

D77A-DQ8, D77A-DQ16
24V DC MOSFET Sink Output Installation Leaflet

Installation of the D77A-DQx

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

Mount the D77A-DQx to the DIN Rail

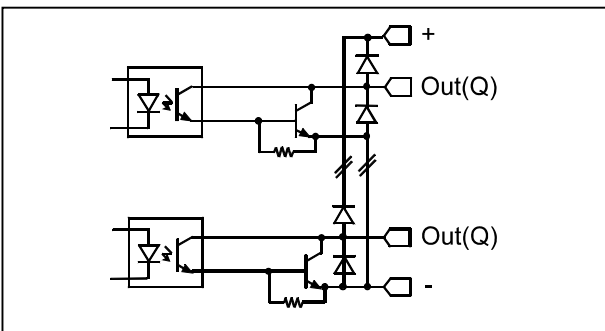
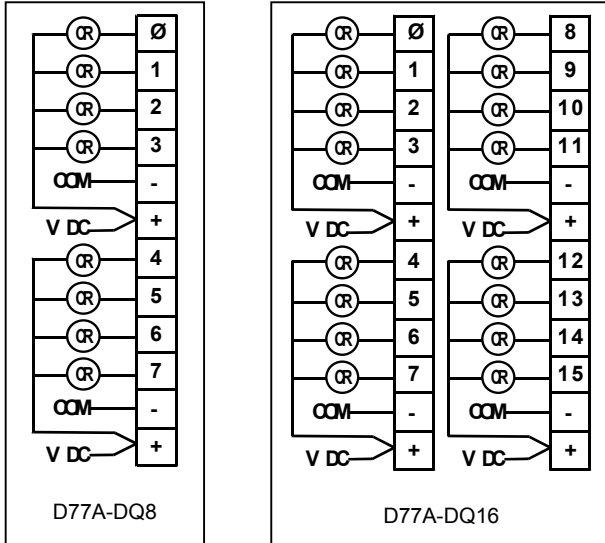
To mount the D77A-DQx to a DIN rail the following procedure must be performed.

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

Install the Field Wiring on the D77A-DQx

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

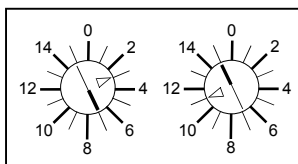
Wire Type	Wire Size	Terminal Torque
Solid Cu-90°C	#14 - # 22 AWG	4.5 in-lbs.
Stranded Cu-90°C	#16 - # 22 AWG	4.5 in-lbs.



Set the Group ID of the D77A-DQx

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

The IT. D77A-DQ8, D77A-DQ16 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. For more information on the parameters and how to modify them refer to the user manual **MN05002001E**.

Input Specifications of the D77A-DQx

Nominal Voltage	24V DC
Type	MOSFET Sink
Operating Voltage	18 – 30 V DC
Number of Outputs	8 (D77A-DQ8) 16 (D77A-DQ16)
Points Per Common	2
Signal Delay	1 mS
Max Cur per Point *	0.75A
Max Cur per Module *	6A (D77A-DQ8) 12A (D77A-DQ16)
Surge Current (10 ms)	4A
Off State Leakage	1 mA
Module Current Draw	85 mA (D77A-DQ8) 126 mA (D77A-DQ16)

* Resistive current at 55°C ambient

Environmental Ratings of the D77A-DQx

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-DQx

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)

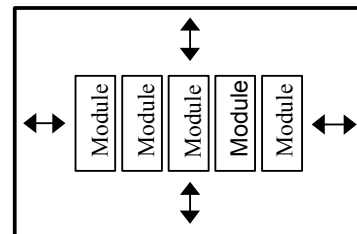
Default Output Data for the D77A-DQ8

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

Default Output Data for the D77A-DQ16

	Bit Position							
Byte	7	6	5	4	3	2	1	0
0	Q7	Q6	Q5	Q4	Q3	Q2	Q1	Q0
1	Q15	Q14	Q13	Q12	Q11	Q10	Q9	Q8

Spacing Requirements for the D77A-DQx



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