SIEMENS

Albatros^2

Hydraulic partial diagrams and extra functions

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Siemens Switzerland Ltd
HVAC Products

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Key

General abbreviations

BX	Multifunctional input	OL593x, OL604x
EM	Extension module	OL6020, 6021
HX	Function input Hx	OL5950, 5960, 6046
MG	Mixing group	OL6014, 6015
QX	Multifunctional output	OL589x, OL603x
UX	Voltage-modulated output	OL6070
HK	Heating circuit	
KK	Cooling circuit	
OL	Operating line	

Mains voltage

E5	Low tariff	
E6	Electrical utility lock	
E9	Low-pressure switch	
E10	High-pressure switch	
E11	Overload compressor 1	
E12	Overload compressor 2	
E14	Overload source	
E15	Flow switch source	
E17	Defrost manual	
K1	Compressor stage 1	
K2	Compressor stage 2	
K6	Electrical immersion heater DHW	QX
K8	Solar control element buffer K8	QX
K9	Solar pump ext. heat exchanger	QX
K10	Alarm output	QX
K13	Time program 5	
K16	Electrical immersion heater, buffer or combi storage tank	QX
K17	Flue gas relay	QX
K18	Solar controlling element swimming pool	QX
K19	Source pump Q8 / fan K19	
K25	Electrical immersion heater 1	QX
K26	Electrical immersion heater 2	QX
K27	Heat request	QX
K28	Refrigeration request	QX
K29	Air dehumidifier	QX
K30	Assisted firing fan	QX
K31	Hot-gas temperature	QX
K32	Extra heat source control	QX
Q1	Boiler pump	Maintained return temperature
Q2	Heating circuit controlling element HC1	
Q3	DHW pump	DHW primary controller
Q4	Circulating pump	QX
Q5	Collector pump	Solar DHW heating
Q6	Heating circuit controlling element HC2	Heating circuit 2
Q8	Source pump Q8 / fan K19	
Q9	Condenser pump	
Q10	Solid fuel boiler pump	QX
Q11	Storage tank charging pump	QX
Q12	Bypass pump	QX
Q14	System pump	Primary controller/system pump
Q15	pump H1	QX
Q16	Collector pump 2	QX
Q18	Pump H2	QX
Q19	Pump H3	QX
Q20	Heating circuit pump HCP	QX
Q21	2nd pump speed HC1	QX
Q22	2nd pump speed HC2	QX
Q23	2nd pump speed HCP	QX
Q24	Cooling circuit pump	Cooling circuit 1
Q25	Cascade pump	Maintained return temperature cascade
Q33	DHW intermediate heating circuit pump	
Q34	Instantaneous DHW heater	Instantaneous DHW heater

Q35	DHW mixing pump	QX
T2	Burner 1st stage	
T8	Burner 2nd stage	FX4/QX4 ZN5770
Y1	1st heating circuit mixing valve	
Y4	Heat source shutoff valve	QX
Y5	Mixing valve open	Heating circuit 2
Y6	Mixing valve closing	Heating circuit 2
Y7	Mixing valve opening	Maintained return temperature
Y8	Mixing valve closing	Maintained return temperature
Y15	Buffer return valve	QX
Y16	Bypass valve	
Y19	Mixing valve opening	Primary controller/system pump
Y20	Mixing valve closing	Primary controller/system pump
Y21	Diverting valve cooling	QX
Y22	Process reversing valve	QX
Y23	Mixing valve opening	Cooling circuit 1
Y24	Mixing valve closing	Cooling circuit 1
Y25	Mixing valve opening	Maintained return temperature cascade
Y26	Mixing valve closing	Maintained return temperature cascade
Y28	Diverting valve cooling source	QX
Y29	Air dehumidifier	QX
Y31	Mixing valve opening	DHW primary controller
Y32	Mixing valve closing	DHW primary controller
Y33	Mixing valve opening	Instantaneous DHW heater
Y34	Mixing valve closing	Instantaneous DHW heater

Low-voltage

A6	Room temperature sensor	
B1	Flow temperature sensor HC1	
B2	Boiler sensor TK1	
B3	DHW sensor	BX:
B4	Buffer sensor	BX:
B6	Collector sensor	Solar DHW heating
B7	Return sensor	BX:
B8	Flue gas temperature sensor	BX:
B9	Outside sensor	
B10	Common flow sensor	BX:
B12	Flow sensor	Heating circuit 2
B13	Swimming pool sensor	BX:
B15	Flow sensor primary controller	Primary controller/system pump
B16	Flow sensor	Cooling circuit 1
B21	Flow temperature HP	BX:
B22	Solid fuel boiler sensor	BX:
B31	DHW sensor	Solar DHW heating
B35	Flow / return sensor	DHW primary controller
B36	DHW charging sensor	BX:
B38	DHW outlet sensor	Instantaneous DHW heater
B39	DHW circulation sensor	BX:
B41	Buffer sensor	BX:
B42	Buffer sensor	BX:
B61	Collector sensor 2	BX:
B63	Solar flow sensor	BX:
B64	Solar return sensor	BX:
B70	Cascade return sensor	Maintained return temperature cascade
B71	Return sensor	BX:
B73	Common return sensor	BX:
B81	Hot-gas sensor	BX:
B82	Hot-gas sensor	BX:
B83	Refrigerant sensor	BX:
B84	Evaporator temperature air-to-water HP	
B91	Source inlet temperature	
B92	Source outlet temperature	
RG1	Room unit 1	
RG2	Room unit 2	
FS	Flow switch	

Introduction

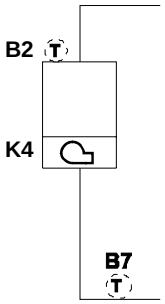
The following pages show the partial diagrams which are available as variants. Also listed are the relevant operating lines which must be selected for generating the respective partial diagram, plus the sensors required for the partial diagram.
The procedure for selecting the required partial diagrams is described in the User Manual.

1 Heat or refrigeration sources

1.1 Boilers

1.1.1 Oil / gas, multistage

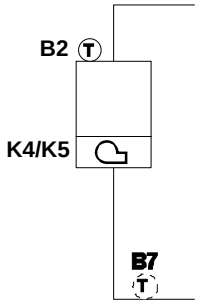
OeG1



Required settings:
OL5770 (Source type):
- 1-stage, or
- Without boiler sensor

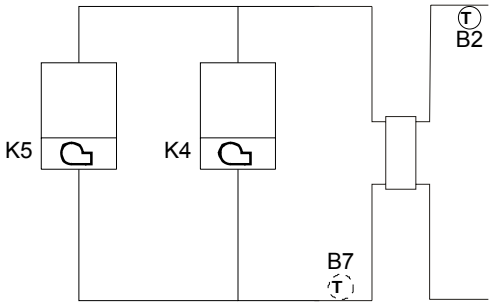
Optional settings:
BX:
- Return sensor B7

OeG2

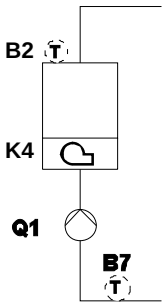


Required settings:
OL5770 (Source type):
- 2-stage, or
- 2 x 1 cascade

Optional settings:
BX:
- Return sensor B7



OeG3

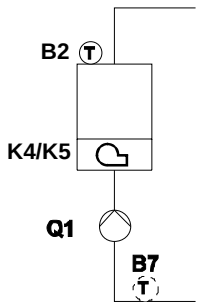


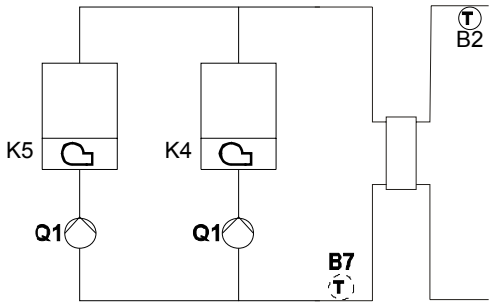
Required settings:
QX:
- Boiler pump Q1

OL5770 (Source type):
- 1-stage, or
- Without boiler sensor

Optional settings:
BX:
- Return sensor B7

OeG4





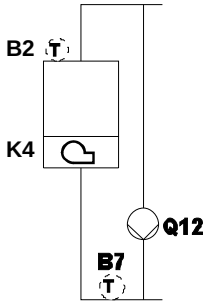
Required settings:
QX:
- Boiler pump Q1

OL5770 (Source type):
- 2-stage, or
- 2 x 1 cascade

Optional settings:
BX:
- Return sensor B7

Note:
For 2x1 cascade, set boiler pump Q1 fix to QX1, QX2

OeG5

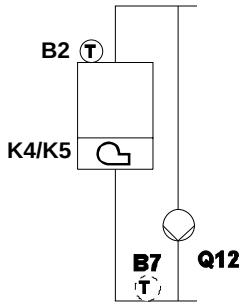


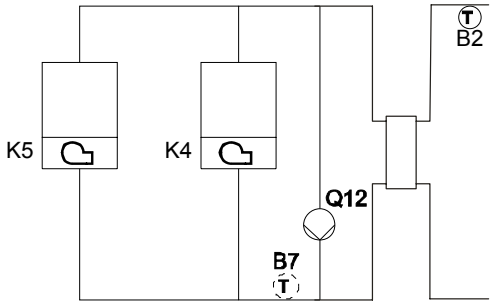
Required settings:
QX:
- Bypass pump Q12

OL5770 (Source type):
- 1-stage, or
- Without boiler sensor

Optional settings:
BX:
- Return sensor B7

OeG6



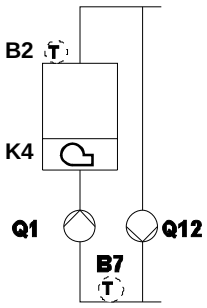


Required settings:
QX:
- Bypass pump Q12

OL5770 (Source type):
- 2-stage, or
- 2 x 1 cascade

Optional settings:
BX:
- Return sensor B7

OeG7



Required settings:

QX:

- Boiler pump Q1
- Bypass pump Q12

OL5770 (Source type):

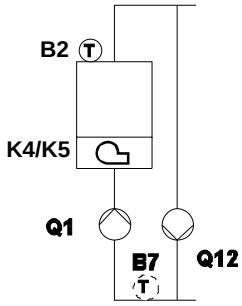
- 1-stage, or
- Without boiler sensor

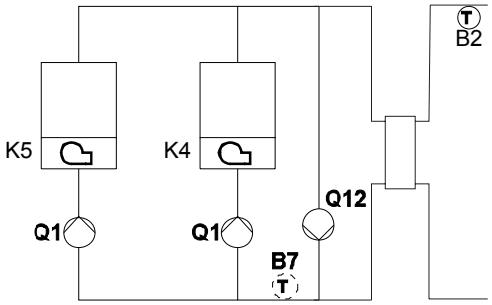
Optional settings:

BX:

- Return sensor B7

OeG8





Required settings:

QX:

- Boiler pump Q1
- Bypass pump Q12

OL5770 (Source type):

- 2-stage, or
- 2 x 1 cascade

Optional settings:

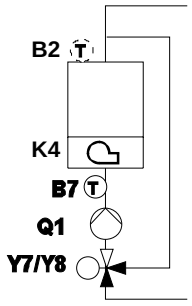
BX:

- Return sensor B7

Note:

For 2x1 cascade, set boiler pump Q1 fix to QX1, QX2

OeG9



Required settings:

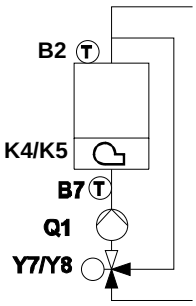
MG/EM:

- Maintained return temperature

OL5770 (Source type):

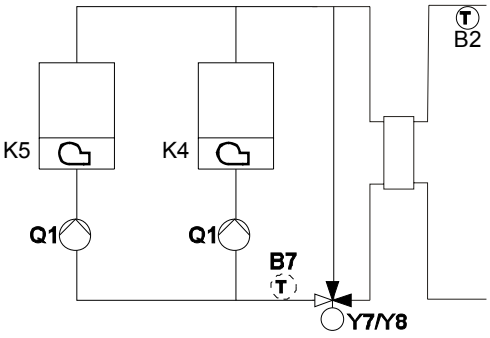
- 1-stage, or
- Without boiler sensor

OeG10



Required settings:
MG/EM:
- Maintained return temperature

OL5770 (Source type):
- 2-stage, or
- 2 x 1 cascade

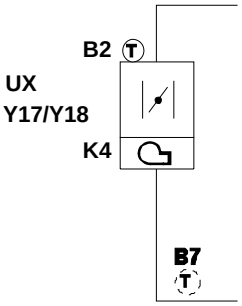


Note:
For 2 x 1 cascade, set boiler pump Q1 fix to QX1, QX2

1.1.2 Oil / gas, modulating

Modulating oil / gas burners with 3-position damper actuator or voltage output UX

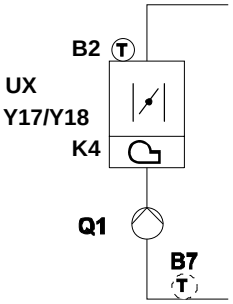
OeG11



Required settings:
OL5770 (Source type):
- Modulating 3-position, or
- Modulating UX

Optional settings:
BX:
- Return sensor B7

OeG12

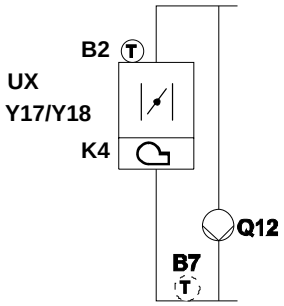


Required settings:
QX:
- Boiler pump Q1

OL5770 (Source type):
- Modulating 3-position, or
- Modulating UX

Optional settings:
BX:
- Return sensor B7

OeG13

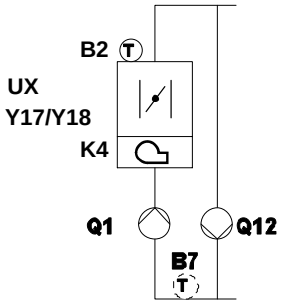


Required settings:
QX:
- Bypass pump Q12

OL5770 (Source type):
- Modulating 3-position, or
- Modulating UX

Optional settings:
BX:
- Return sensor B7

OeG14

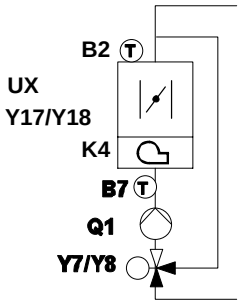


Required settings:
QX:
- Boiler pump Q1
- Bypass pump Q12

OL5770 (Source type):
- Modulating 3-position, or
- Modulating UX

Optional settings:
BX:
- Return sensor B7

OeG15

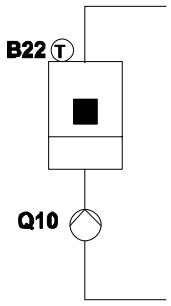


Required settings:
MG/EM:
- Maintained return temperature

OL5770 (Source type):
- Modulating 3-position, or
- Modulating UX

1.1.3 **Solid fuel** (wood)

Ho1

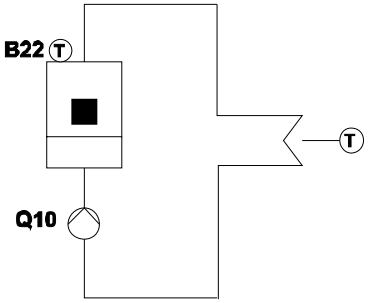


Required settings:
QX:
- Solid fuel boiler pump Q10

BX:
- Solid fuel boiler sensor B22

OL4133 (Comparative temp):
- Flow temperature setpoint, or
- Minimum setpoint

Ho2



Required settings:

QX:

- Solid fuel boiler pump Q10

BX:

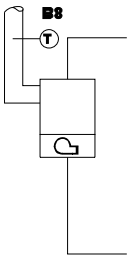
- Solid fuel boiler sensor B22

OL4133 (Comparative temp):

- DHW sensor B3, or
- DHW sensor B31, or
- Buffer sensor B4, or
- Buffer sensor B41

1.1.4 Extra functions oil / gas and solid fuel boilers

Flue gas temperature sensor



Required settings:

BX:

- Flue gas sensor B8

Optional settings:

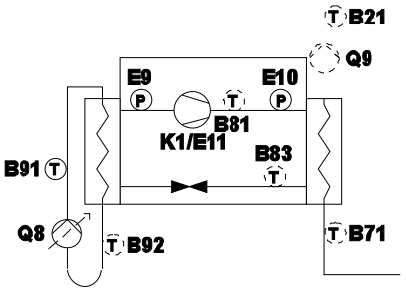
QX:

- Flue gas relay K17
- Assisted firing fan K30

1.2 Heat pump

1.2.1 Brine-to-water heat pump

WP10



Required settings:

OL5800 (Heat source):

- Brine

OL5807 (Refrigeration):

- Off

Optional settings:

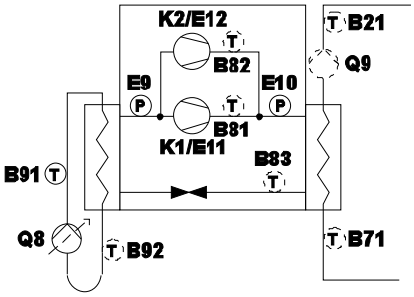
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP11



Required settings:

QX:

- Compressor stage 2 K2

OL5800 (Heat source):

- Brine

OL5807 (Refrigeration):

- Off

Optional settings:

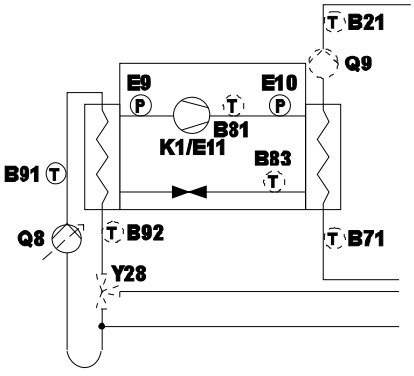
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP14



Required settings:

OL5800 (Heat source):

- Brine

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

QX:

- Div valve cool source Y28

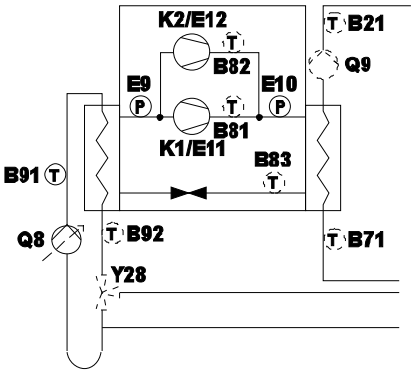
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP15



Required settings:

QX:

- Compressor stage 2 K2

OL5800 (Heat source):

- Brine

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

QX:

- Div valve cool source Y28

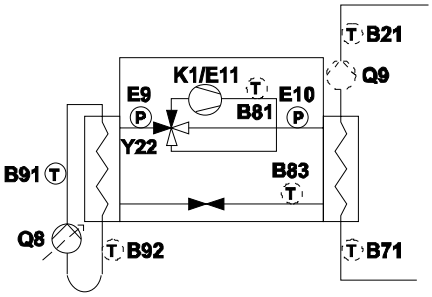
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP18



Required settings:

QX:

- Process reversing valve Y22

OL5800 (Heat source):

- Brine

OL5807 (Refrigeration):

- 2-pipe system

Optional settings:

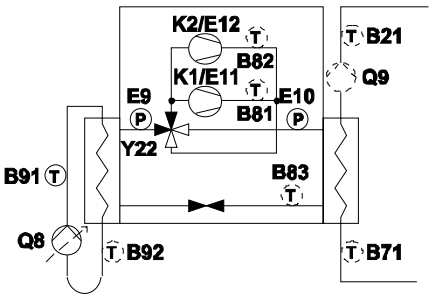
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP19



Required settings:

QX:

- Compressor stage 2 K2
- Process reversing valve Y22

OL5800 (Heat source):

- Brine

OL5807 (Refrigeration):

- 2-pipe system

Optional settings:

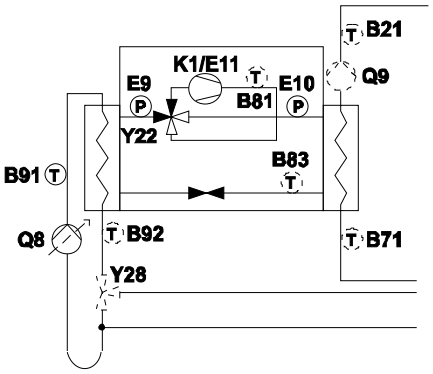
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP22



Required settings:

QX:

- Process reversing valve Y22

OL5800 (Heat source):

- Brine

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

QX:

- Div valve cool source Y28

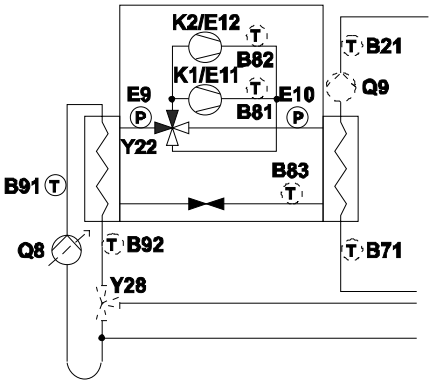
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP23



Required settings:

QX:

- Compressor stage 2 K2
- Process reversing valve Y22

OL5800 (Heat source):

- Brine

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

QX:

- Div valve cool source Y28

BX:

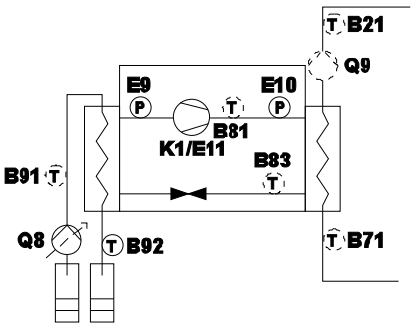
- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

1.2.2 HP water

WP30



Required settings:

OL5800 (Heat source):

- Water

OL5807 (Refrigeration):

- Off

Optional settings:

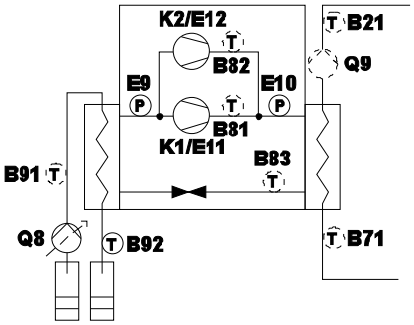
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP31



Required settings:

QX:

- Compressor stage 2 K2

OL5800 (Heat source):

- Water

OL5807 (Refrigeration):

- Off

Optional settings:

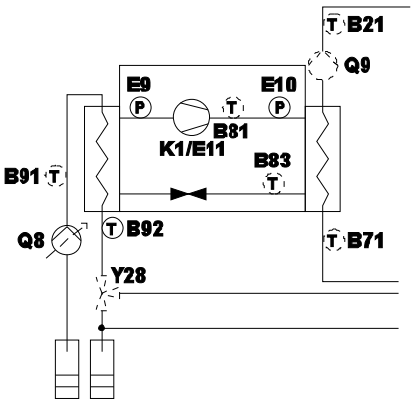
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP34



Required settings:

OL5800 (Heat source):

- Water

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

QX:

- Div valve cool source Y28

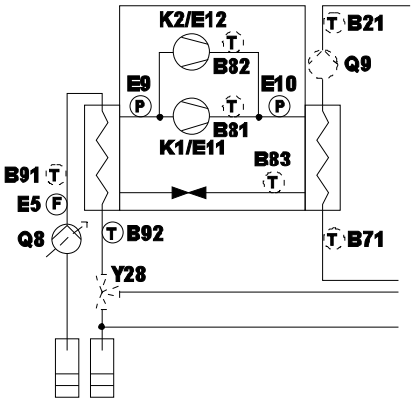
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP35



Required settings:

QX:

- Compressor stage 2 K2

OL5800 (Heat source):

- Water

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

QX:

- Div valve cool source Y28

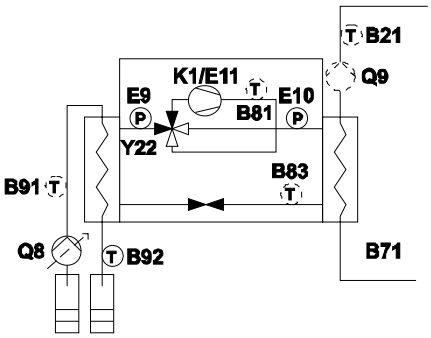
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP38



Required settings:

QX:

- Process reversing valve Y22

OL5800 (Heat source):

- Water

OL5807 (Refrigeration):

- 2-pipe system

Optional settings:

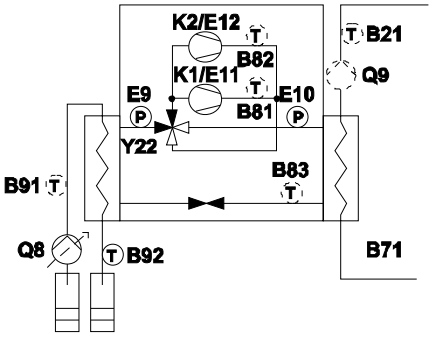
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP39



Required settings:

QX:

- Compressor stage 2 K2
- Process reversing valve Y22

OL5800 (Heat source):

- Water

OL5807 (Refrigeration):

- 2-pipe system

Optional settings:

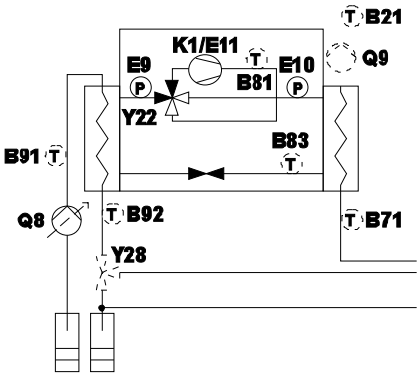
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP42



Required settings:

QX:

- Process reversing valve Y22

OL5800 (Heat source):

- Water

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

QX:

- Div valve cool source Y28

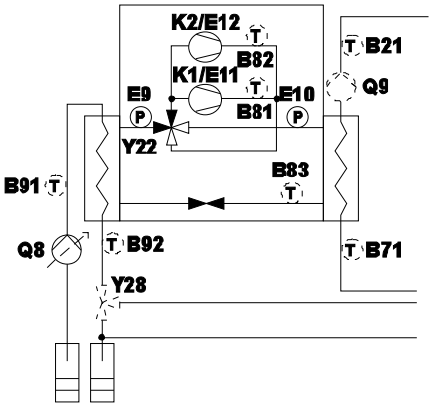
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP43



Required settings:

QX:

- Compressor stage 2 K2
- Process reversing valve Y22

OL5800 (Heat source):

- Water

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

QX:

- Div valve cool source Y28

BX:

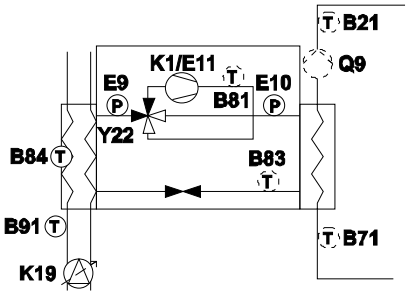
- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

Source pump Q8/fan K19

1.2.3 HP air

HP50



Required settings:

QX:

- Process reversing valve Y22

OL5800 (Heat source):

- Air

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

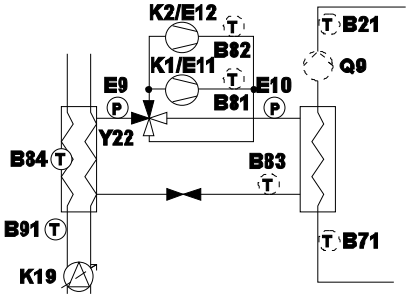
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

WP51



Required settings:

QX:

- Compressor stage 2 K2
- Process reversing valve Y22

OL5800 (Heat source):

- Air

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

BX:

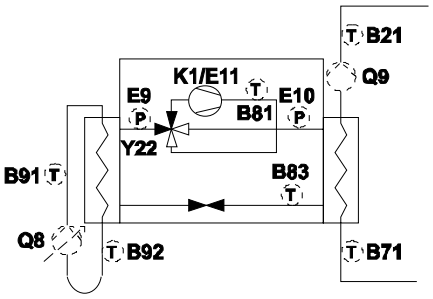
- Hot-gas sensor B81
- Refrigerant sensor liquid B83

UX:

- Source pump Q8/fan K19

1.2.4 HP externally

WP60



Required settings:

OL5800 (Heat source):

- Externally

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

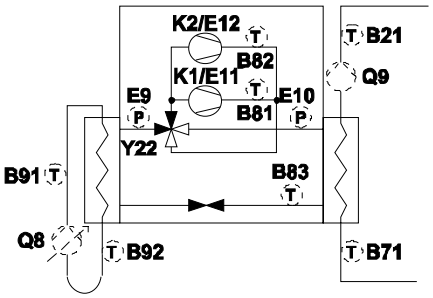
BX:

- Hot-gas sensor B81
- Refrigerant sensor liquid B83

QX:

- Process reversing valve Y22

WP61



Required settings:

QX:

- Compressor stage 2 K2

OL5800 (Heat source):

- Externally

OL5807 (Refrigeration):

- 4-pipe system

Optional settings:

BX:

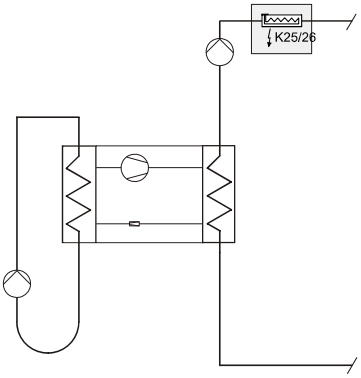
- Hot-gas sensor B81
- Refrigerant sensor liquid B83

QX:

- Process reversing valve Y22

1.2.5 Extra functions heat pump

Flow electrical immersion heater 1/2



Required settings:

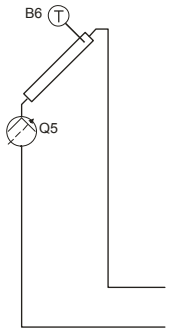
QX:

- Flow el imm heater 1 K25
- Flow el imm heater 2 K25

1.3 Solar

1.3.1 1 collector panel

Sol1

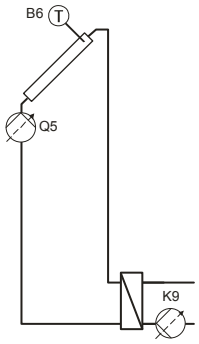


Required settings:
QX:
- Collector pump Q5

BX:
- Collector sensor B6

Optional settings:
UX:
- Q5

Sol3

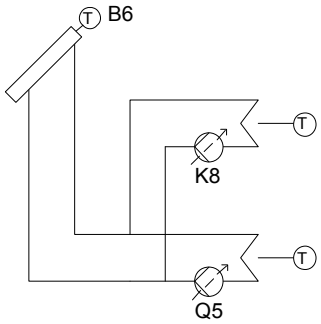


Required settings:
QX:
- Collector pump Q5
- Solar pump ext exchanger K9

BX:
- Collector sensor B6

Optional settings:
UX:
- Q5 / K9

Sol5



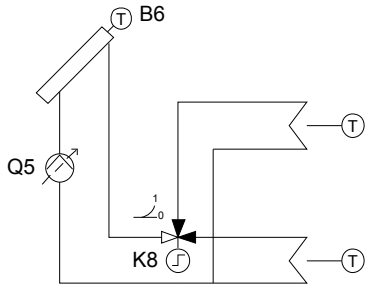
Required settings:
QX:
- Collector pump Q5
- Solar control element buffer K8

BX:
- Collector sensor B6

OL5840 (Solar controlling element):
- Charging pump

Optional settings:
UX:
- Q5 / K8

Sol6



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

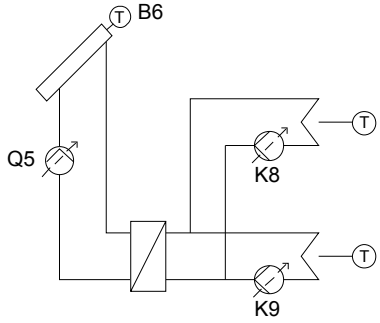
- Diverting valve

Optional settings:

UX:

- Q5

Sol8



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

- Charging pump

OL5841 (External solar exchanger):

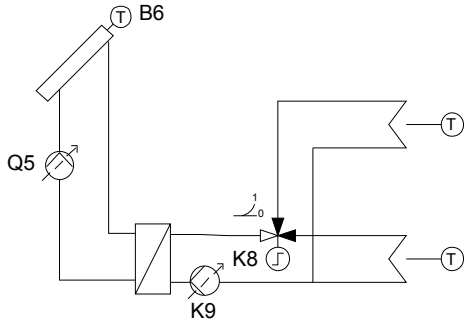
- Commonly

Optional settings:

UX:

- Q5 / K8 / K9

Sol9



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

- Diverting valve

OL5841 (External solar exchanger):

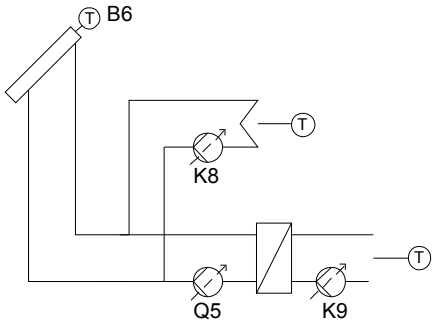
- Commonly

Optional settings:

UX:

- Q5 / K9

Sol10



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

- Charging pump

OL5841 (External solar exchanger):

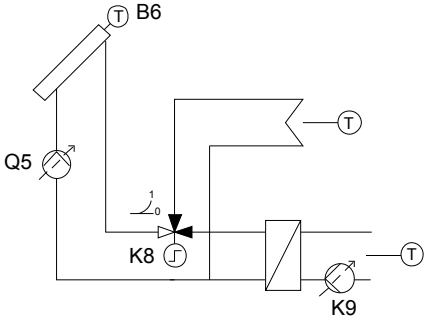
- DHW storage tank

Optional settings:

UX:

- Q5 / K8 / K9

Sol11



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

- Diverting valve

OL5841 (External solar exchanger):

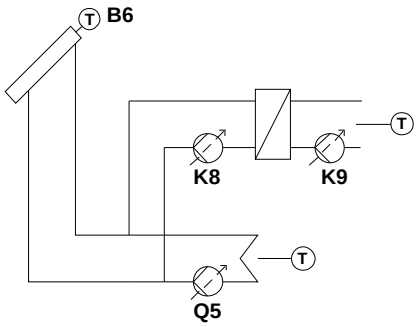
- DHW storage tank

Optional settings:

UX:

- Q5 / K9

Sol12



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

- Charging pump

OL5841 (External solar exchanger):

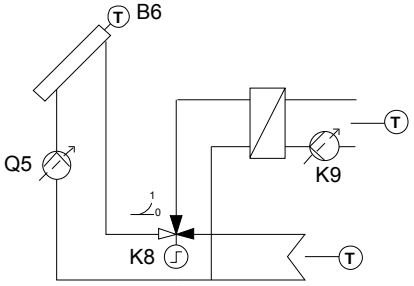
- Buffer sensor

Optional settings:

UX:

- Q5 / K8 / K9

Sol13



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6

OL5840:

- Diverting valve

OL5841 (External solar exchanger):

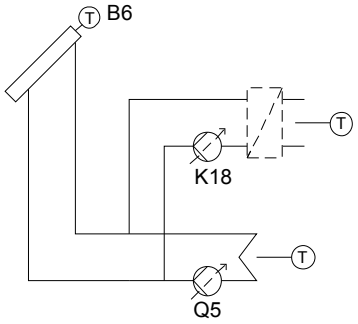
- Buffer sensor

Optional settings:

UX:

- Q5 / K9

Sol14



Required settings:

QX:

- Collector pump Q5
- Solar control element swi pool K18

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

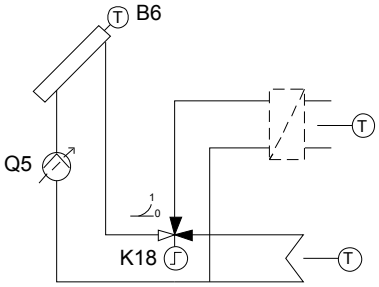
- Charging pump

Optional settings:

UX:

- Q5 / K18

Sol15



Required settings:

QX:

- Collector pump Q5
- Solar control element swi pool K18

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

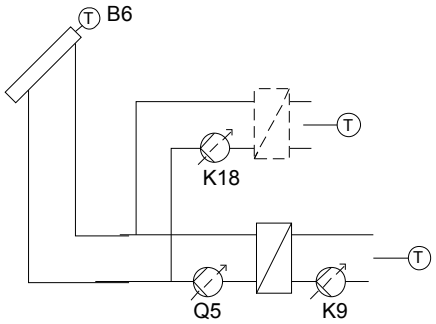
- Diverting valve

Optional settings:

UX:

- Q5

Sol17



Required settings:

QX:

- Collector pump Q5
- Solar pump ext exchanger K9
- Solar control element swi pool K18

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

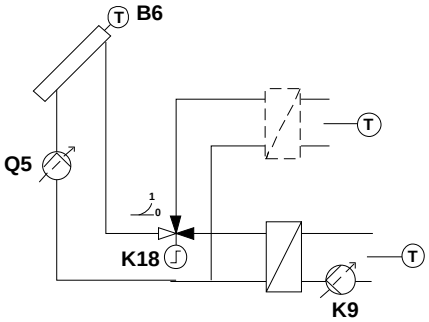
- Charging pump

Optional settings:

UX:

- Q5 / K9 / K18

Sol18



Required settings:

QX:

- Collector pump Q5
- Solar pump ext exchanger K9
- Solar control element swi pool K18

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

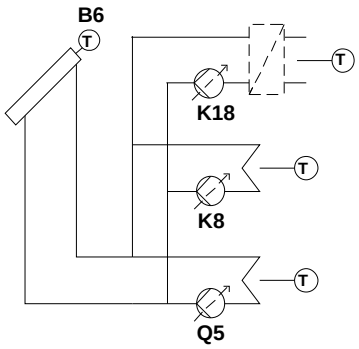
- Diverting valve

Optional settings:

UX:

- Q5 / K9

Sol19



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar control element swi pool K18

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

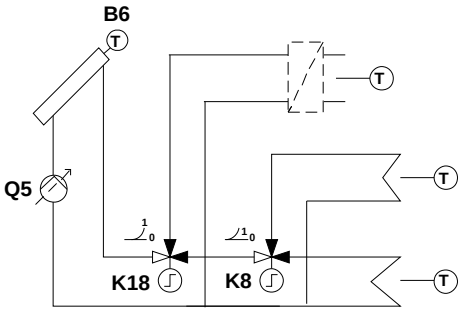
- Charging pump

Optional settings:

UX:

- Q5 / K8 / K18

Sol20



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar contr. element swi pool K18

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

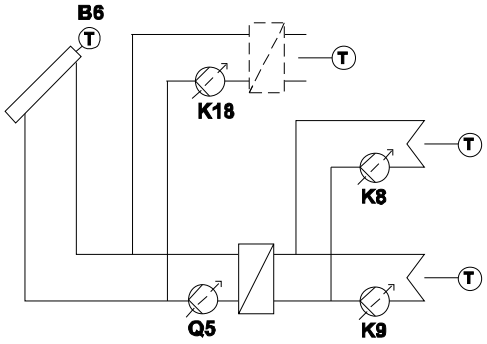
- Diverting valve

Optional settings:

UX:

- Q5

Sol22



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar control element swi pool K18

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

- Charging pump

OL5841 (External solar exchanger):

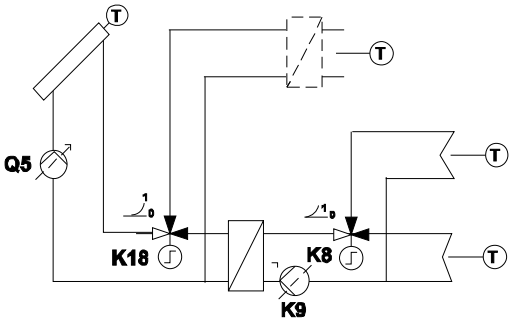
- Commonly

Optional settings:

UX:

- Q5 / K8 / K9 / K18

Sol23



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar control element swi pool K18

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

- Diverting valve

OL5841 (External solar exchanger):

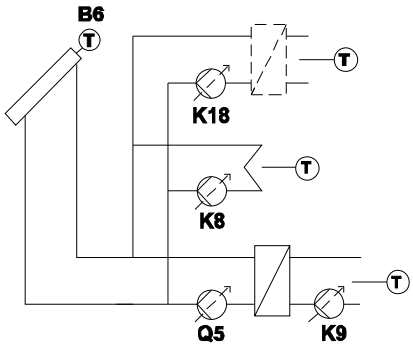
- Commonly

Optional settings:

UX:

- Q5 / K9

Sol24



Required settings:

QX:
- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar contr.element swi pool K18

BX:
- Collector sensor B6

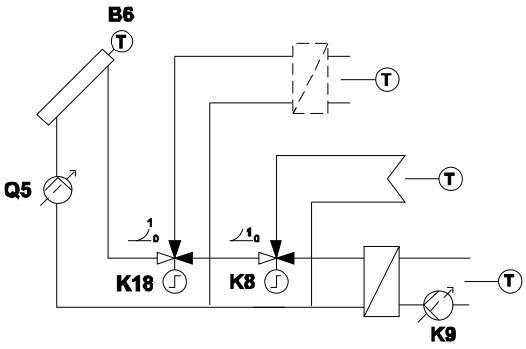
OL5840 (Solar contr.element):
- Charging pump

OL5841 (External solar exchanger):
- DHW storage tank

Optional settings:

UX:
- Q5 / K8 / K9 / K18

Sol25



Required settings:

QX:
- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar contr.element swi pool K18

BX:
- Collector sensor B6

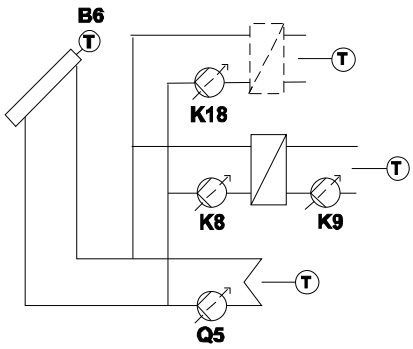
OL5840 (Solar contr.element):
- Diverting valve

OL5841 (External solar exchanger):
- DHW storage tank

Optional settings:

UX:
- Q5 / K9

Sol26



Required settings:

QX:
- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar contr.element swi pool K18

BX:
- Collector sensor B6

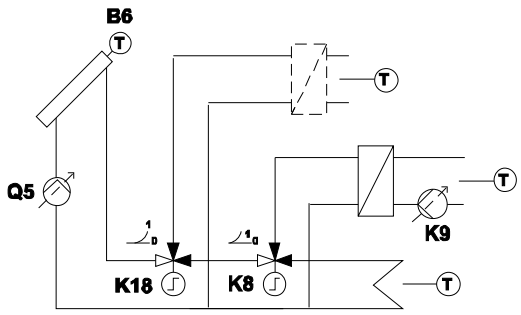
OL5840 (Solar contr.element):
- Charging pump

OL5841 (External solar exchanger):
- Buffer sensor

Optional settings:

UX:
- Q5 / K8 / K9 / K18

Sol27



Required settings:

QX:

- Collector pump Q5
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar control element swi pool K18

BX:

- Collector sensor B6

OL5840 (Solar controlling element):

- Diverting valve

OL5841 (External solar exchanger):

- Buffer sensor

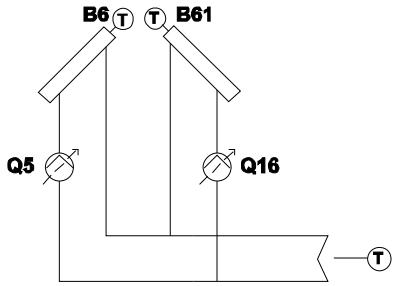
Optional settings:

UX:

- Q5 / K9

1.3.2 2 collector panels

Sol31



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16

BX:

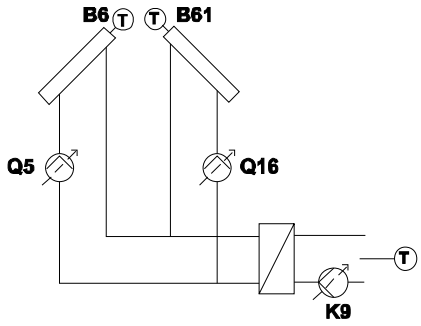
- Collector sensor B6
- Collector sensor B61

Optional settings:

UX:

- Q5 / Q16

Sol33



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar pump ext exchanger K9

BX:

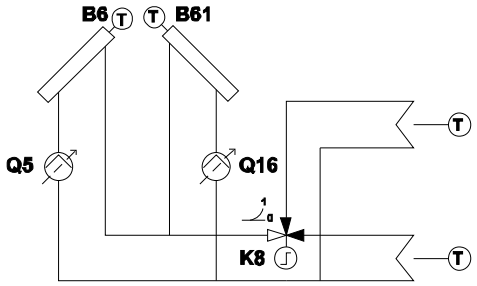
- Collector sensor B6
- Collector sensor B61

Optional settings:

UX:

- Q5 / Q16 / K9

Sol35



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8

BX:

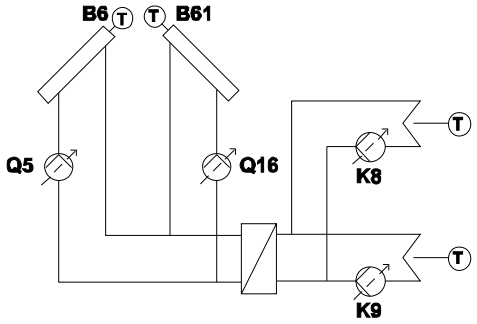
- Collector sensor B6
- Collector sensor B61

Optional settings:

UX:

- Q5 / Q16

Sol37



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

- Charging pump

OL5841 (External solar exchanger):

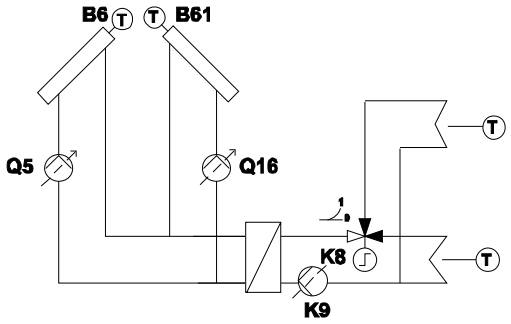
- Commonly

Optional settings:

UX:

- Q5 / Q16 / K8 / K9

Sol38



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

- Diverting valve

OL5841 (External solar exchanger):

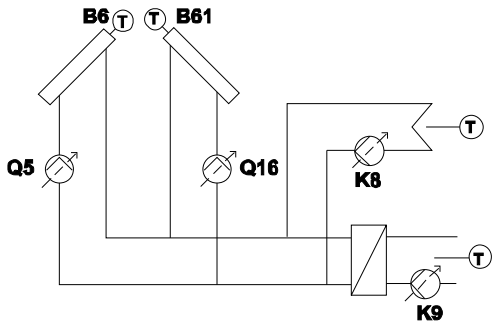
- Commonly

Optional settings:

UX:

- Q5 / Q16 / K9

Sol 39



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

- Charging pump

OL5841 (External solar exchanger):

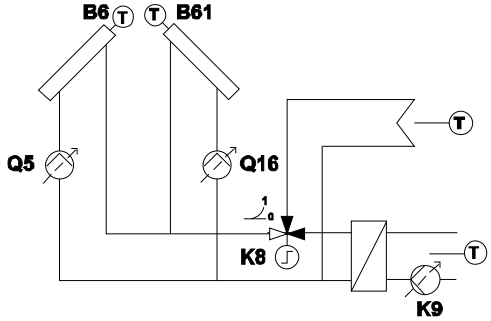
- DHW storage tank

Optional settings:

UX:

- Q5 / Q16 / K8 / K9

Sol40



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

- Diverting valve

OL5841 (External solar exchanger):

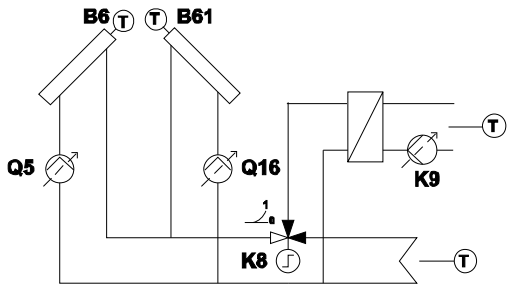
- DHW storage tank

Optional settings:

UX:

- Q5 / Q16 / K9

Sol41



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9

BX:

- Collector sensor B6
- Collector sensor B61

OL5841 (External solar exchanger):

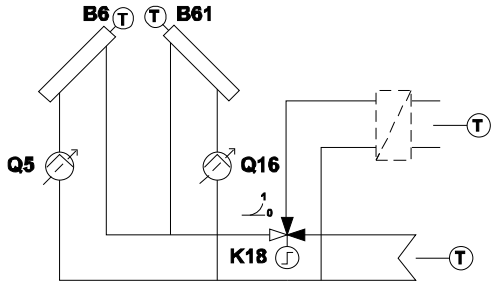
- Buffer sensor

Optional settings:

UX:

- Q5 / Q16 / K9

Sol42



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element swi pool K18

BX:

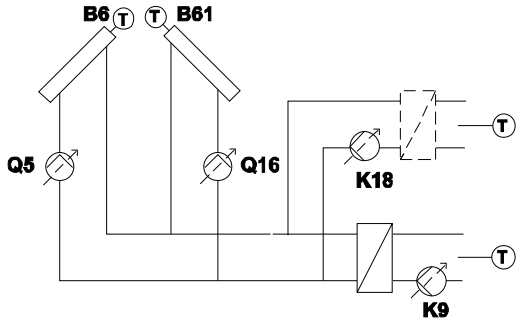
- Collector sensor B6
- Collector sensor B61

Optional settings:

UX:

- Q5 / Q16

Sol44



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar pump ext exchanger K9
- Solar control element swi pool K18

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

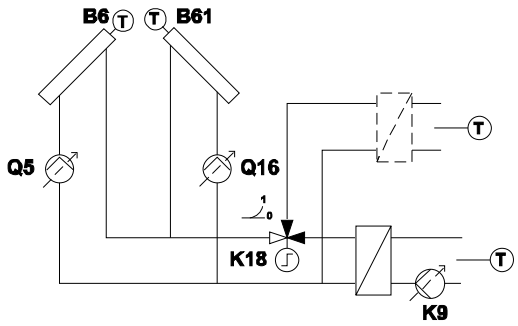
- Charging pump

Optional settings:

UX:

- Q5 / Q16 / K9 / K18

Sol45



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar pump ext exchanger K9
- Solar contr.element swi pool K18

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

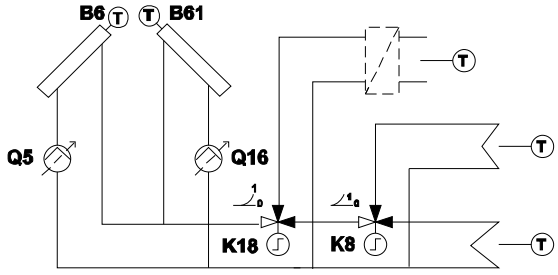
- Diverting valve

Optional settings:

UX:

- Q5 / Q16 / K9

Sol46



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar control element swi pool K18

BX:

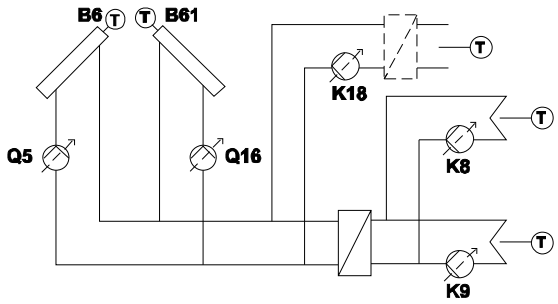
- Collector sensor B6
- Collector sensor B61

Optional settings:

UX:

- Q5 / Q16

Sol48



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar control element swi pool K18

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

- Charging pump

OL5841 (External solar exchanger):

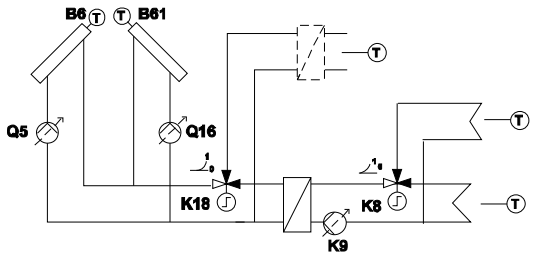
- Commonly

Optional settings:

UX:

- Q5 / Q16 / K8 / K9 / K18

Sol49



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar control element swi pool K18

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

- Diverting valve

OL5841 (External solar exchanger):

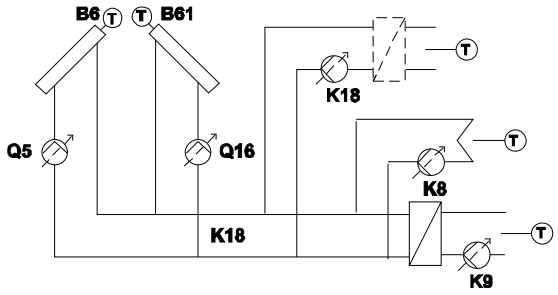
- Commonly

Optional settings:

UX:

- Q5 / Q16 / K9

Sol50



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar control element swi pool K18

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

- Charging pump

OL5841 (External solar exchanger):

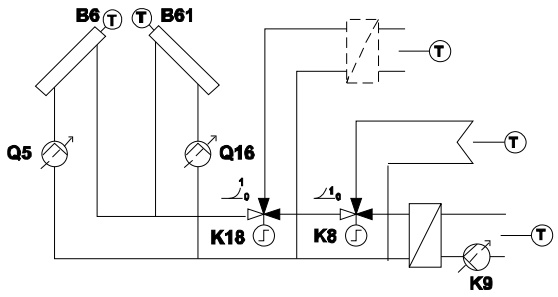
- DHW storage tank

Optional settings:

UX:

- Q5 / Q16 / K8 / K9 / K18

Sol51



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar contr.element swi pool K18

BX:

- Collector sensor B6
- Collector sensor B61

OL5840 (Solar controlling element):

- Diverting valve

OL5841 (External solar exchanger):

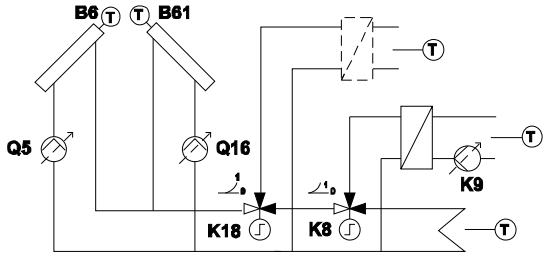
- DHW storage tank

Optional settings:

UX:

- Q5 / Q16 / K9

Sol52



Required settings:

QX:

- Collector pump Q5
- Collector pump 2 Q16
- Solar control element buffer K8
- Solar pump ext exchanger K9
- Solar contr.element swi pool K18

BX:

- Collector sensor B6
- Collector sensor B61

OL5841 (External solar exchanger):

- Buffer sensor

Optional settings:

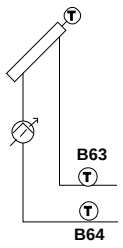
UX:

- Q5 / Q16 / K9

1.3.3 Extra functions solar

The extra functions extend the scope of functions of the partial diagrams.

dT for solar yield measurement



Required settings:

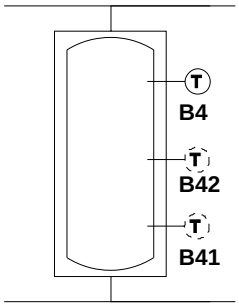
BX:

- Solar return sensor B63 (hot)
- Solar return sensor B64 (cold)

2 Storage tank temperature

2.1 Buffer sensor

Sp1



Required settings:

BX:

- Buffer sensor B4

OL4783 (With solar integration):

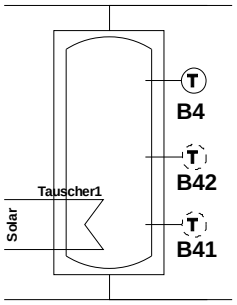
- No

Optional settings:

BX:

- Buffer sensor B41
- Buffer sensor B42

Sp2



Required settings:

BX:

- Buffer sensor B4

OL4783 (With solar integration):

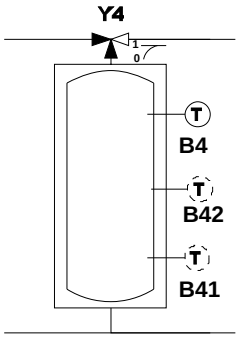
- Yes

Optional settings:

BX:

- Buffer sensor B41
- Buffer sensor B42

Sp4



Required settings:

QX:

- **Heat generation shutoff valve Y4**

BX:

- Buffer sensor B4

OL4783 (With solar integration):

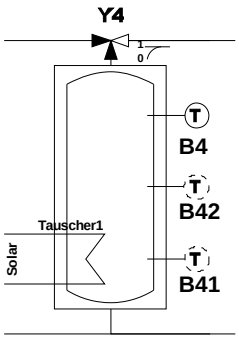
- No

Optional settings:

BX:

- Buffer sensor B41
- Buffer sensor B42

Sp5



Required settings:

QX:

- **Heat generation shutoff valve Y4**

BX:

- Buffer sensor B4

OL4783 (With solar integration):

- Yes

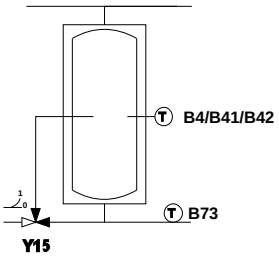
Optional settings:

BX:

- Buffer sensor B41
- Buffer sensor B42

2.1.1 Extra functions buffer storage tank

Return diverting valve



Required settings:

QX:

- Buffer return valve Y15

BX:

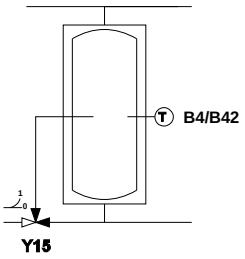
- Common return sensor B73

Optional settings:

BX:

- Buffer sensor B41
- Buffer sensor B42

Storage tank partial charging



Required settings:

QX:

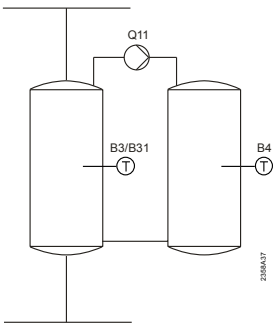
- Buffer return valve Y15

Optional settings:

BX:

- Buffer sensor B42

Storage tank transfer pump



Required settings:

QX:

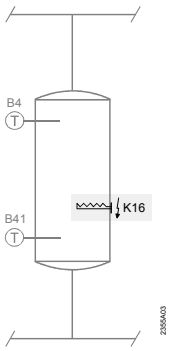
- Stor tank transfer pump Q11

Optional settings:

BX:

- DHW sensor B31

Electrical immersion heater buffer

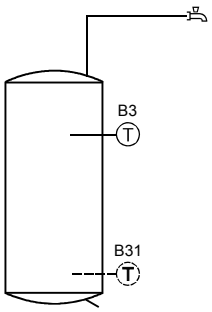


Required settings:
QX:
- El imm heater buffer K16

2.2 DHW storage tank

2.2.1 Without controlling element

TWWSp1

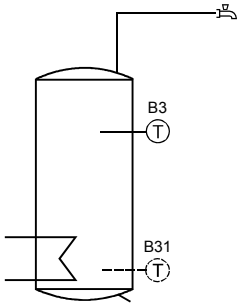


Required settings:
OL4783 (With solar integration):
- No

OL5731:
- None

Optional settings:
BX:
- DHW sensor B31

TWWSp2



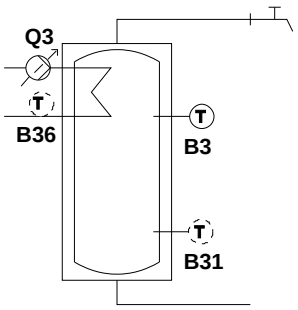
Required settings:
OL4783 (With solar integration):
- Yes

OL5731 (DHW controlling element Q3):
- None

Optional settings:
BX:
- DHW sensor B31

2.2.2 With charging pump

TWWSp4



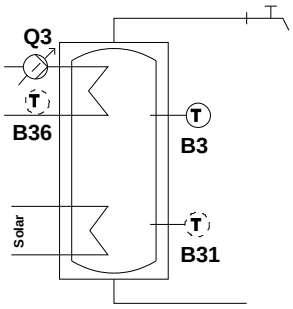
Required settings:
OL5093 (With solar integration):
- No

OL5731 (DHW controlling element Q3):
- Charging pump

Optional settings:
BX:
- DHW sensor B31
- DHW charging sensor B36

UX:
- DHW pump Q3

TWWSp5



Required settings:
OL5093 (With solar integration):
- Yes

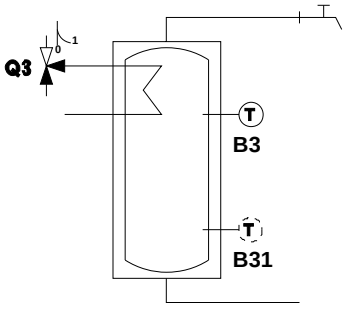
OL5731 (DHW controlling element Q3):
- Charging pump

Optional settings:
BX:
- DHW sensor B31
- DHW charging sensor B36

UX:
- DHW pump Q3

2.2.3 Diverting valve

TWWSp13

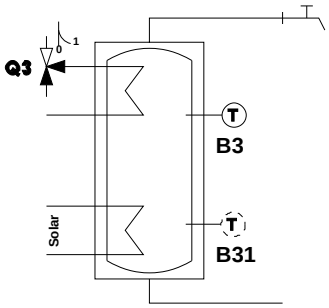


Required settings:
OL5093 (With solar integration):
- No

OL5731 (DHW controlling element Q3):
- Diverting valve

Optional settings:
BX:
- DHW sensor B31

TWWSp14



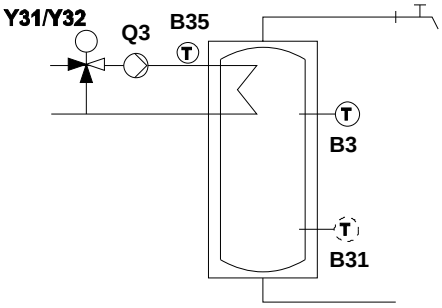
Required settings:
OL5093 (With solar integration):
- Yes

OL5731 (DHW controlling element Q3):
- Diverting valve

Optional settings:
BX:
- DHW sensor B31

2.2.4 Primary controller

TWWSp16

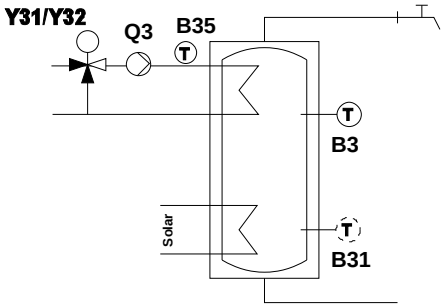


Required settings:
MG/EM:
- DHW primary controller

OL5093 (With solar integration):
- No

Optional settings:
BX:
- DHW sensor B31

TWWSp17



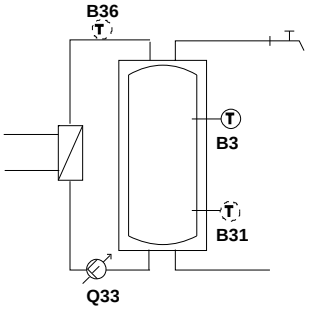
Required settings:
MG/EM:
- DHW primary controller

OL5093 (With solar integration):
- Yes

Optional settings:
BX:
- DHW sensor B31

2.2.5 Intermediate circuit (ext. heat exchanger)

TWWSp19



Required settings:
QX:
- DHW interm circuit pump Q33

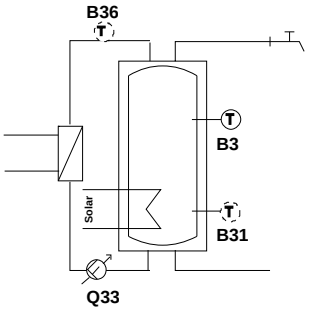
OL5731 (DHW controlling element Q3):
- None

OL5093 (With solar integration):
- No

Optional settings:
BX:
- DHW sensor B31
- DHW charging sensor B36

UX:
- DHW interm circuit pump Q33

TWWSp20



Required settings:

QX:

- DHW interm circuit pump Q33

OL5731 (DHW controlling element Q3):

- None

OL5093 (With solar integration):

- Yes

Optional settings:

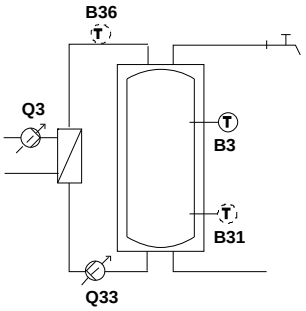
BX:

- DHW sensor B31
- DHW charging sensor B36

UX:

- DHW interm circuit pump Q33

TWWSp22



Required settings:

QX:

- DHW interm circuit pump Q33

OL5731 (DHW controlling element Q3):

- Charging pump

OL5093 (With solar integration):

- No

Optional settings:

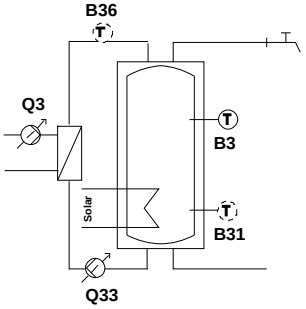
BX:

- DHW sensor B31
- DHW charging sensor B36

UX:

- DHW interm circuit pump Q33
- DHW pump Q3

TWWSp23



Required settings:

QX:

- DHW interm circuit pump Q33

OL5731 (DHW controlling element Q3):

- Charging pump

OL5093 (With solar integration):

- Yes

Optional settings:

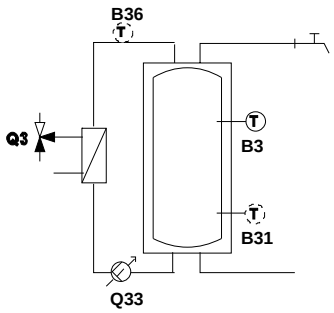
BX:

- DHW sensor B31
- DHW charging sensor B36

UX:

- DHW interm circuit pump Q33
- DHW pump Q3

TWWSp25



Required settings:

QX:

- DHW interm circuit pump Q33

OL5731 (DHW controlling element Q3):

- Diverting valve

OL5093 (With solar integration):

- No

Optional settings:

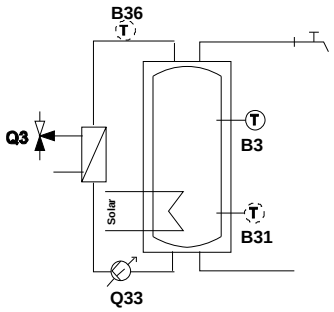
BX:

- DHW sensor B31
- DHW charging sensor B36

UX:

- DHW interm circuit pump Q33

TWWSp26



Required settings:

QX:

- DHW interm circuit pump Q33

OL5731 (DHW controlling element Q3):

- Diverting valve

OL5093 (With solar integration):

- Yes

Optional settings:

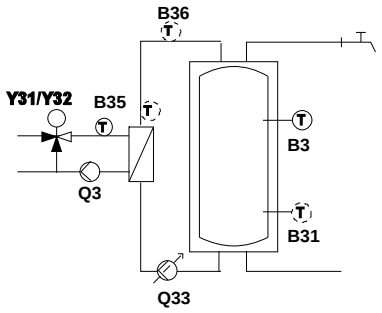
BX:

- DHW sensor B31
- DHW charging sensor B36

UX:

- DHW interm circuit pump Q33

TWWSp28



Required settings:

MG/EM:

- DHW primary controller

QX:

- DHW interm circuit pump Q33

OL5093 (With solar integration):

- No

Optional settings:

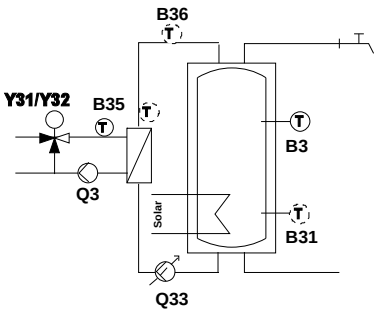
BX:

- DHW sensor B31
- DHW charging sensor B36

UX:

- DHW interm circuit pump Q33

TWWSp29



Required settings:

MG/EM:

- DHW primary controller

QX:

- DHW interm circuit pump Q33

OL5093 (With solar integration):

- Yes

Optional settings:

BX:

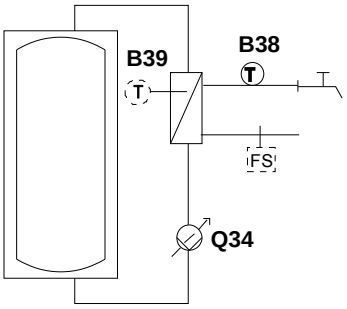
- DHW sensor B31
- DHW charging sensor B36

UX:

- DHW interm circuit pump Q33

2.2.6 Instantaneous DHW heater

TWWDI3



Required settings:

QX:

- Instant DHW heater Q34

BX:

- DHW outlet sensor B38

Optional settings:

BX:

- DHW circulation sensor B39

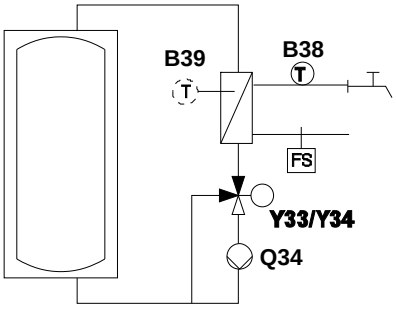
UX:

- Instant DHW heater Q34

Note:

- Requires DHW storage tank

TWWDI8



Required settings:

MG/EM:

- Instantaneous DHW heater

Optional settings:

BX:

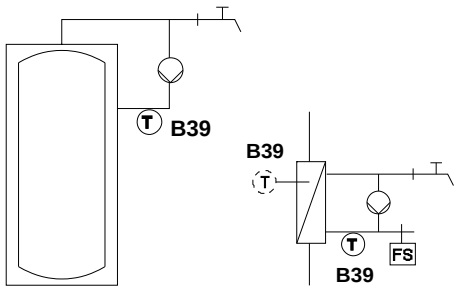
DHW circulation sensor B39

Note:

- Requires DHW storage tank

2.2.7 Extra functions DHW storage tank (DHW)

DHW circulating pump



Required settings:

QX:

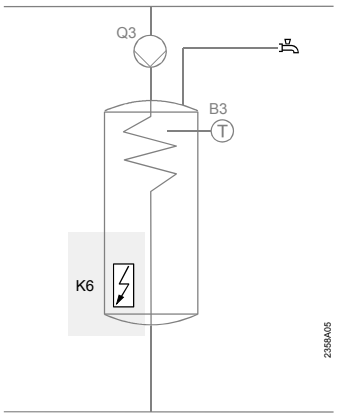
- Circulating pump Q4

Optional settings:

BX:

- DHW circulation sensor B39

Electrical immersion heater DHW storage tank

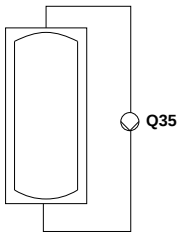


Required settings:

QX:

- El immersion heater DHW

DHW mixing pump



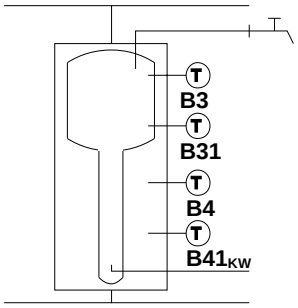
Required settings:

QX:

- DHW mixing pump Q35

2.3 Combi storage tank

KoSp1



Required settings:

BX:

- Buffer sensor B4

OL5807 (Refrigeration):

- Yes

OL5731 (DHW controlling element Q3):

- None

Optional settings:

BX:

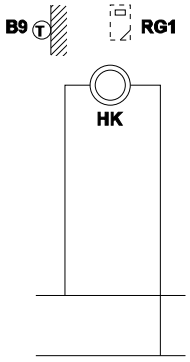
- DHW sensor B31
- Buffer sensor B41

3 Distribution

3.1 Control loop room 1

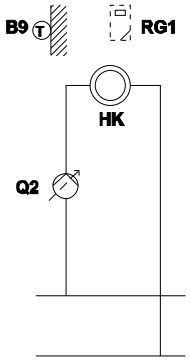
3.1.1 Heating or cooling circuit in 2-pipe system

Rh1



Required settings:
MG1:
– ≠ heating circuit 1
OL5710 (Heating circuit 1):
– On

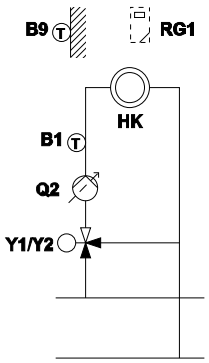
Rh2



Required settings:
MG1:
– Heating circuit 1
OL5710 (Heating circuit 1):
– On

Optional settings:
UX:
– Heat circuit pump HC1 Q2
QX:
– 2nd pump speed HC1 Q21

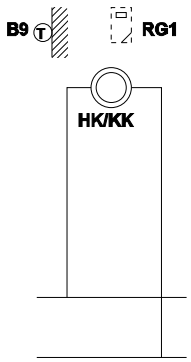
Rh3



Required settings:
MG1:
– Heating circuit 1
OL5710 (Heating circuit 1):
– On

Optional settings:
UX:
– Heat circuit pump HC1 Q2
QX:
– 2nd pump speed HC1 Q21

Rh5

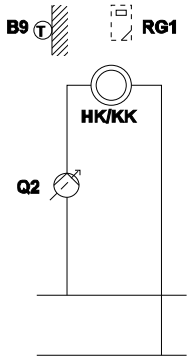


Required settings:
MG1:
- ≠ heating / cooling circuit 1

OL5710 (Heating circuit 1):
- On

OL5711 (Cooling circuit 1):
- 2-pipe system

Rh6



Required settings:
MG1:
- Heating/cooling circuit 1

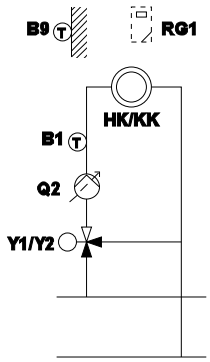
OL5710 (Heating circuit 1):
- On

OL5711 (Cooling circuit 1):
- 2-pipe system

Optional settings:
UX:
- Heating circuit pump HC1 Q2

QX:
- 2nd pump speed HC1 Q21

Rh7



Required settings:
MG1:
- Heating/cooling circuit 1

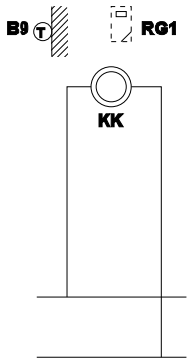
OL5710 (Heating circuit 1):
- On

OL5711 (Cooling circuit 1):
- 2-pipe system

Optional settings:
UX:
- Heating circuit pump HC1 Q2

QX:
- 2nd pump speed HC1 Q21

Rh8

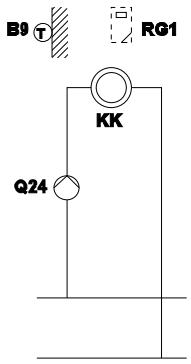


Required settings:
MG1:
- ≠ cooling circuit 1

OL5710 (Heating circuit 1):
- Off

OL5711 (Cooling circuit 1):
- 2-pipe system

Rh9



Required settings:

MG1:

– Cooling circuit 1

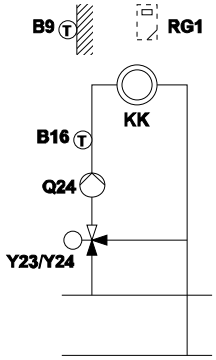
OL5710 (Heating circuit 1):

– Off

OL5711 (Cooling circuit 1):

– 2-pipe system

Rh10



Required settings:

MG1:

– Cooling circuit 1

OL5710 (Heating circuit 1):

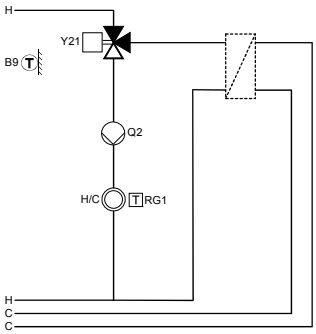
– Off

OL5711 (Cooling circuit 1):

– 2-pipe system

3.1.2 Heating or cooling circuit in 4-pipe system

Rh12



Required settings:

MG1:

– Heating/cooling circuit 1

QX:

– Diverting valve cooling Y21

OL5710 (Heating circuit 1):

– On

OL5711 (Cooling circuit 1):

– 4-pipe system

Optional settings:

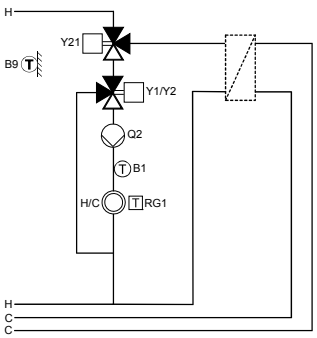
UX:

– Heating circuit pump HC1 Q2

QX:

– 2nd pump speed HC1 Q21

Rh14



Required settings:

MG1:

- Heating/cooling circuit 1

QX:

- Diverting valve cooling Y21

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 4-pipe system

OL5712 (Use of mixing valve 1):

- Heating and cooling

Optional settings:

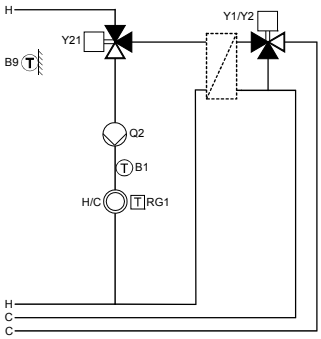
UX:

- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

Rh15



Required settings:

MG1:

- Heating/cooling circuit 1

QX:

- Diverting valve cooling Y21

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 4-pipe system

OL5712 (Use of mixing valve 1):

- Heating

Optional settings:

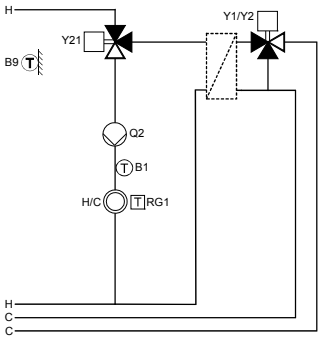
UX:

- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

Rh16



Required settings:

MG1:

- Heating/cooling circuit 1

QX:

- Diverting valve cooling Y21

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 4-pipe system

OL5712 (Use of mixing valve 1):

- Cooling

Optional settings:

UX:

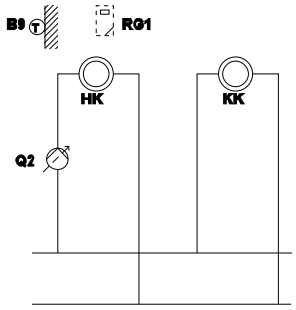
- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

3.1.3 Heating and cooling circuit in 2-pipe system

Rh20



Required settings:

MG1:

- Heating circuit 1

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 2-pipe system

Optional settings:

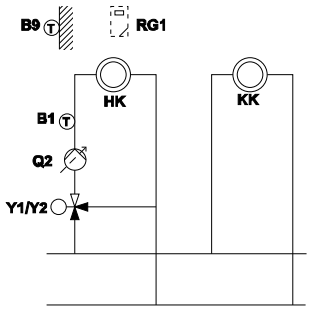
UX:

- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

Rh21



Required settings:

MG1:

- Heating circuit 1

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 2-pipe system

Optional settings:

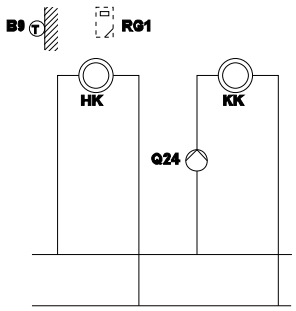
UX:

- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

Rh22



Required settings:

MG1:

- Cooling circuit 1

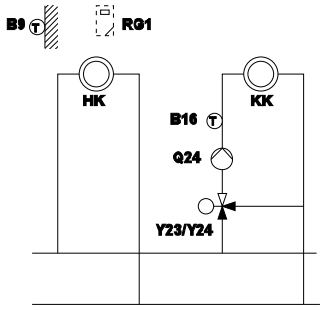
OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 2-pipe system

Rh23



Required settings:

MG1:

- Cooling circuit 1

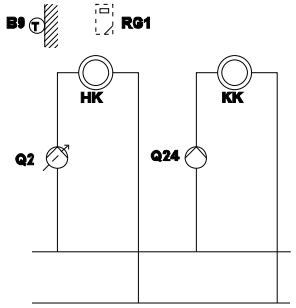
OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 2-pipe system

Rh24



Required settings:

MG1:

- Heating circuit 1

EM:

- Cooling circuit 1

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 2-pipe system

Optional settings:

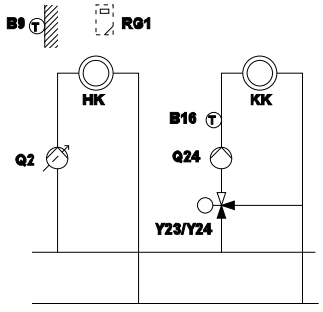
UX:

- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

Rh25



Required settings:

MG1:

- Heating circuit 1

EM:

- Cooling circuit 1

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 2-pipe system

Optional settings:

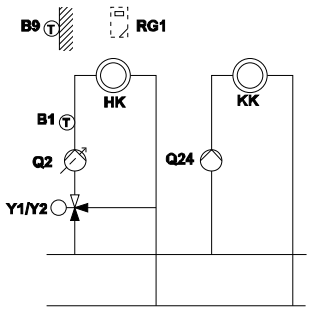
UX:

- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

Rh26



Required settings:

MG1:

– Heating circuit 1

EM:

– Cooling circuit 1

OL5710 (Heating circuit 1):

– On

OL5711 (Cooling circuit 1):

– 2-pipe system

Optional settings:

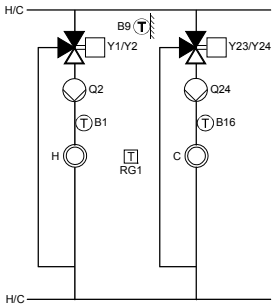
UX:

– Heating circuit pump HC1 Q2

QX:

– 2nd pump speed HC1 Q21

Rh27



Required settings:

MG1:

– Heating circuit 1

EM:

– Cooling circuit 1

OL5710 (Heating circuit 1):

– On

OL5711 (Cooling circuit 1):

– 2-pipe system

Optional settings:

UX:

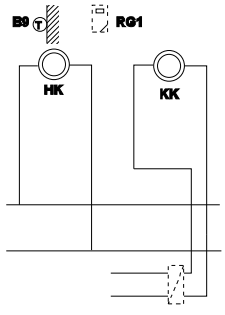
– Heating circuit pump HC1 Q2

QX:

– 2nd pump speed HC1 Q21

3.1.4 Heating and cooling circuit in 4-pipe system

Rh30



Required settings:

MG1/EM:

– ≠ heating/cooling circuit 1

– ≠ heating circuit 1

– ≠ cooling circuit 1

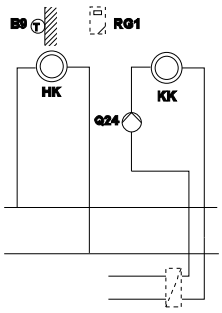
OL5710 (Heating circuit 1):

– On

OL5711 (Cooling circuit 1):

– 4-pipe system

Rh31



Required settings:

MG1:

- Cooling circuit 1

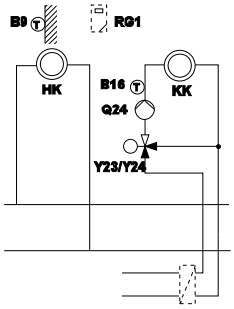
OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 4-pipe system

Rh32



Required settings:

MG1:

- Cooling circuit 1

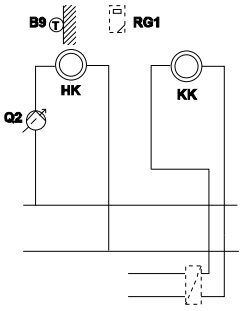
OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 4-pipe system

Rh33



Required settings:

MG1:

- Heating circuit 1

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 4-pipe system

Optional settings:

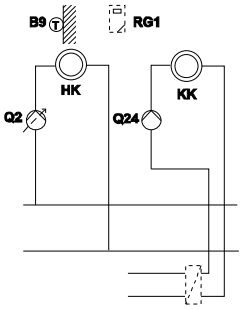
UX:

- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

Rh34



Required settings:

MG1:

- Heating circuit 1

EM:

- Cooling circuit 1

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 4-pipe system

Optional settings:

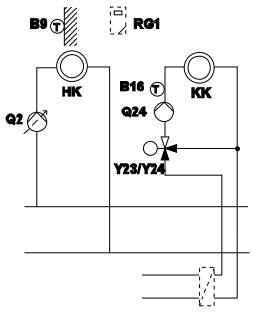
UX:

- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

Rh35



Required settings:

MG1:

– Heating circuit 1

EM:

– Cooling circuit 1

OL5710 (Heating circuit 1):

– On

OL5711 (Cooling circuit 1):

– 4-pipe system

Optional settings:

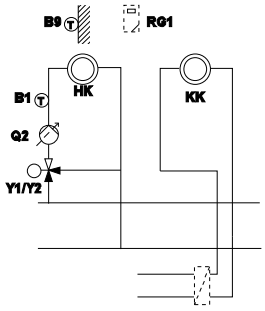
UX:

– Heating circuit pump HC1 Q2

QX:

– 2nd pump speed HC1 Q21

Rh36



Required settings:

MG1:

– Heating circuit 1

OL5710 (Heating circuit 1):

– On

OL5711 (Cooling circuit 1):

– 4-pipe system

Optional settings:

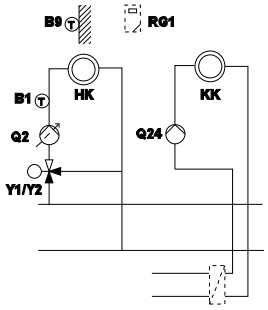
UX:

– Heating circuit pump HC1 Q2

QX:

– 2nd pump speed HC1 Q21

Rh37



Required settings:

MG1:

– Heating circuit 1

EM:

– Cooling circuit 1

OL5710 (Heating circuit 1):

– On

OL5711 (Cooling circuit 1):

– 4-pipe system

Optional settings:

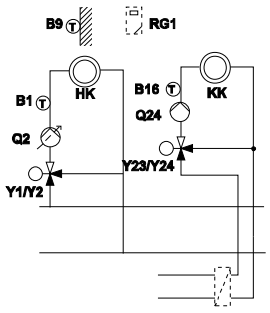
UX:

– Heating circuit pump HC1 Q2

QX:

– 2nd pump speed HC1 Q21

Rh38



Required settings:

MG1:

- Heating circuit 1

EM:

- Cooling circuit 1

OL5710 (Heating circuit 1):

- On

OL5711 (Cooling circuit 1):

- 4-pipe system

Optional settings:

UX:

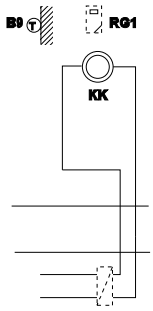
- Heating circuit pump HC1 Q2

QX:

- 2nd pump speed HC1 Q21

3.1.5 Cooling circuit in 4-pipe system

Rh40



Required settings:

MG1:

- ≠ cooling circuit 1

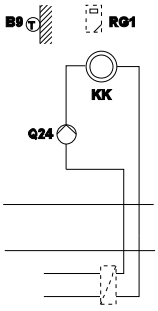
OL5710 (Heating circuit 1):

- Off

OL5711 (Cooling circuit 1):

- 4-pipe system

Rh41



Required settings:

MG1:

- Cooling circuit 1

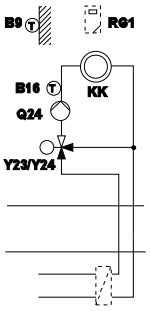
OL5710 (Heating circuit 1):

- Off

OL5711 (Cooling circuit 1):

- 4-pipe system

Rh42



Required settings:

MG1:

- Cooling circuit 1

OL5710 (Heating circuit 1):

- Off

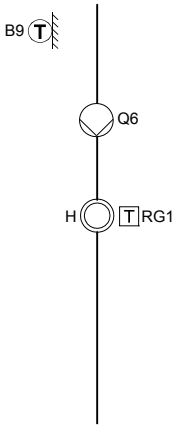
OL5711 (Cooling circuit 1):

- 4-pipe system

3.2 Control loop room 2

3.2.1 One heating circuit

Rh2



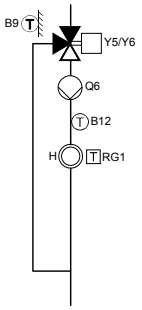
Required settings:
MG2:
- Heating circuit 2

OL5715 (Heating circuit 2):
- On

Optional settings:
UX:
- Heat circuit pump HC2 Q6

QX:
- 2nd pump speed HC2 Q22

Rh3



Required settings:
MG2:
- Heating circuit 2

OL5715 (Heating circuit 2):
- On

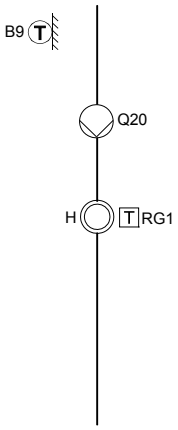
Optional settings:
UX:
- Heat circuit pump HC2 Q6

QX:
- 2nd pump speed HC2 Q22

3.3 Control loop room 3

3.3.1 One heating circuit

Rh2



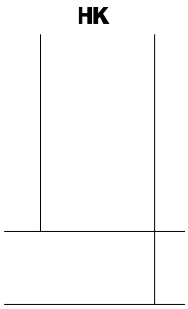
Required settings:
QX:
- Heat circuit pump HCP Q20

Optional settings:
UX:
- Heat circuit pump HCP Q20

QX:
- 2nd pump speed HCP Q23

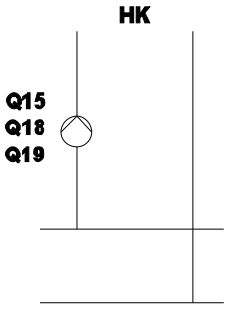
3.4 HX consumer circuit

Le1



Required settings:
HX:
- Min flow temp setpoint or
- Heat request 10V

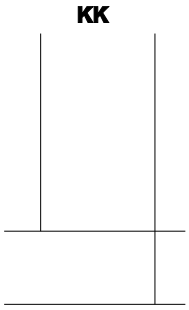
Le2



Required settings:
HX:
- Min flow temp setpoint or
- Heat demand 10V or
- Releas swimming pool

QX:
- H1 pump Q15 or
- H2 pump Q18 or
- H3 pump Q19

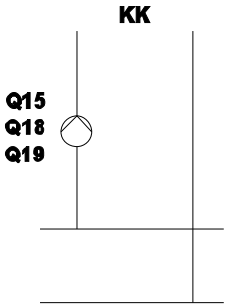
Le4



Required settings:
HX:
- Refrigeration request or
- Refrigeration request 10V

OL2015, 2040, 2051 (HX Refrigeration request):
- 2-pipe system

Le5

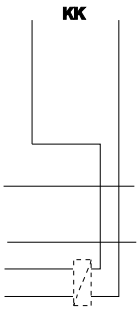


Required settings:
HX:
- Refrigeration request or
- Refrigeration request 10V

QX:
- H1 pump Q15 or
- H2 pump Q18 or
- H3 pump Q19

OL2015, 2040, 2051 (HX Refrigeration request):
- 2-pipe system

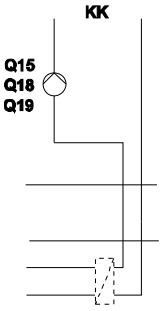
Le7



Required settings:
HX:
- Refrigeration request or
- Refrigeration request 10V

OL2015, 2040, 2051 (HX Refrigeration request):
- 4-pipe system

Le8



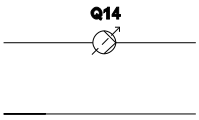
Required settings:
HX:
- Refrigeration request or
- Refrigeration request 10V

QX:
- H1 pump Q15 or
- H2 pump Q18 or
- H3 pump Q19

OL2015, 2040, 2051 (HX Refrigeration request):
- 4-pipe system

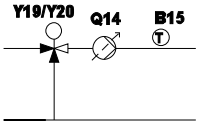
3.5 Heat converter

Uf1



Required settings:
QX:
- System pump Q14

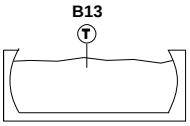
Uf2



Required settings:
EM/MG:
- Primary controller/system pump

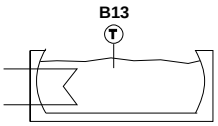
3.6 Swimming pool

Sb1



Required settings:
BX:
- Swimming pool sensor B13

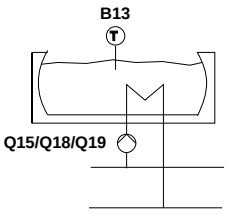
Sb2



Required settings:
BX:
- Swimming pool sensor B13

OL2080 (With solar integration):
- Yes

Sb3

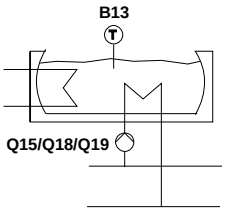


Required settings:
QX:
- H1 pump Q15 or
- H2 pump Q18 or
- H3 pump Q19

BX:
- Swimming pool sensor B13

HX:
- Release swimming pool

Sb4



Required settings:
QX:
- H1 pump Q15 or
- H2 pump Q18 or
- H3 pump Q19

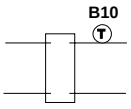
BX:
- Swimming pool sensor B13

HX:
- Release swimming pool

OL2080 (With solar integration):
- Yes

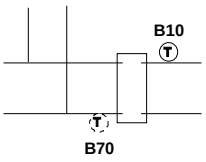
3.7 Pressureless header

HWe1



Required settings:
BX:
- Common flow sensor B10

HWe2



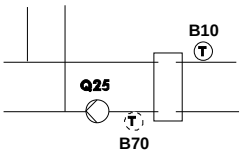
Required settings:
BX:
Common flow sensor B10
OL6600 (Device address):
- 1 (cascade master)

Optional settings:
BX:
- Cascade return sensor B70

HWe3

Required settings:
OL6600 (Device address):
- 2…16 (cascade slave)

HWe4



Required settings:

QX:

- Cascade pump Q25

BX:

Common flow sensor B10

OL6600 (Device address):

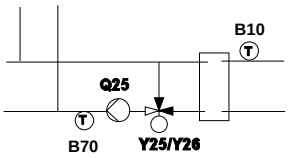
- 1 (cascade master)

Optional settings:

BX:

- Cascade return sensor B70

HWe6



Required settings:

EM/MG:

- Return temperature controller

BX:

- Common flow sensor B10

OL6600 (Device address):

- 1 (cascade master)

---

4 Overview

Oil/gas burners

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
OeG							
OeG1	X	X	X				
OeG2	X		X				
OeG3	X	X	X				
OeG4	X		X				
OeG5	X	X	X				
OeG6	X		X				
OeG 7	X	X	X				
OeG 8	X		X				
OeG 9		X	X				
OeG 10			X				
OeG 11			X				
OeG 12			X				
OeG 13			X				
OeG 14			X				
OeG 15			X				

Solid fuel boilers

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
Ho							
Ho1		X	X				
Ho2			X				

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
WP							
WP10				X	X		
WP11				X			
WP14				X	X		
WP15				X			
WP18				X	X		
WP19				X			
WP22				X	X		
WP23				X			
WP30				X	X		
WP31				X			

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
WP34				X	X		
WP35				X			
WP38				X	X		
WP39				X			
WP42				X	X		
WP43				X			
WP50				X	X		
WP51				X			
WP60				X	X		
WP61				X			

Solar

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
Sol							
Sol1	X	X	X	X	X	X	
Sol2…13		X	X	X	X		
Sol13…47		X	X	X			
Sol48…52			X	X			

Buffer sensor

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
Sp							
Sp1		X	X	X	X		
Sp 2		X	X	X	X		
Sp 3							
Sp 4		X	X	X			
Sp 5		X	X	X			
Sp 6							

DHW storage tank

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
TWWSp							
TWWSp 1	X	X	X	X	X	X	
TWWSp 2	X	X	X		X	X	
TWWSp 3							
TWWSp 4	X	X	X	X	X	X	

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
TWWSp 5	X	X	X	X	X	X	
TWWSp 6							
TWWSp 7…12							
TWWSp 13	X	X	X	X	X	X	
TWWSp 14	X	X	X	X	X	X	
TWWSp 15							
TWWSp 16		X	X	X		X	
TWWSp 17		X	X	X		X	
TWWSp 18							
TWWSp 19		X	X	X		X	
TWWSp 20		X	X	X		X	
TWWSp 21							
TWWSp 22		X	X	X		X	
TWWSp 23		X	X	X		X	
TWWSp 24							
TWWSp 25		X	X	X		X	
TWWSp 26		X	X	X		X	
TWWSp 27							
TWWSp 28		X	X	X		X	
TWWSp 29		X	X	X		X	
TWWSp 30							

Instantaneous DHW heater

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
TWWDI							
TWWDI 1		X	X	X		X	
TWWDI 3		X	X	X		X	
TWWDI 4…7							
TWWDI 8		X	X	X		X	
TWWDI 9							

Combi storage tank

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
KoSp							
KoSp1				X			

Heating/cooling circuit 1

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
Rh							
Rh1	X	X	X	X	X	X	X
Rh 2	X	X	X	X	X	X	X
Rh 3	X	X	X	X	X	X	X
Rh 5…7		X		X	X	X	X
Rh 8…10		X		X	X	X	X
Rh 12		X		X	X	X	X
Rh 13							
Rh 14		X		X	X	X	X
Rh 15		X		X	X	X	X
Rh 16		X		X	X	X	X
Rh 17…18							
Rh 20…27		X		X	X	X	X
Rh 30…38		X		X	X	X	X
Rh 40…42		X		X		X	X

Heating circuit 2

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
Rh							
Rh1		X	X			X	X
Rh 2		X	X			X	X
Rh 3		X	X			X	X

Heating circuit P

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
Rh							
Rh1		X	X			X	X
Rh 2		X	X			X	X
Rh 3		X	X			X	X

External consumers

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
Le							
Le1					X		
Le 2					X		
Le 4					X		
Le 5					X		
Le 7					X		
Le 8					X		

Heat converter

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
Uf							
Uf1		X	X	X	X		
Uf2		X	X	X			

Swimming pool

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
Sb							
Sb1		X	X	X			
Sb 2		X	X	X			
Sb 3		X	X	X			
Sb 4		X	X	X			

Pressureless header

Partial diagram	RVS13.123 RVS13.143 RVS53.183	RVS43.143	RVS63.243 RVS63.283	RVS61.843	RVS41.813	RVS46.543	RVS46.530
HWe							
HWe 1		X	X	X	X		
HWe 2		X	X	X	X		
HWe 3		X	X	X	X		
HWe 4		X	X	X	X		
HWe 5							
HWe 6		X	X				