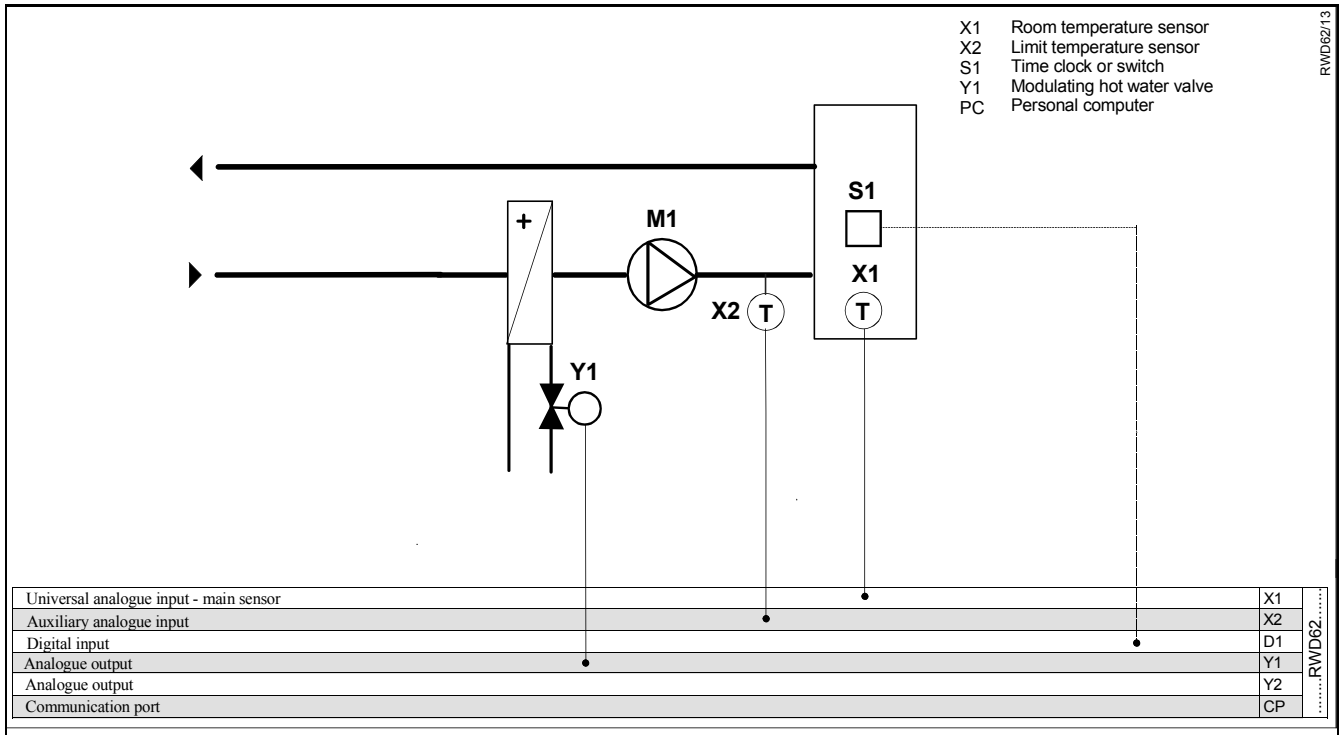


RWD62 Universal Controller
Application 13
Relative limit control

Room temperature control
 Hot water control valve

- Control (P or PI)
- Room temperature control
- Proportional control (0..10Vdc) of the hot water valve.
- Relative maximum and / or minimum limit control of the supply air.
- Optional day / night set point adjustment .



Supplemental features
Control

- Room 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.
- Duct temperature sensor can be selected as Ni1000, Pt1000, or active sensor.
- Relative maximum and / or minimum supply air temperature control.

Operating modes

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

Description of operation

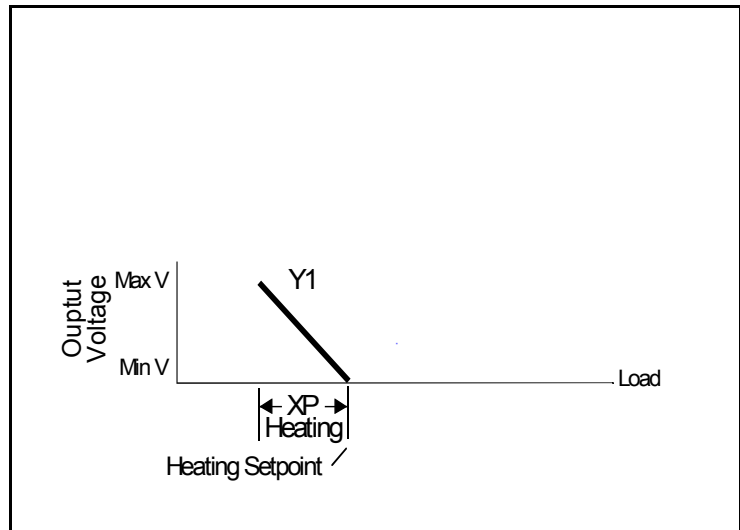
The temperature sensor senses the room conditions and on a fall in temperature the RWD62 via Y1 analogue output modulates the hot water valve as determined by the heating set point and proportional band (XP) setting.

Relative supply air control is maintaining maximum and/or minimum difference between supply air and room temperature setpoint when the temperature difference drops below or exceeds the limiter setpoints.

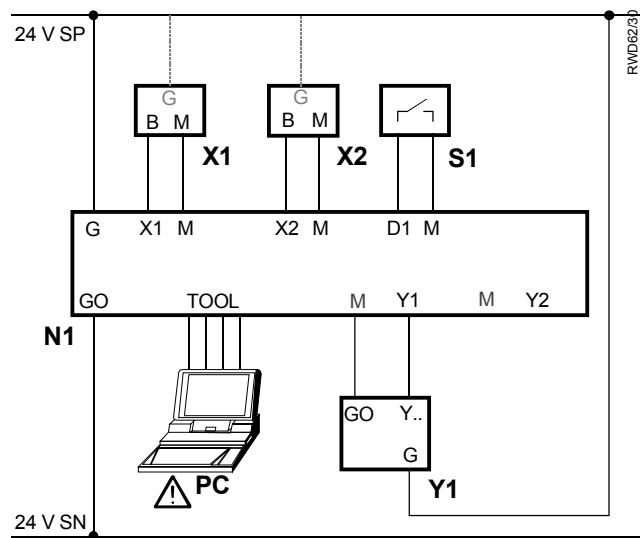
The limiter function overrides the standard control function to maintain the limiter setpoints.

Heating sequence

Function diagram



Connection diagram



RWD62

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

Main Display



The main display shows ,

- a) Y1 output in Volts dc. (0..10V = 0..100% range)
- b) Whether day or night set point is selected. (☒ = day, ☒ = night)
- c) 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	Y1 SP – h ☒ 25.0c	Y1 heating day set point.
▲	Push + button	Y1 SP – h ☒ 25.0c	Y1 SP – h ☒ 16.0c	Y1 heating night set point
▲	Push + button	Y1 SP – h ☒ 16.0c	X1 22.0c	X1 - main temperature sensor reading
▲	Push + button	X1 22.0c	X2 19.0c	X2 - limit temperature sensor reading
▲	Push + button	X2 19.0c	Y1 5.0	Y1 – heating analogue output value in Vdc to one decimal point
▲	Push + button	Y1 5.0	LIM  13 REL	Control sequence diagram and application number display.
▲	Push + button	LIM  13 REL	Y1 ☒ X1	Back to main display.

Values shown are either default values or nominated for information only

Alternatives

- 1) Proportional control of electric heater bank via SEM61.4 signal converter with SEA 41.2 current valve.