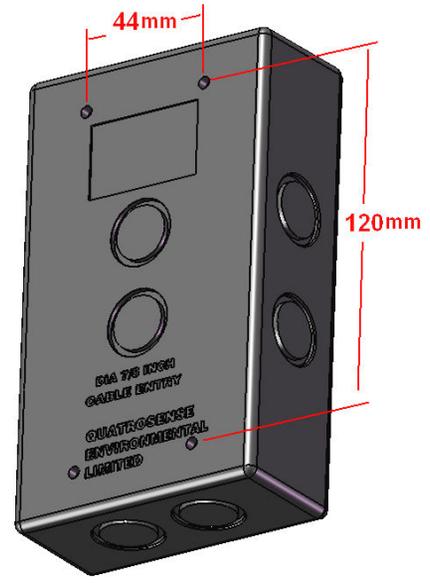


REVISIONS						
ECN	REV.	DESCRIPTION	DATE	DRAW	CHECK	APPROVED
990	A	Initial Release	2012/04/10	XY	XY	XY



SPECIFICATION

INPUT POWER:
 +24VDC nominal, range: 18 to 30VDC 0.3A DC Total Max.
 ~24VAC nominal, range: 15 to 24VAC 50/60HZ 0.3A AC Total Max.

FUSE:
 F2 on Main Board: Polyswitch 750mA
 Polyswitch device resets after the fault is cleared and power to the circuit is removed

SENSOR:
 Combustible gases: Catalytic
 Toxic gases and Oxygen: Electrochemical
 Carbon Dioxide: Non-Dispersive Infra-Red (NDIR)

OUTPUT SIGNAL:
 BACnet MS/TP master / slave protocol
 3X SPDT RELAYS: 1.0A MAX. @30VDC (RESISTIVE LOAD)
 0.3A MAX. @125VAC (RESISTIVE LOAD)

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

OPERATING TEMPERATURE:
 -40°C to 70°C, depends on sensor specification

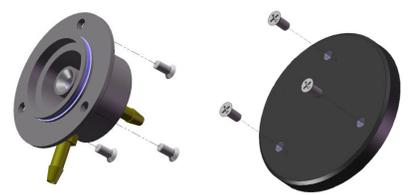
AMBIENT HUMIDITY:
 5% TO 95% RH (NON- CONDENSING)

STORAGE TEMPERATURE:
 0°C to 20°C, depends on sensor specification

SIZE: 150mm X 90mm X 65mm

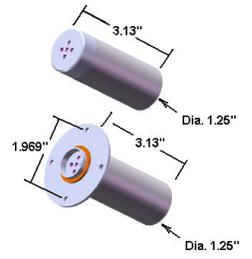
WEIGHT: LESS THAN 0.5lbs

Option Accessories. *Option Accessories are not included in Q5 or B5 Standard Package.

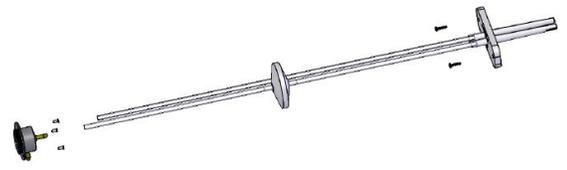


Pump-thru & Cal Cap Kit
 SKU#: 85930-006-000

Splash Guard Kit
 SKU#: 85930-007-000



Free-stand or Duct Mounted IR-Probe

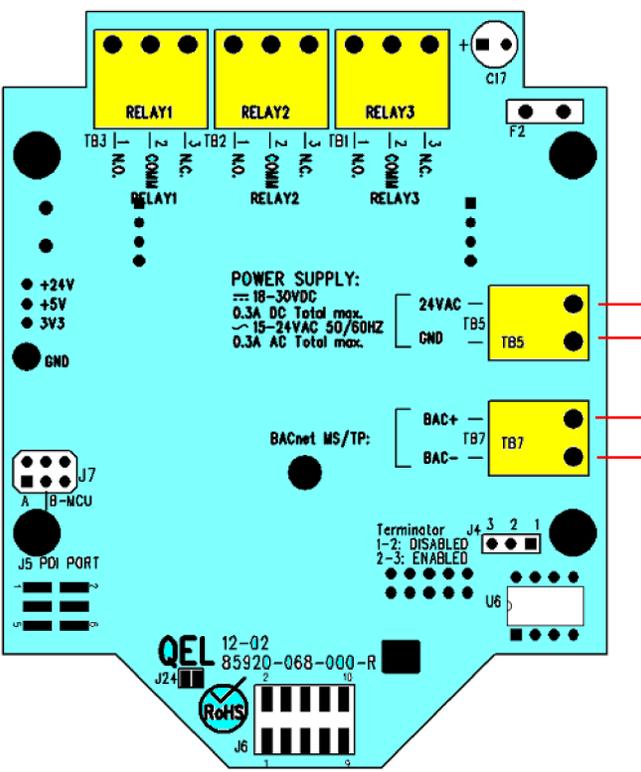


Duct Mount Adapter Kit: 85930-040-000

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		UNLESS OTHERWISE SPECIFIED:				NAME		DATE		Quatrosense Environmental Ltd	
		DIMENSIONS ARE IN INCHES		DRAWN		XY		2010/02/25		TITLE: B5 INSTALLATION DRAWING	
		TOLERANCES:		CHECKED		XY		2010/02/25			
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		ANGULAR: MACH ± .5 degrees BEND ± TWO PLACE DECIMAL ± .02 THREE PLACE DECIMAL ± .010		MFG APPR.							
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		MATERIAL		COMMENTS:						B 85950-102-000 A	
		FINISH								SCALE: 1:8 WEIGHT: SHEET 1 OF 3	
NEXT ASSY		USED ON		APPLICATION		DO NOT SCALE DRAWING					

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



B5 Main Board Connectors

24V AC / DC Power In

BACnet MSTP

Twisted Pair?

RS-485 is designed to be a balanced system. The signal on one wire is ideally the exact opposite of the signal on the second wire. In other words, if one wire is transmitting a high, the other wire will be transmitting a low, and vice versa. Although RS-485 can be successfully transmitted using multiple types of media, it should be used with wiring commonly called "twisted pair."

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.

Sensor Location:

Several factors should be considered when selecting locations to install sensors. The following general suggestions should be considered to assure the detection of the target gas. Select the most suitable location for each sensor.

1. Air Currents: If there are fans, winds, or others sources of air movement, gases may tend to rise to collect in certain areas of a facility. The local air currents should be assessed to aid in selecting the sensor location. In outdoor situations considerations such as prevailing winds should be accounted for. Air convection can often be more important in determining gas concentrated areas than factors of Vapor Density.
2. Vapor Density: For the target gas heavier than air. Detecting location should be 9 - 18 inch (0.23m to 0.46m) above the floor.
3. Gas Emission Sources: As a rule, at least one sensor should be located in close proximity to each point where a leak is likely to occur. This is particularly important when a liquid having a low volatility is monitored.
4. Environmental Factors: Designed to rugged outdoor use consider the following in selecting locations. Install sensors where they will be protected from wind, dust, snow, water, vibration and shock.

Note:

- B5 supports BACnet MS/TP master or slave protocol
- B5 default baud rate is 38400bps
- Each B5 on the MS/TP network must have a unique BACnet MAC address and unique Device Instance Number (Object ID).
 - B5 valid MAC addresses are 0-127 for master node, 0-254 for slave node
 - B5 default MAC address is 126
 - Default Device Instance Number is 4005
- Avoid running communication wires or sensor input wires next to AC power wires or the relay output wires. These can be sources of noise that can affect signal quality.
- When the B5 input power is AC, the 24VAC can be either grounded or non-grounded. Polarization is very important when the B5 is connected to a network. Make sure the Neutral is connected to the GND of TB5.

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		ANGULAR: MACH ± BEND ±		MFG APPR.					
		TWO PLACE DECIMAL ±		Q.A.				SIZE DWG. NO. REV	
		THREE PLACE DECIMAL ±		COMMENTS:				B 85950-102-000 A	
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		MATERIAL							
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APPLICATION		DO NOT SCALE DRAWING							

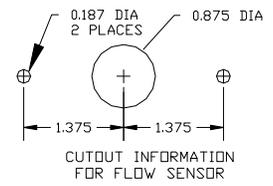
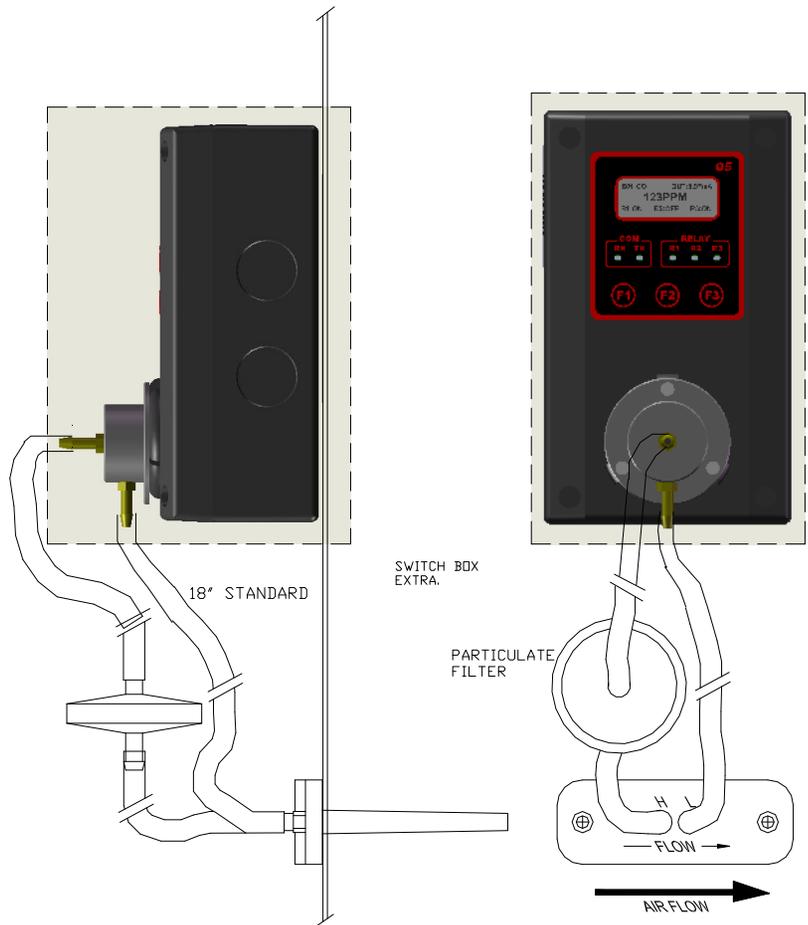
8 7 6 5 4 3 2 1

D

C

B

A



NOTE: GAS SAMPLING OCCURS WHEN AIR FLOW ACROSS THE THE TWO TUBES CAUSES DIFFERENTIAL PRESSURE. THIS METHOD WILL NOT WORK IN STATIC AIR SAMPLING.

DUCT MOUNTING OPTION

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Quatrosense Environmental Ltd TITLE: <p style="text-align: center;">B5</p> INSTALLATION DRAWING	
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		FINISH					
NEXT ASSY	USED ON					SIZE B DWG. NO. 85950-102-000 REV A	
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:2 WEIGHT: SHEET 3 OF 3	

8 7 6 5 4 3 2 1