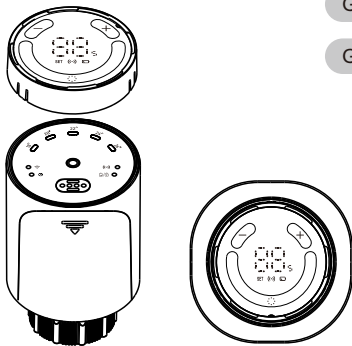


Product instruction manual

GEM208V-TFZ

GEM208S-TF



Contents

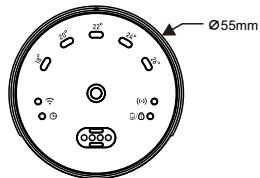
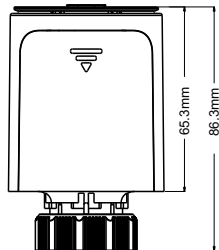
A1

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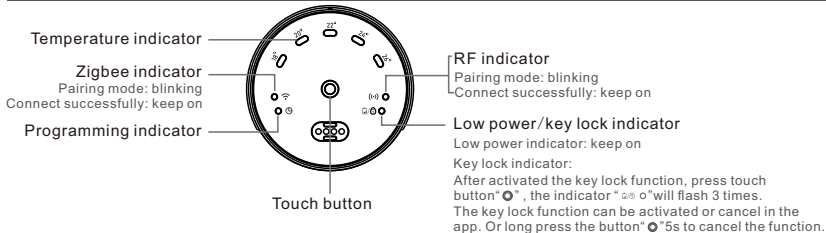
TRV specifications

GEM208V-TFZ

- * Power source: 2*AA 1.5V battery (LR6)
(Don't use the rechargeable battery)
- * Temperature setting accuracy: 0.5°C(app)
- * Room temperature display range: 0°C~50°C(app)
- * Operation temperature range: 5°C~30°C(app)
- * Shipping & storage temperature: -10°C~60°C
- * Frequency: Zigbee 2.4GHz or RF 868MHz
- * Zigbee wireless transmit range: 30m in open air
- * RF wireless transmit range: 60m in open air
- * Display: LED screen
- * IP class: IP21
- * Connection: M30x1.5mm



TRV appearance



Heating mode state:

When pressing "●", if the temperature indicator flash from 18°C to the set temperature in a cycle, it means the device is in heating mode.

Temperature setting:

Briefly press the button "●" to cycle through the temperature settings: 18°C, 20°C, 22°C, 24°C, and 26°C.

Factory default temperature: 18°C

When you set the temperature via the sensor or app (instead of the TRV), the nearest temperature indicator will light up. If the temperature is below 18°C, 18°C will light up. If it's above 26°C, 26°C will light up.

Force Heating Mode:

When the indicator for 26°C lights up, press the button "●" again, and the indicator will flash, indicating that the force heating is activated, with the set temperature at 30°C.

Power off:

In the power-on state, long press the key "●" for 3s to turn off the power, and the 4 indicator lights "●●●●" flash 3 times, indicating it is in OFF state.

Check power-off status:

Short press "●", 4 indicators "●●●●" flash 3 times, indicating that the device is in OFF state.

Power on:

Double press "●" in power off state, the device will power on and will display the current set temperature.

Restore factory settings

In power-off state, press and hold "●" button 15s to restore factory settings, and all light flashes three times.

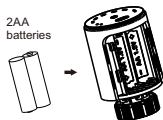
The batteries installation of TRV

Pull down the battery cover.



1

Insert batteries.



* Insert the batteries checking the polarities (+ / -) are correctly aligned.

2

Pull up the battery cover.



3

Complete.



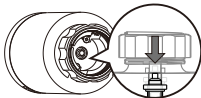
4

TRV installation

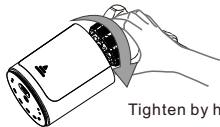
- ❶ After batteries be installed, all temperature indicators “” will light up once in a clockwise direction, the motor learning function works, then jump to step 2 and check.



- ❷ Once valve needles is flush with the base and “” all lights on.



- ❸ Install TRV with M30*1.5 screw thread Interface of valve .Tighten the ring.



Tighten by hand

- ❹ Press “” lightly, TRV will match valve stroke, if match successfully, will active initial setting.

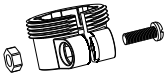
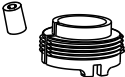
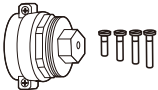


All temperature indicators will light up again in a counterclockwise until the motor learning process is complete.

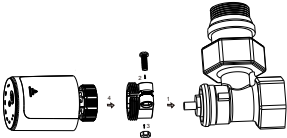
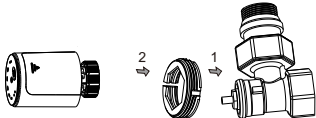
Tips: After tightening by hand, do not use a wrench to twist it twice, in case too much force and damage the ring.

Adapter selection

Please confirm valve diameter

Standard	Danfoss	Caleffi	Giacomini
	1/2 valve (RA) 	1/2 valve 	1/2 valve+short plunger 
Optional	Danfoss		
	M28x1.5mm 	1/2 valve (RAVL) 	3/4 valve+long plunger (RAV) 

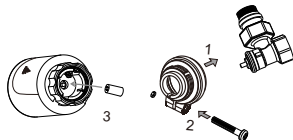
Adapter installation

Danfoss 1/2 valve (RA)	
Caleffi 1/2 valve	
Giacomini 1/2 valve	

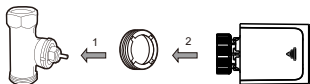
Danfoss**3/4 valve (RAV)**

Danfoss 3/4 valve need install long plunger at the bottom of controller. Accessories, please put directly on the valve, forced to press the adapter and valves can be stuck.

Please tighten the screws after fixing the valve connector

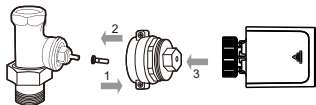
**Danfoss****1/2 valve (RAVL)**

Adapter, please put directly on the valve.

**M28 Adapter**

		H
24mm	SAM Slovarm	ca.1.0~3.0mm
18.5mm	TA Comap Markaryds	ca.6.5~8.5mm
17mm	Herz MMA Remagg	ca.8.5~10mm
15mm	Other	ca.10~12mm

Slide the correct pin extension into the adapter with the head of the extension facing the valve pin. Then thread the assembled adapter onto the valve until it completely covers the valve threads.

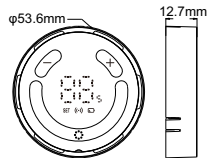


Sensor specifications

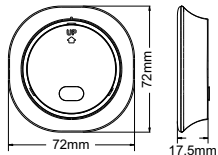
GEM208S-TF

- * Power source: 2*AAA 1.5V batteries (LR03)
(Don't use the rechargeable battery)
- * Temperature setting accuracy: 0.5°C
- * Temperature display range: 0-50°C
- * Operation temperature range: 5-30°C
- * Shipping & storage temperature: -10-60°C
- * Display: LED
- * RF frequency: 868MHz
- * RF transmission distance: 60m in open air
- * IP Rating: IP21
- * Sensor dimensions: $\phi 53.6\text{mm} \times 12.7\text{mm}$
- * Sensor base dimensions: $72\text{mm} \times 72\text{mm} \times 17.5\text{mm}$

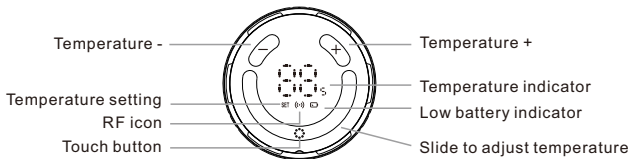
Sensor



Sensor base



Display description of sensor



 In the OFF state, short press to power on. In the case of screen-off, short press to wake. Press and hold 3s to OFF mode.

In the OFF state, press and hold "" 5s to enter the RF pairing state. "" flashing.

SET Only display when setting temperature.

 TRV pairing mode: "" is blinking. If connected successfully, "" will keep on.

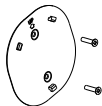
+ - Activate child lock function by long press "+" "-" 3s simultaneously until display show "". Long press "+" "-" again over 3s to unlock.

Tips: If the sensor is not connected to the TRV, only the temperature is displayed and **can't be set**. When the battery is low, "" is displayed.

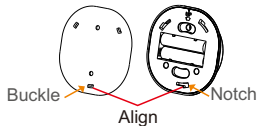
Restore factory settings

In power-off state, press and hold "" for 15 seconds until the full display flashes once to restore the factory settings.

Install the sensor on the wall



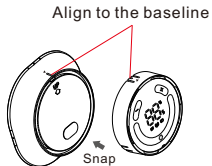
1. Tighten the screws with KA3*15mm screwdriver.



2. Align the buckle of the back plate with the notch of the base.



3. Complete the base installation.

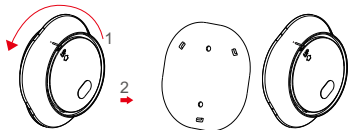


4. Align the baseline, then snap into the display part directly.

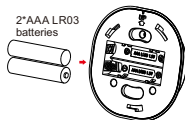


5. Complete installation

Install batteries

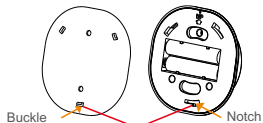


1. Rotate the base counterclockwise until it stops turning, then remove the back panel of the base.



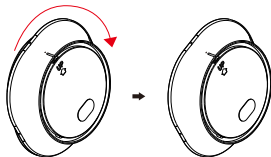
Tips: Insert the batteries checking the polarities (+ / -) are correctly aligned.

2. Insert the batteries.



Align the back panel clips with the notches on the base.

3. Align the back panel clips with the larger notch on the base, and insert them into the notch.



4. Rotate clockwise until it stops to complete the battery installation.

Notice for use



Anti-freezing function

Anti-freezing function: the valve will be opened when the temperature is below 5°C , when the temperature rises to 8°C , the valve will be closed.



Open window function

When use radiator to heating, the window is opened ,when room temperature drop 6°C in 4 minutes, TRV will close valve automatic, When window is closed, meanwhile room temperature increase 3°C, TRV will open valve automatic, back to operation mode .

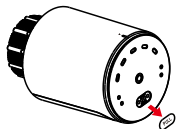


Anti-scale function

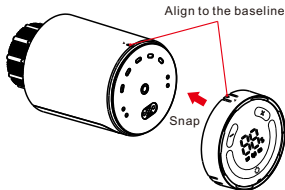
If radiator not open within two weeks or long time not open will let valve clogged as scale, radiator will be damaged. In order to let radiator to use normally, TRV will open valve running 30 seconds every two weeks, when run finished will recovery running condition.

Default programming (4 period programming)

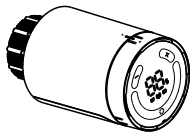
Wake up		Out door		Back home		Sleep	
6:00	20°C	8:00	16°C	18:00	20°C	22:00	16°C



1. Remove the cover of the pin.



2. Align the baseline of the TRV and sensor, snap directly.



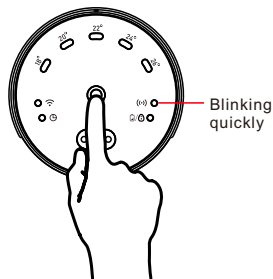
3. Complete.

Tips: the sensor is installed directly on TRV, paired automatically by RF protocol, and the icon “” is always on.

For TRV:

In power off state, long press “●” 8s to enter code match, and RF indicator “(·)” is blinking quickly.

When connected successfully, “(·)” is always on.



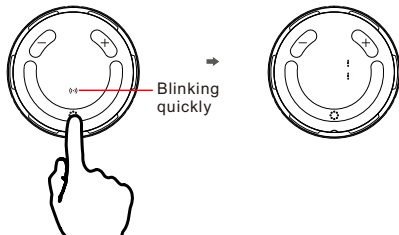
For sensor:

In power off state, long press “⊗” more than 5s to enter code match, and “(·)” is blinking.

The first TRV successfully pairs with the sensor, displaying “1”. The second TRV successfully pairs with the sensor, displaying “2”, and so on. A single sensor can pair with up to 8 TRVs.

When there are more than 8pcs TRVs connected, the 8th TRV will be covered and disconnected.

When connected successfully, “(·)” is always on.



Link APP (Login)

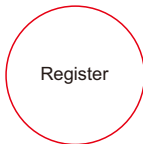
Download:

Click App store or Android application market to download "Tuya Smart" app.

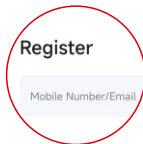


Registration and Login:

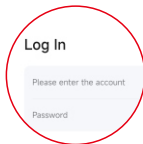
Click the "Register" to create account.
Enter your account password to log in.



Register



Create account



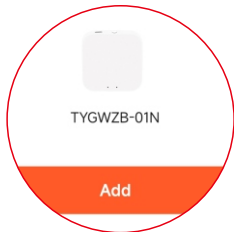
Login

Link APP (Add devices)

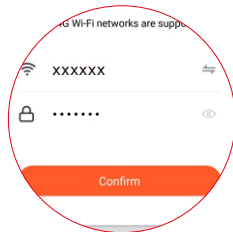
Add gateway:

Tips: Turn on the Bluetooth and Wifi of your mobile phone.

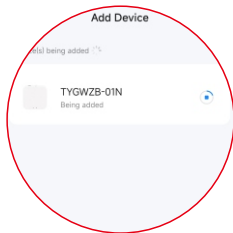
- 1 Enter the "HOME" interface of the app, Click the "Add" .



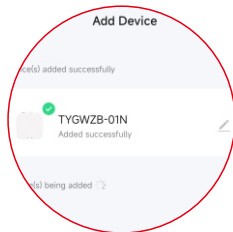
- 2 Enter your wifi account and password, Click " Confirm ".



- 3 wait a few seconds until the search progress is 100%.



- 4 Click "Done", it means the gateway added successfully.

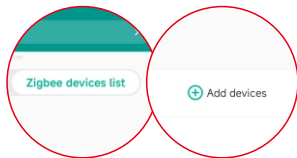


* Tips

- Before binding the gateway, you need to power on the gateway.
When binding a gateway, the mobile phone and the gateway must connect to the same network.

Add TRV:

- 5 Enter the "Gateway" interface of the app, Click the "Zigbee devices list" , then click"⊕Add devices".



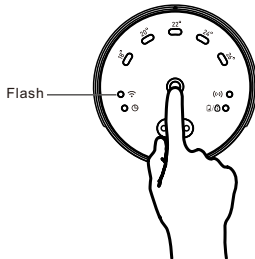
- 6 Search device, click "Done", it means the TRV added successfully.



For TRV:

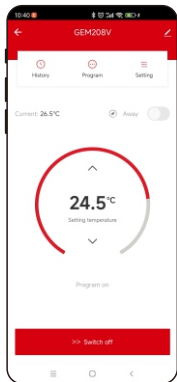
In the off state, press and hold the power button "●" for 5 seconds until "📶" flashes.

When the TRV added successfully, "📶" keeps on.



Temperature setting

After the TRV is added successfully, we can control the device through the APP.
Press $\wedge$ or $\vee$ for increase or decrease of the temperature.



* Tips

Temporary override

Adjust the temperature on the current interface, which is effective only in the current period of time but recovers the original programming in the next period of time.

Manual mode

Adjust the temperature on the current interface, and remain the current temperature all long.

Power On/Off setting

Click ">> Switch off" and drag to the right to achieve "slipping for power off".

Click "<< Switch on" and drag to the right to achieve "slipping for power on".



Temporary stay-out setting

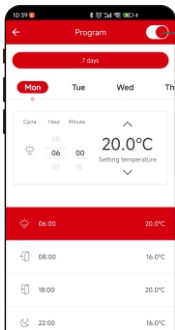
- 1 If you need to stay out temporarily, please click "Away" key.
- 2 After you arrival at home, click "Away" key to recover the previous temperature setting.



The temperature can remain at 16°C, the energy-saving icon "Away" turns green and is on.

Programming setting

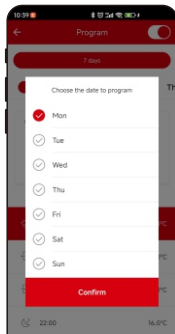
- 1 Click the programming to enter the programming interface.
- 2 Selecting the period of time of 7-day programming, press “^” or “v” to set temperature in the different periods of time.



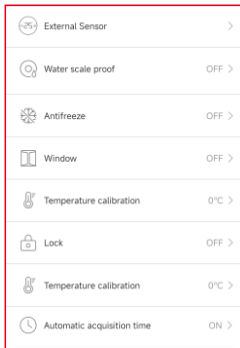
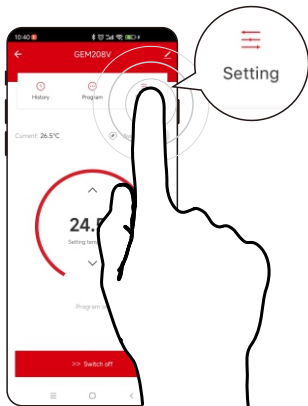
Slide the icon to left to close the programming

- 3 Enter the programming interface and then click the “7-day” key.
- 4 Click the date to be edited and confirm it.

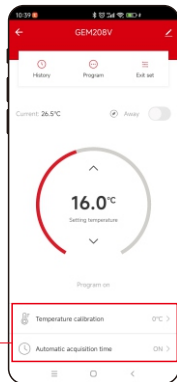
7 Day



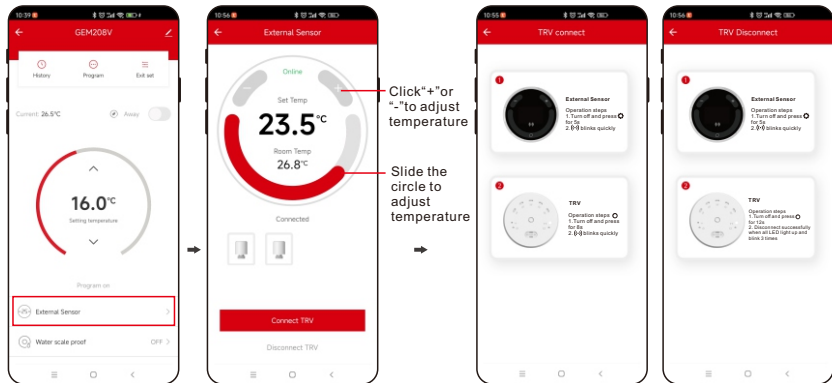
Implicit parameter setting



Slide to view more parameters.
Click on each parameter to set it



Check the method to connect TRV or disconnect TRV

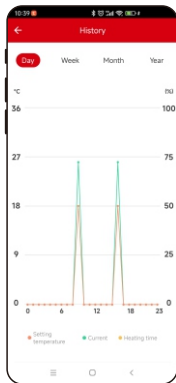


1 Click "External Sensor".

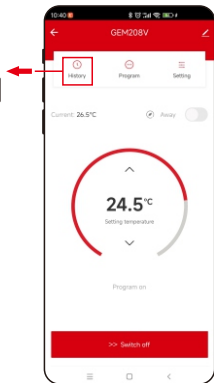
2 Click "Connect TRV" or "Disconnect TRV" to check the methods.

Follow the steps to connect the TRV or disconnect the TRV.

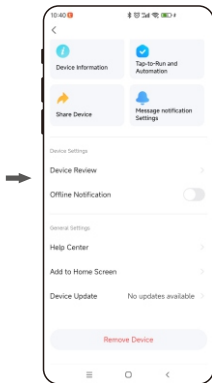
Exit network /Remove devices



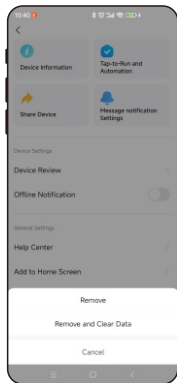
History record



① Click the button “”



② Click “Remove device”.



③ Select “Remove” or “Remove and Clear Data”

Voice command:

After waking up the speaker, you can say:

Amazon Alexa

- * Turn on bedroom.
- * Turn off bedroom.
- * Raise the bedroom by 1 degree.
- * Drop the bedroom by 1 degree.
- * Set the bedroom to 16 degrees.
- * What is the temperature of bedroom?

Google Assistant

Tips: you need connect to the Google speaker

- * Turn on bedroom.
- * Turn off bedroom.
- * Raise the bedroom by 1 degree.
- * Drop the bedroom by 1 degree.
- * Set the bedroom to 16 degrees.
- * What is the temperature of bedroom?

- * Tips: bedroom is the device name. You can name it by yourself.
- * The temperature unit of thermostat and speaker must be the same.

