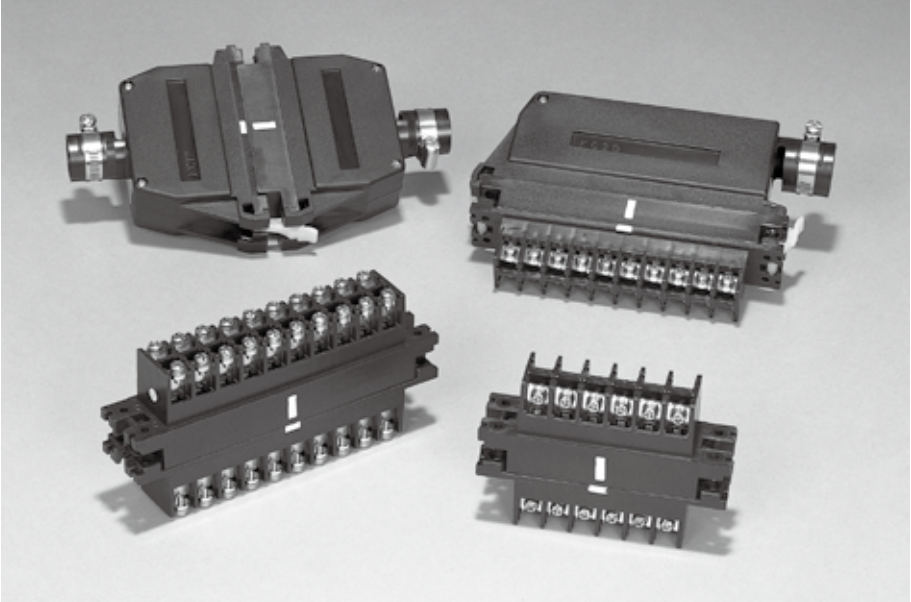




RECTANGULAR CONNECTOR

# 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 <sup>2</sup> to 5.5mm <sup>2</sup>	2mm <sup>2</sup> to 5.5mm <sup>2</sup> *Up to 18 wires in case of 5.5mm <sup>2</sup>
Rated withstand voltage		(Live part to assembly mounting panel) 2,500V AC / 1 min. / (Between live parts) 2,500V AC / 1 min.	
Lightning impulse		(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

### Socket side

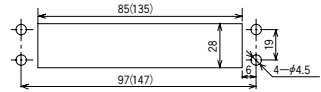
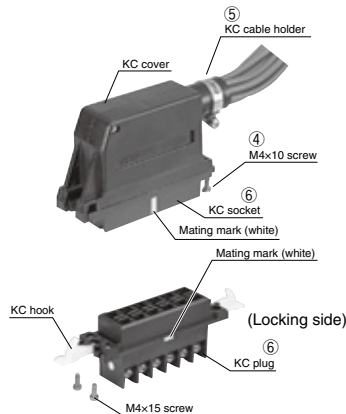
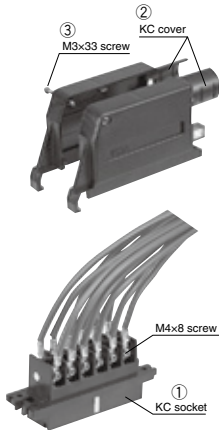
Code	Detail
S	Standard terminal
SB	Rear mounted terminal

### 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

## 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



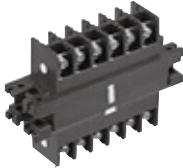


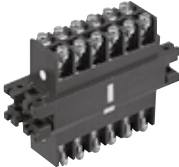

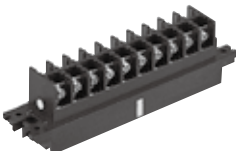
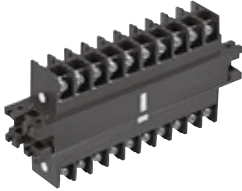


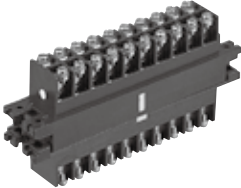
- ① Wire to the KC socket terminal.
- ② Fit the KC cover to the KC socket.
- ③ Tighten the KC cover with an M3x33 screw.
- ④ Fix the KC cover with an M4x10 screw.
- ⑤ Tighten the KC cover cable outlet with the KC cable holder.
- ⑥ After mounting the KC plug to the panel, assemble it to the KC socket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



RECTANGULAR CONNECTOR







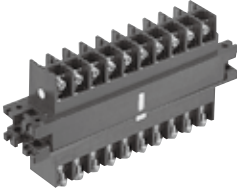


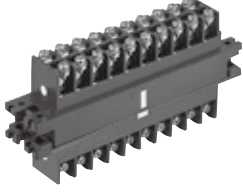


# KC-TYPE

## STANDARD PRODUCTS

	Plug	Socket	Set of plug and socket
12 poles	<p>KC-12P</p> 	<p>KC-12S</p> 	<p>KC-12PS</p> 
	<p>KC-12PB (Rear mounted terminal block)</p> 	<p>KC-12SB (Rear mounted terminal block)</p> 	<p>KC-12PBSB (Rear mounted terminal block)</p> 
	<p>KC-20P</p> 	<p>KC-20S</p> 	<p>KC-20PS</p> 
20 poles	<p>KC-20PB (Rear mounted terminal block)</p> 	<p>KC-20SB (Rear mounted terminal block)</p> 	<p>KC-20PBSB (Rear mounted terminal block)</p> 

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

# CONNECTING DEVICES

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

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

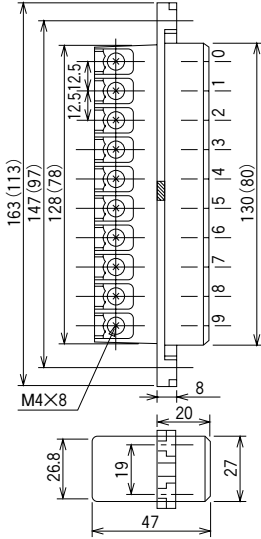


RECTANGULAR CONNECTOR

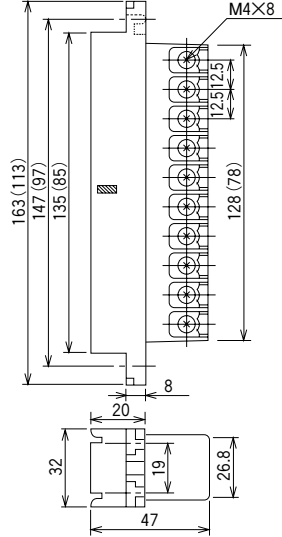
# KC-TYPE

**DRAWING** ( ) shows KC-12 dimensions.

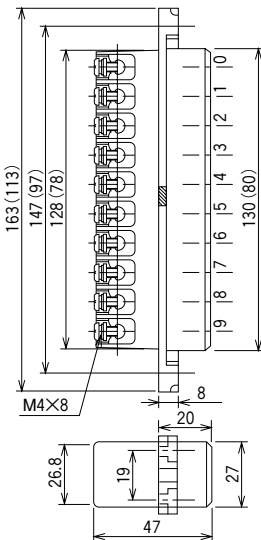
## KC-20P (12P)



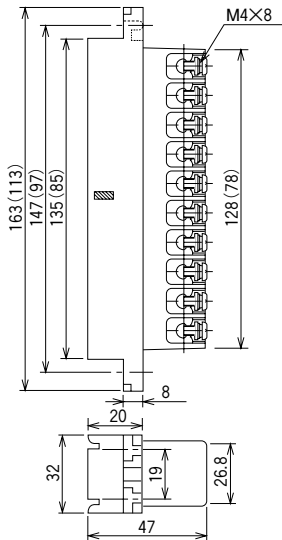
## KC-20S (12S)



## KC-20PB (12PB)

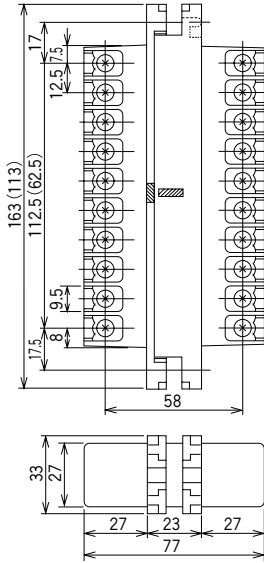


## KC-20SB (12SB)



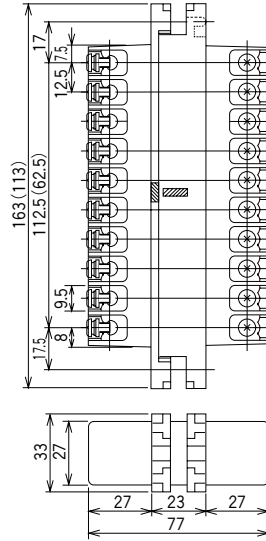
## DRAWING OF PLUG AND SOCKET SET ( ) shows KC-12 dimensions.

### KC-20PS (12PS)



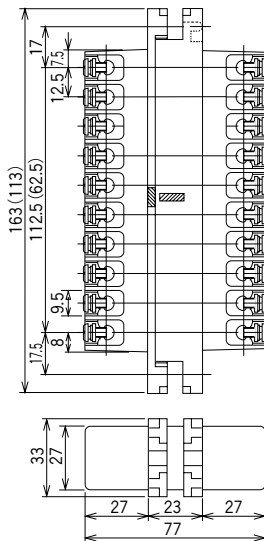
### KC-20PBS (12PBS)

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



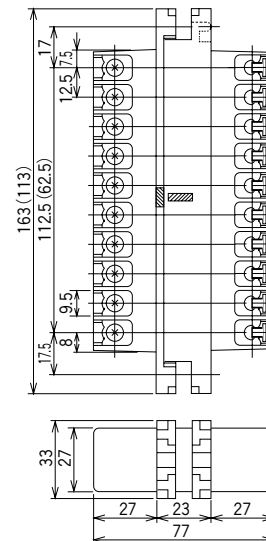
### KC-20PBSB (12PBSB)

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



### KC-20PSB (12PSB)

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



A SWITCH

B PILOT LAMP &  
INDICATOR

C CONNECTING  
DEVICES

D ELECTRONIC  
DEVICES

E CONTROL  
CENTER PARTS

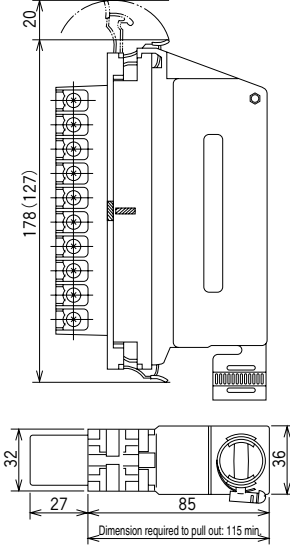


RECTANGULAR CONNECTOR

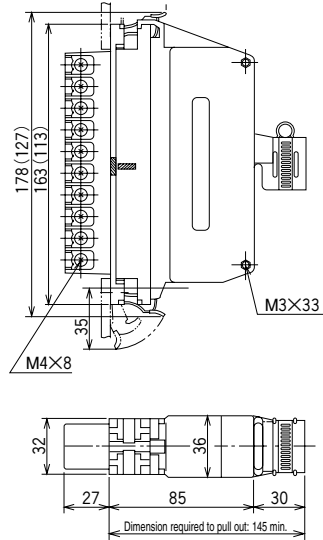
# KC-TYPE

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

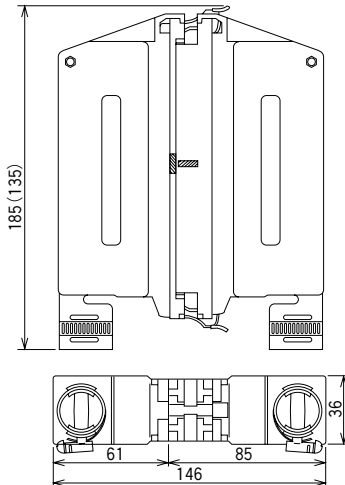
## KC-20PSFC1(12SFC1)



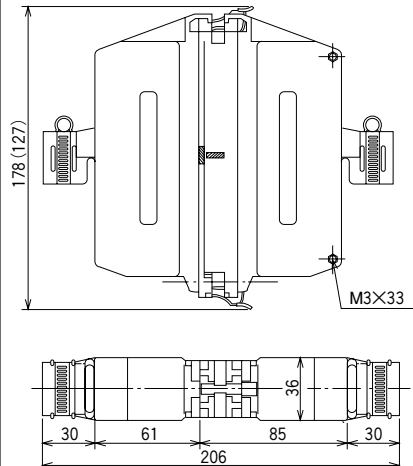
## KC-20PSFCT1(12PSFCT1)



## 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



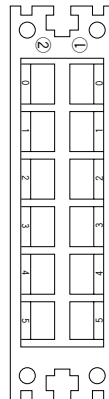
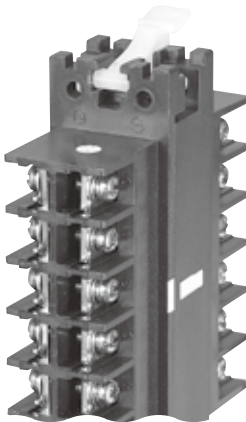
KC12CVT



KC20CVT

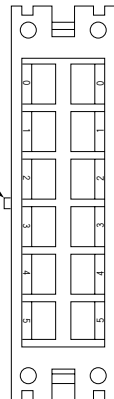
## TERMINAL NUMBERS

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)

A SWITCH

B PILOT LAMP &  
INDICATOR

C CONNECTING  
DEVICES

D ELECTRONIC  
DEVICES

E CONTROL  
CENTER PARTS