

Optigo Ardo 1.0

Predefined Configurations

Predefined configurations for easy configuration in the text display.



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Configuration numbers

The configuration number corresponds to the components that are active in the air handling unit, see the schematic below. Follow the diagram from left to right to get the corresponding number. For example: Configuration 11131501 is *Nr. of Fans*: 1 (SAF), *Fan contr.*: 1 (Manual), *Temp. contr.*: 1 (Const. supply), *Seq. A*: 3 (Water heater), *Seq. B*: 1 (Mixing damper), *Seq C*: 5 (Water cooler), *Seq D*: 0 (No) and *Change Over*: 1 (Seq A/Seq. C)

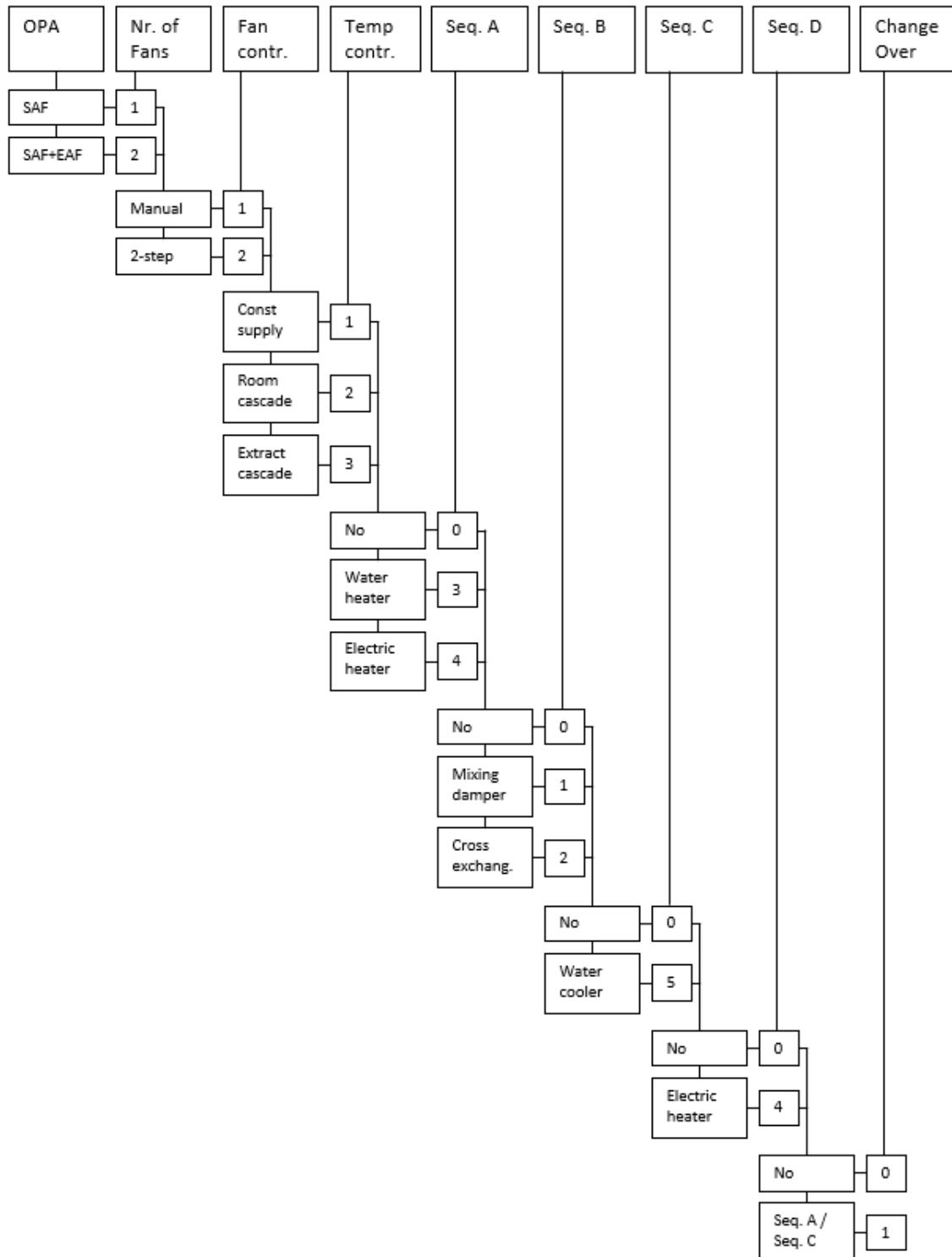


Table 1. OPA151D-4 Configuration Function

OPA151D-4	
Configuration	Function
12231000	Room cascade temperature control - Manual 2-step supply air fan control – Temperature control sequence with Mixing damper + Water heater
12241000	Room cascade temperature control - Manual 2-step supply air fan control – Temperature control sequence with Mixing damper + Electric heater
12231541	Room cascade temperature control - Manual 2-step supply air fan control – Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater

Table 2: OPA151D-4 Additional functions, Description

OPA151D-4	
Additional functions	Function
CO2/freeCool add-on Fan	Additional function “CO2/freeCool” is configured as: CO2 – Fan The optional input AI1 is configured as CO2-sensor. The function will configure a start/stop of the fan and a compensation of the speed depending on the signal of the CO2-sensor.
CO2/freeCool add-on Damper	Additional function “CO2/freeCool” is configured as: CO2 – Damper The optional input AI1 is configured as CO2-sensor. The function will configure the CO2-control of the mixing damper.
CO2/freeCool add-on Fan+Damper	Additional function “CO2/freeCool” is configured as: CO2 – Damper + CO2 - Fan The optional input AI1 is configured as CO2-sensor. The function will configure a start/stop of the fan and a compensation of the speed depending on the signal of the CO2-sensor and it will activate the CO2-control of the mixing damper.
CO2/freeCool add-on Free cooling	Additional function “CO2/freeCool” is configured as: Free cooling The optional input AI1 is configured as Outdoor temperature sensor. The function will configure and activate the free cooling function. In case of configuration with supply temperature control it will also configure the optional input AI4 as Extract temperature sensor.
Extended run / Fire add-on Extended run	Additional function “Extended run / Fire” is configured as: Extended run The optional input DI4 is configured as Extended run normal speed. The function will configure and activate the extended run of the normal speed of the fan.
Extended run / Fire add-on Fire	Additional function “Extended run / Fire” is configured as: Fire alarm The optional input DI4 is configured as Fire alarm. The function will configure and activate the function fire alarm.

Table 3: OPA281D-4 Configuration Function

OPA281D-4	
Configuration	Function
22132541	Constant supply air temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater
22332501	Extract air cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump)
22332500	Extract air cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Water heater + Water cooler
22332000	Extract air cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Water heater
22342000	Extract air cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Electric heater
22332541	Extract air cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater
22232501	Room cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump)
22232500	Room cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Water heater + Water cooler
22232000	Room cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Water heater
22242000	Room cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Electric heater
22232541	Room cascade temperature control - Manual 2-step supply + extract air fan control – Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater

Table 4: OPA281D-4 Additional functions, Description

OPA281D-4	
Additional functions	Function
CO2 fan add-on	The optional input UAI2 is configured as CO2-sensor. The function will configure a start/stop of the fan and a compensation of the speed depending on the signal of the CO2-sensor.
CO2 damper add-on	The optional input UAI2 is configured as CO2-sensor. The function will configure the CO2-control of the mixing damper.
Extended run add-on	The optional input DI7 is configured as Extended run normal speed. The function will configure and activate the extended run of the normal speed of the fan.
Fire alarm add-on	The optional input DI8 is configured as Fire alarm. The function will configure and activate the function fire alarm.
Free cooling add-on	The optional input AI1 is configured as Outdoor temperature sensor. The function will configure and activate the free cooling function. In case of configuration with supply temperature control it will also configure the optional input AI4 as Extract temperature sensor.

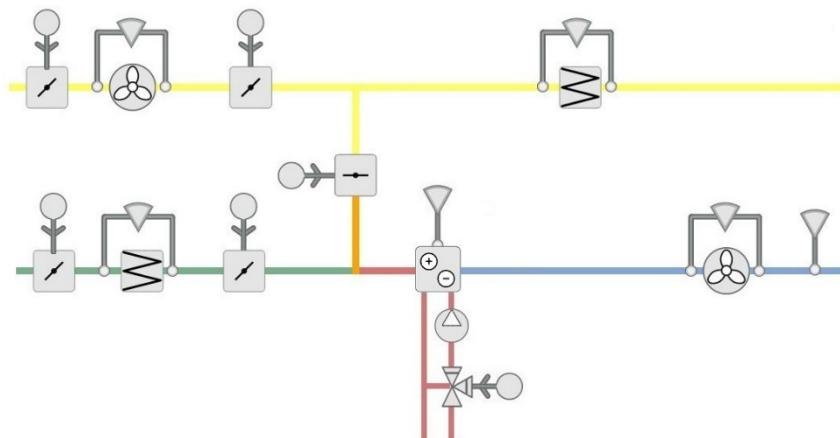
Configurations used for Optigo Ardo with 28 IO's

Configuration 21131501

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp – opt.	AI4	
	Agnd	
	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
	TCP	

1	G	Optigo-Ardo OPA281D-4
2	G0	
3	Gnd	
4	+C	
10	Gdo	
11	DO1	
12	DO2	
13	DO3	
14	DO4	
15	DO5	
16	DO6	
17	DO7	
30	Agnd	
31	AI1	
32	AI2	
33	Agnd	
34	AI3	
35	AI4	
40	Agnd	
41	UI1: AI5/DI9	
42	UI2: AI6/DI10	
43	Agnd	
44	UI3: AI7/DI11	
45	UI4: AI8/DI12	
	TCP/IP	
	RJ45	

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Mixing damper signal
AO4	Heat/Cool signal
AO5	

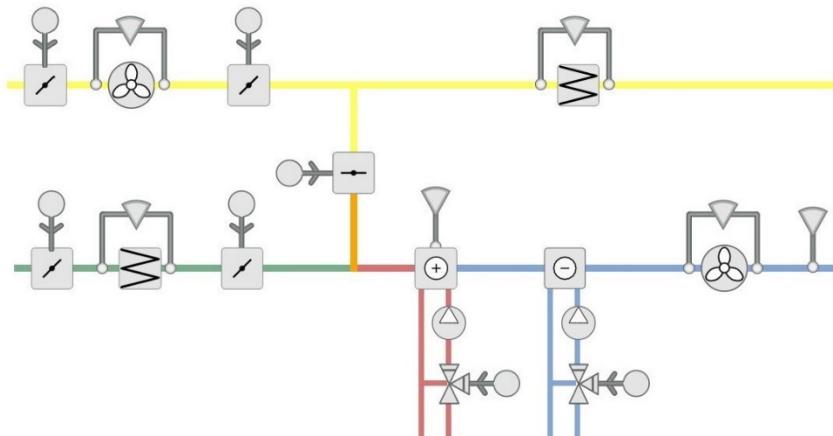
Terminal connection

Configuration 21131500

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater + Water cooler



G	G		
G0	G0		
Gnd			
+C			
Gdo			
SAF start	DO1		
EAF start	DO2		
	DO3		
	DO4		
Outdoor air damper	DO5		
Heater pump	DO6		
Cooler pump	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Extract air temp – opt.	AI4		
	Agnd		
	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
TCP			

Optigo-Ardo OPA281D-4

1	G		
2	G0		
3			
4	+C		
10	GDO		
11	DO1		
12	DO2		
13	DO3		
14	DO4		
15	DO5		
16	DO6		
17	DO7		
30	Agnd		
31	AI1		
32	AI2		
33	Agnd		
34	AI3		
35	AI4		
40	Agnd		
41	UI1: AI5/DI9		
42	UI2: AI6/DI10		
43	Agnd		
44	UI3: AI7/DI11		
45	UI4: AI8/DI12		
TCP/IP	RJ45		

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Mixing damper signal
AO4	Heater signal
AO5	Cooler signal

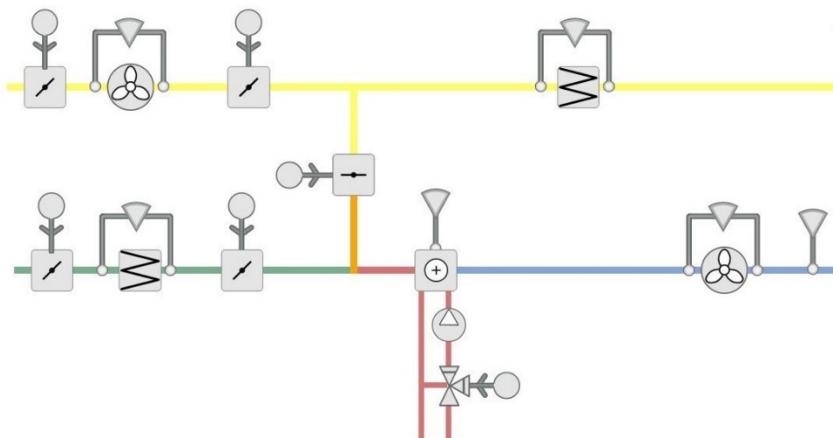
Terminal connection

Configuration 21131000

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater



G	1 G	Optigo-Ardo OPA281D-4	
G0	2 G0		
Gnd	3		
+C	4 +C		
Gdo	10 GDO		
SAF start	11 DO1		
EAF start	12 DO2		
	13 DO3		
	14 DO4		
Outdoor air damper	15 DO5		
Heater pump	16 DO6		
	17 DO7		
Agnd	30 Agnd	RJ11	DI1 71
Outdoor temp. - opt.	31 AI1		DI2 72
Supply temperature	32 AI2		DI3 73
	33 Agnd		DI4 74
Frost protect. temp.	34 AI3		DI5 75
Extract air temp - opt.	35 AI4		DI6 76
	40 Agnd		DI7 77
	41 UI1: AI5/DI9		DI8 78
CO2 - opt.	42 UI2: AI6/DI10		Agnd 90
	43 Agnd		AO1 91
	44 UI3: AI7/DI11		AO2 92
Ext. setpoint - opt.	45 UI4: AI8/DI12		AO3 93
	TCP/IP RJ45		AO4 94
			AO5 95

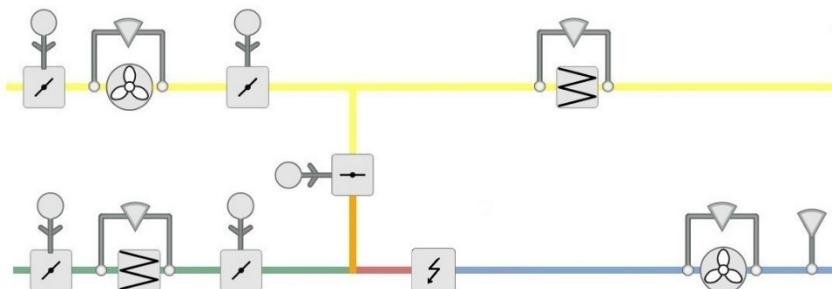
Terminal connection

Configuration 21141000

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1	1 G	Optigo-Ardo OPA281D-4
EAF start	DO2	2 G0	
	DO3	3	
	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
	DO6	11 DO1	
Heater electric [PWM]	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
	AI3	17 DO7	
Extract air temp – opt.	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
	UI1	32 AI2	DI2 72 EAF Indication
CO2 – opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint – opt.	UI4	40 Agnd	DI6 76 Overheat electric heat
		41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93
			AO4 94
			AO5 95

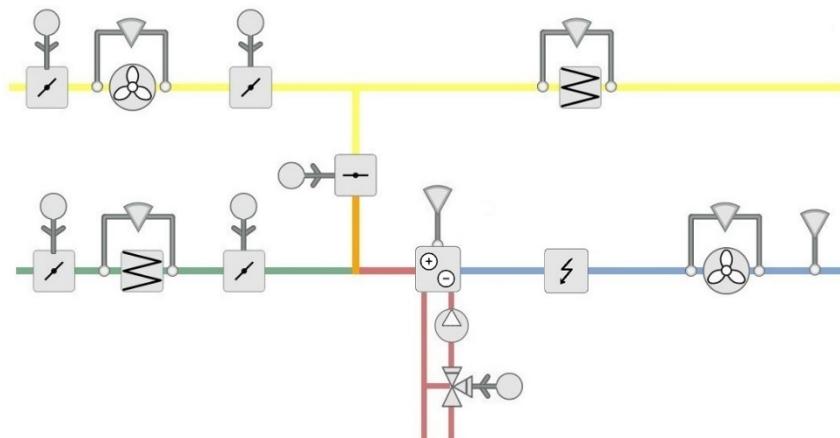
Terminal connection

Configuration 21131541

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



G	G	
G0	G0	
Gnd	Gnd	
+C	+C	
Gdo	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp – opt.	AI4	
	Agnd	
	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
TCP		

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	Overheat electric heat
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Mixing damper signal
AO4	Heat/Cool signal
AO5	

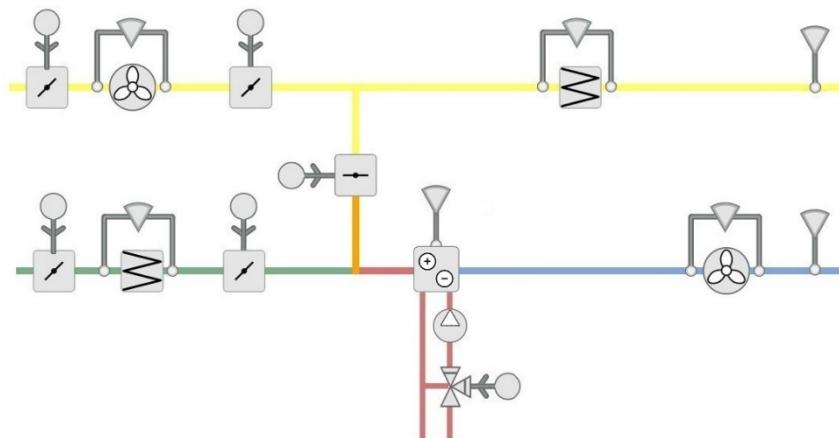
Terminal connection

Configuration 21331501

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	G	
G0	G0	
Gnd	Gnd	
+C	+C	
Gdo	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp.	AI4	
	Agnd	
UI1		
CO2 – opt.	UI2	
	Agnd	
UI3		
Ext. setpoint – opt.	UI4	
TCP		

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Mixing damper signal
AO4	Heat/Cool signal
AO5	

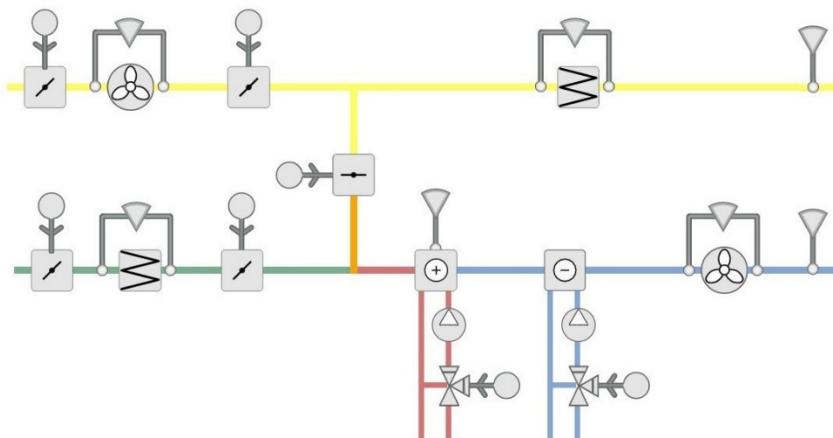
Terminal connection

Configuration 21331500

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater + Water cooler



	G	Optigo-Ardo OPA281D-4	
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1		
EAF start	DO2		
	DO3		
	DO4		
Outdoor air damper	DO5		
Heater pump	DO6		
Cooler pump	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Extract air temp.	AI4		
	Agnd		
	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		
	RJ45		
		RJ11	
			DI1 SAF Indication
			DI2 EAF Indication
			DI3 Supply air filter
			DI4 Extract air filter
			DI5
			DI6
			DI7 Extended run – opt.
			DI8 Fire alarm – opt.
			AO1 SAF signal
			AO2 EAF signal
			AO3 Mixing damper signal
			AO4 Heater signal
			AO5 Cooler signal

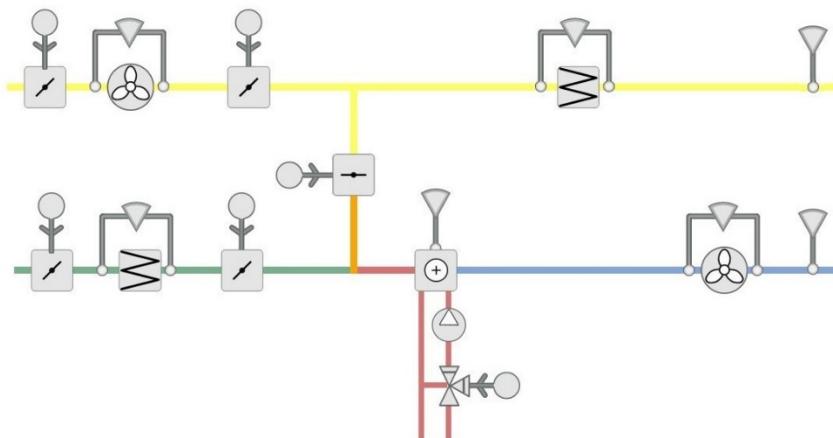
Terminal connection

Configuration 21331000

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater



	G	Optigo-Ardo OPA281D-4	
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1		
EAF start	DO2		
	DO3		
	DO4		
Outdoor air damper	DO5		
Heater pump	DO6		
	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Extract air temp.	AI4		
	Agnd		
	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		
	RJ45		
		RJ11	
		DI1	SAF Indication
		DI2	EAF Indication
		DI3	Supply air filter
		DI4	Extract air filter
		DI5	
		DI6	
		DI7	Extended run – opt.
		DI8	Fire alarm – opt.
		Agnd	
		AO1	SAF signal
		AO2	EAF signal
		AO3	Mixing damper signal
		AO4	Heater signal
		AO5	

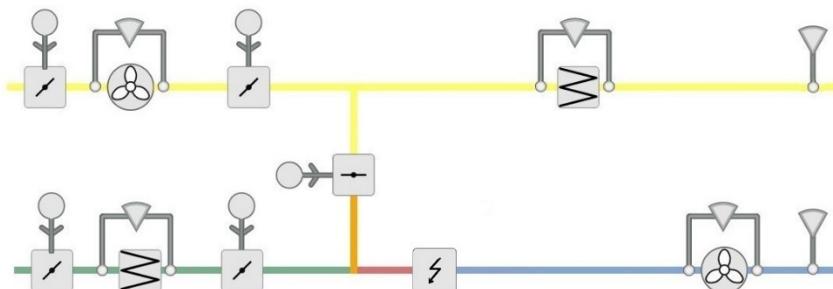
Terminal connection

Configuration 21341000

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1	1 G	Optigo-Ardo OPA281D-4
EAF start	DO2	2 G0	
	DO3	3	
	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
	DO6	11 DO1	
Heater electric [PWM]	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
	AI3	17 DO7	
Extract air temp.	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
	UI1	32 AI2	DI2 72 EAF Indication
CO2 – opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint – opt.	UI4	40 Agnd	DI6 76 Overheat electric heat
		41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93
			AO4 94
			AO5 95

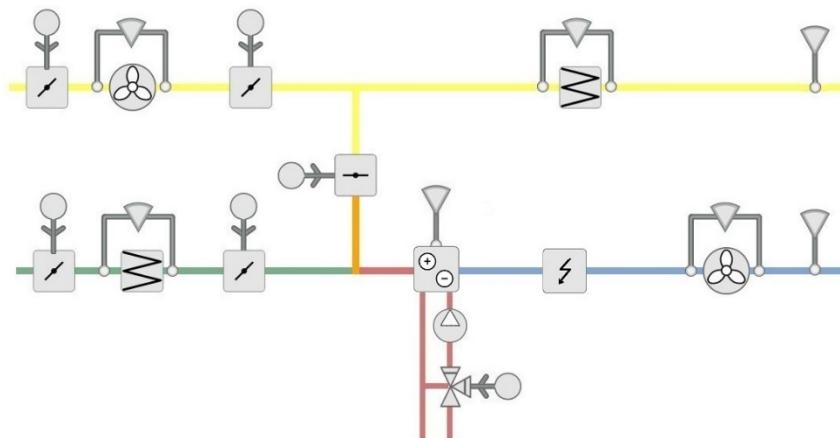
Terminal connection

Configuration 21331541

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp.	AI4	
	Agnd	
	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
	TCP	

Optigo-Ardo OPA281D-4

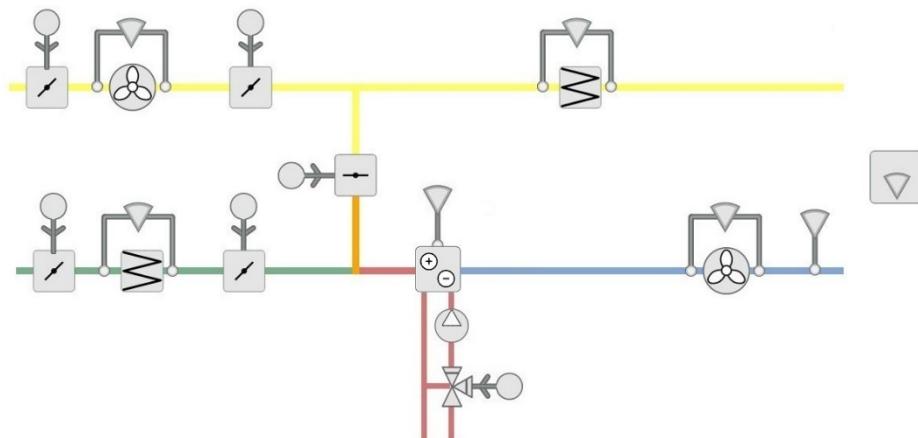
Terminal connection

Configuration 21231501

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	G	
G0	G0	
Gnd	Gnd	
+C	+C	
Gdo	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Room temperature	AI4	
	Agnd	
	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
TCP		

Optigo-Ardo OPA281D-4

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Mixing damper signal
AO4	Heat/Cool signal
AO5	

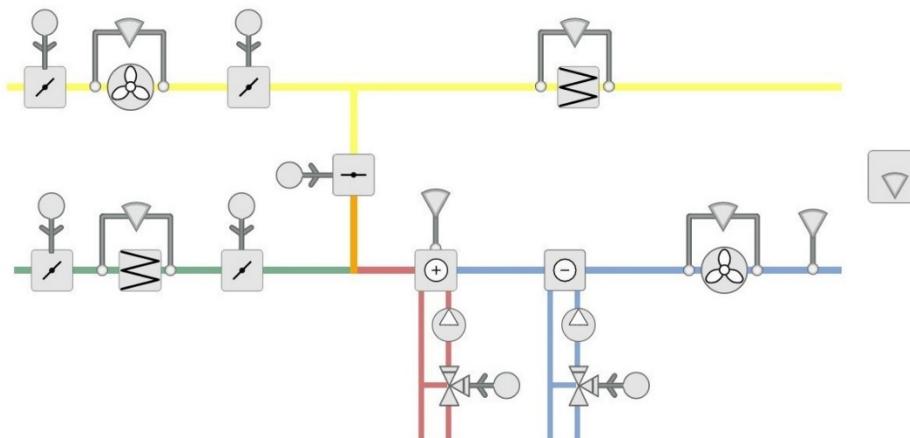
Terminal connection

Configuration 21231500

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater + Water cooler



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1	1 G	Optigo-Ardo OPA281D-4
EAF start	DO2	2 G0	
	DO3	3	
	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
Heater pump	DO6	11 DO1	
Cooler pump	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. - opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
Frost protect. temp.	AI3	17 DO7	
Room temperature	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
	UI1	32 AI2	DI2 72 EAF Indication
CO2 - opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint - opt.	UI4	40 Agnd	DI6 76
		41 UI1: AI5/DI9	DI7 77 Extended run - opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm - opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93
			AO4 94
			AO5 95 Cooler signal

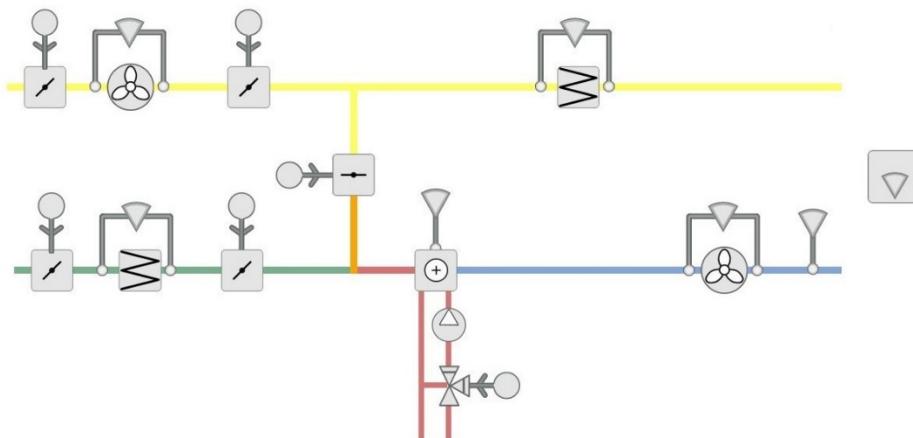
Terminal connection

Configuration 21231000

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater



	G	Optigo-Ardo OPA281D-4	
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1	1 G	
EAF start	DO2	2 G0	
	DO3	3	
	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
Heater pump	DO6	11 DO1	
	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
Frost protect. temp.	AI3	17 DO7	
Room temperature	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
	UI1	32 AI2	DI2 72 EAF Indication
CO2 – opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint – opt.	UI4	40 Agnd	DI6 76
		41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93 Mixing damper signal
			AO4 94 Heater signal
			AO5 95

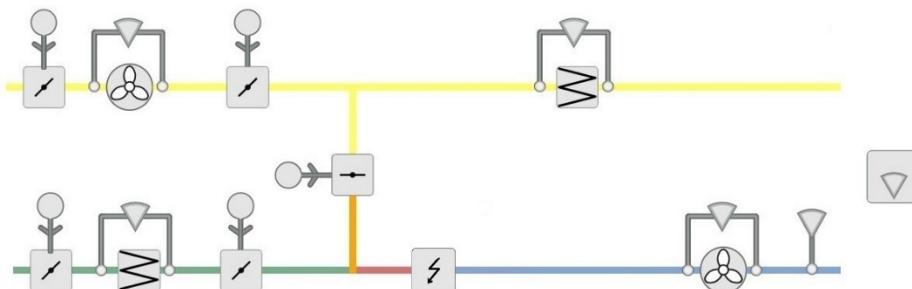
Terminal connection

Configuration 21241000

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Electric heater



	G	Optigo-Ardo OPA281D-4	
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1	1 G	DI1 71 SAF Indication
EAF start	DO2	2 G0	DI2 72 EAF Indication
	DO3	3	DI3 73 Supply air filter
	DO4	4 +C	DI4 74 Extract air filter
Outdoor air damper	DO5	10 GDO	DI5 75
	DO6	11 DO1	DI6 76 Overheat electric heat
Heater electric [PWM]	DO7	12 DO2	DI7 77 Extended run – opt.
	Agnd	13 DO3	DI8 78 Fire alarm – opt.
Outdoor temp. – opt.	AI1	14 DO4	AO1 91 SAF signal
Supply temperature	AI2	15 DO5	AO2 92 EAF signal
	Agnd	16 DO6	AO3 93 Mixing damper signal
	AI3	17 DO7	AO4 94
Room temperature	AI4	30 Agnd	AO5 95
	Agnd	31 AI1	
	UI1	32 AI2	
CO2 – opt.	UI2	33 Agnd	
	Agnd	34 AI3	
	UI3	35 AI4	
Ext. setpoint – opt.	UI4	40 Agnd	
		41 UI1: AI5/DI9	
		42 UI2: AI6/DI10	
		43 Agnd	
		44 UI3: AI7/DI11	
		45 UI4: AI8/DI12	
	TCP	TCP/IP RJ45	

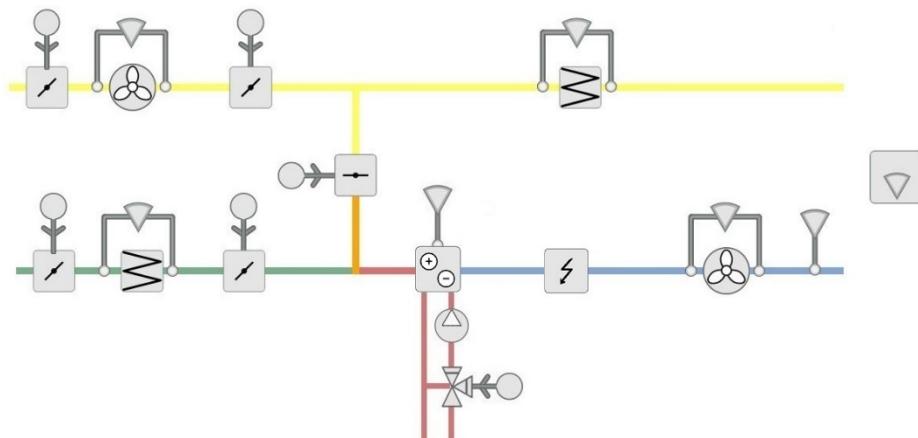
Terminal connection

Configuration 21231541

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Room temperature	AI4	
	Agnd	
	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
	TCP	

1	G	Optigo-Ardo OPA281D-4
2	G0	
3	Gnd	
4	+C	
10	Gdo	
11	DO1	
12	DO2	
13	DO3	
14	DO4	
15	DO5	
16	DO6	
17	DO7	
30	Agnd	
31	AI1	
32	AI2	
33	Agnd	
34	AI3	
35	AI4	
40	Agnd	
41	UI1: AI5/DI9	
42	UI2: AI6/DI10	
43	Agnd	
44	UI3: AI7/DI11	
45	UI4: AI8/DI12	
	TCP/IP	
	R145	

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	Overheat electric heat
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Mixing damper signal
AO4	Heat/Cool signal
AO5	

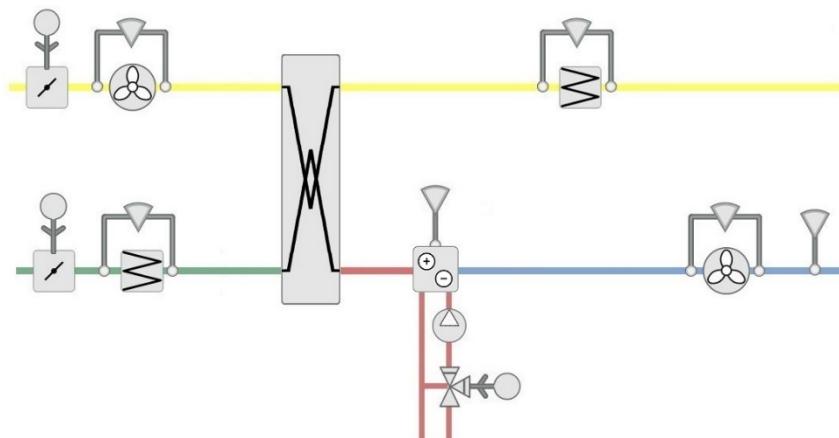
Terminal connection

Configuration 21132501

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp – opt.	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
TCP		

1	G	Optigo-Ardo
2	G0	OPA281D-4
3		
4	+C	
10	Gdo	
11	DO1	
12	DO2	
13	DO3	
14	DO4	
15	DO5	
16	DO6	
17	DO7	
30	Agnd	
31	AI1	
32	AI2	
33	Agnd	
34	AI3	
35	AI4	
40	Agnd	
41	UI1: AI5/DI9	
42	UI2: AI6/DI10	
43	Agnd	
44	UI3: AI7/DI11	
45	UI4: AI8/DI12	
	TCP/IP	
	RJ45	

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Exchanger signal
AO4	Heat/Cool signal
AO5	

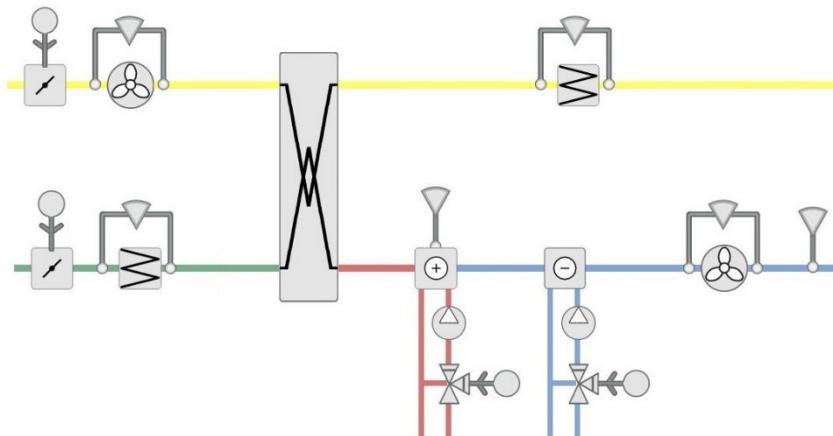
Terminal connection

Configuration 21132500

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater + Water cooler



G	G	
G0	G0	
Gnd		
+C		
Gdo		
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heater pump	DO6	
Cooler pump	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp – opt.	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
TCP		

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Exchanger signal
AO4	Heater signal
AO5	Cooler signal

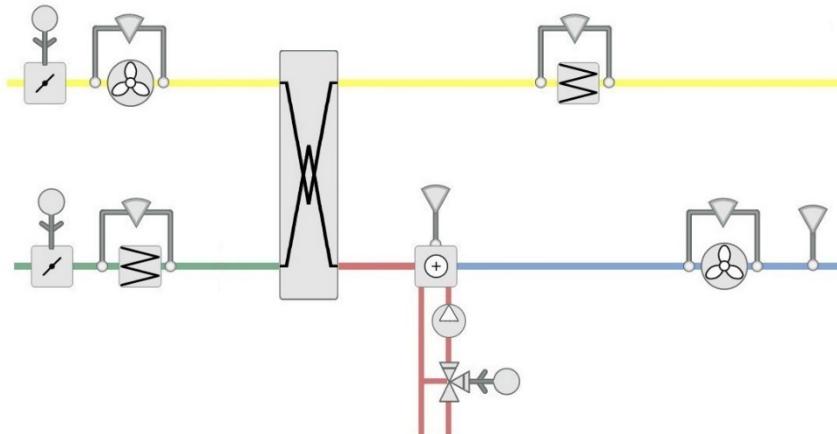
Terminal connection

Configuration 21132000

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1		
EAF start	DO2		
	DO3		
	DO4		
Outdoor air damper	DO5		
Heater pump	DO6		
	DO7		
	Agnd		
Outdoor temp. - opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Extract air temp - opt.	AI4		
	Agnd		
Defrost Exchanger	UI1		
CO2 - opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint - opt.	UI4		
	TCP/IP		
	RJ45		
		Optigo-Ardo OPA281D-4	
	1	G	
	2	G0	
	3		
	4	+C	
	10	GDO	
	11	DO1	
	12	DO2	
	13	DO3	
	14	DO4	
	15	DO5	
	16	DO6	
	17	DO7	
	30	Agnd	
	31	AI1	
	32	AI2	
	33	Agnd	
	34	AI3	
	35	AI4	
	40	Agnd	
	41	UI1: AI5/DI9	
	42	UI2: AI6/DI10	
	43	Agnd	
	44	UI3: AI7/DI11	
	45	UI4: AI8/DI12	
			RJ11
			DI1 71
			DI2 72
			DI3 73
			DI4 74
			DI5 75
			DI6 76
			DI7 77
			DI8 78
			Agnd 90
			A01 91
			A02 92
			A03 93
			A04 94
			A05 95

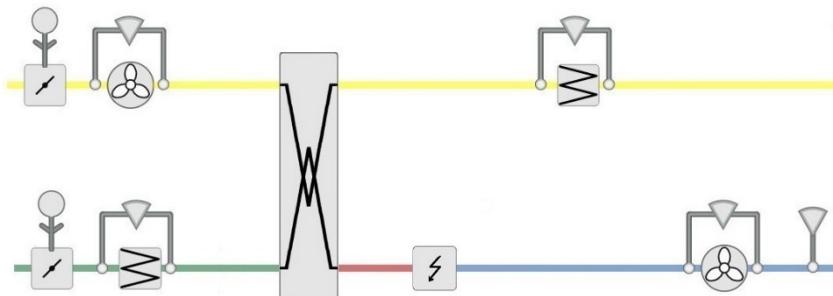
Terminal connection

Configuration 21142000

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1		
EAF start	DO2		
	DO3		
	DO4		
Outdoor air damper	DO5		
	DO6		
Heater electric [PWM]	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
	AI3		
Extract air temp – opt.	AI4		
	Agnd		
Defrost Exchanger	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		
	RJ45		

1	G	Optigo-Ardo OPA281D-4		
2	G0			
3	Gnd			
4	+C			
10	GDO			
11	DO1			
12	DO2			
13	DO3			
14	DO4			
15	DO5			
16	DO6			
17	DO7			
30	Agnd			
31	AI1		DI1	SAF Indication
32	AI2		DI2	EAF Indication
33	Agnd		DI3	Supply air filter
34	AI3		DI4	Extract air filter
35	AI4		DI5	
40	Agnd		DI6	Overheat electric heat
41	UI1: AI5/DI9		DI7	Extended run – opt.
42	UI2: AI6/DI10		DI8	Fire alarm – opt.
43	Agnd		Agnd	
44	UI3: AI7/DI11		AO1	SAF signal
45	UI4: AI8/DI12		AO2	EAF signal
			AO3	Exchanger signal
			AO4	
			AO5	

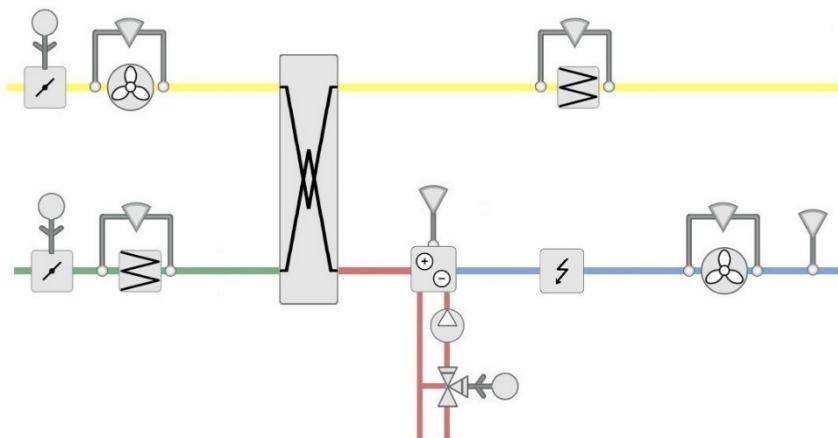
Terminal connection

Configuration 21132541

Function description:

Constant supply air temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp – opt.	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
	TCP	

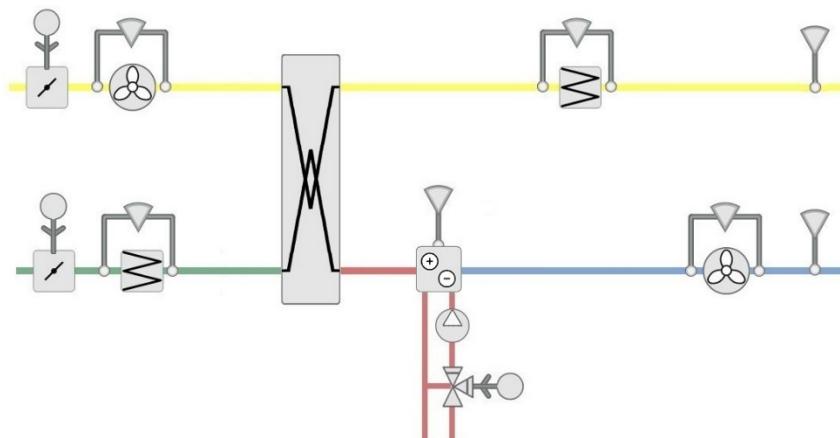
Terminal connection

Configuration 21332501

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp.	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
TCP		

1	G	Optigo-Ardo
2	G0	OPA281D-4
3		
4	+C	
10	Gdo	
11	DO1	
12	DO2	
13	DO3	
14	DO4	
15	DO5	
16	DO6	
17	DO7	
30	Agnd	
31	AI1	
32	AI2	
33	Agnd	
34	AI3	
35	AI4	
40	Agnd	
41	UI1: AI5/DI9	
42	UI2: AI6/DI10	
43	Agnd	
44	UI3: AI7/DI11	
45	UI4: AI8/DI12	
	TCP/IP	
	RJ45	

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Exchanger signal
AO4	Heat/Cool signal
AO5	

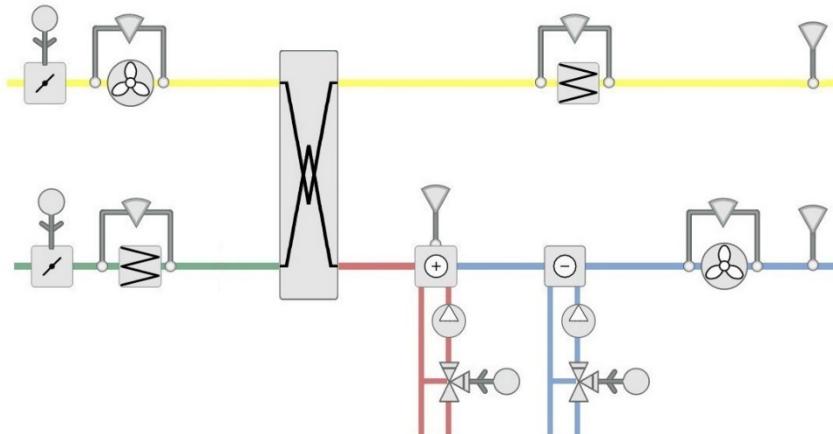
Terminal connection

Configuration 21332500

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater + Water cooler



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heater pump	DO6	
Cooler pump	DO7	
	Agnd	
<i>Outdoor temp. – opt.</i>	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp.	AI4	
	Agnd	
Defrost Exchanger	UI1	
<i>CO2 – opt.</i>	UI2	
	Agnd	
	UI3	
<i>Ext. setpoint – opt.</i>	UI4	
	TCP	
	TCP/IP	Optigo-Ardo OPA281D-4
	RJ45	
		RJ11
		DI1 71
		DI2 72
		DI3 73
		DI4 74
		DI5 75
		DI6 76
		DI7 77
		DI8 78
		Agnd 90
		AO1 91
		AO2 92
		AO3 93
		AO4 94
		AO5 95
		Ext D
		DI1 SAF Indication
		DI2 EAF Indication
		DI3 Supply air filter
		DI4 Extract air filter
		DI5
		DI6
		DI7 <i>Extended run – opt.</i>
		DI8 <i>Fire alarm – opt.</i>
		Agnd
		AO1 SAF signal
		AO2 EAF signal
		AO3 Exchanger signal
		AO4 Heater signal
		AO5 Cooler signal

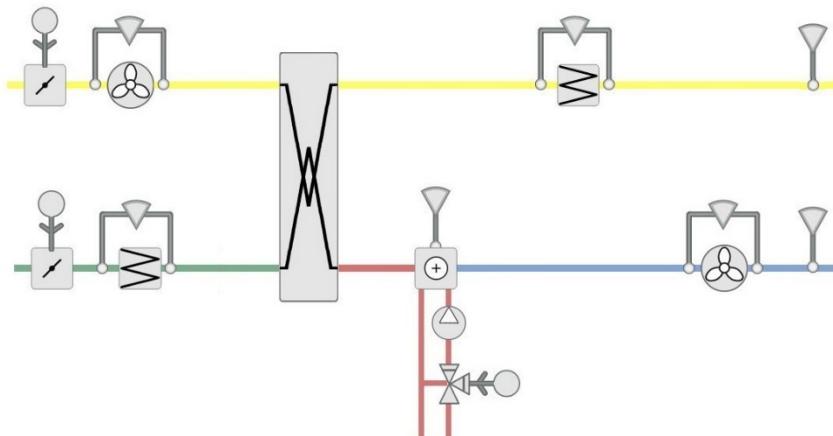
Terminal connection

Configuration 21332000

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater



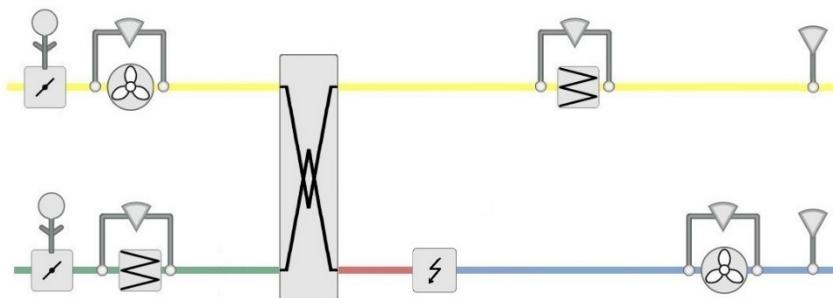
Terminal connection

Configuration 21342000

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1	1 G Optigo-Ardo OPA281D-4	
EAF start	DO2	2 G0	
	DO3	3 +C	
	DO4	4 GDO	
Outdoor air damper	DO5	10 DO1	
	DO6	11 DO2	
Heater electric [PWM]	DO7	12 DO3	
	Agnd	13 DO4	
Outdoor temp. – opt.	AI1	14 DO5	
Supply temperature	AI2	15 DO6	
	Agnd	16 DO7	
	AI3	30 Agnd	
Extract air temp.	AI4	31 AI1	DI1 71 SAF Indication
	Agnd	32 AI2	DI2 72 EAF Indication
Defrost Exchanger	UI1	33 Agnd	DI3 73 Supply air filter
CO2 – opt.	UI2	34 AI3	DI4 74 Extract air filter
	Agnd	35 AI4	DI5 75
	UI3	40 Agnd	DI6 76 Overheat electric heat
Ext. setpoint – opt.	UI4	41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93
			AO4 94
			AO5 95

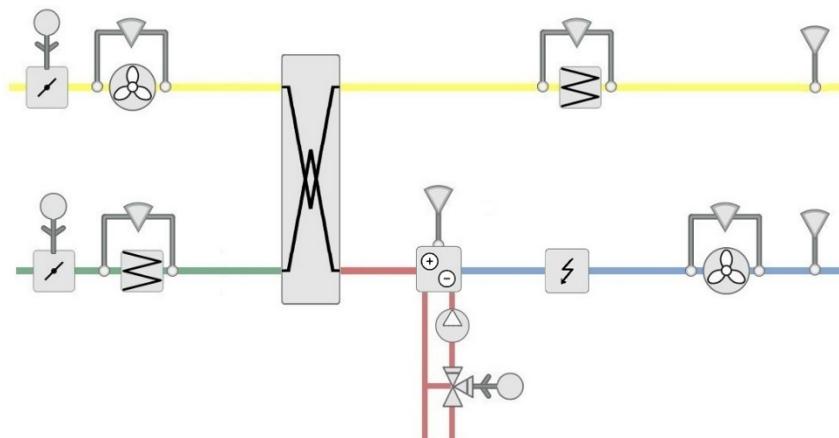
Terminal connection

Configuration 21332541

Function description:

Extract air cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



G	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp.	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
TCP		

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	Overheat electric heat
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Exchanger signal
AO4	Heat/Cool signal
AO5	

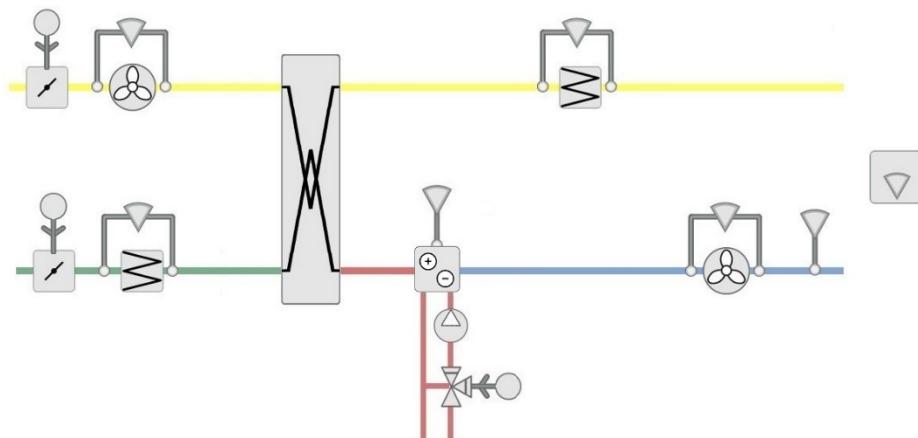
Terminal connection

Configuration 21232501

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	G	
G0	G0	
Gnd	Gnd	
+C	+C	
Gdo	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Room temperature	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
TCP		

Optigo-Ardo OPA281D-4	
1 G	
2 G0	
3 Gnd	
4 +C	
10 GDO	
11 DO1	
12 DO2	
13 DO3	
14 DO4	
15 DO5	
16 DO6	
17 DO7	
30 Agnd	
31 AI1	
32 AI2	
33 Agnd	
34 AI3	
35 AI4	
40 Agnd	
41 UI1: AI5/DI9	
42 UI2: AI6/DI10	
43 Agnd	
44 UI3: AI7/DI11	
45 UI4: AI8/DI12	
TCP/IP	
RJ45	

Ext D	
DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Exchanger signal
AO4	Heat/Cool signal
AO5	

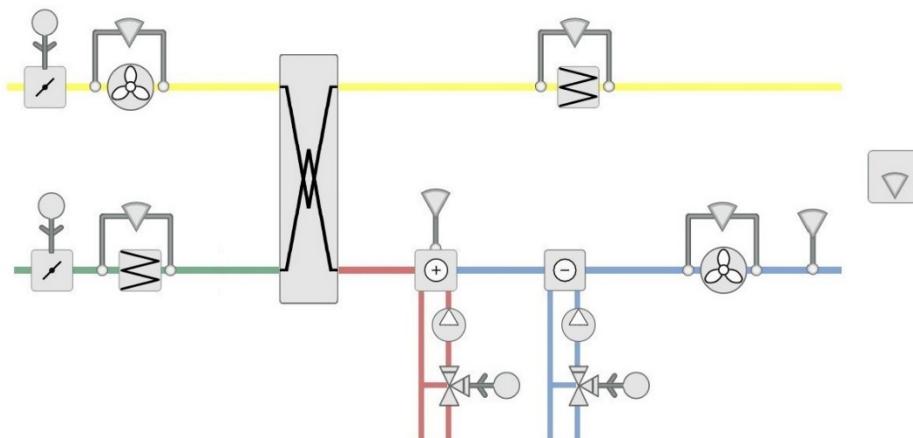
Terminal connection

Configuration 21232500

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater + Water cooler



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1	1 G	Optigo-Ardo OPA281D-4
EAF start	DO2	2 G0	
	DO3	3	
	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
Heater pump	DO6	11 DO1	
Cooler pump	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. - opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
Frost protect. temp.	AI3	17 DO7	
Room temperature	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
Defrost Exchanger	UI1	32 AI2	DI2 72 EAF Indication
CO2 - opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint - opt.	UI4	40 Agnd	DI6 76
		41 UI1: AI5/DI9	DI7 77 Extended run - opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm - opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93
			AO4 94
			AO5 95 Cooler signal

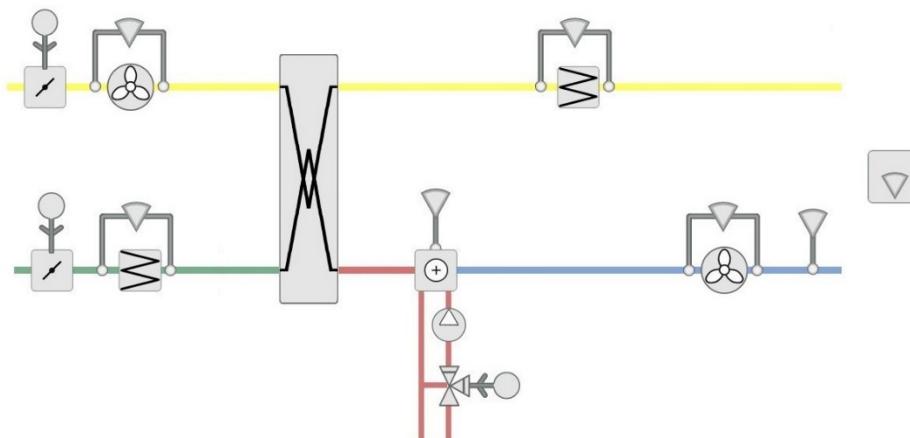
Terminal connection

Configuration 21232000

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater



G	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heater pump	DO6	
	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Room temperature	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
TCP		
	RJ45	

Optigo-Ardo OPA281D-4		
1 G		
2 G0		
3 Gnd		
4 +C		
10 GDO		
11 DO1		
12 DO2		
13 DO3		
14 DO4		
15 DO5		
16 DO6		
17 DO7		
30 Agnd		
31 AI1		
32 AI2		
33 Agnd		
34 AI3		
35 AI4		
40 Agnd		
41 UI1: AI5/DI9		
42 UI2: AI6/DI10		
43 Agnd		
44 UI3: AI7/DI11		
45 UI4: AI8/DI12		
TCP/IP		
RJ45		

RJ11		
DI1	71	
DI2	72	
DI3	73	
DI4	74	
DI5	75	
DI6	76	
DI7	77	
DI8	78	
Agnd	90	
AO1	91	
AO2	92	
AO3	93	
AO4	94	
AO5	95	

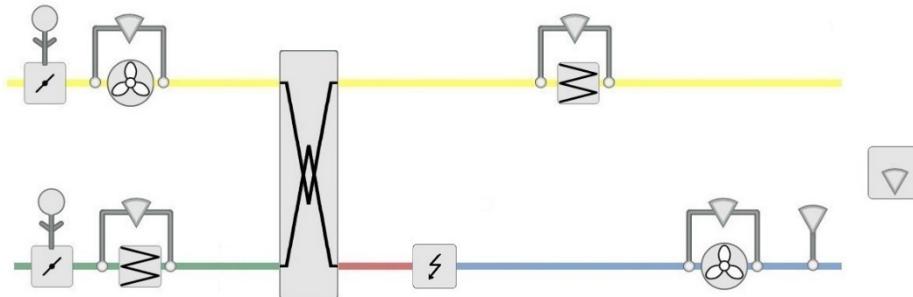
Terminal connection

Configuration 21242000

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Electric heater



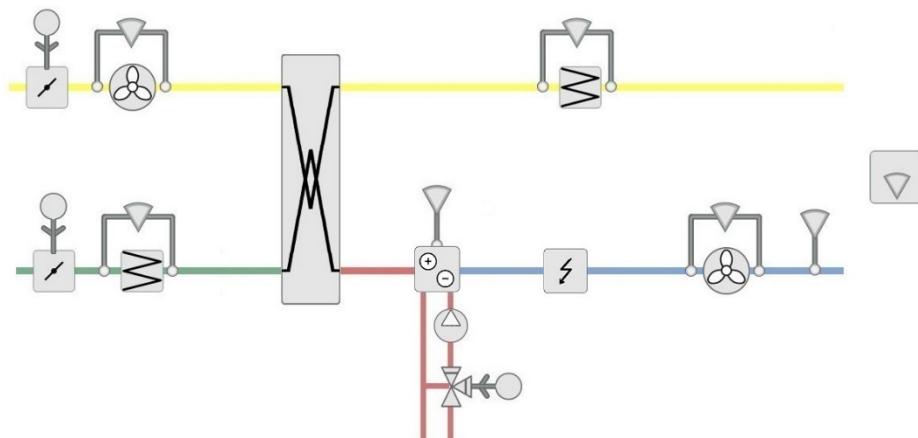
Terminal connection

Configuration 21232541

Function description:

Room cascade temperature control - Manual supply + extract air fan control (e.g., EC fan) –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



G	G	
G0	G0	
Gnd		
+C		
Gdo		
SAF start	DO1	
EAF start	DO2	
	DO3	
	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
	Agnd	
Outdoor temp. - opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Room temperature	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 - opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint - opt.	UI4	
TCP		

1	G	Optigo-Ardo OPA281D-4
2	G0	
3		
4	+C	
10	GDO	
11	DO1	
12	DO2	
13	DO3	
14	DO4	
15	DO5	
16	DO6	
17	DO7	
30	Agnd	
31	AI1	
32	AI2	
33	Agnd	
34	AI3	
35	AI4	
40	Agnd	
41	UI1: AI5/DI9	
42	UI2: AI6/DI10	
43	Agnd	
44	UI3: AI7/DI11	
45	UI4: AI8/DI12	
	TCP/IP	
	RJ45	

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	Overheat electric heat
DI7	Extended run - opt.
DI8	Fire alarm - opt.
Agnd	
AO1	SAF signal
AO2	EAF signal
AO3	Exchanger signal
AO4	Heat/Cool signal
AO5	

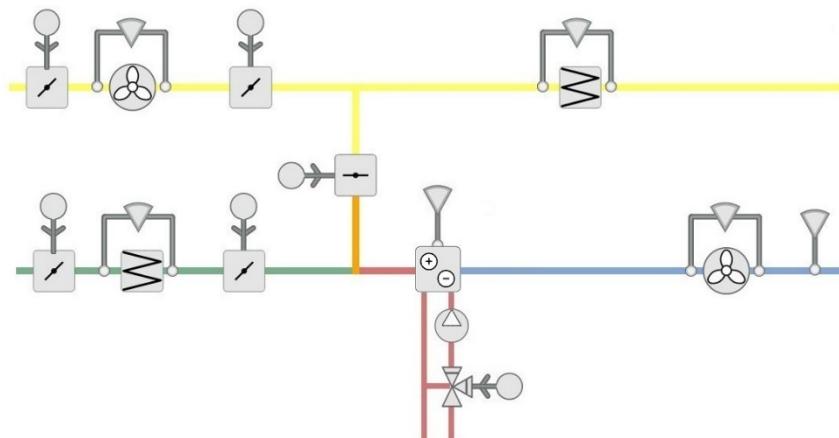
Terminal connection

Configuration 22131501

Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	Optigo-Ardo OPA281D-4	
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heat/Cool pump	DO6		
	DO7	RJ11	
	Agnd		
Outdoor temp. – opt.	AI1	DI1	SAF Indication
Supply temperature	AI2	DI2	EAF Indication
	Agnd	DI3	Supply air filter
Frost protect. temp.	AI3	DI4	Extract air filter
Extract air temp – opt.	AI4	DI5	Change-Over H/C
	Agnd	DI6	
	UI1	DI7	Extended run – opt.
CO2 – opt.	UI2	DI8	Fire alarm – opt.
	Agnd	Agnd	
	UI3	AO1	
Ext. setpoint – opt.	UI4	AO2	
		AO3	Mixing damper signal
	TCP	AO4	Heat/Cool signal
		AO5	

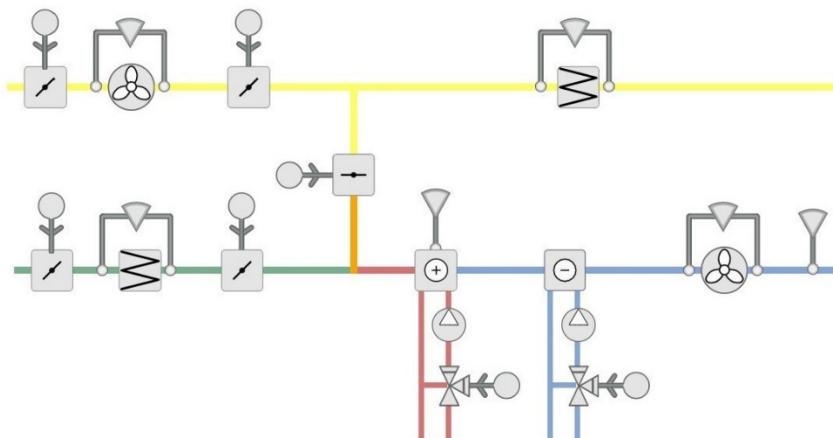
Terminal connection

Configuration 22131500

Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater + Water cooler



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3	
EAF step2	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
Heater pump	DO6	11 DO1	
Cooler pump	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
Frost protect. temp.	AI3	17 DO7	
Extract air temp – opt.	AI4	30 Agnd	
	Agnd	31 AI1	DI1 SAF Indication
		32 AI2	DI2 EAF Indication
	Agnd	33 Agnd	DI3 Supply air filter
		34 AI3	DI4 Extract air filter
	Agnd	35 AI4	DI5
		40 Agnd	DI6
		41 UI1: AI5/DI9	DI7 Extended run – opt.
		42 UI2: AI6/DI10	DI8 Fire alarm – opt.
		43 Agnd	Agnd
		44 UI3: AI7/DI11	AO1
		45 UI4: AI8/DI12	AO2
	TCP	TCP/IP	AO3 Mixing damper signal
		RJ45	AO4 Heater signal
			AO5 Cooler signal

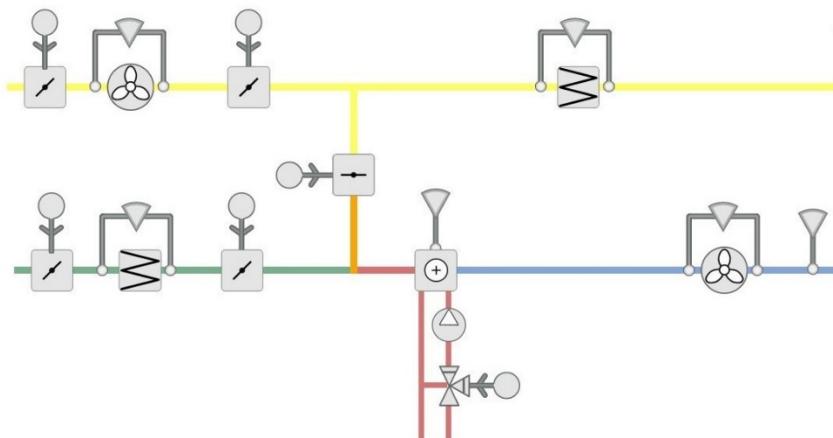
Terminal connection

Configuration 22131000

Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3	
EAF step2	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
Heater pump	DO6	11 DO1	
	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. - opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
Frost protect. temp.	AI3	17 DO7	
Extract air temp - opt.	AI4	30 Agnd	
	Agnd	31 AI1	DI1 SAF Indication
		32 AI2	DI2 EAF Indication
	Agnd	33 Agnd	DI3 Supply air filter
		34 AI3	DI4 Extract air filter
	Agnd	35 AI4	DI5
		40 Agnd	DI6
		41 UI1: AI5/DI9	DI7 Extended run - opt.
		42 UI2: AI6/DI10	DI8 Fire alarm - opt.
		43 Agnd	Agnd
		44 UI3: AI7/DI11	AO1
		45 UI4: AI8/DI12	AO2
	TCP	TCP/IP RJ45	AO3 Mixing damper signal
			AO4 Heater signal
			AO5

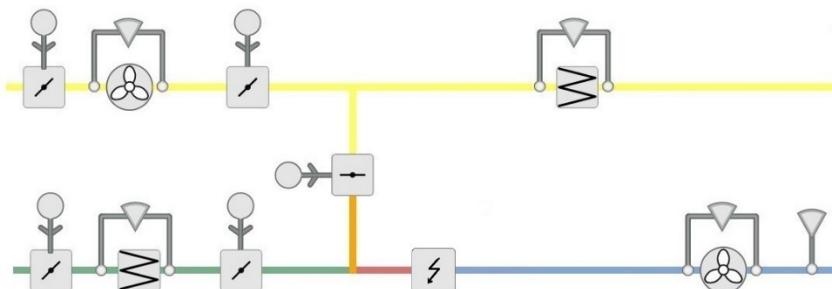
Terminal connection

Configuration 22141000

Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3	
EAF step2	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
	DO6	11 DO1	
Heater electric [PWM]	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
	AI3	17 DO7	
Extract air temp – opt.	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
	UI1	32 AI2	DI2 72 EAF Indication
CO2 – opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint – opt.	UI4	40 Agnd	DI6 76 Overheat electric heat
		41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93 Mixing damper signal
			AO4 94
			AO5 95

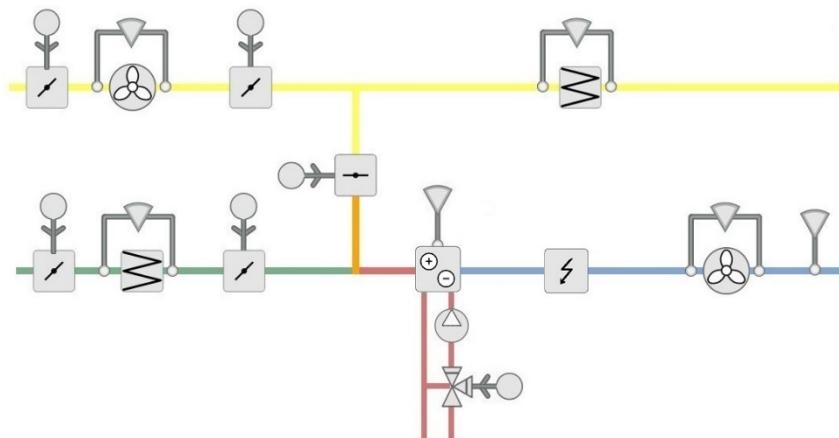
Terminal connection

Configuration 22131541

Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G		
	G0	Optigo-Ardo OPA281D-4	
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heat/Cool pump	DO6		
Heater electric [PWM]	DO7		
	Agnd	RJ11	
Outdoor temp. – opt.	AI1	DI1	SAF Indication
Supply temperature	AI2	DI2	EAF Indication
	Agnd	DI3	Supply air filter
Frost protect. temp.	AI3	DI4	Extract air filter
Extract air temp – opt.	AI4	DI5	Change-Over H/C
	Agnd	DI6	Overheat electric heat
	UI1	DI7	Extended run – opt.
CO2 – opt.	UI2	DI8	Fire alarm – opt.
	Agnd	Agnd	
	UI3	AO1	
Ext. setpoint – opt.	UI4	AO2	
		AO3	Mixing damper signal
	TCP	AO4	Heat/Cool signal
		AO5	

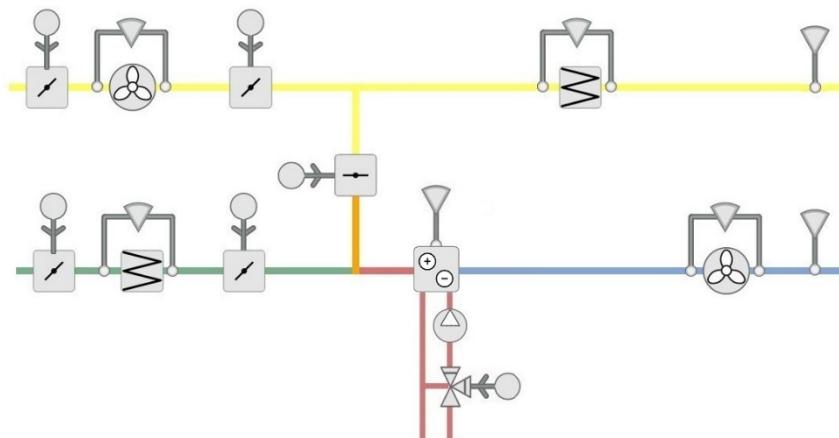
Terminal connection

Configuration 22331501

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	G	
G0	G0	
Gnd	Gnd	
+C	+C	
Gdo	Gdo	
SAF step1	DO1	
EAF step1	DO2	
SAF step 2	DO3	
EAF step2	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp.	AI4	
	Agnd	
	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
TCP		

Optigo-Ardo
OPA281D-4

RJ11

RJ45

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	
AO2	
AO3	Mixing damper signal
AO4	Heat/Cool signal
AO5	

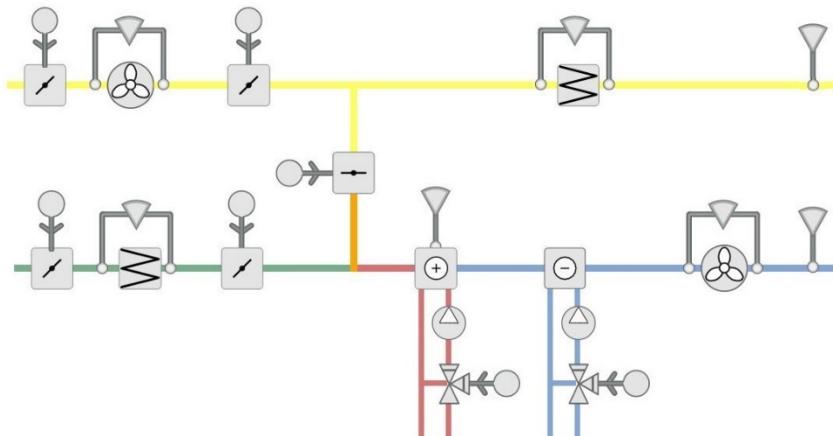
Terminal connection

Configuration 22331500

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater + Water cooler



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF step1	DO1	
EAF step1	DO2	
SAF step 2	DO3	
EAF step2	DO4	
Outdoor air damper	DO5	
Heater pump	DO6	
Cooler pump	DO7	
	Agnd	
Outdoor temp. - opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp.	AI4	
	Agnd	
	UI1	
CO2 - opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint - opt.	UI4	
	TCP	
	TCP/IP	Optigo-Ardo OPA281D-4
	RJ45	
		RJ11
		Ext D
	DI1	SAF Indication
	DI2	EAF Indication
	DI3	Supply air filter
	DI4	Extract air filter
	DI5	
	DI6	
	DI7	Extended run - opt.
	DI8	Fire alarm - opt.
	Agnd	
	AO1	
	AO2	
	AO3	
	AO4	Mixing damper signal
	AO4	Heater signal
	AO5	Cooler signal

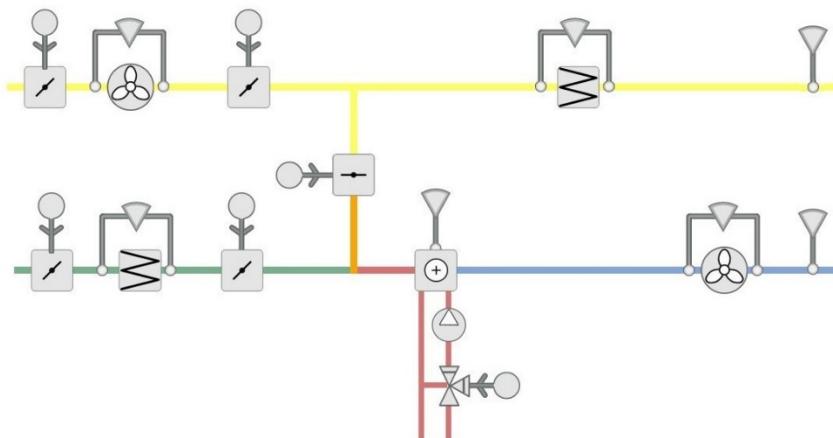
Terminal connection

Configuration 22331000

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater



	G	Optigo-Ardo OPA281D-4	
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heater pump	DO6		
	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Extract air temp.	AI4		
	Agnd		
	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		
	RJ45		
		RJ11	
		DI1	SAF Indication
		DI2	EAF Indication
		DI3	Supply air filter
		DI4	Extract air filter
		DI5	
		DI6	
		DI7	Extended run – opt.
		DI8	Fire alarm – opt.
		Agnd	
		AO1	
		AO2	
		AO3	Mixing damper signal
		AO4	Heater signal
		AO5	

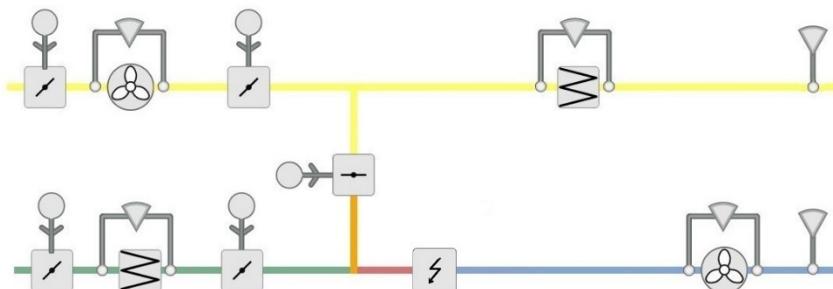
Terminal connection

Configuration 22341000

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3	
EAF step2	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
	DO6	11 DO1	
Heater electric [PWM]	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
	AI3	17 DO7	
Extract air temp.	AI4	30 Agnd	
	Agnd	31 AI1	DI1 SAF Indication
	UI1	32 AI2	DI2 EAF Indication
CO2 – opt.	UI2	33 Agnd	DI3 Supply air filter
	Agnd	34 AI3	DI4 Extract air filter
	UI3	35 AI4	DI5
Ext. setpoint – opt.	UI4	40 Agnd	DI6 Overheat electric heat
		41 UI1: AI5/DI9	DI7 Extended run – opt.
		42 UI2: AI6/DI10	DI8 Fire alarm – opt.
		43 Agnd	AO1
		44 UI3: AI7/DI11	AO2
		45 UI4: AI8/DI12	AO3 Mixing damper signal
	TCP	TCP/IP	AO4
		RJ45	AO5

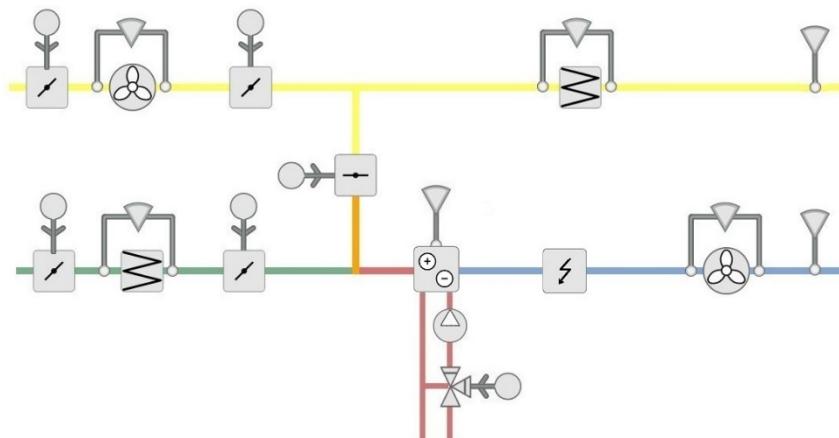
Terminal connection

Configuration 22331541

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heat/Cool pump	DO6		
Heater electric [PWM]	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Extract air temp.	AI4		
	Agnd		
	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		
		Optigo-Ardo OPA281D-4	
	1 G		
	2 G0		
	3		
	4 +C		
	10 GDO		
	11 DO1		
	12 DO2		
	13 DO3		
	14 DO4		
	15 DO5		
	16 DO6		
	17 DO7		
	30 Agnd		
	31 AI1		DI1 71
	32 AI2		DI2 72
	33 Agnd		DI3 73
	34 AI3		DI4 74
	35 AI4		DI5 75
	40 Agnd		DI6 76
	41 UI1: AI5/DI9		DI7 77
	42 UI2: AI6/DI10		DI8 78
	43 Agnd		AO1 91
	44 UI3: AI7/DI11		AO2 92
	45 UI4: AI8/DI12		AO3 93
	TCP/IP		AO4 94
	RJ45		AO5 95
		RJ11	
			Ext D
			DI1 SAF Indication
			DI2 EAF Indication
			DI3 Supply air filter
			DI4 Extract air filter
			DI5 Change-Over H/C
			DI6 Overheat electric heat
			DI7 Extended run – opt.
			DI8 Fire alarm – opt.
			Agnd
			AO1
			AO2
			AO3 Mixing damper signal
			AO4 Heat/Cool signal
			AO5

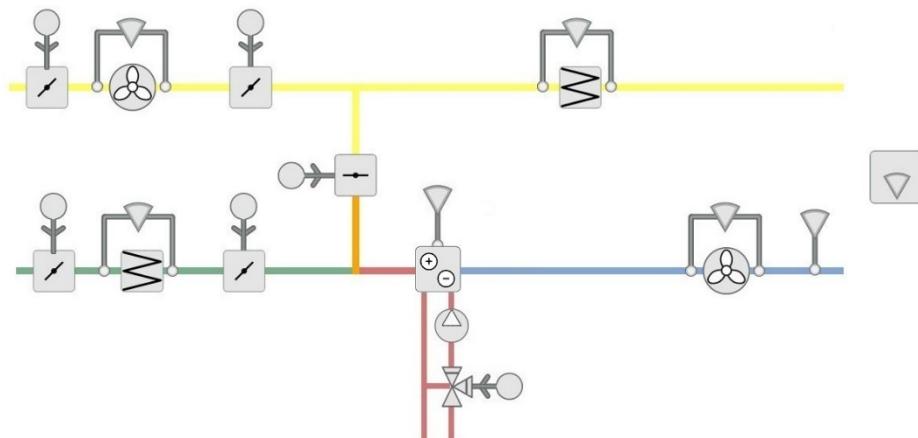
Terminal connection

Configuration 22231501

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heat/Cool pump	DO6		
	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Room temperature	AI4		
	Agnd		
	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		

Optigo-Ardo
OPA281D-4

Terminals 1-17 (left) and 71-95 (right) are numbered.

Ext D

RJ11

RJ45

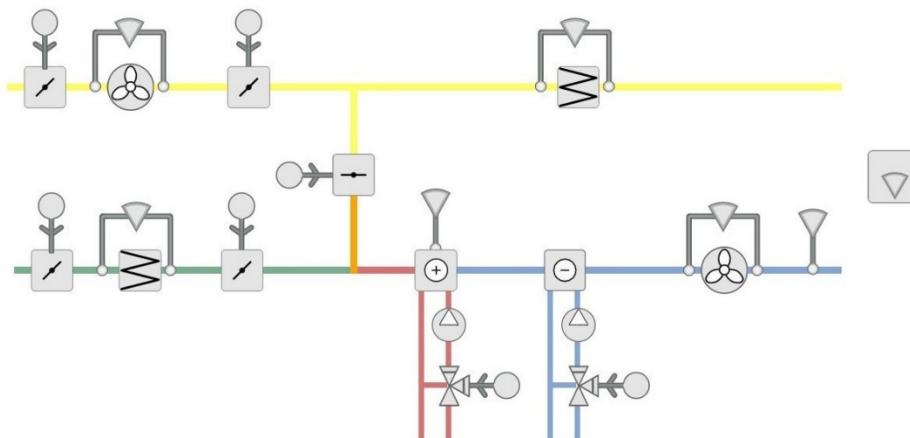
Terminal connection

Configuration 22231500

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater + Water cooler



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3	
EAF step2	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
Heater pump	DO6	11 DO1	
Cooler pump	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
Frost protect. temp.	AI3	17 DO7	
Room temperature	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
		32 AI2	DI2 72 EAF Indication
	Agnd	33 Agnd	DI3 73 Supply air filter
		34 AI3	DI4 74 Extract air filter
		35 AI4	DI5 75
	Agnd	40 Agnd	DI6 76
		41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
	Agnd	43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93 Mixing damper signal
			AO4 94 Heater signal
			AO5 95 Cooler signal

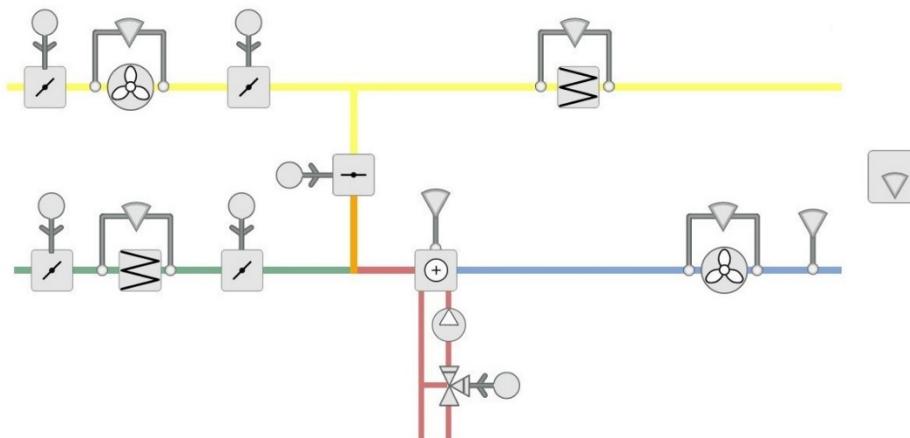
Terminal connection

Configuration 22231000

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3	
EAF step2	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
Heater pump	DO6	11 DO1	
	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
Frost protect. temp.	AI3	17 DO7	
Room temperature	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
	UI1	32 AI2	DI2 72 EAF Indication
CO2 – opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint – opt.	UI4	40 Agnd	DI6 76
		41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93 Mixing damper signal
			AO4 94 Heater signal
			AO5 95

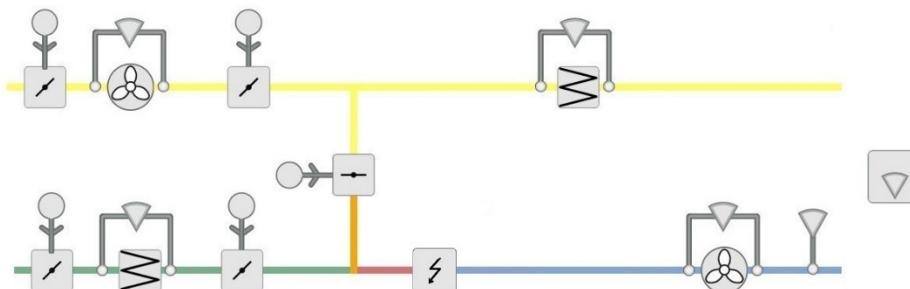
Terminal connection

Configuration 22241000

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3 +C	
EAF step2	DO4	4 GDO	
Outdoor air damper	DO5	10 DO1	
	DO6	11 DO2	
Heater electric [PWM]	DO7	12 DO3	
	Agnd	13 DO4	
Outdoor temp. – opt.	AI1	14 DO5	
Supply temperature	AI2	15 DO6	
	Agnd	16 DO7	
	AI3	30 Agnd	
Room temperature	AI4	31 AI1	DI1 SAF Indication
	Agnd	32 AI2	DI2 EAF Indication
	UI1	33 Agnd	DI3 Supply air filter
CO2 – opt.	UI2	34 AI3	DI4 Extract air filter
	Agnd	35 AI4	DI5
	UI3	40 Agnd	DI6 Overheat electric heat
Ext. setpoint – opt.	UI4	41 UI1: AI5/DI9	DI7 Extended run – opt.
		42 UI2: AI6/DI10	DI8 Fire alarm – opt.
		43 Agnd	Agnd
		44 UI3: AI7/DI11	AO1
		45 UI4: AI8/DI12	AO2
	TCP	TCP/IP RJ45	AO3 Mixing damper signal
			AO4
			AO5

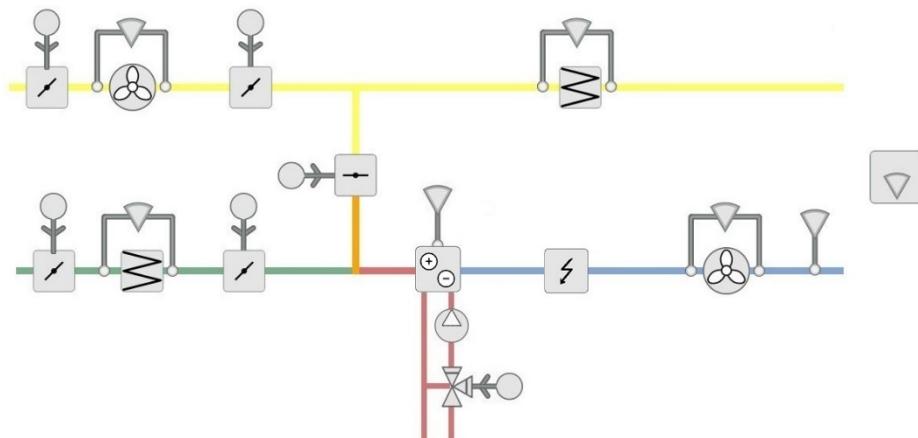
Terminal connection

Configuration 22231541

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF step1	DO1	
EAF step1	DO2	
SAF step 2	DO3	
EAF step2	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Room temperature	AI4	
	Agnd	
	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
	TCP	
		Optigo-Ardo OPA281D-4
		1 G
		2 G0
		3
		4 +C
		10 GDO
		11 DO1
		12 DO2
		13 DO3
		14 DO4
		15 DO5
		16 DO6
		17 DO7
		30 Agnd
		31 AI1
		32 AI2
		33 Agnd
		34 AI3
		35 AI4
		40 Agnd
		41 UI1: AI5/DI9
		42 UI2: AI6/DI10
		43 Agnd
		44 UI3: AI7/DI11
		45 UI4: AI8/DI12
		TCP/IP
		RJ45
		RJ11
		DI1 71
		DI2 72
		DI3 73
		DI4 74
		DI5 75
		DI6 76
		DI7 77
		DI8 78
		Agnd 90
		AO1 91
		AO2 92
		AO3 93
		AO4 94
		AO5 95

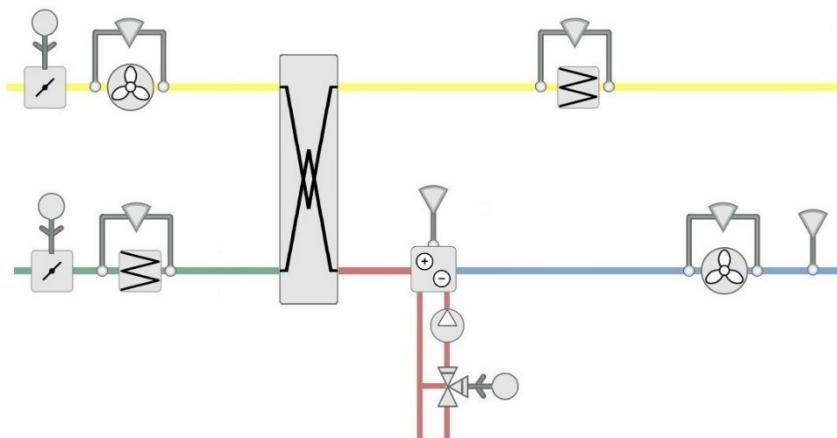
Terminal connection

Configuration 22132501

Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump)



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heat/Cool pump	DO6		
	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Extract air temp – opt.	AI4		
	Agnd		
Defrost Exchanger	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		

1	G	Optigo-Ardo OPA281D-4
2	G0	
3	Gnd	
4	+C	
10	Gdo	
11	DO1	
12	DO2	
13	DO3	
14	DO4	
15	DO5	
16	DO6	
17	DO7	
30	Agnd	
31	AI1	
32	AI2	
33	Agnd	
34	AI3	
35	AI4	
40	Agnd	
41	UI1: AI5/DI9	
42	UI2: AI6/DI10	
43	Agnd	
44	UI3: AI7/DI11	
45	UI4: AI8/DI12	
	TCP/IP	
	RJ45	

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	
AO2	
AO3	Exchanger signal
AO4	Heat/Cool signal
AO5	

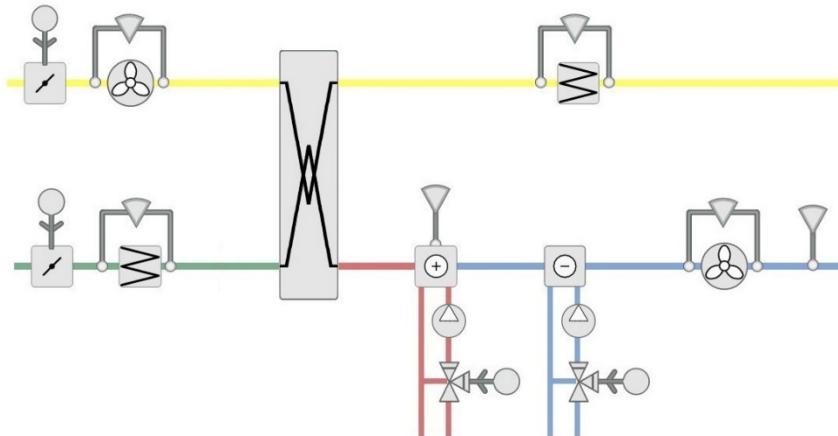
Terminal connection

Configuration 22132500

Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater + Water cooler



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF step1	DO1	
EAF step1	DO2	
SAF step 2	DO3	
EAF step2	DO4	
Outdoor air damper	DO5	
Heater pump	DO6	
Cooler pump	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp – opt.	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
	TCP/IP	
	RJ45	
		Optigo-Ardo OPA281D-4
		RJ11
		Ext D
DI1	SAF Indication	
DI2	EAF Indication	
DI3	Supply air filter	
DI4	Extract air filter	
DI5		
DI6		
DI7		
DI8		
Agnd		
AO1		
AO2		
AO3		
AO4		
AO5		

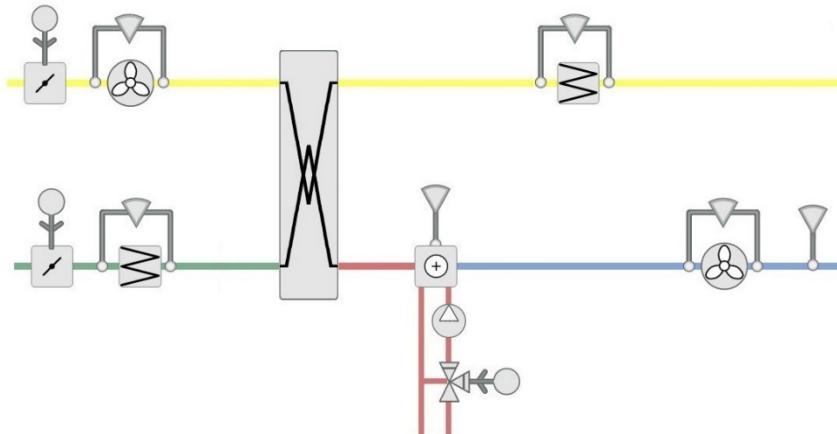
Terminal connection

Configuration 22132000

Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF step1	DO1	
EAF step1	DO2	
SAF step 2	DO3	
EAF step2	DO4	
Outdoor air damper	DO5	
Heater pump	DO6	
	DO7	
	Agnd	
Outdoor temp. - opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp - opt.	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 - opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint - opt.	UI4	
	TCP	
	RJ45	
		Optigo-Ardo OPA281D-4
		RJ11
		Ext D
	DI1	SAF Indication
	DI2	EAF Indication
	DI3	Supply air filter
	DI4	Extract air filter
	DI5	
	DI6	
	DI7	
	DI8	
	Agnd	
	AO1	
	AO2	
	AO3	
	AO4	
	AO5	

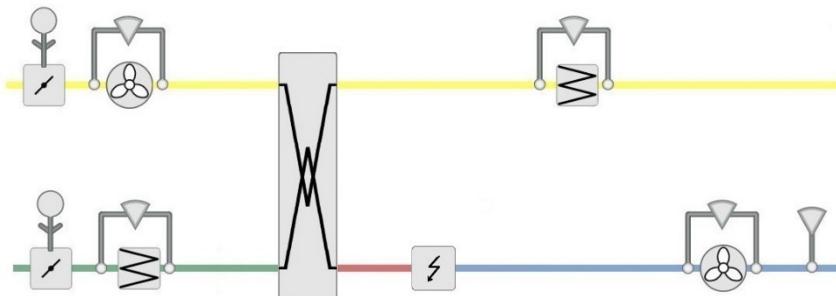
Terminal connection

Configuration 22142000

Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3	
EAF step2	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
	DO6	11 DO1	
Heater electric [PWM]	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
	AI3	17 DO7	
Extract air temp – opt.	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
Defrost Exchanger	UI1	32 AI2	DI2 72 EAF Indication
CO2 – opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint – opt.	UI4	40 Agnd	DI6 76 Overheat electric heat
		41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93 Exchanger signal
			AO4 94
			AO5 95

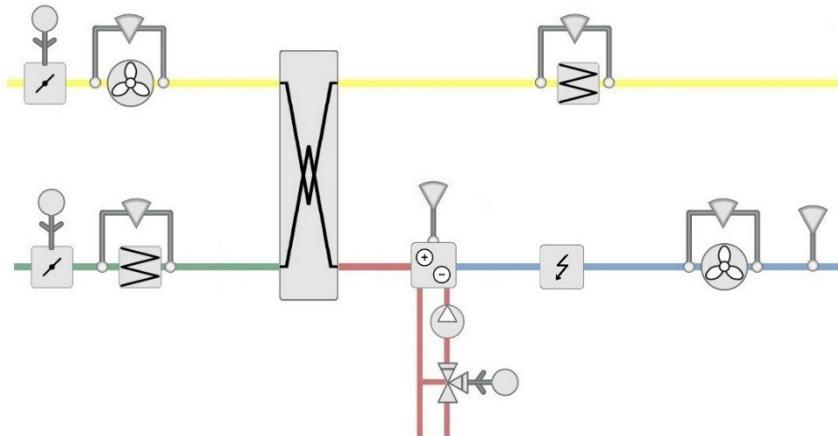
Terminal connection

Configuration 22132541

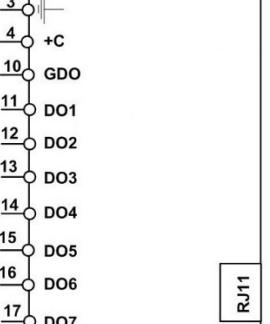
Function description:

Constant supply air temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF step1	DO1	
EAF step1	DO2	
SAF step 2	DO3	
EAF step2	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Extract air temp – opt.	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
	TCP	



Optigo-Ardo OPA281D-4

	RJ11	
DI1	71	Ext D
DI2	72	
DI3	73	
DI4	74	
DI5	75	
DI6	76	
DI7	77	
DI8	78	
Agnd	90	
AO1	91	
AO2	92	
AO3	93	
AO4	94	
AO5	95	



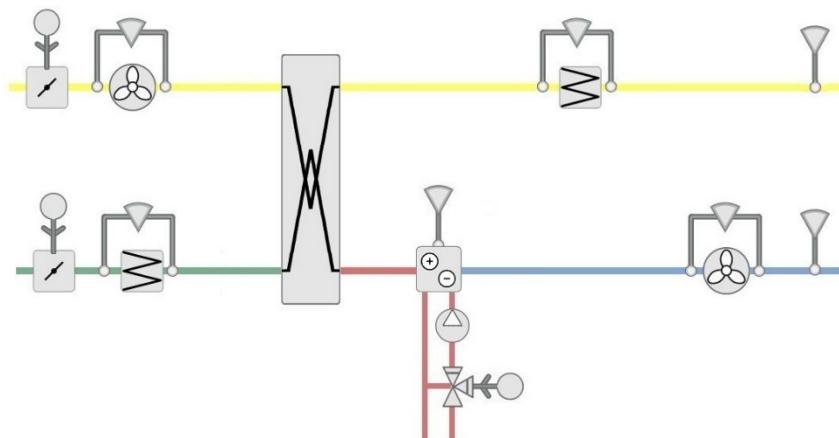
Terminal connection

Configuration 22332501

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump)



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heat/Cool pump	DO6		
	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Extract air temp.	AI4		
	Agnd		
Defrost Exchanger	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	
AO2	
AO3	Exchanger signal
AO4	Heat/Cool signal
AO5	

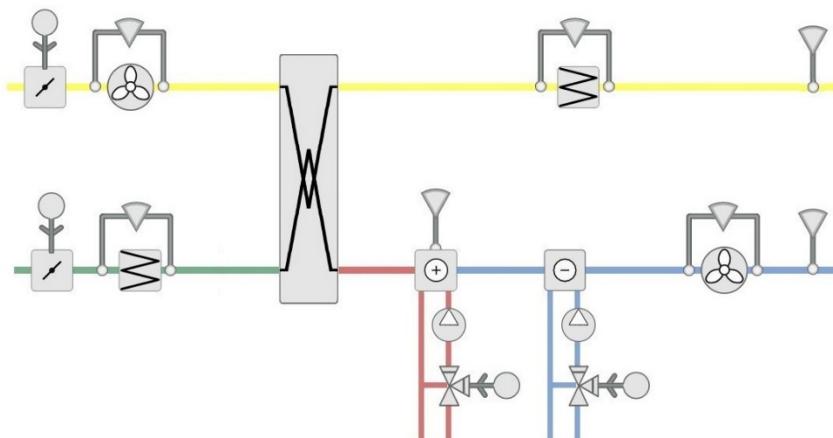
Terminal connection

Configuration 22332500

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater + Water cooler



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heater pump	DO6		
Cooler pump	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Extract air temp.	AI4		
	Agnd		
Defrost Exchanger	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		

Optigo-Ardo OPA281D-4

1	G			
2	G0			
3				
4	+C			
10	GDO			
11	DO1			
12	DO2			
13	DO3			
14	DO4			
15	DO5			
16	DO6			
17	DO7			
30	Agnd			
31	AI1			
32	AI2			
33	Agnd			
34	AI3			
35	AI4			
40	Agnd			
41	UI1: AI5/DI9			
42	UI2: AI6/DI10			
43	Agnd			
44	UI3: AI7/DI11			
45	UI4: AI8/DI12			
			RJ11	
			DI1	
			SAF Indication	
			DI2	
			EAF Indication	
			DI3	
			Supply air filter	
			DI4	
			Extract air filter	
			DI5	
			DI6	
			DI7	Extended run – opt.
			DI8	Fire alarm – opt.
			Agnd	
			AO1	
			AO2	
			AO3	Exchanger signal
			AO4	Heater signal
			AO5	Cooler signal

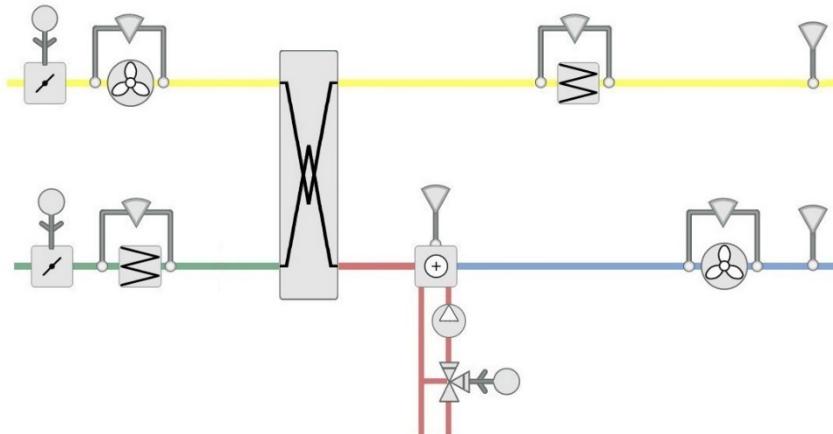
Terminal connection

Configuration 22332000

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater



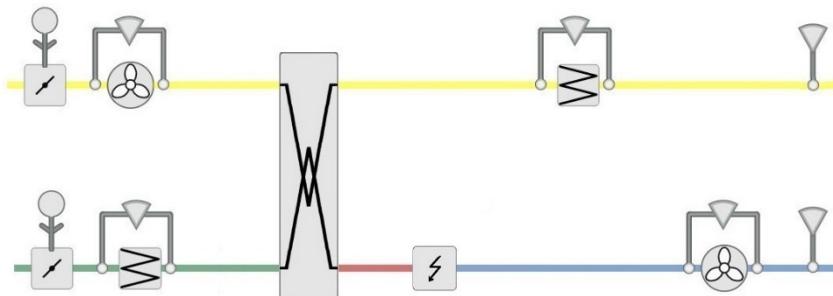
Terminal connection

Configuration 22342000

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3	
EAF step2	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
	DO6	11 DO1	
Heater electric [PWM]	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
	AI3	17 DO7	
Extract air temp.	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
Defrost Exchanger	UI1	32 AI2	DI2 72 EAF Indication
CO2 – opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint – opt.	UI4	40 Agnd	DI6 76 Overheat electric heat
		41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93 Exchanger signal
			AO4 94
			AO5 95

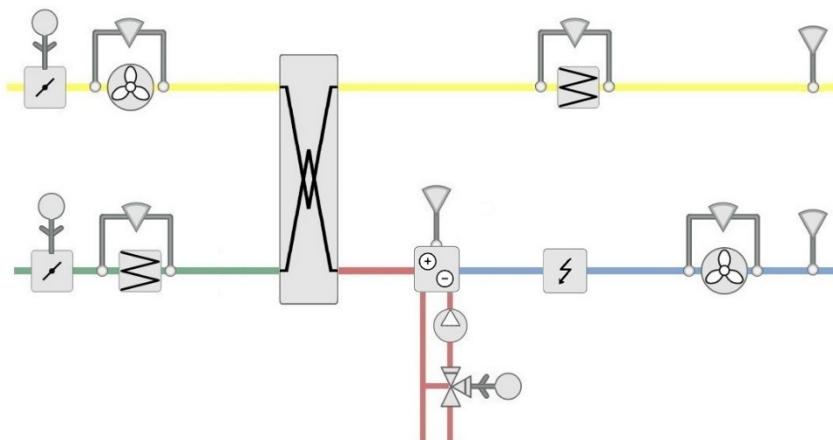
Terminal connection

Configuration 22332541

Function description:

Extract air cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



G	G	
G0	G0	
Gnd		
+C		
Gdo		
SAF step1	DO1	
EAF step1	DO2	
SAF step 2	DO3	
EAF step2	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
Agnd		
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
Agnd		
Frost protect. temp.	AI3	
Extract air temp.	AI4	
Agnd		
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
Agnd		
UI3		
Ext. setpoint – opt.	UI4	
TCP		

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	Overheat electric heat
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	
AO2	
AO3	Exchanger signal
AO4	Heat/Cool signal
AO5	

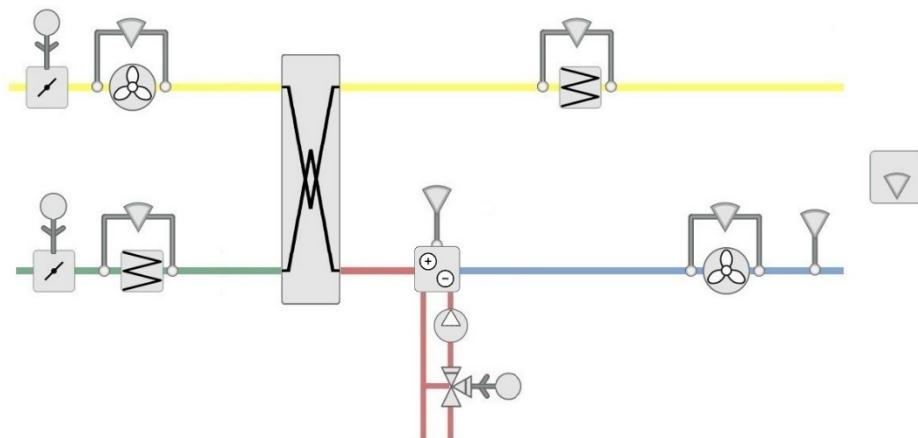
Terminal connection

Configuration 22232501

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump)



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heat/Cool pump	DO6		
	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Room temperature	AI4		
	Agnd		
Defrost Exchanger	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		

1	G	Optigo-Ardo OPA281D-4
2	G0	
3	Gnd	
4	+C	
10	Gdo	
11	DO1	
12	DO2	
13	DO3	
14	DO4	
15	DO5	
16	DO6	
17	DO7	
30	Agnd	
31	AI1	
32	AI2	
33	Agnd	
34	AI3	
35	AI4	
40	Agnd	
41	UI1: AI5/DI9	
42	UI2: AI6/DI10	
43	Agnd	
44	UI3: AI7/DI11	
45	UI4: AI8/DI12	
	TCP/IP	
	RJ45	

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	Change-Over H/C
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	
AO2	
AO3	Exchanger signal
AO4	Heat/Cool signal
AO5	

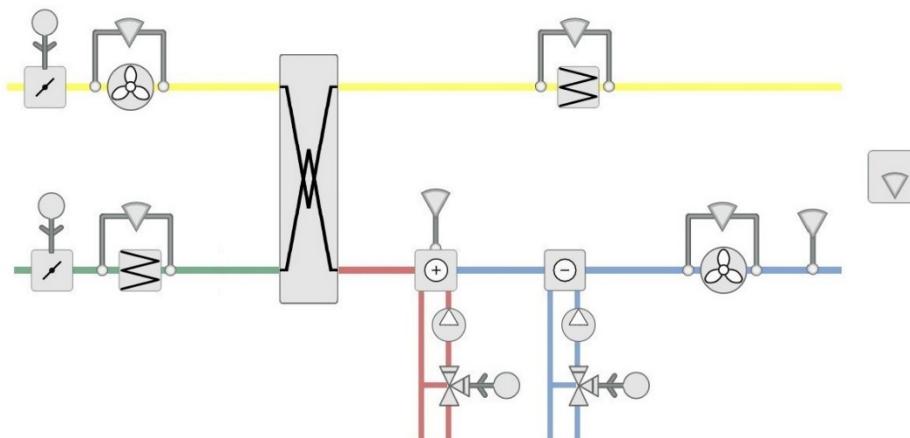
Terminal connection

Configuration 22232500

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater + Water cooler



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heater pump	DO6		
Cooler pump	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Room temperature	AI4		
	Agnd		
Defrost Exchanger	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		
Optigo-Ardo OPA281D-4			
1	G		
2	G0		
3			
4	+C		
10	GDO		
11	DO1		
12	DO2		
13	DO3		
14	DO4		
15	DO5		
16	DO6		
17	DO7		
30	Agnd		
31	AI1		
32	AI2		
33	Agnd		
34	AI3		
35	AI4		
40	Agnd		
41	UI1: AI5/DI9		
42	UI2: AI6/DI10		
43	Agnd		
44	UI3: AI7/DI11		
45	UI4: AI8/DI12		
	TCP/IP		
	RJ45		
RJ11			
DI1	71		
DI2	72		
DI3	73		
DI4	74		
DI5	75		
DI6	76		
DI7	77		
DI8	78		
Agnd	90		
AO1	91		
AO2	92		
AO3	93		
AO4	94		
AO5	95		

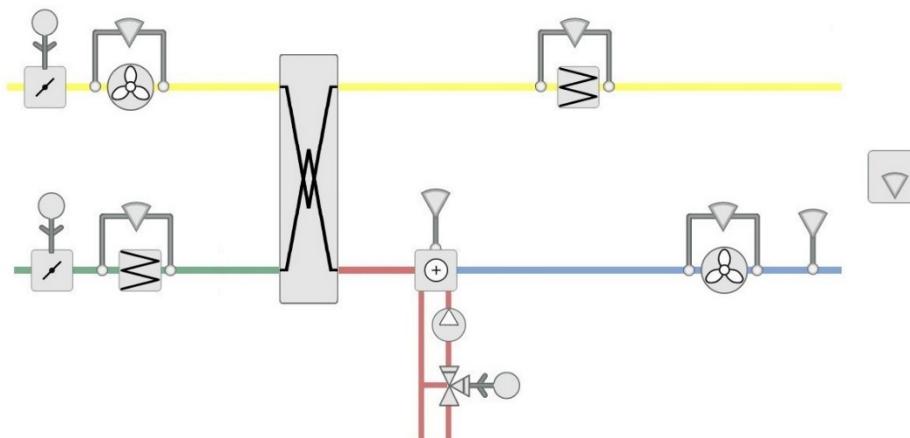
Terminal connection

Configuration 22232000

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1		
EAF step1	DO2		
SAF step 2	DO3		
EAF step2	DO4		
Outdoor air damper	DO5		
Heater pump	DO6		
	DO7		
	Agnd		
Outdoor temp. – opt.	AI1		
Supply temperature	AI2		
	Agnd		
Frost protect. temp.	AI3		
Room temperature	AI4		
	Agnd		
Defrost Exchanger	UI1		
CO2 – opt.	UI2		
	Agnd		
	UI3		
Ext. setpoint – opt.	UI4		
	TCP		

1	G	Optigo-Ardo OPA281D-4
2	G0	
3	Gnd	
4	+C	
10	Gdo	
11	DO1	
12	DO2	
13	DO3	
14	DO4	
15	DO5	
16	DO6	
17	DO7	
30	Agnd	
31	AI1	
32	AI2	
33	Agnd	
34	AI3	
35	AI4	
40	Agnd	
41	UI1: AI5/DI9	
42	UI2: AI6/DI10	
43	Agnd	
44	UI3: AI7/DI11	
45	UI4: AI8/DI12	
	TCP/IP	
	RJ45	

DI1	SAF Indication
DI2	EAF Indication
DI3	Supply air filter
DI4	Extract air filter
DI5	
DI6	
DI7	Extended run – opt.
DI8	Fire alarm – opt.
Agnd	
AO1	
AO2	
AO3	Exchanger signal
AO4	Heater signal
AO5	

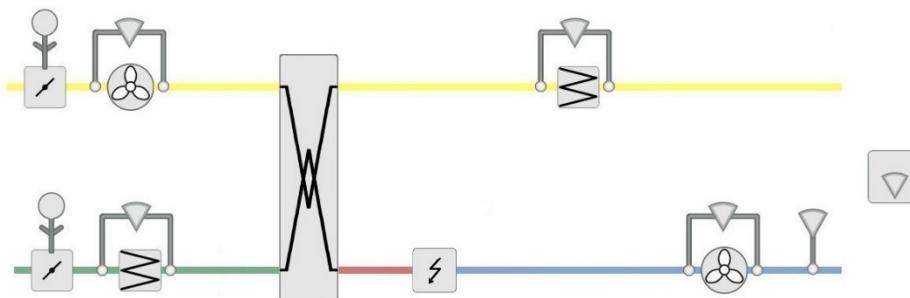
Terminal connection

Configuration 22242000

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA281D-4
EAF step1	DO2	2 G0	
SAF step 2	DO3	3	
EAF step2	DO4	4 +C	
Outdoor air damper	DO5	10 GDO	
	DO6	11 DO1	
Heater electric [PWM]	DO7	12 DO2	
	Agnd	13 DO3	
Outdoor temp. – opt.	AI1	14 DO4	
Supply temperature	AI2	15 DO5	
	Agnd	16 DO6	
	AI3	17 DO7	
Room temperature	AI4	30 Agnd	
	Agnd	31 AI1	DI1 71 SAF Indication
Defrost Exchanger	UI1	32 AI2	DI2 72 EAF Indication
CO2 – opt.	UI2	33 Agnd	DI3 73 Supply air filter
	Agnd	34 AI3	DI4 74 Extract air filter
	UI3	35 AI4	DI5 75
Ext. setpoint – opt.	UI4	40 Agnd	DI6 76 Overheat electric heat
		41 UI1: AI5/DI9	DI7 77 Extended run – opt.
		42 UI2: AI6/DI10	DI8 78 Fire alarm – opt.
		43 Agnd	Agnd 90
		44 UI3: AI7/DI11	AO1 91
		45 UI4: AI8/DI12	AO2 92
	TCP	TCP/IP RJ45	AO3 93 Exchanger signal
			AO4 94
			AO5 95

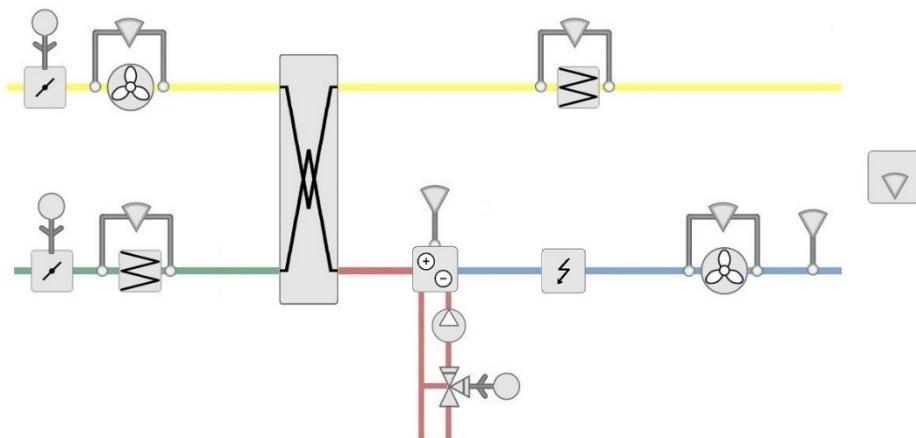
Terminal connection

Configuration 22232541

Function description:

Room cascade temperature control - Manual 2-step supply + extract air fan control –

Temperature control sequence with Plate-Exchanger + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF step1	DO1	
EAF step1	DO2	
SAF step 2	DO3	
EAF step2	DO4	
Outdoor air damper	DO5	
Heat/Cool pump	DO6	
Heater electric [PWM]	DO7	
	Agnd	
Outdoor temp. – opt.	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Room temperature	AI4	
	Agnd	
Defrost Exchanger	UI1	
CO2 – opt.	UI2	
	Agnd	
	UI3	
Ext. setpoint – opt.	UI4	
	TCP	
		Optigo-Ardo OPA281D-4
		1 G
		2 G0
		3 +C
		4 Gdo
		10 GDO
		11 DO1
		12 DO2
		13 DO3
		14 DO4
		15 DO5
		16 DO6
		17 DO7
		30 Agnd
		31 AI1
		32 AI2
		33 Agnd
		34 AI3
		35 AI4
		40 Agnd
		41 UI1: AI5/DI9
		42 UI2: AI6/DI10
		43 Agnd
		44 UI3: AI7/DI11
		45 UI4: AI8/DI12
		TCP/IP
		RJ45
		RJ11
		DI1 71
		DI2 72
		DI3 73
		DI4 74
		DI5 75
		DI6 76
		DI7 77
		DI8 78
		Agnd 90
		AO1 91
		AO2 92
		AO3 93
		AO4 94
		AO5 95

Terminal connection

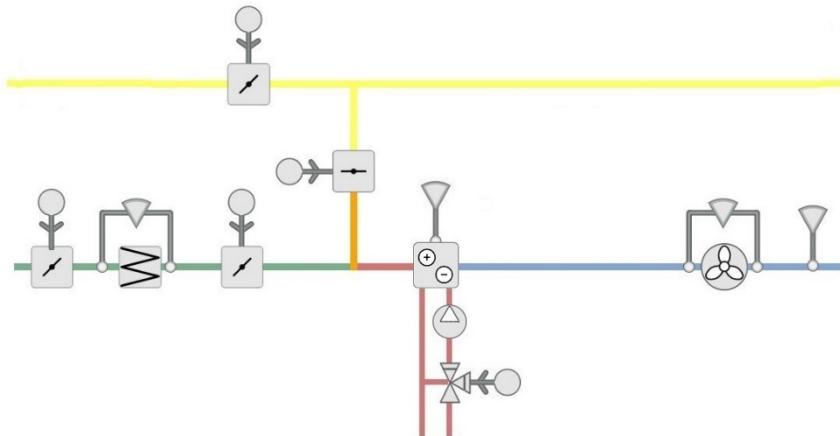
Configurations used for Optigo Ardo with 15 and 28 IO's

Configuration 11131501

Function description:

Constant supply air temperature control - Manual supply air fan control (e.g., EC fan) (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	G		
G0	G0		
Gnd	Gnd		
+C	+C		
Gdo	Gdo		
SAF start	DO1		
Outdoor air damper	DO2		
	DO3		
Heat/Cool pump	DO4		
Agnd		Optigo-Ardo OPA151D-4	
Outd temp / CO2 – opt	AI1	1 G	
Supply temperature	AI2	2 G0	
		3	
		4 +C	
		10 GDO	
		11 DO1	
		12 DO2	
		13 DO3	
		14 DO4	
		30 Agnd	
		31 AI1	
		32 AI2	
		33 Agnd	
		34 AI3	
		35 AI4	
		TCP/IP	
		RJ45	
TCP			
		DI1 71	
		DI2 72	
		DI3 73	
		DI4 74	
		Ext D	
		DI1 Fan Indication	
		DI2 Supply air filter	
		DI3 Change-Over H/C	
		DI4 Ext.Run / Fire – opt.	
		Agnd 90	
		AO1 91	
		AO2 92	
		AO3 93	

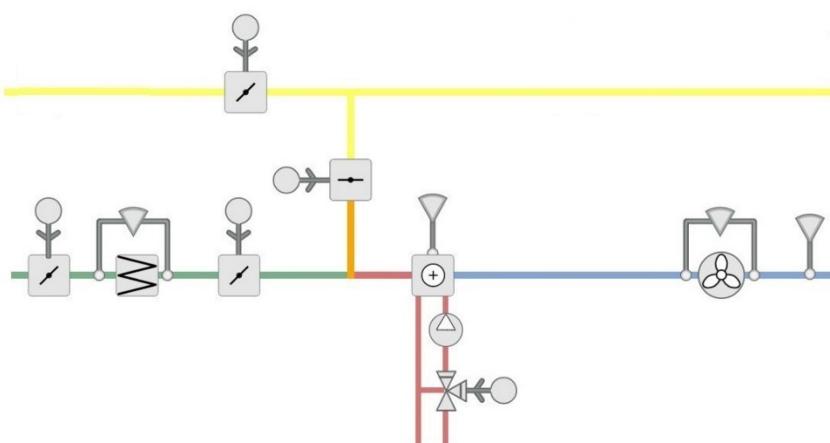
Terminal connection

Configuration 11131000

Function description:

Constant supply air temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater



G	1 G	Optigo-Ardo OPA151D-4	DI1	Fan Indication
G0	2 G0		DI2	Supply air filter
Gnd	3 Gnd		DI3	
+C	4 +C		DI4	Ext.Run / Fire – opt.
Gdo	10 GDO			
SAF start	11 DO1			
Outdoor air damper	12 DO2			
	13 DO3			
Heater pump	14 DO4			
		RJ11		
	30 Agnd		DI1	
Outd temp / CO2 – opt	31 AI1		DI2	
Supply temperature	32 AI2		DI3	
	33 Agnd		DI4	
Frost protect. temp.	34 AI3			
Extract air temp – opt.	35 AI4			
		TCP/IP		
		RJ45		
			90 Agnd	
			AO1 91	SAF signal
			AO2 92	Mixing damper signal
			AO3 93	Heater signal

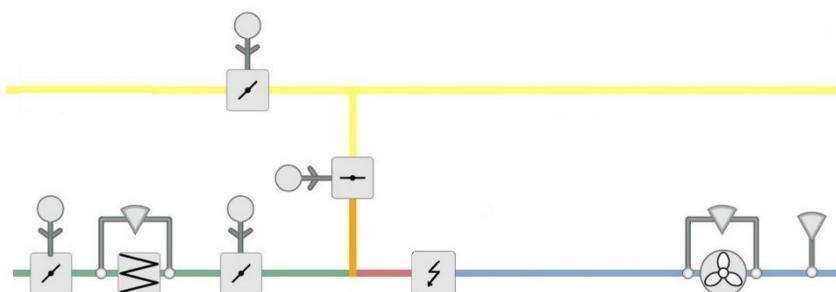
Terminal connection

Configuration 11141000

Function description:

Constant supply air temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Electric heater



G	1 G		
G0	2 G0		
Gnd	3 Gnd		
+C	4 +C		
Gdo	10 GDO		
SAF start	11 DO1		
Outdoor air damper	12 DO2		
Heater electric [PWM]	13 DO3		
	14 DO4		
	30 Agnd		
<i>Outd temp / CO2 – opt</i>	31 AI1	71 DI1	Fan Indication
Supply temperature	32 AI2	72 DI2	Supply air filter
	33 Agnd	73 DI3	Overheat electric heat
	34 AI3	74 DI4	<i>Ext.Run / Fire – opt.</i>
<i>Extract air temp – opt.</i>	35 AI4		
		90 Agnd	
		91 AO1	SAF signal
		92 AO2	Mixing damper signal
		93 AO3	
TCP	RJ45		

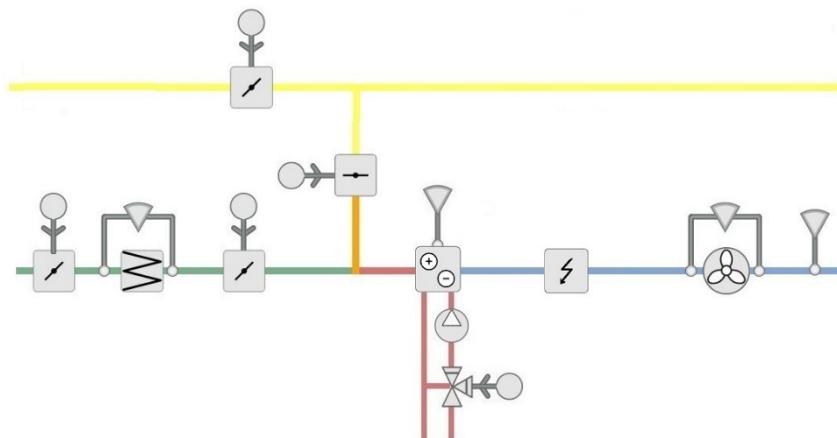
Terminal connection

Configuration 11131541

Function description:

Constant supply air temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1	1 G	Optigo-Ardo OPA151D-4
Outdoor air damper	DO2	2 G0	
Heater electric [PWM]	DO3	3	
Heat/Cool pump	DO4	4 +C	
		10 GDO	
		11 DO1	
		12 DO2	
		13 DO3	
		14 DO4	
	Agnd	30 Agnd	
Outd temp / CO2 – opt	AI1	31 AI1	DI1 71
Supply temperature	AI2	32 AI2	DI2 72
	Agnd	33 Agnd	DI3 73
Frost protect. temp.	AI3	34 AI3	DI4 74
Extract air temp – opt.	AI4	35 AI4	
		TCP/IP RJ45	
	TCP		
			Ext D
			DI1 Fan Indication
			DI2 Supply air filter
			DI3 Overheat electric heat
			DI4 Change-Over H/C
			Agnd 90
			AO1 91
			AO2 92
			AO3 93

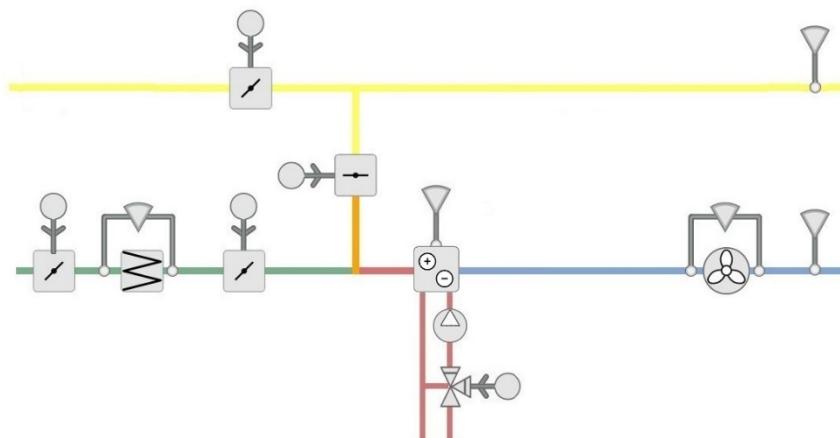
Terminal connection

Configuration 11331501

Function description:

Extract air cascade temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	G		
G0	Optigo-Ardo OPA151D-4		
Gnd	1 G		
+C	2 G0		
Gdo	3		
SAF start	4 +C		
Outdoor air damper	10 GDO		
	11 DO1		
	12 DO2		
	13 DO3		
	14 DO4		
	30 Agnd		
Outd temp / CO2 – opt	31 AI1	DI1 71	
Supply temperature	32 AI2	DI2 72	
	33 Agnd	DI3 73	
Frost protect. temp.	34 AI3	DI4 74	
Extract air temp.	35 AI4		
	TCP/IP		
	RJ45		
		Ext D	
		DI1 Fan Indication	
		DI2 Supply air filter	
		DI3 Change-Over H/C	
		DI4 Ext.Run / Fire – opt.	
		Agnd 90	
		AO1 91	
		AO2 92	
		AO3 93	

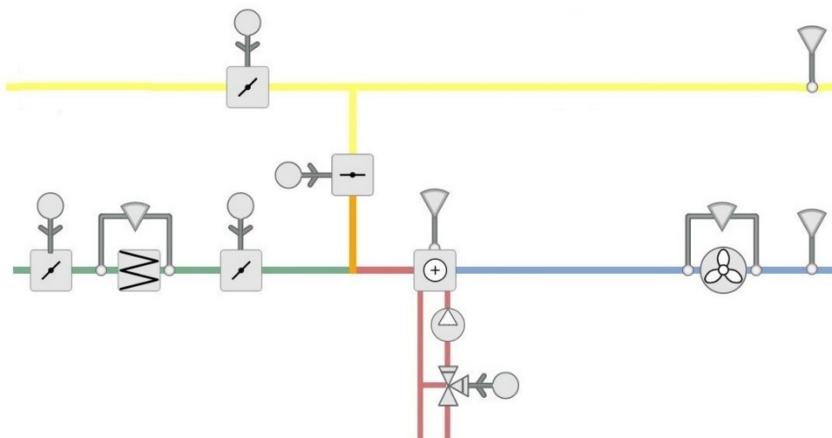
Terminal connection

Configuration 11331000

Function description:

Extract air cascade temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater



G	1	G	Optigo-Ardo OPA151D-4			
G0	2	G0				
Gnd	3					
+C	4	+C				
Gdo	10	GDO				
SAF start	11	DO1				
Outdoor air damper	12	DO2				
	13	DO3				
Heater pump	14	DO4				
	30	Agnd		RJ11		
Outd temp / CO2 – opt	31	AI1		DI1	71	Fan Indication
Supply temperature	32	AI2		DI2	72	Supply air filter
	33	Agnd		DI3	73	
Frost protect. temp.	34	AI3		DI4	74	Ext.Run / Fire – opt.
Extract air temp.	35	AI4				
TCP						

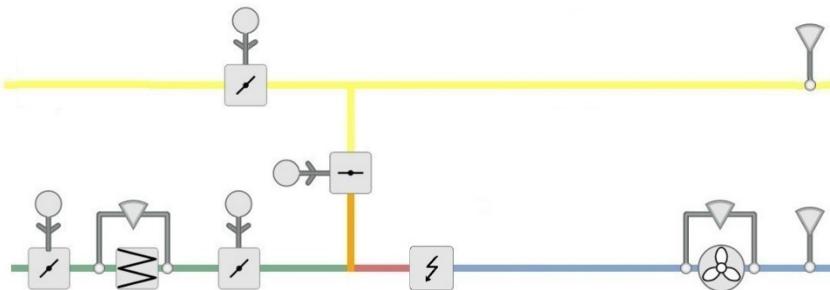
Terminal connection

Configuration 11341000

Function description:

Extract air cascade temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Electric heater



	G				
	G0				
	Gnd				
	+C				
	Gdo				
SAF start	DO1	1	G	Optigo-Ardo OPA151D-4	
Outdoor air damper	DO2	2	G0		
Heater electric [PWM]	DO3	3			
	DO4	4	+C		
		10	GDO		
		11	DO1		
		12	DO2		
		13	DO3		
		14	DO4		
	Agnd	30	Agnd		
Outd temp / CO2 – opt	AI1	31	AI1		DI1 Fan Indication
Supply temperature	AI2	32	AI2		DI2 Supply air filter
	Agnd	33	Agnd		DI3 Overheat electric heat
	AI3	34	AI3		DI4 Ext.Run / Fire – opt.
Extract air temp.	AI4	35	AI4		
				RJ11	
					Ext D
					DI1 Fan Indication
					DI2 Supply air filter
					DI3 Overheat electric heat
					DI4 Ext.Run / Fire – opt.
					Agnd 90
					Agnd 91
					AO1 92
					AO2 93
					AO3
	TCP				

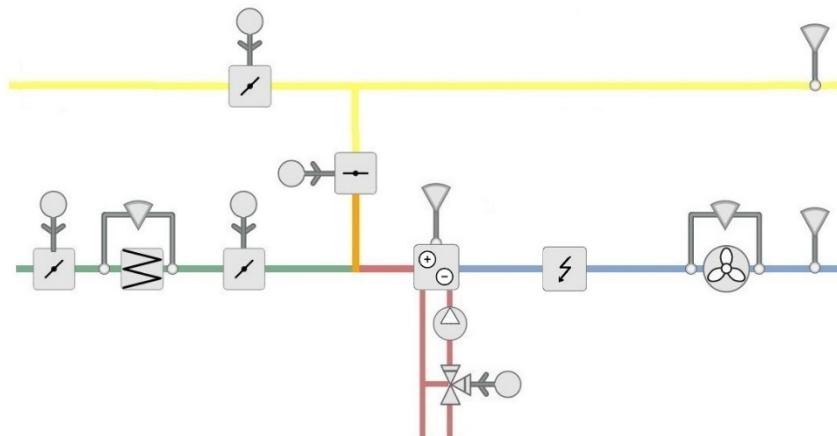
Terminal connection

Configuration 11331541

Function description:

Extract air cascade temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G			
	G0	Optigo-Ardo OPA151D-4		
	Gnd	1 G		
	+C	2 G0		
	Gdo	3		
SAF start	DO1	4 +C		
Outdoor air damper	DO2	10 GDO		
Heater electric [PWM]	DO3	11 DO1		
Heat/Cool pump	DO4	12 DO2		
		13 DO3		
		14 DO4		
	Agnd	30 Agnd	Ext D	
Outd temp / CO2 – opt	AI1	31 AI1	DI1 Fan Indication	
Supply temperature	AI2	32 AI2	DI2 Supply air filter	
	Agnd	33 Agnd	DI3 Overheat electric heat	
Frost protect. temp.	AI3	34 AI3	DI4 Change-Over H/C	
Extract air temp.	AI4	35 AI4		
	TCP	TCP/IP	Agnd	
		RJ45	90	
			AO1 91	AO1 SAF signal
			AO2 92	AO2 Mixing damper signal
			AO3 93	AO3 Heat/Cool signal

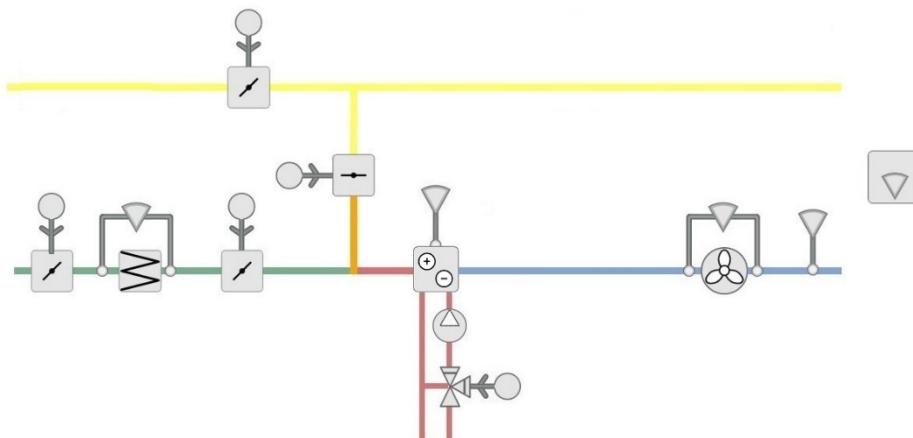
Terminal connection

Configuration 11231501

Function description:

Room cascade temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



	G	
	G0	
	Gnd	
	+C	
	Gdo	
SAF start	DO1	
Outdoor air damper	DO2	
	DO3	
Heat/Cool pump	DO4	
	Agnd	
Outd temp / CO2 – opt	AI1	
Supply temperature	AI2	
	Agnd	
Frost protect. temp.	AI3	
Room temperature	AI4	
TCP		

Optigo-Ardo OPA151D-4

Ext D		
DI1	Fan Indication	
DI2	Supply air filter	
DI3	Change-Over H/C	
DI4	Ext.Run / Fire – opt.	
Agnd		
AO1	SAF signal	
AO2	Mixing damper signal	
AO3	Heat/Cool signal	

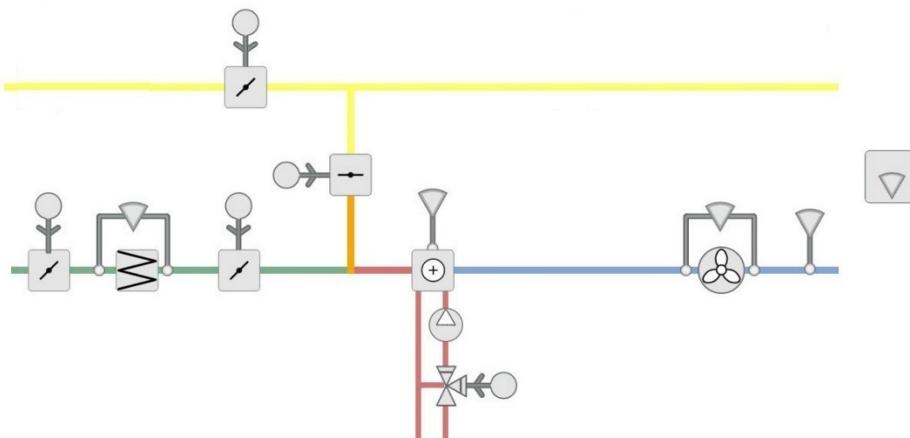
Terminal connection

Configuration 11231000

Function description:

Room cascade temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater



G	1 G	Optigo-Ardo OPA151D-4		
G0	2 G0			
Gnd	3 Gnd			
+C	4 +C			
Gdo	10 GDO			
SAF start	11 DO1			
Outdoor air damper	12 DO2			
	13 DO3			
Heater pump	14 DO4			
	30 Agnd		DI1 71	
Outd temp / CO2 – opt	31 AI1		DI2 72	
Supply temperature	32 AI2		DI3 73	
	33 Agnd		DI4 74	
Frost protect. temp.	34 AI3			
Room temperature	35 AI4			
	TCP	RJ45		
			Agnd 90	
			AO1 91	SAF signal
			AO2 92	Mixing damper signal
			AO3 93	Heater signal

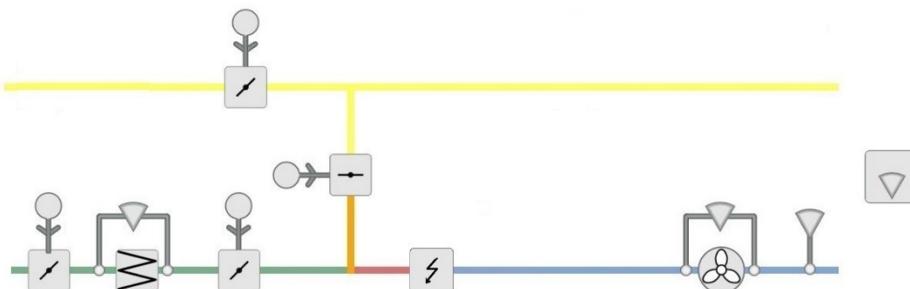
Terminal connection

Configuration 11241000

Function description:

Room cascade temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Electric heater



	G								
	G0								
	Gnd								
	+C								
	Gdo								
SAF start	DO1	1	G	Optigo-Ardo OPA151D-4					
Outdoor air damper	DO2	2	G0						
Heater electric [PWM]	DO3	3	+C						
	DO4	4	Gdo						
		10	DO1						
		11	DO2						
		12	DO3						
		13	DO4						
		14							
	Agnd	30	Agnd	RJ11					
Outd temp / CO2 – opt	AI1	31	AI1	DI1	71				
Supply temperature	AI2	32	AI2	DI2	72				
	Agnd	33	Agnd	DI3	73				
	AI3	34	AI3	DI4	74				
Room temperature	AI4	35	AI4						
	TCP			TCP/IP					
				RJ45					

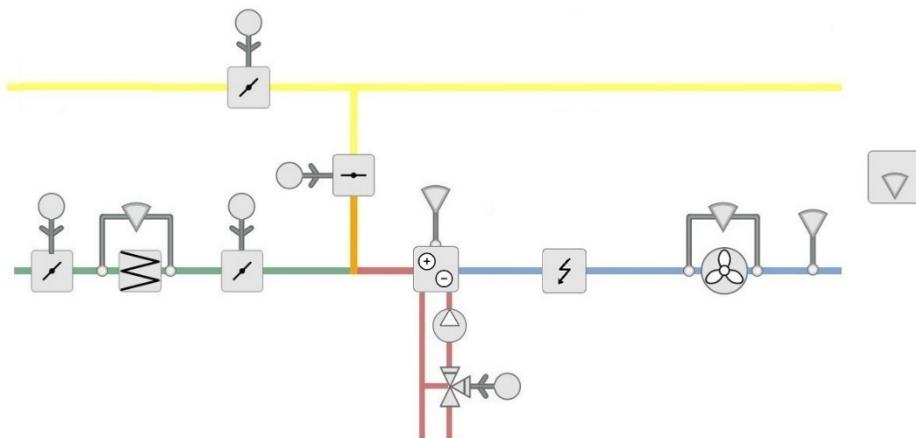
Terminal connection

Configuration 11231541

Function description:

Room cascade temperature control - Manual supply air fan control (e.g., EC fan) –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF start	DO1	1 G	Optigo-Ardo OPA151D-4
Outdoor air damper	DO2	2 G0	
Heater electric [PWM]	DO3	3	
Heat/Cool pump	DO4	4 +C	
		10 GDO	
		11 DO1	
		12 DO2	
		13 DO3	
		14 DO4	
	Agnd	30 Agnd	
Outd temp / CO2 – opt	AI1	31 AI1	DI1 71
Supply temperature	AI2	32 AI2	DI2 72
	Agnd	33 Agnd	DI3 73
Frost protect. temp.	AI3	34 AI3	DI4 74
Room temperature	AI4	35 AI4	
		TCP/IP RJ45	
	TCP		
			Ext D
			DI1 Fan Indication
			DI2 Supply air filter
			DI3 Overheat electric heat
			DI4 Change-Over H/C
			Agnd 90
			AO1 91
			AO2 92
			AO3 93

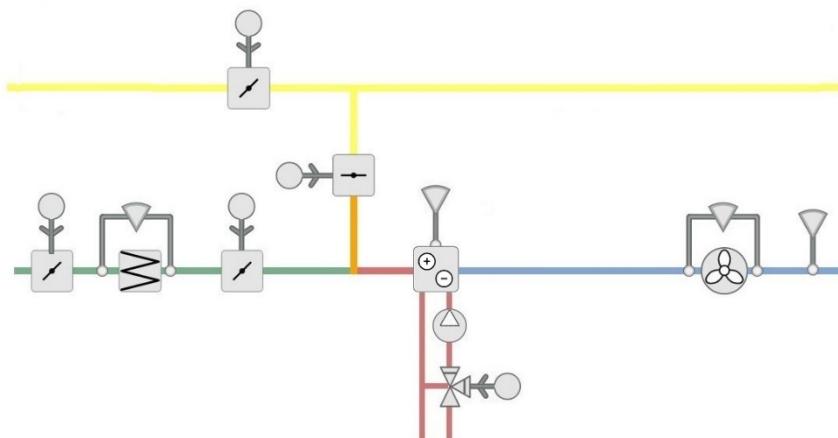
Terminal connection

Configuration 12131501

Function description:

Constant supply air temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	
G0	
Gnd	
+C	
Gdo	
SAF step1	DO1
SAF step2	DO2
	DO3
Heat/Cool pump	DO4
Agnd	
Outd temp / CO2 – opt	AI1
Supply temperature	AI2
	Agnd
Frost protect. temp.	AI3
Extract air temp – opt.	AI4
TCP	

Ext D	
DI1	Fan Indication
DI2	Supply air filter
DI3	Change-Over H/C
DI4	Ext.Run / Fire – opt.
Agnd	
AO1	
AO2	Mixing damper signal
AO3	Heat/Cool signal

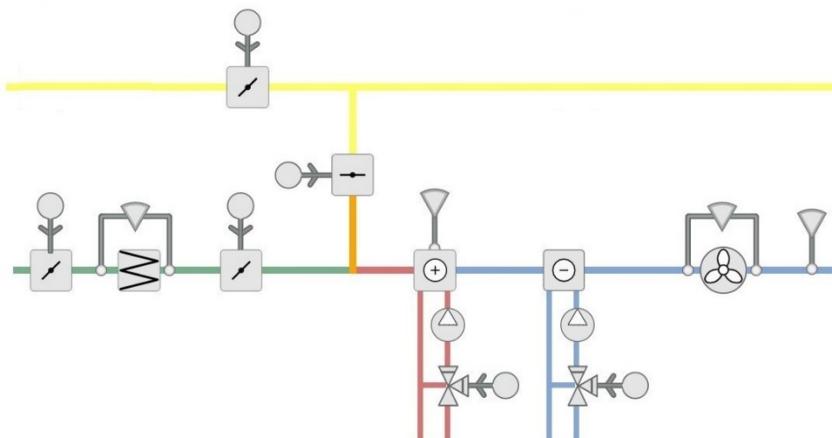
Terminal connection

Configuration 12131500

Function description:

Constant supply air temperature control – Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater + Water cooler



G	1 G	Optigo-Ardo OPA151D-4		
G0	2 G0			
Gnd	3 Gnd			
+C	4 +C			
Gdo	10 GDO			
SAF step1	11 DO1			
SAF step2	12 DO2			
Cooler pump	13 DO3			
Heater pump	14 DO4			
Agnd	30 Agnd			
Outd temp / CO2 – opt	31 AI1		DI1 71	Fan Indication
Supply temperature	32 AI2		DI2 72	Supply air filter
	33 Agnd		DI3 73	
Frost protect. temp.	34 AI3		DI4 74	Ext.Run / Fire – opt.
Extract air temp – opt.	35 AI4			
TCP	90 Agnd			
	91 AO1			AO1 Cooler signal
	92 AO2			AO2 Mixing damper signal
	93 AO3			AO3 Heater signal

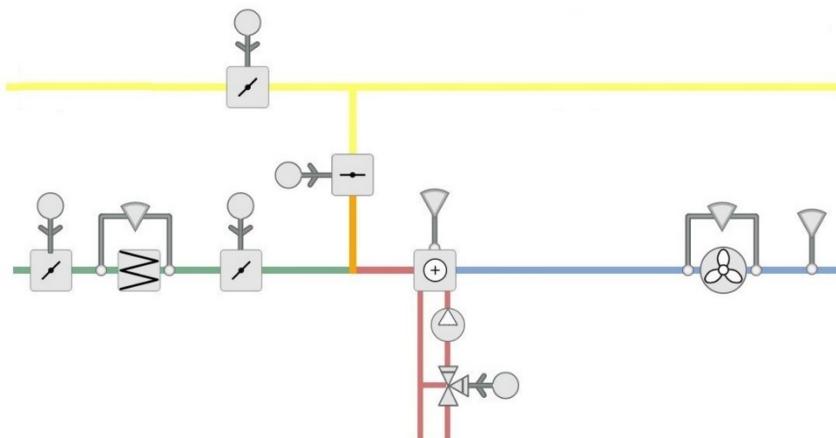
Terminal connection

Configuration 12131000

Function description:

Constant supply air temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA151D-4
SAF step2	DO2	2 G0	
	DO3	3	
Heater pump	DO4	4 +C	
		10 GDO	
		11 DO1	
		12 DO2	
		13 DO3	
		14 DO4	
	Agnd	30 Agnd	
Outd temp / CO2 – opt	AI1	31 AI1	DI1 71 Fan Indication
Supply temperature	AI2	32 AI2	DI2 72 Supply air filter
	Agnd	33 Agnd	DI3 73
Frost protect. temp.	AI3	34 AI3	DI4 74 Ext.Run / Fire – opt.
Extract air temp – opt.	AI4	35 AI4	
		TCP/IP RJ45	
			Ext D
			DI1
			DI2
			DI3
			DI4
			Agnd 90
			AO1 91
			AO2 92 Mixing damper signal
			AO3 93 Heater signal

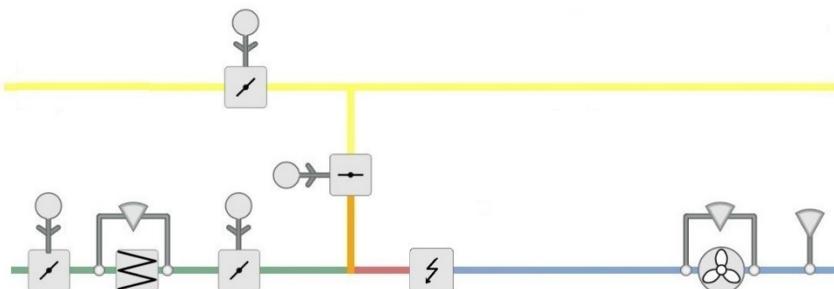
Terminal connection

Configuration 12141000

Function description:

Constant supply air temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA151D-4
SAF step2	DO2	2 G0	
Heater electric [PWM]	DO3	3 +C	
	DO4	4 Gdo	
		10 DO1	
		11 DO2	
		12 DO3	
		13 DO4	
		14 Agnd	
		30 AI1	RJ11
Outd temp / CO2 – opt	AI1	31 AI2	DI1 71
Supply temperature	AI2	32 AI3	DI2 72
	Agnd	33 AI4	DI3 73
		34 AI1	DI4 74
Extract air temp – opt.	AI4	35 AI2	
		Agnd	
		90 AO1	
		91 AO2	
		92 AO3	
		93	
	TCP	TCP/IP	
		RJ45	

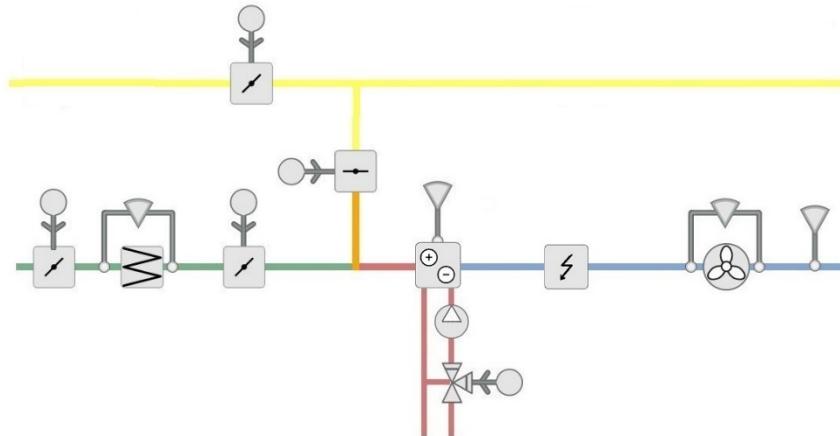
Terminal connection

Configuration 12131541

Function description:

Constant supply air temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



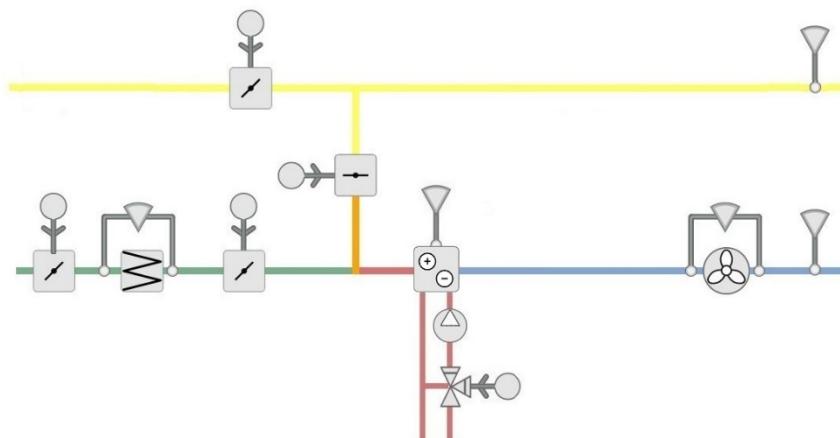
Terminal connection

Configuration 12331501

Function description:

Extract air cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



G	G		
G0	G0		
Gnd	Gnd		
+C	+C		
Gdo	Gdo		
SAF step1	DO1		
SAF step2	DO2		
	DO3		
Heat/Cool pump	DO4		
Agnd		Optigo-Ardo OPA151D-4	
Outd temp / CO2 – opt	AI1	1 G	
Supply temperature	AI2	2 G0	
		3	
Agnd		4 +C	
Frost protect. temp.	AI3	10 GDO	
Extract air temp.	AI4	11 DO1	
		12 DO2	
		13 DO3	
		14 DO4	
		30 Agnd	
		31 AI1	
		32 AI2	
		33 Agnd	
		34 AI3	
		35 AI4	
TCP		RJ45	
			DI1 71
			DI2 72
			DI3 73
			DI4 74
			Agnd 90
			AO1 91
			AO2 92
			AO3 93

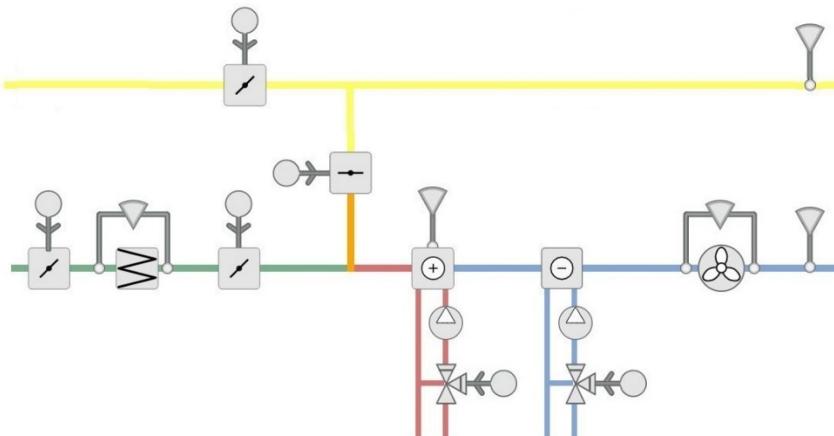
Terminal connection

Configuration 12331500

Function description:

Extract air cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater + Water cooler



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA151D-4
SAF step2	DO2	2 G0	
Cooler pump	DO3	3	
Heater pump	DO4	4 +C	
		10 GDO	
		11 DO1	
		12 DO2	
		13 DO3	
		14 DO4	
	Agnd	30 Agnd	
Outd temp / CO2 – opt	AI1	31 AI1	DI1 71 Fan Indication
Supply temperature	AI2	32 AI2	DI2 72 Supply air filter
	Agnd	33 Agnd	DI3 73
Frost protect. temp.	AI3	34 AI3	DI4 74 Ext.Run / Fire – opt.
Extract air temp.	AI4	35 AI4	
		TCP/IP RJ45	
	TCP		
			Ext D
			DI1 Fan Indication
			DI2 Supply air filter
			DI3
			DI4 Ext.Run / Fire – opt.
			Agnd 90
			AO1 91 Cooler signal
			AO2 92 Mixing damper signal
			AO3 93 Heater signal

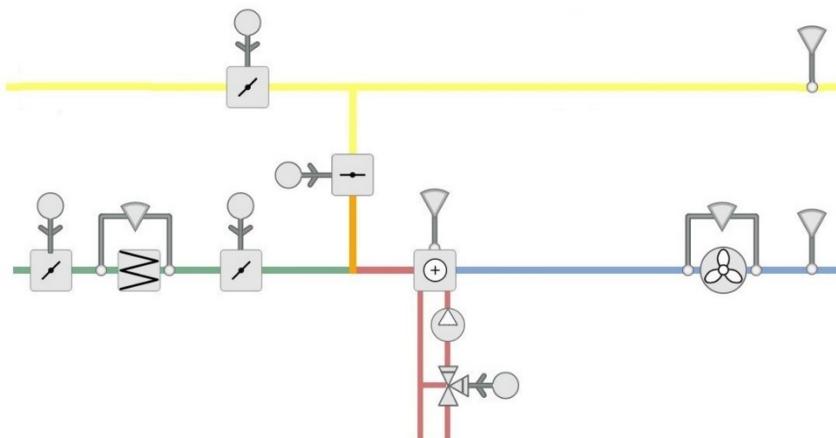
Terminal connection

Configuration 12331000

Function description:

Extract air cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA151D-4
SAF step2	DO2	2 G0	
	DO3	3	
Heater pump	DO4	4 +C	
		10 GDO	
		11 DO1	
		12 DO2	
		13 DO3	
		14 DO4	
	Agnd	30 Agnd	
Outd temp / CO2 – opt	AI1	31 AI1	DI1 71 Fan Indication
Supply temperature	AI2	32 AI2	DI2 72 Supply air filter
	Agnd	33 Agnd	DI3 73
Frost protect. temp.	AI3	34 AI3	DI4 74 Ext.Run / Fire – opt.
Extract air temp.	AI4	35 AI4	
		TCP/IP RJ45	
			Ext D
			DI1
			DI2
			DI3
			DI4
			Agnd 90
			AO1 91
			AO2 92 Mixing damper signal
			AO3 93 Heater signal

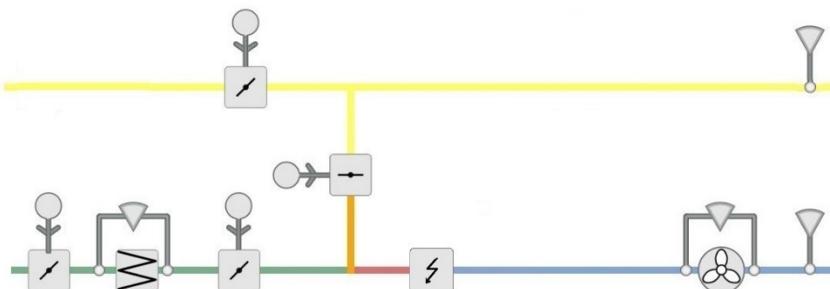
Terminal connection

Configuration 12341000

Function description:

Extract air cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA151D-4
SAF step2	DO2	2 G0	
Heater electric [PWM]	DO3	3 +C	
	DO4	4 Gdo	
		10 DO1	
		11 DO2	
		12 DO3	
		13 DO4	
		14 Agnd	
		30 AI1	
Outd temp / CO2 – opt	AI1	31 AI2	DI1 71
Supply temperature	AI2	32 AI3	DI2 72
	Agnd	33 AI4	DI3 73
		34 AI1	DI4 74
Extract air temp.	AI4	35 AI2	
		Agnd	
		90 AO1	
		AO2	AO1 91
		AO3	AO2 92
			AO3 93
	TCP	TCP/IP	
		RJ45	

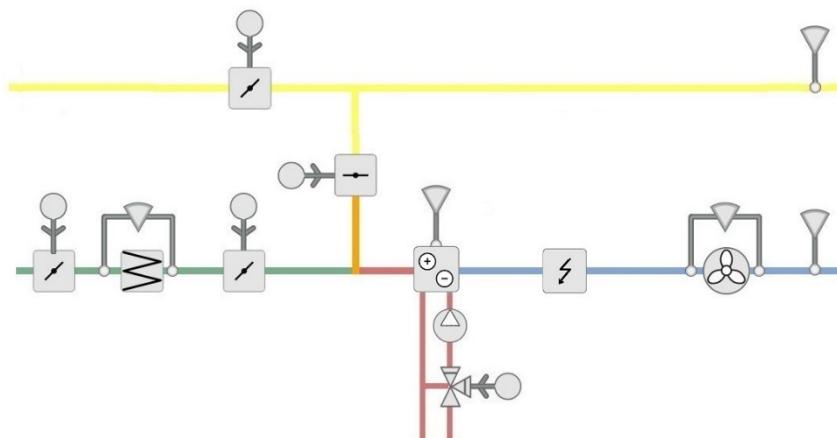
Terminal connection

Configuration 12331541

Function description:

Extract air cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G			
	G0	Optigo-Ardo OPA151D-4		
	Gnd	1 G		
	+C	2 G0		
	Gdo	3		
SAF step1	DO1	4 +C		
SAF step2	DO2	10 GDO		
Heater electric [PWM]	DO3	11 DO1		
Heat/Cool pump	DO4	12 DO2		
		13 DO3		
		14 DO4		
	Agnd	30 Agnd	Ext D	
Outd temp / CO2 – opt	AI1	31 AI1	DI1 Fan Indication	
Supply temperature	AI2	32 AI2	DI2 Supply air filter	
	Agnd	33 Agnd	DI3 Overheat electric heat	
Frost protect. temp.	AI3	34 AI3	DI4 Change-Over H/C	
Extract air temp.	AI4	35 AI4		
		TCP/IP RJ45		
	TCP			
			90 Agnd	
			91 AO1	
			92 AO2	Mixing damper signal
			93 AO3	Heat/Cool signal

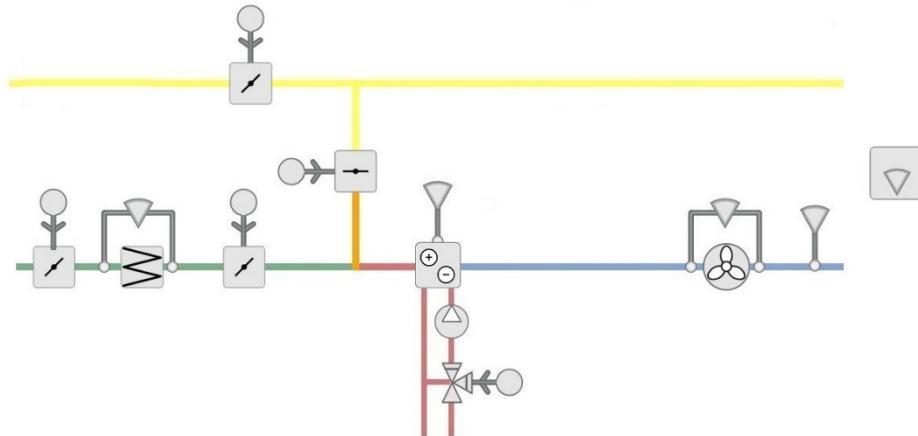
Terminal connection

Configuration 12231501

Function description:

Room cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump)



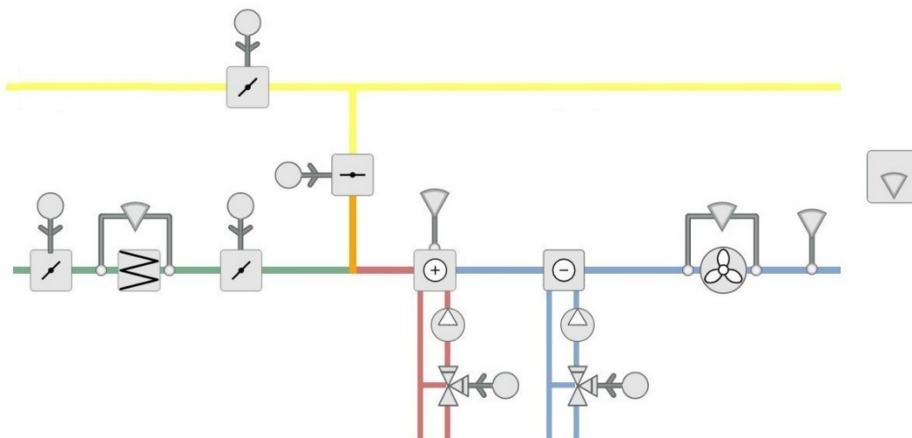
Terminal connection

Configuration 12231500

Function description:

Room cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater + Water cooler



G	1 G	Optigo-Ardo OPA151D-4		
G0	2 G0			
Gnd	3 Gnd			
+C	4 +C			
Gdo	10 GDO			
SAF step1	11 DO1			
SAF step2	12 DO2			
Cooler pump	13 DO3			
Heater pump	14 DO4			
	30 Agnd			
Outd temp / CO2 – opt	31 AI1		DI1	Fan Indication
Supply temperature	32 AI2		DI2	Supply air filter
	33 Agnd		DI3	
Frost protect. temp.	34 AI3		DI4	Ext.Run / Fire – opt.
Room temperature	35 AI4			
			90 Agnd	
			91 AO1	Cooler signal
			92 AO2	Mixing damper signal
			93 AO3	Heater signal
TCP	RJ45			

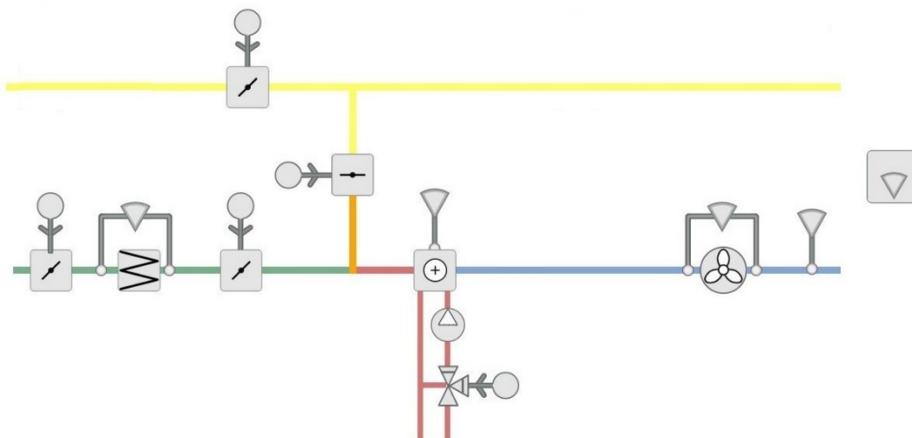
Terminal connection

Configuration 12231000

Function description:

Room cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA151D-4
SAF step2	DO2	2 G0	
	DO3	3	
Heater pump	DO4	4 +C	
		10 GDO	
		11 DO1	
		12 DO2	
		13 DO3	
		14 DO4	
	Agnd	30 Agnd	RJ11
Outd temp / CO2 – opt	AI1	31 AI1	DI1 Fan Indication
Supply temperature	AI2	32 AI2	DI2 Supply air filter
	Agnd	33 Agnd	DI3
Frost protect. temp.	AI3	34 AI3	DI4 Ext.Run / Fire – opt.
Room temperature	AI4	35 AI4	
		TCP/IP RJ45	
			Ext D
			DI1 Fan Indication
			DI2 Supply air filter
			DI3
			DI4 Ext.Run / Fire – opt.
			Agnd 90
			AO1 91
			AO2 92
			AO3 93

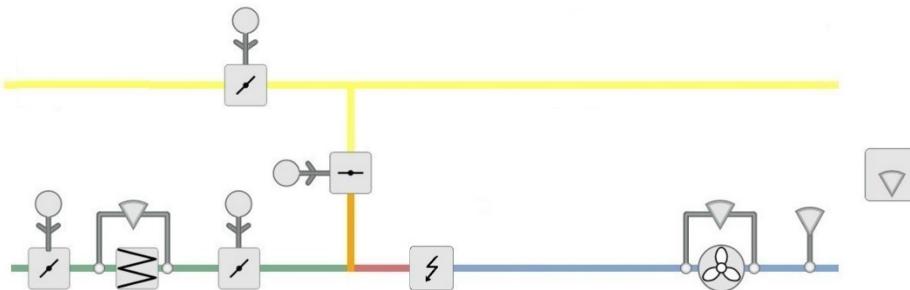
Terminal connection

Configuration 12241000

Function description:

Room cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Electric heater



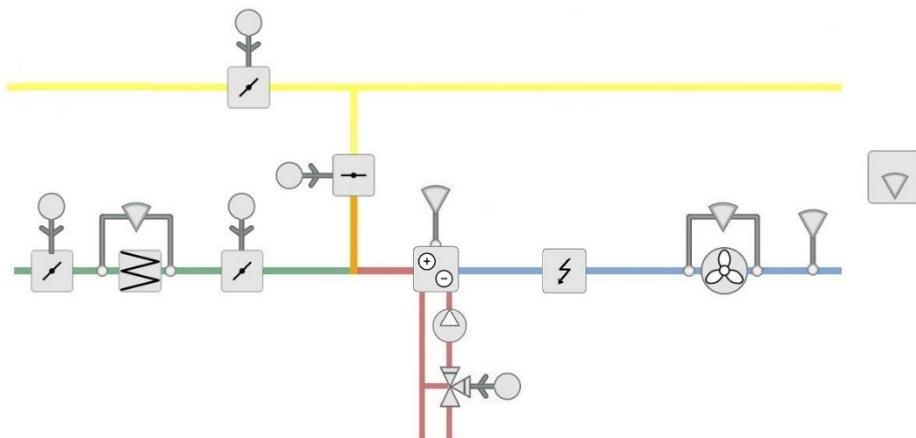
Terminal connection

Configuration 12231541

Function description:

Room cascade temperature control - Manual 2-step supply air fan control –

Temperature control sequence with Mixing damper + Water heater and Water cooler as Change-over (e.g., Heat-pump) + Electric heater



	G		
	G0		
	Gnd		
	+C		
	Gdo		
SAF step1	DO1	1 G	Optigo-Ardo OPA151D-4
SAF step2	DO2	2 G0	
Heater electric [PWM]	DO3	3	
Heat/Cool pump	DO4	4 +C	
		10 GDO	
		11 DO1	
		12 DO2	
		13 DO3	
		14 DO4	
	Agnd	30 Agnd	
Outd temp / CO2 – opt	AI1	31 AI1	DI1 71
Supply temperature	AI2	32 AI2	DI2 72
	Agnd	33 Agnd	DI3 73
Frost protect. temp.	AI3	34 AI3	DI4 74
Room temperature	AI4	35 AI4	
		TCP/IP RJ45	
	TCP		
			Ext D
			DI1 Fan Indication
			DI2 Supply air filter
			DI3 Overheat electric heat
			DI4 Change-Over H/C
			Agnd 90
			AO1 91
			AO2 92
			AO3 93

Terminal connection