

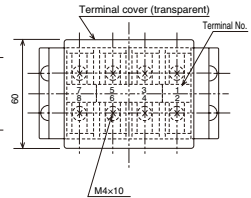
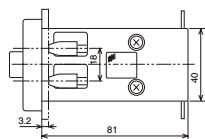
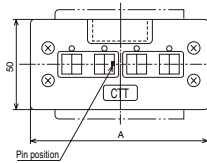


K-TYPE

STANDARD MODELS (TERMINAL)

KTT-AW Number of poles **Color** (For current)

- Circuit opening prevention type -

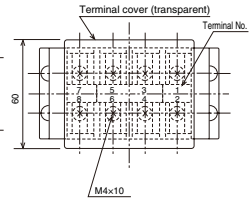
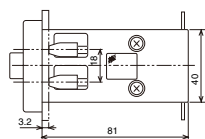
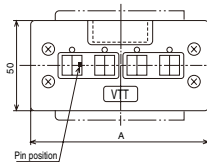
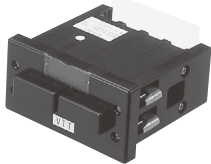


No. of poles	1	2	3	4	6	8
A	44	62	80	98	134	170

● Applicable plugs
KTQ-A□H
KTP-A□H

KTT-VW Number of poles **Color** (For voltage)

- Circuit opening prevention type -

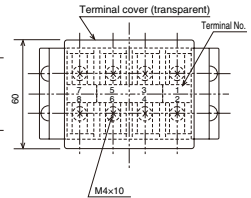
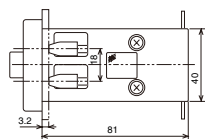
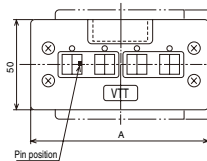


No. of poles	2	3	4	6
A	62	80	98	134

● Applicable plugs
KTQ-V□H
KTP-V□H

KTT-VS Number of poles **Color** (For voltage)

- Power-source contact prevention type -



No. of poles	2	3	4	6
A	62	80	98	134

● Applicable plugs
KTQ-V□H
KTP-V□H

Combinations of test terminals and plugs, and applications

⚠ Precautions on use

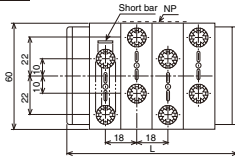
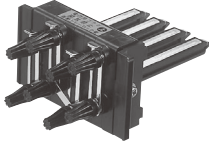
Test terminal	Test plug	Application
KTT-AW□	KTQ-A□H	Combination of circuit disconnection prevention types (Recommendation)
	KTP-A□H	Combination of circuit disconnection prevention types (Recommendation)
KTT-VW□	KTQ-V□H	Combination of circuit disconnection prevention types (Recommendation)
KTT-VS□	KTP-V□H	Combination of power-source contact prevention types (Recommendation)

- To insert a test plug, be sure to lock the relay.
- If another power source is used when a voltage circuit is tested, select the combination of KTT-VS□ and KTP-V□H to prevent any contact with the test power source.
- In order to prevent any contact with the test power source, be sure to turn OFF the power switch when inserting a plug.
- For the purpose of preventing a momentary circuit disconnection, Combination of KTT-AW□ and KTQ-A□H are recommended for high contact reliability.

STANDARD MODELS (PLUG)

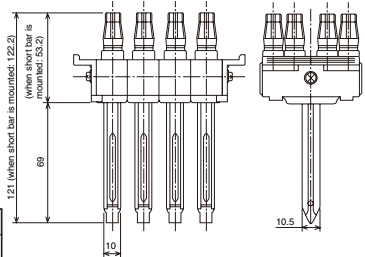
KTP-A Number of poles (For current)

Short contactor



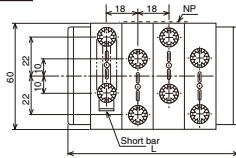
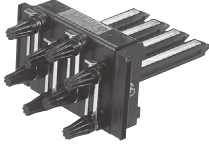
● Applicable terminal
KTT-AW□

No. of poles	1	2	3	4	6	8
L-size	44	62	80	98	134	170



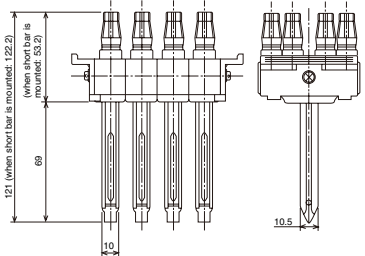
KTP-V Number of poles (For voltage)

Short contactor



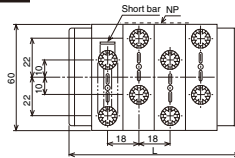
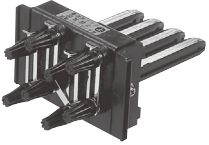
● Applicable terminal
KTT-VS□
KTT-VW□ (Recommended)

No. of poles	2	3	4	6
L-size	62	80	98	134



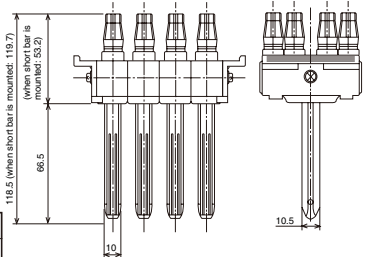
KTQ-A Number of poles (For current)

Long contactor



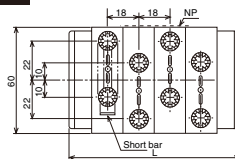
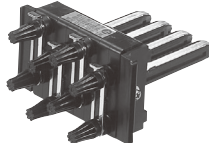
● Applicable terminal
KTT-AW□

No. of poles	1	2	3	4	6	8
L-size	44	62	80	98	134	170



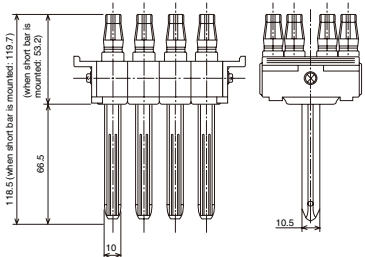
KTQ-V Number of poles (For voltage)

Long contactor



● Applicable terminal
KTT-VS□
KTT-VW□ (Recommended)

No. of poles	2	3	4	6
L-size	62	80	98	134





K-TYPE

JUMPERS SUPPLIED WITH TEST PLUGS



KT jumper A KT jumper B

The quantities of jumpers supplied are shown as below:

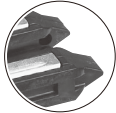
Jumper	Model	KTP-A / KTQ-A						KTP-V / KTQ-V				
		No. of poles		1P	2P	3P	4P	6P	8P	2P	3P	4P
KT jumper A		—	2	3	4	6	8	2	3	4	6	
KT jumper B		—	1	2	3	5	7	—	—	—	—	

ACCESSORIES

Box set of plugs



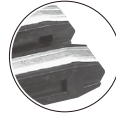
Box set for KTPB plugs



Short contactor

Model	Description
KTPB-A2-V2	KTP-A2H 1 piece
	KTP-V2H 1 piece Red, white wire 4 pieces each
KTPB-A3-V3	KTP-A3H 1 piece
	KTP-V3H 1 piece Red, white, blue wire 4 pieces each
KTPB-A4-V4	KTP-A4H 1 piece
	KTP-V4H 1 piece Red, black, white, blue wire 4 pieces each
KTPB-A6	KTP-A6H 1 piece
	KTP-V6H 2 pieces each Red, white, blue wire
KTPB-V6	KTP-V6H 1 piece
	KTP-A6H 2 pieces each Red, black, white, blue wire
KTPB-A8	KTP-A8H 1 piece
	KTP-V8H 2 pieces each Red, black, white, blue wire

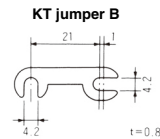
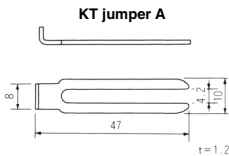
Box set for KTQB plugs



Long contactor

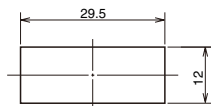
Model	Description
KTQB-A2-V2	KTO-A2H 1 piece
	KTO-V2H 1 piece Red, white wire 4 pieces each
KTQB-A3-V3	KTO-A3H 1 piece
	KTO-V3H 1 piece Red, white, blue wire 4 pieces each
KTQB-A4-V4	KTO-A4H 1 piece
	KTO-V4H 1 piece Red, black, white, blue wire 4 pieces each
KTQB-A6	KTO-A6H 1 piece
	KTO-V6H 2 pieces each Red, white, blue wire
KTQB-V6	KTO-V6H 1 piece
	KTO-A6H 2 pieces each Red, black, white, blue wire
KTQB-A8	KTO-A8H 1 piece
	KTO-V8H 2 pieces each Red, black, white, blue wire

Jumper



● Jumpers are supplied as standard equipment.

Nameplate for usage display [common to KTT and ATT]



● The material is single-side coated paper (white). (Ordering unit: 100 pieces)

Indicated character	CT secondary	PT secondary	GPT secondary	GPT third	Blank
Code	PT2RY	VT2RY	GPT2RY	GPT3RY	CT2RY

STRUCTURES AND EACH COMBINATION CHARACTERISTIC

Diagram of
contactor for current
(KTT-AW□)
(KTT-VW□)

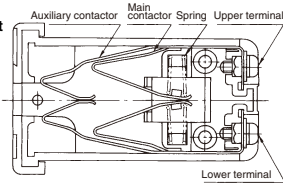
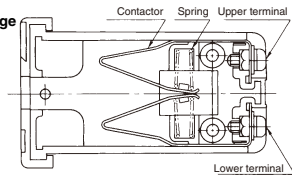


Diagram of
contactor for voltage
(KTT-VS□)

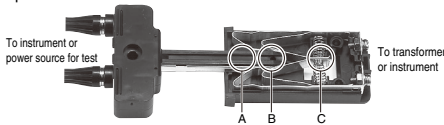


When a plug is inserted and the auxiliary contactor is opened, the main contactor will not be opened. The auxiliary contactor closes before the plug releases the main contactor. Either the auxiliary contactor or the main contactor always make circuit with a plug, preventing the CT circuit opening.

When the plug is inserted, the contactor is opened. This state will be maintained until the contactor makes contact with the contact point of the plug. This eliminates the possibility of making contact with the power source.

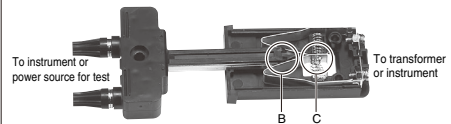
■Combination of KTT-AW and KTQ (Recommended)

The KTT-AW terminal has a dual-contactor structure consisting of main and auxiliary contactors. In addition, the KTQ plug has a long conductive part for contact up to its leading end. Therefore, when the plug is inserted, the contact is completed at two contacts (A) and (B) before the contact (C) of the terminal is opened. Thus, this combination provides excellent function for preventing the circuit from being opened.



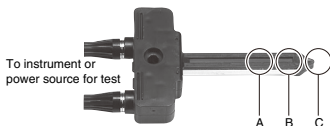
■Combination of KTT-VS and KTP (Recommended)

The KTT-VS has a single-contactor structure consisting of a main contactor only. The KTP has a long conductive part for contact up to 10 mm before its leading end (the leading 10 mm part is an insulator). When the plug is inserted, the contact (C) of the terminal is opened before the contact (B) is closed. Therefore, even if another power source is inserted from the plug when the plug is inserted or removed, there will be no possibility of making contact with the power source. However, when the circuit voltage is measured with a test instrument, the relay will malfunction due to the momentary disconnection of the circuit. For this reason, the relay must be locked.



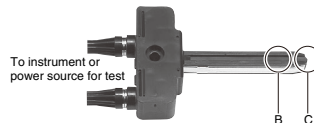
■Combination of KTT-AW and KTP

The KTT-AW has a dual-contactor structure consisting of main and auxiliary contactors. The KTP plug has a shorter conductive part for contact than the KTQ. However, when it is inserted, the contact (A) of the terminal is closed before the contact (C) is opened (the contact (B) starts being closed after the contact (C) has been opened).

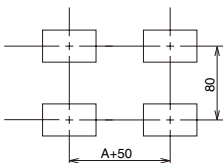


■Combination of KTT-VS and KTQ (special combination)

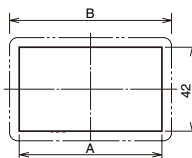
The KTT-VS has a single-contactor structure consisting of a main contactor only. However, the KTQ has a long conductive part for contact up to its leading end. Therefore when the plug is inserted, the contact (B) of the terminal is closed before the contact (C) is opened. This ensures that the circuit never be opened when the plug is inserted or removed. Therefore, when the circuit voltage is measured using a test instrument, the relay will not malfunction due to the momentary disconnection of the circuit. However, if you try to insert another power source from the plug, a temporary connection with the power source will occur.



PANEL CUTOUT DIMENSIONS



(Min. mounting pitch)



Size	1P	2P	3P	4P	6P	8P
A	36	54	72	90	126	162
B	44	62	80	98	134	170

(mm)

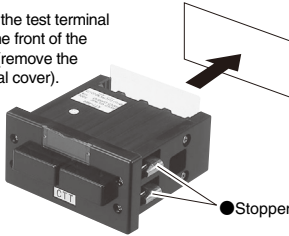


K-TYPE

DIRECTIONS FOR MOUNTING

■ Mounting procedure

- Mount the test terminal from the front of the panel (remove the terminal cover).

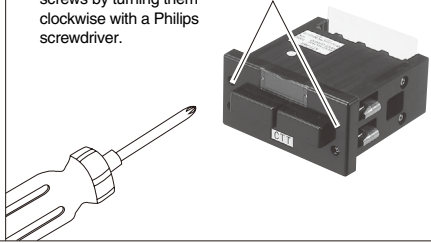


● Stopper

(Take care so that the stoppers do not hit against any panel edge.)

- Tighten the mounting screws by turning them clockwise with a Phillips screwdriver.

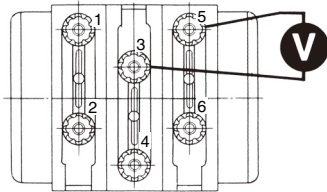
- Mounting screw



OPERATING INSTRUCTIONS

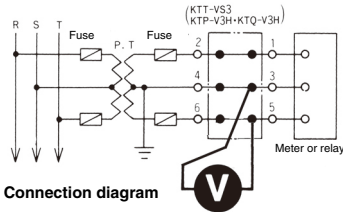
■ Measuring current and voltage

Voltage



1. Short-circuit each phase (each set of the upper and lower terminals represents the same phase) with the KT jumper A.
2. Connect a voltmeter circuit between the phases to be measured.
3. After the connection, insert the plug into the terminal.

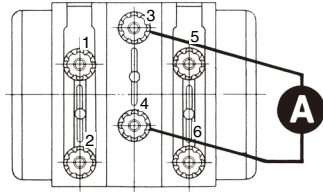
Note: Be sure not to insert the plug with wrong phases short-circuited because it is dangerous to short-circuit PT secondary circuit. The KT jumper B (for short-circuiting different phases) does not come with the KTP-V and KTQ-V.



Connection diagram

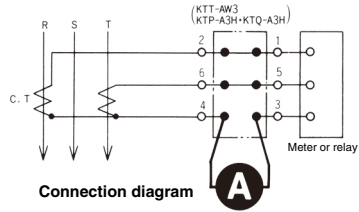
* When inserting the plug, take care not to touch with the short bar or other.

Current



1. Connect an ammeter circuit between the poles to be measured.
2. Short-circuit the other phases with the KT short bar A.
3. After the connection, insert the plug.

Note: Opening the CT circuit creates a dangerous situation. Be sure to avoid inserting the plug without ensuring the proper connection. Be sure to avoid inserting the plug with wrong connection because it is dangerous to open CT circuit.

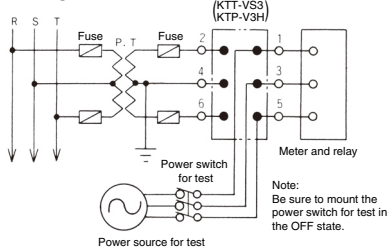


Connection diagram

KT short bar A

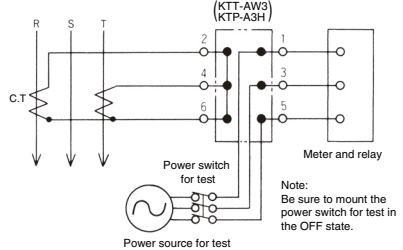
Calibrating a meter and testing a relay with the test power source

For voltage meter



1. Connect the power source for test to the upper terminal screw on the plug for voltage.
2. Connect nothing to the lower terminals to keep it open.
3. After the connection, insert the plug into the test terminal and then carry out calibration and others.

For current meter



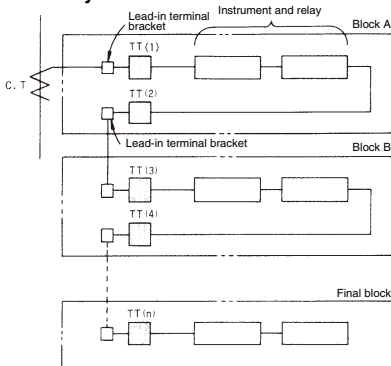
1. Connect the power source for test to the upper terminal screw on the plug for current.
2. Connect the KT jumper B to the lower terminal to prevent the CT circuit from being opened.
3. After the connection, insert the plug into the test terminal and then carry out calibration and others.



Note: Before connecting the power source for test, carefully check that it is connected to the correct terminals (not the vertically reverse ones). To inset the plug, be sure to turn OFF the power switch.

Checking for electrical discontinuity or breakdown in internal wiring of board

Secondary side of current transformer



1. Connect an insulation-resistance meter between the test plugs TP(1) and TP(2).
2. Insert the connected plug into the test terminal TT(1) and TT(2), and then measure the block A.
3. Similarly, measure the block B to the final block. Insulation resistance for each block can be measured.

Note: Before inserting the plugs, short-circuit all the terminals on the entire primary side of the current transformer with the KT short bar B.