

D77A-DI8DQ8
24V DC Sink/Source Input/24V DC Sink Output Installation Leaflet

Installation of the D77A-DI8DQ8

The D77A-DI8DQ8 is designed to be used in industrial applications and installed in accordance with this document. The intended use of the D77A-DI8DQ8 is for use in clean, dry environments.

Mount the D77A-DI8DQ8 to the DIN Rail

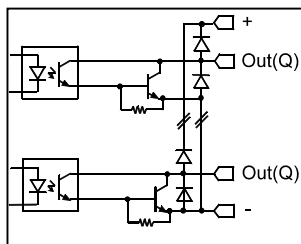
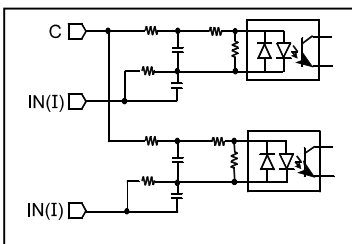
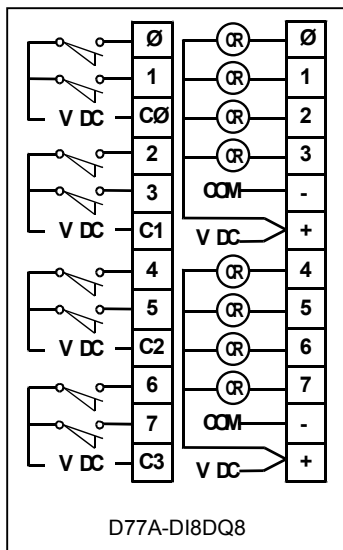
To mount the D77A-DI8DQ8 to a DIN rail the following procedure must be performed.

- Rotate the orange locking cams to unlock the customer wiring terminal from the D77A-DI8DQ8 module.
- Remove the terminal from the D77A-DI8DQ8.
- Using a screwdriver or fingernail, gently pull out the locking tab located at the right side center of the D77A-DI8DQ8 module.
- Insert the D77A-DI8DQ8 module on to the DIN rail.
- Depress the locking tab to secure the D77A-DI8DQ8 to the DIN rail.
- Reassemble the customer wiring terminal to the D77A-DI8DQ8.

Install the Field Wiring on the D77A-DI8DQ8

The customer wiring terminal is used to connect the field wiring to the D77A-DI8DQ8 module. Each terminal accepts two wires of the following size.

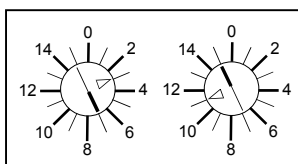
Wire Type	Wire Size	Terminal Torque
Solid Cu-90°C	#14 - # 22 AWG	4.5 in-lbs.
Stranded Cu-90°C	#16 - # 22 AWG	4.5 in-lbs.



Set the Group ID of the D77A-DI8DQ8

The Group ID is set using the rotary switch located at the top face of the D77A-DI8DQ8 module.

The example to the right has the group ID switch set to 3 on the left and 11 on the right.



Setup and Configuration of the D77A-DI8DQ8

The IT. D77A-DI8DQ8 requires no extra setup or configuration for normal operation than setting the Group ID. There are extended parameters that can be set to control the safe state of each output point and the input debounce for each input point. For more information on the parameters and how to modify them refer to the user manual MN05002001E.

Input Specifications of the D77A-DI8DQ8

	DC Input	DC Sink Output
Nominal Voltage	24V DC	
Operating Voltage	18 – 30V DC	
Number of Points	8	8
Points Per Common	2	2
Signal Delay	5 mS (programmable to 250 mS)	
Off State Voltage	< 6V DC	
On State Voltage	> 18V DC	
Nominal Current	5 mA	
Signal Delay		1 mS
Max Cur per Point*		0.75 A
Max Cur Per Module*		6 A
Surge Current (10 ms)		4 A
Off State Leakage		1 mA
Isolation		1500V
Module Current Draw		99 mA

* Resistive current at 55°C

Environmental Ratings of the D77A-DI8DQ8

Transportation and Storage	Temperature	-50°C to 80°C [-58°F to 176°F]
	Humidity	5 – 95% non-condensing
Operating	Temperature	-25°C to 55°C [-13°F to 131°F]
	Humidity	5 – 95% non-condensing
	Altitude	Above 2000 meters [6600 feet] consult factory
	Shock IEC 68-2-27	15G any direction for 11 milliseconds
	Vibration IEC 68-2-6	5 – 150 Hz, 5G, 0.7 mm maximum peak-to-peak

Approvals/Certifications of the D77A-DI8DQ8

Electrical/EMC	
•ESD Immunity (IEC61000-4-2)	+/- 8kV air, +/- 4kV contact
•Radiated Immunity (IEC61000-4-3)	10V/m 80-1000 MHz, 80% amplitude modulation @ 1kHz
•Fast Transient (IEC61000-4-4)	+/- 2kV supply and control +/- 1kV communications
•Surge (IEC61000-4-5)	+/- 1kV line-to-ground +/- 2kV line-to-line
•RF Conducted (IEC61000-4-6)	10V, 0.15 – 80MHz
•Magnetic Field (IEC61000-4-8)	30 A/m, 50Hz
Ingress Protection Code	IP20
Radiated and Conducted Emissions	EN5011 Class A
Agency Certifications	UL 508 CUL (CSA C22.2 No. 14) CE (Low Voltage Directive)

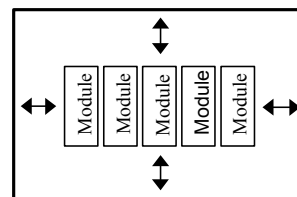
Default Output Data for the D77A-DI8DQ8

	Bit Position							
Byte	7	6	5	4	3	2	1	0
0	Q7	Q6	Q5	Q4	Q3	Q2	Q1	Q0

Default Input Data for the D77A-DI8DQ8

	Bit Position							
Byte	7	6	5	4	3	2	1	0
0	I7	I6	I5	I4	I3	I2	I1	I0

Spacing Requirements for the D77A-DI8DQ8



Allow a minimum of 50mm (2 in) of ventilation space on the top and bottom of each module and to each side of a grouping of modules