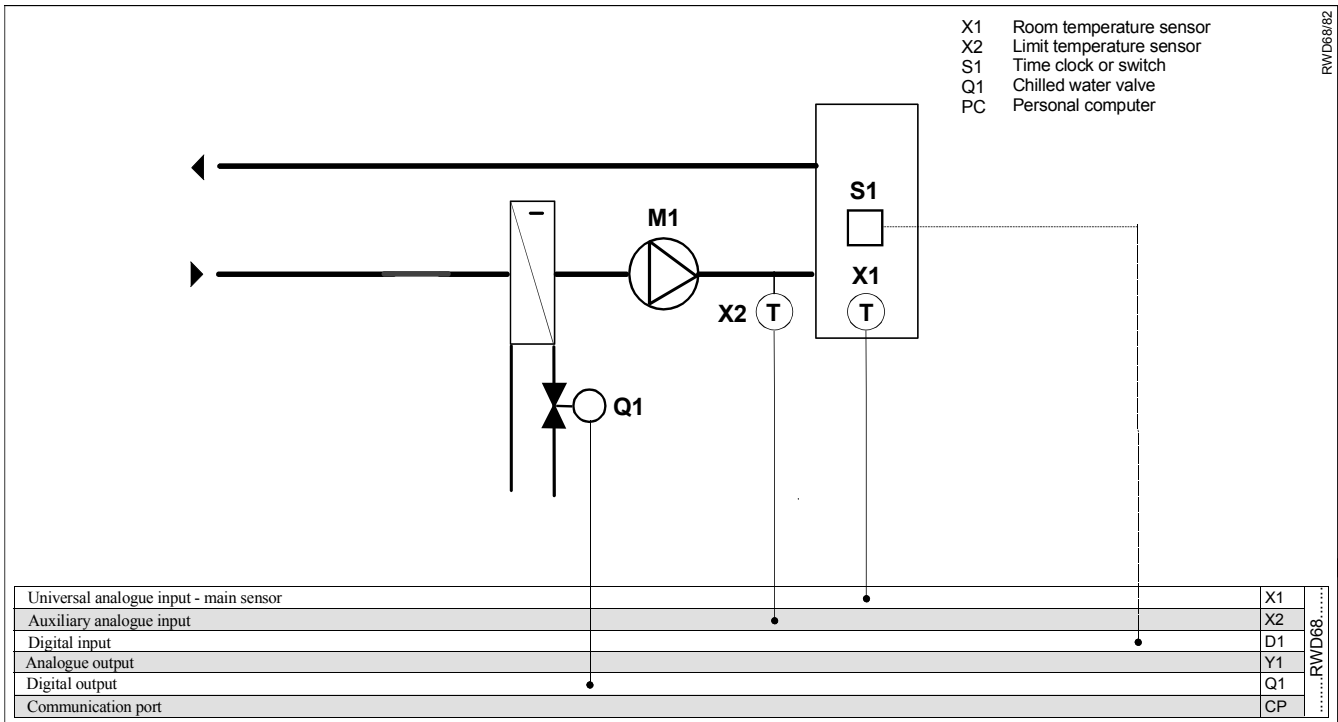


RWD68 Universal Controller
Application 82
Absolute limit control

Room temperature control
 Chilled water control valve 2pos
 24Vac control system

- Control one stage .. two position cooling
- Room temperature control
- On / off control of the 2 position chilled water valve
- Optional day / night set point adjustment .
- Absolute maximum and / or minimum limit control of the supply air.



Supplemental features

Control

- Room temperature sensor can be selected as Ni1000, Pt1000, or active sensor.
- Adjustable differential of digital output Q1.
- Adjustable minimum switch off time.
- 24Vac controller supply voltage
- 24Vac two position control valve
- Duct temperature sensor can be selected as Ni1000, Pt1000, or active sensor.(X2)
- Absolute 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

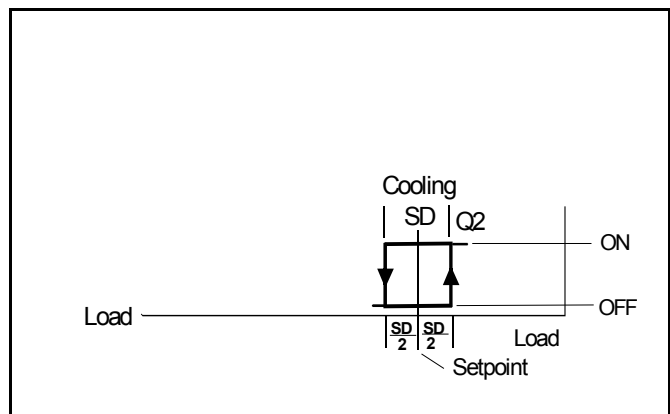
The temperature sensor senses the room conditions and on a rise in temperature the RWD68 via Q1 digital output opens and closes the chilled water 2-position valve as determined by the cooling set point and Q1 differential settings.

The limit duct sensor senses the supply air temperature, and maintains the absolute (actual) maximum and / or minimum supply air temperatures when the temperature drops below or exceeds the limiter setpoints.

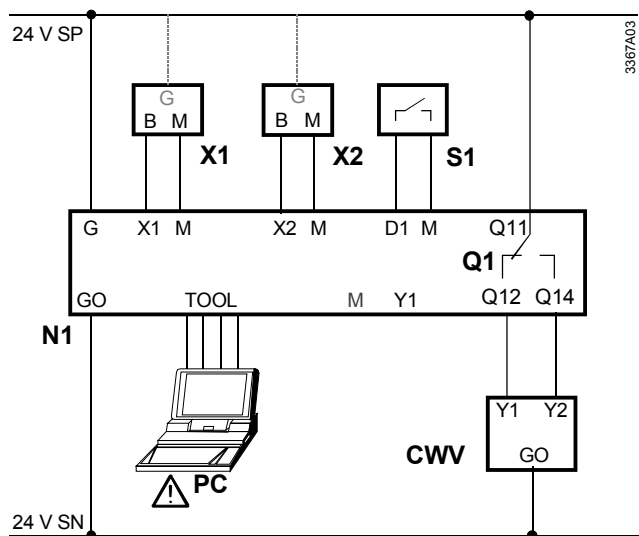
The limiter function overrides the standard control function to maintain the limiter setpoints

Function diagram

Cooling sequence



Connection diagram



RWD68

N1	RWD68 controllers
X1	Main temperature sensor
X2	Limit temperature sensor
S1	Time clock or switch
Q1	Potential-free relay contacts for 2-position output
CWV	Two position chilled water valve
PC	Personal computer

Main Display

The main display shows ,

- a) Whether Q1 is On or Off (◻ = off, ◼ = on)
- 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 duration.

Press buttons	Action	Current display	Selected display	Selected display comments
▲	Push + button	Q1 ◻ X1	SP – h ⌘ 25.0c	Q1-cooling day set point.
▲	Push + button	SP – h ⌘ 25.0c	SP – h ◂ 16.0c	Q1- cooling night set point.
▲	Push + button	SP – h ◂ 16.0c	X1 18.0c	X1 - main temperature sensor reading
▲	Push + button	X1 18.0c	X2 19.0c	X2 - limit temperature sensor reading
▲	Push + button	X2 19.0c	Q1 ON	Q1 – cooling digital output, display on or off.
▲	Push + button	Q1 ON	LIM ◻ 82 ABS	Control sequence diagram and application number display.
▲	Push + button	LIM ◻ 82 ABS	Q1 ◻ X1	Back to main display

Values shown are either default values or nominated for information only

Alternative

- 1) One stage ON / OFF control of refrigeration package unit.