

KROWN-CS
FAN FILTER UNIT CONTROL SYSTEMS

FEATURES:

- WALL MOUNTED SPEED CONTROLLER: OFFERS SIMPLE USER CONTROL FOR UP TO 30 KROWN UNITS WITH THE SAME SETPOINT.
- BACnet FLOW CONTROLLER SERVICE TOOL: PROVIDES ACCESS TO BACnet FLOW CONTROLLER (BFC) MENUS AND CONTROLS ON A REMOTE DEVICE FOR EASE OF ACCESS IN LOW CLEARANCE INSTALLATIONS.
- WEB SERVER: PROVIDES FULL CONTROL AND MONITORING OF KROWN UNITS ON A GRAPHICAL WEB-BASED INTERFACE AND COMMUNICATES WITH A VARIETY OF BUILDING CONTROL SYSTEMS USING BACnet COMMUNICATION PROTOCOL.



WALL MOUNTED SPEED CONTROLLER
(WMSC-30)



BACnet FLOW CONTROLLER SERVICE TOOL
(BFC-ST)



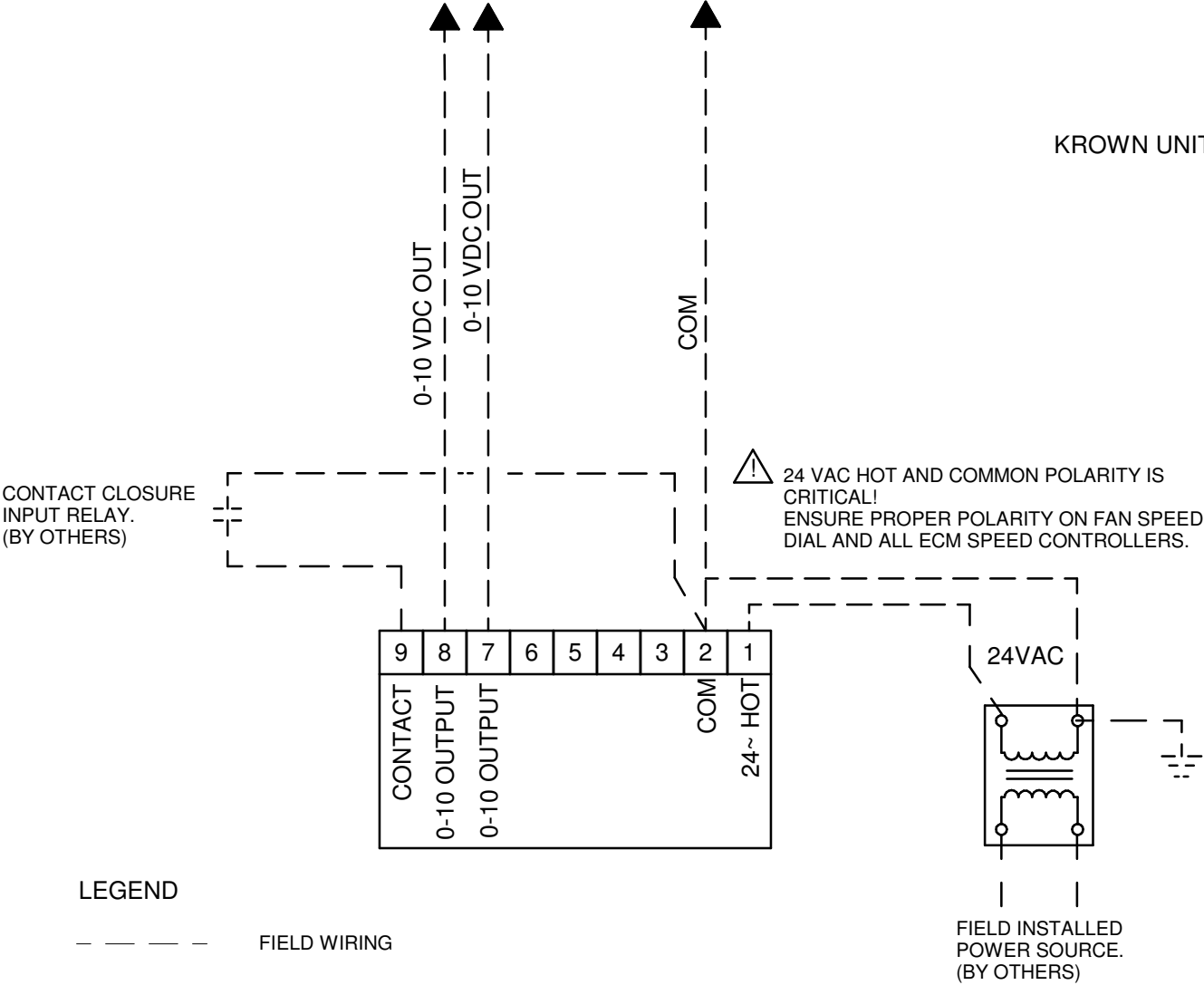
WEB SERVER

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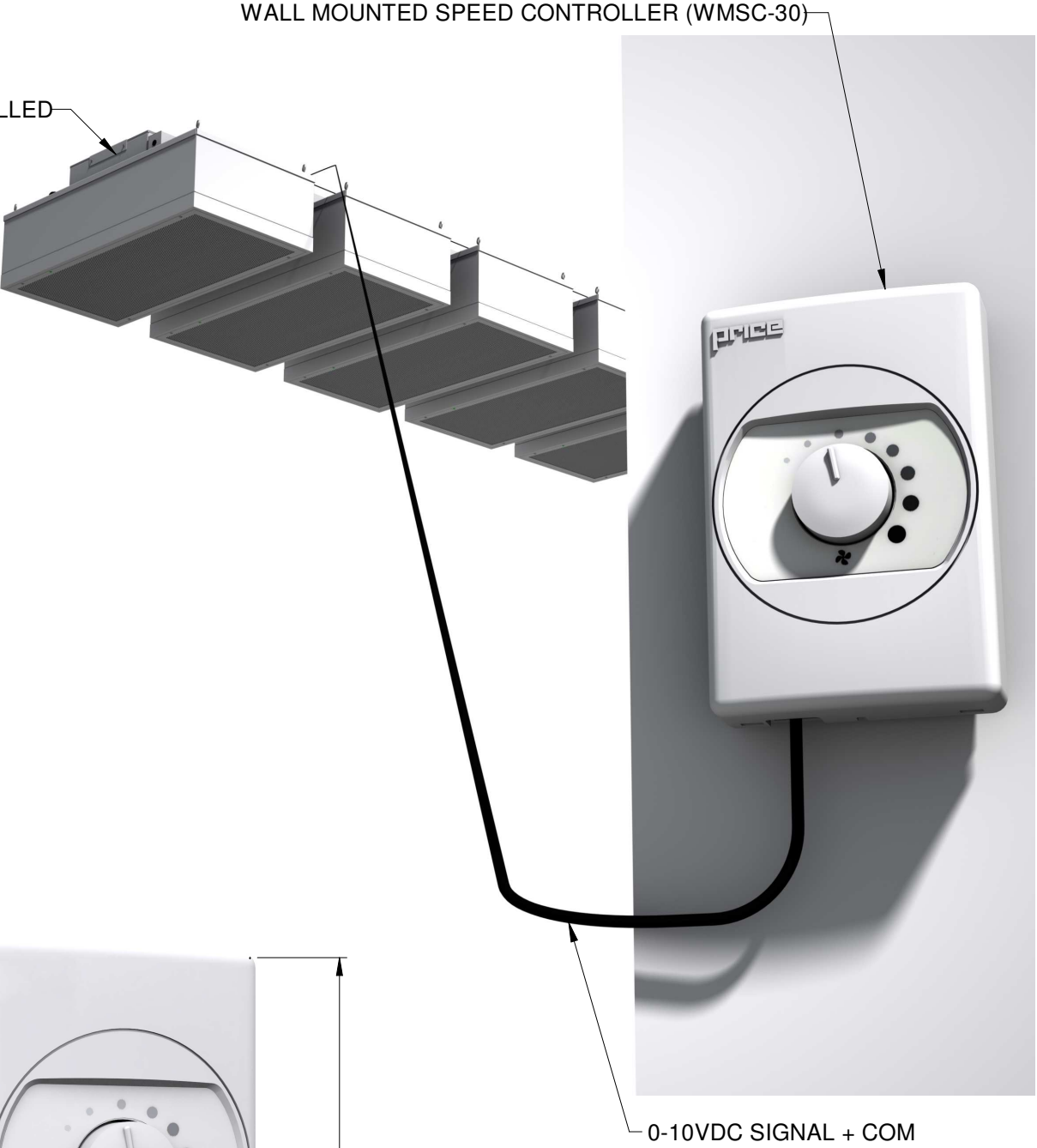
KROWN-CS

FAN FILTER UNIT CONTROL SYSTEMS WALL MOUNTED SPEED CONTROLLER (WMSC-30)



FEATURES:

- WALL MOUNTED DIAL CONTROLS FAN SPEED FROM OFF (1.5 VOLTS) to 100% (10 VOLTS).
- EACH 0-10 VDC OUTPUT CONTROLS A MAX OF 15 DAISY CHAINED FAN FILTER UNITS (FOR A TOTAL OF 30 UNITS PER WALL MOUNTED SPEED CONTROLLER) WITH SAME SETPOINT.
- WORKS WITH ECMSC AND BFC CONTROLLERS.
- 0-10 VDC OUTPUT CONNECTS TO 'BAS SIGNAL' INPUT ON ECM SPEED CONTROLLER OR BFC CONTROLLER. USE A MAXIMUM OF 100 FEET FOR SIGNAL CABLES.
- 24 VDC POWER SUPPLY REQUIRED TO POWER WALL MOUNTED SPEED CONTROLLER.
- CONTACT CLOSURE: WHEN 'CONTACT' IS SHORTED TO 'COM' THE 0-10 VDC OUTPUTS WILL GO TO 0 VOLTS CAUSING ALL CONNECTED SPEED CONTROLLERS TO DEFAULT TO THEIR LOCAL SETTING.



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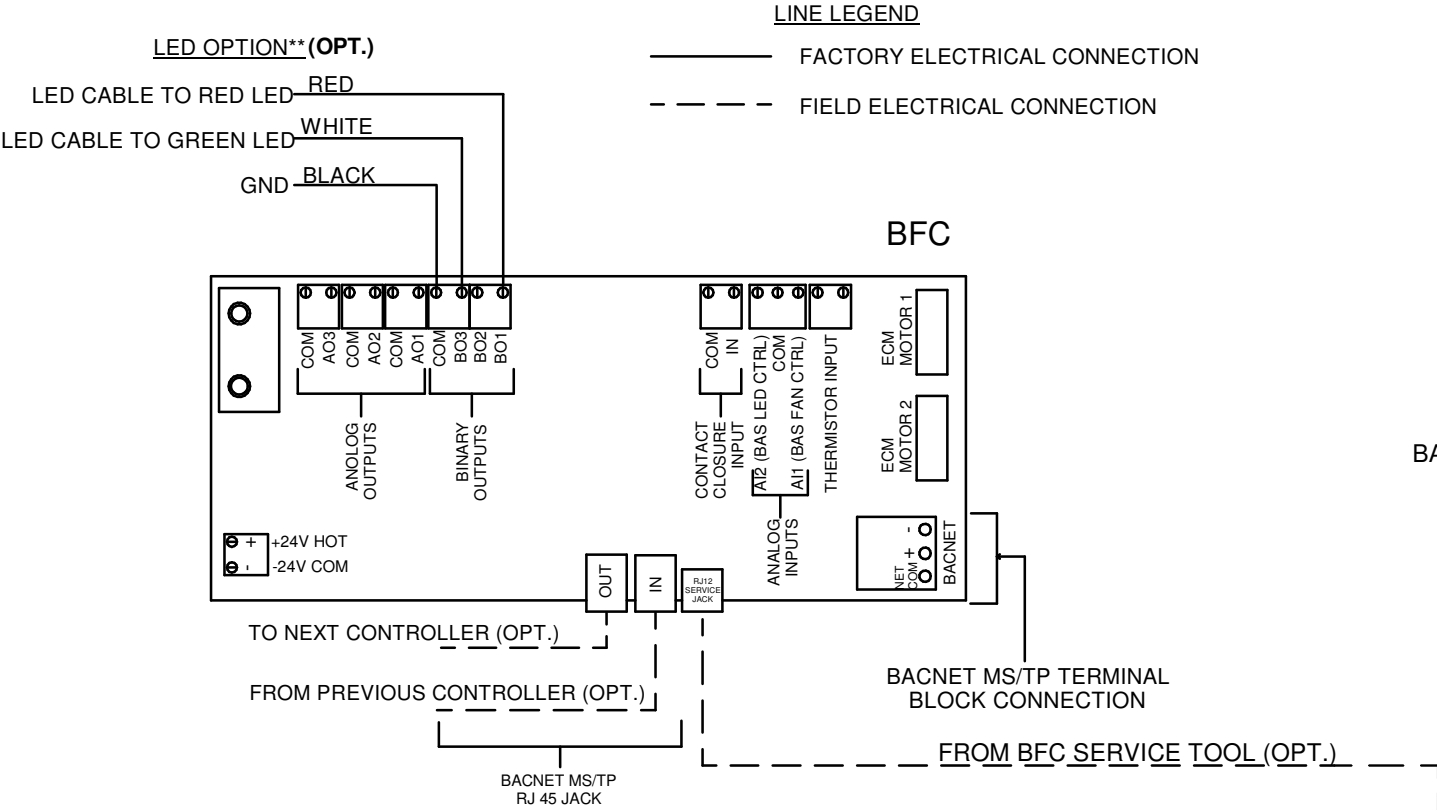
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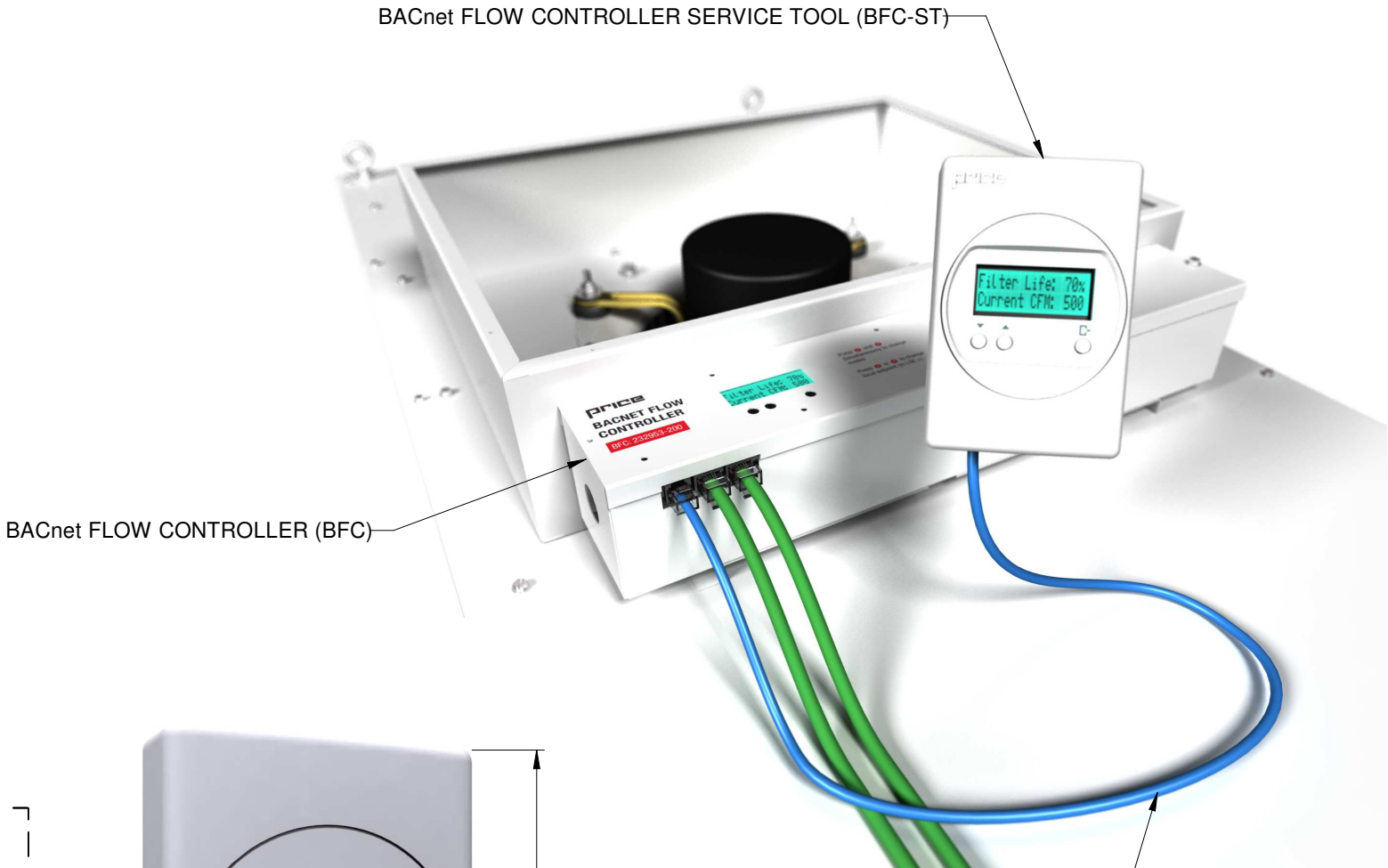
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FAN FILTER UNIT CONTROL SYSTEMS
BACNET FLOW CONTROLLER SERVICE TOOL (BFC-ST)



FEATURES:

- SERVICE TOOL CONNECTS TO THE RJ12 PORT ON THE BFC BOARD FOR FULL CONTROL UP TO 6 FEET AWAY FROM THE CONTROL PANEL. CONTROLS AND MENUS ARE THE SAME ON THE BFC BOARD AND THE SERVICE TOOL.
- PROVIDES A MEANS TO CONTROL THE BFC BOARD WHEN THERE IS INSUFFICIENT CLEARANCE FOR TRADITIONAL CONTROL PANEL ACCESS OR FOR EASIER CONTROLS ACCESS.
- NO ADDITIONAL POWER SUPPLY IS REQUIRED TO POWER THE BFC SERVICE TOOL.



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FAN FILTER UNIT CONTROL SYSTEMS
BACNET WEB SERVER DEVICES

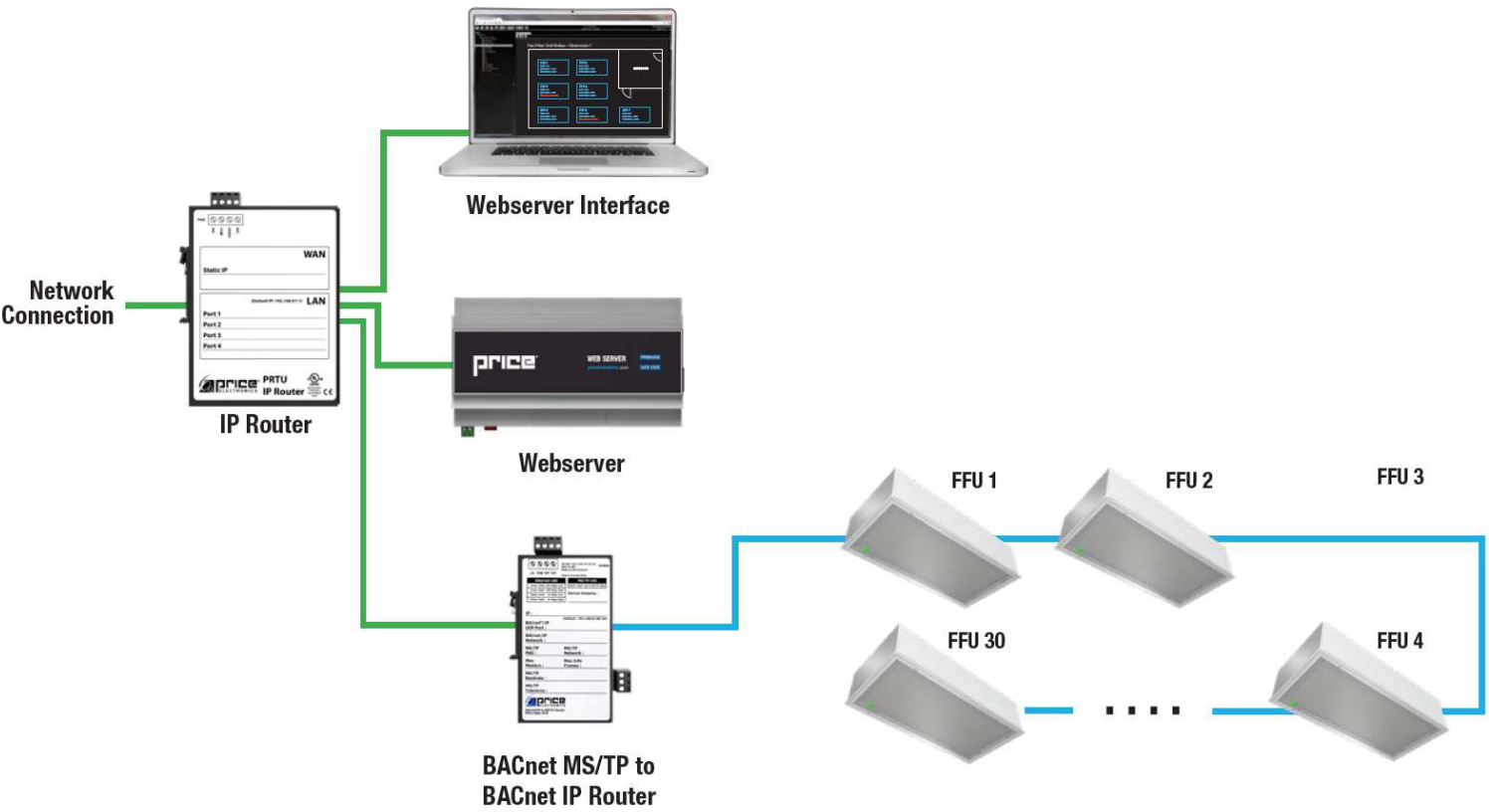
WEB SERVER

FEATURES:

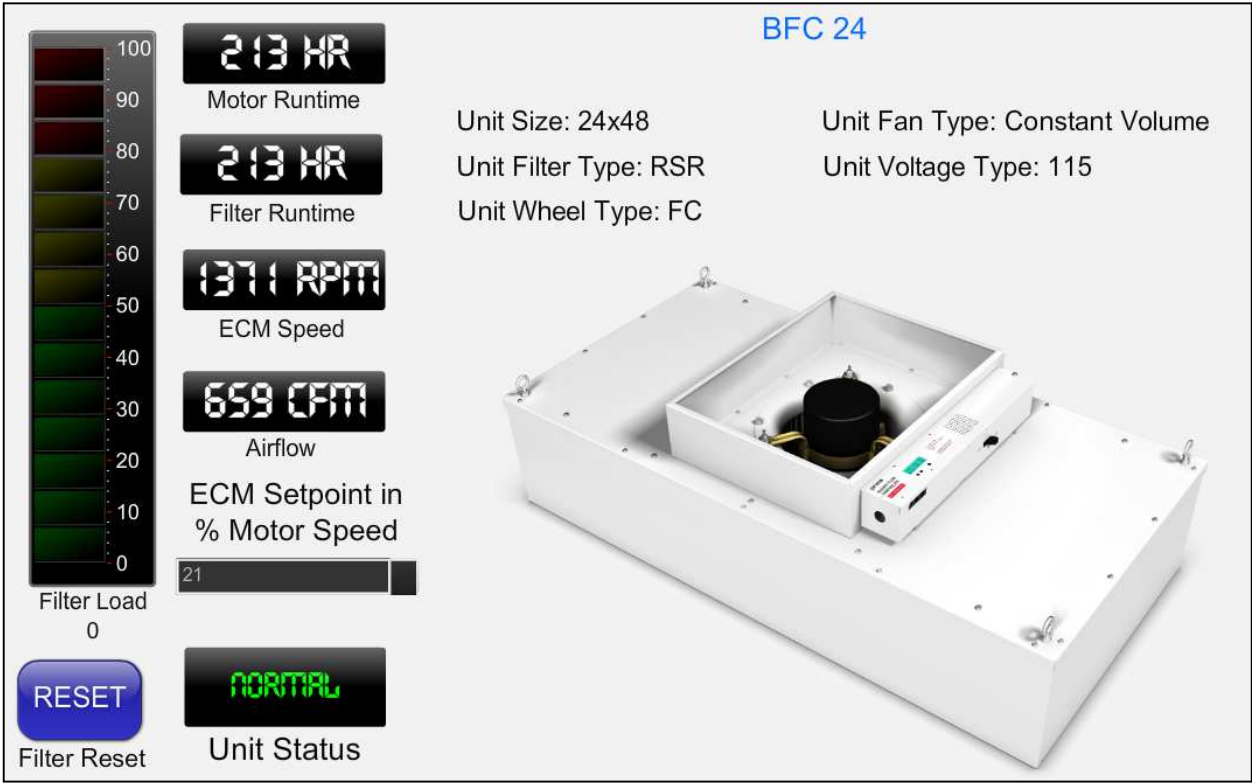
- INTERFACE TO BACnet MS/TP DEVICES IN BUILDING VIA WEB ADDRESS
- DISPLAY STATUS OF ETHERNET LAN VIA GREEN AND RED LEDs
- CAN BE CONFIGURED FOR REMOTE ACCESS VIA WEB ADDRESS
- ANIMATED GRAPHIC SCREENS (TO VIEW VARIABLES SUCH AS FILTER STATUS, CFM, FOR EACH FFU & MODIFY SET POINTS AS NEEDED



EXAMPLE WEB-BASED BACnet KROWN UNIT CONTROL SYSTEM:



EXAMPLE WEB SERVER GRAPHIC INTERFACE:



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FAN FILTER UNIT CONTROL SYSTEMS
BACNET DEVICES



BACnet ROUTER

FEATURES:

- CONNECTS BACnet IP/ETHERNET TO BACnet MS/TP SEGMENTS
- DISPLAYS STATUS OF POWER & ETHERNET VIA DIAGNOSTIC LEDs
- CAN BE CONFIGURED IN THE FIELD VIA WEB BROWSER



IP ETHERNET ROUTER

FEATURES:

- CONNECTS BACnet TO BUILDING NETWORK
- DISPLAYS STATUS OF POWER, ETHERNET LAN & WAN VIA DIAGNOSTIC LEDs
- CAN BE CONFIGURED IN THE FIELD VIA WEB BROWSER
- STATEFUL FIREWALL, PAT, NAT & PORT FORWARDING PROPERTIES



IP ETHERNET SWITCH

FEATURES:

- FIVE PORT UNMANAGED ETHERNET SWITCH PROVIDES100 Mbps PERFORMANCE ON ALL PORTS
- ACCEPTS EITHER CROSS-OVER OR STRAIGHT THROUGH CABLES USING AUTO-DMIX PROTOCOL

- THE TABLE BELOW SHOWS THE NUMBER OF DEVICES REQUIRED FOR A GIVEN NUMBER OF FAN FILTER UNITS IN A SYSTEM.
- MORE UNITS CAN BE SUPPORTED, CONTACT KEYSTONE PROJECT SUPPORT FOR MORE INFORMATION.
- ASSUMES TWO PORTS ON IP ROUTER ARE FILLED WITH BACnet ROUTERS (i.e. 60 KROWN UNITS TOTAL).

EXAMPLE SYSTEMS:

Maximum # of Units	QTY of BACnet Routers	QTY of IP Switches	QTY of IP Router	Web Server
30	1	0	1	1
60	2	0	1	1
90	3	0	1	1
120	4	1	1	1
150	5	1	1	1
180	6	1	1	1
210	7	2	1	1
240	8	2	1	1
270	9	2	1	1
300	10	3	1	1
330	11	3	1	1

- SEE THE **BACnet FLOW CONTROLLER MANUAL** FOR MORE INFORMATION ON CONTROL SYSTEM OPTIONS.



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