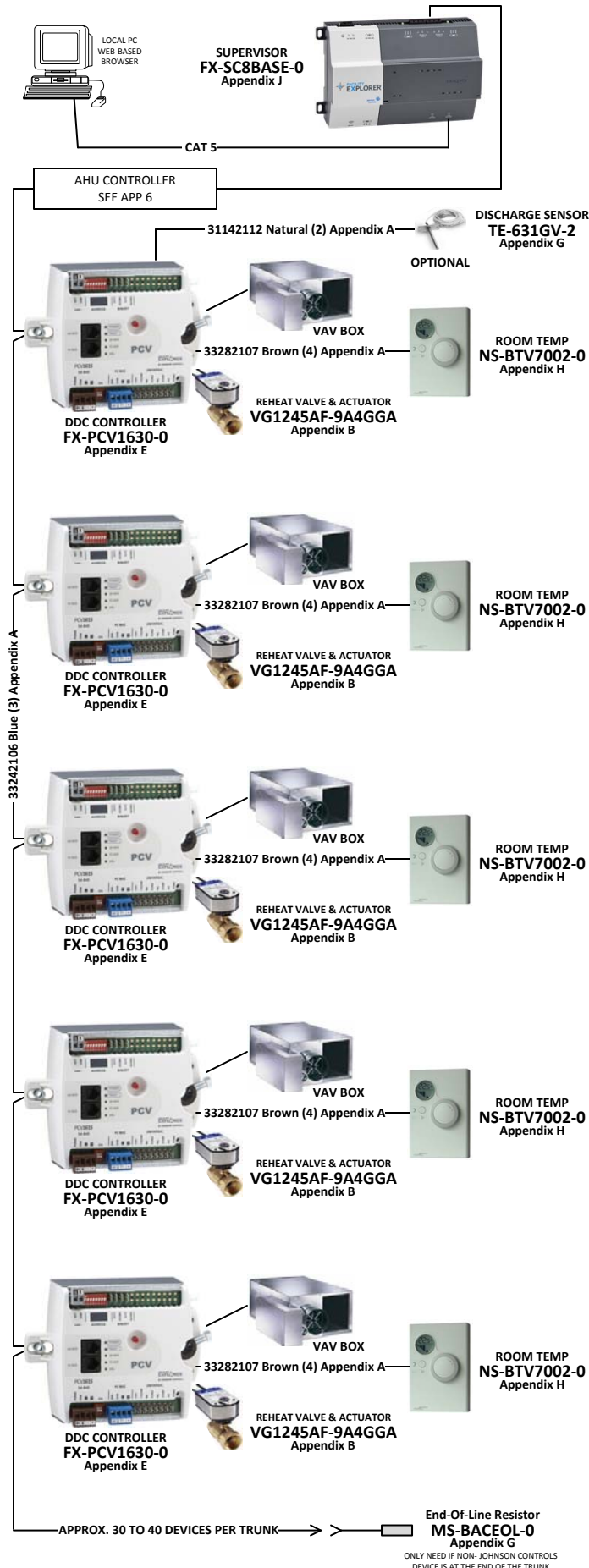


# WEB ACCESS SUPERVISOR NETWORK VAV BOX WITH REHEAT BACnet MS/TP COMMUNICATION BUS



## Appendix A

### Field Wire

<b>33242106</b>	<b>22/1.5 Pair Stranded / Shielded / Plenum / 1000' Reel in a Box / Blue</b>	<b>JCI BACnet / N2</b>
<b>33282107</b>	<b>22/2 Pair Stranded / Shielded / Plenum / 1000' Reel in a Box / Brown</b>	<b>SA BUS</b>
31146102	18/2 Stranded / Unshielded / Plenum / 500' Reel in a Box / Yellow	Input & Output
31142102	18/2 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Yellow	Input & Output
31146103	18/2 Stranded / Unshielded / Plenum / 500' Reel in a Box / Orange	Input & Output
31142103	18/2 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Orange	Input & Output
31146105	18/2 Stranded / Unshielded / Plenum / 500' Reel in a Box / Green	Input & Output
31142105	18/2 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Green	Input & Output
31146106	18/2 Stranded / Unshielded / Plenum / 500' Reel in a Box / Blue	Input & Output
31142106	18/2 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Blue	Input & Output
31146110	18/2 Stranded / Unshielded / Plenum / 500' Reel in a Box / Purple	Input & Output
31142110	18/2 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Purple	Input & Output
<b>31146112</b>	<b>18/2 Stranded / Unshielded / Plenum / 500' Reel in a Box / Natural</b>	<b>Input &amp; Output</b>
<b>31142112</b>	<b>18/2 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Natural</b>	<b>Input &amp; Output</b>
31266102	18/3 Stranded / Unshielded / Plenum / 500' Reel in a Box / Yellow	Input & Output
31262102	18/3 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Yellow	Input & Output
31266105	18/3 Stranded / Unshielded / Plenum / 500' Reel in a Box / Green	Input & Output
31262105	18/3 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Green	Input & Output
31266106	18/3 Stranded / Unshielded / Plenum / 500' Reel in a Box / Blue	Input & Output
31262106	18/3 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Blue	Input & Output
<b>31266112</b>	<b>18/3 Stranded / Unshielded / Plenum / 500' Reel in a Box / Natural</b>	<b>Input &amp; Output</b>
<b>31262112</b>	<b>18/3 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Natural</b>	<b>Input &amp; Output</b>
31156103	18/4 Stranded / Unshielded / Plenum / 500' Reel in a Box / Orange	Input & Output
31152103	18/4 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Orange	Input & Output
31156105	18/4 Stranded / Unshielded / Plenum / 500' Reel in a Box / Green	Input & Output
31152105	18/4 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Green	Input & Output
<b>31156112</b>	<b>18/4 Stranded / Unshielded / Plenum / 500' Reel in a Box / Natural</b>	<b>Input &amp; Output</b>
<b>31152112</b>	<b>18/4 Stranded / Unshielded / Plenum / 1000' Reel in a Box / Natural</b>	<b>Input &amp; Output</b>
31166105	18/6 Stranded / Unshielded / Plenum / 500' Reel in a Box / Green	Input & Output
31162105	18/6 Stranded / Unshielded / Plenum / 1000' Reel / Green	Input & Output
<b>31176112</b>	<b>18/6 Stranded / Unshielded / Plenum / 500' Reel in a Box / Natural</b>	<b>Input &amp; Output</b>
<b>31172112</b>	<b>18/6 Stranded / Unshielded / Plenum / 1000' Reel / Natural</b>	<b>Input &amp; Output</b>
31172110	18/8 Stranded / Unshielded / Plenum / 1000' Reel / Purple	Input & Output
<b>31172112</b>	<b>18/8 Stranded / Unshielded / Plenum / 1000' Reel / Natural</b>	<b>Input &amp; Output</b>

## Appendix B

VG1245AD	Ball Valve / 2W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 1.2
VG1245AE	Ball Valve / 2W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 1.9
VG1245AF	Ball Valve / 2W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 2.9
VG1245AG	Ball Valve / 2W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 4.7
VG1245AL	Ball Valve / 2W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 7.4
VG1245AN	Ball Valve / 2W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 11.7
VG1245BG	Ball Valve / 2W / .75" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 4.7
VG1245BL	Ball Valve / 2W / .75" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 7.4
VG1245BN	Ball Valve / 2W / .75" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 11.7
VG1245CL	Ball Valve / 2W / 1" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 7.4
VG1245CN	Ball Valve / 2W / 1" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 11.7
VG1245CP	Ball Valve / 2W / 1" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 18.7
VG1245DN	Ball Valve / 2W / 1.25" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 11.7
VG1245DP	Ball Valve / 2W / 1.25" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 18.7
VG1245DR	Ball Valve / 2W / 1.25" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 29.2
VG1245EP	Ball Valve / 2W / 1.5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 18.7
VG1245ER	Ball Valve / 2W / 1.5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 29.2
VG1245ES	Ball Valve / 2W / 1.5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 46.8
VG1245FR	Ball Valve / 2W / 2" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 29.2
VG1245FS	Ball Valve / 2W / 2" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 46.8
VG1245FT	Ball Valve / 2W / 2" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 73.7
VG1845AD	Ball Valve / 3W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 1.2/0.7
VG1845AE	Ball Valve / 3W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 1.9/1.2
VG1845AF	Ball Valve / 3W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 2.9/1.9
VG1845AG	Ball Valve / 3W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 4.7/2.9
VG1845AL	Ball Valve / 3W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 7.4/4.7
VG1845AN	Ball Valve / 3W / .5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 11.7/5.8
VG1845BG	Ball Valve / 3W / .75" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 4.7/2.9
VG1845BL	Ball Valve / 3W / .75" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 7.4/4.7
VG1845BN	Ball Valve / 3W / .75" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 11.7/5.8
VG1845CL	Ball Valve / 3W / 1" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 7.4/4.7
VG1845CN	Ball Valve / 3W / 1" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 11.7/7.4
VG1845CP	Ball Valve / 3W / 1" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 18.7/9.4
VG1845DN	Ball Valve / 3W / 1.25" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 11.7/7.4
VG1845DP	Ball Valve / 3W / 1.25" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 18.7/11.7
VG1845DR	Ball Valve / 3W / 1.25" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 29.2/14.8
VG1845EP	Ball Valve / 3W / 1.5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 18.7/11.7
VG1845ER	Ball Valve / 3W / 1.5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 29.2/18.7
VG1845ES	Ball Valve / 3W / 1.5" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 46.8/23.4
VG1845FR	Ball Valve / 3W / 2" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 29.2/18.7
VG1845FS	Ball Valve / 3W / 2" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 46.8/29.2
VG1845FT	Ball Valve / 3W / 2" / Stainless Steel Ball and Stem / 200 PSIG Close-off / Cv 73.7/36.8

Note: All valves listed are NPT

### ACTUATORS AND LINKAGES

VALVES	TYPE	LINKAGE	THERMAL SPACER	ACTUATOR	ASSEMBLY	ASSEMBLY for STEAM
0.5"	Non-spring return	M9000-551	M9000-561	M9106-GGA-2	Valve and +9A4GGA	Valve and H9A4GGA
.75"	Non-spring return	M9000-551	M9000-561	M9106-GGA-2	Valve and +9A4GGA	Valve and H9A4GGA
1"	Non-spring return	M9000-551	M9000-561	M9106-GGA-2	Valve and +9A4GGA	Valve and H9A4GGA
1.25"	Non-spring return	M9000-520	Built-in	M9106-GGA-2	Valve and +906GGA	Valve and +909GGA
1.5"	Non-spring return	M9000-520	Built-in	M9106-GGA-2	Valve and +906GGA	Valve and +909GGA
2"	Non-spring return	M9000-520	Built-in	M9109-GGA-2	Valve and +906GGA	Valve and +909GGA
0.5"	Spring return N.O.	M9000-560	M9000-561	M9203-GGA-2Z	Valve and +923GGA	Valve and H923GGA
0.5"	Spring return N.C.	M9000-560	M9000-561	M9203-GGA-2Z	Valve and +943GGA	Valve and H943GGA
.75"	Spring return N.O.	M9000-560	M9000-561	M9203-GGA-2Z	Valve and +923GGA	Valve and H923GGA
.75"	Spring return N.C.	M9000-560	M9000-561	M9203-GGA-2Z	Valve and +943GGA	Valve and H943GGA
1"	Spring return N.O.	M9000-560	M9000-561	M9203-GGA-2Z	Valve and +923GGA	Valve and H923GGA
1"	Spring return N.C.	M9000-560	M9000-561	M9203-GGA-2Z	Valve and +943GGA	Valve and H943GGA
1.25"	Spring return N.O.	M9000-560	M9000-561	M9208-GGA-2	Valve and +928GGA	Valve and H928GGA
1.25"	Spring return N.C.	M9000-560	M9000-561	M9208-GGA-2	Valve and +948GGA	Valve and H948GGA
1.5"	Spring return N.O.	M9000-560	M9000-561	M9208-GGA-2	Valve and +928GGA	Valve and H928GGA
1.5"	Spring return N.C.	M9000-560	M9000-561	M9208-GGA-2	Valve and +948GGA	Valve and H948GGA
2"	Spring return N.O.	M9000-560	M9000-561	M9208-GGA-2	Valve and +928GGA	Valve and H928GGA
2"	Spring return N.C.	M9000-560	M9000-561	M9208-GGA-2	Valve and +948GGA	Valve and H948GGA

Note: The spring return function is in reference to port A.

Note: All valves listed are NPT

## Appendix E

### PROGRAMMABLE CO

#### **FX-PCG1611-0**

FX-PCG1611-0ET

FX-PCG1611-0G

#### **FX-PCG1621-0**

FX-PCG1621-0G

#### **FX-PCG2611-0**

FX-PCG2611-0ET

FX-PCG2611-0G

#### **FX-PCG2621-0**

FX-PCG2621-0G

#### **FX-PCA2611-0**

FX-PCA2612-1

### TERMINAL BOX CONT

#### **FX-PCV1615-0**

#### **FX-PCV1630-0**

#### **FX-PCV1832-0**

### EXPANSION POINT M

#### **FX-PCX1711-0**

FX-PCX1711-0G

#### **FX-PCX2711-0**

FX-PCX2711-0G

FX-PCX2721-0

#### **FX-PCX3711-0**

FX-PCX3711-0G

FX-PCX3721-0

FX-PCX3731-0

#### **FX-PCX4711-0**

FX-PCX4711-0G

### LCD DIGITAL DISPLAY

#### **FX-DIS1710-0**

FX-DIS1710-0G

### NETWORK THERMOS

TEC2101-4

TEC2101-4+PIR

TEC2102-4

TEC2102-4+PIR

TEC2103-4

TEC2103-4+PIR

TEC2104-4

TEC2104-4+PIR

### NETWORK THERMOS

TEC2601-4

TEC2601-4+PIR

TEC2602-4

TEC2602-4+PIR

#### **TEC2603-4**

TEC2603-4+PIR

TEC2604-4

TEC2604-4+PIR

### ZONING SYSTEM THE

#### **TEC2647Z-3**

TEC2647Z-3+PIR

#### **TEC2664Z-3**

## Appendix E Cont.

### CONTROLLERS

**10-point General Purpose Programmable Controller with 2 UI, 1 BI, 3 BO, and 4 CO**

10-point General Purpose Programmable Controller with 2 UI, 1 BI, 3 BO, and 4 CO, Extended Temperature Version

10-point General Purpose Programmable Controller with 2 UI, 1 BI, 3 BO, and 4 CO, Buy American

**10-point General Purpose Programmable Controller with 2 UI, 1 BI, 3 BO, and 4 CO, with integral LCD/keypad**

10-point General Purpose Programmable Controller with 2 UI, 1 BI, 3 BO, and 4 CO, with integral LCD/keypad, Buy American

**17-point General Purpose Programmable Controller with 6 UI, 2 BI, 3 BO, 2 AO, and 4 CO**

17-point General Purpose Programmable Controller with 6 UI, 2 BI, 3 BO, 2 AO, and 4 CO, Extended Temperature Version

17-point General Purpose Programmable Controller with 6 UI, 2 BI, 3 BO, 2 AO, and 4 CO, Buy American

**17-point General Purpose Programmable Controller with 6 UI, 2 BI, 3 BO, 2 AO, and 4 CO, with integral LCD/keypad**

17-point General Purpose Programmable Controller with 6 UI, 2 BI, 3 BO, 2 AO, and 4 CO, with integral LCD/keypad, Buy American

**17-Point Advanced Application Programmable Controller with 6 UI, 2 BI, 4 CO, 3 triac type BO, and 2 AO; 24 VAC, FC Bus; SA Bus; Integral Real-Time****18-Point Advanced Application Programmable Controller with 5 UI, 4 BI, 4 CO, 2 SPDT relay type BO, and 3 SPST relay type BO; 24 VAC, FC Bus; SA**

### CONTROLLERS

**5-point BACnet Programmable 32-bit VAV Box Controller with integrated actuator and digital pressure sensor, 3 UI and 2 BO****8-point BACnet Programmable VAV Box Controller with integrated actuator and digital pressure sensor, 3 UI, 3 BO, and 2 CO****8-point N2 Programmable VAV Box Controller with integrated actuator and digital pressure sensor, 3 UI, 3 BO, and 2 CO**

### MODULES

**4-point Expansion I/O Module: 4 BI**

4-point Expansion I/O Module: 4 BI, Buy American

**6-point Expansion I/O Module: 2 UI, 2 UO, 2 RO**

6-point Expansion I/O Module: 2 UI, 2 UO, 2 RO, Buy American

10-point Expansion I/O Module: 8 UI, 2 AO

**12-point Expansion I/O Module: 4 UI, 4 UO, 4 RO**

12-point Expansion I/O Module: 4 UI, 4 UO, 4 RO, Buy American

16-point Expansion I/O Module: 16 BI

16-point Expansion I/O Module: 8 BI, 8 BO

**17-point Expansion I/O Module: 6 UI, 2 BI, 3 BO, 2 AO, 4 CO**

17-point Expansion I/O Module: 6 UI, 2 BI, 3 BO, 2 AO, 4 CO, Buy American

### S

**Local controller display for use with FX-PCG and FX-PCV**

Local controller display for use with FX-PCG and FX-PCV, Buy American

### TATS - N2 COMMUNICATION BUS

Single Stage 1H/1C

Single Stage 1H/1C - Occupancy Sensor

Heat Pump 3H/2C

Heat Pump 3H/2C - Occupancy Sensor

Multi Stage 2H/2C

Multi Stage 2H/2C - Occupancy sensor

Economizer Multi Stage 2H2C

Economizer Multi Stage 2H2C - Occupancy Sensor

### TATS - BACnet MS/TP COMMUNICATION BUS

Single Stage 1H/1C

Single Stage 1H/1C - Occupancy Sensor

Heat Pump 3H/2C

Heat Pump 3H/2C - Occupancy Sensor

**Multi Stage 2H/2C**

Multi Stage 2H/2C - Occupancy sensor

Economizer Multi Stage 2H2C

Economizer Multi Stage 2H2C - Occupancy Sensor

### RMOSTATS - BACnet MS/TP COMMUNICATION BUS

**ZONE CONTROLLER FOR; PROPORTIONAL ZONE DAMPER ON/OFF OR PROPORTIONAL REHEAT CONTROL**

ZONE CONTROLLER WITH; OCCUPANCY SENSOR FOR PROPORT ZONE DAMPER ON/OFF OR PROPORT REHEAT CONTROL

**ROOFTOP CONTROLLER FOR; CONTROL OF UP TO 2 STAGES OF HTG & 2 STAGES OF COOLING IN ROOF TOP**

## Appendix G

### TEMPERATURE ELEMENTS - NICKEL 1K OHM

TE-6310F-0	Flush Mount 80x120mm / Metal
TE-631GM-1	Duct Probe 4" / Metal
<b>TE-631GV-2</b>	<b>Duct Probe 4" / Flange Mount</b>
<b>TE-6311M-1</b>	<b>Duct Probe 8" / Metal</b>
<b>TE-6313P-1</b>	<b>Outdoor Mount with Sun Shield / Plastic</b>
<b>TE-6314P-1</b>	<b>Wall Mount / Plastic / use TE-1800-9600 Wall Plate Adapter</b>
TE-6315M-1	Duct Probe Averaging 8ft / Metal
TE-6316M-1	Duct Probe Averaging 17ft / Metal
<b>TE-6316P-1</b>	<b>Duct Probe Averaging 17ft / Plastic</b>
TE-631S-1	Strap-on Mount
<b>TE-631AM-1</b>	<b>Well Immersion Mount 6" / Metal</b>

### TEMPERATURE ELEMENTS - THERMISTOR 10K OHM Type II

TE-6360F-0	Flush Mount 80x120mm / Metal
TE-636GM-1	Duct Probe 4" / Metal
TE-636GV-2	Duct Probe 4" / Flange Mount
<b>TE-6361M-1</b>	<b>Duct Probe 8" / Metal</b>
<b>TE-6363P-1</b>	<b>Outdoor Mount with Sun Shield / Plastic</b>
TE-636S-1	Strap-on Mount
TE-636AM-1	Well Immersion Mount 6" / Metal

### WELLS

<b>TE-6300W-101</b>	<b>Well for 6" well immersion temperature element / Brass</b>
TE-6300W-102	Well for 6" well immersion temperature element / Stainless Steel

### HUMIDITY ELEMENTS - WITH TEMPERATURE ELEMENT - NICKEL 1K OHM

HE-67N2-0N0BT	Wall Mount / Plastic / 2% Accuracy / use TE-1800-9600 Wall Plate Adapter as needed
HE-67N2-0N00P	Duct Probe 6.25" / Plastic / 2% Accuracy
<b>HE-67N3-0N0BT</b>	<b>Wall Mount / Plastic / 3% Accuracy / use TE-1800-9600 Wall Plate Adapter as needed</b>
<b>HE-67N3-0N00P</b>	<b>Duct Probe 6.25" / Plastic / 3% Accuracy</b>

### CARBON DIOXIDE ELEMENTS (CO2)

CD-P00-00-0	Duct Mount 5" / Plastic / Range 0 to 2000PPM / Output 0 to 10VDC Default
CD-WA0-00-0	Wall Mount / Plastic / Range 0 to 2000PPM / Output 0 to 10VDC Default / Analog Temperature Output 0 to 10VDC (32 to 122 Deg F)
CD-WRD-00-0	Wall Mount / Plastic / Range 0 to 2000PPM / Output 0 to 10VDC Default / LCD Display / SPST Relay (30V .5A Class 2)

### CURRENT DEVICES

CSD-SF0C0-1	Solid Core / Fixed Threshold / Low Setpt 0.25A
CSD-SA1E0-1	Solid Core / Adj. Threshold / Low Setpt 1A / LED
CSD-SA1E1-1	Solid Core / Adj. Threshold / Low Setpt 1A / LED / SPST 24V N.O. Relay
CSD-CF0A0-1	Split Core / Fixed Threshold / Low Setpt 0.15A
CSD-CA1G0-1	Split Core / Adj. Threshold / Low Setpt 1.25A / LED
CTD-C3H00-1	Split Core / Multi Range 20-100-150A / 0-10VDC Output / Order Snap-On Relay CR-02400-01 Optional

### FREEZE PROTECTION

<b>A70GA-1C</b>	<b>Two Circuit Control / 20ft sensor / 5Deg F Differential</b>
<b>A70GA-2C</b>	<b>Two Circuit Control / 6in sensor / 3 to 30 Deg F Differential / Use WEL14A-602R immersion well as needed</b>
<b>A70HA-1C</b>	<b>Two Circuit Control / 20ft sensor / Manual Reset</b>
<b>A70HA-2C</b>	<b>Two Circuit Control / 6in sensor / Manual Reset / Use WEL14A-602R immersion well as needed</b>

### PRESSURE SWITCH - DIFFERENTIAL PRESSURE

<b>P32AC-2C</b>	<b>SPDT / 0.15 to 12 inWC / Adjustable Setpt / Mounting Bracket Included BKT229-1R</b>
<b>P32AF-2C</b>	<b>SPDT / 0.05 to 5 inWC / Adjustable Setpt / Mounting Bracket Included BKT229-1R</b>
<b>P74EA-8C</b>	<b>SPDT / 2 to 26 PSI Adjustable / 3.5 Fixed Diff / 3/8 in. Cap. With 1/4 in. Flare Nut</b>
<b>P74FA-1C</b>	<b>SPDT / 8 to 60 PSI Adjustable / 1.5 Fixed Diff / 1/4 in. Male Flare</b>
<b>P74FA-5C</b>	<b>SPDT / 8 to 60 PSI Adjustable / 1.5 Fixed Diff / 1/4 in. FNPT</b>

### PRESSURE SENSOR - DIFFERENTIAL PRESSURE

PWLX04S #	Multi Range 10/20/50/100 PSI - 5V/10V OUTPUT
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### PRESSURE ELEMENTS

P499VAP-101K	1/8 in. 27 NPT External Thread / 0 to 100 PSI Range / 0 to 10 VDC Output / 6-1/2 ft (2 m) wire harness
P499VCP-101K	1/4 in. SAE 45° Flare Internal Thread / 0 to 100 PSI Range / 0 to 10 VDC Output / 6-1/2 ft (2 m) wire harness
P499RAPS100K	1/8 in. 27 NPT External Thread / -10 to 100 PSI Range / .5 to 4.5 VDC Output / 6-1/2 ft (2 m) wire harness
P499RCPS100K	1/4 in. SAE 45° Flare Internal Thread / -10 to 100 PSI Range / .5 to 4.5 VDC Output / 6-1/2 ft (2 m) wire harness
<b>PXPLX01S #</b>	<b>Multi Range / Multi Output / LED Display / Panel Mount</b>
<b>PXDLX02S #</b>	<b>Multi Range / Multi Output / LED Display / Duct Mount 8in Probe</b>

# Non JCI Item

### EP (ELECTRIC to PNEUMATIC) DEVICES

<b>EP3031S2 #</b>	<b>Multi Range / Multi Output / LED Display / 0-25PSI Control Range / Manual Mode / Panel Mount</b>
<b>V11HGA-100</b>	<b>24V / ON-OFF / 1/4 in. Barb Connections in Common Port and Normally Closed Port; Normally Open Port is 1/8 in. NPT (Internal)</b>

# Non JCI Item

## Appendix H

NS Room Sensors			Setpt or	Occ Ovrđ	Screw Term			VAV	
Temperature Only	JCI Logo	LCD Display	W/C Adjust	Button	PIR Sensor	F/C Toggle	or Mod Jack	Addressable	Balancing
NS-BTB7001-0	Yes	Yes	Setpt	Yes	No	Yes	Mod Jack	No	No
NS-BTB7001-2	No	Yes	Setpt	Yes	No	Yes	Mod Jack	No	No
NS-BTB7002-0	Yes	Yes	Setpt	Yes	No	Yes	Screw Term	No	No
<b>NS-BTB7003-0</b>	<b>Yes</b>	<b>Yes</b>	<b>Setpt</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Screw Term</b>	<b>Yes</b>	<b>No</b>
NS-BTB7003-2	No	Yes	Setpt	Yes	No	Yes	Screw Term	Yes	No
NS-BTF7001-0	Yes	Yes	W/C	Yes	No	Yes	Mod Jack	No	No
NS-BTF7002-0	Yes	Yes	W/C	Yes	No	Yes	Screw Term	No	No
NS-BTN7001-0	Yes	No	None	No	No	No	Mod Jack	No	No
NS-BTN7001-2	No	No	None	No	No	No	Mod Jack	No	No
<b>NS-BTN7003-0</b>	<b>Yes</b>	<b>No</b>	<b>None</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>Screw Term</b>	<b>Yes</b>	<b>No</b>
NS-BTN7003-2	No	No	None	No	No	No	Screw Term	Yes	No
NS-BTP7001-0	Yes	No	W/C	Yes	No	No	Mod Jack	No	No
<b>NS-BTP7001-2</b>	<b>No</b>	<b>No</b>	<b>W/C</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>Mod Jack</b>	<b>No</b>	<b>No</b>
<b>NS-BTP7002-0</b>	<b>Yes</b>	<b>No</b>	<b>W/C</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>Screw Term</b>	<b>No</b>	<b>No</b>
<b>NS-BTP7003-0</b>	<b>Yes</b>	<b>No</b>	<b>W/C</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>Screw Term</b>	<b>Yes</b>	<b>No</b>
NS-BTV7001-0	Yes	Yes	Setpt	Yes	No	Yes	Mod Jack	No	Yes
<b>NS-BTV7002-0</b>	<b>Yes</b>	<b>Yes</b>	<b>Setpt</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Screw Term</b>	<b>No</b>	<b>Yes</b>
NS-MTB7001-0	Yes	Yes	Setpt	No	Yes	Yes	Mod Jack	No	No
NS-MTB7002-0	Yes	Yes	Setpt	No	Yes	Yes	Screw Term	No	No
NS-MTL7001-0	Yes	No	None	Yes	Yes	No	Mod Jack	No	No
NS-MTL7002-0	Yes	No	None	Yes	Yes	No	Screw Term	No	No

**Note:** Models shown are Vertical Wallbox Mounted (120mm x 80mm). Surface Mount Models (80mm x 80mm) are available. See JCI catalog

Temperature and RH		LCD Display	Setpt or	Occ Ovrđ	Screw Term			RH Element	
	JCI Logo	RH Display	W/C Adjust	Button	PIR Sensor	F/C Toggle	or Mod Jack	Addressable	Accuracy
NS-BHB7001-0	Yes	Yes, No	Setpt	Yes	No	Yes	Mod Jack	No	3%
NS-BHB7002-0	No	Yes, No	Setpt	Yes	No	Yes	Screw Term	No	3%
NS-BHB7003-0	Yes	Yes, No	Setpt	Yes	No	Yes	Screw Term	Yes	3%
NS-BHN7001-0	Yes	None	None	No	No	No	Mod Jack	No	3%
NS-BHN7001-2	No	None	None	No	No	No	Mod Jack	No	3%
NS-BHP7001-0	Yes	None	W/C	Yes	No	No	Mod Jack	No	3%
NS-BPB7001-0	Yes	Yes, No	Setpt	Yes	No	Yes	Mod Jack	No	2%
NS-BPB7002-0	Yes	Yes, No	Setpt	Yes	No	Yes	Screw Term	No	2%
NS-BPB7003-0	Yes	Yes, No	Setpt	Yes	No	Yes	Screw Term	Yes	2%
NS-MHL7001-0	Yes	No, No	None	Yes	Yes	No	Mod Jack	No	3%
NS-MHL7002-0	Yes	No, No	None	Yes	Yes	No	Screw Term	No	3%
NS-BHR7101-0	Yes	Yes, Yes	Setpt	Yes	No	Yes	Mod Jack	No	3%
<b>NS-BHR7103-0</b>	<b>Yes</b>	<b>Yes, Yes</b>	<b>Setpt</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Screw Term</b>	<b>Yes</b>	<b>3%</b>

**Note:** Models shown are vertical wallbox mounted (120mm x 80mm). Surface mount models (80mm x 80mm) are available. See JCI catalog

**Note:** Models with LCD and RH Display - Field selectable default display.

NS Room Sensors			Setpt or	Occ Ovrđ	Screw Term			
Motion Detection	JCI Logo	LCD Display	W/C Adjust	Button	PIR Sensor	F/C Toggle	or Mod Jack	Addressable
NS-MNN7001-0	Yes	No	None	No	Yes	No	Mod Jack	No
NS-MNN7003-0	Yes	No	None	No	Yes	No	Screw Term	Yes

**Note:** Models shown have no Temperature or Humidity.

Carbon Dioxide (CO2)		LCD Display	Setpt or	Occ Ovrđ	Screw Term			Addressable	Range
	JCI Logo		W/C Adjust	Button	PIR Sensor	F/C Toggle	Connection		
NS-BCN7004-0	Yes	No	None	No	No	No	Screw Term	212 to 219 0 to 2,000 PPM	
NS-BCN7004-2	No	No	None	No	No	No	Screw Term	212 to 219 0 to 2,000 PPM	

**Note:** Models shown are vertical wallbox mounted (120mm x 80mm). Models shown also have Modular Jack connection

NS Room Sensors			Setpt or	Occ Ovrđ	Screw Term			Addressable	Faceplate
Flush Mount	JCI Logo	LCD Display	W/C Adjust	Button	PIR Sensor	F/C Toggle	or Mod Jack		
<b>NS-FTN7003-0</b>	<b>Yes</b>	<b>No</b>	<b>None</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>Screw Term</b>	<b>200 to 203</b>	<b>L14mm x 70mm</b>
NS-FTN7003-2	No	No	None	No	No	No	Screw Term	200 to 203	L14mm x 70mm

**Note:** Models shown have a temperature range of 32F to 104F.

Sensors Duct Probe		LCD Display	Setpt or	Occ Ovrđ	Screw Term			Addressable	Probe length
	JCI Logo		W/C Adjust	Button	PIR Sensor	F/C Toggle	or Mod Jack		
NS-DTN7043-0	Yes	No	None	No	No	No	Screw Term	204 to 211 4"	
<b>NS-DTN7083-0</b>	<b>Yes</b>	<b>No</b>	<b>None</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>Screw Term</b>	<b>204 to 211 8"</b>	

**Note:** Models shown have a 10ft wiring Lead Included.

## Appendix J- Jace

### Tridium Based Supervisors

LP-FX3011E-0	FX30E with 256 MB RAM, 128 MB flash, two Ethernet ports, one RS-232 port, one RS-485 port, one NDIO Port, two comm card option slots, onboard SRAM, Niagara driver, N2 driver, oBix driver, embedded FX Workbench, embedded web UI
LP-FX3021E-0	FX30E with 256 MB RAM, 128 MB flash, two Ethernet ports, one RS-232 port, one RS-485 port, one NDIO Port, two comm card option slots, on board SRAM, Niagara driver, N2 driver, BACnet MS/TP driver, oBix driver, embedded FX Workbench, embedded web UI
LP-FX6011E-0	FX60E with 128 MB RAM, 128 MB flash, two Ethernet ports, one RS-232 port, one RS-485 port, one NDIO Port, two comm card option slots, on board SRAM, Niagara driver, N2 driver, oBix driver, embedded FX Workbench, embedded web UI
LP-FX6021E-0	FX60E with 128 MB RAM, 128 MB flash, two Ethernet ports, one RS-232 port, one RS-485 port, one NDIO Port, two comm card option slots, on board SRAM, Niagara driver, N2 driver, BACnet MS/TP driver, oBix driver, embedded FX Workbench, embedded web UI
LP-FX7011N-0	FX70 with 1 GB RAM/1 GB Flash, two 1 Gb Ethernet ports, one RS-485 serial port, one RS-232 serial port, two USB ports, two communication card option slots, internal battery backup, Niagara driver, N2 driver, oBix driver, embedded FX Workbench, embedded Web UI.
LP-FX7021N-0	FX70 with 1 GB RAM/1 GB Flash, two 1 Gb Ethernet ports, one RS-485 serial port, one RS-232 serial port, two USB ports, two communication card option slots, internal battery backup, Niagara driver, N2 driver, BACnet MS/TP driver, oBix driver, embedded FX Workbench, embedded Web UI.
LP-FXPMUS-0	Power module for FX30/FX60/FX70: 90-240 VAC, 50/60 Hz, U.S. wall adapter
LP-FXPM24-0	Power module for FX30/FX60/FX70: 24 VAC/DC, DIN rail mountable
LP-FXRS485-0	Dual port RS-485 communication card for FX Supervisory Controllers: electrically isolated, two 3-position removable screw-terminal connector plugs
LP-FXLONFTT-1	LON communication card for FX Supervisory Controllers: 78 kbps, FTT-10A, 2-position removable screw-terminal connector plug. Does not include LON driver.
LP-FXWTC-0	Wireless TEC Option Card for FX20/FX60. Includes direct mount antenna
TEC20-RA-1	Remote Antenna for TEC Option Card for use when required by physical installation, such as when FX20/FX60 is installed inside a metal cabinet
LP-FX70WIFI-0	Wi-Fi Mini-PCI option card for FX70
LP-FXSRAM-0	Static RAM option card: provides battery-less backup for FX Supervisory Controllers
LP-FXNDIO16-0	16 channel input/output module for FX20/FX60/FX70 Supervisory Controllers. Includes 8 universal inputs, 4 relay outputs, and 4 0-10 V analog outputs
LP-FXNDIO34-0	34 channel input/output module for FX20/FX60/FX70 Supervisory Controllers: Includes 16 universal inputs, 10 relay outputs, and 8 0-10 V analog outputs. Also provides power to FX20/FX60 using externally connected 24 VAC transformer or 24 VDC power supply.
LP-FXRIO16-0	16 channel remote input/output module for FX Supervisory Controllers: Includes 8 universal inputs, 4 relay outputs, and 4 0-10 V analog outputs. Can be mounted up to 4,000 ft from host FX Supervisory Controller (over RS-485).
LP-FX60EX256-0	License enabling 256 Mb RAM for 1 FX60
LP-FXBACIPC-0	License enabling BACnet IP client (import) driver for one FX Supervisory Controller
LP-FXBACIPS-0	License enabling BACnet IP server (export) driver for one FX Supervisory Controller
LP-FXBACMS-0	License enabling BACnet MS/TP driver for one FX Supervisory Controller
LP-FXLON-0	License enabling LonWorks twisted pair driver for one FX Supervisory Controller
LP-FXLONIP-0	License enabling LON IP driver for one FX Supervisory Controller
LP-FXSMS-0	License enabling Simple Messaging Service for 1 FX Supervisory Controller or 1 FX Server

### Server Software

LP-FXWS-3	License enabling 3-device FX Server. Allows integration of up to three FX Supervisory Controllers. Supports 32-bit or 64-bit Windows computer platforms. Includes Niagara Historical Database, FX Workbench, Niagara driver, and oBix client/server driver (only for connecting to Niagara-based controllers). Order (LP-FXWB-COPY) or download software separately.
LP-FXWS-100	License enabling 100-device FX Server. Allows integration of up to 100 FX Supervisory Controllers. Supports 32-bit or 64-bit Windows computer platforms. Includes Niagara Historical Database, FX Workbench, Niagara driver, and oBix client/server driver (only for connecting to Niagara-based controllers). Order (LP-FXWB-COPY) or download software separately.
LP-FXWS-UNL	License enabling unrestricted FX Server. Allows integration of an unrestricted number of FX Supervisory Controllers (actual number of FX Supervisory Controllers will be limited only by the power of the host computer platform) Supports 32-bit or 64-bit Windows computer platforms. Includes Niagara Historical Database, FX Workbench, Niagara driver, and oBix client/server driver (only for connecting to Niagara-based controllers). Order (LP-FXWB-COPY) or download software separately.
LP-FXWSU-100	License update to convert a three-device FX Server license to a 100-device FX Server license
LP-FXWSU-UNL	License update to convert a 100-device FX Server license to an unrestricted FX Server license
LP-FXWB-COPY	FX Supervisory Controller family software, delivered on DVD. Contains installation images for FX Server, FX Workbench, and FX Alarm Portal Client. Licenses not included. Order licenses separately.