, anodized

**Installation**
- The device should be installed after a protective power supply to avoid damage from load dump voltage fluctuations.

**Electrical Connections**

- **Port 1:** Power In, Ethernet 1
  - PIN# | Description
  - 1 | Power IN
  - 2 | Power GND
  - 3 | Power GND
  - 4 | TX-
  - 5 | RX+
  - 6 | TX+
  - 7 | Power IN
  - 8 | RX-

- **Port 2:** Power Out, Ethernet 2
- **Port 3:** Power Out, Ethernet 3
  - PIN# | Description
  - 1 | Power OUT
  - 2 | Power GND
  - 3 | Power GND
  - 4 | TX-
  - 5 | RX+
  - 6 | TX+
  - 7 | Power OUT
  - 8 | RX-

- **Port 4:** Ethernet 4
- **Port 5:** Ethernet 5
- **Port 6:** Ethernet 6
  - PIN# | Description
  - 1 | Not Used
  - 2 | Not Used
  - 3 | Not Used
  - 4 | TX-
  - 5 | RX+
  - 6 | TX+
  - 7 | Not Used
  - 8 | RX-
### Electrical Connection – Port 7

1 DT04-3P connector (Connector 7)

**Port 7: Power In**

<table>
<thead>
<tr>
<th>PIN#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Power IN</td>
</tr>
<tr>
<td>B</td>
<td>GND</td>
</tr>
<tr>
<td>C</td>
<td>Accessory Switch IN</td>
</tr>
</tbody>
</table>

Form: TDAX140700-09/03/19