

D77A-NI4 Analog Input Installation Leaflet

Installation of the D77A-NI4

The D77A-NI4 is designed to be used in industrial applications and installed in accordance with this document. The intended use of the D77A-NI4 is for use in clean, dry environments.

Mount the D77A-NI4 to the DIN Rail

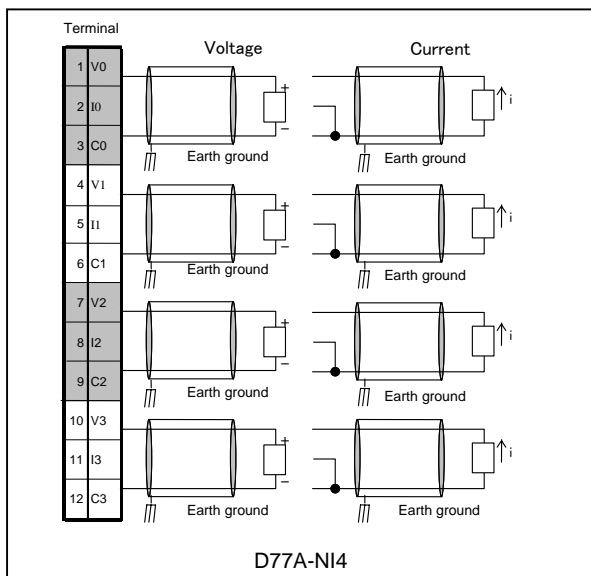
To mount the D77A NI4 to a DIN rail the following procedure must be performed.

- Rotate the orange locking cams to unlock the customer-wiring terminal from the D77A-NI4 module.
- Remove the terminal from the D77A-NI4.
- Using a screwdriver or fingernail, gently pull out the locking tab located at the right side center of the D77A-NI4 module.
- Insert the D77A-NI4 module on to the DIN rail.
- Depress the locking tab to secure the D77A-NI4 to the DIN rail.
- Reassemble the customer-wiring terminal to the D77A-NI4.

Install the Field Wiring on the D77A-NI4

The customer-wiring terminal is used to connect the field wiring to the D77A-NI4 module. It is recommended to limit the cable impedance by keeping the cable length as short as possible. The recommended cable is a Belden™ 8761 or equivalent. Limiting the distance from ground to the shield is also recommended.

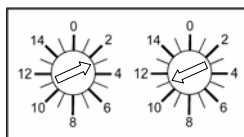
Wire Type	Wire Size	Terminal Torque
Solid Cu-90°C	#14 - # 22 AWG	4.5 in-lbs.
Stranded Cu-90°C	#16 - # 22 AWG	4.5 in-lbs.



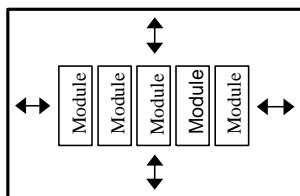
Set the Group ID of the D77A-NI4

The Group ID is set using the rotary switch located at the top face of the D77A-NI4 module.

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



Spacing Requirements for the D77A-NI4



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

Setup and Configuration of the D77A-NI4

The IT. D77A-NI4 will be completely configured from CH Studio Component Manager other than setting of the Group ID. For more information on the parameters and how to modify them refer to the user manual **MN05002001E**.

Specifications of the D77A-NI4

Voltage Input	0-5Vdc, 1-5Vdc, 0-10Vdc		
Current Input	4-20mA, 0-20mA		
QCPort Current Draw	60mA max		
Input Types	Single ended, Uni-polar		
Points	4		
Resolution Note: Input filter setting affects the effective resolution of channel.	Filter Setting	Effective Resolution	
		0-10Vdc	0-5Vdc, 1-5Vdc 4-20mA, 0-20mA
		50Hz	14 bit
		60Hz	14 bit
		250Hz	13 bit
Input Full Scale	Voltage – 0-10.5Vdc, 0-5.25Vdc Current – 0-21mA		
	Max Overload 30Vdc 32mA		
Input to Bus Isolation	500Vac for 60 seconds		
Input Filter	50Hz, 60Hz, 250Hz, 500Hz		
Common Mode Rejection	Greater than 60dB @ 50Hz and 60Hz		
Normal Mode Rejection Ratio	-50dB @ 50Hz and 60Hz		
Input Impedance	Voltage – 15M ohm Current – 250 ohm		
Accuracy	Voltage	+/- 0.3% full scale @ 25C	
		+/- 0.4% full scale @ 0-55C	
		+/- 0.45% full scale @ 25C	
Update Rate Note: The time to update one channel when various filters are used within one module.	Input Filter	Update Time	
		50Hz	336 ms
		60Hz	283 ms
		250Hz	80 ms
		500Hz	44 m s

Environmental Ratings of the D77A-NI4

Transportation and Storage	Temperature	-50°C to 80°C (-58°F to 176°F)
	Humidity	5-95% non-condensing
Operating	Temperature	0°C to 55°C (32°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
	Pollution Degree	2
	Enclosure	IP 20

Approvals/Certifications of the D77A-NI4

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 +/- 2kV 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 Input Data for the D77A-NI4

Word		Bit Position	
		15	0
0	Sign	Data	N/A
1	Sign	Data	N/A
2	Sign	Data	N/A
3	Sign	Data	N/A