

# AFL-284

DIN rail Analog/Contact Closure Fiber Optic Link

4 Analog With +/-10V / 4-20 mA interface + 8 Digital/Contact Closures

4 Analog Outputs



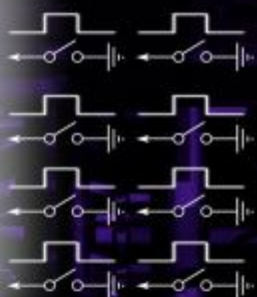
4 Analog Inputs



8 Contact Closures/Digital Out



8 Contact Closures/Digital In



**AFL-284  
RX**

**AFL-284  
TX**



**A.A. LAB SYSTEMS LTD.**

AFL-284 DIN rail Analog/Contact Closure Fiber Optic Link was especially designed for industrial applications. The units may be used for transferring 4 analog signals of +/-10V or 4-20mA current loop signals, along with 8 contact closures (or digital TTL signals). The user may configure the Analog inputs to be -10V to +10V or 4-20 mA by using jumpers (every channel individually). The receiver will output both: 4-20 mA signal (for input range of 0 to +10V or 4-20mA, as selected) along with 4-20 mA current loop signals - or combination of them.

The 8 Digital I/O lines may be also configured by the user to 0 to +5V (or 0 to +3.3V) Standard TTL signals or to contact closure (i.e. a contact close at the transmitter would cause a contact closure at the receiver). The Receiver contacts are FORM-A type. The receiver includes an "INVERT" jumper which may invert the operation of the contact closures (i.e. An open contact at the transmitter will cause a shorted contact at the receiver and vice versa).

The AFL-284 Analog/Contact Closure Fiber Optic Link was designed for system integrators and builders, where low size, low power consumption and low cost are important. The bandwidth of the analog inputs is DC-7KHz (each channel).

The distance between the 2 modules may be between 0 to 2.5Km with the standard Multi-Mode interface (30 miles optional with Single Mode optical interface and SM fiber).

**Technical Specifications:**

Analog I/O	4
Digital/Contacts I/O	8
Analog Inputs Range	+/-10V or 4-20mA
Output Voltage Range	+/-10V or 4-20mA
Non-Linearity Error	0.05% @ +/-10V range
Noise(DC-20KHz)	Lower than 2mVRMS
Input Impedance	Over 2 GigaOhms(FET input)
Analog Bandwidth	DC-7KHz.
Digital Bandwidth	DC-20Kbps
S/N Ratio (DC-10Hz)	84dB
Supply Voltage	10V-28V DC
Supply Current (12V)	RX:360-480mA,TX:275mA
Supply Current (24V)	RX:190-250mA,TX:150mA

**Features:**

- 4 Analog Inputs + 8 Contact Closures/Digital I/O.
- Excellent signal isolation.
- Prevents ground loops and computer noise effects on your Analog Signals.
- Digital I/O span: 0-3.3V, 0-5V. Consult factory for other range
- Transfers analog signals to distances of up to 2.5Km (50Km. Optional).
- Linearity: better than +/-0.05%.
- Analog Resolution: 14 bits with X2 oversampling.
- Low noise; S/N ratio: 84 dB.
- Input signals: Up to ±10 Volt @ DC-7 KHz or 4-20mA @ DC-7KHz. - or any combination of them.
- 2 Contact Closure signals with 125VAC@0.5A or 24VDC@1A rating.
- Any combination of TTL I/O + Contact Closures is possible.
- Input power: 10-28VDC.
- Low Offset Temperature Drift: Better than 50 ppm/deg.C
- Very small size: TX: 22.5 mm RX: 50mm width
- Low cost
- OverFlow and Underflow Alarm LEDs + Open Collector signals at the transmitter
- Out of Range and No Link alarm LEDs + Open Collector LINK signal + Contact Closure at the receiver.
- Optical budget with Single Mode transceivers: 26 dB

