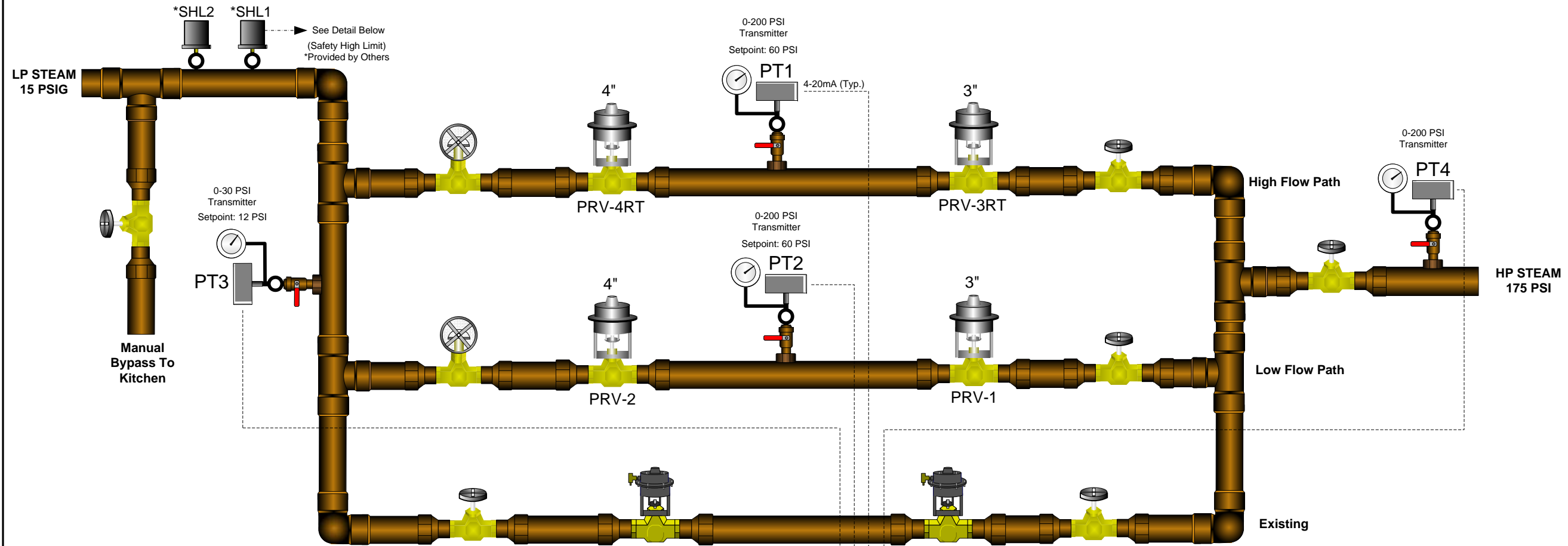


Main Bldg. Steam Station Flow Diagram



Steam Station Control System - Sequence of Operation:

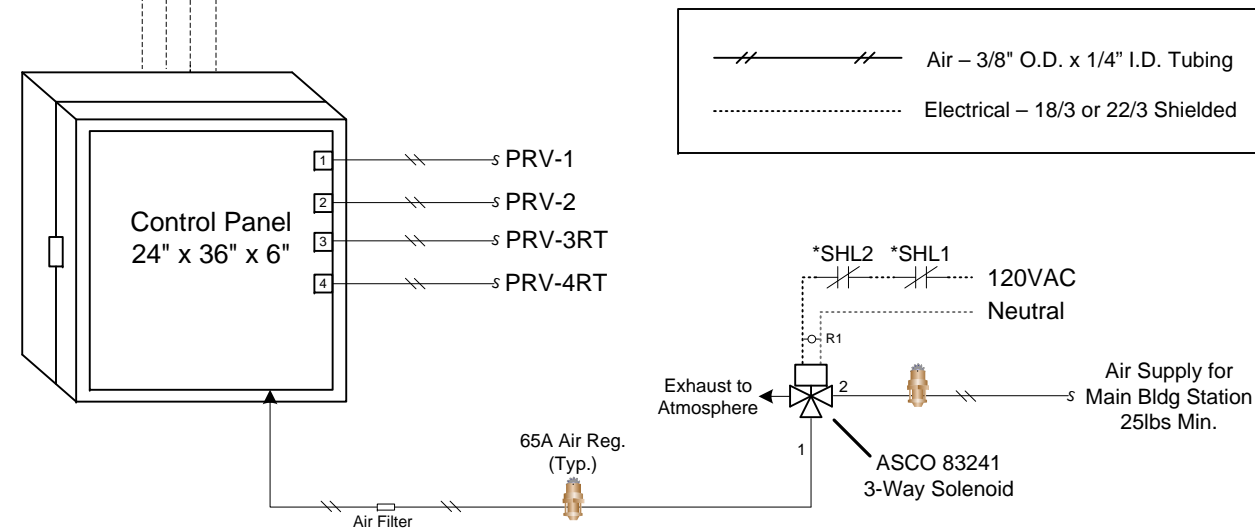
The steam station is designed to reduce the incoming Con Ed provided 175psi (adj) down to 60 psi (adj) at the intermediate section of the station on both the low and high flow lines. The intermediate section of the station is between the intermediate valve and the low-pressure valve. Once reduced to 60 psi (adj) the steam station then reduces the pressure down to 15psi (adj). The 15 psi is monitored by the building steam pressure transmitter (PT3) located downstream of the low-pressure valve. Once reduced to 15psi (adj) the operator has the flexibility to adjust the setpoint either up or down based on current outdoor conditions and building load.

Safeties:

If at any point the pressure at the station's low-pressure building transmitter rises above the building pressure high limit then the intermediate valves shall begin to close. The building pressure high limit is set 8 psi (adj) above the building pressure setpoint. As the building pressure drops below the hi limit setpoint the normal building pressure setpoint algorithm shall take over control.

If at any point the building low-pressure transmitter fails then each of the intermediate pressure control valves shall modulate to maintain the intermediate pressure at the current building pressure setpoint (15psi adj). Once the systems building pressure sensor has returned to normal then the intermediate-pressure setpoint shall return to 60psi.

If the intermediate psi sensor in both the hi flow and low flow line fails or is not able to read a value above 25 psi then the building valve shall be disabled and closed. This is to prevent the building valve from opening 100% and trying to achieve a pressure that it cannot reach. This prevents the building from over pressurizing if the main steam valve is shutoff and then suddenly turned back on. This informs the system that steam is not available and prevents the PID from loop wind up.



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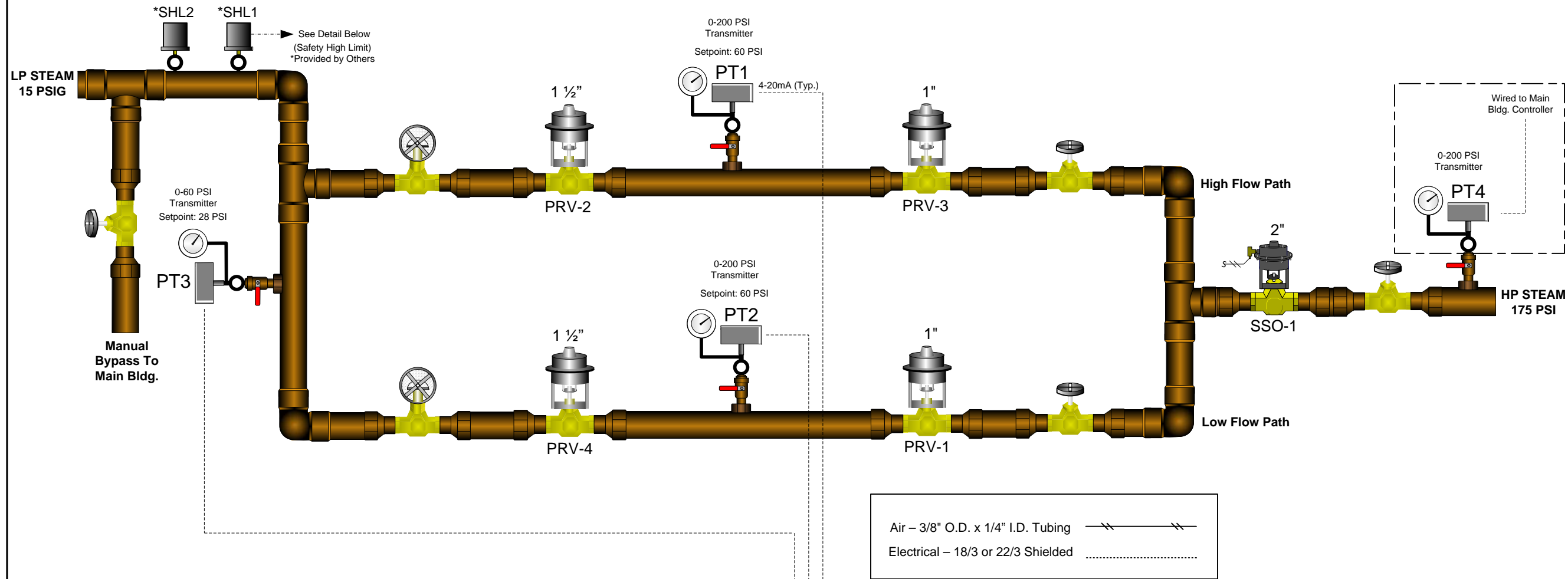
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PAGE:

2 of 5

REV	DATE	REVISIONS	INIT

Kitchen Steam Station Flow Diagram



Steam Station Control System - Sequence of Operation:

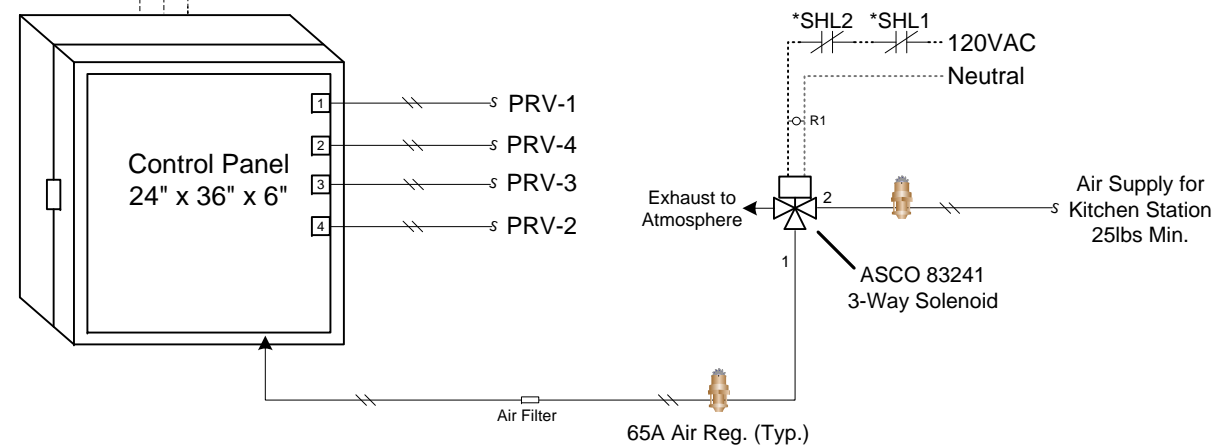
The steam station is designed to reduce the incoming Con Ed provided 175psi down to 60 psi (adj) at the intermediate section of the station on both the low and high flow lines. The intermediate section of the station is between the intermediate valve and the low-pressure valve. Once reduced to 60 psi (adj) the steam station then reduces the pressure down to 20psi (adj). The 20 psi is monitored by the building steam pressure transmitter (PT3) located downstream of the low-pressure valve. Once reduced to 20psi (adj) the operator has the flexibility to adjust the setpoint either up or down based on current outdoor conditions and building load.

Safeties:

If at any point the pressure at the station's low-pressure building transmitter rises above the building pressure high limit then the intermediate valves shall begin to close. The building pressure high limit is set 8 psi (adj) above the building pressure setpoint. As the building pressure drops below the hi limit setpoint the normal building pressure setpoint algorithm shall take over control.

If at any point the building low-pressure transmitter fails then each of the intermediate pressure control valves shall modulate to maintain the intermediate pressure at the current building pressure setpoint (20psi adj). Once the systems building pressure sensor has returned to normal then the intermediate-pressure setpoint shall return to 60psi (adj).

If the intermediate psi sensor in both the hi flow and low flow line fails or is not able to read a value above 25 psi then the building valve shall be disabled and closed. This is to prevent the building valve from opening 100% and trying to achieve a pressure that it cannot reach. This prevents the building from over pressurizing if the main steam valve is shutoff and then suddenly turned back on. This informs the system that steam is not available and prevents the PID from loop wind up.



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PAGE: 3 of 5	

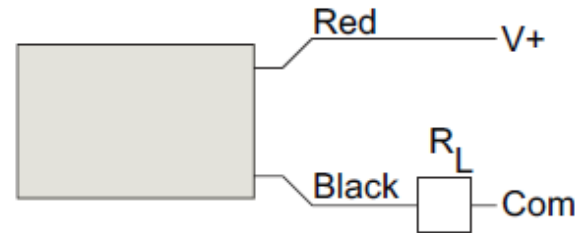
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Installation Details

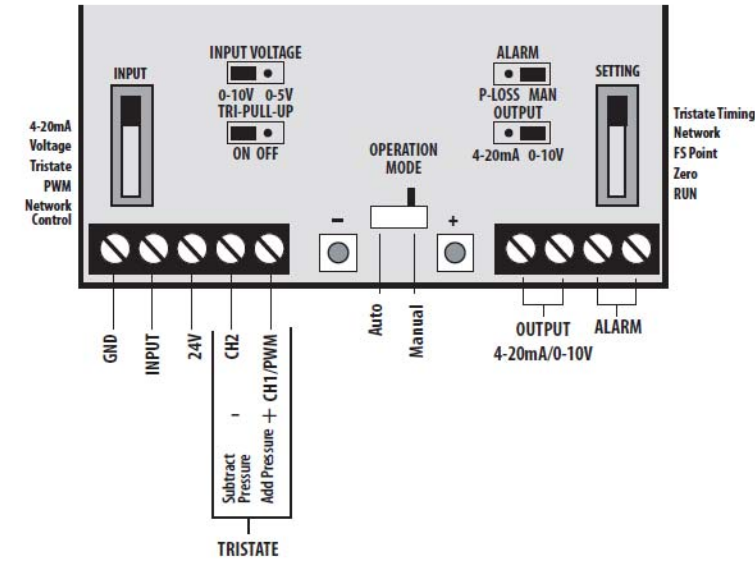


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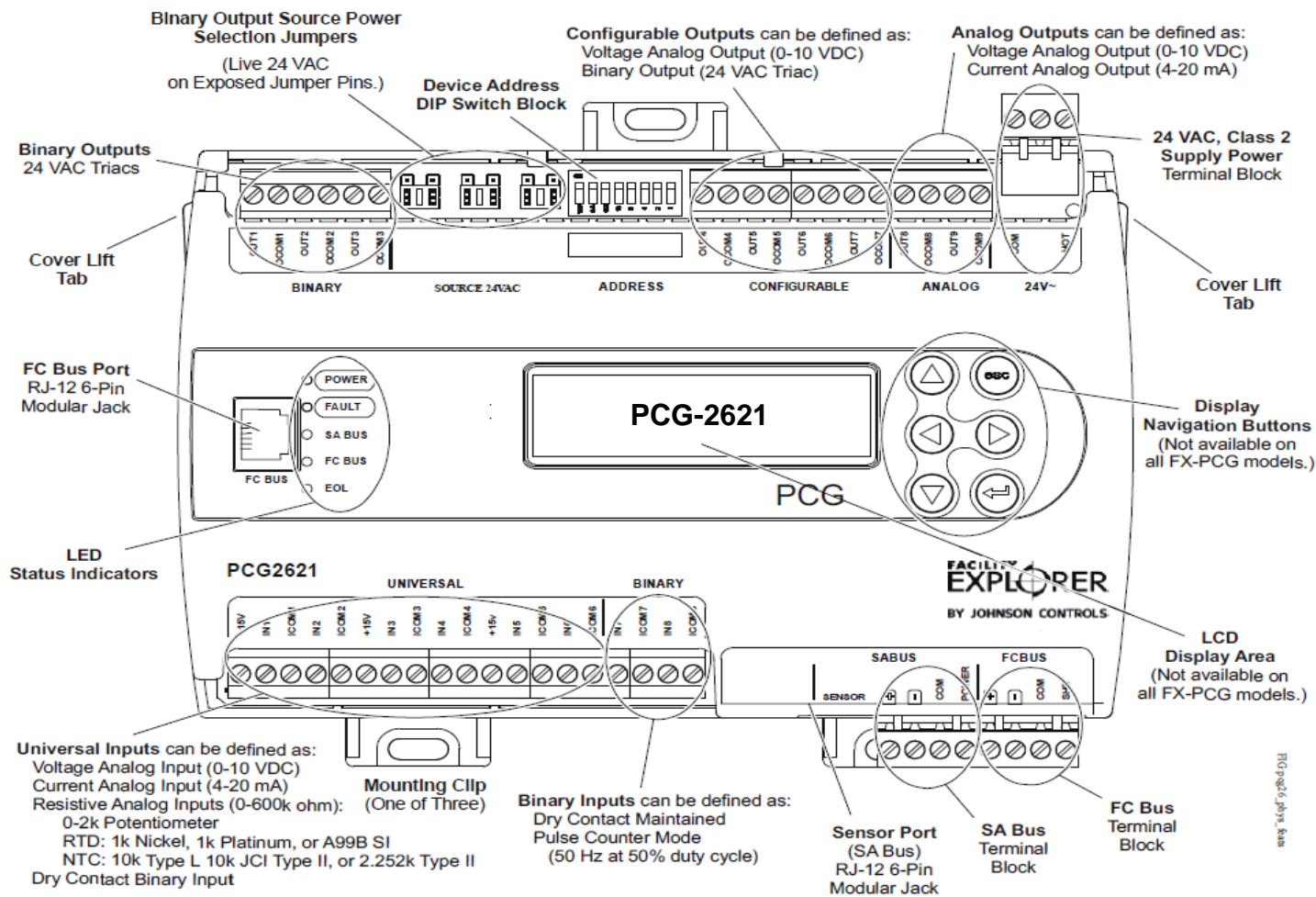
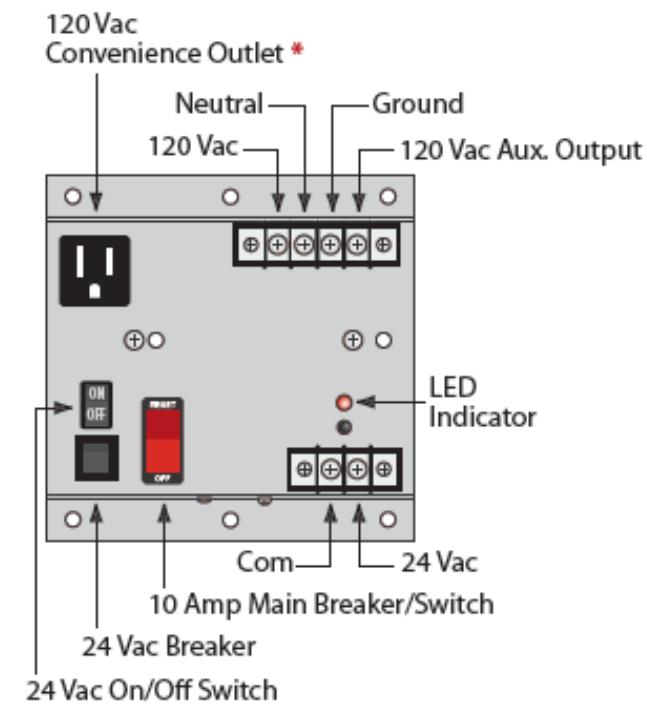
A. - PT Installation Details



B. - E/P Installation Details



C. - PS1 Installation Details



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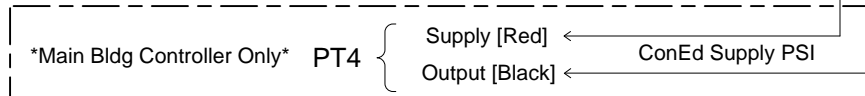
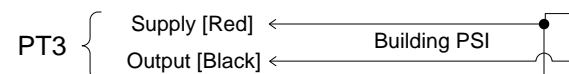
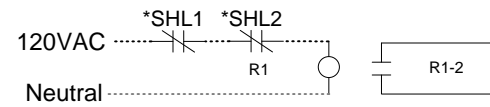
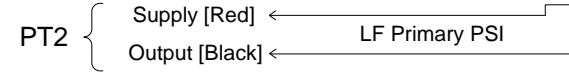
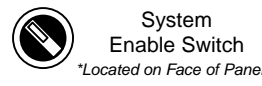
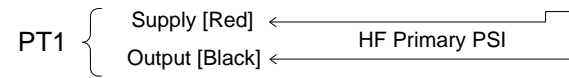
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PAGE: 4 of 5

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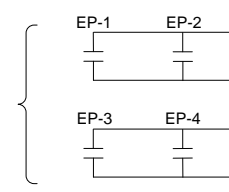
Wiring Diagram (Typ. 2)

Reference Page 4 Section A.

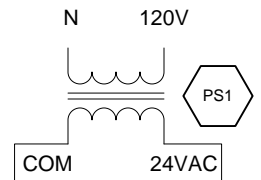
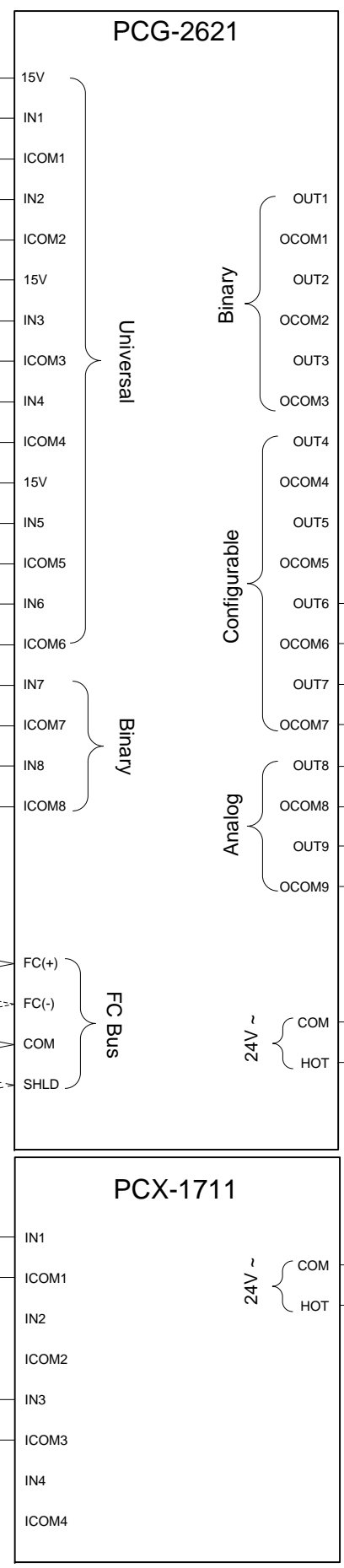
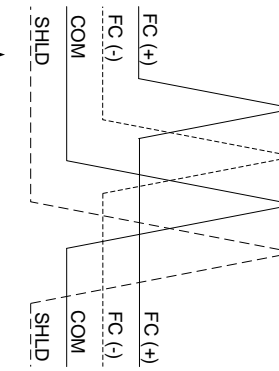


Reference Page 4 Section B.

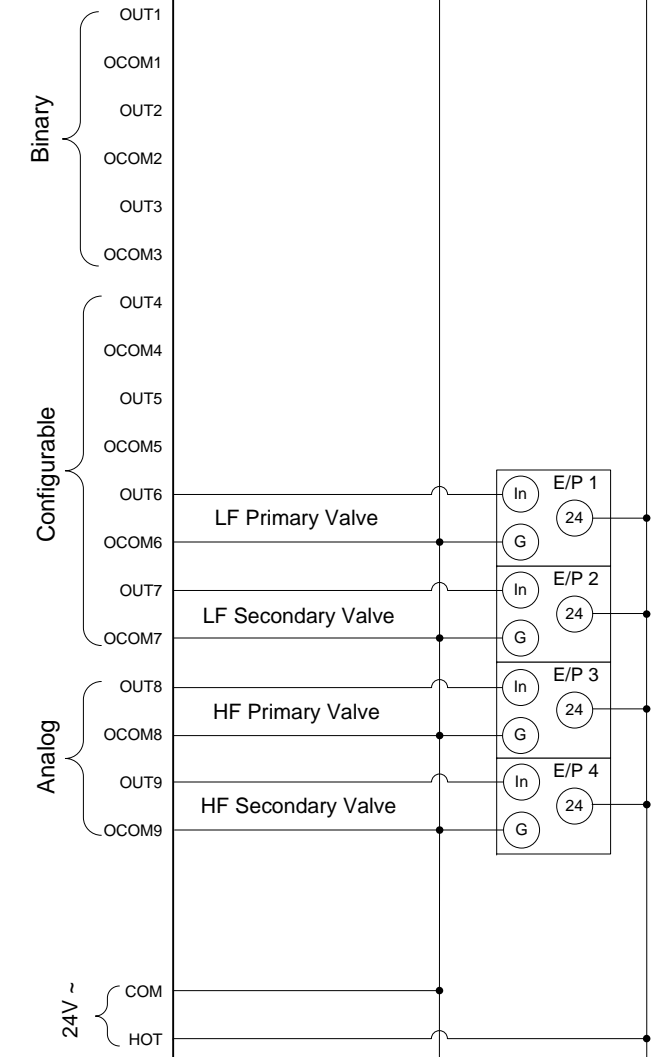
Loss of Pressure Alarms



*Do not attach to ground if shield is used



Reference Page 4 Section C.



Reference Page 4 Section B.



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Panel Wiring Diagram

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