

# RPS series

## 1.27 mm Pitch Connectors

### Outline

The RPS series provides miniature 1.27mm pitch high-density IDC connectors. The cable mounted connector is used with 0.635 or 1.27mm flat IDC cables.

### Features

- Provides a wide range of connectors with from 20 to 120 contacts
- Easy insertion and extraction due to low insertion force design and low extraction force design, even if a connector has many contacts
- Provides connectors with a latch mechanism, misinsertion-prevention mechanism, and mating guide structure for preventing skew
- For cable mounted connections, IDC contacts use U-shaped contacts. The lock hardware of these connectors is kinked to prevent disengagement from the PCB.

### Principal Applications

Downsized electronic equipment

### Electrical Characteristics

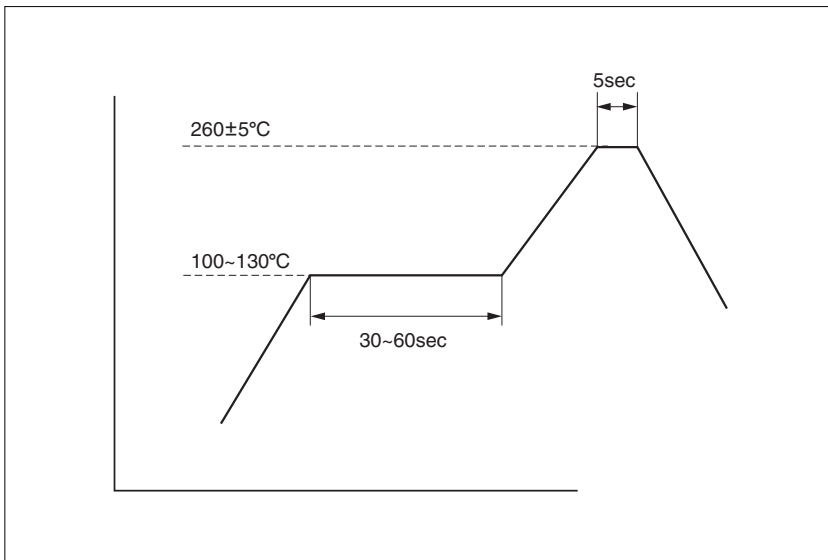
Rated voltage	250V AC (r.m.s.)
Rated current	1 A
Insulation resistance	Over 1000 megohms at 500V DC
Dielectric withstanding voltage	750V AC (r.m.s.)
Contact resistance	30 milliohms or less (not applicable to some products)

#### Document Disclaimer

- When placing orders with us, minimum order quantities are set for every product.
- Be sure to contact us before starting preliminary design of PCBs using our connectors.
- The specifications and information shown in the catalog are subject to change without notice.

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## Flow temperature profile (for reference purposes)



The flow temperature profile as shown above is for reference purposes. This profile depends on requirements such as the PCB size. Thus, this profile may not meet with your specific situation. Please evaluate your PCB-mounting soldering and set your own flow temperature profile.

### ●Applicable products

RPS-( )RM-( )+  
RPS-( )RLM-( )+  
RPS-D40MB+  
RPS-( )LMB+

The profile shown in this drawing is applicable only for those products shown above.

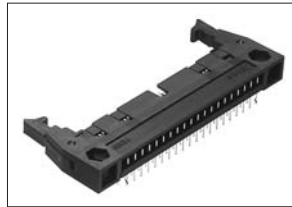
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## Product List



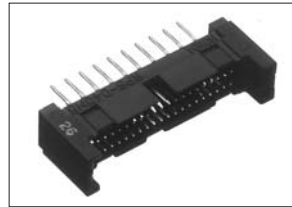
Straight through hole type  
male connector for PCB  
RPS-( )RM-( )+

**B-112**  
RPS series...4



Right-angle through hole type  
male connector for PCB  
RPS-( )RLM-( )+

**B-113**  
RPS series...5



Straight through hole type  
male connector for PCB  
RPS-D40MB+

**B-114**  
RPS series...6



Right-angle through hole type  
male connector for PCB  
RPS-( )LMB+

**B-115**  
RPS series...7



IDC type female connector for  
cable  
RPS-( )FK( )( )+

**B-116**  
RPS series...8



IDC type female connector for  
cable  
RPS-D( )( )F( )+

**B-117**  
RPS series...9



IDC type female connector for  
cable  
RPS-D80( )FC( )+

**B-118**  
RPS series...10



Polarization key  
RPS-PK

**B-119**  
RPS series...11

# Straight through hole type male connector for PCB

## RPS-( )RM-( )+

1.27 mm pitch connector

For PCB

Straight Through hole

KINK shape

RoHS

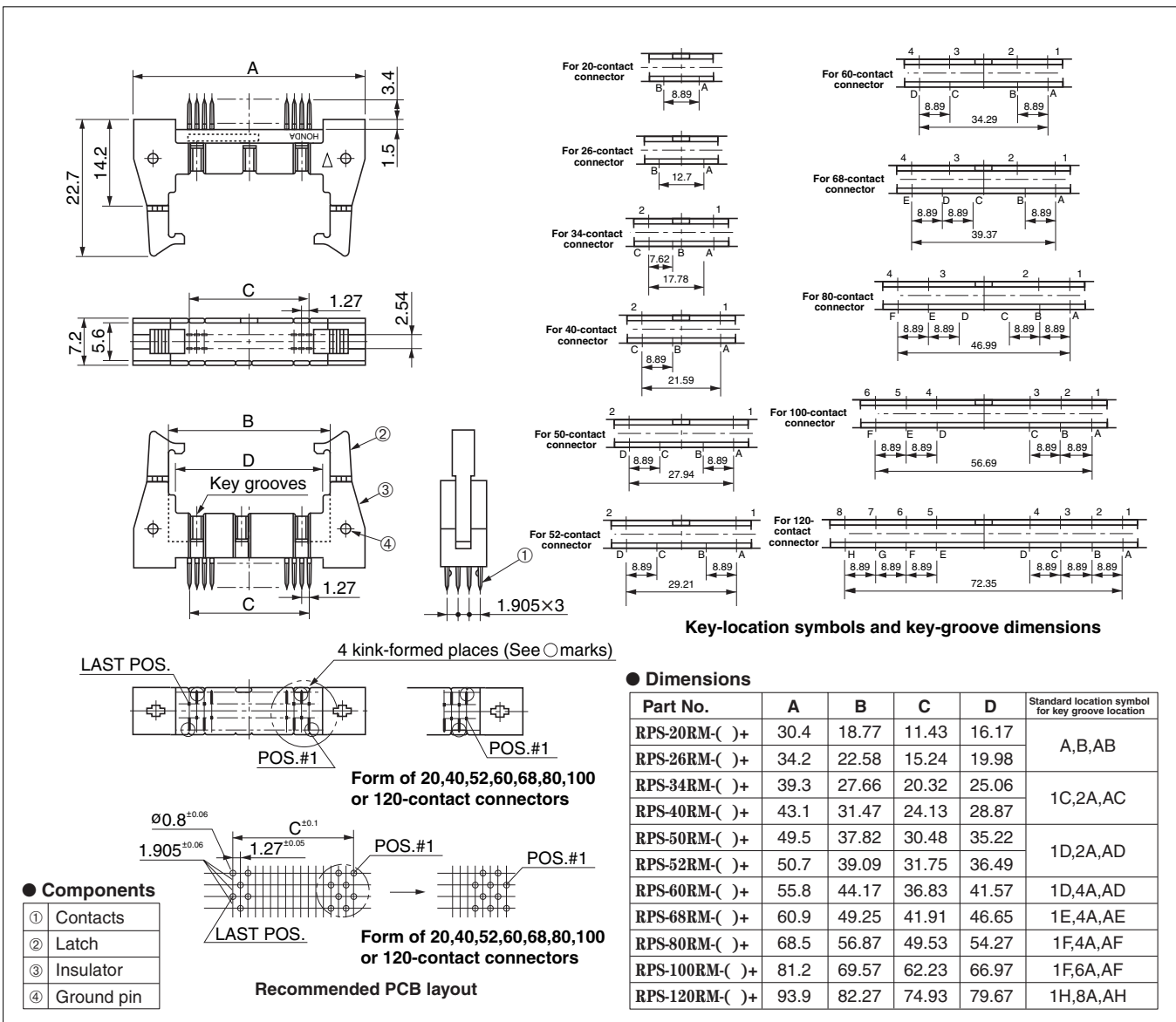


### ● Configuration of product Part No.

## RPS- ( ) RM- ( )+

① ② ③ ④

- ① Series name
  - ② No. of contacts: 20, 26, 34, 40, 50, 52, 60, 68, 80, 100 or 120
  - ③ Type of contact  
RM: Straight through hole type, male with latch
  - ④ Misinsertion-prevention-key grooves  
Blank: None
- For using key grooves, refer to the drawing shown below.



Mating connectors: RPS-( )FK+, RPS-D( ) ( )F( )+

RPS-D80( )FC( )+ (80-contact connector only)

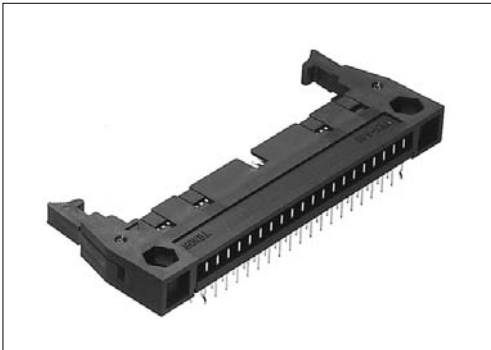
Right-angle through hole type male connector for PCB  
RPS-( )RLM-( )+

For PCB

Right-angle Through hole

RoHS

KINK shape

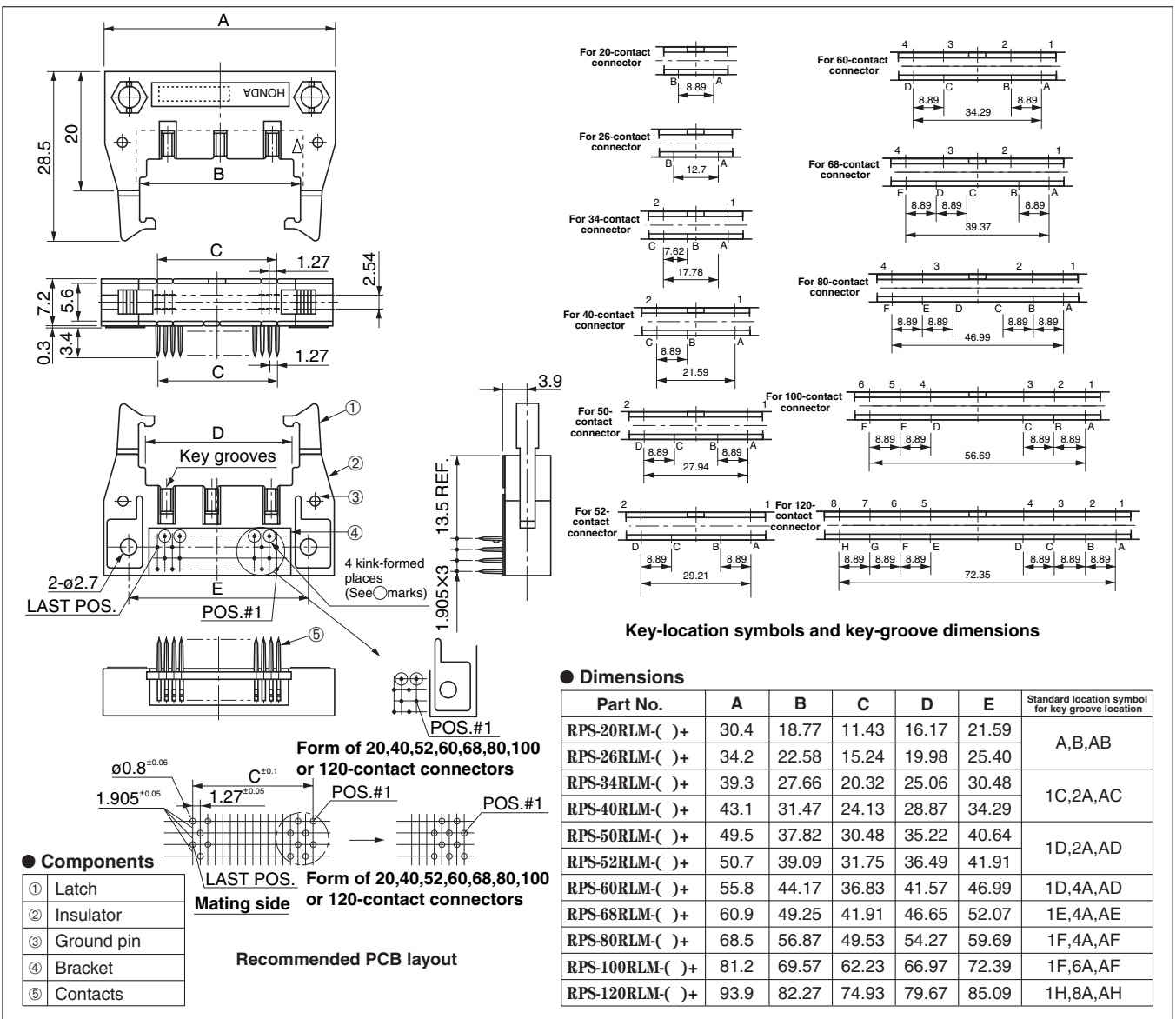


● Configuration of product Part No.

RPS- ( ) RLM- ( )+

① ② ③ ④

- ① Series name
- ② No. of contacts: 20, 26, 34, 40, 50, 52, 60, 68, 80, 100 or 120
- ③ Type of contact  
RLM: Right-angle through hole type, male with latch
- ④ Misinsertion-prevention-key grooves  
Blank: None  
For using key grooves, refer to the drawing shown below.



Mating connectors: RPS-( )FK+, RPS-D( ) ( )F( )+

RPS-D80( )FC( )+ (80-contact connector only)

**Straight through hole type male connector for PCB**  
**RPS-D40MB+**

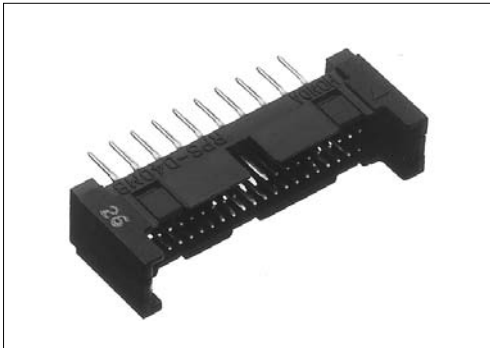
**1.27 mm pitch connector**

**For PCB**

**Straight Through hole**

**Box Type**

RoHS

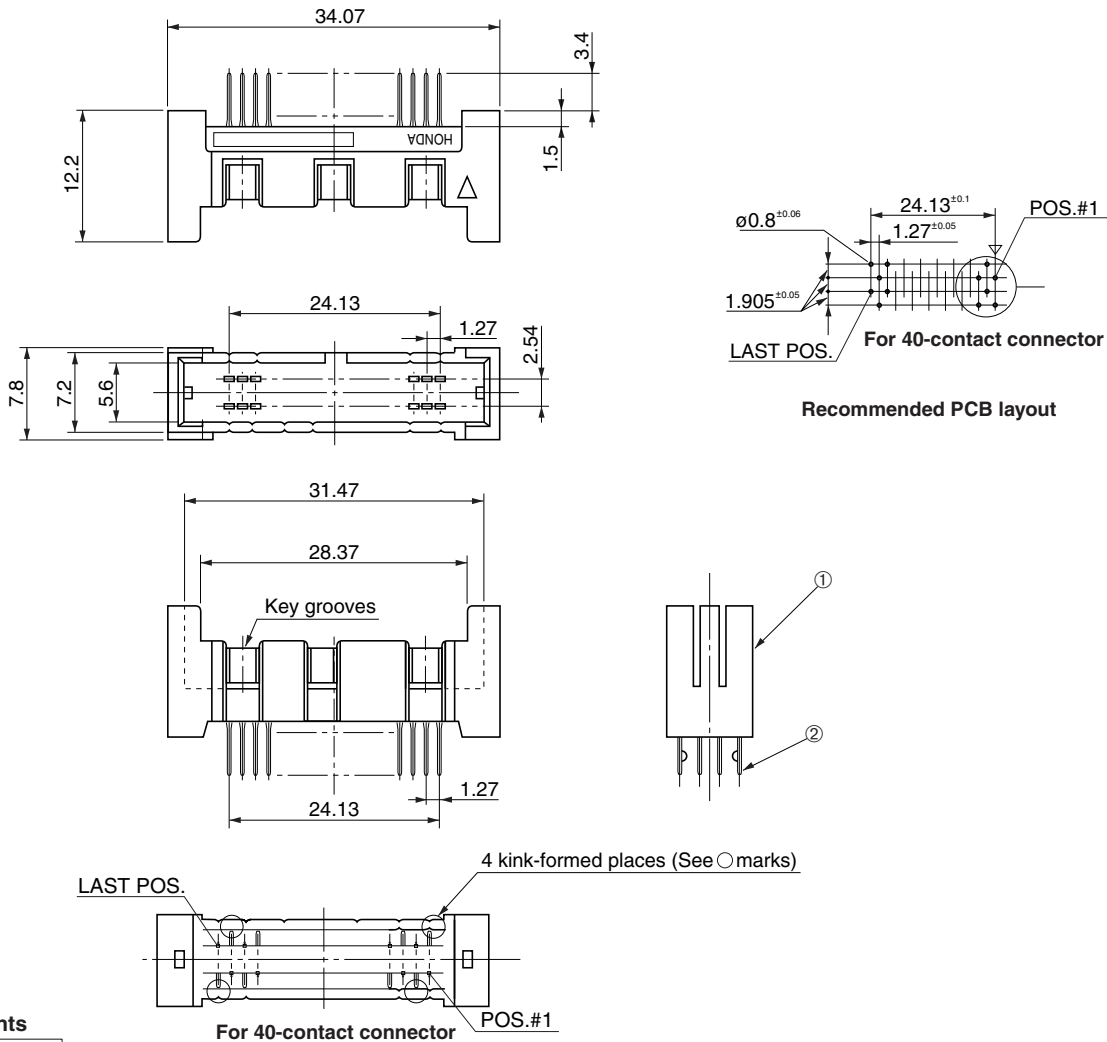


● Configuration of product Part No.

**RPS- D 40 M B+**

① ② ③ ④ ⑤

- ① Series name
- ② For D type female
- ③ No. of contacts: 40
- ④ Type of contact  
M: Straight through hole type, male
- ⑤ B: Box type



● Components

①	Insulator
②	Contacts

Mating connectors: RPS-40FK+

RPS-D40( )F( )+

# Right-angle through hole type male connector for PCB RPS-( )LMB+

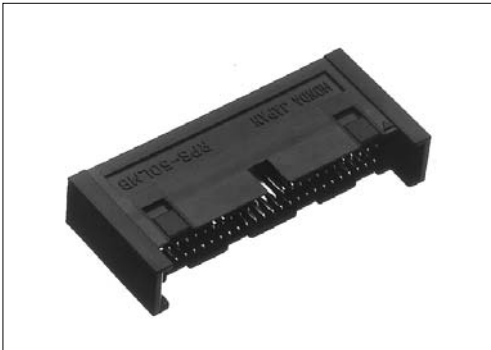
1.27 mm pitch connector

For PCB

Right-angle Through hole

Box type

RoHS

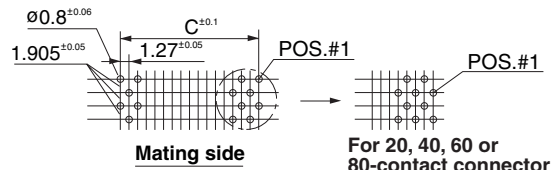
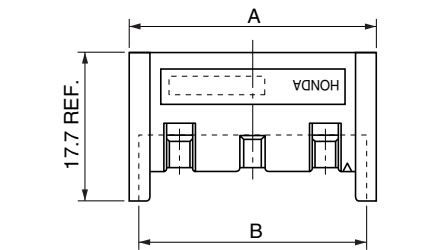


● Configuration of product Part No.

## RPS- ( ) LM B+

① ② ③ ④

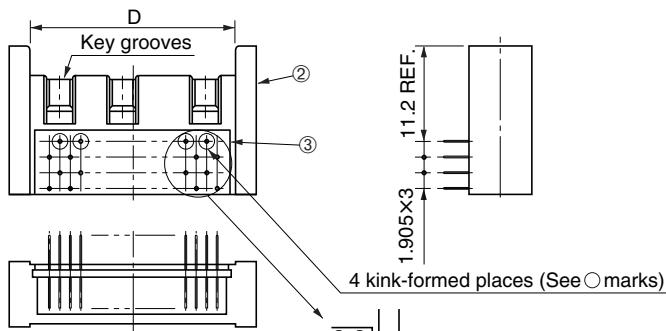
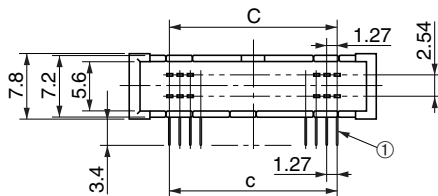
- ① Series name
- ② No. of contacts: 40
- ③ Type of contact  
LM: Right-angle through hole type, male
- ④ B: Box type



Mating side

For 20, 40, 60 or 80-contact connector

Recommended PCB layout



For 20, 40, 60 or 80-contact connector

● Components

①	Contacts
②	Insulator
③	Bracket

● Dimensions

Part No.	A	B	C	D
RPS-20LMB+	21.2	18.77	11.43	16.17
RPS-40LMB+	33.9	31.47	24.13	28.87
RPS-60LMB+	46.6	44.17	36.83	41.57
RPS-80LMB+	59.3	56.87	49.53	54.27

Mating connectors: RPS-( )FK+, RPS-D( )( )F( )+

RPS-D80( )FC( )+ (80-contact connector only)

# IDC type female connector for cable

## RPS-( )FK( )-( )+

1.27 mm pitch connector

For cable

IDC (1.27 mm)

For flat cable

RoHS

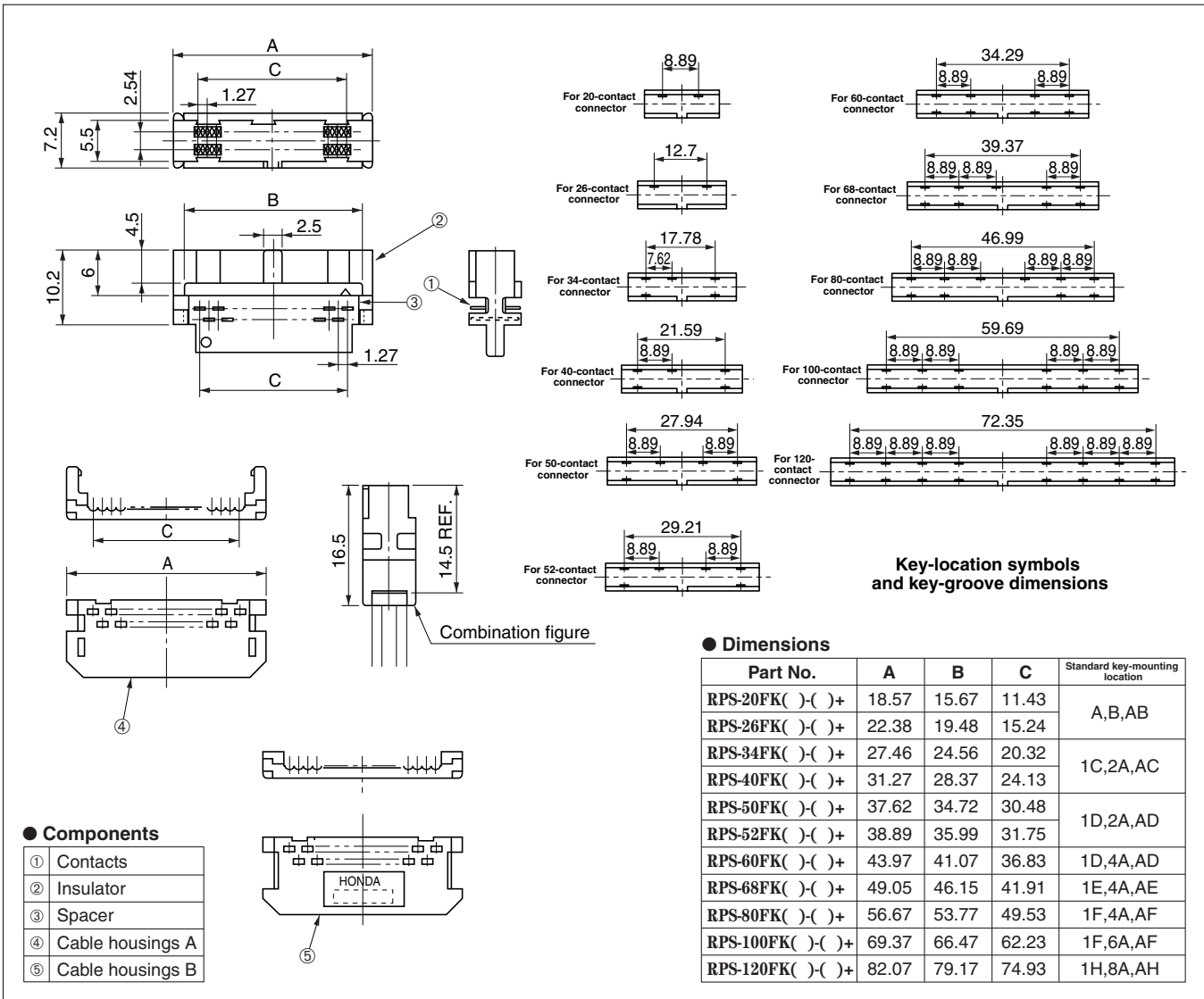


● Configuration of product Part No.

### RPS- ( ) FK ( ) - ( ) +

① ② ③ ④ ⑤

- ① Series name
- ② No. of contacts: 20, 26, 34, 40, 50, 52, 60, 68, 80, 100 or 120
- ③ Type of contact  
FK: Female
- ④ Compatible cable  
Blank: #28AWG (7/0.127) Flat cable } t=1mm or less  
          #30AWG (1/0.254) Flat cable }  
B : #30AWG (7/0.1) Flat cable t=1mm or less
- ⑤ Misinsertion-prevention-key grooves  
Blank: None  
For using key grooves, refer to the drawing shown below.



● Components

①	Contacts
②	Insulator
③	Spacer
④	Cable housings A
⑤	Cable housings B

Mating connectors: RPS-( )RM+, RPS-( )RLM+, RPS-D40MB+ (40-contact connector only)

Accessories: RPS-PK



IDC type female connector for cable  
RPS-D( ) ( ) F( ) +

1.27 mm pitch connector

For cable

IDC (0.635 mm)

Daisy chain

RoHS

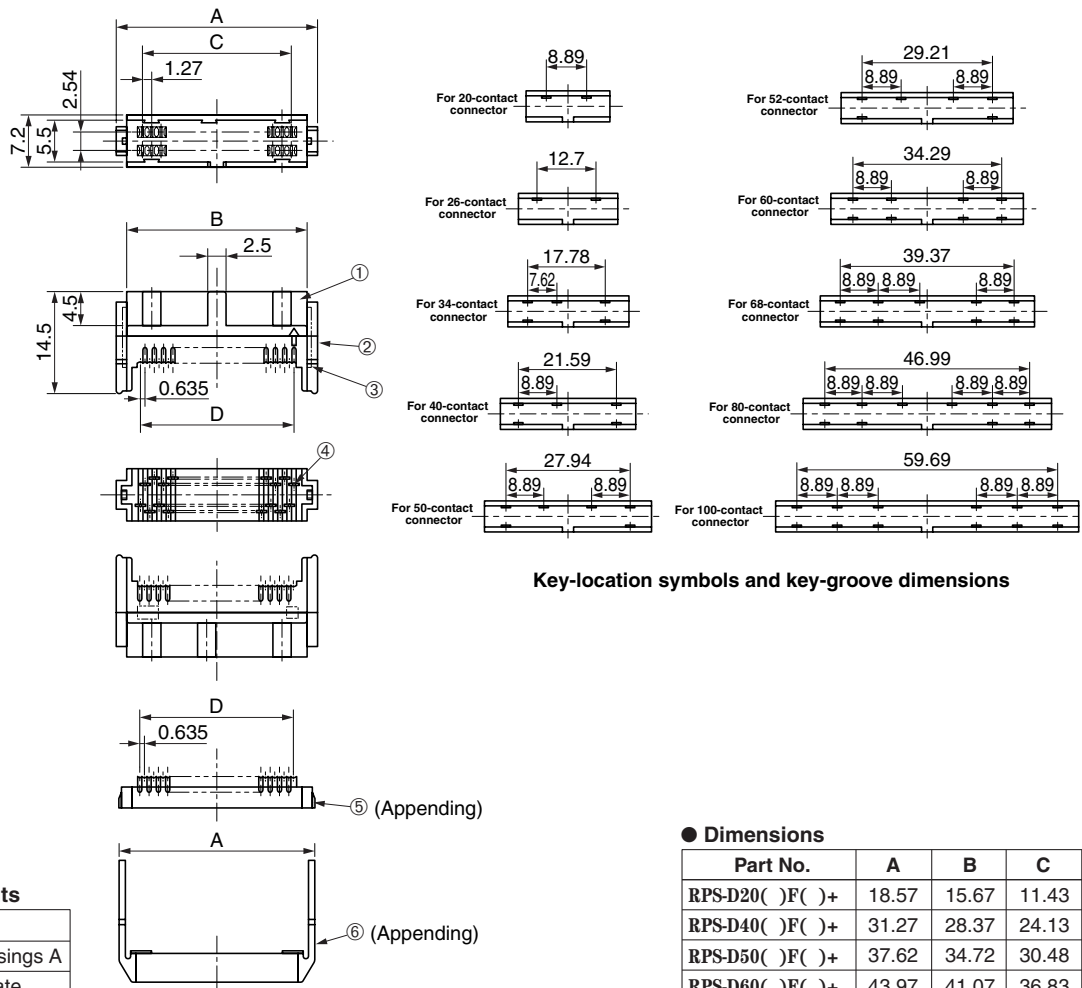


● Configuration of product Part No.

RPS- D ( ) ( ) F ( ) +

① ② ③ ④ ⑤ ⑥

- ① Series name
- ② For 0.635mm pitch flat cables (Daisy Chain) Blank: #32AWG (7/0.08)  
(t=0.6mm)
- ③ No. of contacts: 20, 40, 50, 60, 68, 80 or 100  
FK: Female #30AWG (1/0.254)  
(t=0.6mm)
- ④ Strain relief  
Blank : None B : #30AWG (7/0.102)  
R : Relief appending (t=0.6mm)
- ⑤ Type of contact  
F: Female
- ⑥ Compatible cable



● Components

①	Insulator
②	Cable housings A
③	Ground plate
④	Contacts
⑤	Cable housings B
⑥	Strain relief

● Dimensions

Part No.	A	B	C	D
RPS-D20( )F( ) +	18.57	15.67	11.43	12.065
RPS-D40( )F( ) +	31.27	28.37	24.13	24.765
RPS-D50( )F( ) +	37.62	34.72	30.48	31.115
RPS-D60( )F( ) +	43.97	41.07	36.83	37.465
RPS-D68( )F( ) +	49.05	46.15	41.91	42.545
RPS-D80( )F( ) +	56.67	53.77	49.53	50.165
RPS-D100( )F( ) +	69.37	66.47	62.23	62.865

Mating connectors: RPS-( )RM+, RPS-( )RLM+

RPS-D40MB+ (40-contact connector only)

Accessories: RPS-PK

Tool: IDC locator: FLPT-0001A, Hand presser: RPS-K4 (Refer to page Tool-13)

IDC type female connector for cable  
RPS-D80( )FC( )+

1.27 mm pitch connector

For cable

IDC (0.635 mm)

Daisy chain

RoHS

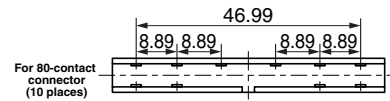
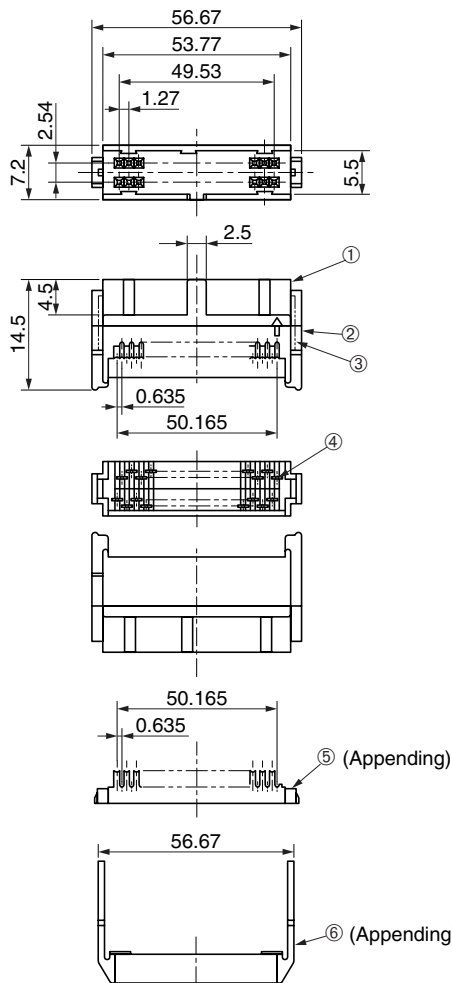


● Configuration of product Part No.

**RPS- D 80 ( ) FC ( )+**

① ② ③ ④ ⑤ ⑥

- ① Series name
- ② For 0.635mm pitch flat cables (Daisy Chain)
- ③ No. of contacts: 80
- ④ Strain relief  
Blank: None  
R : Relief appending
- ⑤ Type of contact  
FC: Female, Close end type
- ⑥ Compatible cable  
Blank: #32AWG (7/0.08) (t=0.6mm)  
A #30AWG (1/0.254) (t=0.6mm)  
B :#30AWG (7/0.102) (t=0.6mm)



Key-location symbols and key-groove dimensions

● Components

①	Insulator
②	Cable housings A
③	Ground plate
④	Contacts
⑤	Cable housings B
⑥	Strain relief

Mating connectors: RPS-80RM+, RPS-80RLM+

Accessories: RPS-PK

Tool: IDC locator: FLPT-0002A, Hand presser: RPS-K4 (Refer to page Tool-13)

Polarization key  
RPS-PK

Accessories

Polarization key

RoHS

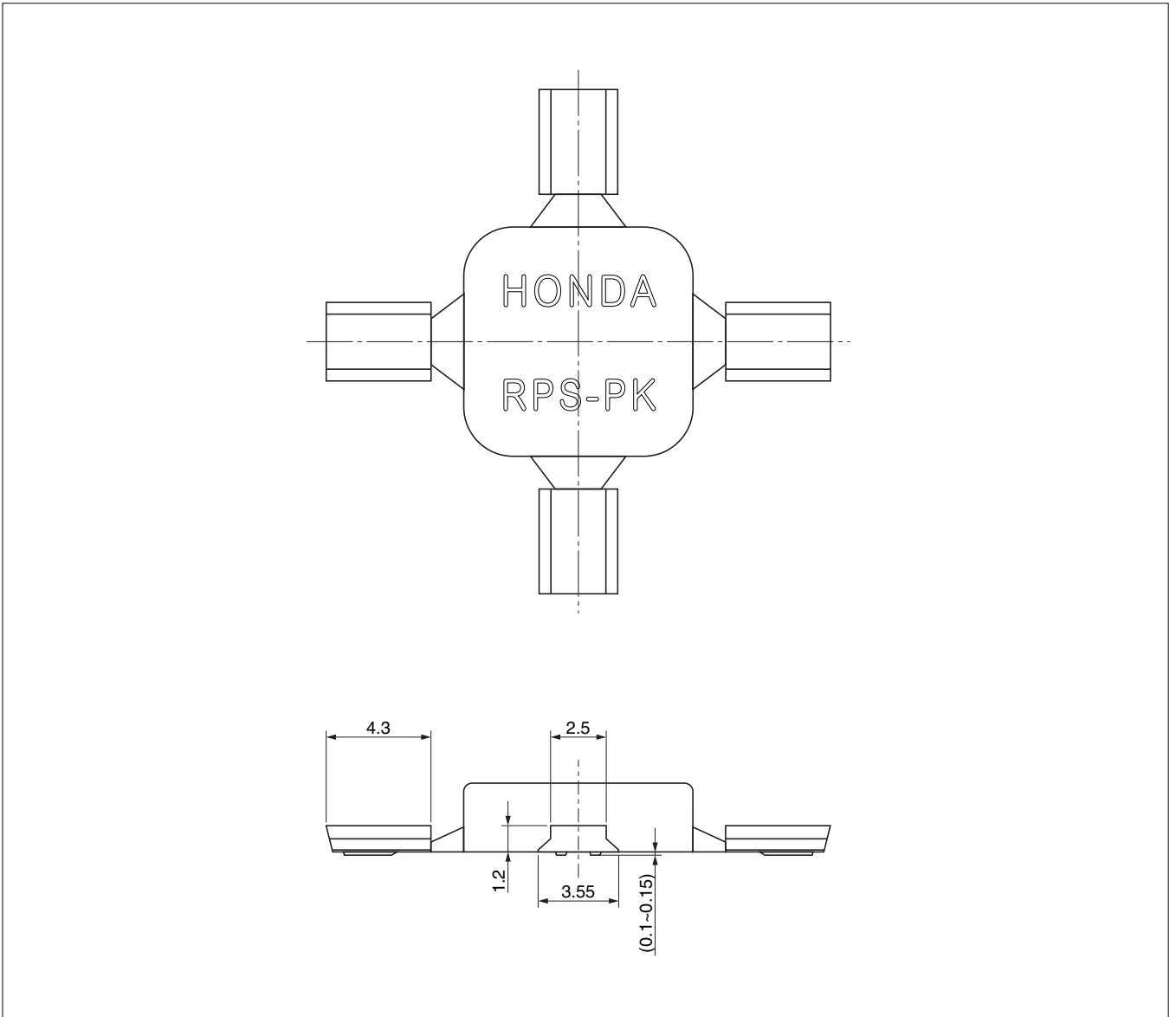


● Configuration of product Part No.

**RPS- PK**

①      ②

- ① Series name
- ② Polarization key



Mating connectors: RPS-( )FK+, RPS-D( )F( )+, RPS-D80( )FC( )+