

SCT Series

Fan Coil Thermostats

20260713R1

Technical Catalogue



The **Havkon SCT.2332 Series** is a modern fan coil thermostat designed to provide precise room temperature control in residential, hotel and commercial HVAC applications. Featuring a **3.2-inch capacitive touch LCD display**, it offers intuitive operation together with reliable and accurate climate control.

Designed for both **2-pipe and 4-pipe fan coil systems**, the SCT.2332 Series provides **three-speed fan control through relay outputs** and **two independent 0–10 V analog outputs** for proportional heating and cooling valve control, ensuring stable and energy-efficient operation.

Configurable operating modes, automatic heating/cooling changeover, external sensor support and optional **Modbus RTU communication** make the SCT.2332 suitable for both standalone installations and Building Management System (BMS) applications.

Combining elegant design, reliable performance and flexible control functions, the SCT.2332 Series is an efficient solution for modern fan coil climate control systems.

Features

- Three-Speed Fan Control via Relay Outputs
- Dual Independent 0–10 V Heating & Cooling Valve Outputs
- Suitable for 2-Pipe & 4-Pipe Fan Coil Units
- Automatic Heating / Cooling Changeover
- Manual & Automatic Fan Operation
- External NTC Temperature Sensor & Window Contact Input
- Configurable Temperature Limits & Frost Protection
- 3.2" LCD Display with Capacitive Touch Buttons
- Key Lock Function
- Optional Modbus RTU Communication

Order Codes

SCT.2332.W	Weekly Programmable Fan Coil Thermostat, White Housing
SCT.2332.B	Weekly Programmable Fan Coil Thermostat, Black Housing
SCT.2332.T.M.W	Weekly Programmable Fan Coil Thermostat, Modbus RTU, White Housing
SCT.2332.T.M.B	Weekly Programmable Fan Coil Thermostat, Modbus RTU, Black Housing

Warnings



Before installing and operating the device, carefully read the user manual and the instructions below.

- The user is responsible for any damage, loss, or injury caused by improper use or failure to follow these instructions.
- Do not modify, disassemble, or attempt to repair the device.
- Ensure correct supply voltage before powering the device.
- Disconnect power before installation and wiring.

Failure to comply with these instructions may result in device malfunction and will void the warranty.

SCT Series

Fan Coil Thermostats

20260713R1

Technical Catalogue

Product Overview

The **SCT.2332 Series** is designed for fan coil applications requiring reliable **three-speed fan control** and precise **proportional heating and cooling valve control**. Powered by **230 VAC**, it combines relay-controlled fan operation with two independent **0–10 V analog outputs for heating and cooling valves**, making it suitable for a wide range of residential, hotel and commercial HVAC installations.

Its flexible configuration supports both **2-pipe and 4-pipe fan coil systems**, while optional **Modbus RTU communication**, external sensor compatibility and configurable operating parameters enable seamless integration into modern Building Management Systems (BMS).



Key Features & Functions

Application Areas

- Fan Coil Units
- Hotels & Hospitality Facilities
- Office Buildings
- Residential Buildings

Control Architecture

- Three-Speed Fan Relay Control
- 0–10 V Heating Valve Control
- 0–10 V Cooling Valve Control
- 2-Pipe & 4-Pipe Fan Coil Support

User Experience

- Capacitive Touch Button Interface
- Automatic / Manual Operation
- Adjustable Temperature Limits
- Configurable Service Parameters

Control Functions

- Automatic Heating/Cooling Changeover
- External NTC Sensor Support
- Window Contact Input
- Optional Modbus RTU Communication

SCT Series

Fan Coil Thermostats

20260713R1

Technical Catalogue

Technical Specifications

Electrical Data	Power Supply	230 VAC $\pm$ 10%
	Frequency	50/60 Hz
	Power Consumption	Max. 3 VA
	Connection	Terminal block, 1.5 mm ²
	Real Time Clock (RTC) Backup Battery	CR1220 Lithium Cell, 3V
	Communication	Modbus RTU (RS-485) (Modbus Models Only)
Environmental Conditions	Operating Temperature	0 ... +40°C
	Storage Temperature	0 ... +70°C (without icing and condensation)
	Relative Humidity	Max. 95% RH (Non-condensing)
	Operating Altitude	Max. 2000 m
User Functions	Display	3.2" LCD Display
	User Interface	Capacitive Touch Buttons
	Operating Modes	Heating / Cooling / Auto / Fan
	Fan Control	Three-Speed Relay Outputs
	Valve Control	Dual 0–10 V Analog Outputs (Heating & Cooling Valves)
	Fan Coil Compatibility	2-Pipe & 4-Pipe Systems
	External Sensor Input	NTC 10K
	Window Contact Input	Available
	Key Lock Function	Available
	Service Parameters	Configurable
Protection & Standards	Temperature Limits	Adjustable
	Protection Degree	IP 20
	Standard	EN 60529
	Housing	ABS / PC Plastic Enclosure
	Color Options	White / Black

Enclosure Specifications

Mounting	Wall mounting
Dimensions	W86xH86xD40mm (Width x Height x Depth)
Visible Screen Area	W66xH50mm
Weight	178 g

Connections

The device must be installed and operated in accordance with applicable electrical regulations.

- Ensure that the power supply is disconnected before installation and wiring.
- Use appropriate cable cross-sections according to load and installation conditions.
- Do not route signal cables together with power cables.
- Protect the device from moisture, dust, and vibration.

Recommended: Use an external fuse rated max. 2 A for supply protection.

SCT Series

Fan Coil Thermostats

20260713R1

Technical Catalogue

User Interface & Operation

The main screen provides real-time monitoring of room temperature, operating mode, fan speed level, and system status. Users can easily adjust set temperature values and navigate device functions using the front touch-sensitive buttons.

The Havkon SCT.2332 controls three-speed AC fan motors through dedicated relay outputs while providing two independent 0–10 V analog outputs for proportional heating and cooling valve control.

The display shows:

- Current room temperature
- Set temperature (Setpoint)
- Fan speed level
- Heating / Cooling operating mode
- Weekly schedule status
- Date and time

The front buttons provide quick access to operating modes, fan control, parameter settings and temperature adjustment functions.



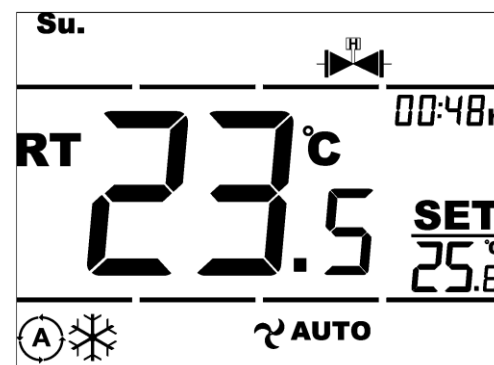
Button	Function
□ Power	Device On / Off
M Mode / OK	Mode Selection / Confirm
Fan	Fan Speed Selection
▲	Increase Value / Navigate Up
▼	Decrease Value / Navigate Down

Operating Modes

The device supports multiple operating modes for flexible temperature and comfort control. Users can easily switch between operating modes using the **M (MODE/OK)** button, while the active mode is continuously displayed on the main screen.

- **Automatic Mode** – Automatic heating and cooling control according to room conditions
- **Manual Mode** – User-controlled heating, cooling, and fan operation
- **Fan Mode** –Independent fan control with automatic or manual speed selection
- **Weekly Schedule** – Time-based automatic operation according to programmed schedules.

The active operating mode, valve status and fan levels are continuously displayed on the main screen for convenient daily monitoring.



SCT Series

Fan Coil Thermostats

20260713R1

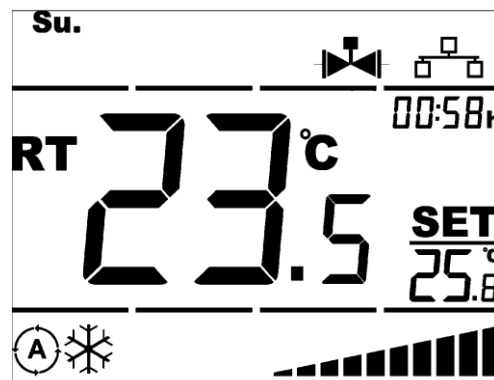
Technical Catalogue

Set Temperature Adjustment

The desired room temperature can be adjusted directly using the ▲ and ▼ buttons. The selected setpoint value is displayed on the main screen and can be modified at any time during heating or cooling operation.

- **Increase Setpoint** – Press the ▲ button to increase the desired temperature
- **Decrease Setpoint** – Press the ▼ button to decrease the desired temperature.
- **Setpoint Display** – The configured temperature value is continuously shown on the main screen

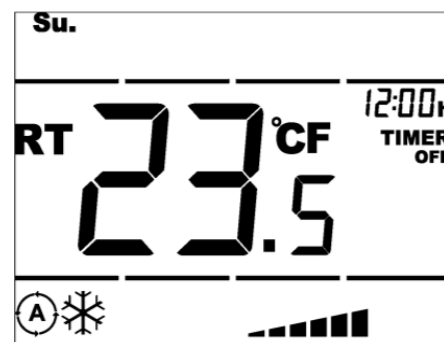
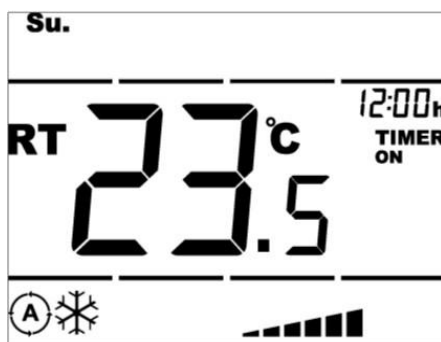
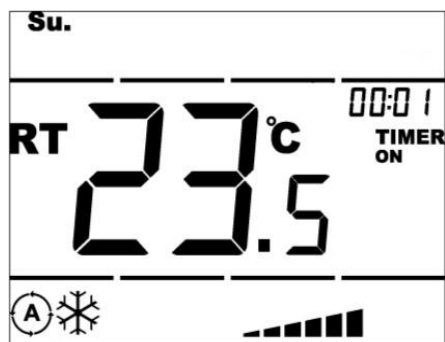
Temperature adjustment is available during heating and cooling operation modes.



Weekly Program

The **Havkon SCT.2332.T.M series** includes a weekly scheduling function for automatic temperature control during selected time periods.

Users can define individual start and stop times for each day of the week, allowing the controller to operate according to the programmed schedule.



The weekly program menu allows:

- Daily start and stop time adjustment
- Individual weekday programming
- Automatic scheduled operation
- Weekly timer activation and deactivation

When the weekly schedule is active, the clock icon appears on the main display screen.

Notes

- If the start time is later than the stop time, weekly scheduling is ignored and the device remains off for the selected day.
- If the start time and stop time are identical, weekly scheduling is disabled for the selected day.
- When a valid weekly schedule is active, the clock icon is displayed on the main screen during the programmed operating period.

SCT Series

Fan Coil Thermostats

20260713R1

Technical Catalogue

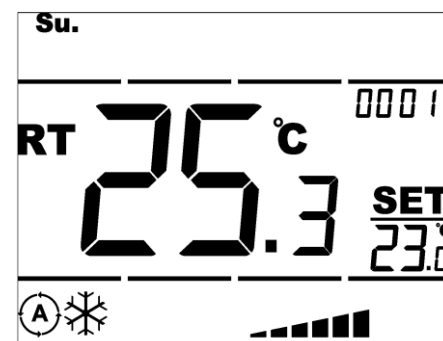
Date & Time Settings

The device includes an integrated date and time setting function for weekly scheduling and time-based HVAC operation.

Users can configure:

- Date information
- Time information
- Day of the week

All settings are adjusted using the front buttons through the setup menu. Correct date and time configuration is required for accurate weekly program operation.



Display Backlight Settings

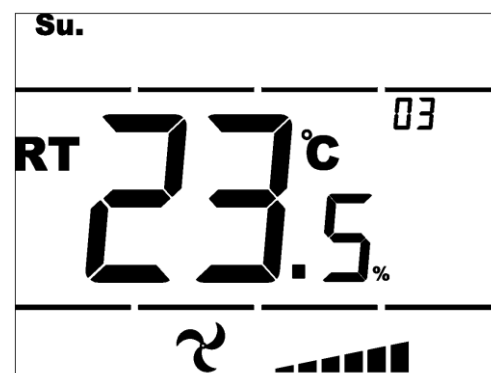
The display backlight timeout can be adjusted to suit different installation environments and user preferences. The setting is available through **Parameter 2** in the user menu and allows the backlight duration to be configured according to the desired operating conditions.

Users can configure:

- Display backlight timeout
- Backlight duration setting (1–10)
- Automatic return to normal display mode

The backlight timeout value can be adjusted between 1 and 10, where 1 represents the minimum duration and 10 represents the maximum duration.

The selected backlight setting helps optimize display visibility and user comfort during daily operation.

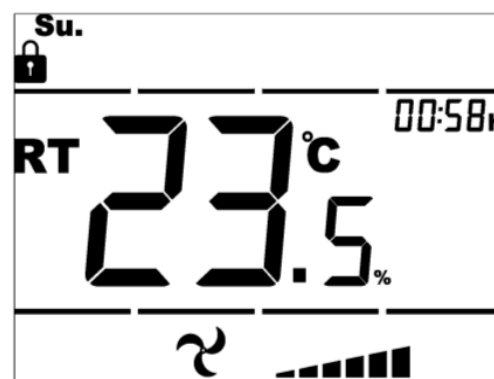


Key Lock Function

The key lock function prevents unauthorized or accidental changes to thermostat settings during normal operation. When enabled, user inputs are temporarily disabled while the device continues to operate normally.

To activate or deactivate the key lock function, press and hold the **Fan button** for **approximately 5 seconds**.

The lock status is indicated by the key lock icon displayed on the main screen.



SCT Series

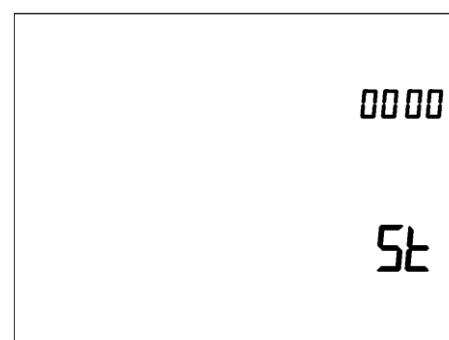
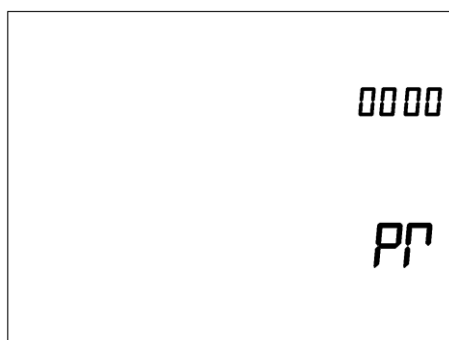
Fan Coil Thermostats

20260713R1

Technical Catalogue

Service Settings Menu

The service settings menu provides access to advanced configuration parameters used for system commissioning, operation, and communication settings. Authorized personnel can modify device parameters to match specific application requirements.



To access the service menu:

- Press and hold the ▲ and ▼ buttons simultaneously for approximately **2 seconds** while the device is in the standby mode
- Enter the service password and confirm using the **M (MODE/OK)** button
- Select the desired parameter and adjust its value as required
- Confirm the new setting using the **M (MODE/OK)** button

The service menu allows configuration of temperature control, fan control, system settings, communication parameters, and advanced control functions.

Notes

- **Default service password:** 20
- Parameter changes should only be performed by qualified technical personnel.



Warning

Incorrect parameter settings may affect thermostat operation and system performance.
Service menu access is intended for commissioning and maintenance purposes only.

SCT Series

Fan Coil Thermostats

20260713R1

Technical Catalogue

MODBUS-RTU Configuration

The **SCT.2332 Modbus models** support **Modbus RTU communication** for integration with Building Management Systems (BMS) and HVAC automation networks.

Communication parameters can be configured through the service menu to match system requirements.

Users can configure:

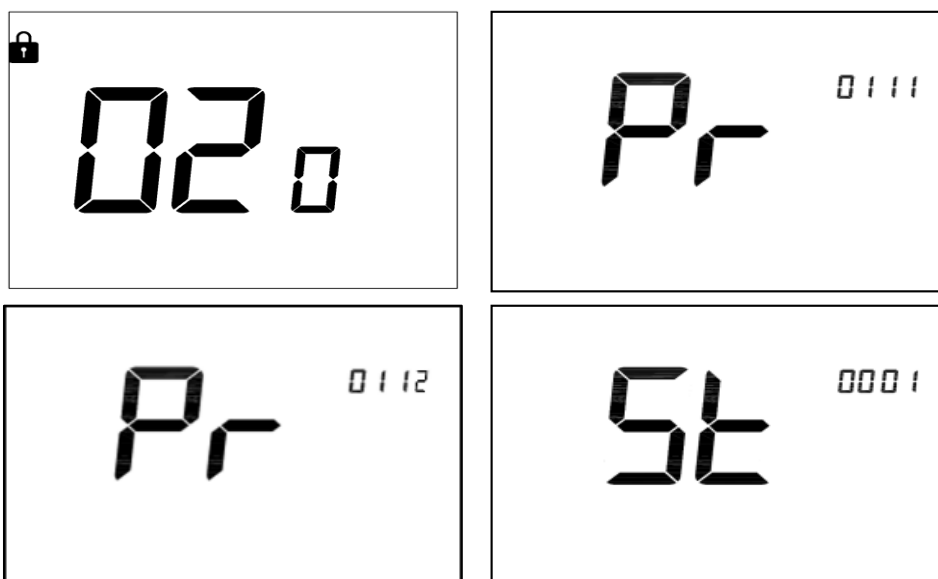
- Modbus Device Address
- Communication Baud Rate
- Communication Parameters

Supported baud rate options:

- 1200 bps
- 2400 bps
- 4800 bps
- 9600 bps
- 19200 bps

Communication Specifications

- Protocol: Modbus RTU
- Interface: RS-485
- Slave Address Range: 1–247
- Register Type: Holding Registers
- Register Data Type: Signed 16-bit Integer (INT16)



Temperature Registers:

Temperature values are represented with one decimal place.

Example:

280 = 28.0 °C

215 = 21.5 °C

-50 = -5.0 °C

Time Registers:

Time values are entered in HHMM format.

Example:

1210 = 12:10

0830 = 08:30

Notes

- Default service password: **20**
- Default Modbus Address: **Parameter 16**
- Default Baud Rate: **Parameter 17**
- Communication format is fixed as **8 Data Bits, No Parity, 1 Stop Bit**
- All Modbus register values are stored as signed 16-bit integers.



Warning

Parameter changes in the service menu should only be performed by authorized technical personnel. Incorrect communication settings may interrupt Modbus communication or device operation.

SCT Series

Fan Coil Thermostats

20260713R1

Technical Catalogue

Service Settings Menu

No	Parameter	Description	Factory Setting	Equivalent Value
0	Temperature Sensor Calibration	Adjusts the measured room temperature value to compensate for sensor deviations.	0	0.0°C
1	System Type Selection	Selects the HVAC application type. 0 → 2-Pipe Fan Coil, 1 → 4-Pipe Fan Coil,	1	4-Pipe Fan Coil
2	Minimum Setpoint Limit	Defines the minimum allowable cooling setpoint temperature. Example: 150 → 15.0°C.	150	15.0°C
3	Maximum Setpoint Limit	Defines the maximum allowable heating setpoint temperature. Example: 350 → 35.0°C.	350	35.0°C
4	Valve Control Deadband (ΔT)	Temperature differential between room temperature and setpoint for valve operation. Example: 9 → 0.9°C.	9	0.9°C
5	Automatic Cooling Deadband	Cooling deadband used during automatic mode. Example: 5 → 0.5°C.	5	0.5°C
6	Automatic Heating Deadband	Heating deadband used during automatic mode. Example: 5 → 0.5°C.	5	0.5°C
7	Fan Control Deadband (ΔT)	Temperature differential between room temperature and setpoint for fan operation. Example: 9 → 0.9°C.	9	0.9°C
8	Fan Speed Differential (ΔT)	Temperature differential between fan speed stages. Example: 10 → 1.0°C.	10	1.0°C
9	Fan Thermostatic Control	Selects fan operation when setpoint is reached. 0 → Fan and valve stop together, 1 → Valve stops and fan continues.	0	Fan & Valve Stop Together
10	Automatic Mode Fan Speed	Fan operating level in automatic mode. 0 → Stop, 1 → Level 1, 2 → Level 2, 3 → Level 3.	0	Stop
11	Fan / Valve Delay Time	Delay time applied to fan and valve operation.	20	20 s
12	Temperature Source Selection	0 → Internal Sensor, 1 → External Sensor, 2 → Internal Sensor + Door/Window Contact.	0	Internal Sensor
13	Door / Window Contact Type	0 → Normally Open (NO), 1 → Normally Closed (NC).	0	NO
14	Door / Window Contact Delay	Delay time before door/window contact status is accepted.	20	20 s

SCT Series

Fan Coil Thermostats

20260713R1

Technical Catalogue

Service Settings Menu

No	Parameter	Description	Factory Setting	Equivalent Value
15	Temperature Sensor Filter Value	Filter coefficient used to stabilize temperature readings. Adjustable from Level 0 (fast response) to Level 10 (maximum filtering).	5	Level 5
16	Modbus Device Address	Modbus RTU slave address.	1	Address 1
17	Modbus Baud Rate	Communication baud rate. 0→1200, 1→2400, 2→4800, 3→9600, 4→19200 bps.	3	9600 bps
18	Control Mode Selection	Selects the available operating modes of the thermostat. 0→Full Control 1→Heating Only 2→Cooling Only 3→Heating+Fan Mode 4→Cooling+Fan Mode 5→Fan Only Mode	0	Full Control
19	Radiator Mode	00 → Radiator Mode Off. Fan+Valve Operation 01 → Radiator Mode On (Valve Operation Only)	00	Radiator mode off.
21	Memory Function	Selects the operating state after power restoration 0 → Resume previous operating state 1 → Start with device OFF	0	Resume Previous State
30	Heat Valve PID Minimum Value	Heat Valve PID Minimum Value Range 1 ... 1000	0	0 (0.0 V)
31	Heat Valve PID Maximum Value	Heat Valve PID Maximum Value Range 1 ... 1000	1000	10.0 V
32	Cool Valve PID Minimum Value	Heat Valve PID Minimum Value Range 1 ... 1000	0	0 (0.0 V)
33	Cool Valve PID Maximum Value	Heat Valve PID Maximum Value Range 1 ... 1000	1000	10.0 V
34	Valve PID P Value	Valve PID P Value Range 1 ... 100	30	30
35	Valve PID I Value	Valve PID I Value Range 1 ... 100	5	5

SCT Series

Fan Coil Thermostats

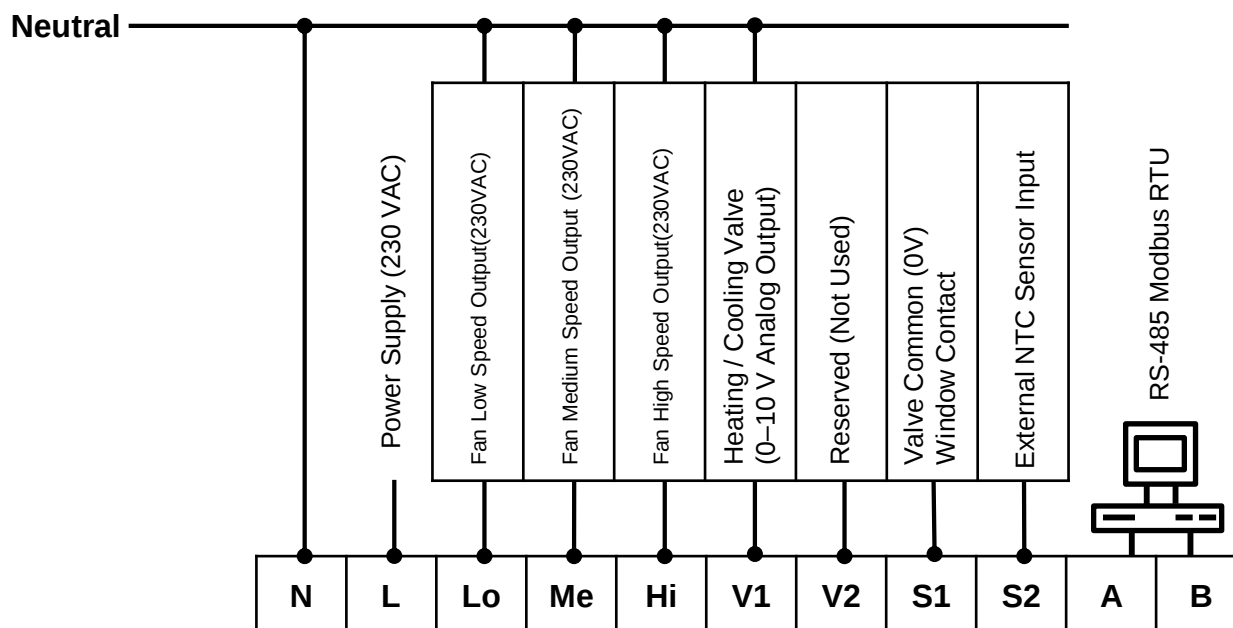
20260713R1

Technical Catalogue

Wiring Diagram

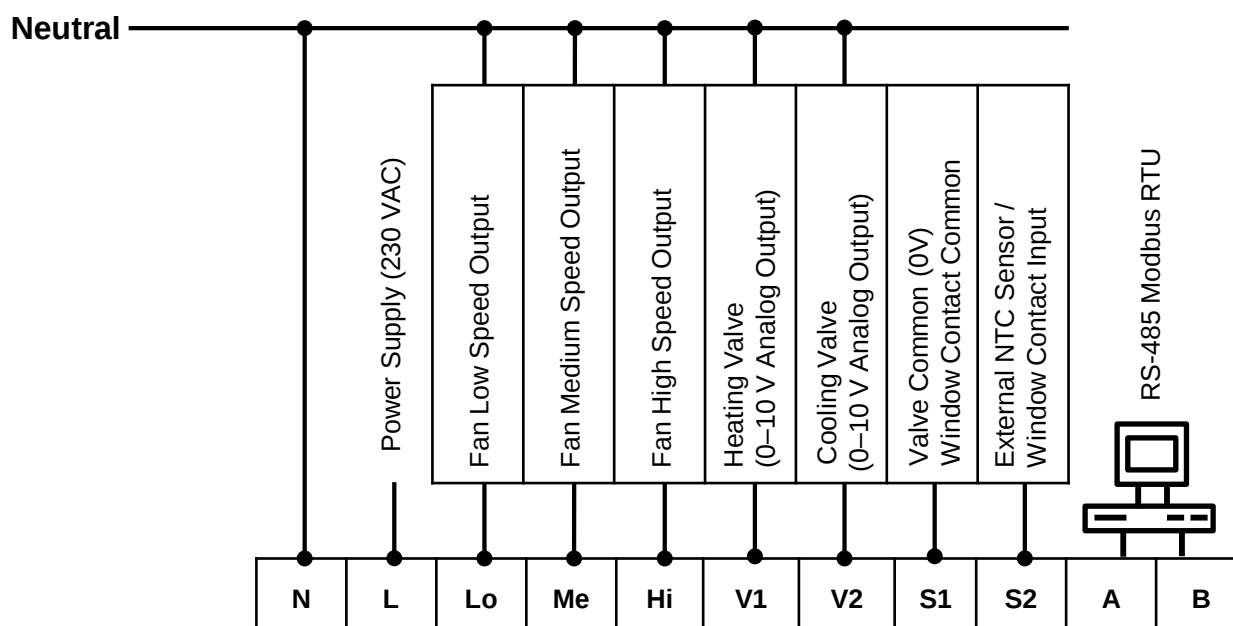
2-Pipe System – Thermostatic Fan Coil

Typical connection diagram for 2-pipe fan coil applications with a single heating/cooling valve output.



4-Pipe System – Thermostatic Fan Coil

Typical connection diagram for 4-pipe fan coil applications with independent heating and cooling valve control.



SCT Series

Fan Coil Thermostats

20260713R1

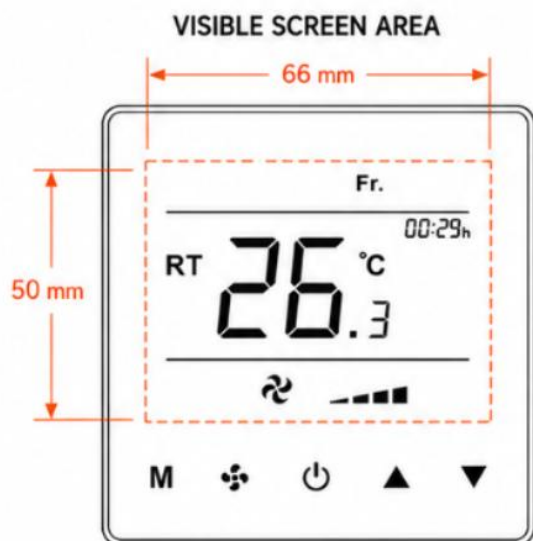
Technical Catalogue

Dimensions

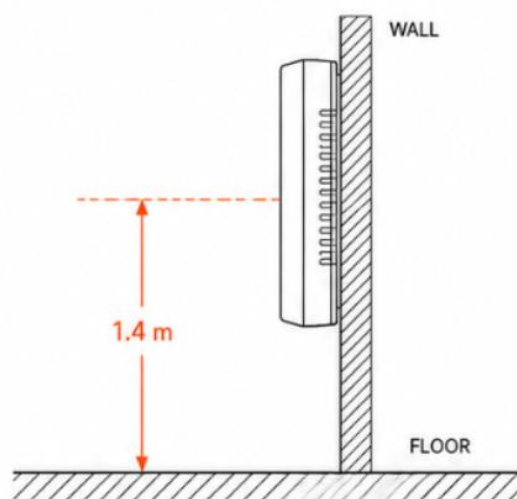
The Havkon SCT.2332 Series is designed with a compact wall-mounted enclosure suitable for standard room thermostat applications.



Weight: 140 g.



RECOMMENDED INSTALLATION HEIGHT



PARAMETER	VALUE
Width	86 mm
Height	86 mm
Depth	40 mm
Visible Screen Area	66 × 50 mm
Weight	140 g
Installation Height	1.4 m

i NOTE

All dimensions are given in millimeters.