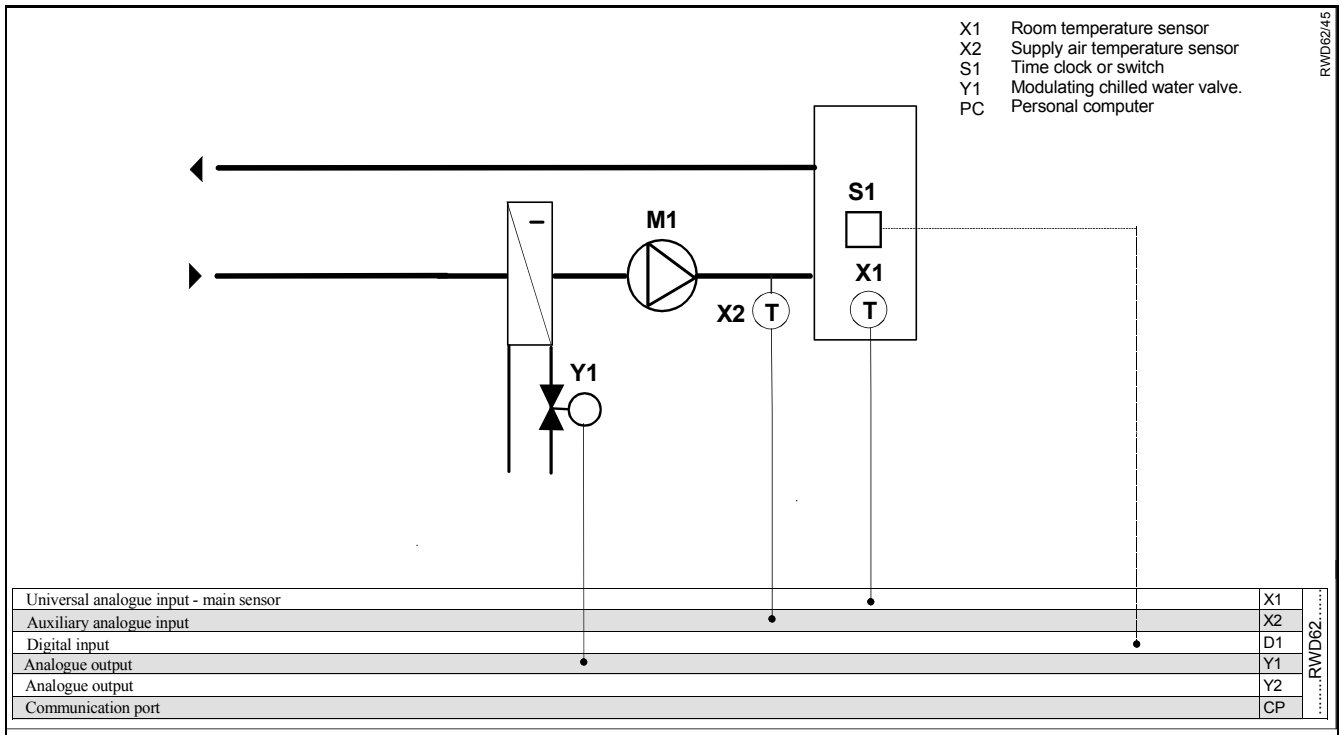


**RWD62 Universal Controller**  
**Application 45**  
**Cascade control**

Room temperature control  
 Chilled water control valve

- Control (P or PI)
- Room temperature control
- Proportional control ( 0..10Vdc ) of the chilled water valve.
- Cascade control.
- Optional day / night set point adjustment .



**Supplemental features**

**Control**

- Supply air temperature sensor can be selected as Ni1000, Pt1000, or active sensor.
- Adjustable proportional band of analogue output Y1.
- Adjustable Integral action function selection and adjustment for Y1
- Outside air temperature sensor can be selected as Ni1000, Pt1000, or active sensor.
- Cascade control of the supply air by the room temperature sensor.

**Operating modes**

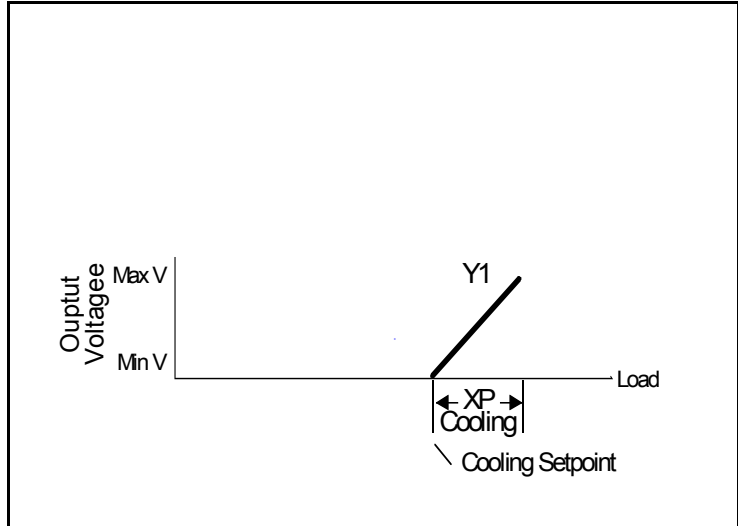
- Day / night set points can be selected via time clock or switch.

**Description of operation**

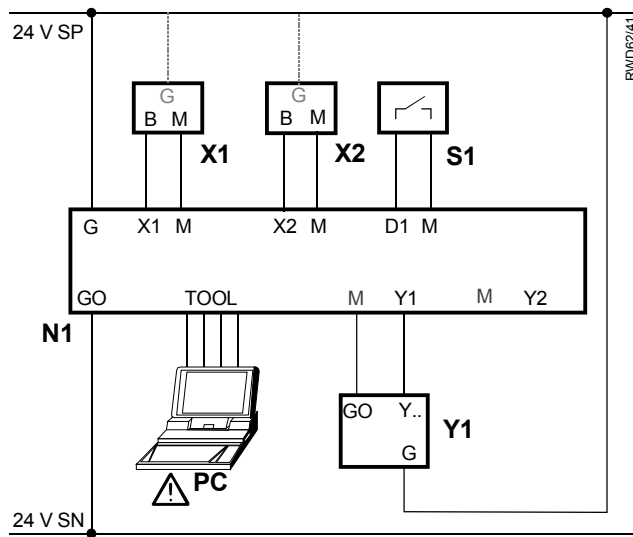
The temperature sensor senses the supply air conditions and on a rise in temperature the RWD62 via Y1 analogue output modulates the chilled water valve as determined by the cooling set point and proportional band (XP) setting. Cascade control is where deviation of room temperature from set point adjusts the control point of the leaving air temperature sensor controlling cooling

Cooling sequences

**Function diagram**



**Connection diagram**



**RWD62**

- N1 RWD62 controller
- X1 Main temperature sensor
- X2 Supply air temperature sensor
- S1 Time clock or switch
- Y1 Cooling control valve with 0..10Vdc input
- PC Personal computer

## Main Display



The main display shows ,

- Y1 output in Volts dc. (0..10V = 0..100% range)
- Whether day or night set point is selected. ( ☒ = day, ( = night)
- X1 value ( room temperature) in ° C.

Other displays are available by pressing the + button, and the various displays are listed below in sequence from the main display.

On entering any of the four set point displays, the setpoint on display can be adjusted by pushing the ● enter/save button, increase value by pressing the ▲ + button or decrease the value by pressing the ▼- button, and when the required value is reached, press the ● enter/save button to save the new value.

The alternative displays return to the main display after 20 seconds.

Press buttons	Action	Current display	Selected display	Selected display comments.
▲	Push + button	Y1 ☒ X1	SP – c ☒ 16.0c	Y1 cooling day set point.
▲	Push + button	SP – c ☒ 16.0c	SP – c ( 22.0c	Y1 cooling night set point.
▲	Push + button	SP – c ( 22.0c	X1 20.0c	X1 – room temperature sensor reading
▲	Push + button	X1 20.0c	X2 19.0c	X2 - supply air temperature sensor reading
▲	Push + button	X2 19.0c	Y1 5.0	Y1 – cooling analogue output value in Vdc to one decimal point
▲	Push + button	Y1 5.0	CASC  45	Control sequence diagram and application number display.
▲	Push + button	CASC  45	Y1 ☒ X1	Back to main display.

Values shown are either default values or nominated for information only