External water temperature sensor TW-TH16

1. Parts that are required to install an external water temperature sensor
(1) External water temperature sensor
(2) Wiring to connect the sensor and the unit*
(3) Wiring terminals to connect the wiring to the sensor
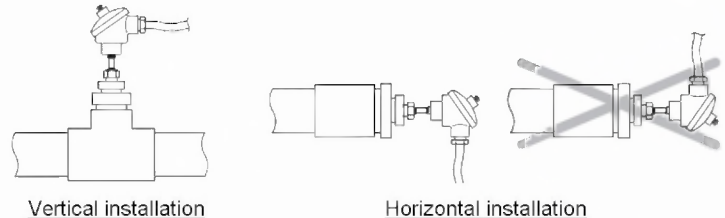   and the terminal block on the unit
   (Four for M4 screws)*
   *Items (2) and (3) are field supplied.

Wire specifications

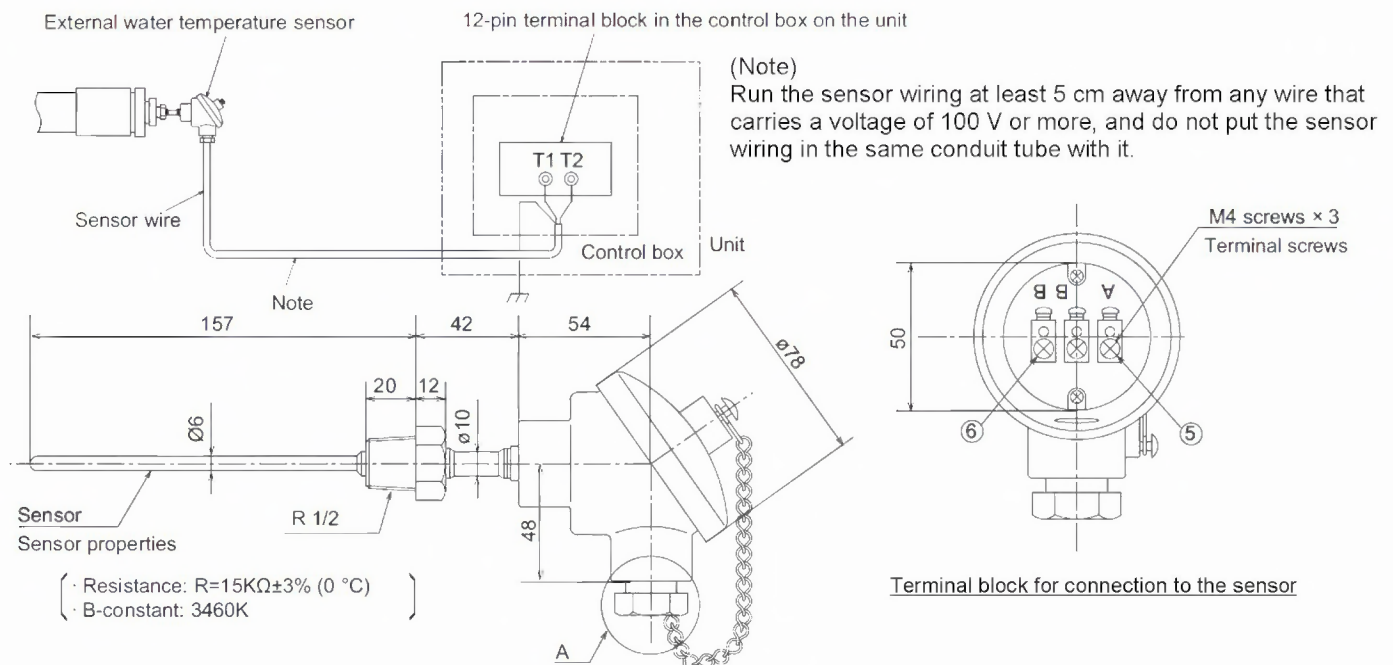| Wire size	2-core cable Min. 1.25 mm^2
Type	CVVS or CPEVS
Maximum length	20 m

2. Installing the external water temperature sensor
· Install the external water temperature sensor where
  the water pipes merge or on the load-side tank as
  shown in the figure at right.
· Install horizontally or vertically on top of the pipe.
· When installing horizontally, make sure the wire faces
  down.

Vertical installation

Horizontal installation

3. Wiring the external water temperature sensor
Connect the external temperature sensor wiring to the terminal block in the control box on the unit as shown in the
figure below.

External water temperature sensor

12-pin terminal block in the control box on the unit

Sensor wire

T1 T2

Control box | Unit

(Note)
Run the sensor wiring at least 5 cm away from any wire that
carries a voltage of 100 V or more, and do not put the sensor
wiring in the same conduit tube with it.

Note

157   42   54

20 12

ø6   ø10

ø78

48

Sensor
Sensor properties

R 1/2

A

[· Resistance: R=15KΩ±3% (0 °C)]
[· B-constant: 3460K]

M4 screws × 3
Terminal screws

B B   A

50

⑥   ⑤

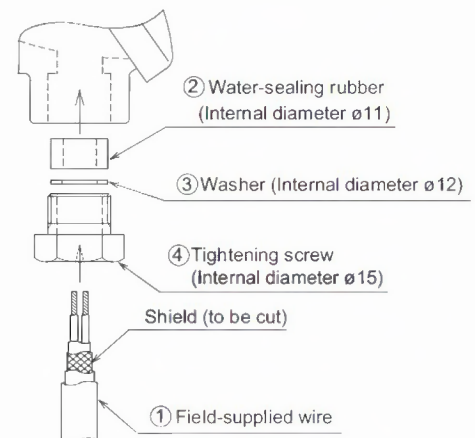Terminal block for connection to the sensor

Connect the sensor wiring to terminals T1 and T2 of the 12-pin terminal
block in the control box on the unit.

Connect the shield to the earth terminal.

Thread the wire to the external water temperature sensor through parts
② through ④ as shown in the figure at right. Attach M4 terminals
(field-supplied) to the wires, and connect them to ⑤ and ⑥ (terminals A
and B).

After the wire is connected, securely tighten the tightening screw ④, and
then caulk the gap between the wire ① and the tightening screw
to keep water from entering.

② Water-sealing rubber
   (Internal diameter ø11)

③ Washer (Internal diameter ø12)

④ Tightening screw
   (Internal diameter ø15)

Shield (to be cut)

① Field-supplied wire

Detailed view of the area labeled "A" in the figure above

WT06281X01