

Smart Thermostatic Switch

Shared faceplate platform. Different AC and DC back units.

Crystal Glass and Classic Metal faceplates use the same 86 x 86 mm mechanical platform. They pair with AC or DC thermostat back units for fan-coil, valve, dry-contact and optional IR applications.



CLASSIC METAL

Fixed icon layout

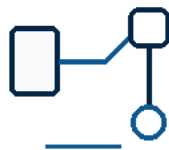


CRYSTAL GLASS

Interchangeable icon layout



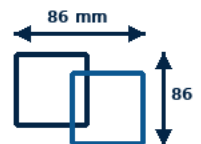
Integrated
temperature sensor



External NTC 10K
or IR probe



Firmware update
over CAN-BUS

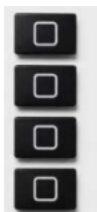


Shared
86 x 86 mm faceplate

CRYSTAL FACEPLATE OPTIONS

Interchangeable icons and included accessories.

The Crystal faceplate uses four fixed touch positions with replaceable icon inserts and matching diffusers.

**4 ICON INSERTS**

Four black icon inserts are supplied for the Crystal thermostat faceplate.

4 DIFFUSERS

Four white diffusers are supplied. Install one behind each active icon position.

Important notes

- Crystal icons are interchangeable; the four touch positions remain fixed.
- Fit one icon insert and one diffuser at each active position.
- The G / I hardware is model-specific: standard models support an external NTC 10K sensor; models ending in -IR support the external IR probe.
- Connect only the accessory supported by the purchased model. Example IR model: APX-TCA-IR.

INSTALLATION

Prepare the thermostat and fit it correctly.

1**Select AC or DC back unit**

The mechanical frame is shared; the electrical board and pinout are different.

2**Wire the back unit**

Follow the exact terminal diagram for the selected AC or DC version.

3**Connect the model-specific G / I accessory**

Standard model: external NTC 10K sensor. Model ending in -IR: external IR probe.

4**Fit icons and diffusers**

Crystal model only: press each diffuser and icon insert fully into position.

5**Attach the faceplate**

Keep the faceplate parallel to the wall and press only at the corners.

6**Power-cycle once**

After final assembly, switch power off and on once to establish the capacitive baseline.

G / I MODEL-SPECIFIC INPUT**Use the purchased model only****G = GND**

Standard model: I = external NTC 10K sensor input.

-IR model: I = external IR probe connection.

STANDARD
NTC 10K

-IR MODEL
IR PROBE

Do not connect an unsupported accessory.

FUNCTIONS AND SPECIFICATIONS

Shared intelligence. Different electrical I/O.

TEMPERATURE-SOURCE SELECTION

On standard models equipped with the external NTC input, select the temperature source from the gateway configuration page, or touch and hold the two upper buttons for 6 seconds. Display symbol **1** selects the internal sensor; symbol **2** selects the external sensor. This selection does not apply to -IR hardware models.

BACK-UNIT SPECIFICATIONS

AC VERSION

Supply	110-240 VAC, 50/60 Hz
Outputs	Q1 LOW, Q2 MED, Q3 HIGH, Q4 VALVE
IR use	Relays may operate as four switch outputs
Label rating	400 W per switched line
CAN-BUS	H and L terminals
External input	Standard: GND + NTC 10K. -IR model: GND + IR probe

DC VERSION

Supply	12-24 VDC, approximately 100 mA
Digital inputs	DI1 and DI2 for dry-contact sensors
Relay outputs	None
CAN-BUS	H and L terminals
External input	Standard: GND + NTC 10K. -IR model: GND + IR probe
Model rule	Use only the accessory supported by the purchased hardware

Temperature note: Installation conditions may require a configurable temperature offset.

AC VERSION WIRING

AC fan-coil and valve wiring

Use the terminal designations exactly as marked on the product.

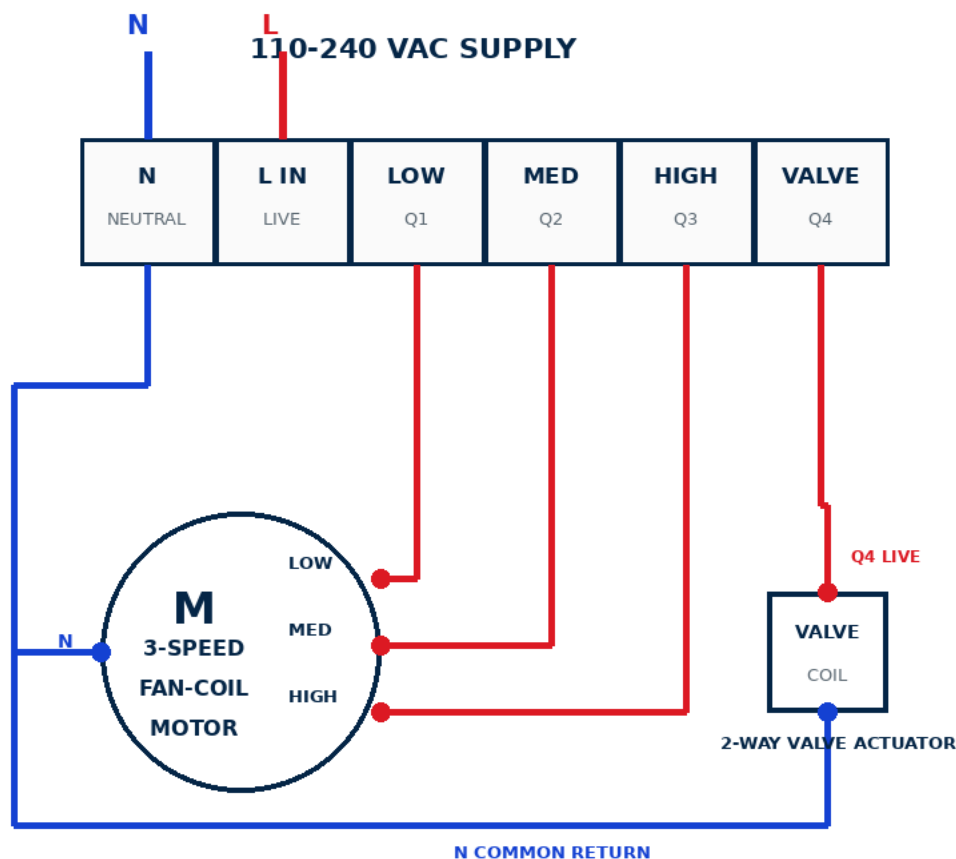
N	L	L	M	H	V
Neutral	Live in	Q1 Low	Q2 Med	Q3 High	Q4 Valve

SMART THERMOSTATIC SWITCH
APX-TCA | 110-240 VAC | 50/60 Hz

H = CAN-H G = GND
L = CAN-L I = NTC 10K / IR input

AC TERMINALS

N Neutral	M/Q2 Fan Medium
L Live input	H/Q3 Fan High
L/Q1 Fan Low	V/Q4 Valve

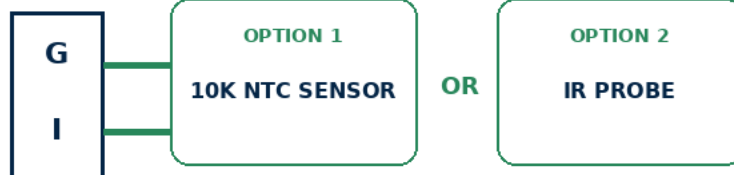


CAN-BUS NETWORK



Use twisted pair cable

G / I - SELECT ONE FUNCTION



G = GND | I = model-specific external sensor input

IMPORTANT Fan outputs and the valve output switch LIVE. Connect motor and valve neutral directly to N.

DC VERSION WIRING

12-24 VDC, digital inputs, CAN-BUS and probe.

DI1 and DI2 accept dry-contact inputs.

H / L are the CAN-BUS twisted pair.

G / I accept an external 10K NTC temperature sensor or compatible IR probe.

DC BACK-UNIT LABEL



SMART KEYPAD / THERMOSTAT

APX-CD

LOW VOLTAGE

CAN
BUS

IN = 12-24 VDC, 100 mA

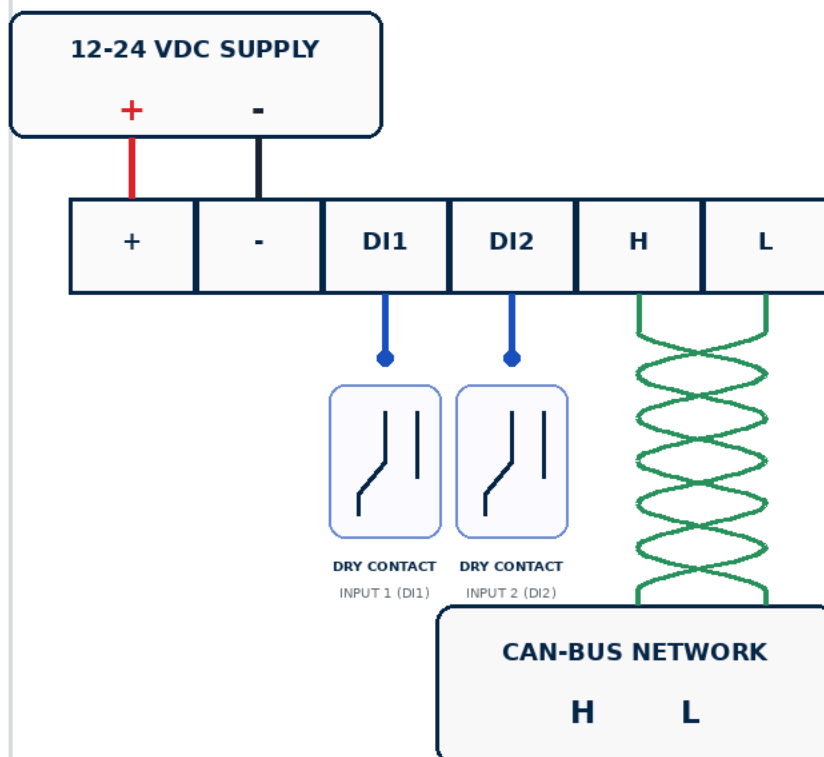
I = IR / external sensor

G = GND

G

I

WIRING DIAGRAM



G / I - EXTERNAL SENSOR OR IR PROBE



DC VERSION SUMMARY 12-24 VDC supply, approximately 100 mA. DI1 and DI2 are dry-contact inputs.

H/L connect to CAN-BUS. The DC back unit has no local relay outputs.

SUPPORTED G/I

G = GND. I = 10K NTC external sensor or external IR probe, depending on model.

NOTE

Use dry contacts only on DI1 / DI2. Terminate the CAN bus only at the two physical ends.