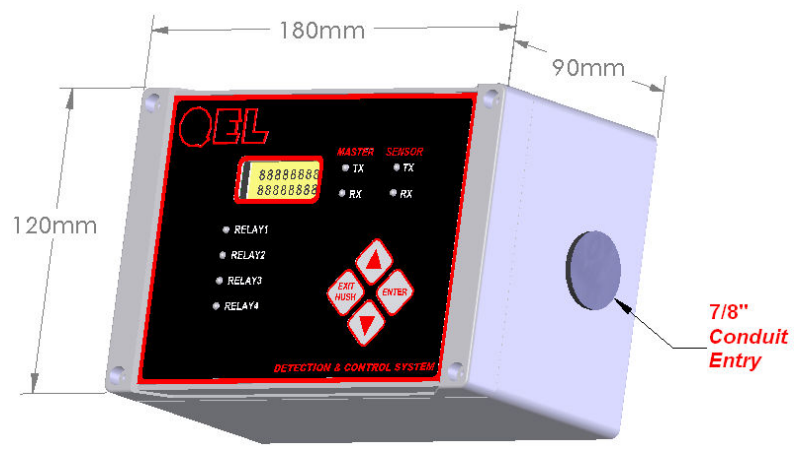


8 7 6 5 4 3 2 1

REVISIONS						
ECN	REV.	DESCRIPTION	DATE	DRAW	CHECK	APPROVED
	A	Initial Release	2010/18/09	XY	XY	XY

Physical Dimensions:



SPECIFICATION

INPUT POWER:
 24VDC nominal, range: 18 to 30VDC
 24VAC nominal, range: 15 to 24VAC
 AC Power must be non-grounded (Floating)

FUSE:
 F1: Not used
 F2: 1.0A VERY FAST Littelfuse P/N: 0251001

DISPLAY:
 8 x 2 Character Display c/w Backlight

INDICATOR:
 Master RX TX, Slave RX TX, Relay 1 to Relay4 status

KEYPAD:
 4 Tacfile & Audible Keypad

BUZZER, STROBE, HORN:
 24 VDC Transistor Output Terminals

RELAY OUTPUT:
 Relay Board: 4 x Relay 10A max. Resistive 250VAC, 30VDC

ENCLOSURE:
 IP 66 & NEMA 4*, 4X*, 12 & 13

OPERATING TEMPERATURE:
 -20 °C TO 50 °C

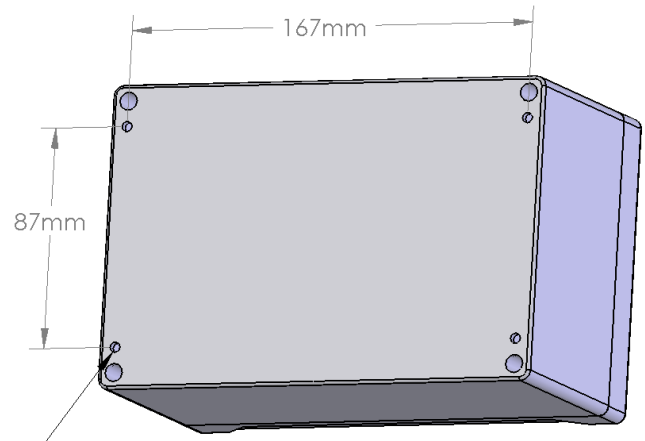
AMBIENT HUMIDITY:
 5% TO 95% RH (NON- CONDENSING)

STORAGE TEMPERATURE:
 -40 °C TO 70 °C

SIZE:
 180mm X 120mm X 90mm

WEIGHT:
 LESS THAN 1.5lbs (0.680 kg)

Installation Holes:



MOUNTING HOLES
 Ø3.90mm X 4

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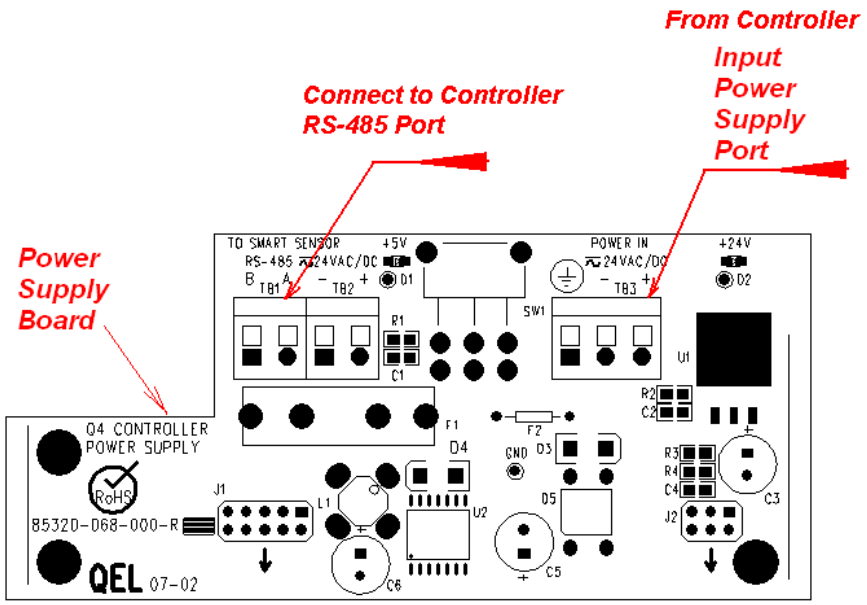
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		MATERIAL		COMMENTS:							
		FINISH								SIZE DWG. NO. REV	
NEXT ASSY		USED ON								B 86050-002-000 A	
APPLICATION		DO NOT SCALE DRAWING								SCALE: 1:2 WEIGHT: SHEET 1 OF 4	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
-	-	See Sheet1	-	-

Connection:



Power Supply:

QRP operates on 24VAC 50/60HZ or 24VDC. There are no selections required by the user to select the input power. The input power is connected to the Power Supply Board using the Terminal Block TB3 located inside the unit.

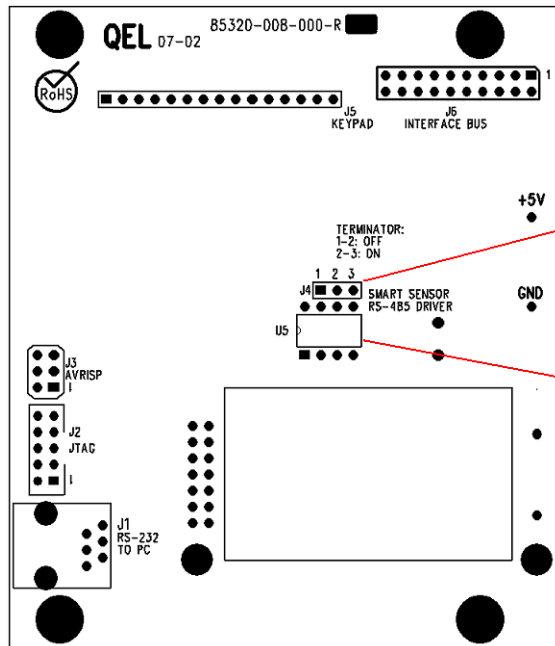
NOTE: AC Power must be non-grounded (floating).

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								INSTALLATION DRAWING	
				SIZE		DWG. NO.		REV	
				B		86050-002-000		A	
				SCALE: 1:2				SHEET 2 OF 4	

8 7 6 5 4 3 2 1

Main Board Bottom View



J4:
RS-485
Terminator
1-2: OFF
2-3: ON

U5:
RS-485
Driver

Terminator Enable/Disable?

The terminator on each end of the RS485 loop is designed to match the electrical impedance characteristic of the twisted pair loop, and will prevent signal echoes from corrupting the data on the line. The terminator should be enabled on BOTH ends of the RS485 loop. Short and medium length modbus/485 loops can operate without the terminating resistor. Longer runs may require the terminating resistors. But adding terminator dramatically increases power consumption.

Twisted Pair?

We recommend using BELDEN 9841 for communications. This wire has 120 ohm input impedance, which will eliminate RS-485 communication problems.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
-	-	See Sheet1	-	-



Controller Location:

The QRP is designed and certified for installation in a fixed location where is not subject to shock and vibration. Please observe the temperature and humidity specifications above for ambient conditions. Observe the possibility of leaks or possible water damage from cleaning done in the area.

The mounting height and location should provide easy access to the wiring terminals and front-panel. Backlighting is provided for the display in case of low lighting conditions.

It is recommended that controllers be installed 5 feet (1.5m) above the floor.

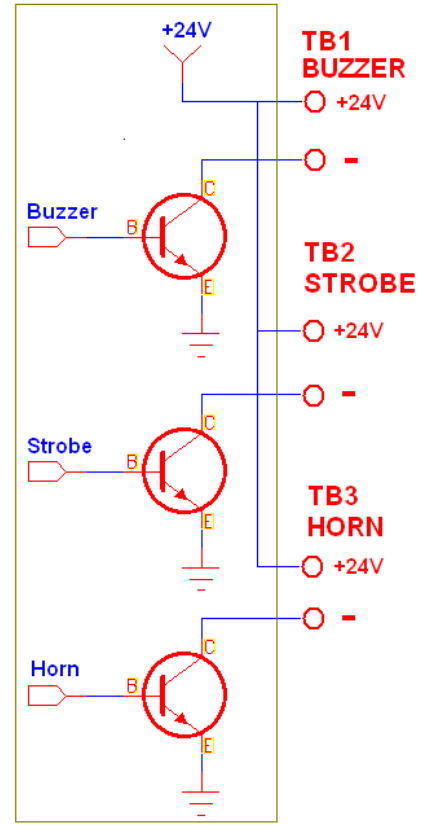
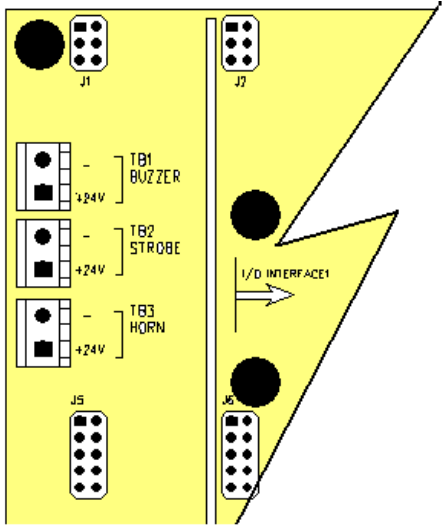
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APPLICATION		DO NOT SCALE DRAWING						SCALE: 1:2 SHEET 3 OF 4	

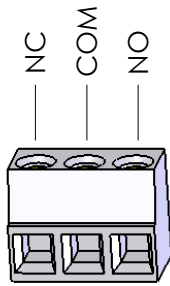
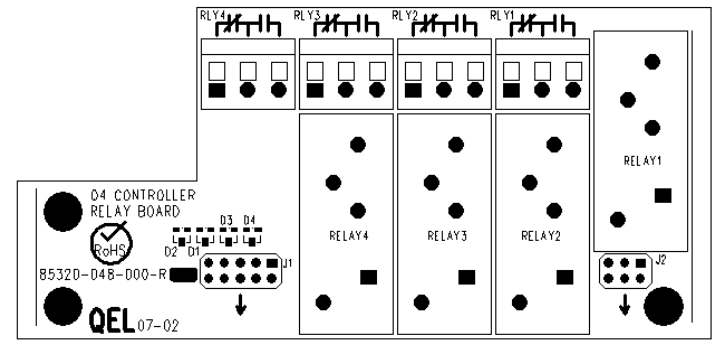
8 7 6 5 4 3 2 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
-	-	See Sheet1	-	-

Buzzer, Strobe and Horn Connection: I/O Motherboard



Relay Board:



NC: Normally Closed
COM: Common
NO: Normally Open

Relay1-4:
10.0 A maximum resistive 250VAC, 30 VDC
7.5 A maximum inductive 240VAC
5.0 A maximum inductive 30 VDC

Tips:

You might drill an additional access hole to bring the wires into the NEMA 4X enclosure. The access hole should be drilled on the side of the enclosure.

Warning:

Be sure to look inside the unit prior to drilling so that to make sure there is sufficient clearance for the hole and fitting that you are using.
Seal conduit to prevent foreign material from entering the enclosure.

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B		86050-002-000		A					
SCALE: 2:1				SHEET 4 OF 4					

8 7 6 5 4 3 2 1