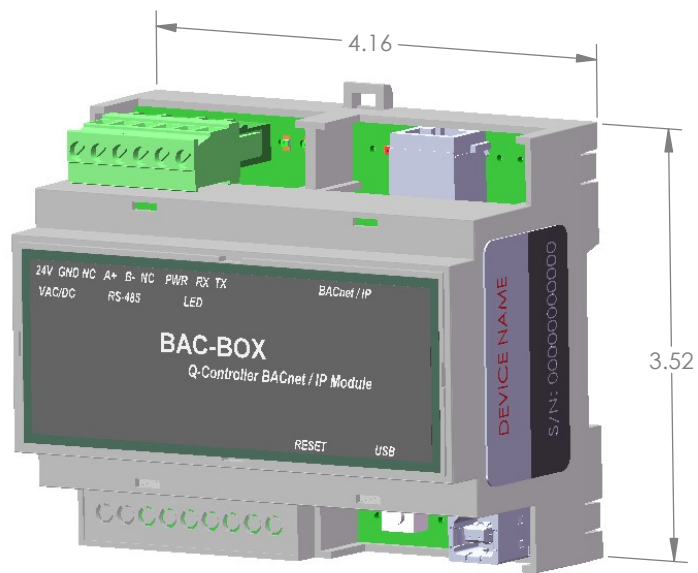


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REVISIONS				
ECN	REV.	DESCRIPTION	DATE	APPROVED
1256	A	FIRST RELEASE	2024/10/08	XY



BAC-Box (GES Controller BACnet Converter):

The BAC-Box allows GES Controllers to communicate on a BACnet network. The BAC-Box works as a translator between the two networks allowing Q-Controller or M-Controller II (gas concentrations, switch status and relay status) to show up as individual BACnet-compliant devices on a BACnet /IP network.

- It supports up to 192 AI objects, 32 AO objects, 16 BI objects and 64 BO objects for a Q-Controller
- It supports 40 AI objects, 8 AO objects, 2 BI objects and up to 64 BO objects for a M-Controller II

BACnet Application Specific Controller (B-ASC)

List all BACnet Interoperability Building Blocks Supported (Annex K):

- BIBB-Data sharing-ReadProperty-B (DB-RP-B)
- BIBB-Data sharing-ReadPropertyMultiple-B (DB-RPM-B)
- BIBB-Data sharing-WriteProperty-B (DB-WP-B)
- BIBB-Device Management-Device Communication Control-B (DM-DCC-B)
- BIBB-Device Management-TimeSynchronization-B (DM-TS-B)
- BIBB-Device Management-UTC TimeSynchronization-B (DM-UTC-B)

Standard Object Types Supported:

- Device Object
- Analog Input Object
- Analog Output Object
- Binary Input Object
- Binary Output Object

Data Link Layer Options: BACnet IP, (Annex J)

Device Address Binding:

- Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.) Yes No

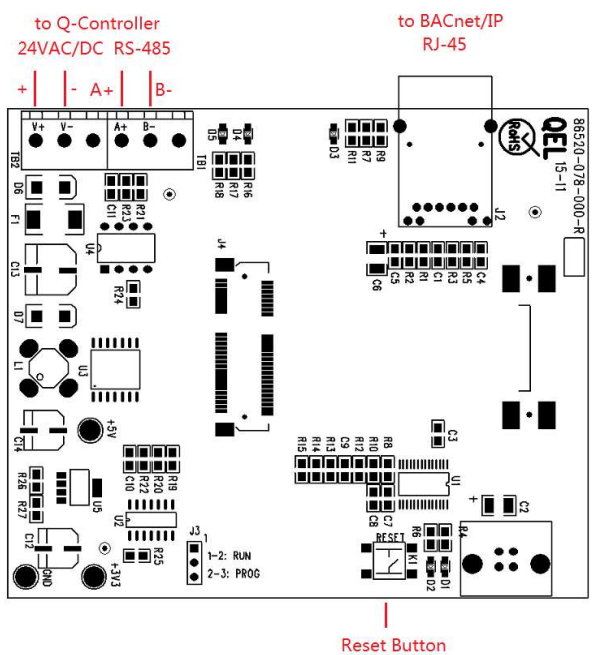
Networking Options:

- Does the BBMD support registrations by Foreign Devices? Yes No
- Does the BBMD support network address translation? Yes No

Network Security Options:

Non-secure Device - is capable of operating without BACnet Network Security

Character Sets Supported: ANSI X3.4



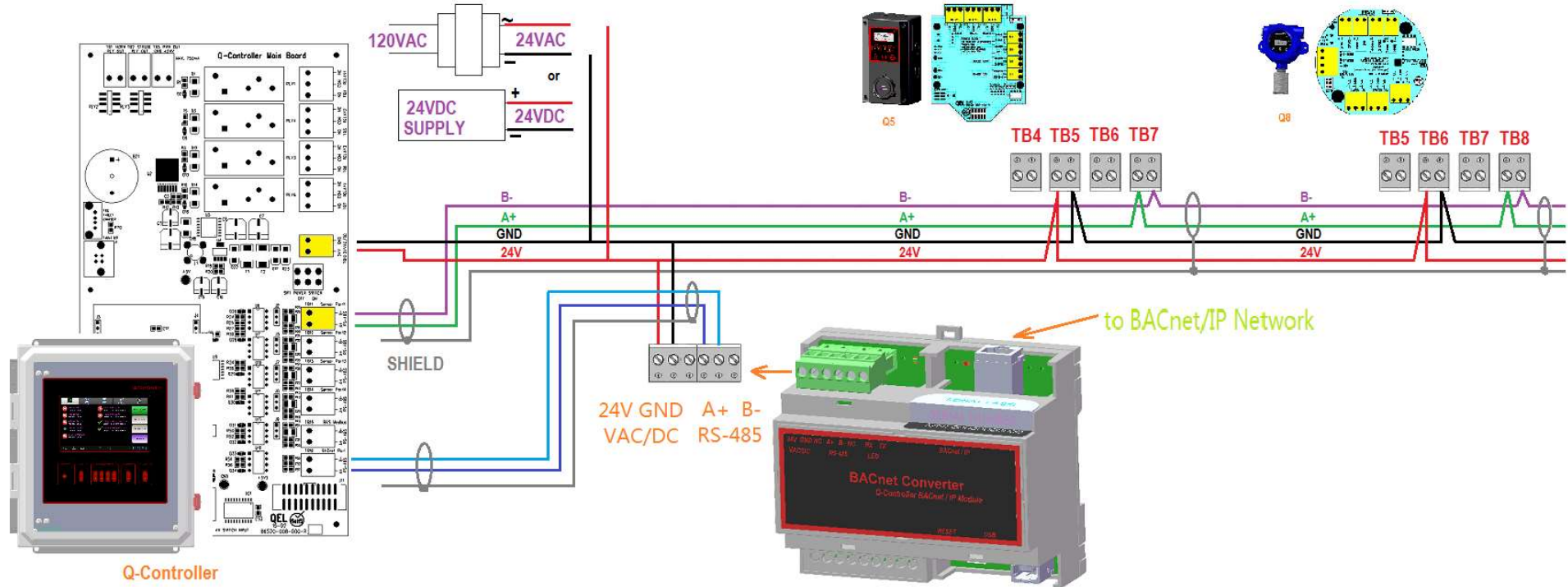
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DIMENSIONS ARE IN INCHES		XY	24/10/08	
TOLERANCES:		CHECKED		TITLE: BAC-BOX, GES Installation Drawing
FRACTIONAL: ±		ENG APPR.		
ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±		MFG APPR.		
INTERPRET GEOMETRIC TOLERANCING PER:		Q.A.		SIZE DWG. NO. REV
MATERIAL		COMMENTS:		B 86550-009-005 A
NEXT ASSY	USED ON			SCALE: 1:2 WEIGHT: SHEET 1 OF 4
APPLICATION	DO NOT SCALE DRAWING			

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Q-Controller & BAC-Box Connection

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



- Note:
1. The power supply can be 24VAC or DC as every device uses a half-wave rectifier in the drawing
 2. The power negative may be grounded or floating
 3. Don't mix full wave rectifiers device with this system
 4. Before power up, the polarity of the 24VAC power supply should be checked carefully, reversing polarity on the network will cause the RS-485 driver chips blow up

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DIMENSIONS ARE IN INCHES				
TOLERANCES:		DRAWN		TITLE: BAC-BOX, GES Installation Drawing
FRACTIONAL: ±		CHECKED		
ANGULAR: MACH ± BEND ±		ENG APPR.		SIZE DWG. NO. REV B 86550-009-005 A
TWO PLACE DECIMAL ±		MFG APPR.		
THREE PLACE DECIMAL ±		Q.A.		SCALE: 1:4 1 SHEET 2 OF 4
INTERPRET GEOMETRIC TOLERANCING PER:		COMMENTS:		
MATERIAL				
FINISH				
NEXT ASSY	USED ON			
APPLICATION		DO NOT SCALE DRAWING		

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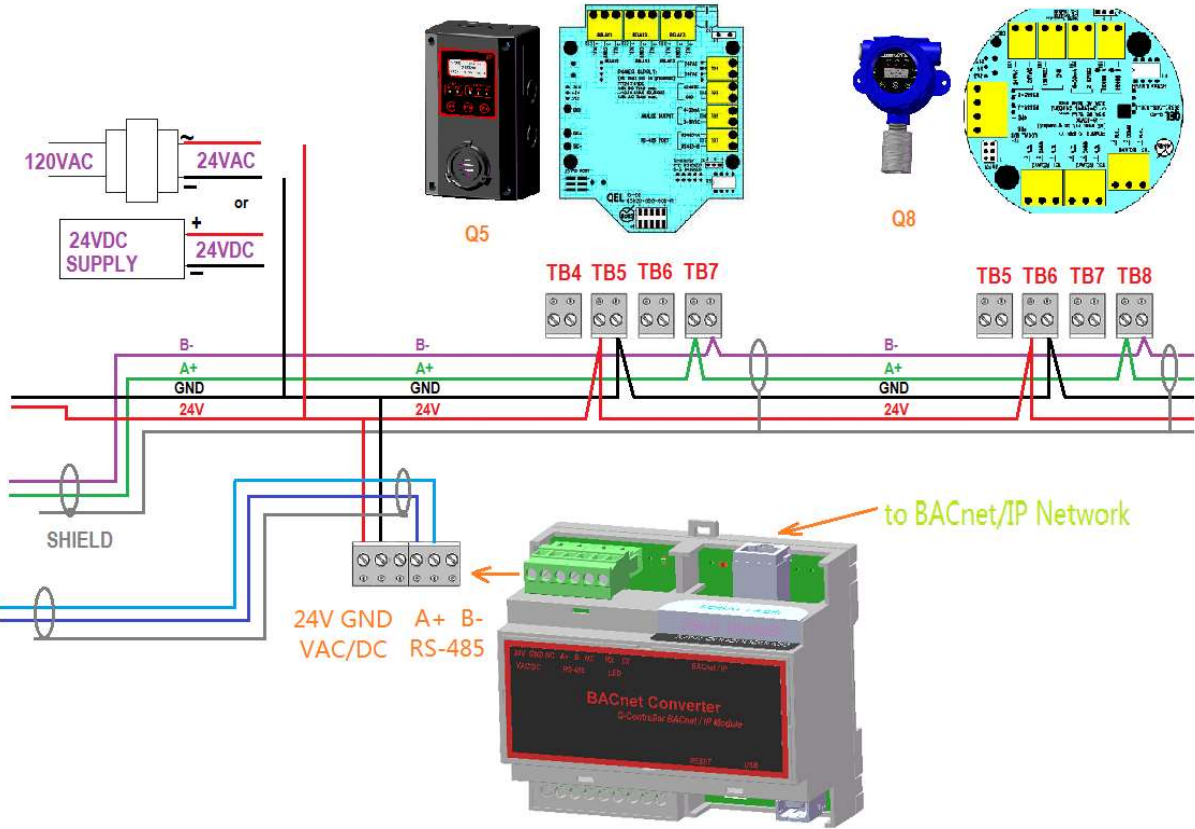
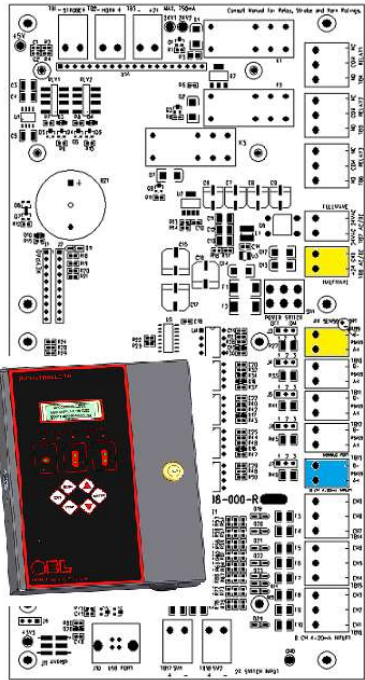
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M-Controller II & BAC-Box Connection

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



- Note:**
- As the BAC-Box has a half-wave rectifier only, so make sure all devices are connected through the half-wave power terminal blocks
 - The power supply can be 24VAC or DC as every device uses a half-wave rectifier in the drawing
 - The power negative may be grounded or floating
 - Don't mix full wave rectifiers device with this system
 - The BACnet port on the M-Controller II has to be enabled through MENU, as the port is set to Modbus protocol as factory default

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		TOLERANCES:	CHECKED	2024/10/08
		FRACTIONAL: ±	ENG APPR.	
		ANGULAR: MACH ± BEND ±	MFG APPR.	
		TWO PLACE DECIMAL ±	Q.A.	
		THREE PLACE DECIMAL ±	COMMENTS:	
		INTERPRET GEOMETRIC TOLERANCING PER:		
		MATERIAL		
NEXT ASSY	USED ON	FINISH		
		APPLICATION		

Greystone Energy Systems Inc.

TITLE: **BAC-Box, GES Installation Drawing**

SIZE **B** DWG. NO. **86550-009-005** REV **A**

SCALE: 1:4 WEIGHT: SHEET 3 OF 4

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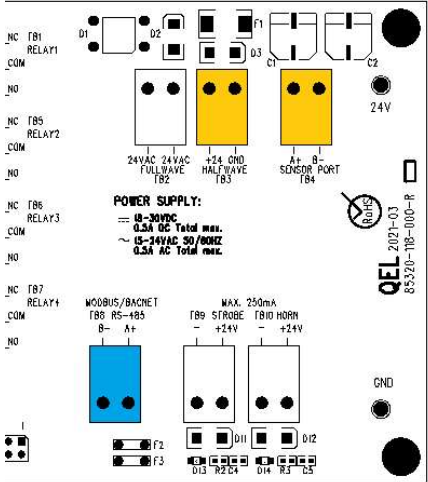
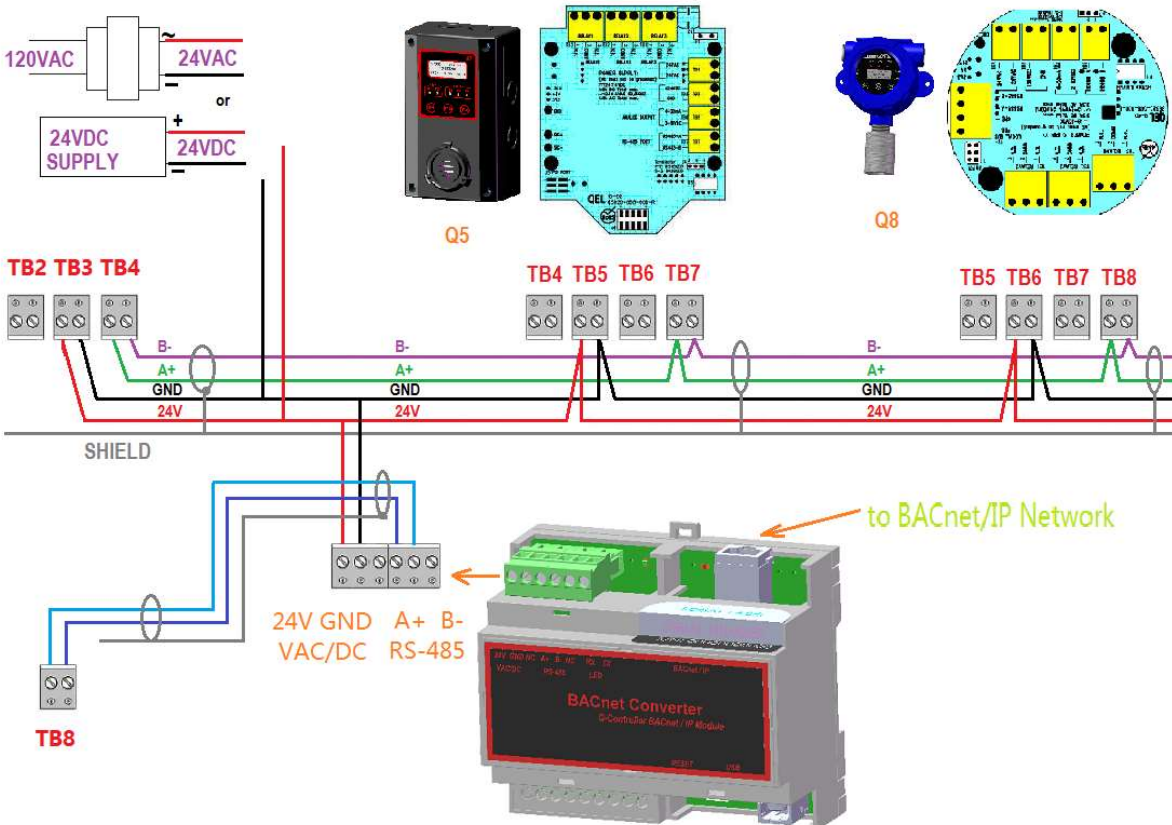
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Q4-Controller II & BAC-Box Connection

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



- Note:**
- As the BAC-Box has a half-wave rectifier only, so make sure all devices are connected through the half-wave power terminal blocks
 - The power supply can be 24VAC or DC as every device uses a half-wave rectifier in the drawing
 - The power negative may be grounded or floating
Don't mix full wave rectifiers device with this system
 - The BACnet port on the Q4-Controller II has to be enabled through MENU, as the port is set to Modbus protocol as factory default

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		DIMENSIONS ARE IN INCHES	DRAWN			TITLE: BAC-BOX, GES Installation Drawing
		TOLERANCES:	CHECKED			
		FRACTIONAL: ±	ENG APPR.			
		ANGULAR: MACH ± BEND ±	MFG APPR.			
		TWO PLACE DECIMAL ±	Q.A.		SIZE DWG. NO. REV B 86550-009-005 A	
		THREE PLACE DECIMAL ±	COMMENTS:			
NEXT ASSY	USED ON	FINISH	SCALE: 1:4 WEIGHT: SHEET 4 OF 4			
APPLICATION		DO NOT SCALE DRAWING				

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