AFL-80

Low cost

Contact Closure Fiber Optic Link

AFL-80 260VAC, 16A Contact Closures

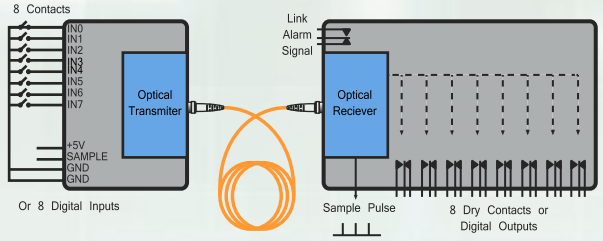
AFL-80 24V/1A Contact Closures

AFL-80 TTL Version

A.A. LAB SYSTEMS LTD.

Technical Specifications:

Input Range	0-5V related to TX common ground
Output contacts	Normally open, Common, Normally Closed. Each relay is isolated from the others.
Contacts rating:	
Low Current Contacts	24VDC @ 1A, 125VAC@0.5A
High Current contacts	260VAC @ 16A, Max. 4000VA
Frequency Response	DC to 40 KHz (for TTL version)
Timing jitter	6 microseconds maximum
Supply Voltage	12 V regulated, floating power supply
Transmission Range:	
Single Mode transceivers	30 dB (50 Km)
Multi Mode transceivers	10dB (3 Km. Maximum)
5V output terminal current	Up to 100 mA
TTL output On/Off time	50nSec (rise or fall time)
Relay ON/Off time	Hold- 3mSec, Release- 1.5mSec (average)
Voltage Isolation:	
Input to Output	infinite voltage isolation
Input/Output to Mains	800V standard, up to 2500 V optional
Output to Output	Over 800 Volts @ contact closure version
Battery operated	Infinite voltage
Relay to Relay isolation voltage	800V maximum
High Voltage isolation between Tx and Rx	Up to millions of Volts



Metal covers are available

The AFL-80 was primarily designed for industrial and control application.
The product is available in 3 versions:
TTL outputs, Low current/Voltage contact closure, High current/Voltage contact closures.

TTL Version: The transmitter is sampling the 8 Digital TTL inputs simultaneously at a rate of 180 KHz. and transmits their status to 8 digital outputs at the receiver end. 8 TTL outputs at the receiver end would be updated to exactly the same status ("0" or "1" logic level) as in the transmitter.
Contact Closure version: The transmitter is sampling the status of 8 contacts ("ON" or "OFF" status) and transmits them over the optical link to the receiver.Those outputs are available as 8 relay contacts with 2 different ratings:
24V@1A or 230VAC @ 16A.
A "LINK" alarm LED and relay contact enables the user to know if the link was disconnected and take any precautions needed to halt the system.
A TTL signal is available at the TTL version of the product.Input sampling and output updates may be synchronized to external circuits or controllers by using the
"SAMPLE" pin at the Transmitter or at the Receiver. This pin provides a TTL pulse every time that the input status is read (at the transmitter) or that the output status is updated (at the receiver end).

Ordering Information:
The AFL-80 may be ordered with Single-Mode or Multi-Mode optical receivers and transmitters. They are suitable for different types of optical fibers.Each side needs a seperate power supply or battery. All units ,on the same side, which share the same common ground, may use the same power supply. A stabilized power supply may supply power for up to 3 (optionally 10) receivers or transmitters (with 8 I/O lines each)

EXAMPLE:
TRANSMITTER / RECEIVER PAIR:
AFL-80 - TT - REL1 - MM - R

- R — Range in meter
- MM — Multi-Mode Transceivers. SM = Single Mode Transceivers
- TT — TTL Outputs
- REL1 — 24V, 1A Contacts
- REL2 — 260VAC, 16A Contacts
- TTL Input voltage range(0-5V)

POWER SUPPLIES:
AFL-80 - O3 - 3 channel power supply (for one side - Rx or Tx or mixed)
AFL-80-10 - Power supply for powering up to 10 units (for one side)
AFL-80-BAT - Battery operated power supply - Please consult factory.
Optical fibers are available. Standard lengths are: 2,10,20,50,100m

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