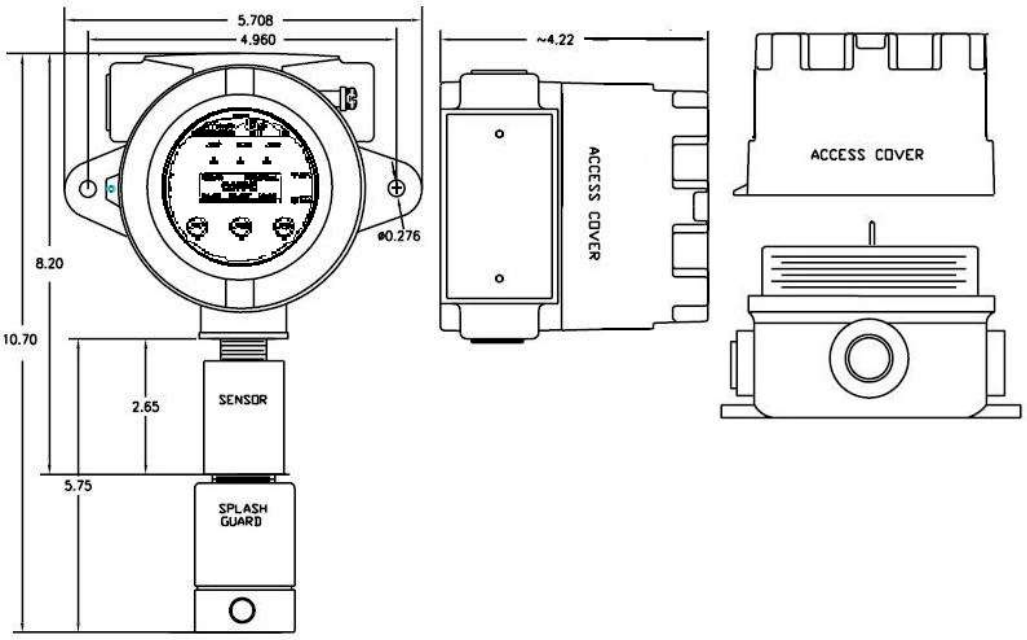
REVISIONS						
ECN	REV.	DESCRIPTION	DATE	DRAW	CHECK	APPROVED
1262	A	Initial Release	2024/11/17	XY	XY	XY



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 or NDIR
Toxic gases and Oxygen: Electrochemical
Carbon Dioxide: Non-Dispersive Infra-Red (NDIR)
Volatile Organic Compounds (VOC): Photoionisation (PID)

OUTPUT SIGNAL:
RS-485 with OPTIMUX PROTOCOL AND MODBUS PROTOCOL
4-20mA Analog Output, 1-5VDC, 2-10VDC Output
3X SPDT RELAYS: 1.0A MAX. @30VDC (RESISTIVE LOAD)
0.3A MAX. @125VAC (RESISTIVE LOAD)

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

WEIGHT: LESS THAN 1.8kg

ENCLOSURE:
Aluminium Pressure Die–Casting
Entries: 2X ¾ NPT

		UNLESS OTHERWISE SPECIFIED:
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± .5 degrees BEND ± TWO PLACE DECIMAL ± .02 THREE PLACE DECIMAL ± .010
		INTERPRET GEOMETRIC TOLERANCING PER:
		MATERIAL
NEXT ASSY	USED ON	FINISH
APPLICATION		DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	XY	2024/11/15
CHECKED	XY	2024/11/15
ENG APPR.	XY	2024/11/15
MFG APPR.		
Q.A.		
COMMENTS:		

Greystone Energy Systems Inc.

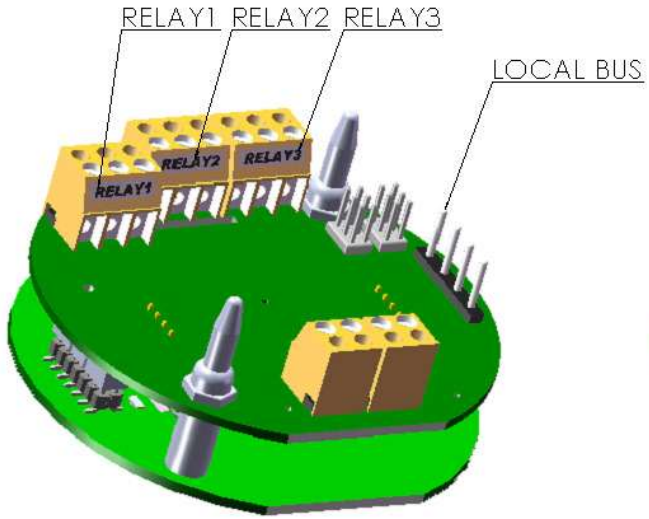
TITLE:
B8, GES
INSTALLATION DRAWING

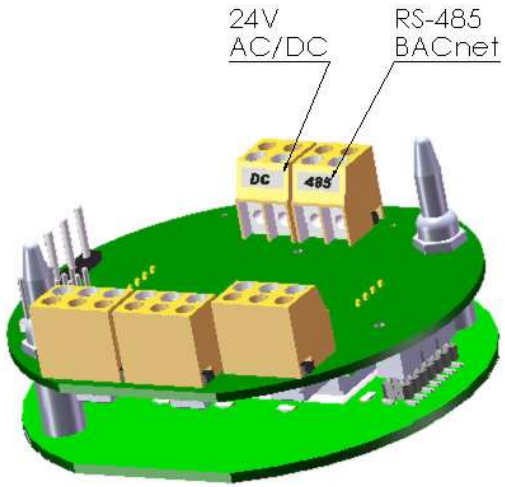
SIZE	DWG. NO.	REV
B	86350-102-005	A

SCALE: 1:8 | WEIGHT: | SHEET 1 OF 3

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

Power and RS-485 BACnet MS/TP Connection





NOTE:

- B8 supports BACnet MS/TP master or slave protocol
- B8 default baud rate is 38400bps
- Each B8 on the MS/TP network must have a unique BACnet MAC address and unique Device Instance Number (Object ID)
  - B8 valid MAC addresses are 0-127 for master node, 0-254 for slave node
  - B8 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 B8 input power is AC, the 24VAC can be either grounded or non-grounded. Polarization is very important when the B8 is connected to a network. Make sure the Neutral is connected to the GND of TB6.

Location:

The B8 Sensor/Transmitter should be mounted where the gas to be measured is most likely to be present. This location will be dependent on the source of the target gas and whether that gas is lighter or heavier than air. Air circulation and mixture should also be taken into account.

3/4"NPT cable/conduit entries on UL/CSA versions.

Where possible, the sensor/transmitter should be mounted where it is accessible for the purposes of routine re-calibration and **periodic** sensor replacement. Sufficient room should be left to allow the enclosure cover to be removed and the connection of the calibration adapter to the sensor assembly. For sensor element replacement there will need to be enough room to reach into the sensor assembly.

Note:
Avoid mounting the electronics near 600 VAC switchgear and other sources of radio frequency and/or electromagnetic interference. While RFI/EMI protection is built in to the electronics, excessive levels of interference may cause instability in the output signal.

Warning:
GROUNDING - The industrial explosion-proof metal enclosure must be connected to a safety ground, either locally or back at the monitor, in order to provide immunity to Electromagnetic Interference.

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DRAWN	XY	
			CHECKED	XY	
			ENG APPR.	XY	
			MFG APPR.		
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
		MATERIAL	COMMENTS:		
NEXT ASSY	USED ON	FINISH			
APPLICATION		DO NOT SCALE DRAWING			

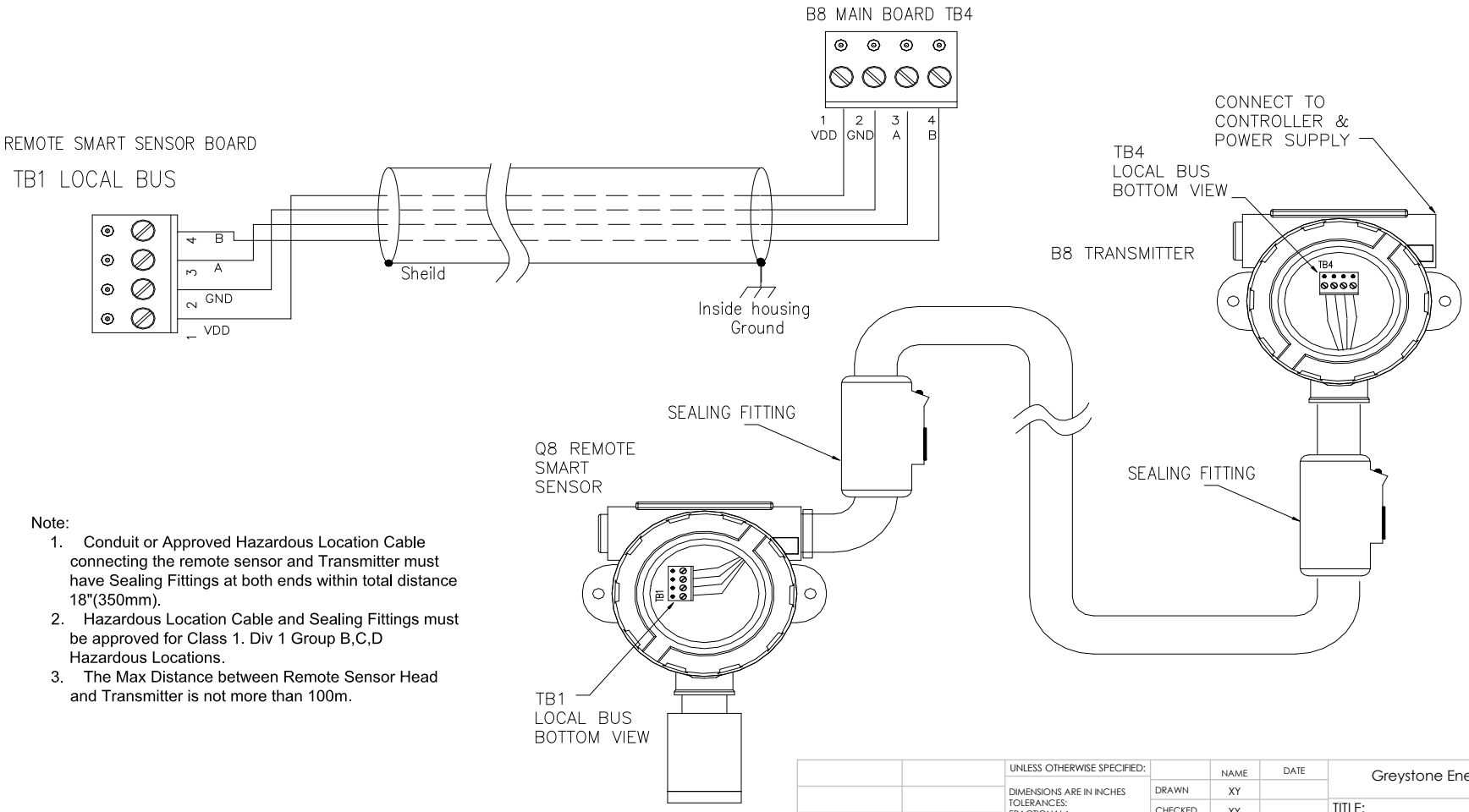
Greystone Energy Systems Inc.

TITLE:
B8, GES
INSTALLATION DRAWING

SIZE	DWG. NO.	REV
B	86350-102-005	A
SCALE: 1:2		SHEET 2 OF 3

B8 and Remote Smart Sensor Assembly Connection

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



Note:

1. Conduit or Approved Hazardous Location Cable connecting the remote sensor and Transmitter must have Sealing Fittings at both ends within total distance 18"(350mm).
2. Hazardous Location Cable and Sealing Fittings must be approved for Class 1. Div 1 Group B,C,D Hazardous Locations.
3. The Max Distance between Remote Sensor Head and Transmitter is not more than 100m.

NEXT ASSY	USED ON	
APPLICATION		DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL

FINISH

	NAME	DATE
DRAWN	XY	
CHECKED	XY	
ENG APPR.	XY	
MFG APPR.		
Q.A.	XY	

COMMENTS:

Greystone Energy Systems Inc.

TITLE:

B8, GES
INSTALLATION DRAWING

SIZE	DWG. NO.	REV
B	86350-102-005	A

SCALE: 1:2	WEIGHT:	SHEET 3 OF 3