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invensys
EUROTHERM

MACO Remote I/O Station
Installation and Wiring

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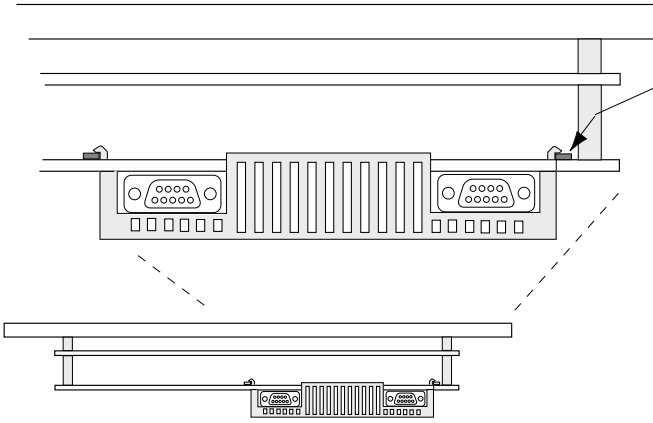
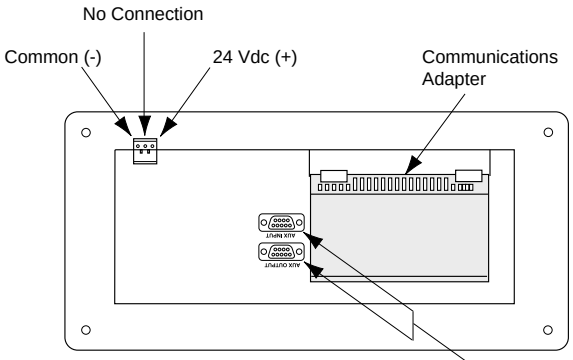


Note that when the tophat is mounted, the "legs" pass through an oblong hole in the PC board and latch over what appears to be an electrical component. It is actually a "zero ohm" resistor put in place specifically to help secure the tophat.

It has no electrical function at all!

Note also that once the tophat is in place, it is RTV'd to the top of the PC board in 2 places (opposite corners) using Dow Corning 737 or similar.

Use Class 2 DC Supply.
50 mA nominal
at 24 Vdc



Rear View

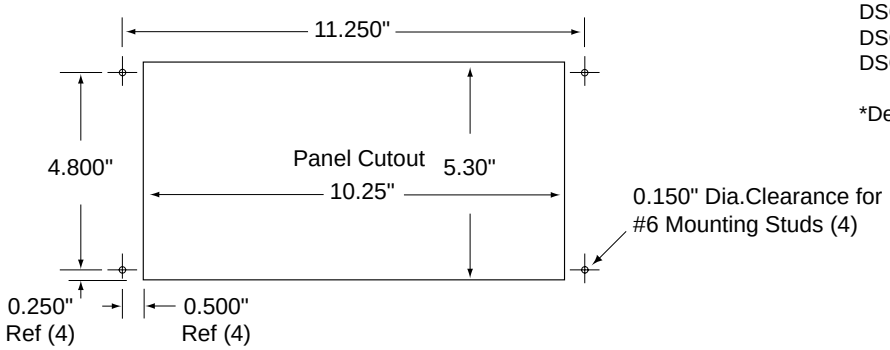
DB9 Connectors for Additional Inputs and Outputs
See Table B

Cable length for additional I/O is limited to 2 feet maximum and must be totally within the same metallic enclosure as the Remote Station

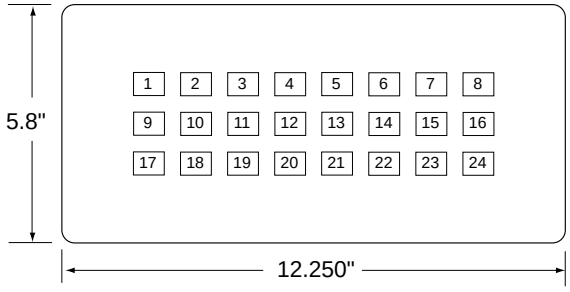
Available Communications Adapters

DSC0-05000-000-0-00	Profibus DP*
DSC0-06000-000-0-00	Ethernet
DSC0-08000-000-0-00	Interbus-S
DSC0-09000-000-0-00	DeviceNet*
DSC0-0A000-000-0-00	ControlNet*
DSC0-0C000-000-0-00	Modbus Plus

*Definition file will be required



Note that Power Supply Connector is "up" for proper orientation (the LEDs wil be at the top of the key).



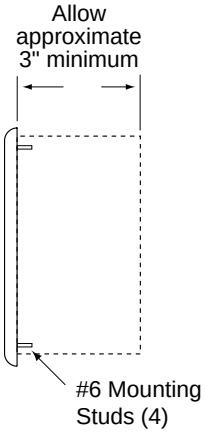


Table A				
Inputs			Outputs	
Button Number	Word Number Bit Number		LED Number	Word Number Bit Number
1	Word 1, Bit 0		1	Word 1, Bit 0
2	Word 1, Bit 1		2	Word 1, Bit 1
3	Word 1, Bit 2		3	Word 1, Bit 2
4	Word 1, Bit 3		4	Word 1, Bit 3
5	Word 1, Bit 4		5	Word 1, Bit 4
6	Word 1, Bit 5		6	Word 1, Bit 5
7	Word 1, Bit 6		7	Word 1, Bit 6
8	Word 1, Bit 7		8	Word 1, Bit 7
9	Word 1, Bit 8		9	Word 1, Bit 8
10	Word 1, Bit 9		10	Word 1, Bit 9
11	Word 1, Bit 10		11	Word 1, Bit 10
12	Word 1, Bit 11		12	Word 1, Bit 11
13	Word 1, Bit 12		13	Word 1, Bit 12
14	Word 1, Bit 13		14	Word 1, Bit 13
15	Word 1, Bit 14		15	Word 1, Bit 14
16	Word 1, Bit 15		16	Word 1, Bit 15
17	Word 2, Bit 0		17	Word 2, Bit 0
18	Word 2, Bit 1		18	Word 2, Bit 1
19	Word 2, Bit 2		19	Word 2, Bit 2
20	Word 2, Bit 3		20	Word 2, Bit 3
21	Word 2, Bit 4		21	Word 2, Bit 4
22	Word 2, Bit 5		22	Word 2, Bit 5
23	Word 2, Bit 6		23	Word 2, Bit 6
24	Word 2, Bit 7		24	Word 2, Bit 7

Table B				
DB9 Input (Male)			DB9 Output (Female)	
Pin Number	Word Number Bit Number		Pin Number	Word Number Bit Number
1	Word 2, Bit 15		1	Word 2, Bit 15
2	Word 2, Bit 14		2	Word 2, Bit 14
3	Word 2, Bit 13		3	Word 2, Bit 13
4	Word 2, Bit 12		4	Word 2, Bit 12
5	Word 2, Bit 11		5	Word 2, Bit 11
6	Word 2, Bit 10		6	Word 2, Bit 10
7	Word 2, Bit 9		7	Word 2, Bit 9
8	Word 2, Bit 8		8	Word 2, Bit 8
9	5 Vdc (out) Supply for Inputs		9	Output Common

Installing the Clamp Filters

Two clamp-type filters (B-C part number 50-2035, TDK ZCAT2132-1130 or similar) for noise rejection are provided with the Remote I/O Station. These filters need to be installed on the incoming 24 Vdc power and the incoming communications cable. Note that the 24 Vdc lines must be looped once around the filter. Install the filters as close as practicable to the wiring connections.

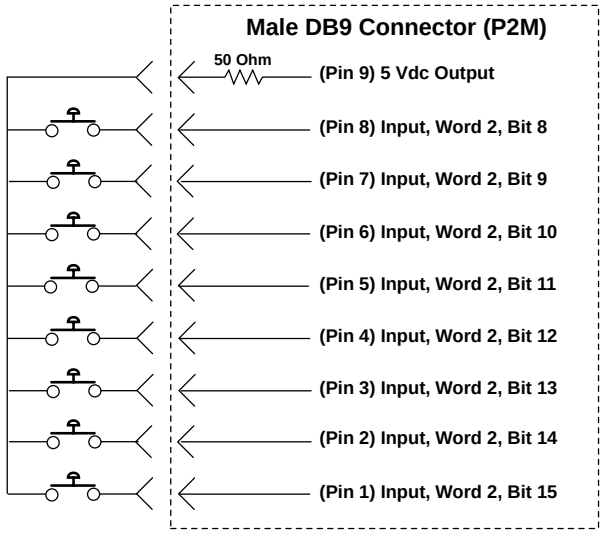
24 Vdc

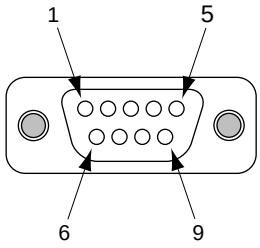
Communications

Wiring the Additional I/O

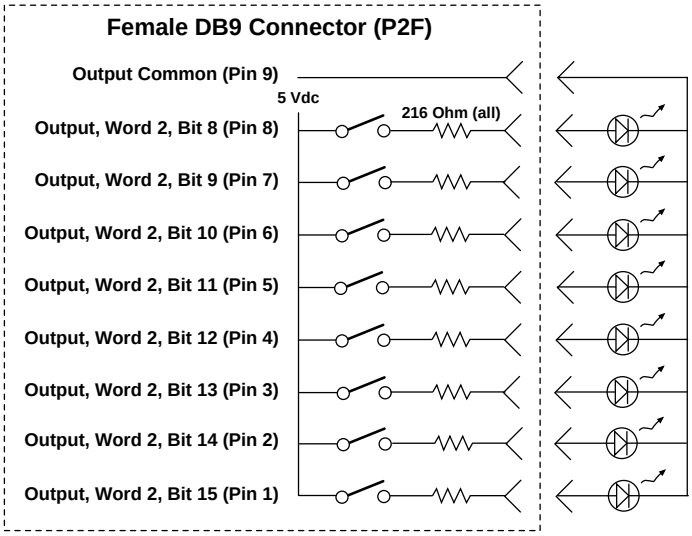
Typical Input Wiring

Note:
These inputs MUST be Momentary Switches!





Typical Output Wiring

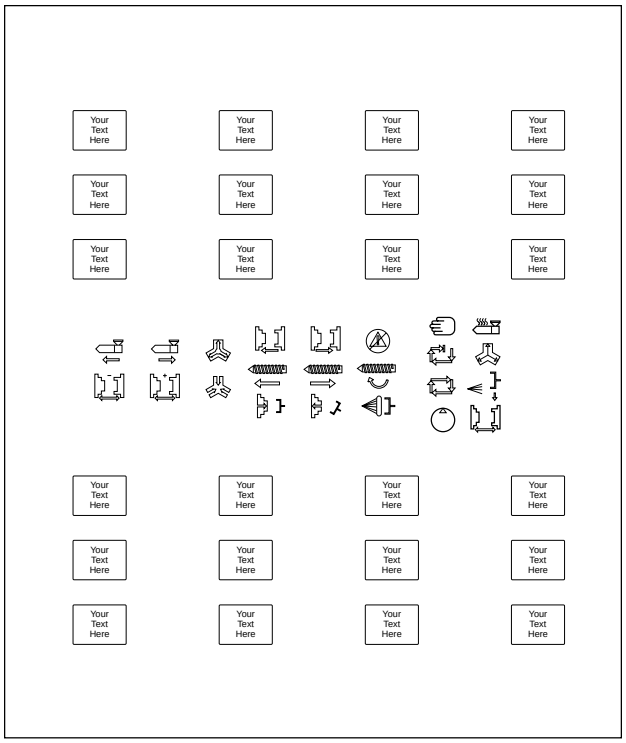


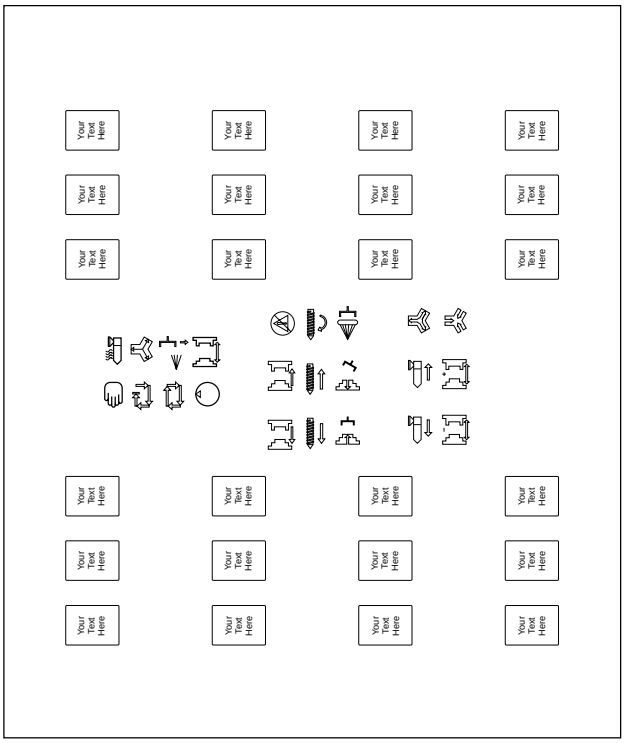
Note:
Total Output Current Cannot Exceed 20 mA

Pushbutton Labels

If you choose to print your own labels, artwork containing editable text as well as a selection of graphics is available for both horizontal (Remote IO Keys Horiz.eps) and vertical (Remote IO Keys Vert.eps) orientation of the Remote I/O Station. The artwork is in Adobe Illustrator EPS format and will require that program in order to be edited.

If you are using the blank label master (Barber-Colman part no. 20-2067) be sure to delete the key outline in the artwork before printing. Since printers vary, you should also confirm the proper location of text and graphics by first printing to paper. Once the text and graphics are as you desire, print them on the blank label master or a piece of 0.007 inch thick polyester film and cutout around the edge of each key.





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