



# Intraplex® DA-212

12 Contact Closure Signaling Full-Duplex Transport



## Contact Closure Transport

The DA-212 supports high density, low cost transport of contact closures. Twelve contact closure signals are transported end-to-end in each direction of transmission. Support for one-way or full-duplex operation. Contact closures can support PTT, facility alarms, receiver un-squelch status, or other signals. This transport of 12 signaling leads in each direction per module increases efficiency in LMR infrastructure bandwidth use and simplifies system design.

The DA-212 offers extensive monitoring capability. Each input or output contact can be monitored from the front panel LEDs and remotely from Intraplex IntraGuide or web based interface depending on multiplexer system. The contact activity state can be inverted for any input or contact to provide great flexibility in system wiring and management.

The DA-212 is used in conjunction with the MA-460. The MA-460 has a single 50-pin Telco compatible connector. The input contacts are individually configurable for either wet or dry operation. The output contacts are individually configurable for either normally open or normally closed operation. All contacts are solid state and optically isolated, providing high reliability and long lifetime.

The DA-212 is bandwidth efficient. A single DA-212 consumes just a fractional timeslot of 8 kbps. Up to eight DA-212 modules can assigned to single T1 or E1 timeslot (64 kbps).

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## Compatibility

The DA-212 can be used in any Intraplex multiplexer system including T1, E1, DDS, and IP access products.

## Specifications

Specifications and designs are subject to change without notice

General	
Operating Modes	<ul style="list-style-type: none"><li>• Twelve input contacts</li><li>• Twelve output contacts</li></ul>
Contacts	
Input	<ul style="list-style-type: none"><li>• Twelve input contacts, optically isolated</li><li>• Each input contact is individually jumper settable for wet or dry operating mode (Factory default is dry). In dry mode, closure to ground activates contact. In wet mode, TTL level or higher voltage input activates contact.</li></ul>
	<ul style="list-style-type: none"><li>• Minimum input voltage of 2 VDC to activate contact</li><li>• Maximum input voltage of 24 VDC</li><li>• Minimum duration time of 10 mS</li></ul>
Output	<ul style="list-style-type: none"><li>• Twelve output contacts, optically isolated</li><li>• Each output contact is individually jumper settable for normally open or normally closed operating mode (Factory default is normally open).</li></ul>
	<ul style="list-style-type: none"><li>• Maximum current of 120 mA</li><li>• Maximum voltage of 30 VDC</li><li>• Closed resistance of 35 Ohms (typical)</li></ul>
Input/Output Modules	
Connector	50-pin Telco type female connector on MA-460
Network Interface	
Time Slot (DS0) Assignments	<ul style="list-style-type: none"><li>• One bit of one timeslot</li><li>• Selectable timeslot and starting bit position</li></ul>
Status and Diagnostics	
LED Indicators	<ul style="list-style-type: none"><li>• 12 Green LEDs for input contact status</li><li>• 12 Green LEDs for output contact status</li><li>• Green LED for service on</li><li>• Green LED for synchronization state</li><li>• Red LED for hardware fault</li></ul>
Loopbacks	Local loopback - simultaneous loopback of all 12 contacts leads for verification testing
System Compatibility	Compatible with Intraplex T1, E1, DDS, and IP access products
Physical and Environmental	
Nominal Power Consumption	Less than 1 W
Temperature	0° C to 50° C (32° F to 122° F) operating
Humidity	0% to 90% noncondensing
Regulatory Compliance	
FCC Part 15	