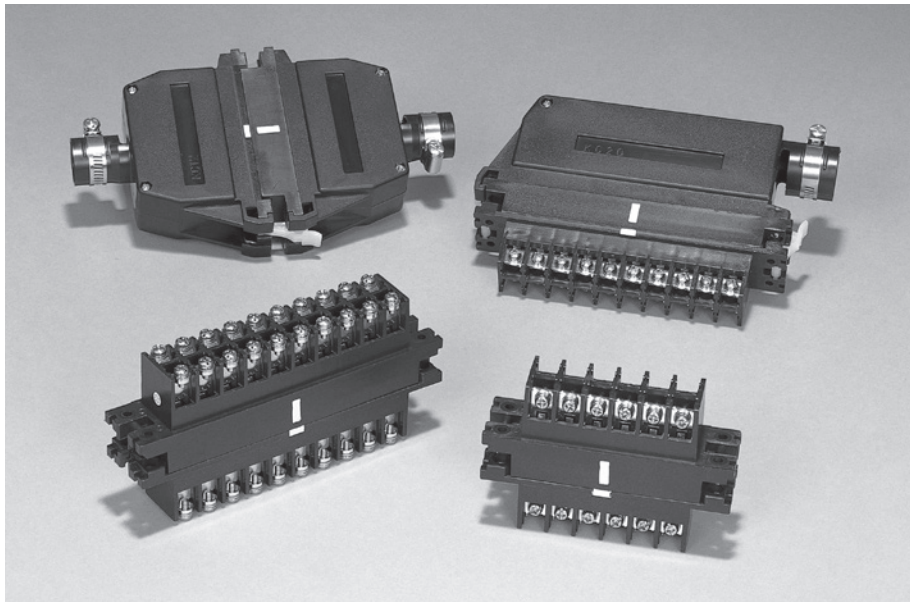




RECTANGULAR CONNECTOR

KC-TYPE



FEATURES

■ Highly reliable contact (contactor)

The fork-shaped contact has a cleaning groove in the contacting part, which wipe off dust and other foreign material attached to the contacting part so that good contact is always maintained. The contacting part is fork-shaped having 2 contacting points per prong. Thus, 1 contact provides 6 contacting points and this structure assures high reliability.

■ Safety structure

All the live parts are accommodated in the housing made of rigid engineering plastic.

A beautiful cover that also serves as a grip is provided to shield the terminal side.

■ Prevention of wrong insertion

The housing is designed to be inserted in a given direction. Since the contacts are completely protected by the housing, an inserting attempt in wrong direction does not create a contact between different circuits.

■ Large current capacity

The current-carrying capacity is 20 A when all the circuits are always ON or 25 A when a half of the circuits are used.

■ Quick locking mechanism

The quick locking mechanism (with the KC hook) of the housing is easy to use.

SPECIFICATIONS (RATINGS, PERFORMANCE)

Specification	Type	KC-12	KC-20
Rated insulation voltage (UI)		600V	
Rated current-carrying capacity (Ith)		20A (25 A when 1/2 circuit is closed)	
Applicable wire size		2mm ² to 5.5mm ²	2mm ² to 5.5mm ² *Up to 18 wires in case of 5.5mm ²
Power-Frequency withstand voltage		(Live part to assembly mounting panel) 2,500V AC / 1 min. / (Between live parts) 2,500V AC / 1 min.	
Rated impulse withstand voltage		(Between live parts and mounting panel) ±7kV / 3 times for each pole (1.2 / 50μs) (Between live parts) ±4.5kV / 3 times for each pole (1.2 / 50μs)	
Short-time current		200A 2 sec.	
Contact resistance		Between poles 10mΩ max. (initial value)	
Shock resistance		30 G or more / each axial direction	
Ambient operating temperature		-20 to 50°C	
Storing temperature		-40 to 85°C	
Relative humidity		85% or less	
Altitude		2,000 m or less	

HOW TO ORDER

KC-12PSFC1

Basic type

No. of poles

Code	Detail
12	12 poles
20	20 poles

Plug side

Code	Detail
P	Standard terminal
PB	Rear mounted terminal

Hook

Number of covers

Code	Detail
1	With 1 cover
2	With 2 covers

Cover

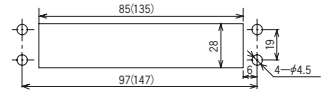
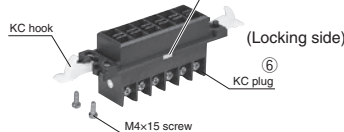
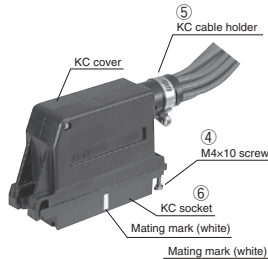
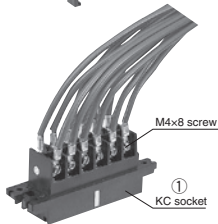
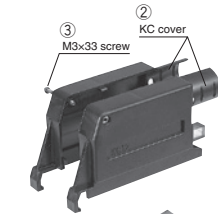
Code	Single part code	Detail
C	12CV	Side type cover: 12 poles
	20CV	Side type cover: 20 poles
CT	12CVT	Top type cover: 12 poles
	20CVT	Top type cover: 20 poles

Socket side

Code	Detail
S	Standard terminal
SB	Rear mounted terminal

INSTALLATION

■ Mounting hole (common to plug and socket sides)



- * () shows KC20 mounting hole dimensions.
- * Note that the plug and socket cannot be mounted to the panel after the KC cover is mounted.

Typical assembly procedure



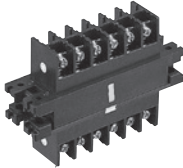


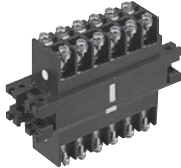
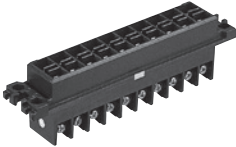
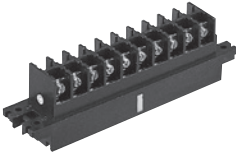
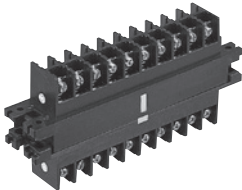

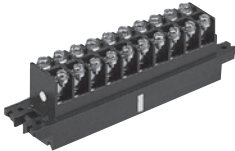
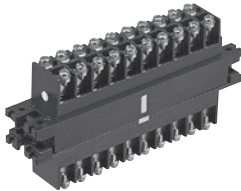
- ① Wire to the KC socket terminal.
- ② Fit the KC cover to the KC socket.
- ③ Tighten the KC cover with an M3x33 screw.
- ④ Fix the KC cover with an M4x10 screw.
- ⑤ Tighten the KC cover cable outlet with the KC cable holder.
- ⑥ After mounting the KC plug to the panel, assemble it to the KC socket (matching the mating marks with each other).
- ⑦ Lock with the KC hook on both sides.



RECTANGULAR CONNECTOR

KC-TYPE

STANDARD PRODUCTS

	Plug	Socket	Set of plug and socket
12 poles	KC-12P 	KC-12S 	KC-12PS 
	KC-12PB (Rear mounted terminal block) 	KC-12SB (Rear mounted terminal block) 	KC-12PSB (Rear mounted terminal block) 
20 poles	KC-20P 	KC-20S 	KC-20PS 
	KC-20PB (Rear mounted terminal block) 	KC-20SB (Rear mounted terminal block) 	KC-20PSB (Rear mounted terminal block) 

* No cover can be fit to the rear mounted terminal block type.

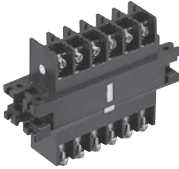


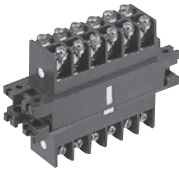


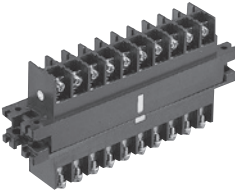
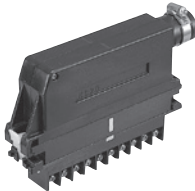

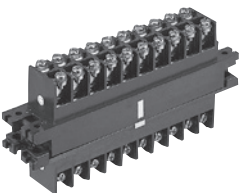


CONNECTING DEVICES

A SWITCH

B PILOT LAMP & INDICATOR

C CONNECTING DEVICES

D ELECTRONIC DEVICES

Set of plug and socket	Combinations of side type cover	Combinations of top type cover
KC-12PBS (Rear mounted terminal block on plug side) 	KC-12PSFC1 	KC-12PSFCT1 
KC-12PSB (Rear mounted terminal block on socket side) 	KC-12PSFC2 	KC-12PSFCT2 
KC-20PBS (Rear mounted terminal block on plug side) 	KC-20PSFC1 	KC-20PSFCT1 
KC-20PSB (Rear mounted terminal block on socket side) 	KC-20PSFC2 	KC-20PSFCT2 

* No cover can be fit to the rear mounted terminal block type.

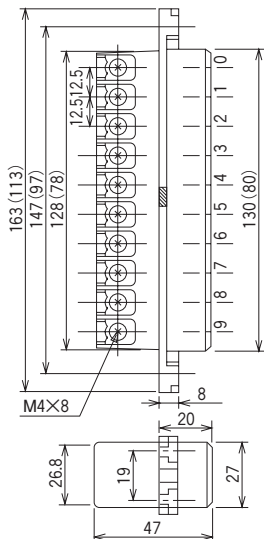


RECTANGULAR CONNECTOR

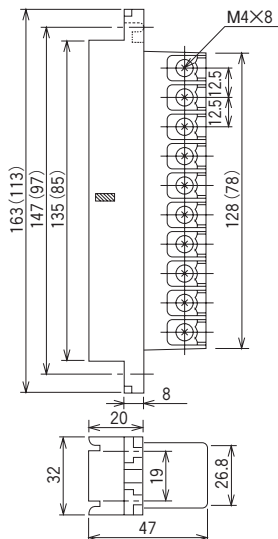
KC-TYPE

DRAWING () shows KC-12 dimensions.

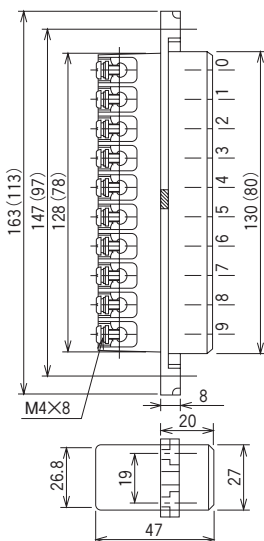
KC-20P (12P)



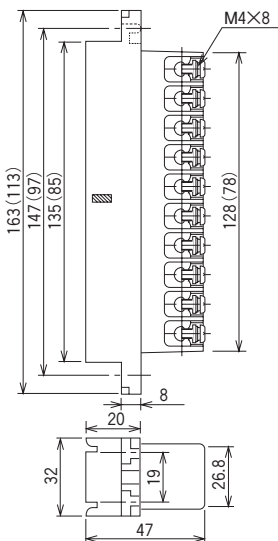
KC-20S (12S)



KC-20PB (12PB)

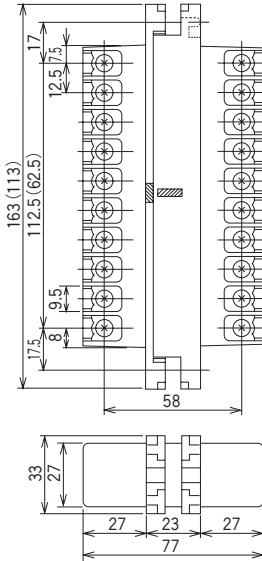


KC-20SB (12SB)



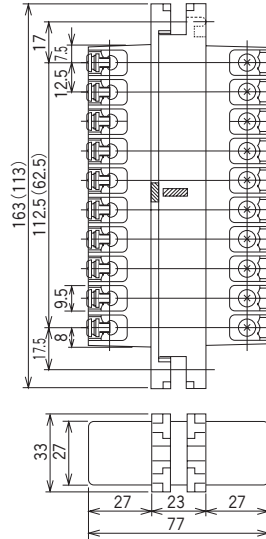
DRAWING OF PLUG AND SOCKET SET () shows KC-12 dimensions.

KC-20PS (12PS)



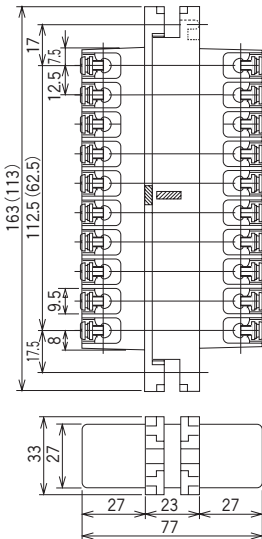
KC-20PBS (12PBS)

Former type code **KC-20PSB(12PSB)**



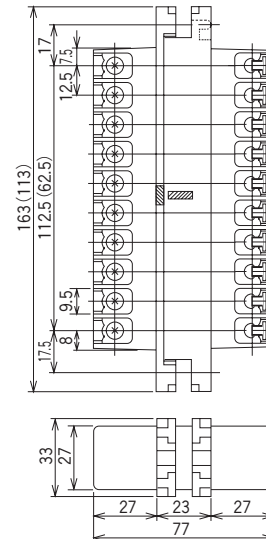
KC-20PBSB (12PBSB)

Former type code **KC-20PSC (12PSC)**



KC-20PSB (12PSB)

Former type code **KC-20PSA (12PSA)**



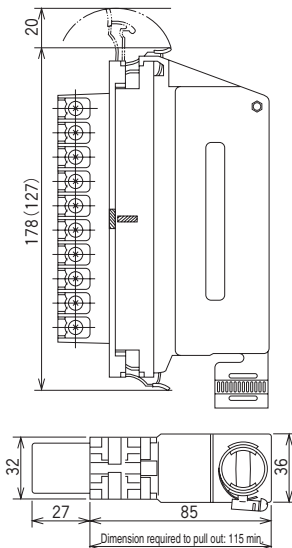


RECTANGULAR CONNECTOR

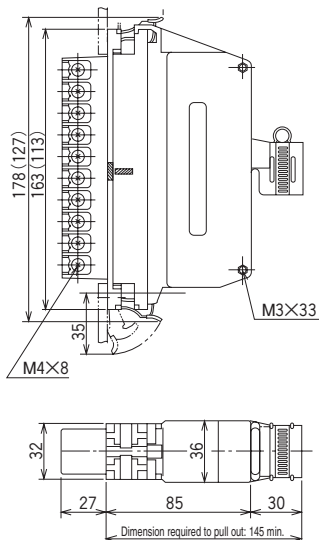
KC-TYPE

DRAWING OF PLUG AND SOCKET SET () shows KC-12 dimensions.

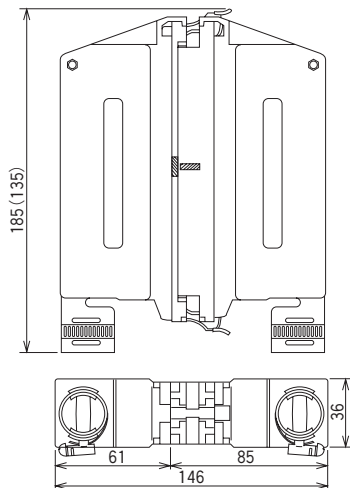
KC-20PSFC1(12SFC1)



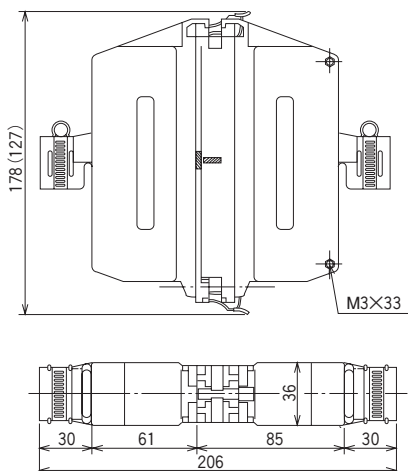
KC-20PSFCT1(12PSFCT1)



KC-20PSFC2(12PSFC2)



KC-20PSFCT2(12PSFCT2)





RECTANGULAR CONNECTOR

KC-TYPE

ACCESSORIES

Hook



KC hook

Side type cover



KC12CV



KC20CV

Cover opening tie



For 12 poles NM-10
For 20 poles NM-12

Top type cover



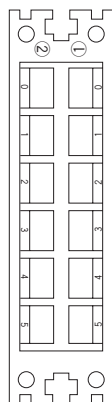
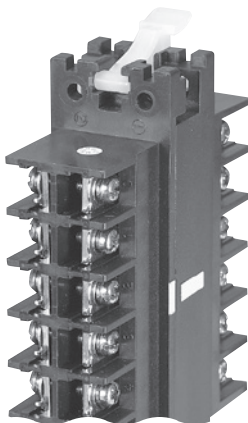
KC12CVT



KC20CVT

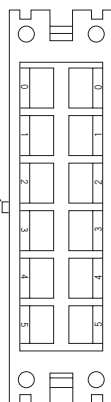
TERMINAL NUMBERS

The terminal numbers of the KC type connector are assigned as follows:



KC-12P side
(0 through 9 for
the KC-20P)

White mark (label)



KC-12S side
(0 through 9 for
the KC-20S)