The High-Speed Fiber-Optic Switch, or SW-FOP-L, uses an advanced dual sensor for edge- and hole-detect pick-ups. The dual sensor is designed to be a precision registration mark sensor with 5μs repeatability, and a standard photoelectric sensor for any high speed application, in one package.

The High-Speed Fiber Optic Switch (SW-FOP-L) is not a replacement for the Fiber Optic Switch (SW-FOP) offered by AMS Controls. The Fiber Optic Switch is still available for purchase, but should be used in slower line-speed applications.

This high-speed switch has two key advantages over the SW-FOP:

1. Hole detection uses a line of light rather than a single point of light. This allows you to avoid length errors caused by the single point of light hitting an angled, curved, or shifted. Instead, the full line of light gives a wider range of detection. As soon as any part of the registration hole or notch crosses the line, the High-Speed Fiber Optic Switch registers the position.

2. The fiber optic cables are protected by a stainless steel flexible jacket. This offers extra protection not provided with a simple fiber optic switch and is much better for industrial uses.

**SPECIFICATIONS**

**Supply Voltage**
12 to 24 VDC  
Polarity protected  
Intended for Class 2 circuits

**Current Requirements**
45 milliamps (exclusive of load)

**Response Time**
Light/Dark = 10μs  
Repeatability = 5μs

**Output Transistors**
NPN and (1) PNP sensor output transistors  
Outputs sink or source up to 150 milliamps (current limit).  
All outputs are continuously short circuit protected.

**LED Light Source**
White = Broadband Color Spectrum

**Ambient Temperature**
0° - 57° C (32° - 135° F)

**Light Immunity**
Responds to sensor's pulsed modulated light source – immune to most ambient light including indirect sunlight.

**Maximum Sensing Range**
7 in. (177.8mm)

**Wiring**

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>12-24 VDC</td>
</tr>
<tr>
<td>Blue</td>
<td>Ground</td>
</tr>
<tr>
<td>Black</td>
<td>PNP Output (Source)</td>
</tr>
<tr>
<td>White</td>
<td>NPN Output (Sink)</td>
</tr>
<tr>
<td>Gray</td>
<td>N/A</td>
</tr>
<tr>
<td>Shield</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Included Items**
- Sensor (enclosed in rugged steel box)
- 5’ Fiber-Optic Cable (with stainless steel jacket)
- 25’ Power and I/O Cable