When you need to transfer signals from sources related to high voltages, isolate them one from another, send them over long distances through a noisy environment - The AFL-300 is the answer. The AFL-300 is a low cost, small size optical isolation module used for many applications where Signal to Noise Ratio and signal quality is crucial. Using proprietary hardware, A.A. Lab Systems provides you with a simple solution which is capable of running your signals over distances of up to 1 mile, without any noise penalty. The AFL-300 is the perfect solution for eliminating ground-loops, electrical noises and other interferences.
The AFL-300 is a new product from A. A Lab Systems. This fiber optic link has 2 versions: Analog and Digital. The analog version can transfer any signal within the range of -10V to +10V over a distance of up to 1.6 Km (3 Km. optional). The digital version can transfer a single TTL level (0-5V) signal to the same distance. The signals are reconstructed to the original signal levels. The AFL-300 is running on a single 12V power supply, thus making it very easy to install and run on standard 12V batteries. It also has a very low current consumption.

The input to the AFL-300 can be Single Ended, from a BNC connector, or Differential, from a PS2 like connector. Differential option is highly recommended for direct connection to sensors, for better noise immunity.

**Technical Specifications:**

**Analog Unit:**
- Input/Output voltage range: +/-10V Standard, +/-1V, +/-100mV, +/-10mV optional.
- Linearity: 0.05% minimum.
- Frequency Response: DC - 5 KHz.
- Output Noise: < 1mV ptp.
- Supply Voltage: 9-15VDC
- Optical Fiber: Multi-Mode, 62.5/125 micron with SMA or ST connector
- Transmission Range: 1m to 1.5Km standard, up to 3 Km. optional.
- Dynamic Range: 86 dB (@+/-10V Range)
- Current Consumption: Transmitter: 135mA, Receiver: 100mA @12V
- Isolation Voltage: Input to Output - Infinite (Battery operated).

**Digital Unit:**
- Signal level: TTL (0-5V)
- Delay between Input to Output: 1 Microsecond

**Mechanical Dimensions:**

**AFL-300-Rack**
A 19” rack for placing up to 10 AFL-300 modules + Battery

**AFL-300-BT**
Battery option for running up to 4 AFL-300 transmitters or receivers for up to 8 hours continuously. Include battery and Charger

**AFL-300-PW1** - Standard 12V power supply for running op to 4 AFL-300 units on the same electrical ground.

**AFL-300-PW3** - High power 12V supply for running op to 12 AFL-300 units on the same electrical ground.

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