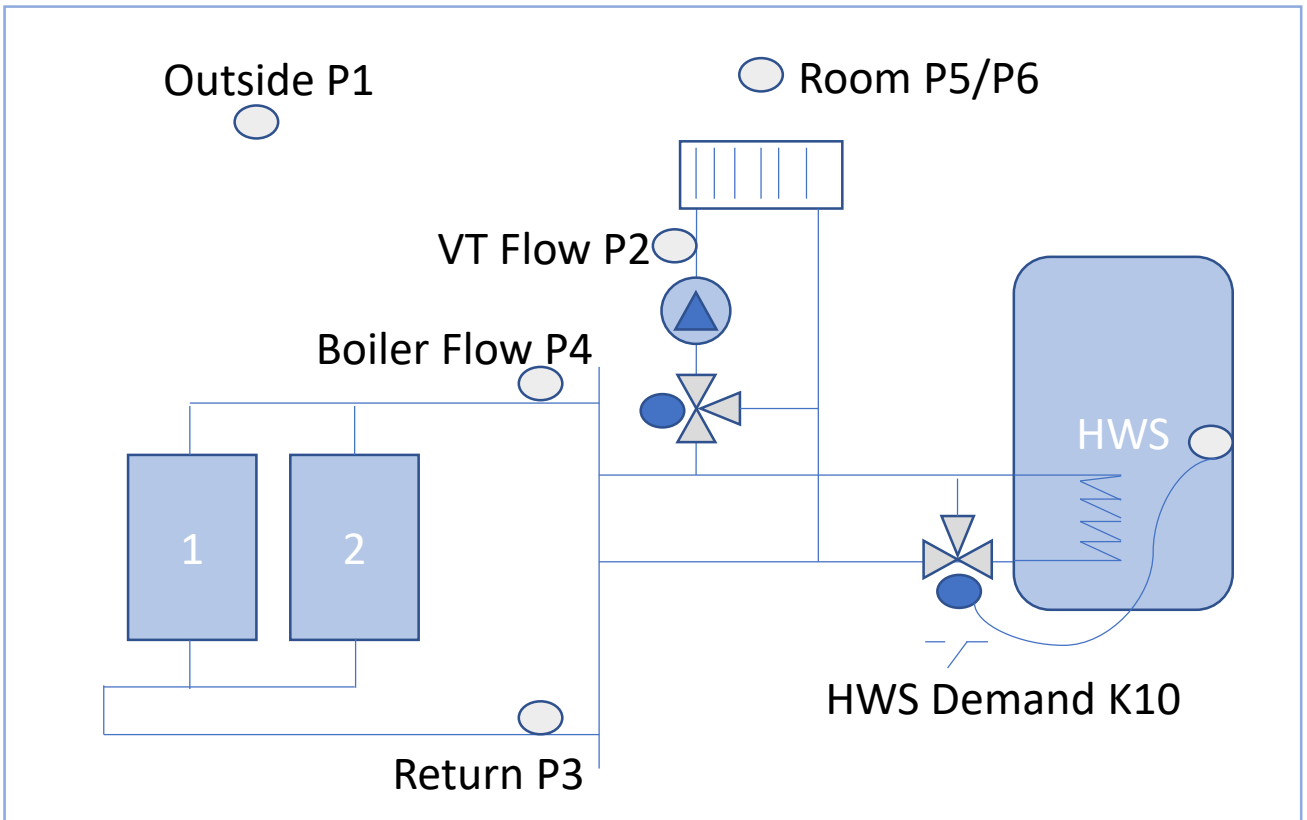


BASIC SETUP APP 1: School

2 off Boilers, VT Valve Compensation - HWS Calorifier Linked

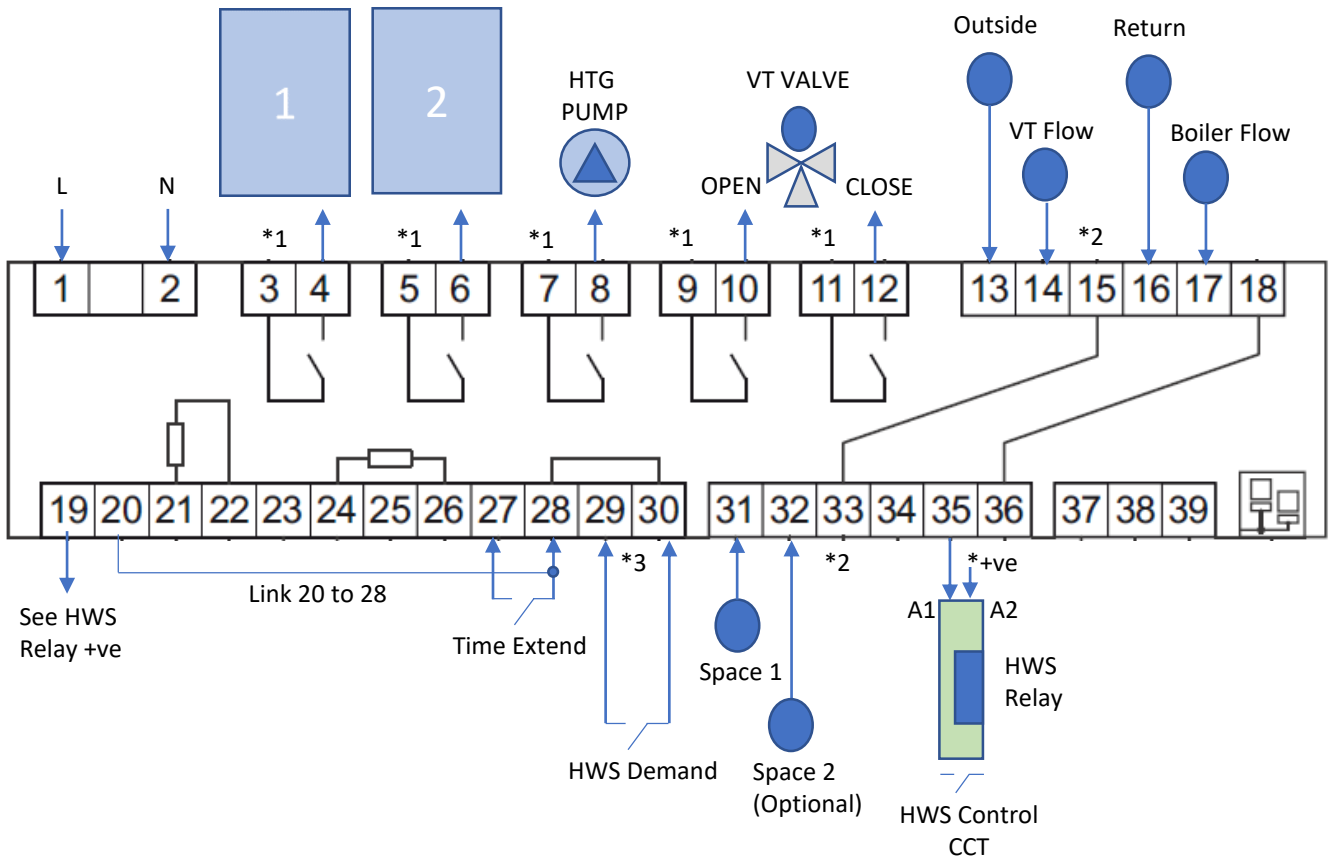


Setup	Option	Selection
Overrides	HWS Extend	<i>Enabled (Default)</i>
	Aux Switch Input	<i>HWS Demand</i>
Heating	Mode	<i>Optimiser/Compensator (Default)</i>
	VT Setpoint	<i>Self-Adaptive (Default)</i>
	Optimum Off	<i>Enabled (Default)</i>
	HWS Priority	<i>No Priority (Default)</i>
	Flow Eco Mode	<i>Active (Default)</i>
	Opt Adapt	<i>Enabled (Default)</i>
HWS	Boiler Link	<i>Boiler Linked</i>
Boilers	Number of Boilers	2
	Rotate	<i>Enabled</i>
	Bpro Used	<i>No (Default)</i>
	Boiler Flow Sensor	<i>Yes (Default)</i>
Connections	0-10v Output	<i>VT Valve (Default)</i>
	PMPCO Used	<i>No (Default)</i>

TYPICAL SETTINGS TO CHANGE FOR APP 1: School

2 off Boilers, VT Valve Compensation - HWS Calorifier Linked

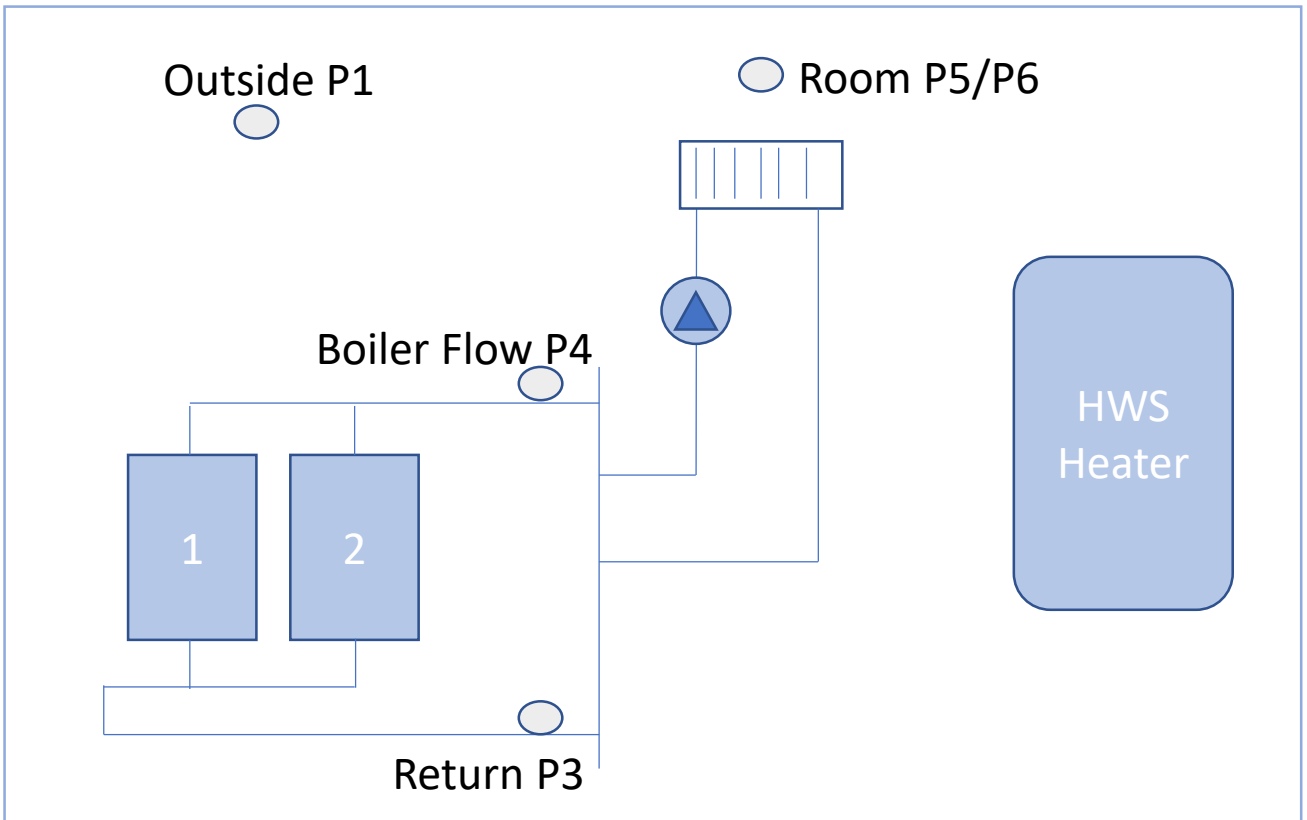
Parameter	Default	Range	Typical Setting
Origin	20°C	10°C - 80°C	For Radiators 20°C, maybe 35°C if building is inefficient/cold.
VT Ratio	3	0 – 10	Influence on the Heating Flow Set point based on 1°C change in Outside air temperature. 3 is typical but if the Origin is raised reduce the ratio to suit. E.g. Ratio = Flow Max-Flow Min/Origin
Compensated Flow Low	20°C	0°C – 85°C	Minimum value of compensated flow temperature during compensation. 20 is typical in this scheme
Compensated Flow High	82°C	10°C – Max = Boiler High Value	Check access to the radiators and consider the use of the space. Children etc. Check with heating system design requirements.
Boiler Low	35°C	5°C to 95°C	Set the lowest and highest running temp permitted by the boilers and heating system.
Boiler High	82°C	5°C to 95°C	
Space Set point	20°C	5°C – 50°C	The desired temperature for the controlled space. Make sure this can be achieved. Check all equipment can allow this, e.g. TRV, Local Thermostats, Sensor location.
VT Valve Time (0 to 100%)	120s	10 to 600s	Check your actuator running time from open to close.
Outside High Set point	18°C	10°C - 50°C	Typically 18°C but sometimes this is changed to suit the customers comfort or economic goals.



- *1- Connect required switch signal for the connected appliance
- *2 – Common Sensor Ground Connection. Do not connect Screens or Earth.
- *3 – Voltage Free. Close to request heat from Boilers to heat HWS

BASIC SETUP APP 2: School

2 off Boilers Direct Compensated - HWS Independent

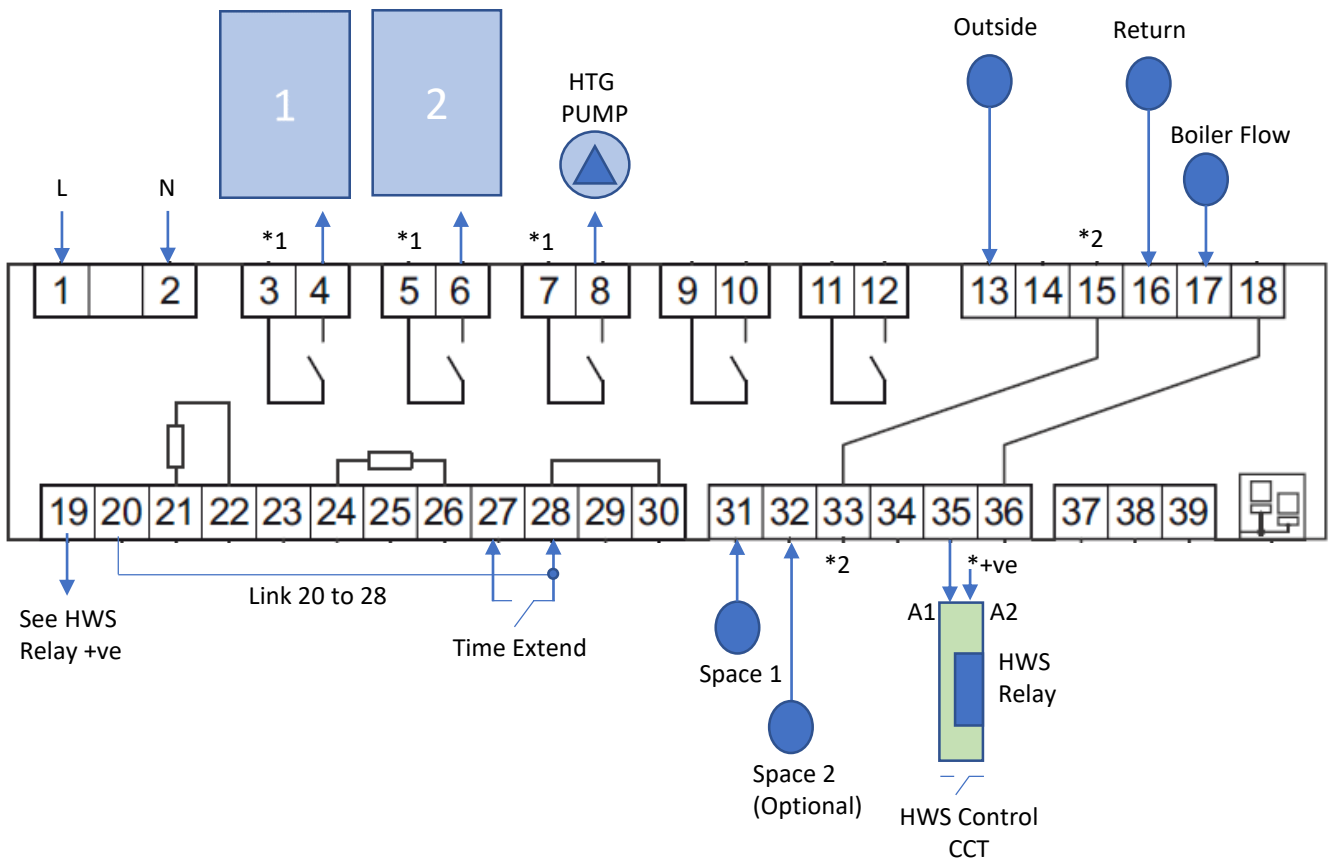


Setup	Option	Selection
Overrides	HWS Extend	<i>Enabled (Default)</i>
	Aux Switch Input	<i>Frost (Default)</i>
Heating	Mode	<i>Optimiser/Compensator (Default)</i>
	VT Setpoint	<i>Self-Adaptive (Default)</i>
	Optimum Off	<i>Enabled (Default)</i>
	HWS Priority	<i>No Priority (Default)</i>
	Flow Eco Mode	<i>Active (Default)</i>
	Opt Adapt	<i>Enabled (Default)</i>
HWS	Boiler Link	<i>Independent (Default)</i>
Boilers	Number of Boilers	2
	Rotate	<i>Enabled</i>
	Bpro Used	<i>No (Default)</i>
	Boiler Flow Sensor	<i>Yes (Default)</i>
Connections	0-10v Output	<i>VT Valve (Default)</i>
	PMPCO Used	<i>No (Default)</i>

TYPICAL SETTINGS TO CHANGE FOR APP 2: School

2 off Boilers Direct Compensated - HWS Independent

Parameter	Default	Range	Typical Setting
Origin	20°C	10°C - 80°C	For Radiators 20°C, maybe 35°C if building is inefficient/cold.
VT Ratio	3	0 – 10	Influence on the Heating Flow Set point based on 1°C change in Outside air temperature. 3 is typical but if the Origin is raised reduce the ratio to suit. E.g. Ratio = Flow Max-Flow Min/Origin
Compensated Flow Low	20°C	0°C – 85°C	Minimum value of compensated flow temperature during compensation. 20 is typical in this scheme
Compensated Flow High	82°C	10°C – Max = Boiler High Value	Check access to the radiators and consider the use of the apace. Children etc. Check with heating system design requirements.
Boiler Low Boiler High	35°C 82°C	5°C to 95°C 5°C to 95°C	Set the lowest and highest running temp permitted by the boilers and heating system.
Space Set point	20°C	5°C – 50°C	The desired temperature for the controlled space. Make sure this can be achieved. Check all equipment can allow this, e.g. TRV, Local Thermostats, Sensor location.
VT Valve Time (0 to 100%)	120s	10 to 600s	Check your actuator running time from open to close.
Outside High Set point	18°C	10°C - 50°C	Typically 18°C but sometimes this is changed to suit the customers comfort or economic goals.

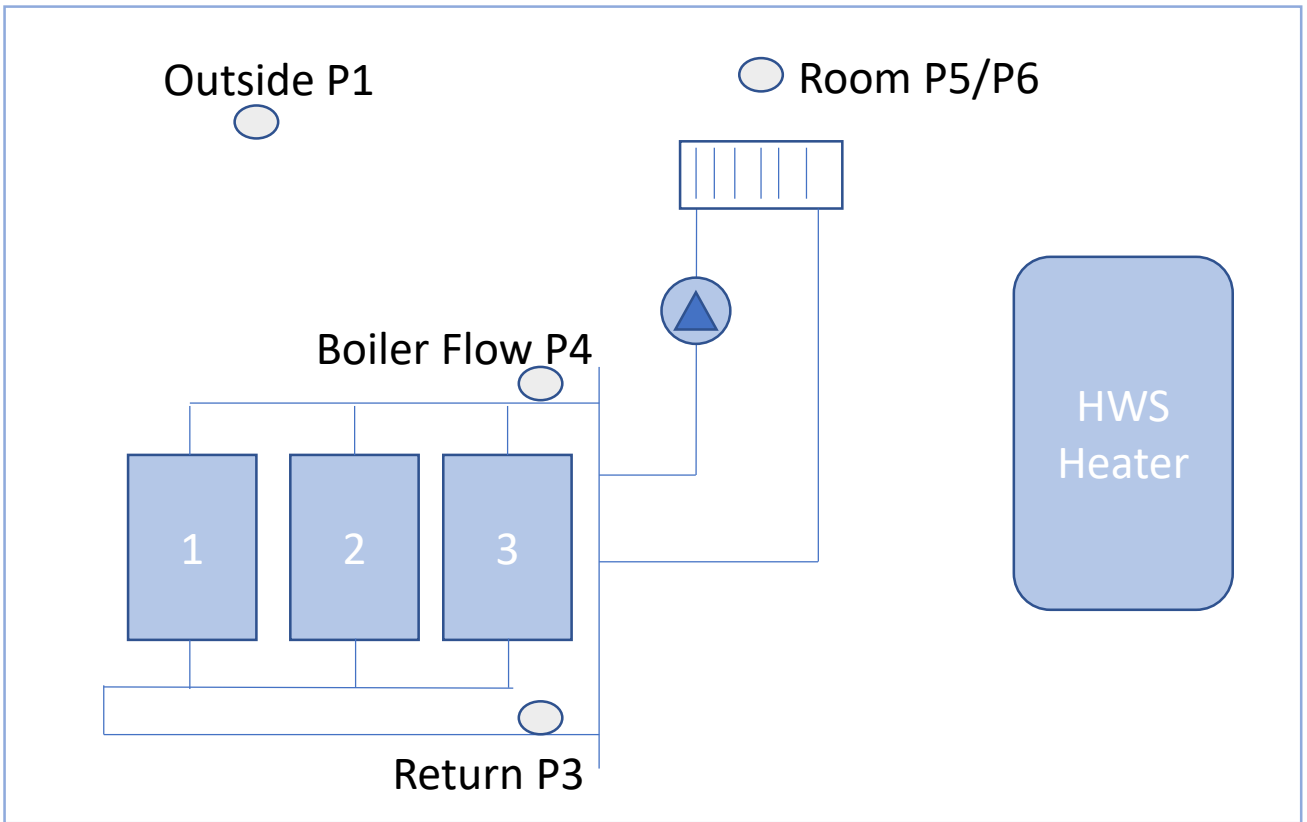


*1- Connect required switch signal for the connected appliance

*2 – Common Sensor Ground Connection. Do not connect Screens or Earth.

BASIC SETUP SHEET APP 3: School

3 off Boilers Direct Compensated - HWS Independent

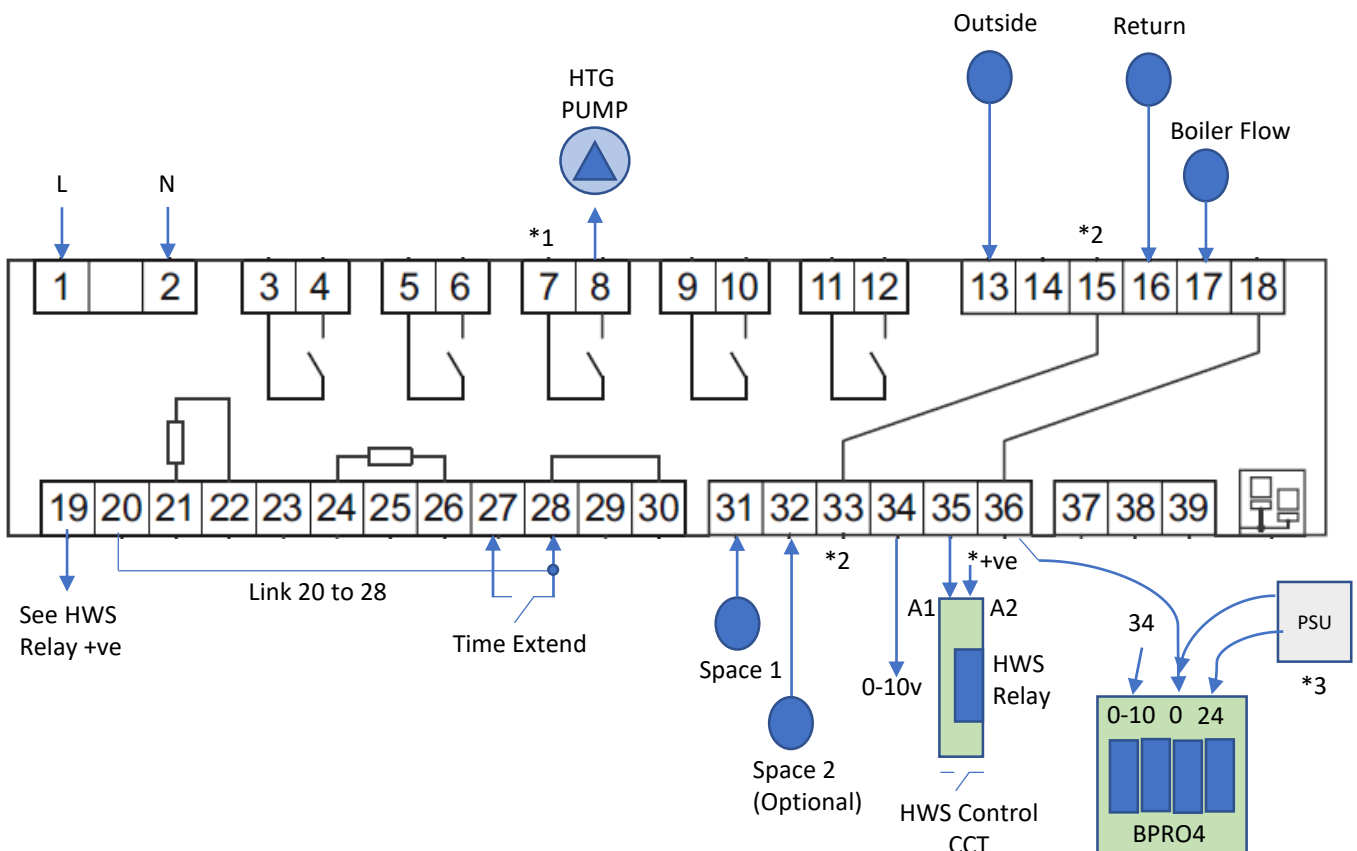


Setup	Option	Selection
Overrides	HWS Extend	<i>Enabled (Default)</i>
	Aux Switch Input	<i>Frost (Default)</i>
Heating	Mode	<i>Optimiser/Compensator (Default)</i>
	VT Setpoint	<i>Self-Adaptive (Default)</i>
	Optimum Off	<i>Enabled (Default)</i>
	HWS Priority	<i>No Priority (Default)</i>
	Flow Eco Mode	<i>Active (Default)</i>
	Opt Adapt	<i>Enabled (Default)</i>
HWS	Boiler Link	<i>Independent (Default)</i>
Boilers	Number of Boilers	<i>1 (Default)</i>
	Rotate	<i>Disabled (Default)</i>
	Bpro Used	<i>Yes</i>
	Boiler Flow Sensor	<i>Yes (Default)</i>
Connections	0-10v Output	<i>Boiler Demand</i>
	PMPCO Used	<i>No (Default)</i>

TYPICAL SETTINGS TO CHANGE FOR APP 3: School

3 off Boilers Direct Compensated - HWS Independent

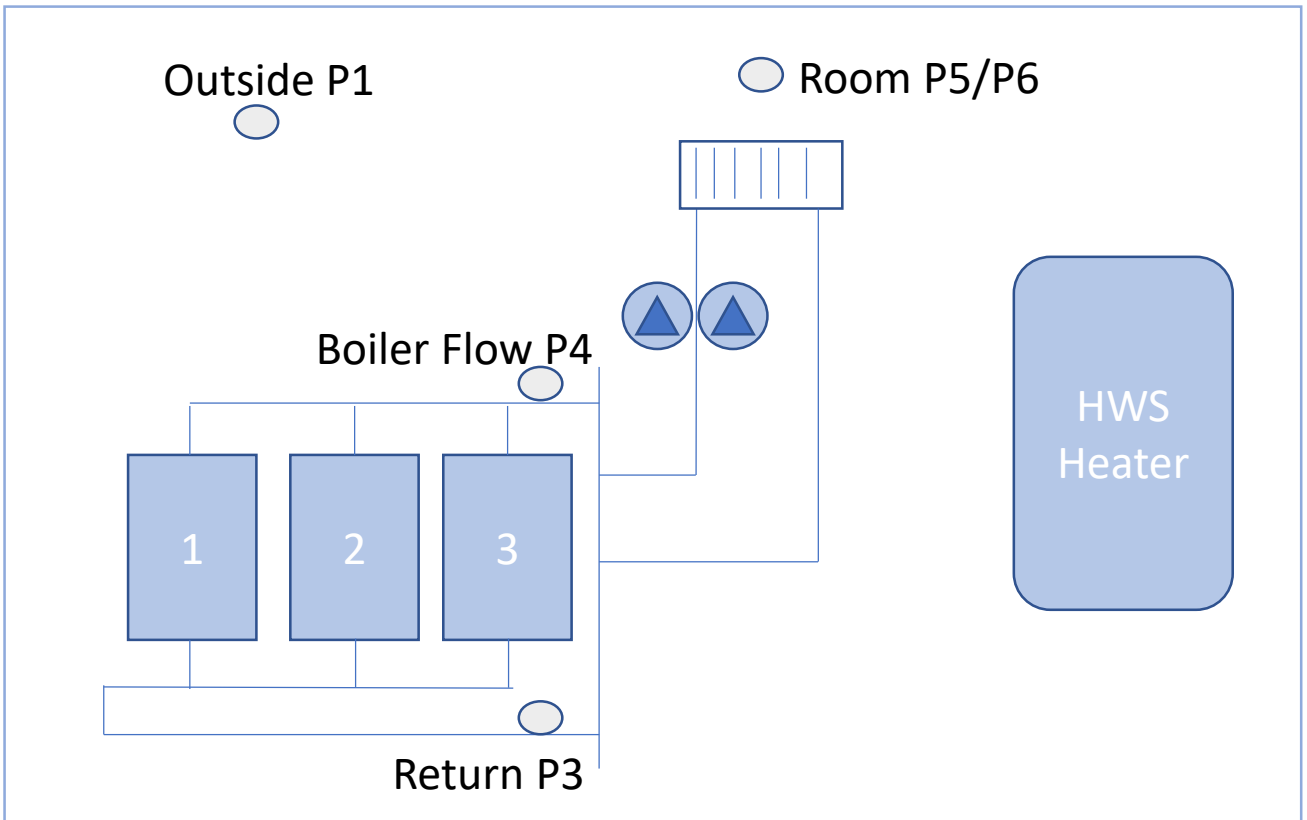
Parameter	Default	Range	Typical Setting
Origin	20°C	10°C - 80°C	For Radiators 20°C, maybe 35°C if building is inefficient/cold.
VT Ratio	3	0 – 10	Influence on the Heating Flow Set point based on 1°C change in Outside air temperature. 3 is typical but if the Origin is raised reduce the ratio to suit. E.g. Ratio = Flow Max-Flow Min/Origin
Compensated Flow Low	20°C	0°C – 85°C	Minimum value of compensated flow temperature during compensation. 20 is typical in this scheme
Compensated Flow High	82°C	10°C – Max = Boiler High Value	Check access to the radiators and consider the use of the space. Children etc. Check with heating system design requirements.
Boiler Low	35°C	5°C to 95°C	Set the lowest and highest running temp permitted by the boilers and heating system.
Boiler High	82°C	5°C to 95°C	
Space Set point	20°C	5°C – 50°C	The desired temperature for the controlled space. Make sure this can be achieved. Check all equipment can allow this, e.g. TRV, Local Thermostats, Sensor location.
Boiler IA	5 Min	DEL (---) to 600	Watch the boiler control. Increase the PB if boilers cycle.Reduce the IA if loop too slow
Boiler PB	50	1 - 200	
Outside High Set point	18°C	10°C - 50°C	Typically 18°C but sometimes this is changed to suit the customers comfort or economic goals.



- *1- Connect required switch signal for the connected appliance
- *2 – Common Sensor Ground Connection. Do not connect Screens or Earth
- *3 - PSU for Boiler Pro is external supply. Output 0v to connect to 18 or 36

BASIC SETUP SHEET APP 4: School

3 off Boilers Constant Temp, Twin Pump - HWS Independent

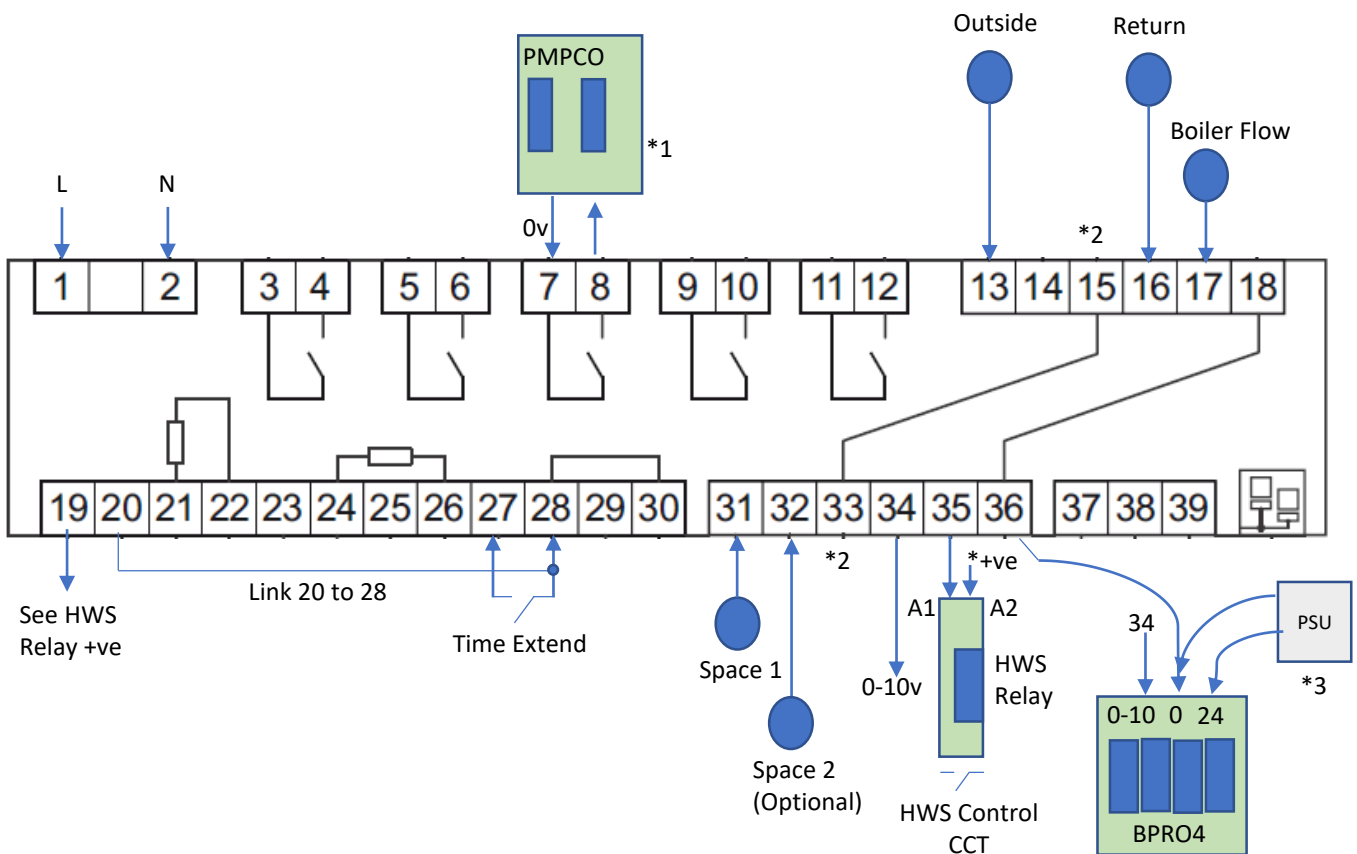


Setup	Option	Selection
Overrides	HWS Extend	<i>Enabled (Default)</i>
	Aux Switch Input	<i>Frost (Default)</i>
Heating	Mode	<i>Optimiser/Compensator (Default)</i>
	VT Setpoint	<i>Self-Adaptive (Default)</i>
	Optimum Off	<i>Enabled (Default)</i>
	HWS Priority	<i>No Priority (Default)</i>
	Flow Eco Mode	<i>Active (Default)</i>
	Opt Adapt	<i>Enabled (Default)</i>
HWS	Boiler Link	<i>Independent (Default)</i>
Boilers	Number of Boilers	<i>1 (Default)</i>
	Rotate	<i>Disabled (Default)</i>
	Bpro Used	<i>Yes</i>
	Boiler Flow Sensor	<i>Yes (Default)</i>
Connections	0-10v Output	<i>Boiler Demand</i>
	PMPCO Used	<i>Weekly Change</i>

TYPICAL SETTINGS TO CHANGE FOR APP 4: School

3 off Boilers. Constant Temp, Twin Pumps - HWS Independent

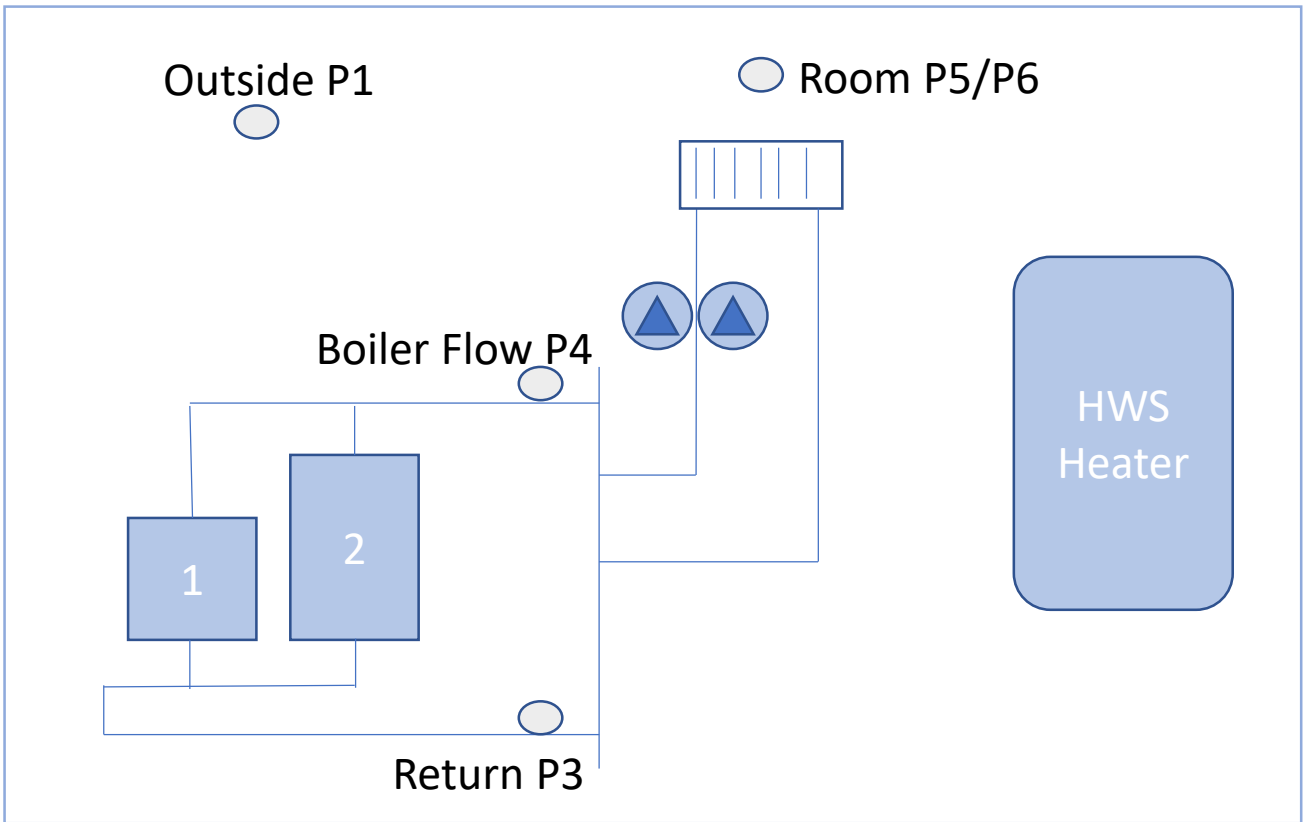
Parameter	Default	Range	Typical Setting
Origin	20°C	10°C - 80°C	For Radiators 20°C, maybe 35°C if building is inefficient/cold.
VT Ratio	3	0 – 10	Influence on the Heating Flow Set point based on 1°C change in Outside air temperature. 3 is typical but if the Origin is raised reduce the ratio to suit. E.g. Ratio = Flow Max-Flow Min/Origin
Compensated Flow Low	20°C	0°C – 85°C	Set this to the Same as Flow High to make the Heating provide Constant Temp. e.g. 82
Compensated Flow High	82°C	10°C – Max = Boiler High Value	Check access to the radiators and consider the use of the space. Children etc. Check with heating system design requirements.
Boiler Low Boiler High	35°C 82°C	5°C to 95°C 5°C to 95°C	Set the lowest and highest running temp permitted by the boilers and heating system.
Space Set point	20°C	5°C – 50°C	The desired temperature for the controlled space. Make sure this can be achieved. Check all equipment can allow this, e.g. TRV, Local Thermostats, Sensor location.
Boiler IA Boiler PB	5 Min 50	DEL (---) to 600 1 - 200	Watch the boiler control. Increase the PB if boilers cycle.Reduce the IA if loop too slow
Outside High Set point	18°C	10°C - 50°C	Typically 18°C but sometimes this is changed to suit the customers comfort or economic goals.



- *1 – Connect PMPO Module as per its data sheet.
- *2 – Common Sensor Ground Connection. Do not connect Screens or Earth
- *3 - PSU for Boiler Pro is external supply. Output 0v to connect to 18 or 36

BASIC SETUP SHEET APP 5: School

2 Different Boilers, Constant Temp, Twin Pump - HWS Independent



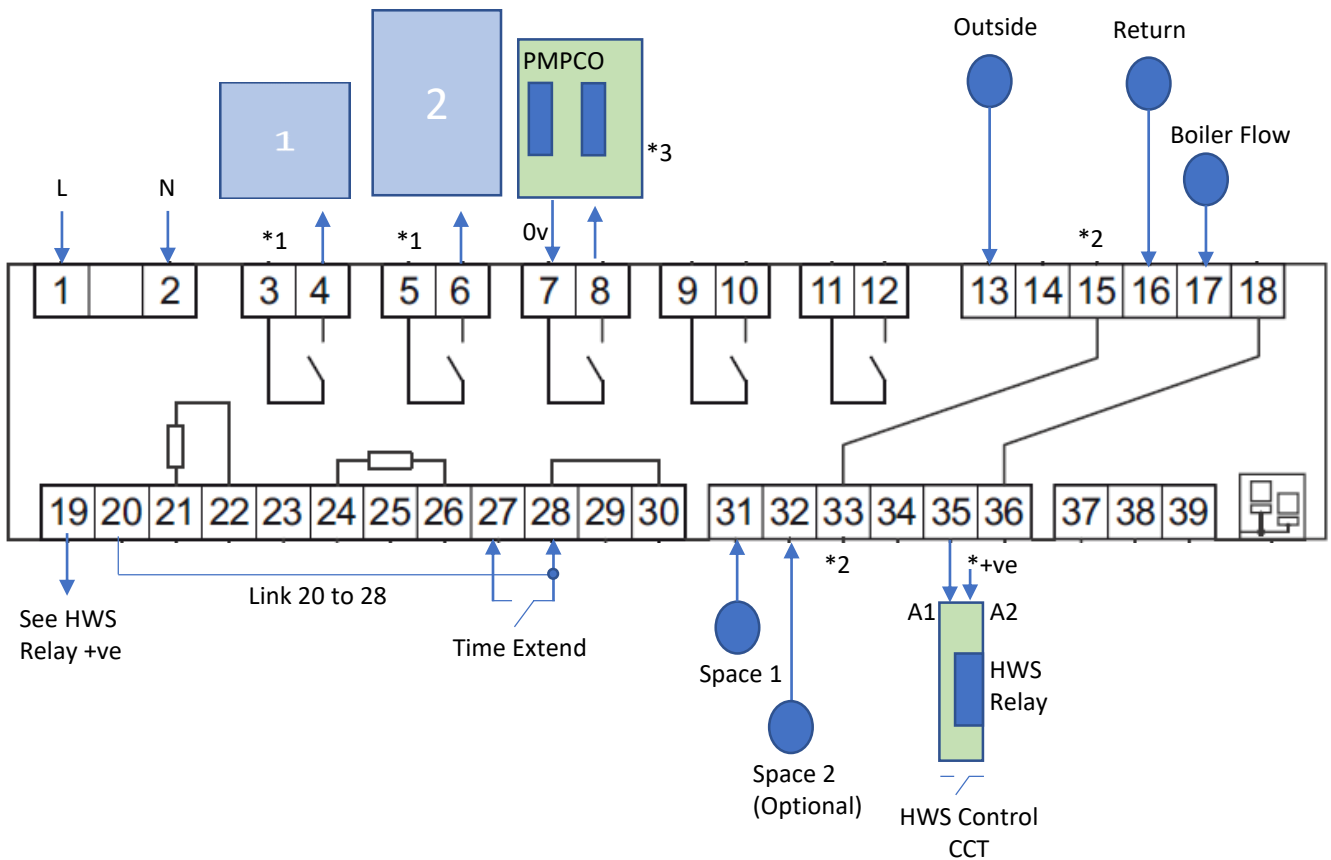
Setup	Option	Selection
Overrides	HWS Extend	<i>Enabled (Default)</i>
	Aux Switch Input	<i>Frost (Default)</i>
Heating	Mode	<i>Optimiser/Compensator (Default)</i>
	VT Setpoint	<i>Self-Adaptive (Default)</i>
	Optimum Off	<i>Enabled (Default)</i>
	HWS Priority	<i>No Priority (Default)</i>
	Flow Eco Mode	<i>Active (Default)</i>
	Opt Adapt	<i>Enabled (Default)</i>
HWS	Boiler Link	<i>Independent (Default)</i>
Boilers	Number of Boilers	2
	Rotate	<i>Disabled (Default)</i>
	Bpro Used	<i>No (Default)</i>
	Boiler Flow Sensor	<i>Yes (Default)</i>
Connections	0-10v Output	<i>VT Valve (Default)</i>
	PMPCO Used	<i>Weekly Change</i>

Notes: Set Boiler Flow Min/Boiler flow Max to required CT Requirement to ensure constant temp output

TYPICAL SETTINGS TO CHANGE FOR APP 5: School

2 Different Boilers, Constant Temp, Twin Pump - HWS

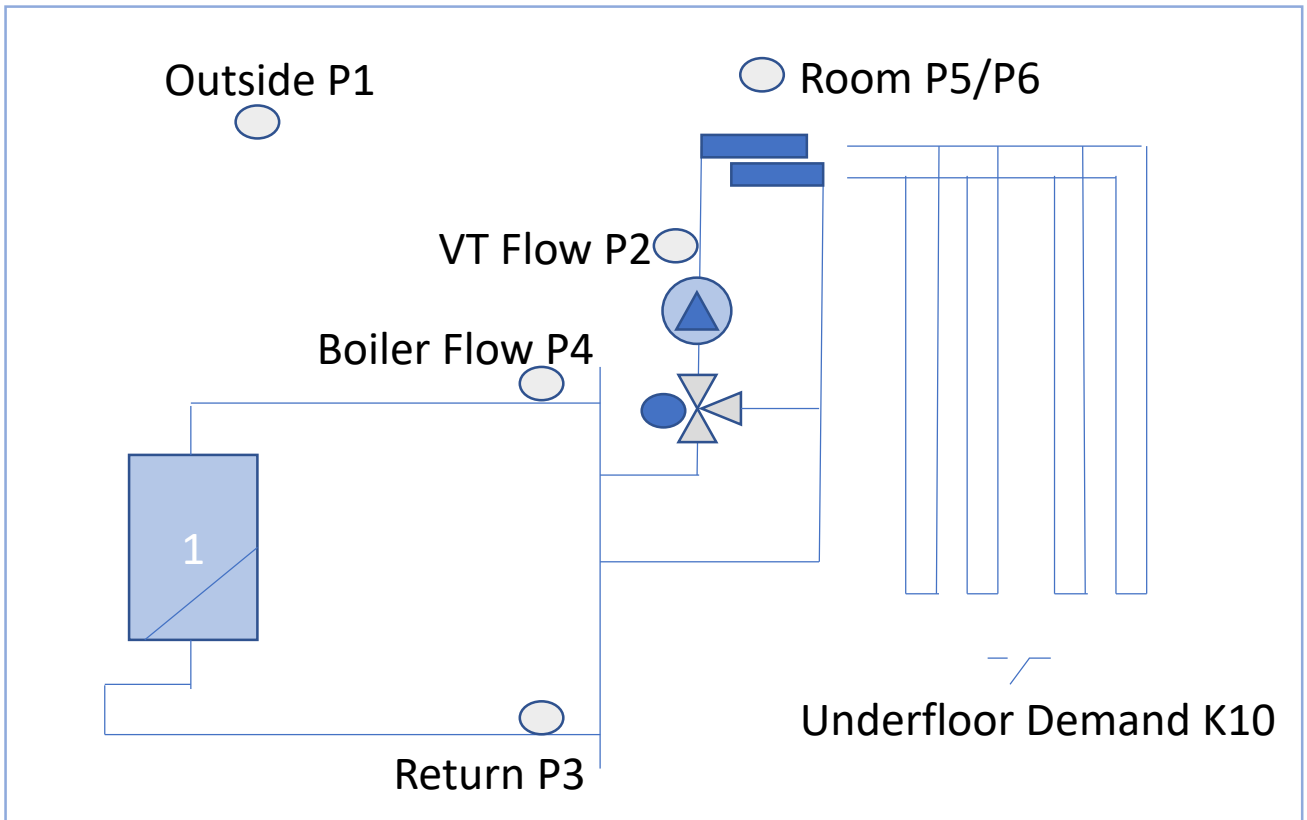
Parameter	Default	Range	Typical Setting
Origin	20°C	10°C - 80°C	For Radiators 20°C, maybe 35°C if building is inefficient/cold.
VT Ratio	3	0 – 10	Influence on the Heating Flow Set point based on 1°C change in Outside air temperature. 3 is typical but if the Origin is raised reduce the ratio to suit. E.g. Ratio = Flow Max-Flow Min/Origin
Compensated Flow Low	20°C	0°C – 85°C	Set this to the Same as Flow High to make the Heating provide Constant Temp. e.g. 82
Compensated Flow High	82°C	10°C – Max = Boiler High Value	Check access to the radiators and consider the use of the apace. Children etc. Check with heating system design requirements.
Boiler Low Boiler High	35°C 82°C	5°C to 95°C 5°C to 95°C	Set the lowest and highest running temp permitted by the boilers and heating system.
Space Set point	20°C	5°C – 50°C	The desired temperature for the controlled space. Make sure this can be achieved. Check all equipment can allow this, e.g. TRV, Local Thermostats, Sensor location.
Outside High Set point	18°C	10°C - 50°C	Typically 18°C but sometimes this is changed to suit the customers comfort or economic goals.



- *1- Connect required switch signal for the connected appliance
- *2 – Common Sensor Ground Connection. Do not connect Screens or Earth.
- *3 – Connect PMPO Module as per its data sheet.

BASIC SETUP SHEET APP 6: School

1 Boiler Lo/Hi Fire, VT Valve Compensation – Underfloor Heating



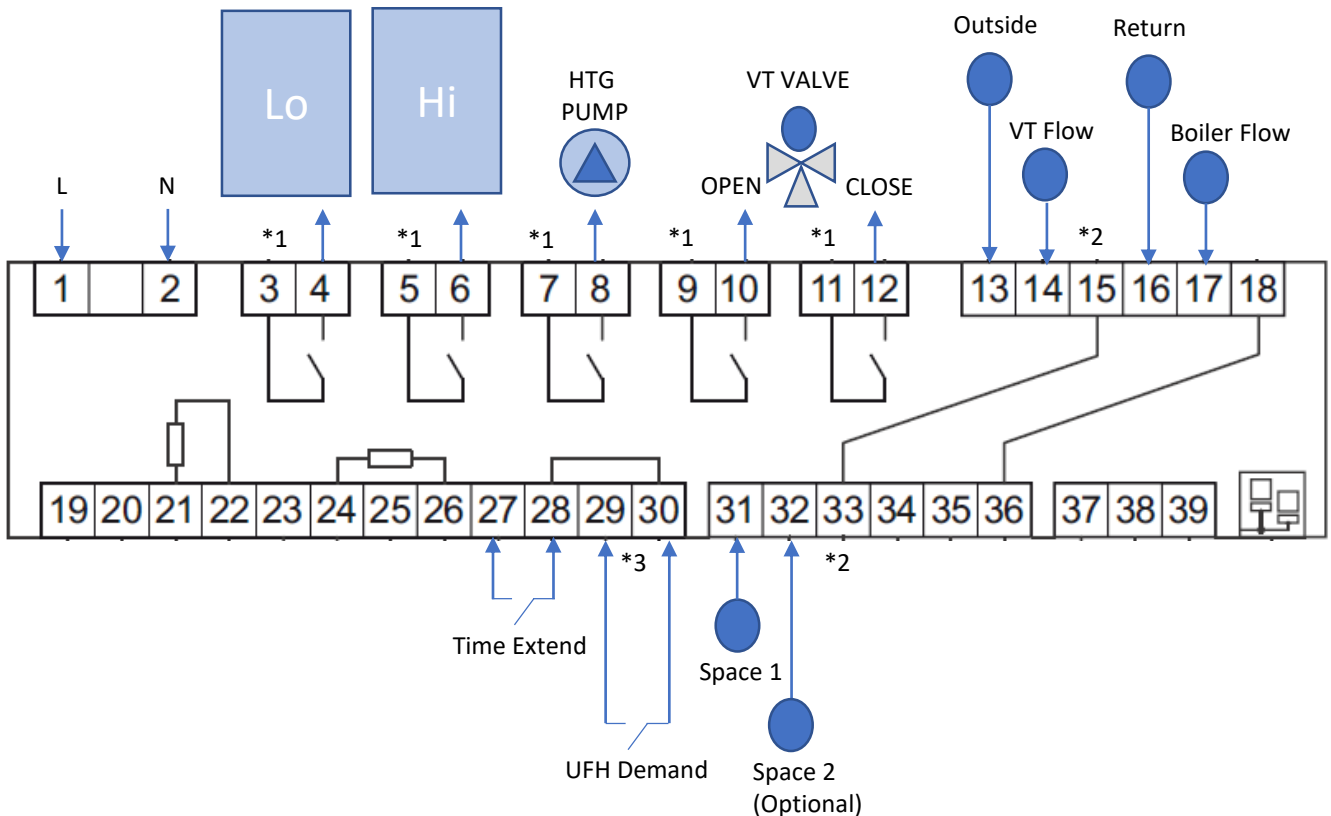
Setup	Option	Selection
Overrides	HWS Extend	Enabled (Default)
	Aux Switch Input	Underfloor Demand
Heating	Mode	Optimiser/Compensator (Default)
	VT Setpoint	Self-Adaptive (Default)
	Optimum Off	Enabled (Default)
	HWS Priority	No Priority (Default)
	Flow Eco Mode	Active (Default)
	Opt Adapt	Disabled (See note)
HWS	Boiler Link	Independent (Default)
Boilers	Number of Boilers	2 (note Boiler is Lo/Hi Fire)
	Rotate	Disabled (Default)
	Bpro Used	No (Default)
	Boiler Flow Sensor	Yes (Default)
Connections	0-10v Output	VT Valve (Default)
	PMPCO Used	No (Default)

Notes: Underfloor Demand taken from Manifold Controller. Optimiser Adapt is Disabled due to room controls being independent of SYX controller. HWS is optional. Reduce Heating Flow Max to 50°C.

TYPICAL SETTINGS TO CHANGE FOR APP 6: School

1 Boiler Lo/Hi Fire, VT Valve Compensation – Underfloor Heating

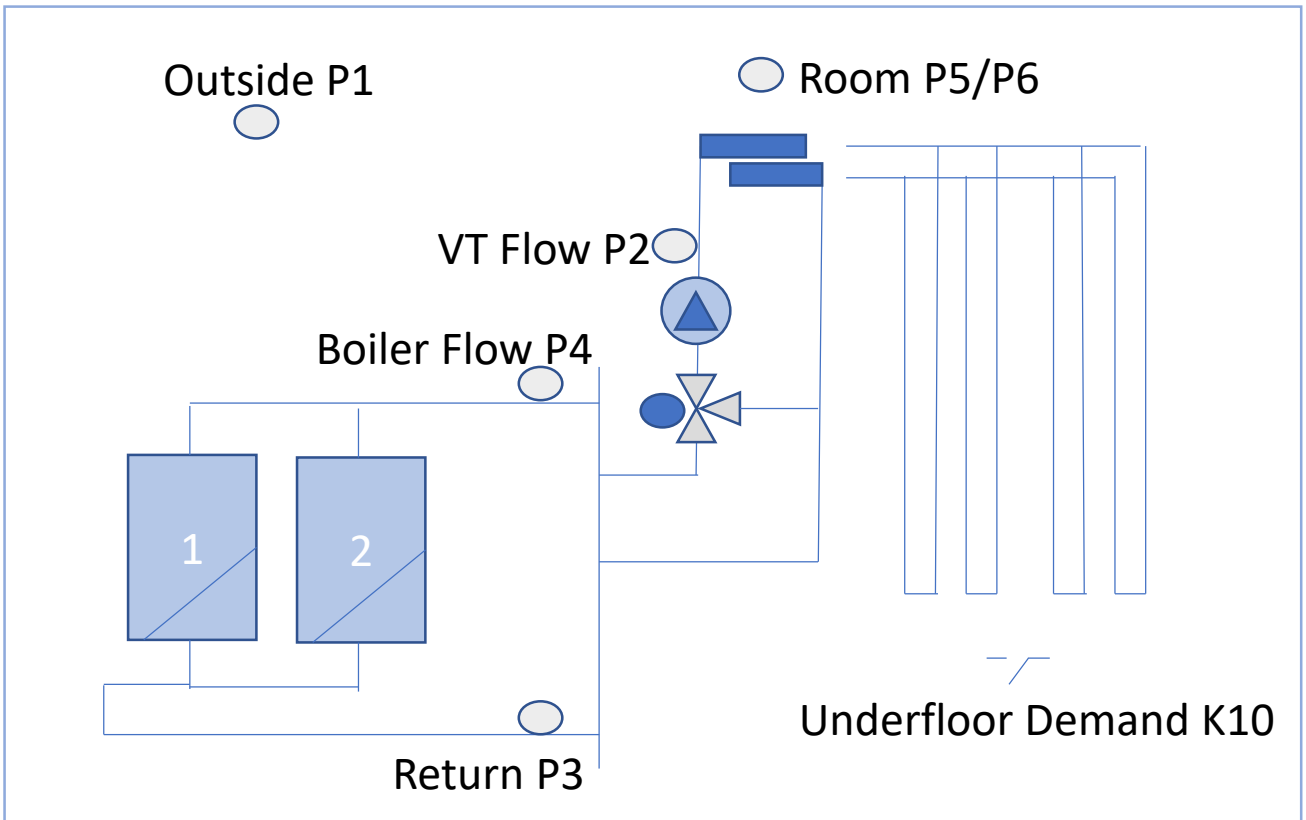
Parameter	Default	Range	Typical Setting
Origin	20°C	10°C - 80°C	For Radiators 20°C, maybe 35°C if building is inefficient/cold.
VT Ratio	3	0 – 10	Influence on the Heating Flow Set point based on 1°C change in Outside air temperature. 3 is typical but if the Origin is raised reduce the ratio to suit. E.g. Ratio = Flow Max-Flow Min/Origin
Compensated Flow Low	20°C	0°C – 85°C	Minimum value of compensated flow temperature during compensation. 20 is typical in this scheme
Compensated Flow High	82°C	10°C – Max = Boiler High Value	Check access to the radiators and consider the use of the space. Children etc. Check with heating system design requirements.
Boiler Low	35°C	5°C to 95°C	Set the lowest and highest running temp permitted by the boilers and heating system.
Boiler High	82°C	5°C to 95°C	
Space Set point	20°C	5°C – 50°C	The desired temperature for the controlled space. Make sure this can be achieved. Check all equipment can allow this, e.g. TRV, Local Thermostats, Sensor location.
VT Valve Time (0 to 100%)	120s	10 to 600s	Check your actuator running time from open to close.
Outside High Set point	18°C	10°C - 50°C	Typically 18°C but sometimes this is changed to suit the customers comfort or economic goals.



- *1- Connect required switch signal for the connected appliance
- *2 – Common Sensor Ground Connection. Do not connect Screens or Earth.
- *3 – Voltage Free. Close to request heat from SYX to heat Underfloor Zones

BASIC SETUP SHEET APP 7: Retirement Home

2 Boilers Lo/Hi Fire, VT Valve Compensation – Underfloor Heating



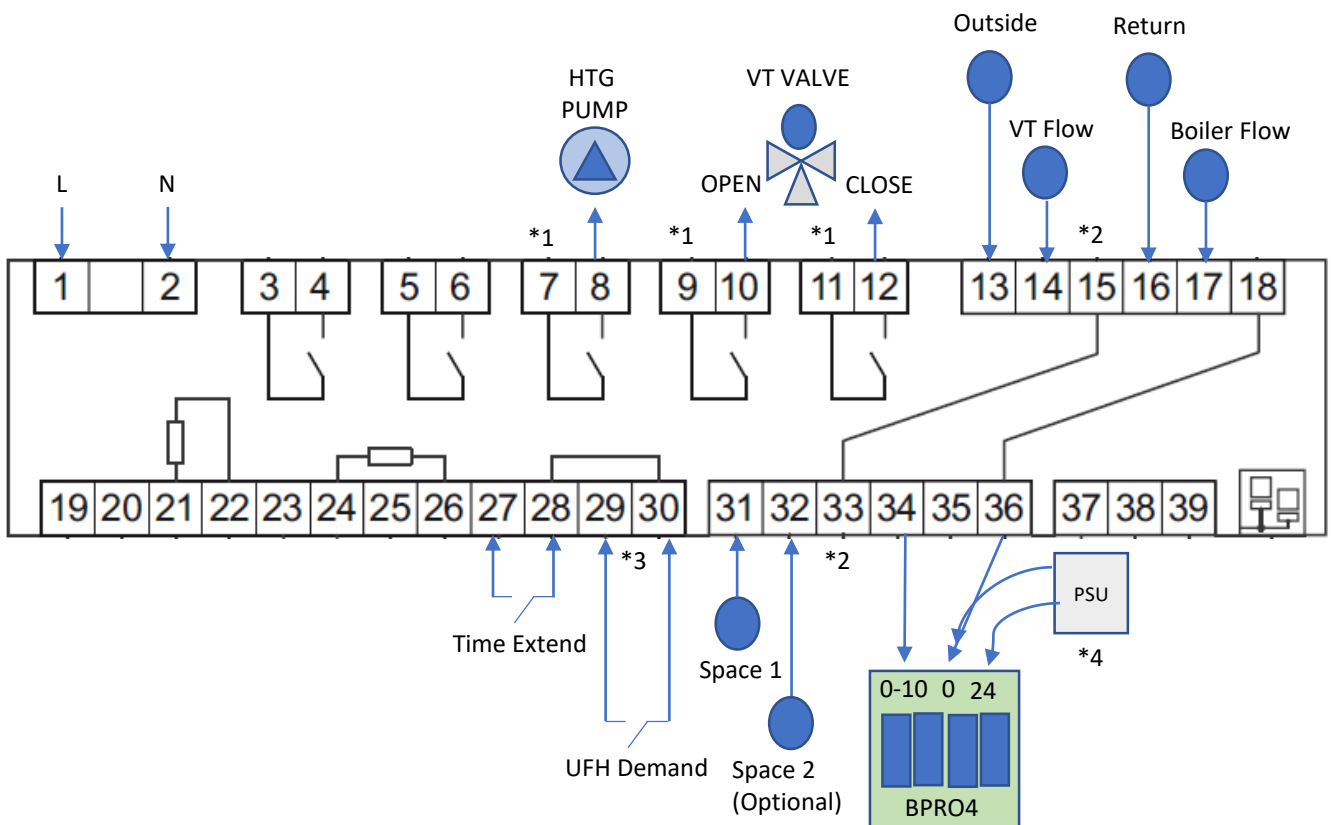
Setup	Option	Selection
Overrides	HWS Extend	<i>Enabled (Default)</i>
	Aux Switch Input	<i>Underfloor Demand</i>
Heating	Mode	<i>Night Setback</i>
	VT Setpoint	<i>Self-Adaptive (Default)</i>
	Optimum Off	<i>Enabled (Default)</i>
	HWS Priority	<i>No Priority (Default)</i>
	Flow Eco Mode	<i>Active (Default)</i>
HWS	Opt Adapt	<i>Disabled (See note)</i>
	Boiler Link	<i>Independent (Default)</i>
Boilers	Number of Boilers	<i>1 (Default)</i>
	Rotate	<i>Disabled (Default)</i>
	Bpro Used	<i>Yes</i>
Connections	Boiler Flow Sensor	<i>Yes (Default)</i>
	0-10v Output	<i>Boiler Control (Use Bpro)</i>
	PMPCO Used	<i>No (Default)</i>

Notes: Underfloor Demand taken from Manifold Controller. HWS is optional. Reduce Heating Flow Max to 50°C.

TYPICAL SETTINGS TO CHANGE FOR APP 7: Retirement Home

2 Boilers Lo/Hi Fire, VT Valve Compensation – Underfloor Heating

Parameter	Default	Range	Typical Setting
Origin	20°C	10°C - 80°C	For Radiators 20°C, maybe 35°C if building is inefficient/cold.
VT Ratio	3	0 – 10	Influence on the Heating Flow Set point based on 1°C change in Outside air temperature. 3 is typical but if the Origin is raised reduce the ratio to suit. E.g. Ratio = Flow Max-Flow Min/Origin
Compensated Flow Low	20°C	0°C – 85°C	Minimum value of compensated flow temperature during compensation. 20 is typical in this scheme
Compensated Flow High	82°C	10°C – Max = Boiler High Value	Check access to the radiators and consider the use of the space. Children etc. Check with heating system design requirements.
Boiler Low Boiler High	35°C 82°C	5°C to 95°C 5°C to 95°C	Set the lowest and highest running temp permitted by the boilers and heating system.
Space Set point	20°C	5°C – 50°C	The desired temperature for the controlled space. Make sure this can be achieved. Check all equipment can allow this, e.g. TRV, Local Thermostats, Sensor location.
VT Valve Time (0 to 100%)	120s	10 to 600s	Check your actuator running time from open to close.
Outside High Set point	18°C	10°C - 50°C	Typically 18°C but sometimes this is changed to suit the customers comfort or economic goals.



- *1 - Connect required switch signal for the connected appliance
- *2 - Common Sensor Ground Connection. Do not connect Screens or Earth.
- *3 - Voltage Free. Close to request heat from SYX to heat Underfloor Zones
- *4 - Configure BPRO to suit application. Consult BPRO4 datasheet.