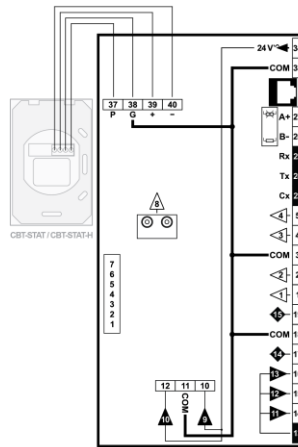
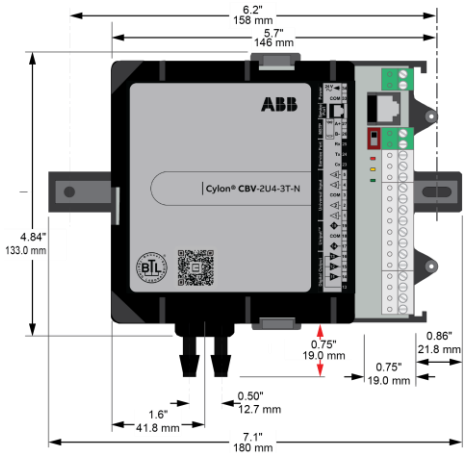
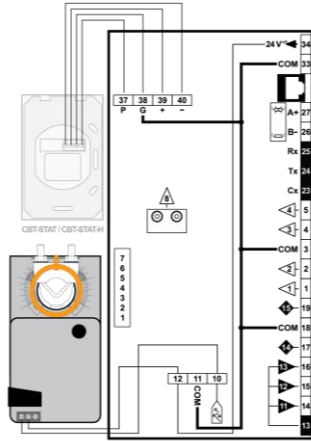
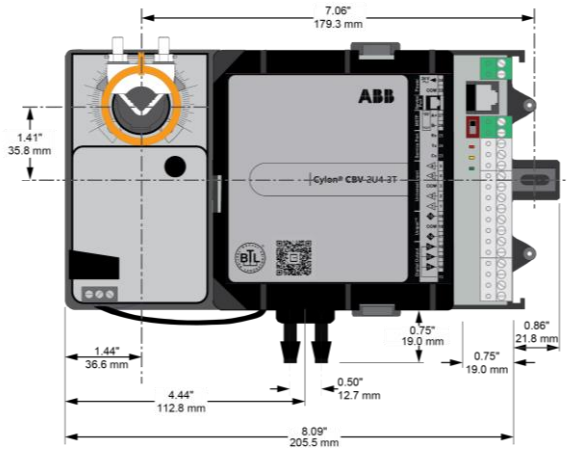


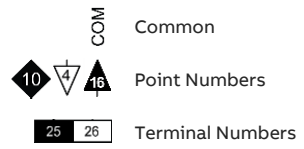
INSTALLATION AND WIRING

BDS0023 rev 8

CBV-2U4-3T, CBV-2U4-3T-N



Note: Terminals 3, 18 and 33 are connected internally.



| Location | Illustration | Terminal Number | Description |
|---|--------------|-----------------|-------------------------------|
| | | 1 ... 5 | Universal Inputs |
| | | 17 ... 19 | UniPut™ |
| | | 13 | Triac Common |
| | | 14 ... 16 | Triac Outputs |
| | | 23 ... 25 | Service Port (screw terminal) |
| <p>Note: Service Port must not be connected until after the device is powered on.</p> | | | |



| Location | Illustration | Terminal Number | Description | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---------------------|--|--|-------------------------|-----|----|------------|------------|------------------------|--------------|---|--|------|---------------------------|---------------------|----------------------------------|-------------------------------------|-------------------------|------------------------------|-------------------|--|------|------|
| | | 26, 27 | BACnet MS/TP Port Important: In order for the BACnet MS/TP bus to operate reliably, the common power connection (terminal 33) must be connected to Earth. Cylon recommend that this is done at the 24 V AC transformer. | | | | | | | | | | | | | | | | | | | | |
| | | 33, 34 | Power 24 V AC Important: The common power connection (terminal 33) must be connected to Earth. Cylon recommend that this is done at the 24 V AC transformer. | | | | | | | | | | | | | | | | | | | | |
| | | 37, 38 | Sensor Power supply | | | | | | | | | | | | | | | | | | | | |
| | | 39, 40 | Sensor RS485 Sensor RS485 terminator | | | | | | | | | | | | | | | | | | | | |
| Actuator Port jumper settings: | | | | | | | | | | | | | | | | | | | | | | | |
| | | 10 ... 12 | (CBV-2U4-3T-N only) External Actuator Terminal. Accessed by removing the top cover Internal Actuator (requires appropriate strategy) External Actuator (requires appropriate strategy) | | | | | | | | | | | | | | | | | | | | |
| | | | BACnet MS/TP Terminator OFF (BACnet MS/TP bus not terminated at this controller) ON (BACnet MS/TP bus terminated at this controller) | | | | | | | | | | | | | | | | | | | | |
| | | | 7-way MS/TP Address Switch The controller's BACnet MAC address can be set either electronically (USB or BACnet) or manually using the 8-way DIP switch. 1. Manual setting for ease of replacement: Setting the 7-way DIP switch and then cycling the power, will force the controller to update its MAC address to match the DIP settings. 2. Electronic setting for remote configuration: Setting the 7-way DIP switch to all zeros will allow the MAC address to be set electronically either locally by USB or remotely over BACnet. The address is set in binary, from 1 (0000001) to 127 (1111111). A switch moved to the left (towards the 'ON' mark) represents 1, moved to the right represents 0. The bottom-most switch is the least-significant bit, the switch on the top is the most-significant bit. | | | | | | | | | | | | | | | | | | | | |
| | | | Indicator LEDs <table border="1"> <thead> <tr> <th></th> <th>Off</th> <th>On</th> <th>Slow Blink</th> <th>Fast blink</th> </tr> </thead> <tbody> <tr> <td>Red LED (Power)</td> <td>Power is off</td> <td>Power is on. Optional battery is healthy.</td> <td>Indicates no battery / battery is low.</td> <td>----</td> </tr> <tr> <td>Green LED (Status)</td> <td>Unit is not running</td> <td>Strategy servicing and no comms.</td> <td>MSTP comms, and Strategy servicing.</td> <td>Strategy not servicing.</td> </tr> <tr> <td>Yellow LED (override)</td> <td>Normal operation.</td> <td>Priority Array set above 16, for one or more Hardware Points, by external BACnet Client, or by CXpro^{HD}.</td> <td>----</td> <td>----</td> </tr> </tbody> </table> <p>Note: When Service Port is in use, the Green LED blinks off as Service Port comms are received. Note: Battery is present only on custom versions.</p> <p>During firmware upgrade the Yellow LED will remain on while the strategy/comms section reboots, and then the LEDs will rotate Green-Yellow-Red while the IO section reboots.</p> <p>CAUTION - DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISPOSE OF USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.</p> | | Off | On | Slow Blink | Fast blink | Red LED (Power) | Power is off | Power is on. Optional battery is healthy. | Indicates no battery / battery is low. | ---- | Green LED (Status) | Unit is not running | Strategy servicing and no comms. | MSTP comms, and Strategy servicing. | Strategy not servicing. | Yellow LED (override) | Normal operation. | Priority Array set above 16, for one or more Hardware Points, by external BACnet Client, or by CXpro ^{HD} . | ---- | ---- |
| | Off | On | Slow Blink | Fast blink | | | | | | | | | | | | | | | | | | | |
| Red LED (Power) | Power is off | Power is on. Optional battery is healthy. | Indicates no battery / battery is low. | ---- | | | | | | | | | | | | | | | | | | | |
| Green LED (Status) | Unit is not running | Strategy servicing and no comms. | MSTP comms, and Strategy servicing. | Strategy not servicing. | | | | | | | | | | | | | | | | | | | |
| Yellow LED (override) | Normal operation. | Priority Array set above 16, for one or more Hardware Points, by external BACnet Client, or by CXpro ^{HD} . | ---- | ---- | | | | | | | | | | | | | | | | | | | |
| | | | Service Port (RJ-45) Note: Service Port must not be connected until after the device is powered on. | | | | | | | | | | | | | | | | | | | | |
| | | | Airflow Sensor External connection at bottom of housing | | | | | | | | | | | | | | | | | | | | |
| | | | Terminal accessed by removing the top cover | | | | | | | | | | | | | | | | | | | | |
| | | | Rotary Actuator | | | | | | | | | | | | | | | | | | | | |
| | | | Damper Manual Override | | | | | | | | | | | | | | | | | | | | |
| | | | Actuator direction selector | | | | | | | | | | | | | | | | | | | | |