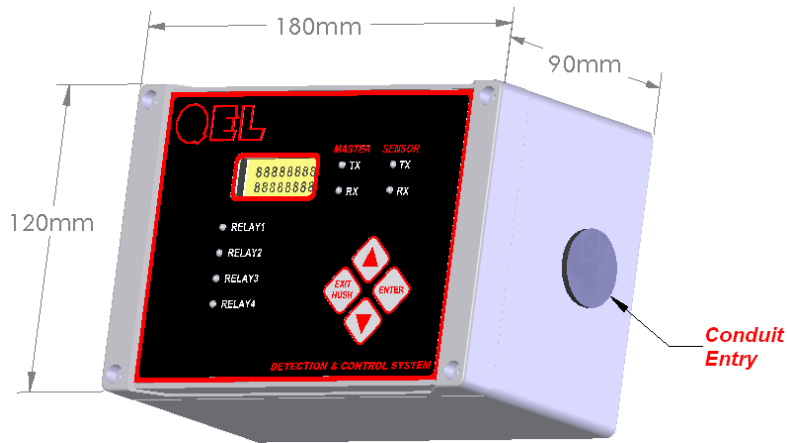


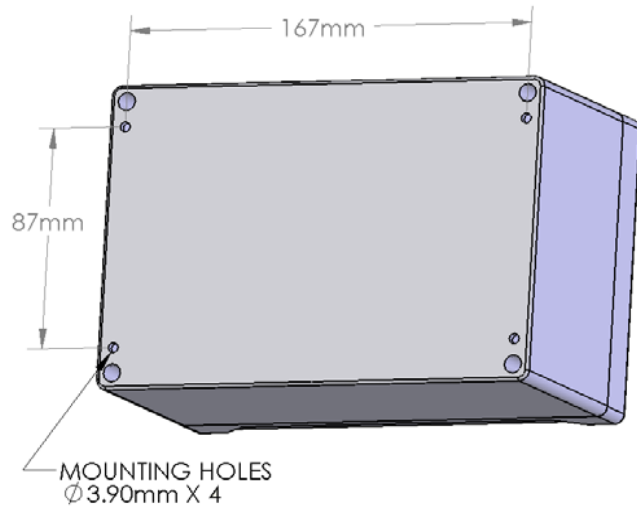
8 7 6 5 4 3 2 1

REVISIONS						
ECN	REV.	DESCRIPTION	DATE	DRAW	CHECK	APPROVED
	A	Initial Release	2007/03/16	XY	CG	XY

Physical Dimensions:



Installation Holes:



SPECIFICATION

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

FUSE:
 F1: 4.0A Slo-Blo Bussmann P/N: S506-4-R
 F2: 1.0A VERY FAST Littelfus 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 Tactile & Audible Keypad

BUZZER, STROBE, HORN:
 24 VDC Transistor Output Terminals

INPUTS:
 max. 4 Channel Digital Sensor

RS-232 PORT:
 RJ-11 Telephone Jack on Main Board to work with M-View

OPTION:
 Relay Board: 4 x Relay 10A max. Resistive 250VAC, 30VDC
 4-20mA Output Board: Isolated, the output is floating
 RS-485 Board: Isolated, Connect to M-Controller System

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)

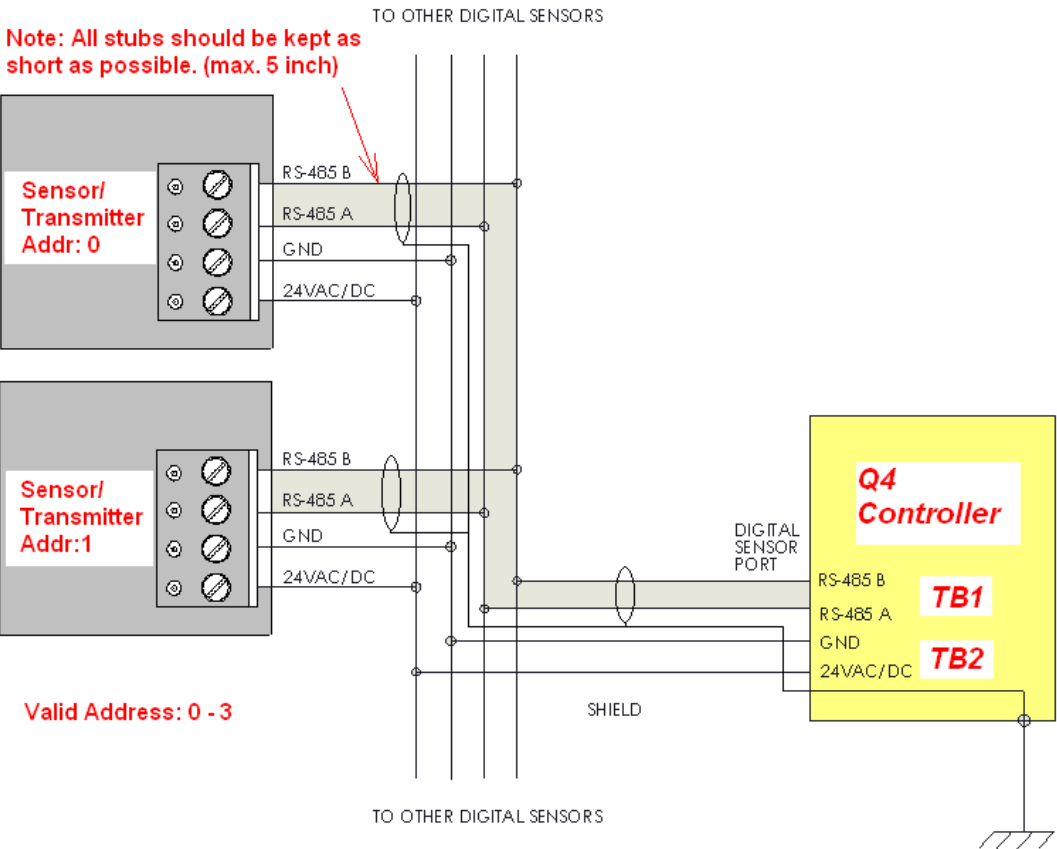
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		UNLESS OTHERWISE SPECIFIED:				Quatrosense Environmental Ltd	
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		MATERIAL		COMMENTS:			DWG. NO.
		FINISH					B 85350-002-000
NEXT ASSY	USED ON						REV
APPLICATION		DO NOT SCALE DRAWING					A
							SCALE: 1:2
							WEIGHT:
							SHEET 1 OF 5

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

Connection:



Note: All stubs should be kept as short as possible. (max. 5 inch)

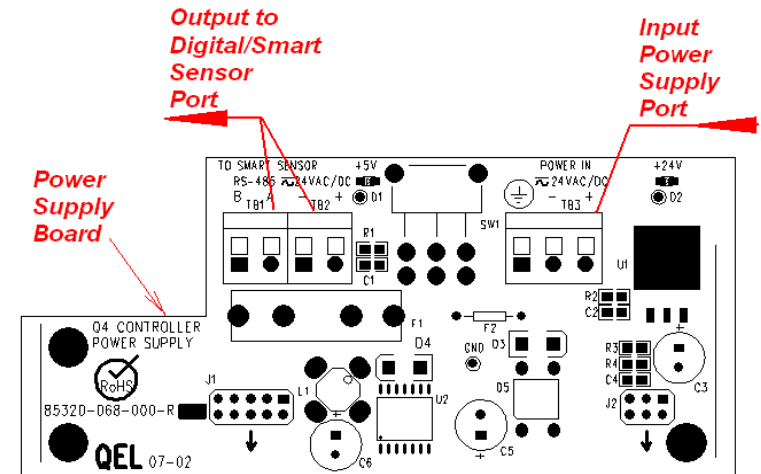
Sensor/
Transmitter
Addr: 0

Sensor/
Transmitter
Addr: 1

Valid Address: 0 - 3

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

Power Supply Board Connection:



Power Supply:

Q4 Controller 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: the Q4 Controller does NOT convert an AC voltage input to a DC voltage output for the digital/smart sensors.
 24 VDC Input => 24 VDC Output on the Digital/Smart Sensor Port
 24 VAC Input => 24 VAC Output on the Digital/Smart Sensor Port

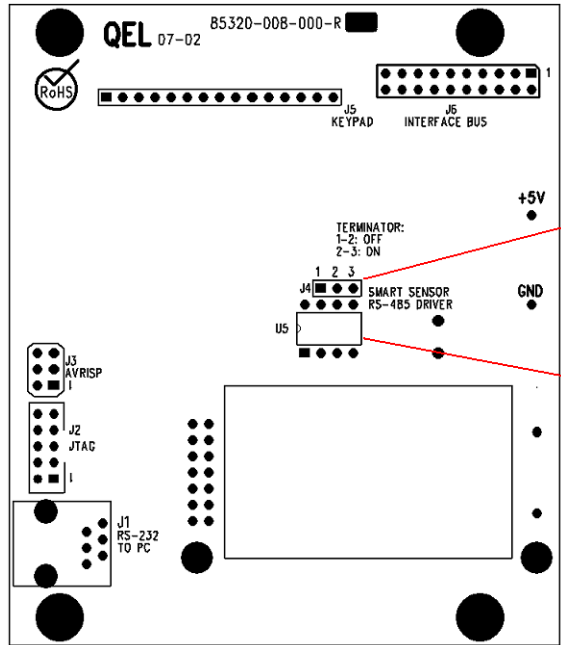
NOTE: AC Power must be non-grounded (floating).

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		TOLERANCES:	CHECKED	XY		2007-03-16
		FRACTIONAL ±	ENG APPR.	XY		2007-03-16
		ANGULAR: MACH ± BEND ±	MFG APPR.			
		TWO PLACE DECIMAL ±	Q.A.			
		THREE PLACE DECIMAL ±	COMMENTS:			
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		FINISH				
NEXT ASSY	USED ON					
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SIZE	DWG. NO.	REV				
B	85350-002-000	A				
SCALE: 1:2		SHEET 2 OF 5				

8 7 6 5 4 3 2 1

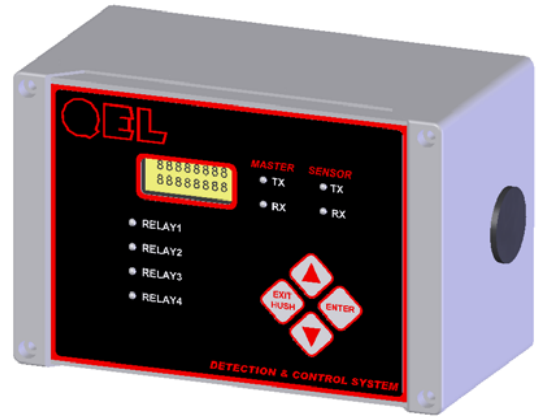
Main Board Bottom View



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

U5:
RS-485
Driver

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



Controller Location:

The Q4 Controller 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.

If the Q4 Controller is going to be operating at temperatures below the operating temperature, a controlled heaters or strips are recommended to keep the temperature adequately warm. Contact your local distributor or the factory for additional information.

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.

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?

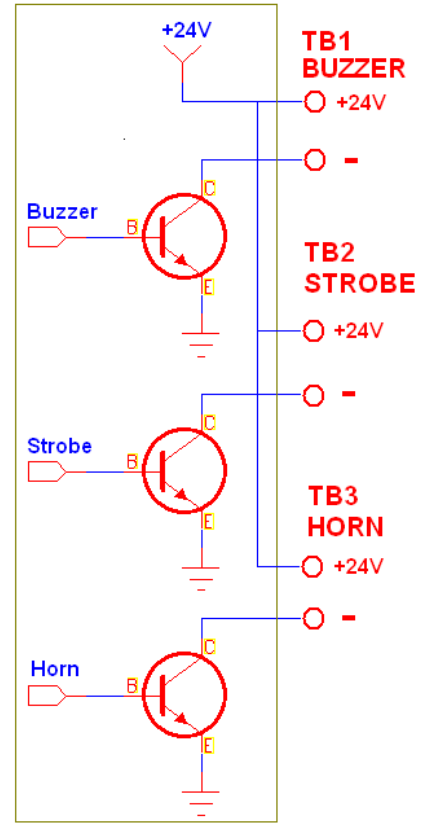
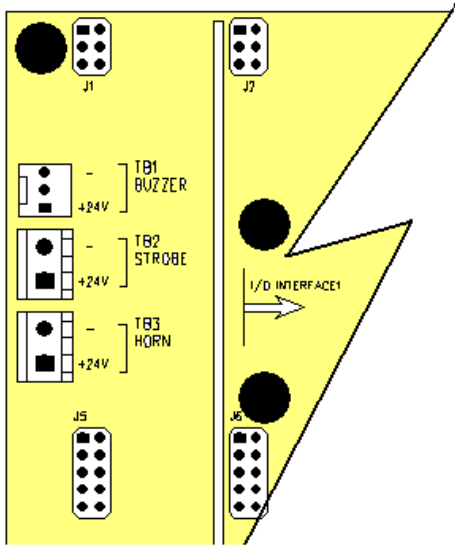
We recommend using BELDEN 9841 for communications. This wire has 120 ohm input impedance, which will eliminate RS-485 communication problems.

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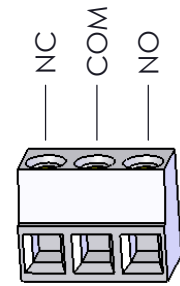
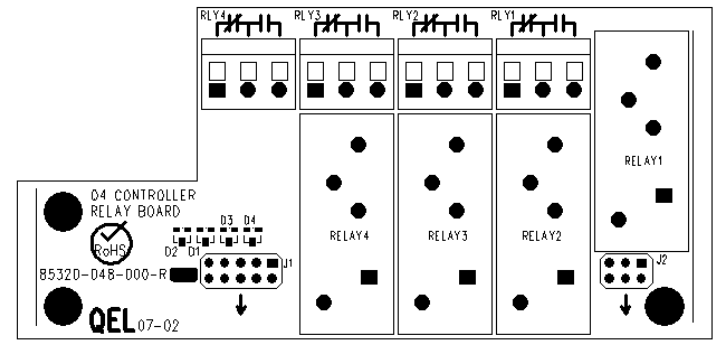
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		FINISH				
NEXT ASSY	USED ON					
APPLICATION		DO NOT SCALE DRAWING				
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		INSTALLATION DRAWING				
SIZE	DWG. NO.	REV				
B	85350-002-000	A				
SCALE: 1:2		SHEET 3 OF 5				

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

Buzzer, Strobe and Horn Connection: I/O Motherboard



Relay Board (Option):



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:

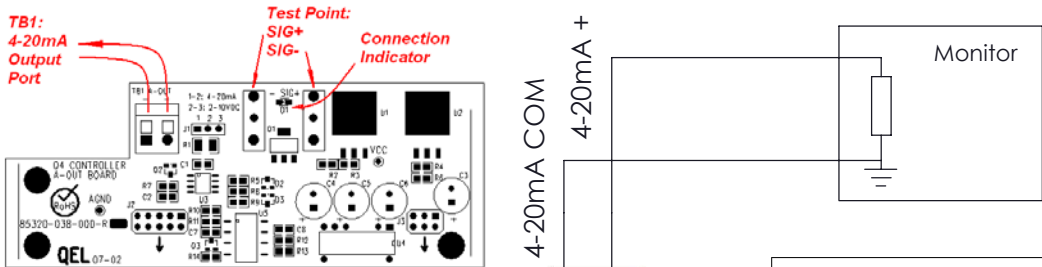
Be sure to look inside the unit prior to drilling so that to make sure there is sufficient clearance for the hole and fitting that you are using.
Seal conduit to prevent foreign material from entering the enclosure.

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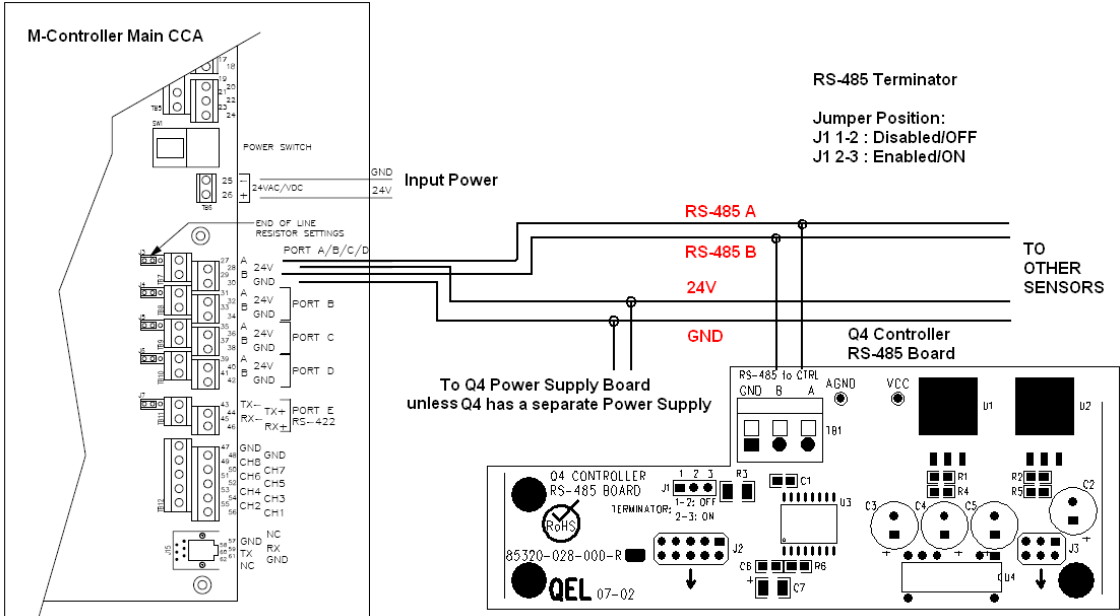
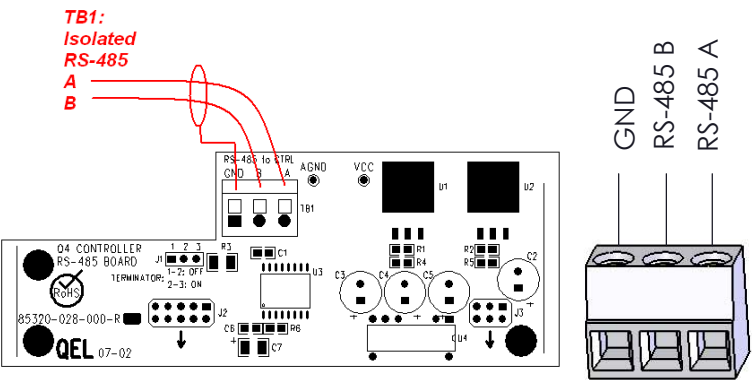
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		MATERIAL				SIZE DWG. NO.
		FINISH				B 85350-002-000
NEXT ASSY	USED ON					REV
						A
APPLICATION		DO NOT SCALE DRAWING				SCALE: 2:1 SHEET 4 OF 5

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

Isolated 4-20mA Output Board (Option):



Isolated RS-485 Board (Option):



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FRACTIONAL ±	ENG APPR.	2007-03-16	
ANGULAR: MACH ± BEND ±	MFG APPR.		
TWO PLACE DECIMAL ±	Q.A.		COMMENTS:
THREE PLACE DECIMAL ±			
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL			
FINISH			
NEXT ASSY	USED ON		
APPLICATION			DO NOT SCALE DRAWING