PRODUCT CATALOG

HIROSE ELECTRIC CO.,LTD.

# FX30B Series

# 13 to 25A Compatible, Position Misalignment Absorption Type Power Supply Connector for PCB Connections

FunctionMAX™

Power Supply

Floating

Wide Variation

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Product Page
https://www.hirose.com/en/product/series/FX30

Jul. 2023

# Features

## 1. Contact Pitch : 3.81mm ,7.62mm

## 2. Current Capacity : 13 to 25A/pin

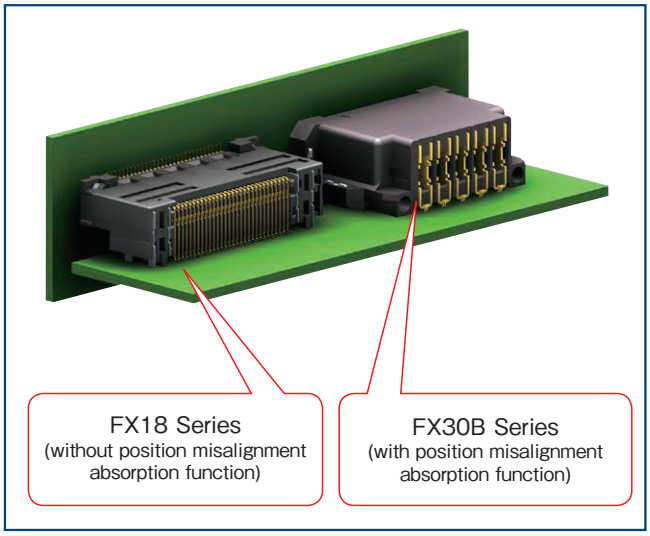
*For details, see the derating curve.

## 3. Connection Type:Coplanar / Vertical / Parallel

## 4. Number of Pos. : 2 / 3 / 4 / 5 Pos.

## 5. Position Misalignment Absorption Movable Amount: ±0.3mm

(1) Prevents to mounting misalignment when using multiple connectors.
(2) Other products without position misalignment absorption can be used together.




Example of Connector Mounted Next to Another Connector

## 6. Effective Mating Length : 2mm

The effective mating length is 2mm long, so it has an enough margin for the mating stroke. (3.0mm for longer contacts)

## 7. Multi-Point Contact Design

It has superior contact reliability by employing an independent four-point contact spring structure.

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## 8. Low Insertion / Extraction Force

It offers low insertion/extraction force by employing a two-step contact timing sequence.

## 9. Robustness

Retention tabs that securely fix the connector to the PCB are added on both sides of the connector, providing excellent deformation resistance for up, down, left and right directions.

## 10. Large Guide Form Leads Superior Mating Ability

A large induction form has been provided, allowing easy mating operations.
Induction amount : ±1.3mm
with position misalignment absorption amount : ±1.6mm

## 11. Protected Design

Our proprietary protective wall prevents foreign materials from contacting the sensitive areas.
(Compatible to JIS C 0922 Probes for verification B)

## 12. UL, C-UL and TÜV certifications have been achieved.

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# Product Specifications

| | | | | |
|---|---|---|---|---|
| Rated Current (Note 1)<br>Ambient Temp 25℃ | No of Pos. | Rated Current | Operating Temperature Range (Note 2) | -55 to +105℃ |
| | 2 | 23A | Storage Temperature Range (Note 3) | -10 to +60℃ |
| | 3 | 22A | | |
| | 4 | 20A | | |
| | 5 | 20A | | |
| | 2<br>(7.62mm Pitch) | 25A | | |
| | 3<br>(7.62mm Pitch) | 24A | | |

| | | | |
|---|---|---|---|
| Operating Humidity Range | Relative Humidity 85% Max. (Not dewed) | Storage Humidity Range (Note 3) | 40% to 70% |

| | | | |
|---|---|---|---|
| UL | Rated Current (Note 1) | No of Pos. | Rated Current |
| | | 2 | 16A |
| | | 3 | 15A |
| | | 4 | 13A |
| | | 5 | 13A |
| | | 2<br>(7.62mm Pitch) | 18A |
| | | 3<br>(7.62mm Pitch) | 16A |
| | Rated Voltage | 3.81mm pitch | 7.62mm pitch |
| | | 250V AC/DC | 600V AC/DC |

| | | | |
|---|---|---|---|
| C-UL | Rated Current (Note 1) | No of Pos. | Rated Current |
| | | 2 | 16A |
| | | 3 | 15A |
| | | 4 | 13A |
| | | 5 | 13A |
| | | 2<br>(7.62mm Pitch) | 18A |
| | | 3<br>(7.62mm Pitch) | 16A |
| | Rated Voltage | 3.81mm pitch | 7.62mm pitch |
| | | 250V AC/DC | 600V AC/DC |

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| | | | |
|---|---|---|---|
| TÜV | Rated Current (Note 1) | No of Pos. | Rated Current |
| | | 2 | 17A |
| | | 3 | 16A |
| | | 4 | 15A |
| | | 5 | 15A |
| | | 2<br>(7.62mm Pitch) | 19A |
| | | 3<br>(7.62mm Pitch) | 18A |
| | Rated Voltage | 3.81mm pitch | 7.62mm pitch |
| | | 150V AC/DC | 600V AC/DC |

UL/C-UL/TÜV File No. and Confirmation No.
UL/C-UL E52653 (Acc. to UL1977 / CSA C22.2 No.182.3-M1987)
TÜV R50275872 (Acc. to EN61984 : 2009)

| Item | Specification | Conditions |
|---|---|---|
| Contact Resistance | 2mΩ Max. | Measured at 10mA |
| Insulation Resistance | 1000MΩ Min. | Measured at 250V DC |
| Withstanding Voltage | No flashover or breakdown | Conduct electricity by applying a voltage of 750V AC for 1 min. |
| Mating Durability | Contact resistance : 5 mΩ Max. | 100 times |
| Vibration Resistance | No electrical discontinuity of 1 μs or more | Frequency : 10 to 55Hz, half amplitude : 0.75mm,<br>10 cycles in each of 3 axis directions for 5 minutes/cycle |
| Shock Resistance | No electrical discontinuity of 1 μs or more | Acceleration of 490m/s$^2$, duration 11ms,<br>sine half-wave, 3 cycles in each of the 3 axes each in both directions |
| Humidity Resistance | Contact Resistance : 5mΩ Max.<br>Insulation Resistance : 1000MΩ Min. | Temperature : +40℃ , humidity : 90 to 95%, left for 96 hours |
| Temperature Cycle | Contact Resistance : 5mΩ Max.<br>Insulation Resistance : 1000MΩ Min. | Temperature : -55 → +105℃<br>Time : 30 → 30 min., 5 cycles |
| Solder Heat Resistance | No melting of resin part, which affects the product performance | Solder tank : solder tank temperature : +260℃ , 10 seconds<br>Manual soldering : soldering iron temperature : +380℃ , 10 seconds |

Note 1 : Current rating per 1 contact is used.
Note 2 : Includes temperature rise caused by current flow.
Note 3 : The term "storage" refers to the long-term storage condition of unused products before PCB mounting.

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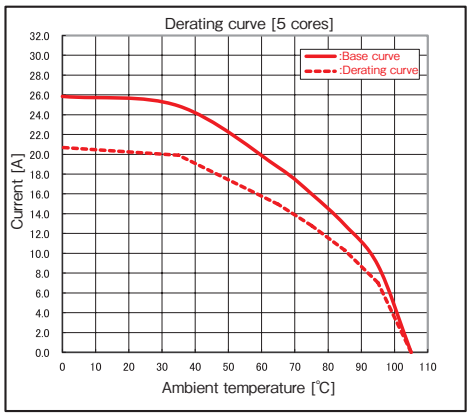
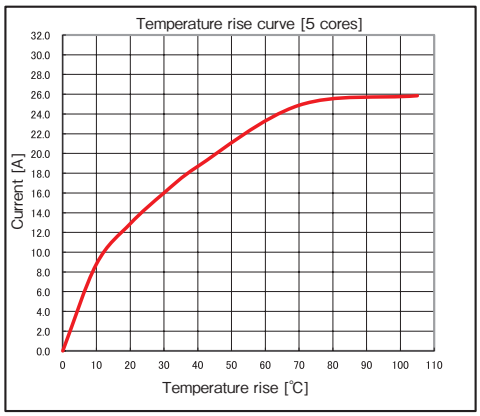
# Derating Curve

## ● Normal Type

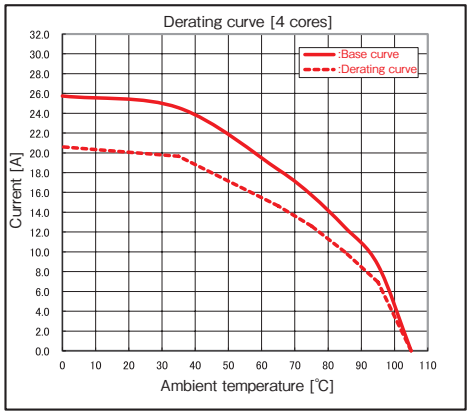
The derating curve is created by multiplying a derating factor of 0.8 to the current value of the base curve.

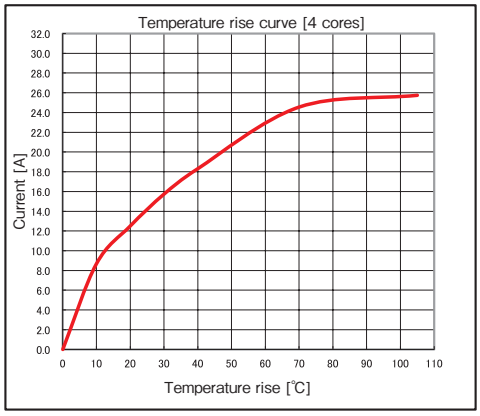
### (Electricity conducted through the 5 pins of 5-pin coplanar connection type connector)



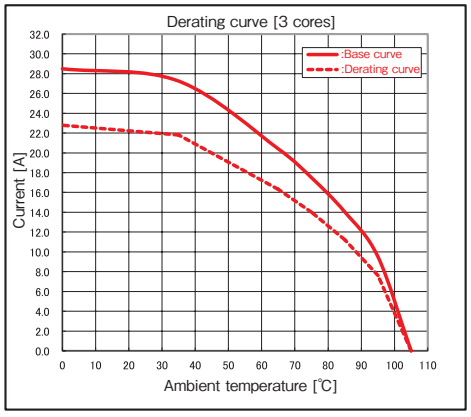



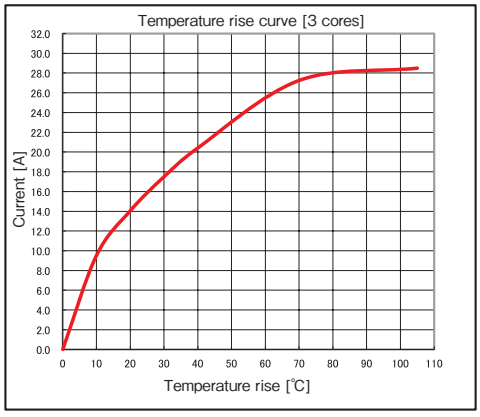

### (Electricity conducted through the 4 pins of 4-pin coplanar connection type connector)




### (Electricity conducted through the 3 pins of 3-pin coplanar connection type connector)

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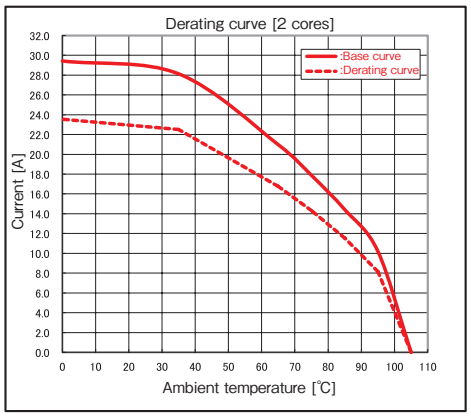
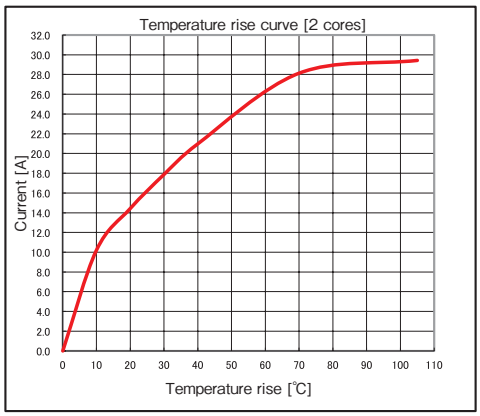
### (Electricity conducted through the 2 pins of 2-pin coplanar connection type connector)

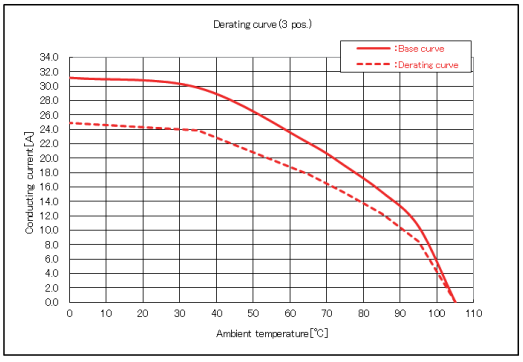


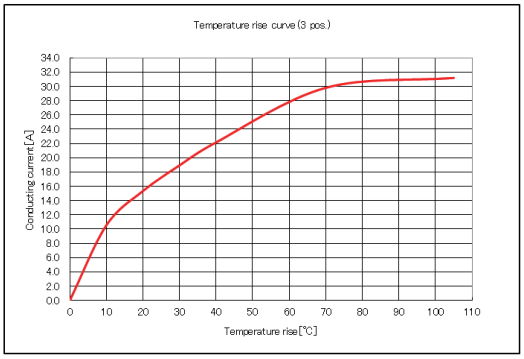




## ● One Pin Skipped Type

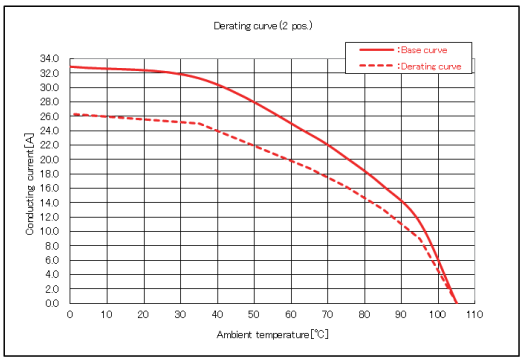
The derating curve is created by multiplying a derating factor of 0.8 to the current value of the base curve.

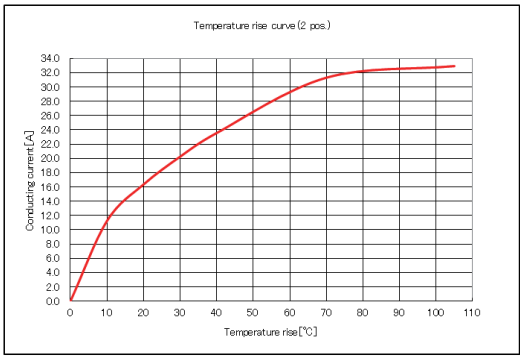
### (Electricity conducted through the 3 pins of 3-pin coplanar connection type connector)




### (Electricity conducted through the 2 pins of 2-pin coplanar connection type connector)




# Materials / Finish

## ● Receptacle/Header

| Part | Material | Color/Finish | Specification |
|---|---|---|---|
| Insulator | PA | Black | UL94V-0 |
| Power Supply Contact | Copper alloy | Contact Area : Gold Plating<br>Mounting Area : Pure Tin Plating | - |
| Retention Tab | Phosphorous bronze | Whole Body : Pure Tin Plating | - |

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# Product Number Structure

Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

## ■ Receptacle

**FX30B - 5 S - 3.81 DS**
❶ ❷ ❸ ❹ ❺

## ■ Header

**FX30B - 5 P - 3.81 DSA 20**
❶ ❷ ❸ ❹ ❺ ❻

| | | | |
|---|---|---|---|
| ❶ Series Name | FX30B | ❹ Contact Pitch | 3.81mm |
| ❷ No. of Pos. | 2 to 5 | ❺ Product Type | DS : Right Angle Type<br>DSA : Straight Type |
| ❸ Connector Type | S : Receptacle Type<br>P : Header Type | ❻ Stacking Height Type | |

## ■ Receptacle (One pin skipped type)

**FX30B - 3 S - 7.62 DS**
❶ ❷ ❸ ❹ ❺

## ■ Header (One pin skipped type)

**FX30B - 3 P - 7.62 DSA 20**
❶ ❷ ❸ ❹ ❺ ❻

| | | | |
|---|---|---|---|
| ❶ Series Name | FX30B | ❹ Contact Pitch | 7.62mm |
| ❷ Number of Contacts | 2, 3 | ❺ Product Type | DS : Right angle type<br>DSA : Straight type |
| ❸ Connector Type | S : Receptacle type<br>P : Header type | ❻ Stacking Height Type | |

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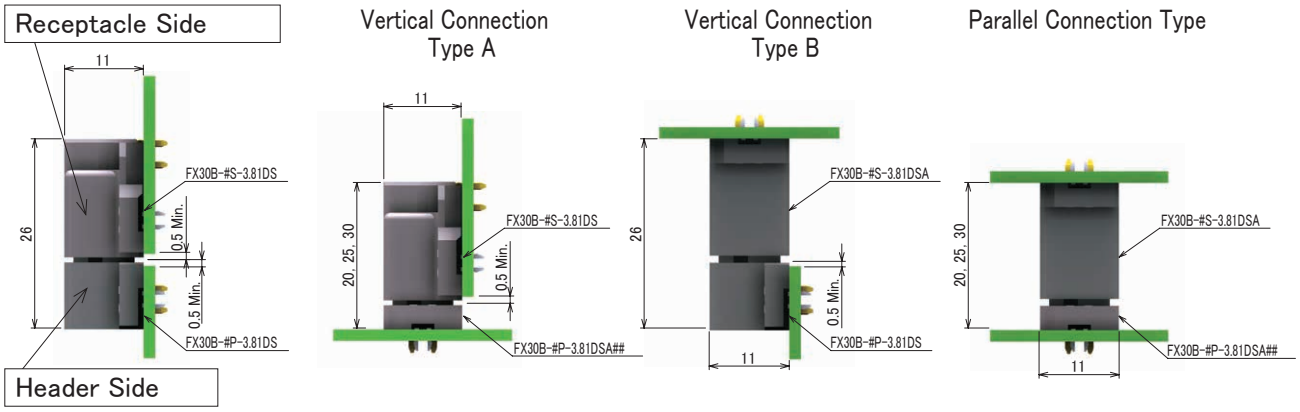
# Mating Variations

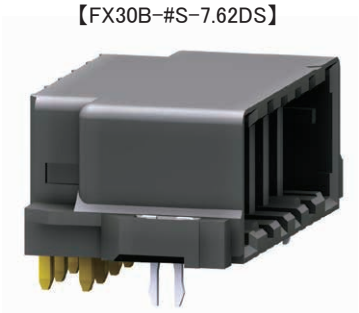
Coplanar Connection Type




## ■ Functional Diagram

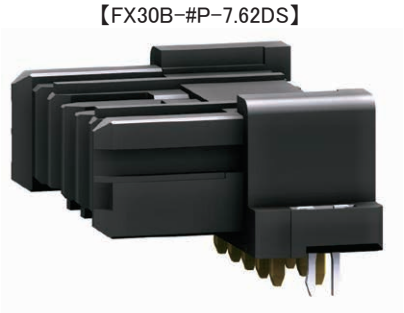
●Right Angle Receptacle

【FX30B-#S-3.81DS】
【FX30B-#S-7.62DS】



●Right Angle Header

【FX30B-#P-3.81DS】
【FX30B-#P-7.62DS】



Coplanar Connection

Vertical Connection

Parallel Connection

●Straight Receptacle

【FX30B-#S-3.81DSA】
【FX30B-#S-7.62DSA】

●Straight Header

【FX30B-#P-3.81DSA##】
【FX30B-#P-7.62DSA##】

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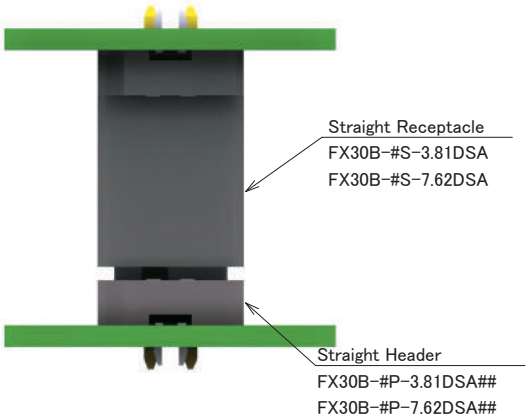
# ■ Stacking Height Dimensions for Parallel Connection Type

## Stacking Height Combinations Table

| | FX30B-#P-3.81DSA20<br>FX30B-#P-7.62DSA20 | FX30B-#P-3.81DSA25<br>FX30B-#P-7.62DSA25 | FX30B-#P-3.81DSA30<br>FX30B-#P-7.62DSA30 |
|---|---|---|---|
| FX30B-#S-3.81DSA<br>FX30B-#S-7.62DSA | 20mm | 25mm | 30mm |

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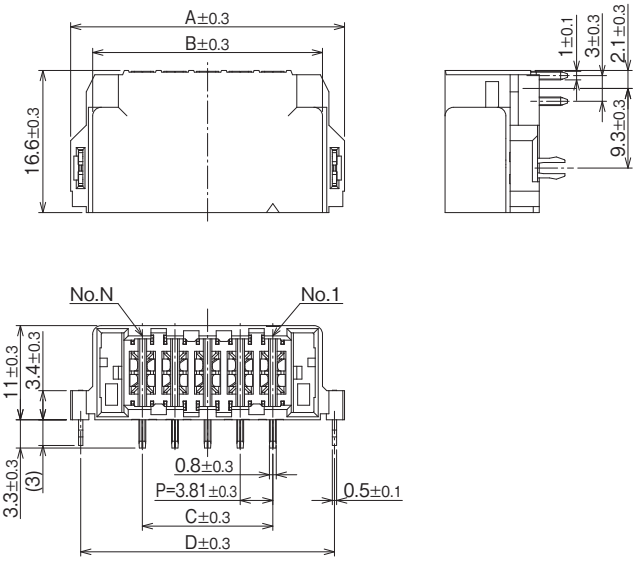
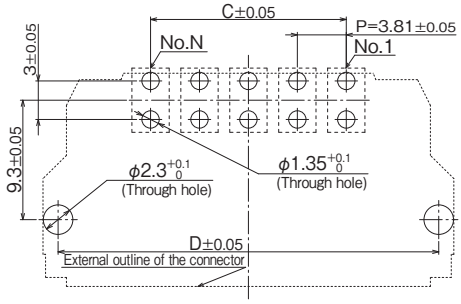
# Right Angle Receptacle (S-DS type)




Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | Purchase Unit |
|---|---|---|---|---|---|---|---|
| FX30B-2S-3.81DS | CL0570-3600-6-00 | 2 | 20.56 | 15.41 | 3.81 | 18.21 | 35pcs per tray |
| FX30B-3S-3.81DS | CL0570-3601-9-00 | 3 | 24.37 | 19.22 | 7.62 | 22.02 | 30pcs per tray |
| FX30B-4S-3.81DS | CL0570-3602-1-00 | 4 | 28.18 | 23.03 | 11.43 | 25.83 | |
| FX30B-5S-3.81DS | CL0570-3603-4-00 | 5 | 31.99 | 26.84 | 15.24 | 29.64 | 25pcs per tray |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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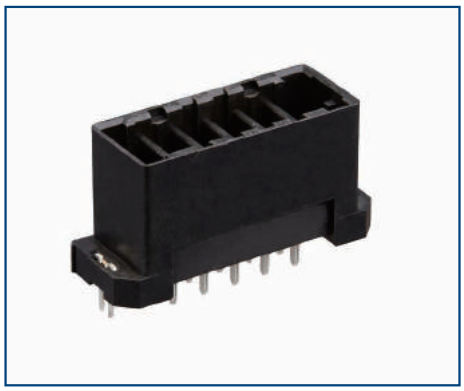
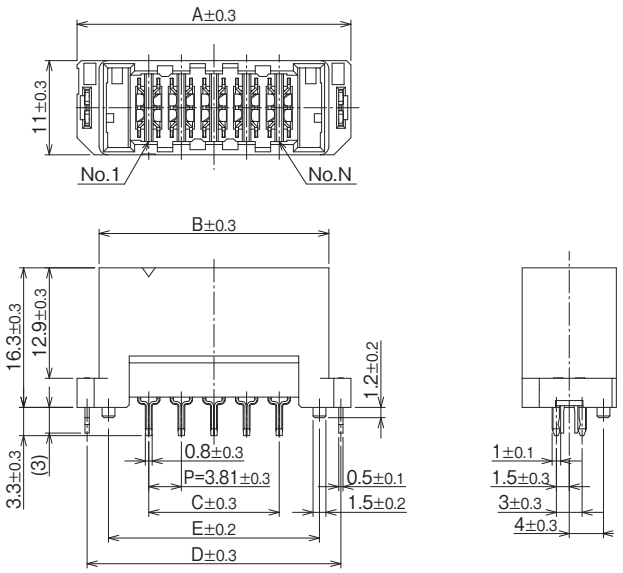
# Straight Receptacle (S-DSA type)

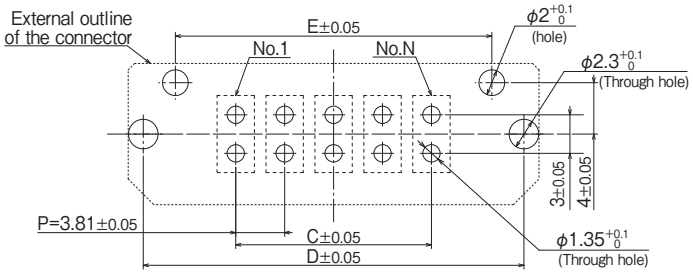





Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | E | Purchase Unit |
|---|---|---|---|---|---|---|---|---|
| FX30B-2S-3.81DSA | CL0570-3500-1-00 | 2 | 20.56 | 15.41 | 3.81 | 18.21 | 13.21 | 49pcs per tray |
| FX30B-3S-3.81DSA | CL0570-3501-4-00 | 3 | 24.37 | 19.22 | 7.62 | 22.02 | 17.02 | 42pcs per tray |
| FX30B-4S-3.81DSA | CL0570-3502-7-00 | 4 | 28.18 | 23.03 | 11.43 | 25.83 | 20.83 | 35pcs per tray |
| FX30B-5S-3.81DSA | CL0570-3503-0-00 | 5 | 31.99 | 26.84 | 15.24 | 29.64 | 24.64 | |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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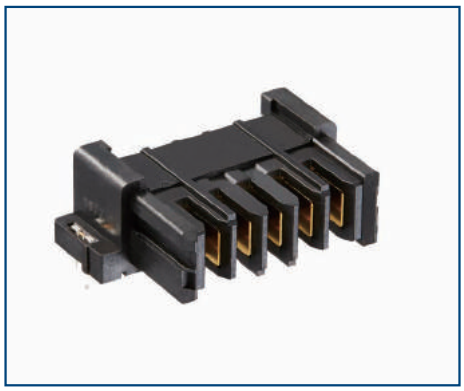
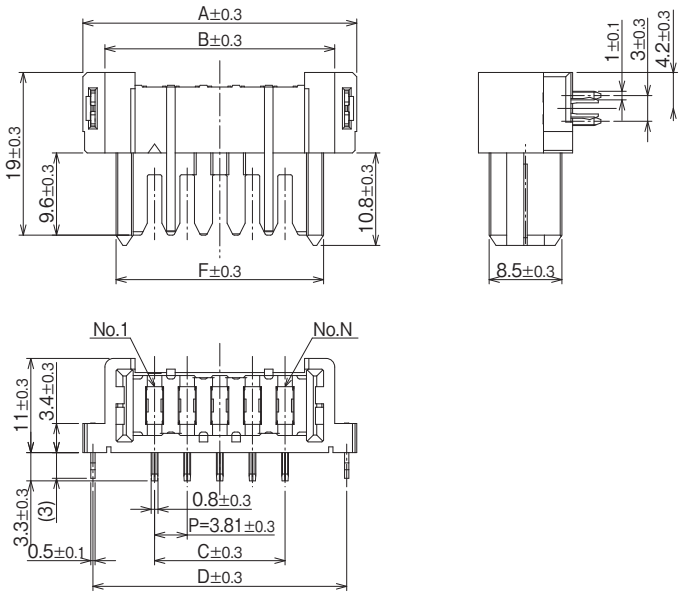
# Right Angle Header (P-DS type)

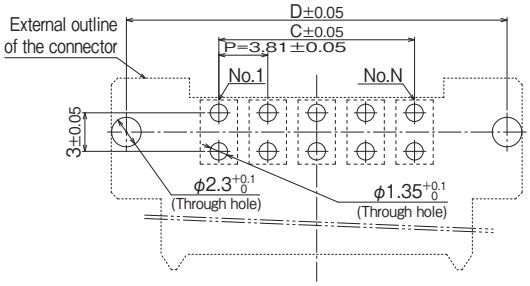





Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | F | Purchase Unit |
|---|---|---|---|---|---|---|---|---|
| FX30B-2P-3.81DS | CL0570-3400-7-00 | 2 | 20.56 | 15.41 | 3.81 | 18.21 | 12.81 | 28pcs per tray |
| FX30B-3P-3.81DS | CL0570-3401-0-00 | 3 | 24.37 | 19.22 | 7.62 | 22.02 | 16.62 | 24pcs per tray |
| FX30B-4P-3.81DS | CL0570-3402-2-00 | 4 | 28.18 | 23.03 | 11.43 | 25.83 | 20.43 | |
| FX30B-5P-3.81DS | CL0570-3403-5-00 | 5 | 31.99 | 26.84 | 15.24 | 29.64 | 24.24 | 20pcs per tray |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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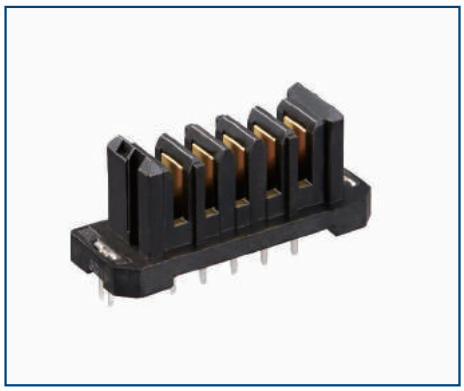
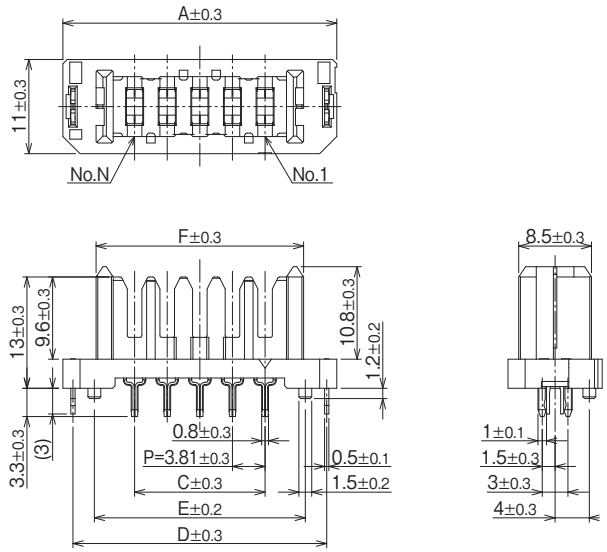
# Straight Header - 20 (P-DSA20 type)

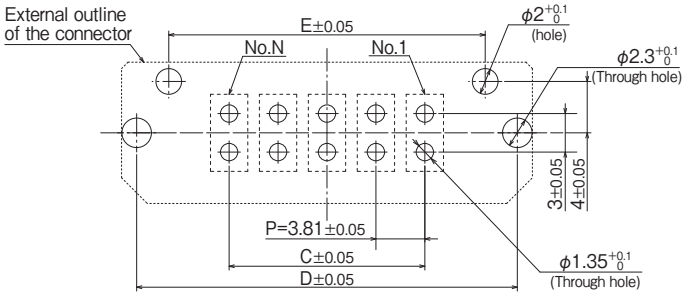





Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | C | D | E | F | Purchase Unit |
|---|---|---|---|---|---|---|---|---|
| FX30B-2P-3.81DSA20 | CL0570-3100-3-00 | 2 | 20.56 | 3.81 | 18.21 | 13.21 | 12.81 | 49pcs per tray |
| FX30B-3P-3.81DSA20 | CL0570-3101-6-00 | 3 | 24.37 | 7.62 | 22.02 | 17.02 | 16.62 | 42pcs per tray |
| FX30B-4P-3.81DSA20 | CL0570-3102-9-00 | 4 | 28.18 | 11.43 | 25.83 | 20.83 | 20.43 | 35pcs per tray |
| FX30B-5P-3.81DSA20 | CL0570-3103-1-00 | 5 | 31.99 | 15.24 | 29.64 | 24.64 | 24.24 | |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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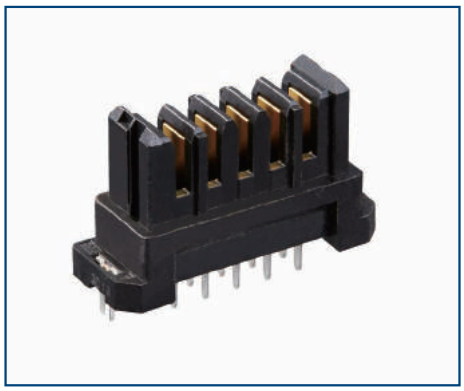
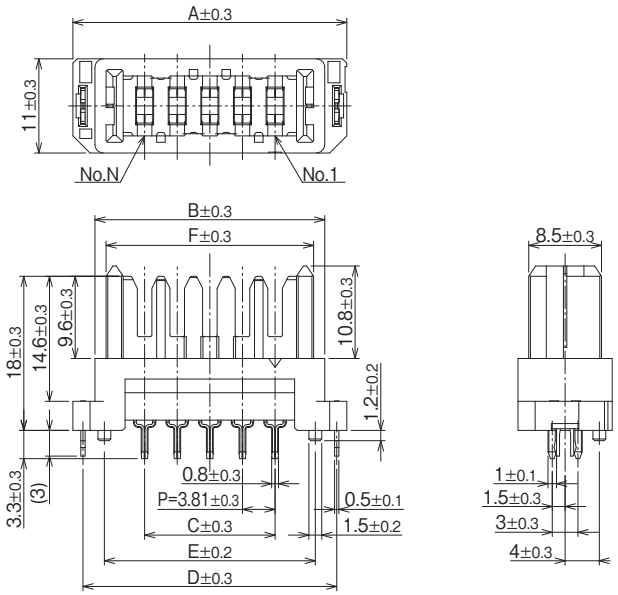
# Straight Header - 25 (P-DSA25 type)

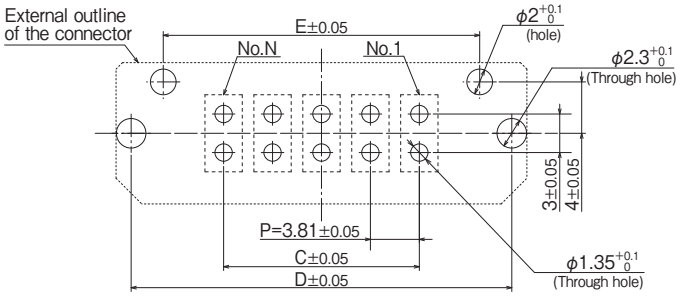





Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | E | F | Purchase Unit |
|---|---|---|---|---|---|---|---|---|---|
| FX30B-2P-3.81DSA25 | CL0570-3200-8-00 | 2 | 20.56 | 15.41 | 3.81 | 18.21 | 13.21 | 12.81 | 49pcs per tray |
| FX30B-3P-3.81DSA25 | CL0570-3201-0-00 | 3 | 24.37 | 19.22 | 7.62 | 22.02 | 17.02 | 16.62 | 42pcs per tray |
| FX30B-4P-3.81DSA25 | CL0570-3202-3-00 | 4 | 28.18 | 23.03 | 11.43 | 25.83 | 20.83 | 20.43 | 35pcs per tray |
| FX30B-5P-3.81DSA25 | CL0570-3203-6-00 | 5 | 31.99 | 26.84 | 15.24 | 29.64 | 24.64 | 24.24 | |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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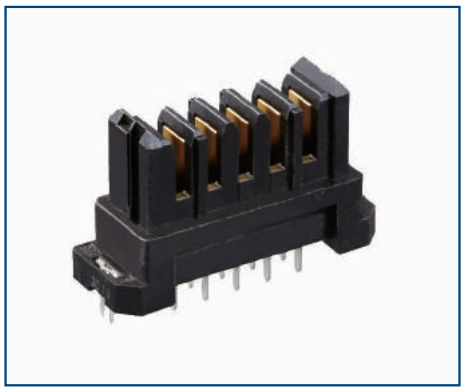
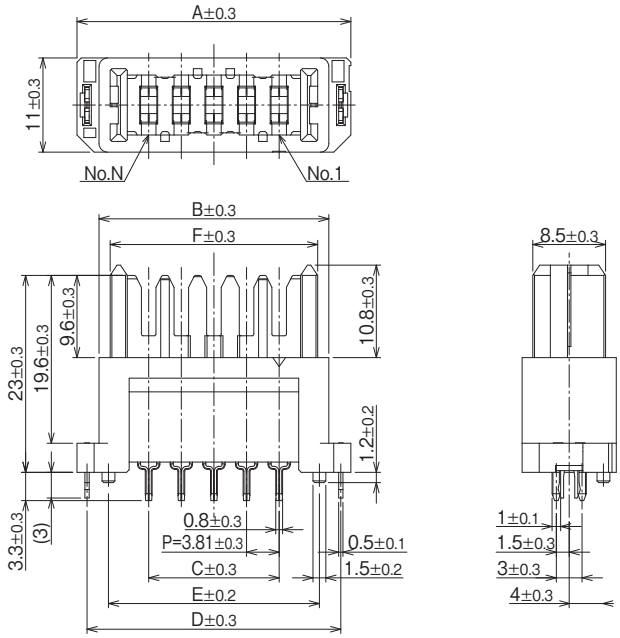
# Straight Header - 30 (P-DSA30 type)

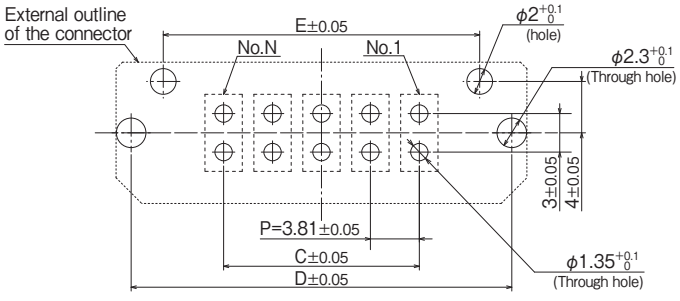





Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | E | F | Purchase Unit |
|---|---|---|---|---|---|---|---|---|---|
| FX30B-2P-3.81DSA30 | CL0570-3300-2-00 | 2 | 20.56 | 15.41 | 3.81 | 18.21 | 13.21 | 12.81 | 49pcs per tray |
| FX30B-3P-3.81DSA30 | CL0570-3301-5-00 | 3 | 24.37 | 19.22 | 7.62 | 22.02 | 17.02 | 16.62 | 42pcs per tray |
| FX30B-4P-3.81DSA30 | CL0570-3302-8-00 | 4 | 28.18 | 23.03 | 11.43 | 25.83 | 20.83 | 20.43 | 35pcs per tray |
| FX30B-5P-3.81DSA30 | CL0570-3303-0-00 | 5 | 31.99 | 26.84 | 15.24 | 29.64 | 24.64 | 24.24 | |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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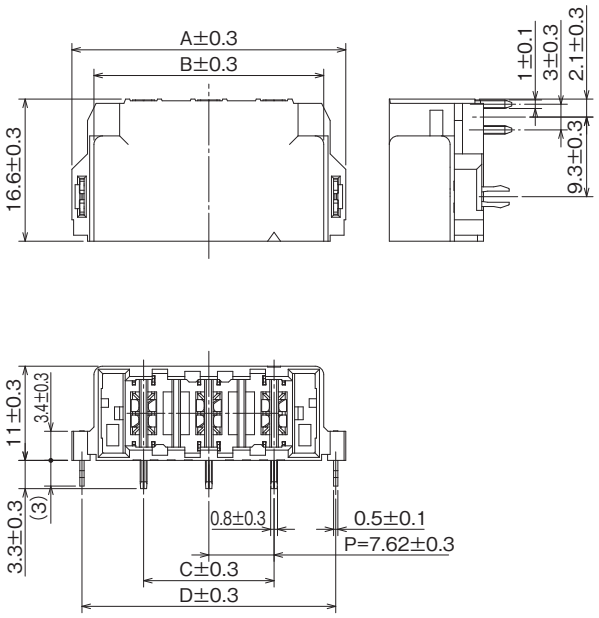
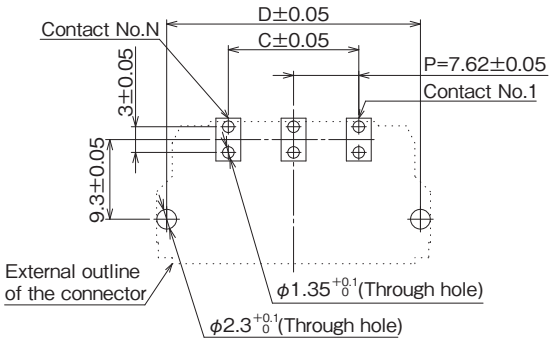
# Right Angle Receptacle (S-DS type) One pin skipped type




Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | Purchase Unit |
|---|---|---|---|---|---|---|---|
| FX30B-2S-7.62DS | CL0570-3604-7-00 | 2 | 24.37 | 19.22 | 7.62 | 22.02 | 30pcs per tray |
| FX30B-3S-7.62DS | CL0570-3605-0-00 | 3 | 31.99 | 26.84 | 15.24 | 29.64 | 25pcs per tray |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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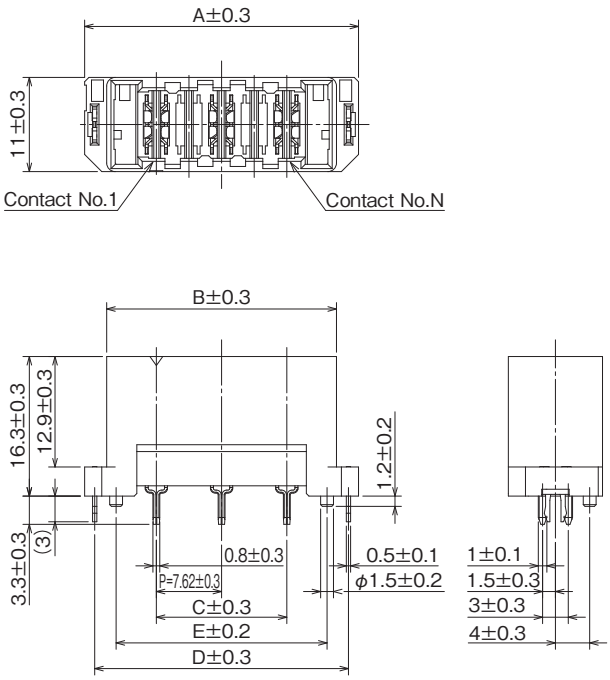
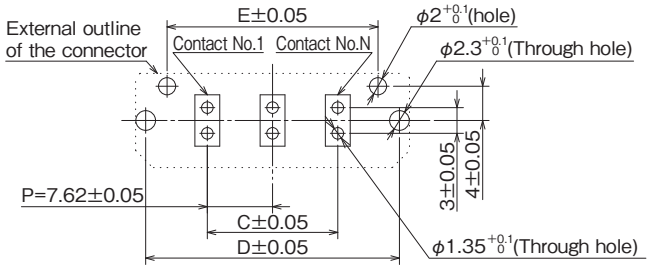
# Straight Receptacle (S-DSA type) One pin skipped type




Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | E | Purchase Unit |
|---|---|---|---|---|---|---|---|---|
| FX30B-2S-7.62DSA | CL0570-3504-2-00 | 2 | 24.37 | 19.22 | 7.62 | 22.02 | 17.02 | 42pcs per tray |
| FX30B-3S-7.62DSA | CL0570-3505-5-00 | 3 | 31.99 | 26.84 | 15.24 | 29.64 | 24.64 | 35pcs per tray |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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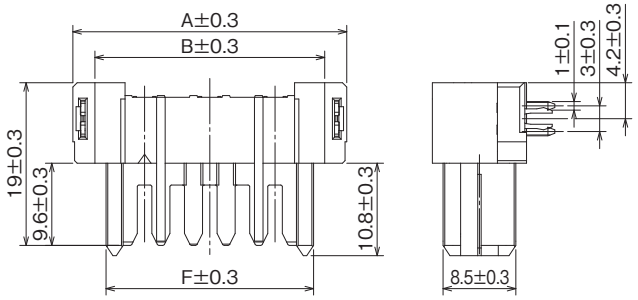
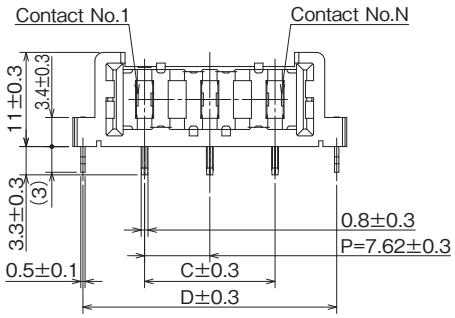
# Right Angle Header (P-DS type) One pin skipped type

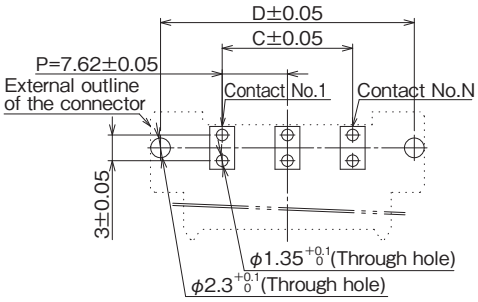



Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | F | Purchase Unit |
|---|---|---|---|---|---|---|---|---|
| FX30B-2P-7.62DS | CL0570-3404-8-00 | 2 | 24.37 | 19.22 | 7.62 | 22.02 | 16.62 | 24pcs per tray |
| FX30B-3P-7.62DS | CL0570-3405-0-00 | 3 | 31.99 | 26.84 | 15.24 | 29.64 | 24.24 | 20pcs per tray |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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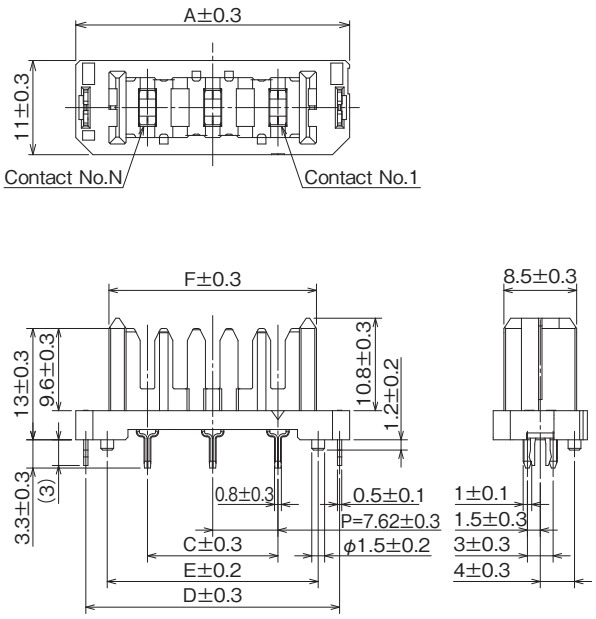
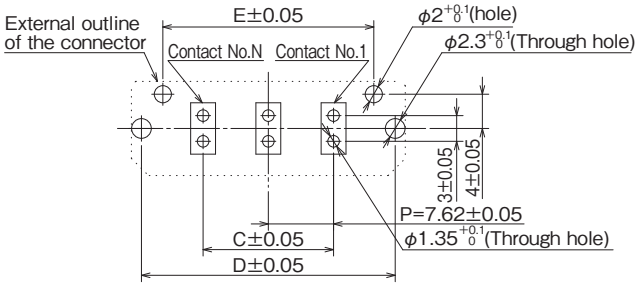
# Straight Header - 20 (P-DSA20 type) One pin skipped type




Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | C | D | E | F | Purchase Unit |
|---|---|---|---|---|---|---|---|---|
| FX30B-2P-7.62DSA20 | CL0570-3104-4-00 | 2 | 24.37 | 7.62 | 22.02 | 17.02 | 16.62 | 42pcs per tray |
| FX30B-3P-7.62DSA20 | CL0570-3105-7-00 | 3 | 31.99 | 15.24 | 29.64 | 24.64 | 24.24 | 35pcs per tray |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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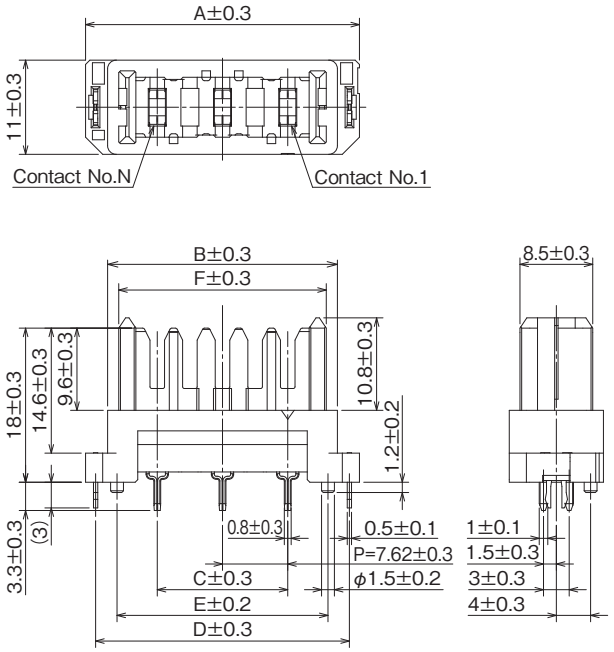
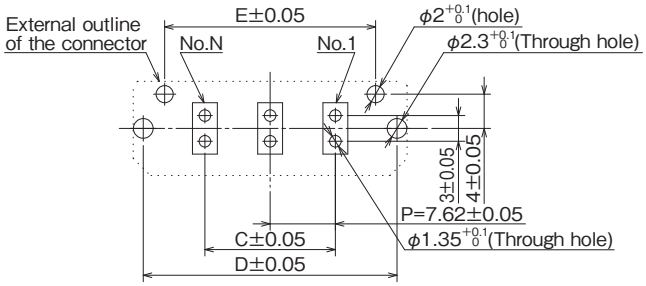
# Straight Header - 25 (P-DSA25 type) One pin skipped type




Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | E | F | Purchase Unit |
|---|---|---|---|---|---|---|---|---|---|
| FX30B-2P-7.62DSA25 | CL0570-3205-1-00 | 2 | 24.37 | 19.22 | 7.62 | 22.02 | 17.02 | 16.62 | 42pcs per tray |
| FX30B-3P-7.62DSA25 | CL0570-3206-4-00 | 3 | 31.99 | 26.84 | 15.24 | 29.64 | 24.64 | 24.24 | 35pcs per tray |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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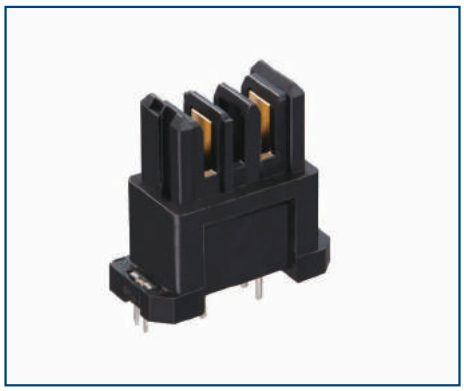
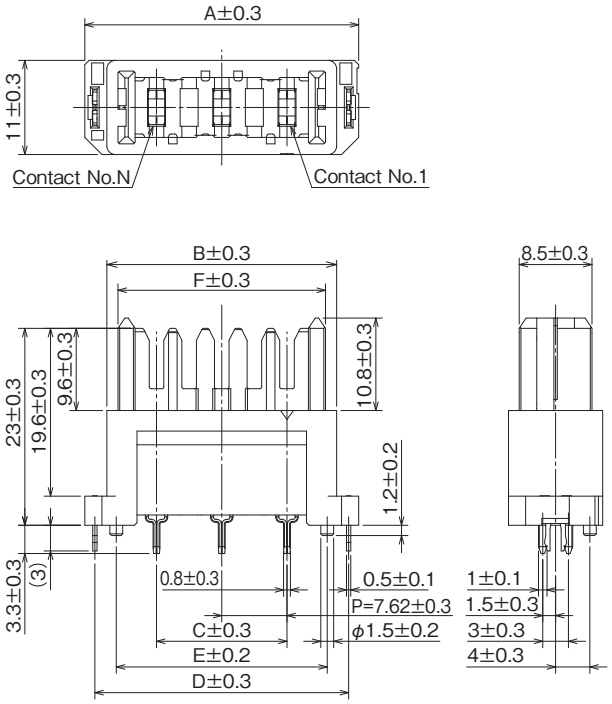
# Straight Header - 30 (P-DSA30 type) One pin skipped type

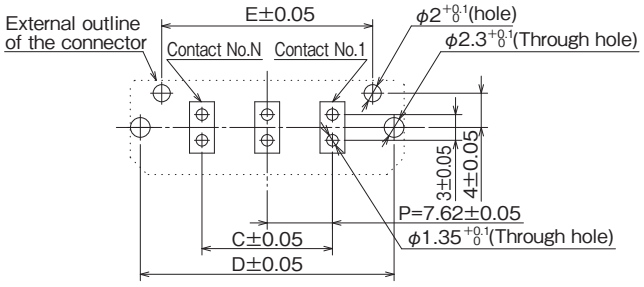





Unit : mm

| Part No. | HRS No. | N (No. of Pos.) | A | B | C | D | E | F | Purchase Unit |
|---|---|---|---|---|---|---|---|---|---|
| FX30B-2P-7.62DSA30 | CL0570-3304-3-00 | 2 | 24.37 | 19.22 | 7.62 | 22.02 | 17.02 | 16.62 | 42pcs per tray |
| FX30B-3P-7.62DSA30 | CL0570-3305-6-00 | 3 | 31.99 | 26.84 | 15.24 | 29.64 | 24.64 | 24.24 | 35pcs per tray |

## ■ Recommended PCB Layout Dimensions




(Note) PCB thickness : t= 1.6mm

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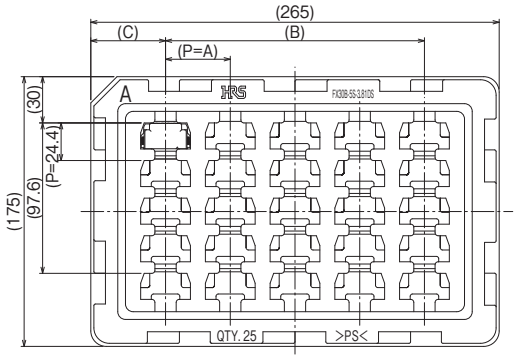
# Tray Packaging State Diagram

## ■ Right Angle Receptacle (S-DS type)




### ● Normal Type

Unit : mm

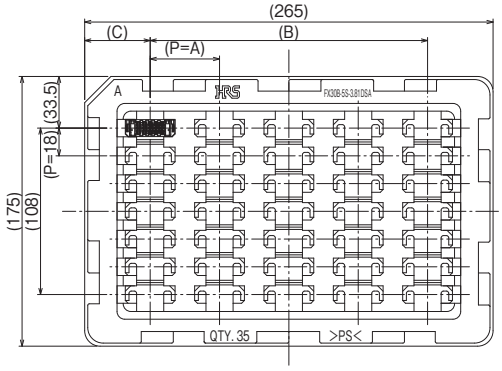
| Part No. | A | B | C | Quantity |
|---|---|---|---|---|
| FX30B-2S-3.81DS | 30 | 180 | 42.5 | 35 |
| FX30B-3S-3.81DS | 35.5 | 177.5 | 43.75 | 30 |
| FX30B-4S-3.81DS | | | | |
| FX30B-5S-3.81DS | 42 | 168 | 48.5 | 25 |

### ● One Pin Skipped Type

Unit : mm

| Part No. | A | B | C | Quantity |
|---|---|---|---|---|
| FX30B-2S-7.62DS | 35.5 | 177.5 | 43.75 | 30 |
| FX30B-3S-7.62DS | 42 | 168 | 48.5 | 25 |

## ■ Straight Receptacle (S-DSA type)




### ● Normal Type

Unit : mm

| Part No. | A | B | C | Quantity |
|---|---|---|---|---|
| FX30B-2S-3.81DSA | 31.5 | 189 | 38 | 49 |
| FX30B-3S-3.81DSA | 38 | 190 | 37.5 | 42 |
| FX30B-4S-3.81DSA | 45 | 180 | 42.5 | 35 |
| FX30B-5S-3.81DSA | | | | |

### ● One Pin Skipped Type

Unit : mm

| Part No. | A | B | C | Quantity |
|---|---|---|---|---|
| FX30B-2S-7.62DSA | 38 | 190 | 37.5 | 42 |
| FX30B-3S-7.62DSA | 45 | 180 | 42.5 | 35 |

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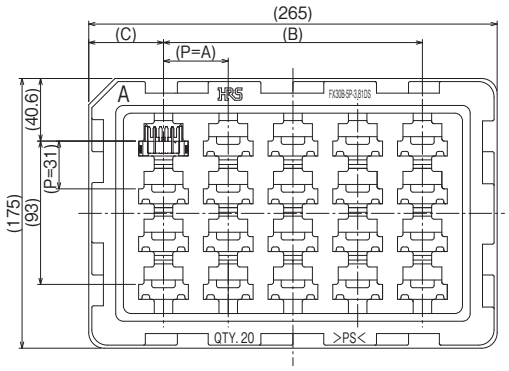
## ■ Right Angle Header (P-DS type)




### ● Normal Type

Unit : mm

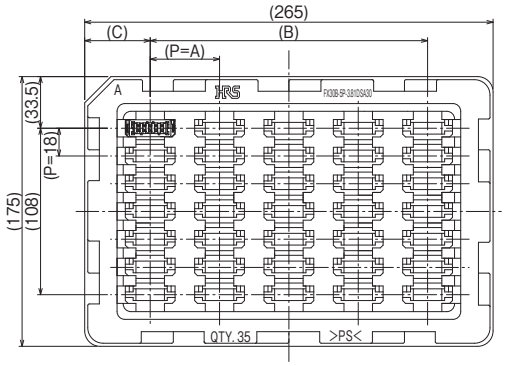
| Part No. | A | B | C | Quantity |
|---|---|---|---|---|
| FX30B-2P-3.81DS | 30 | 180 | 42.5 | 28 |
| FX30B-3P-3.81DS | 35.5 | 177.5 | 43.75 | 24 |
| FX30B-4P-3.81DS | | | | |
| FX30B-5P-3.81DS | 42 | 168 | 48.5 | 20 |

### ● One Pin Skipped Type

Unit : mm

| Part No. | A | B | C | Quantity |
|---|---|---|---|---|
| FX30B-2P-7.62DS | 35.5 | 177.5 | 43.75 | 24 |
| FX30B-3P-7.62DS | 42 | 168 | 48.5 | 20 |

## ■ Straight Header - ##(P-DSA## Type)




### ● Normal Type

Unit : mm

| Part No. | A | B | C | Quantity |
|---|---|---|---|---|
| FX30B-2P-3.81DSA## | 31.5 | 189 | 38 | 49 |
| FX30B-3P-3.81DSA## | 38 | 190 | 37.5 | 42 |
| FX30B-4P-3.81DSA## | 45 | 180 | 42.5 | 35 |
| FX30B-5P-3.81DSA## | | | | |

### ● One Pin Skipped Type

Unit : mm

| Part No. | A | B | C | Quantity |
|---|---|---|---|---|
| FX30B-2P-7.62DSA## | 38 | 190 | 37.5 | 42 |
| FX30B-3P-7.62DSA## | 45 | 180 | 42.5 | 35 |

Note : The following illustration shows a tray form example. Please refer to “delivery specifications” for official individual forms.

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# Cleaning Conditions

## ● Organic Solvent Cleaning

| Solvent | Room temperature cleaning | Heated cleaning |
|---|---|---|
| IPA (Isopropyl alcohol) | ○ | ○ |

## ● Water Cleaning

When using water cleaner (terpene, alkali saponifier, etc.), please select a cleaner according to the chart of effects to metal and resin issued by each cleaner manufacture. In addition, please make sure that the connectors are not left behind without removing moisture.

## ● Precautions for Cleaning

If flax or cleaner remains in the connector after it was cleaned using organic solvent or water cleaner, the performance of the connector may deteriorate. Make sure that the connectors are cleaned thoroughly.

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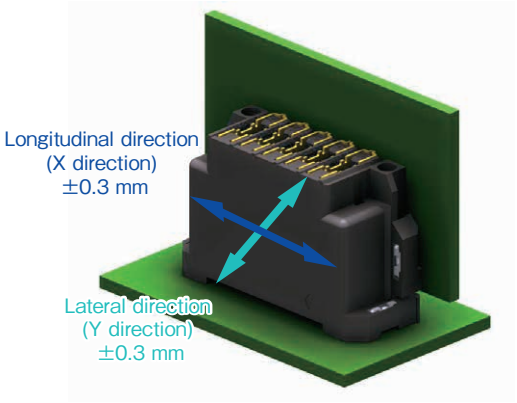
## Usage Precautions

●A position misalignment absorption function is provided in this product.
Please use this product within the dimensions shown in the below diagram, while taking into account the connector mounting position misalignments and PCB mating position misalignments.

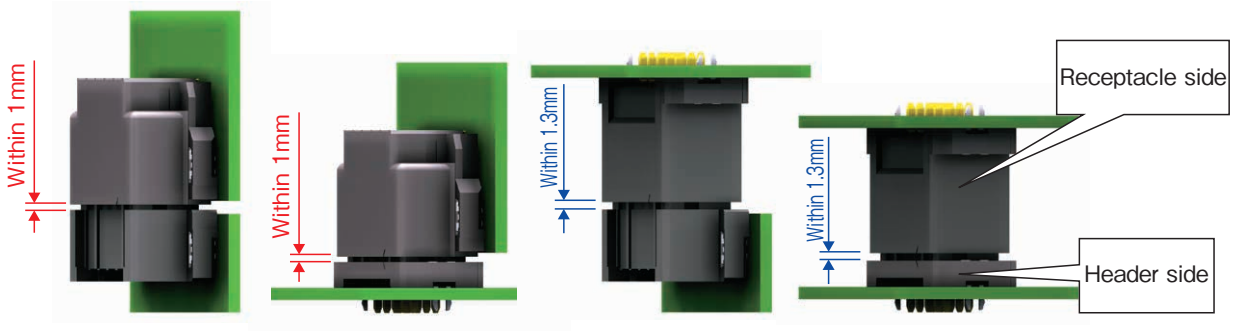



●The purpose of the position misalignment absorption function provided on this product is to absorb the misalignments between the connector mounting positions and between the PCB mating positions.
This function cannot be used for the purpose to absorb mating position misalignments due to vibrations.
Please use the connectors after the PCBs have been fixed so that the connector positions are fixed securely.
Avoid supporting PCBs by connectors only, and be sure to fix the PCBs using methods other than the connectors.

●This connector is designed to correct minor mating misalignments. This ability creates a structure that allows more for more movement and shifting between its pieces than with other similar connectors. The PCB boards need to be secured as well. If they are not, vibration or other external forces will cause the connectors to become unmated.

●This product has a structure to absorb position misalignments by the spring displacement of the contacts in pitch directions.
Therefore, a spring reaction force will be generated in the pitch directions when absorbing the position misalignments (Approximately 4 N per 1 core) Please make sure that the structure bodies (positioning pins, screws, guiding rails, and other connectors, etc.) that will be used as the positioning base have enough strength against the spring reaction force.

● Allowable Mating Gap
The effective mating length of this product is 2mm.
Use the connectors so that the gap between the header and receptacle when they are mated is within 1.0 or 1.3mm.
Particularly make sure the gap does not exceed the limits due to warping of PCB, etc.

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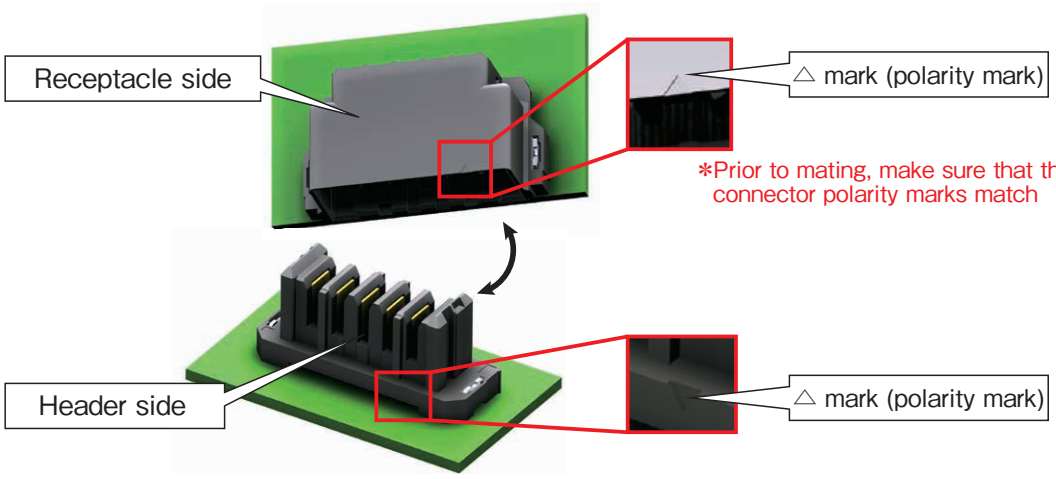
● A reverse insertion prevention structure and an abnormal mating position prevention structure have been provided in this connector, however, if the connectors are mated with an excessive force, connector breakage may result. Avoid improper mating of connectors by applying an excessive force and connect them correctly while confirming the connector polarities shown below.




● A structure in which the contact deformation does not occur under normal mating operations has been provided on this connector, however, please make sure of the following; connector edge does not come to contact with the opening for mating, connectors are not mated diagonally in an abnormal manner, and foreign substances or hard objects, etc. do not touch the contacts. Pay attention so that contact deformation which causes a contact defect does not occur.

● If the connector is inserted/extracted forcibly in a wrong direction or it is rotated when inserting/extracting, a connector breakdown or contact defect may result. Please be careful.

● This product cannot be used for the purpose of current interruption application. (Prohibition of hot-swapping)

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## While Taking into Consideration

Specifications mentioned in this catalogue are reference values.
While considering to order or to use this product, please confirm the "Drawing" and "Product Specifications" sheets.
While using connector with cable combination, please use appropriate cable.
If considering usage of inappropriate cable, please contact our sales representative.
If assembly process is done by jigs & tools which are not identified by our company, in such cases assurance will not be given.
If considering usage for below mentioned applications, please contact our sales representative.
As per condition, it needs to be considered whether assurance can be given or not.
In cases where the application will demand a high level of reliability, such as automotive, Medical instruments, Public infrastructure, aerospace/ defense etc.



HIROSE ELECTRIC CO.,LTD. 2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
https://www.hirose.com

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