




12 Operate Uponor Smatrix Wave digital thermostats

Two types of thermostats, both analogue and digital, can be used in an Uponor Smatrix Wave system.

The digital thermostats have a display relaying information to the user and buttons for control.

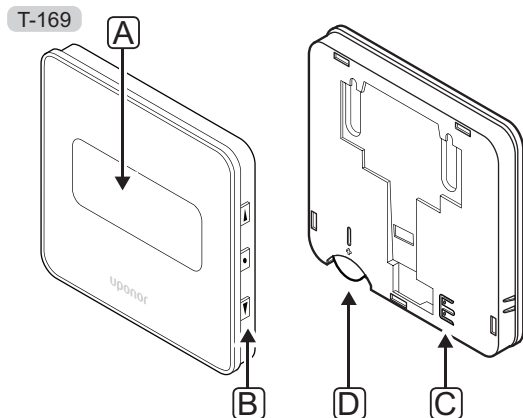
Digital thermostats:

	Uponor Smatrix Wave T-169 (digital thermostat with RH T-169)
	Uponor Smatrix Wave T-168 (programmable thermostat with RH T-168)
	Uponor Smatrix Wave T-166 (digital thermostat T-166)

12.1 Thermostat layout

THERMOSTAT T-169

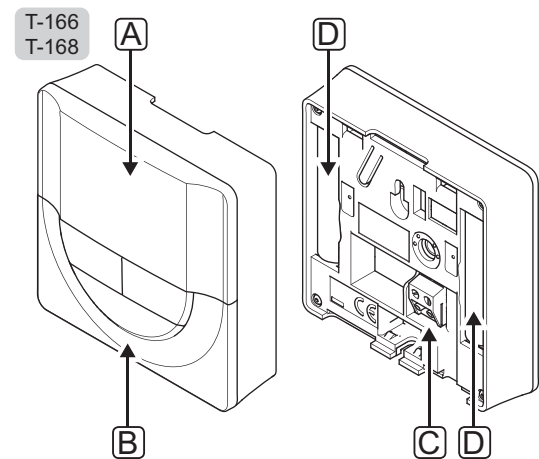
The illustrations below shows the parts of the thermostat.



Item	Description
A	Display
B	Buttons
C	Terminal for external sensor (non-polarised)
D	Battery

THERMOSTATS T-166 AND T-168

The illustrations below shows the parts of the thermostat.



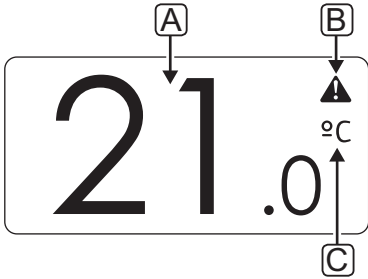
Item	Description
A	Display
B	Buttons
C	Terminal for external sensor (non-polarised)
D	Batteries

12.2 Display layout

THERMOSTAT T-169

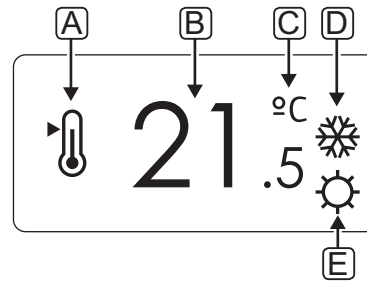
The figures shows different display screens and the different symbols that can be shown.

Run mode (default screen)



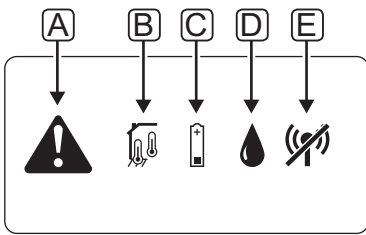
Pos.	Icon	Description
A	21.0	Temperature reading using a - or + sign, two digital characters, a decimal point and a character showing either 0 or 5
B	▲	Alarm symbol
C	°C °F	Temperature unit

Change setpoint



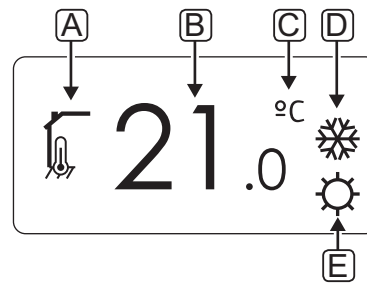
Pos.	Icon	Description
A	🌡️	Change setpoint mode
B	21.5	Temperature setpoint, using a - or + sign, two digital characters, a decimal point and a character showing either 0 or 5
C	°C °F	Temperature unit
D	🔥 ❄️	Heating demand Cooling demand
E	⚙️ 🌙	Comfort mode ECO mode

Alarms



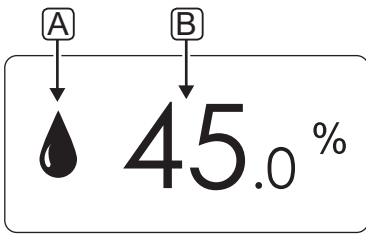
Pos.	Icon	Description
A		Alarm mode
B		Faulty indoor temperature sensor
		Faulty floor temperature sensor
		Faulty remote temperature sensor
		Faulty outdoor temperature sensor
C		Low battery indicator
D		Relative humidity limit reached
E		Communication fault indicator

Control mode



Pos.	Icon	Description
A		Current control mode
		Indoor temperature indicator
		Current control mode
		Indoor temperature with floor temperature limitation indicator
		Current control mode
		Remote sensor temperature indicator
B		Current control mode
		Outdoor temperature indicator
C	21.0	Temperature unit, shown when the character group A shows a temperature
	°C	Temperature unit
D	°F	Temperature unit
		Heating demand
E		Cooling demand
		Comfort mode
		ECO mode
		Holiday mode

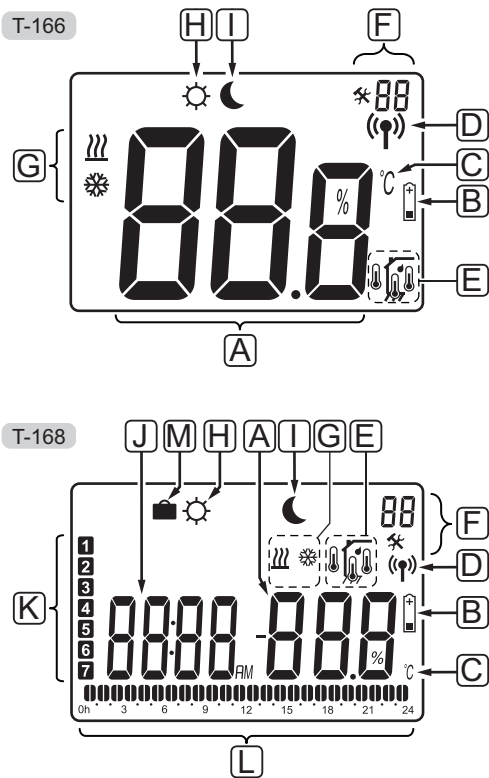
RELATIVE HUMIDITY
















Pos.	Icon	Description
A		Relative humidity level
B	45.0	Relative humidity reading using two digital characters. Indicated with a “%” character

THERMOSTATS T-166 AND T-168

The figure shows all possible symbols and characters that can be shown on the display:



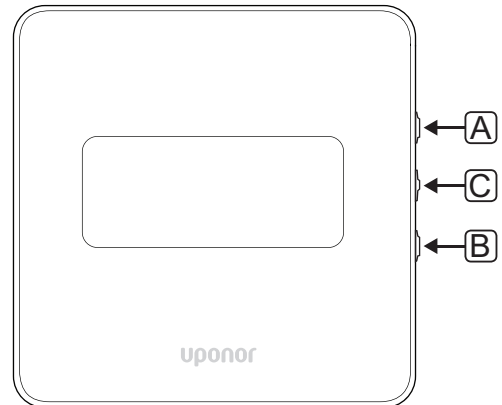
Pos.	Icon	Description
A		T-166 only Message field using three alphanumeric characters
	T-166 	Temperature reading using a - or + sign, two digital characters, a decimal point and a character showing either 0 or 5
	T-168 	Relative humidity reading using two digital characters. Indicated with a “%” character
B		Low battery indicator
C		Temperature unit, shown when the character group A shows a temperature
D		Communication indicator
E		Indoor temperature indicator
		Remote sensor temperature indicator (RS mode) The text Err and a flashing sensor icon indicates a faulty sensor
		Indoor temperature with floor temperature limitation indicator The text Err and a flashing floor sensor icon indicates a faulty sensor
		Floor temperature indicator The text Err and a flashing floor sensor icon indicates a faulty sensor
		Outdoor temperature indicator The text Err and a flashing outdoor sensor icon indicates a faulty sensor
		T-168 only Relative humidity limit reached

Pos.	Icon	Description
F		Settings menu
		Settings menu number
G		Heating demand
		Cooling demand
H		Comfort mode
I		ECO mode
		Flashing icon in thermostat T-166 indicates activated holiday mode in the system.
J		<i>T-168 only</i> Digital clock
		<i>T-168 only</i> Parameter name in settings menu
		<i>T-168 only</i> Indicator showing AM or PM when the thermostat is set to 12 h mode
		No indication when the thermostat is set to 24 h mode
K		<i>T-168 only</i> Weekday selected/activated 1 = Monday 7 = Sunday
L		<i>T-168 only</i> Time selected or scheduled hour indicators, for Comfort mode, between 0:00 and 24:00
		Half = 30 minutes
		Full = 1 hour
M		Holiday mode

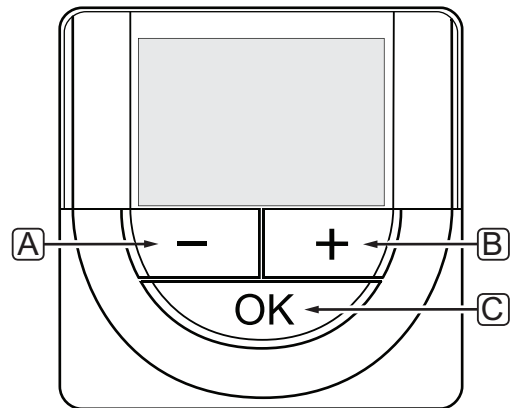
12.3 Operating buttons

The figure below shows buttons used to operate the digital thermostats.

T-169



T-166
T-168



Pos.	Description
A	The - and + buttons are used to:
B	<ul style="list-style-type: none"> Adjust setpoint temperature Modify parameters in the settings menus
C	The OK button is used to: <ul style="list-style-type: none"> Toggle between current status data, and values of available sensors connected to the thermostat Enter and exit the settings menu Confirm a setting