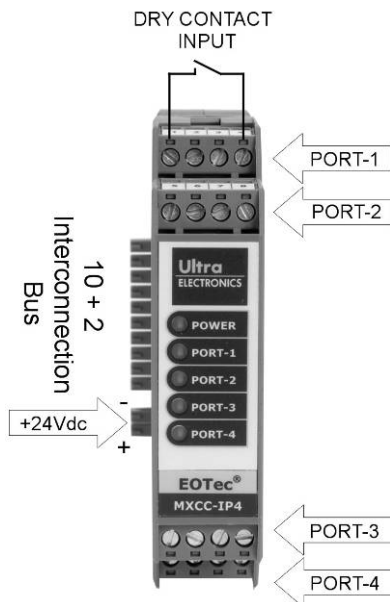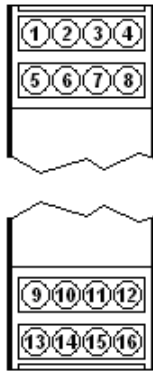## Connections

POWER: The MXCC-IP modules obtain power from the 10+2 interconnection bus. Power originates from an MX Base Module (see specification section).

CONTACT CLOSURE (DRY CONTACT) INPUT: The Port-1 I/O terminal block is at the top-front of the unit. Port-2 is directly below it. On a 4 port model, Port-3 is at the bottom-front of the unit with Port-4 directly below and behind it. Screw terminal blocks are numbered from left-to-right as follows:

PORT	TERMINAL			
PORT-1	1	2	3	4
PORT-2	5	6	7	8
PORT-3	9	10	11	12
PORT-4	13	14	15	16
MXCC-IP Dry Contact Input	Dry Contact	No connection	No connection	Dry Contact

Safety and Warning Information

⚠ Connect the DIN Rail, via the Model 2A09 End Clamp, to Protective Earth (PE) ground with low impedance.

ATEX Specific Conditions of Use

Modules shall be installed in an enclosure which maintains an ingress protection rating of IP54 and meets the enclosure requirements of EN60079-0 and EN60079-15. The EOTec modules shall be installed in DIN rail with DIN end clamps mounted on both sides of the module set. The DIN rail must be connected to Protective Earth in order to provide modules with a Protective Earth connection. Do not disconnect equipment connections or modules when energized.

Important Notice - Before utilizing the product, the user should determine the suitability of the product for its intended use. The user assumes all risk and liability in connection with such use. ULTRA ELECTRONICS' WRITTEN WARRANTY FOR THE PRODUCT IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. The user's exclusive remedy for breach of Ultra Electronics' written warranty shall be the repair or replacement of such quantity of product which is proven to be defective. In no case shall Ultra Electronics be liable for any special, incidental, or consequential damages based upon breach of contract, negligence, strict liability or other legal theory.

Ultra ELECTRONICS — Nuclear Sensors & Process Instrumentation

EOTec MX Multiplexer Models

MXCC-IP2 / MXCC-IP4

2 & 4 Port Contact Closure Input Modules

Installation Instructions
Original Instructions

MX Contact Closure Input Modules

For use ONLY with the EOTec MX Multiplexer Line

Operation & Installation

Description: Contact Closure Input Modules, Models MXCC-IP2 and MXCC-IP4, are designed to accept two or four channels of switch or relay (dry contact) input signals. The input signals are passed via the integrated housing 10+2 interconnection bus to the MX Base Module where they are multiplexed and converted to a fiber optic signal. The MX Base Module at the opposite end of the fiber link de-multiplexes the signals and passes them to a Model MXCC-OP2 or MXCC-OP4, Contact Closure, Relay Output Module for conversion to a Form-C (SPDT) relay output format.

Assembly: Place the top lip of the module's mounting channel onto the DIN rail. Push the lower portion of the module towards the mounting surface until it "clicks" and locks into place. Firmly slide the modules together such that the module sides are touching ensuring a good connection of the 10+2 integrated BUS interconnection at the rear of the modules. Install End Clamps (Model 2A09) to both sides of the module bundle to prevent accidental unplugging of the BUS interconnections. The End Clamps can provide convenient screw terminals for connecting the DIN rail to Protective Earth (PE) ground.

Dismantle: Remove the End Clamps from the DIN rail. Disconnect the BUS interconnections by sliding the modules at least 1/2" apart from each other. Insert a screwdriver into the rectangular hole in the metal mounting latch at the bottom of the module. Pushing up on the screwdriver's handle causes the latch to move downward and disengages it from the DIN rail. Tilt the module up and lift it off of the DIN rail.

Service

Service of this equipment is to be performed by Ultra Electronics, NSPI only. This unit has no scheduled replacement of parts. For installation manuals in a community language other than English please contact Ultra Electronics, NSPI.

Settings & Indicators

Use a small screwdriver to press on the latches (indentations) at the top and bottom of the front housing cover. Slide housing forward to open.
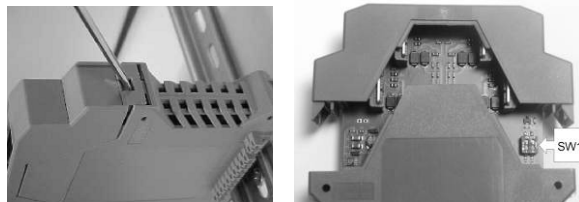
MODULE ADDRERSS SETTING: A two position DIP switch, SW1, is used to set the **address** of the module and it must **match** the address of its mating module at the **opposite** end of the fiber link. **Do not** set two modules at the **same** end of the fiber link in one stack to the same address setting. Each module in a stack must have a different address to function properly. The 4 possible address settings are:

Address	SW1-1	SW1-2
00	OFF	OFF
01	OFF	ON
10	ON	OFF
11	ON	ON

LED	Color	Description
Power	Green	Power Applied
	Off	No Power
I/O Ports	Green	Normal Operation
	Off	No Input/Output Data

Regulatory Information

INDUSTRIAL CONTROL EQUIP. FOR HAZ. LOC. CLASS I, DIVISION 2, GROUPS A,B,C, & D, T4

Do not disconnect equipment unless area is known to be non-hazardous. Certified components for use in a suitable enclosure. Substitution of components or other equipment modification may impair suitability.
Ambient Temperature: -40 .. 85C Max
Electrical Rating: 24Vdc, 50mA

FM11ATEX0067X
II 3 G Ex nA IIC T4 Ta = -40 °C to 85 °C

Specifications

Power Requirements	
15 to 30VDC via the interconnection Bus from an MX Base Module (MXB-MM2, MXB-SM15, MXB-SM40 or MXB-SM80)	
MXCC-IP2	45mA @ 24Vdc
MXCC-IP4	50mA @ 24Vdc

Connections	
Pluggable, Cage Clamp Screw Terminal Blocks, Accept 12 to 24 AWG	
MXCC-IP2	2 – Contact Closure Dry Contacts
MXCC-IP4	4 – Contact Closure Dry Contacts

Update Rate
57.6KHz, independent of number of modules or ports utilized

Input	Dry Contacts, (Relay; Switch)

Max. Input Resistance	1K Ohms

Input Contact Rating
+3.3Vdc @ 1mA (minimum)

Ambient Conditions
-40 to 85°C
0 to 95% Humidity (Non-condensing)

Mounting	35mm DIN Rail

Weight	< 9oz

Enclosure Material	Polyamide

Flammability Rating	UL 94V-0

Fuse	500mA 125V
Replacement fuses can be purchased from your Schurter distributor. Part number 3403.0163.11	