

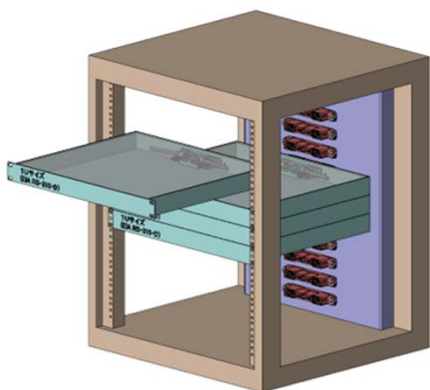
NEW


DW3 Series

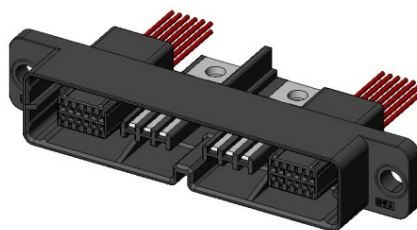
(UL Recognized Product)

CONNECTOR
 MB-0267-2
 January 2014

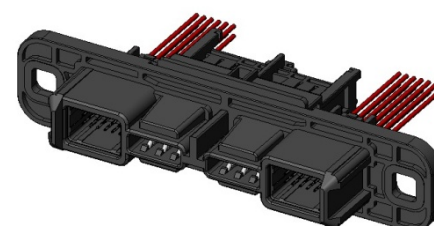
RoHS Compliant



Drawing when DW3 is mounted




Plug (DW3P002ZH1)



Receptacle (DW3R002ZH1)

The DW3 Series is a rack and panel connector with 2 contacts for high-current (150A). It enables the connection of the 2 contacts for power supply and the 24 contacts for signal at once. The DW3 Series is suitable for use in a wide range of applications such as storage battery systems, power supply systems, UPS, and other power supply control equipments. The DW3 Series is a UL recognized product.

Features

- UL Recognized Product: File No.E67741 
- High-current: compatible with 150A
- Electrical Shock Prevention: structure that prevents a person's fingers from touching the terminal.
- Floating Amount: $\pm 2.0\text{mm}$
- Robust housing integrating complex power supply and signal area.
- Low-profile, compact, possible to be equipped on a 19 inch 1U rack.
- Signal connector can be attached to the main unit using an exclusive jig.
- Signal area has a 2-point contacting structure contact.
- Connection of receptacle side power supply can be made at once using the bus bar.
- Signal contacts in 3 types enable adjustment of 3-step first mate last break mating.

General Specifications

- | | |
|---|---|
| <ul style="list-style-type: none"> ■No. of Contacts:
 2 pos. (power supply)
 24 pos. (signal) ■Rated Current:
 150A (power supply)
 2A (signal) ■Rated Voltage:
 600V (power supply) *Note1
 100V (signal) | <ul style="list-style-type: none"> ■Contact Resistance:
 0.3mΩ max. (initial) power supply
 20mΩmax. (initial) signal ■Durability: 100 times ■Operating Temperature:
 -25 Deg. C to +105 Deg. C ■Wire Size: 22AWG, twisted wire with insulation
 cover outer diameter 1.5mm Dia. (signal) |
|---|---|

Note 1: Please contact us when considering use in usage environments that exceed 600V.

Ordering Information

D W 3 R 0 0 2 Z H 1

Series

Connector Type
R: Receptacle

Modification Code

Plating of Contact
Area H: Ag plating

Connection Type
Z: Others

No. of Contacts
002: 2 pos. (shown in 3 digit)

D W 3 R 0 1 2 A

Series

Connector Type
R: Receptacle
P: Plug

Modification Code

No. of Contacts
012: 12 pos. (shown in 3 digit)

D W 3 P 0 4 K 4 F 1

Series

Connection Type
S: Crimp, socket
P: Crimp, pin

Modification Code

Plating of contact
area F: Sn plating

Applicable Cable Size:
4: 22AWG

No. of Contacts
04K: 4000 pcs.

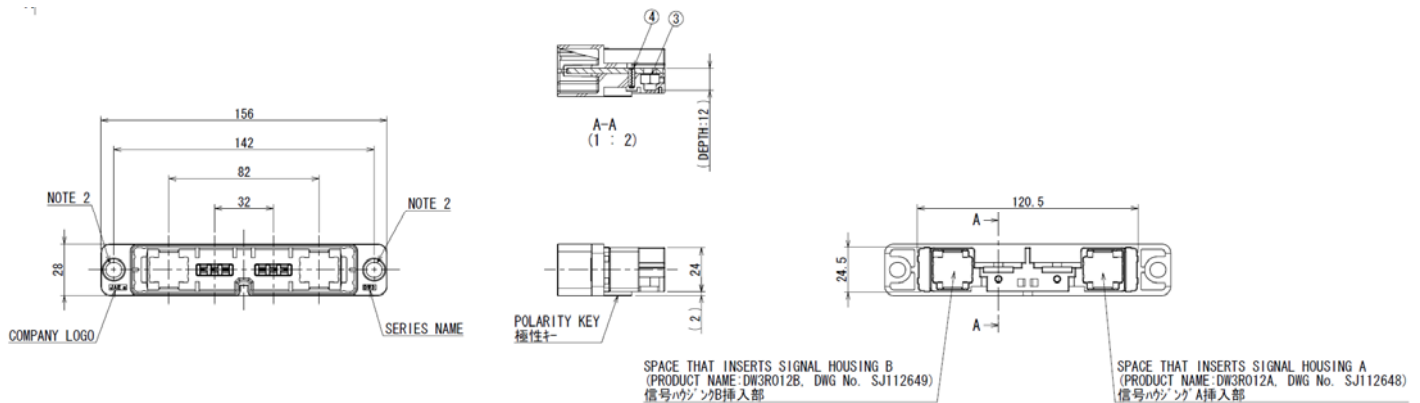
Reel Part Number
K: unit of 1000 pcs. (Note 1)

Note 1: An embossed reel contains 4,000 pcs.

Product Drawing

1. Plug (Main Unit)

Part Number	DW3P002ZH1
SJ Drawing	SJ112646



- NOTE 1. PRODUCTION LOT NUMBER AND RATED CURRENT/VOLTAGE IS INDICATED AT THIS LOCATION.
- NOTE 2. THROUGH HOLE FOR ATTACHMENT SCREW.
USE 'SHOULDER BOLT (DWG No. SJ112653)' OR 'M6 SCREW (WITH WASHER)' FOR ATTACHMENT SCREW.
·TIGHTEN SHOULDER BOLT BY 5.2 [N·m] ± 0.5 [N·m].
·TIGHTEN M6 SCREW BY 2.6 [N·m] ± 0.3 [N·m].
- NOTE 3. POWER SUPPLY TERMINAL CONNECTION POSITION.
TIGHTEN M6 SCREW BY 5.2 [N·m] ± 0.5 [N·m].
- NOTE 4. THE ANGLE BETWEEN PANELS IS NOT INCLINING MORE THAN THE TOLERANCE LEVEL OF THE POSITION GAPS (X, Y: ± 2mm) AND THE DISTANCE (Z: ± 1.5mm).

- 注1. 図示の位置に製造ロットと定格電流/定格電圧を表示する。
- 注2. 取り付けねじ用貫通穴
取り付けねじには「M6ねじ(ワッシャー付)」または「ショルダーボルト(図番: SJ112654)」を使用のこと。
・ショルダーボルト締め付けトルク: 2.6 [N·m] ± 0.3 [N·m].
・M6ねじ締め付けトルク: 5.2 [N·m] ± 0.5 [N·m].
- 注3. 電源端子接続部・M6ねじ締め付けトルク: 5.2 [N·m] ± 0.5 [N·m].
- 注4. パネル間の角度は位置ずれ(X, Y: ± 2mm)および距離(Z: ± 1.5mm)の許容範囲を超えて傾かないこと。

4	SPRING PIN	2	STAINLESS STEEL	-	-
3	HEXAGON NUT M6	2	BRASS	NICKEL PLATING	-
2	PIN CONTACT	2	COPPER ALLOY	SILVER PLATING	-
1	BASE HOUSING	1	PBT	COLOR: BLACK	-
符号 NO.	名称 DESCRIPTION	個数 QTY.	材料 MATERIAL	仕上 FINISH	備考 REMARKS

3. Connector A for Signal (Plug Side)

Part Number	DW3R012A
SJ Drawing	SJ112648

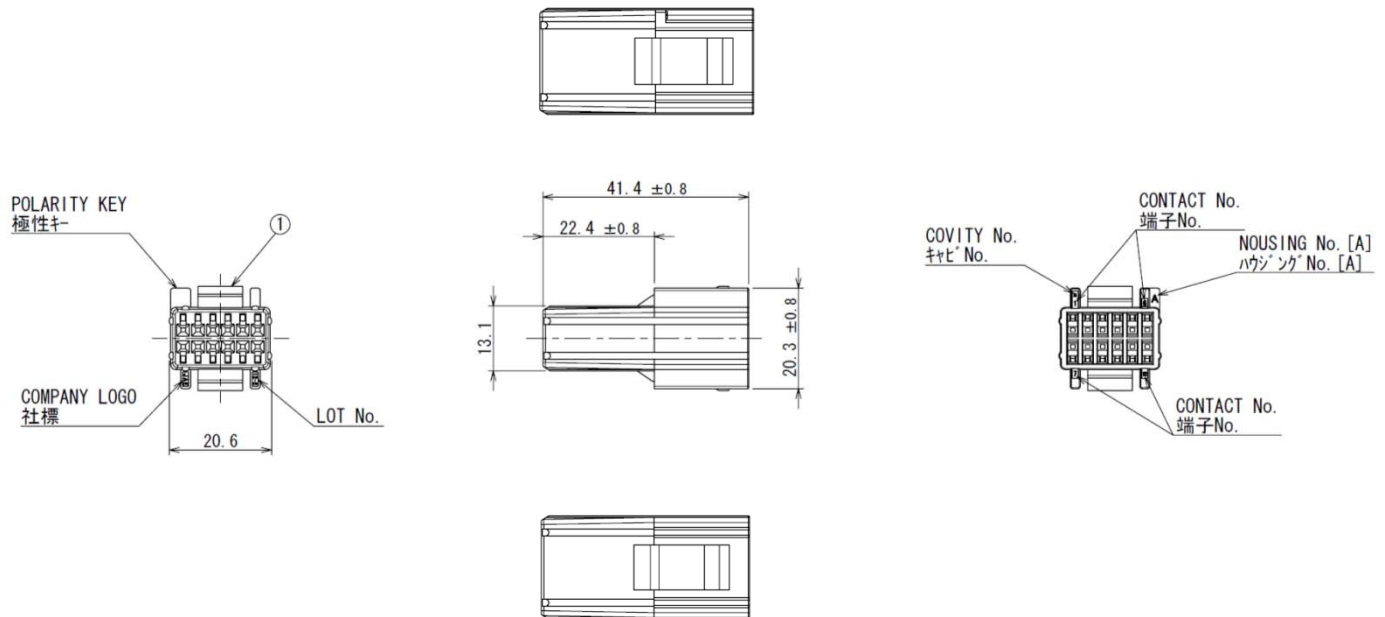


TABLE-1

CONTACT PART No.	SIZE	OUTER DIAMETER	REMARKS
DW1S04K4F1 (SJ111310)	AWG#22	φ 1.5	SOCKET CONTACT

- NOTE 1. CONTACTS ARE SOLD SEPARATELY. THE APPLICABLE CONTACTS ARE LISTED IN THE TABLE-1.
 NOTE 2. THE POSITION OF THE POLARITY KEY IS DIFFERENT COMPARED WITH THE FOLLOWING PRODUCT.
 PRODUCT NAME: DW3R012B, DWG No. SJ112649
 NOTE 3. THIS PRODUCT IS USED IN COMBINATION WITH THE FOLLOWING PRODUCT.
 PRODUCT NAME: DW3P002ZH1, DWG No. SJ112646

- 注1. 本製品はコネクタ別売り品であり、適用コネクタは表1の通りである。
 注2. 本製品は下記製品と極性キー位置違い品である。
 製品名: DW3R012B、図番: SJ112649
 注3. 本製品は下記製品と組み合わせて使用する。
 製品名: DW3P002ZH1、図番: SJ112646

1	FIXED CONNECTOR SIGNAL HOUSING A	1	PBT	COLOR : BLACK	—
符号 NO.	名 称 DESCRIPTION	個 数 QTY.	材 料 MATERIAL	仕 上 FINISH	備 考 REMARKS

4. Connector B for Signal (Plug Side)

Part Number	DW3R012B
SJ Drawing	SJ112649

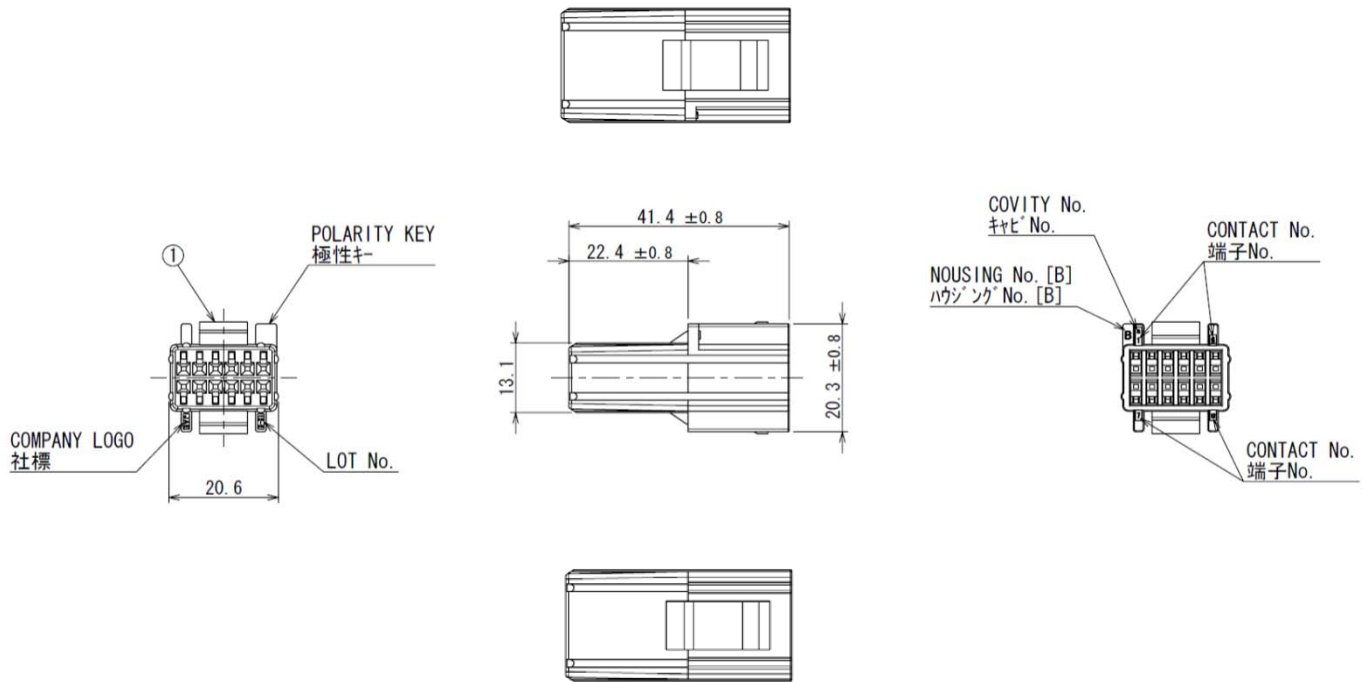


TABLE-1

CONTACT PART No.	SIZE	OUTER DIAMETER	REMARKS
DW1S04K4F1 (SJ111310)	AWG#22	φ 1.5	SOCKET CONTACT

- NOTE 1. CONTACTS ARE SOLD SEPARATELY. THE APPLICABLE CONTACTS ARE LISTED IN THE TABLE-1.
 NOTE 2. THE POSITION OF THE POLARITY KEY IS DIFFERENT COMPARED WITH THE FOLLOWING PRODUCT.
 PRODUCT NAME: DW3R012A, DWG No. SJ112648
 NOTE 3. THIS PRODUCT IS USED IN COMBINATION WITH THE FOLLOWING PRODUCT.
 PRODUCT NAME: DW3P002ZH1, DWG No. SJ112646

- 注1. 本製品はコネクタ別売り品であり、適用コネクタは表1の通りである。
 注2. 本製品は下記製品と極性キ位置違い品である。
 製品名: DW3R012A, 図番: SJ112648
 注3. 本製品は下記製品と組み合わせて使用する。
 製品名: DW3P002ZH1, 図番: SJ112646

1	FIXED CONNECTOR SIGNAL HOUSING B	1	PBT	COLOR : BLACK	—
符号 NO.	名 称 DESCRIPTION	個 数 QTY.	材 料 MATERIAL	仕 上 FINISH	備 考 REMARKS

5. Connector A for Signal (Receptacle Side)

Part Number	DW3P012A
SJ Drawing	SJ112650

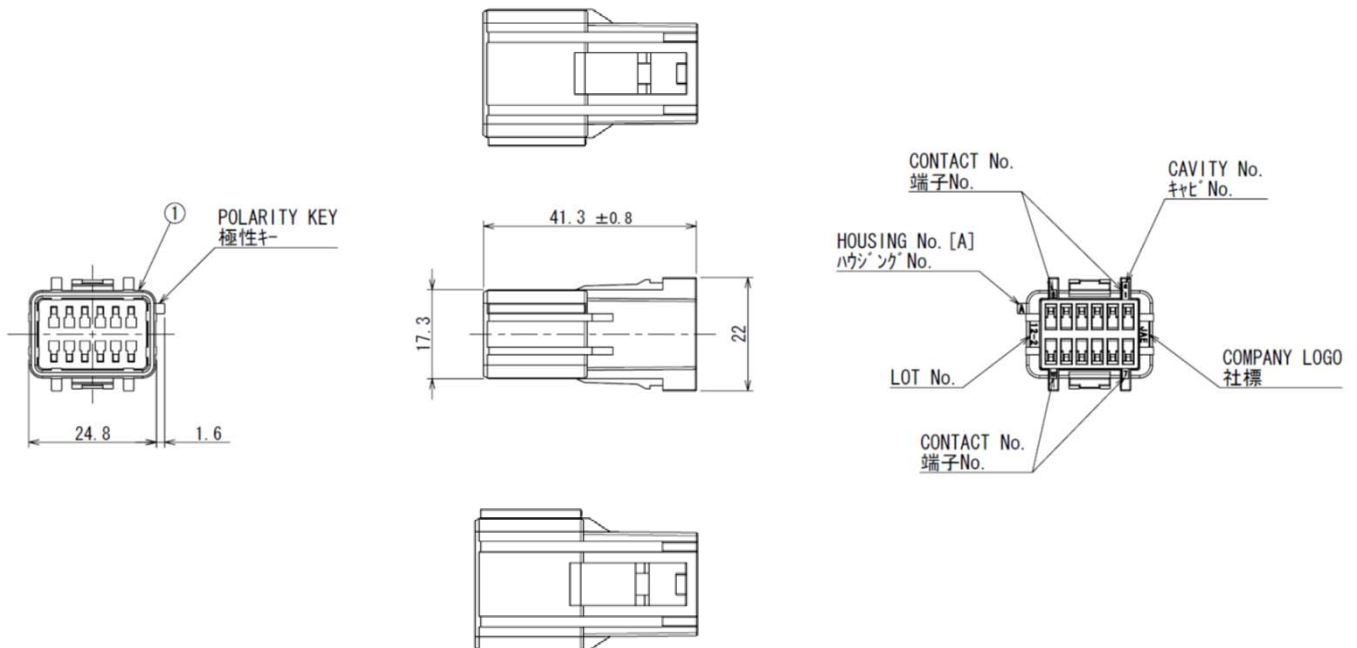


TABLE-1

CONTACT PART No.	SIZE	OUTER DIAMETER	LENGTH: A (FIG. 1)	REMARKS
DW3P04K4F1 (SJ112653)	AWG#22	φ 1.5	20.75	SIGNAL CONTACT
DW1P04K4F1 (SJ111311)	AWG#22	φ 1.5	18.25	SIGNAL CONTACT
DW1P04K4F2 (SJ111312)	AWG#22	φ 1.5	16.75	DETECTED CONTACT

NOTE 1. CONTACTS ARE SOLD SEPARATELY. THE APPLICABLE CONTACTS ARE LISTED IN THE TABLE-1.
 NOTE 2. THE POSITION OF THE POLARITY KEY IS DIFFERENT COMPARED WITH THE FOLLOWING PRODUCT.
 PRODUCT NAME: DW3P012B, DWG No. SJ112651
 NOTE 3. THIS PRODUCT IS USED IN COMBINATION WITH THE FOLLOWING PRODUCT.
 PRODUCT NAME: DW3R002ZH1, DWG No. SJ112647

注1. 本製品はコネクタ別売り品であり、適用コネクタは表1の通りである。
 注2. 本製品は下記製品と極性キー位置違い品である。
 製品名: DW3P012B、図番: SJ112651
 注3. 本製品は下記製品と組み合わせて使用する。
 製品名: DW3R002ZH1、図番: SJ112647

1	FLOATING CONNECTOR SIGNAL HOUSING A	1	PBT	COLOR : BLACK	—
符号 NO.	名 称 DESCRIPTION	個 数 QTY.	材 料 MATERIAL	仕 上 FINISH	備 考 REMARKS

6. Connector B for Signal (Receptacle Side)

Part Number	DW3P012B
SJ Drawing	SJ112651

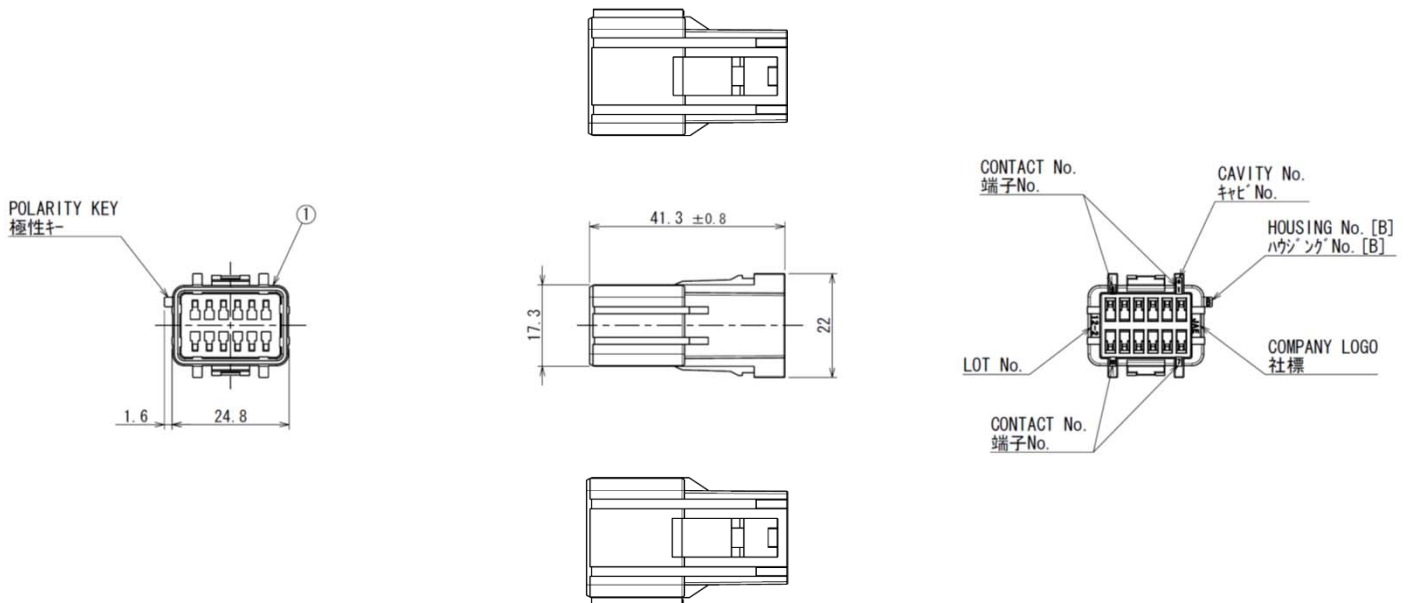


TABLE-1

CONTACT PART No.	SIZE	OUTER DIAMETER	LENGTH: A (FIG. 1)	REMARKS
DW3P04K4F1 (SJ112653)	AWG#22	φ 1.5	20.75	SIGNAL CONTACT
DW1P04K4F1 (SJ111311)	AWG#22	φ 1.5	18.25	SIGNAL CONTACT
DW1P04K4F2 (SJ111312)	AWG#22	φ 1.5	16.75	DETECTED CONTACT

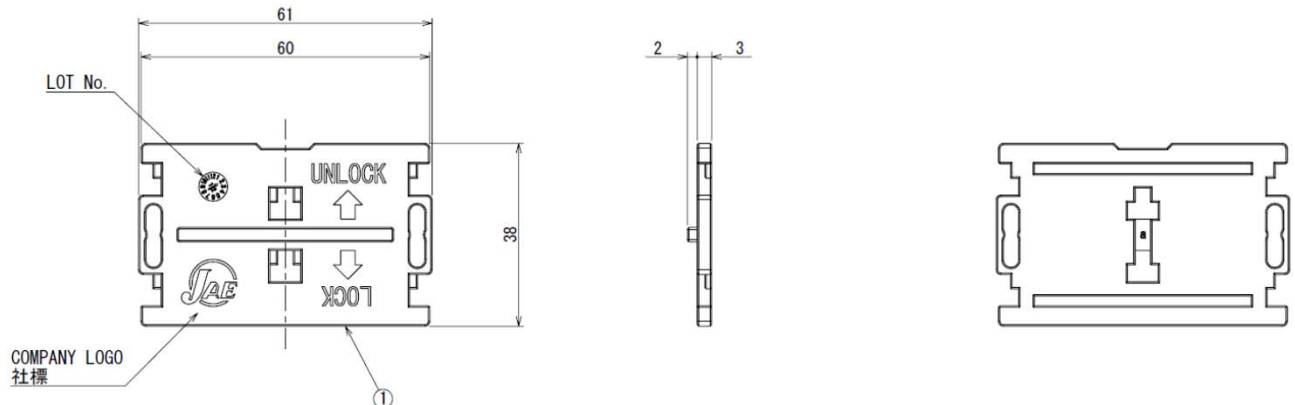
- NOTE 1. CONTACTS ARE SOLD SEPARATELY. THE APPLICABLE CONTACTS ARE LISTED IN THE TABLE-1.
 NOTE 2. THE POSITION OF THE POLARITY KEY IS DIFFERENT COMPARED WITH THE FOLLOWING PRODUCT.
 PRODUCT NAME: DW3P012A, DWG No. SJ112650
 NOTE 3. THIS PRODUCT IS USED IN COMBINATION WITH THE FOLLOWING PRODUCT.
 PRODUCT NAME: DW3R002ZH1, DWG No. SJ112647

- 注1. 本製品はコネクタ別売り品であり、適用コネクタは表1の通りである。
 注2. 本製品は下記製品と極性キー位置違い品である。
 製品名: DW3P012A, 図番: SJ112650
 注3. 本製品は下記製品と組み合わせて使用する。
 製品名: DW3R002ZH1, 図番: SJ112647

1	FLOATING CONNECTOR SIGNAL HOUSING B	1	PBT	COLOR : BLACK	—
符号 NO.	名 称 DESCRIPTION	個 数 QTY.	材 料 MATERIAL	仕 上 FINISH	備 考 REMARKS

7. Bus Bar Cover

Part Number	DW3R002-CV
SJ Drawing	SJ112652



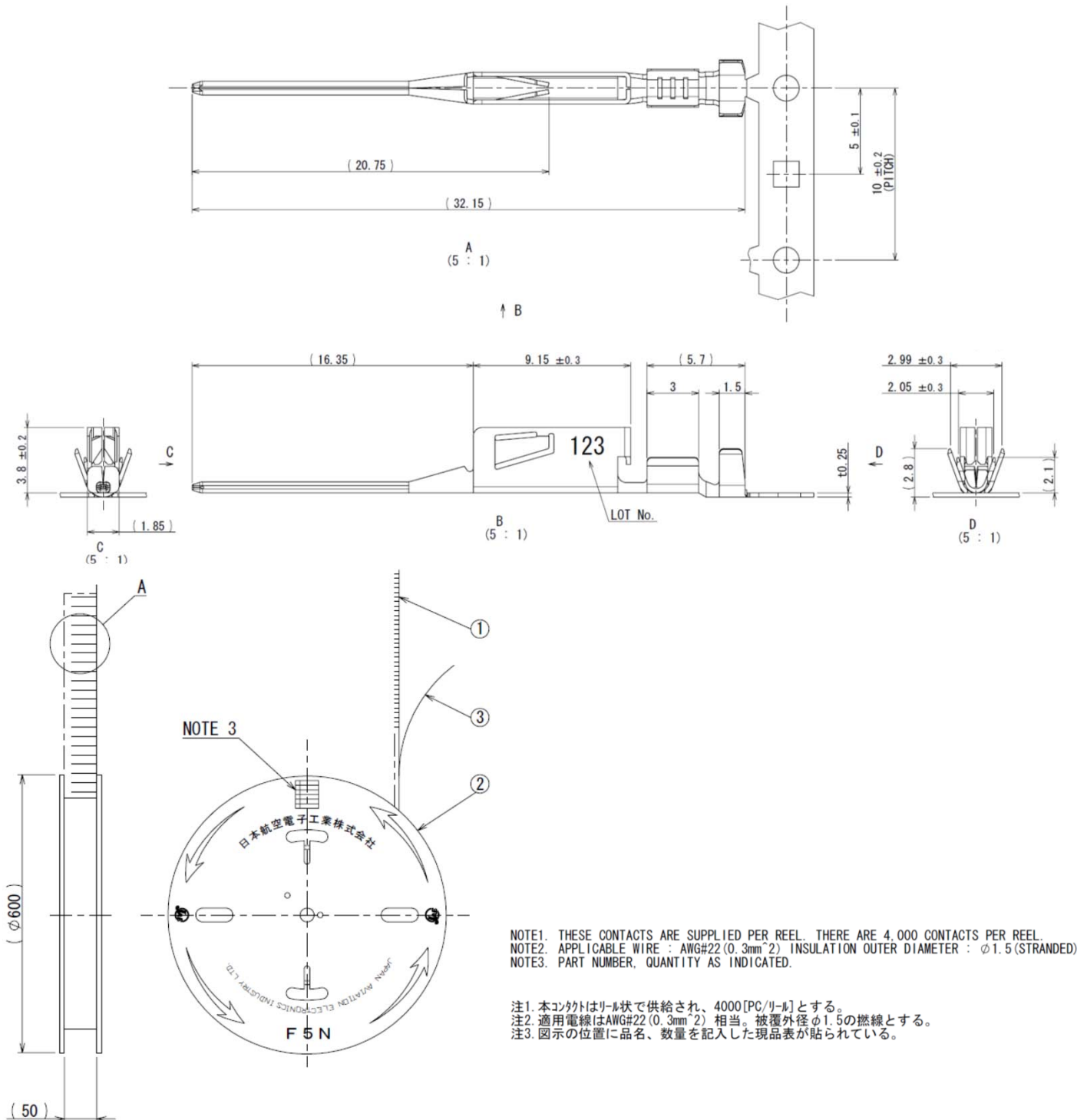
NOTE 1. THIS PRODUCT IS USED IN COMBINATION WITH THE FOLLOWING PRODUCT.
PRODUCT NAME: DW3R002ZH1, DWG No. SJ112647

注1. 本製品は下記製品と組み合わせて使用する。
製品名: DW3R002ZH1、図番: SJ112647

1	BUS BAR COVER	1	PBT	COLOR : BLACK	-
符号 NO.	名 称 DESCRIPTION	個 数 QTY.	材 料 MATERIAL	仕 上 FINISH	備 考 REMARKS

8. Pin Contact for Signal (for Receptacle)

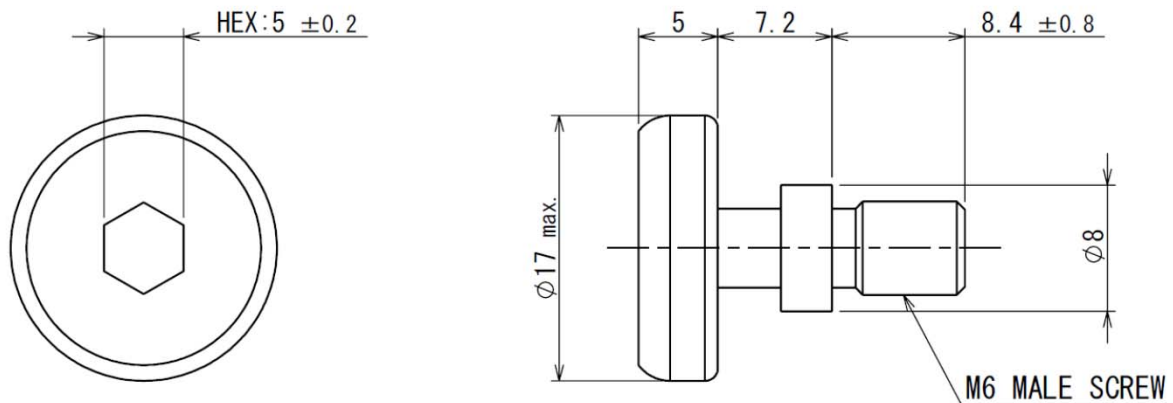
Part Number	DW3P04K4F1
SJ Drawing	SJ112653



3	PAPER TAPE	1	PAPER	-	-
2	MAGAZINE	1	PAPER	-	-
1	PIN CONTACT	4000	COPPER ALLOY	TIN PLATE	-
符号 NO.	名 称 DESCRIPTION	個 数 QTY.	材 料 MATERIAL	仕 上 FINISH	備 考 REMARKS

9. Shoulder Bolt

Part Number	D250-50632
SJ Drawing	SJ112654



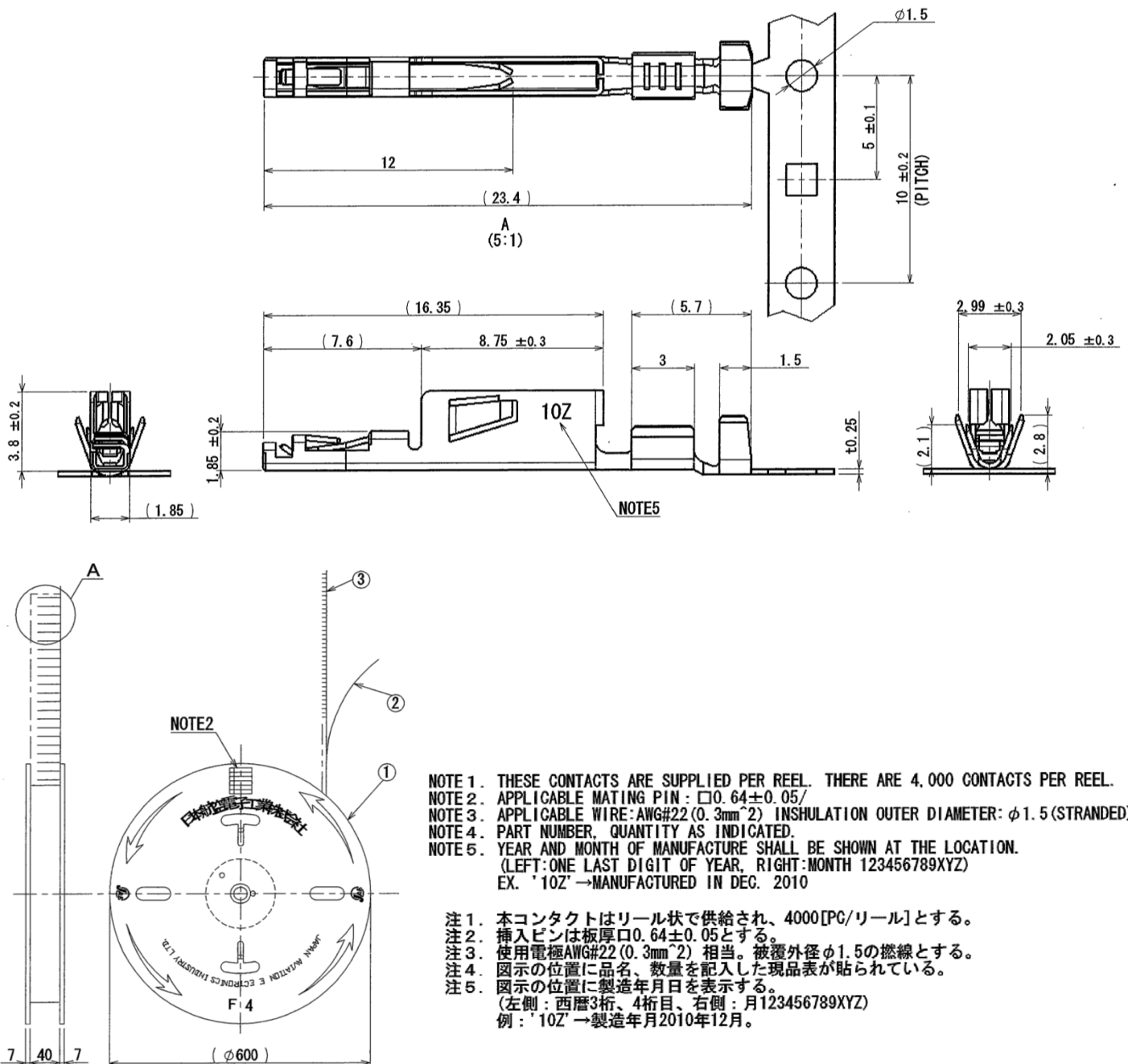
NOTE 1. TIGHTEN SHOULDER BOLT BY $5.2 \text{ [N}\cdot\text{m]} \pm 0.5 \text{ [N}\cdot\text{m]}$.

注1. ショルダーボルト締め付けトルク : $5.2 \text{ [N}\cdot\text{m]} \pm 0.5 \text{ [N}\cdot\text{m]}$

1	SHOULDER BOLT	1	STEEL	TRIVALENT CHROMATE	-
符号 NO.	名 称 DESCRIPTION	個 数 QTY.	材 料 MATERIAL	仕 上 FINISH	備 考 REMARKS

10. Socket Contact for Signal (for Plug)

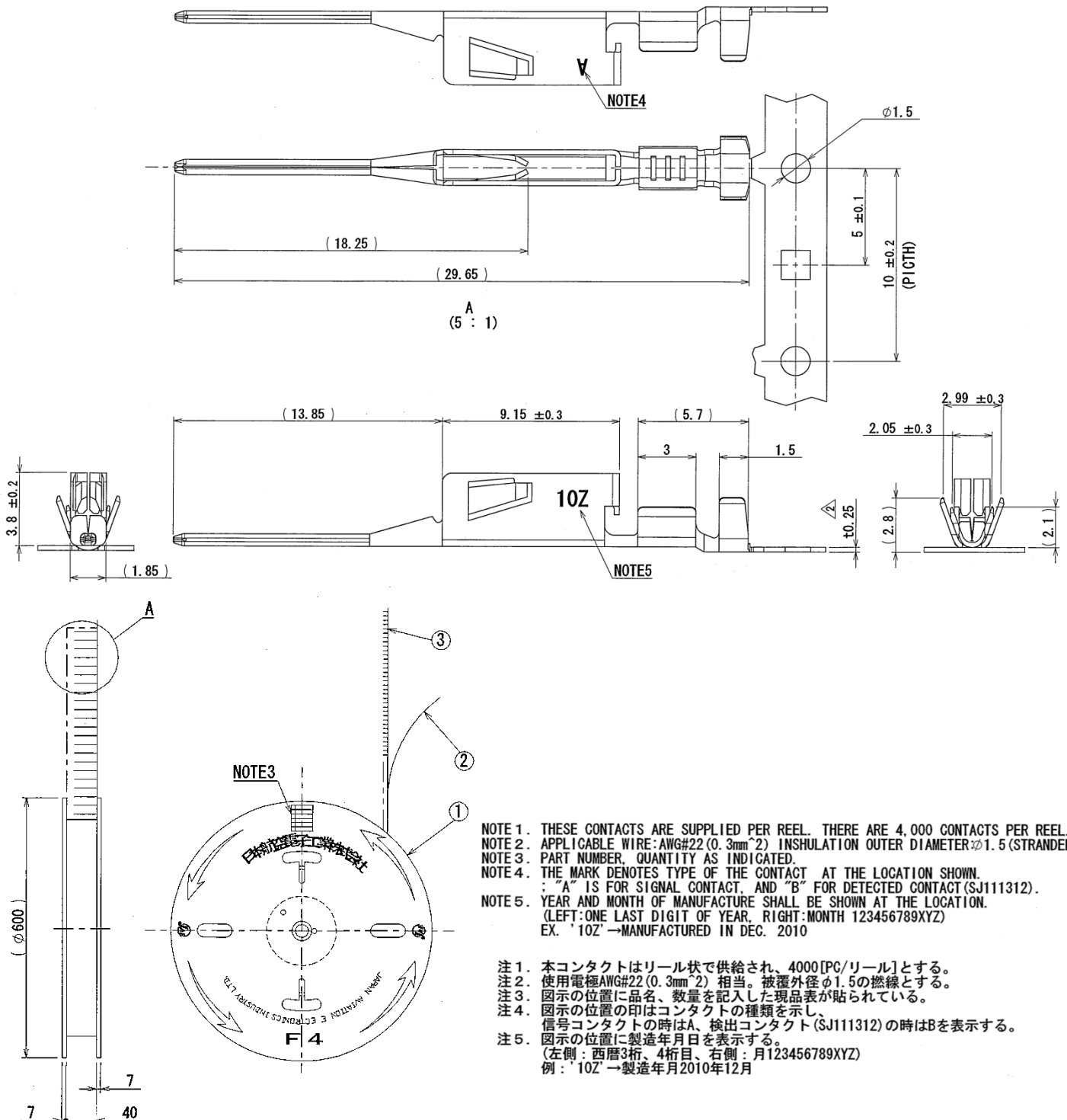
Part Number	DW1S04K4F1
SJ Drawing	SJ111310



3	SOCKET CONTACT	4000	COPPER ALLOY	TIN PLATE	—
2	PAPER TAPE	1	PAPER	—	—
1	MAGAZINE	1	PAPER	—	—
符号 NO.	名 称 DESCRIPTION	個 数 QTY.	材 料 MATERIAL	仕 上 FINISH	備 考 REMARKS

11. Pin Contact Long for Signal (for Receptacle)

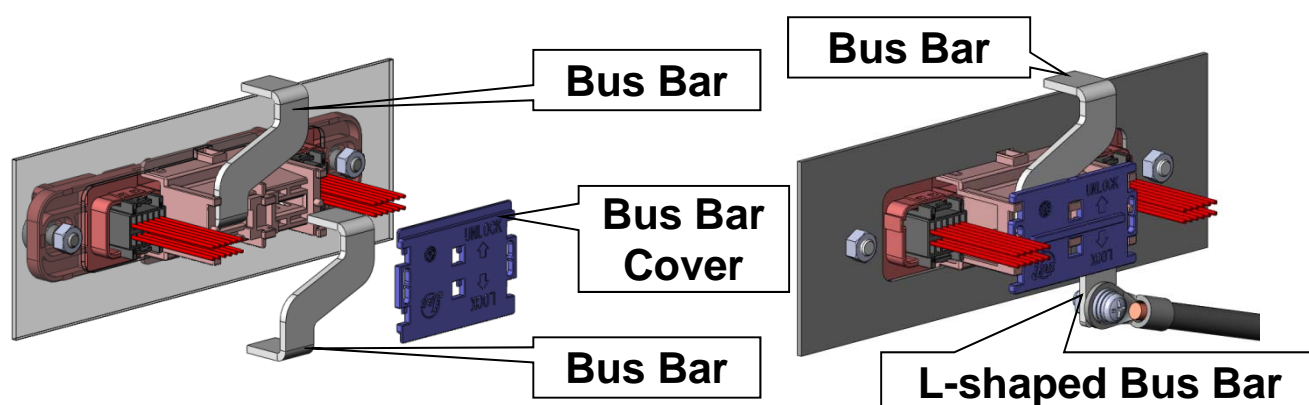
Part Number	DW1P04K4F1
SJ Drawing	SJ111311



3	PIN CONTACT	4000	COPPER ALLOY	TIN PLATE	—
2	PAPER TAPE	1	PAPER	—	—
1	MAGAZINE	1	PAPER	—	—
符号 NO.	名 称 DESCRIPTION	個 数 QTY.	材 料 MATERIAL	仕 上 FINISH	備 考 REMARKS

Case No.	Case Name	Case Type	Case Status	Case Date	Case Time	Case Location	Case Description	Case Details	Case Notes	Case Attachments	Case Comments	Case Actions	Case History	Case Logs	Case Reports	Case Analytics	Case Settings	Case Admin	Case Help	Case About
1	Case 1	Case Type 1	Case Status 1	Case Date 1	Case Time 1	Case Location 1	Case Description 1	Case Details 1	Case Notes 1	Case Attachments 1	Case Comments 1	Case Actions 1	Case History 1	Case Logs 1	Case Reports 1	Case Analytics 1	Case Settings 1	Case Admin 1	Case Help 1	Case About 1
2	Case 2	Case Type 2	Case Status 2	Case Date 2	Case Time 2	Case Location 2	Case Description 2	Case Details 2	Case Notes 2	Case Attachments 2	Case Comments 2	Case Actions 2	Case History 2	Case Logs 2	Case Reports 2	Case Analytics 2	Case Settings 2	Case Admin 2	Case Help 2	Case About 2
3	Case 3	Case Type 3	Case Status 3	Case Date 3	Case Time 3	Case Location 3	Case Description 3	Case Details 3	Case Notes 3	Case Attachments 3	Case Comments 3	Case Actions 3	Case History 3	Case Logs 3	Case Reports 3	Case Analytics 3	Case Settings 3	Case Admin 3	Case Help 3	Case About 3
4	Case 4	Case Type 4	Case Status 4	Case Date 4	Case Time 4	Case Location 4	Case Description 4	Case Details 4	Case Notes 4	Case Attachments 4	Case Comments 4	Case Actions 4	Case History 4	Case Logs 4	Case Reports 4	Case Analytics 4	Case Settings 4	Case Admin 4	Case Help 4	Case About 4
5	Case 5	Case Type 5	Case Status 5	Case Date 5	Case Time 5	Case Location 5	Case Description 5	Case Details 5	Case Notes 5	Case Attachments 5	Case Comments 5	Case Actions 5	Case History 5	Case Logs 5	Case Reports 5	Case Analytics 5	Case Settings 5	Case Admin 5	Case Help 5	Case About 5
6	Case 6	Case Type 6	Case Status 6	Case Date 6	Case Time 6	Case Location 6	Case Description 6	Case Details 6	Case Notes 6	Case Attachments 6	Case Comments 6	Case Actions 6	Case History 6	Case Logs 6	Case Reports 6	Case Analytics 6	Case Settings 6	Case Admin 6	Case Help 6	Case About 6
7	Case 7	Case Type 7	Case Status 7	Case Date 7	Case Time 7	Case Location 7	Case Description 7	Case Details 7	Case Notes 7	Case Attachments 7	Case Comments 7	Case Actions 7	Case History 7	Case Logs 7	Case Reports 7	Case Analytics 7	Case Settings 7	Case Admin 7	Case Help 7	Case About 7
8	Case 8	Case Type 8	Case Status 8	Case Date 8	Case Time 8	Case Location 8	Case Description 8	Case Details 8	Case Notes 8	Case Attachments 8	Case Comments 8	Case Actions 8	Case History 8	Case Logs 8	Case Reports 8	Case Analytics 8	Case Settings 8	Case Admin 8	Case Help 8	Case About 8
9	Case 9	Case Type 9	Case Status 9	Case Date 9	Case Time 9	Case Location 9	Case Description 9	Case Details 9	Case Notes 9	Case Attachments 9	Case Comments 9	Case Actions 9	Case History 9	Case Logs 9	Case Reports 9	Case Analytics 9	Case Settings 9	Case Admin 9	Case Help 9	Case About 9
10	Case 10	Case Type 10	Case Status 10	Case Date 10	Case Time 10	Case Location 10	Case Description 10	Case Details 10	Case Notes 10	Case Attachments 10	Case Comments 10	Case Actions 10	Case History 10	Case Logs 10	Case Reports 10	Case Analytics 10	Case Settings 10	Case Admin 10	Case Help 10	Case About 10

Connection Diagram of Receptacle Side Bus Bar

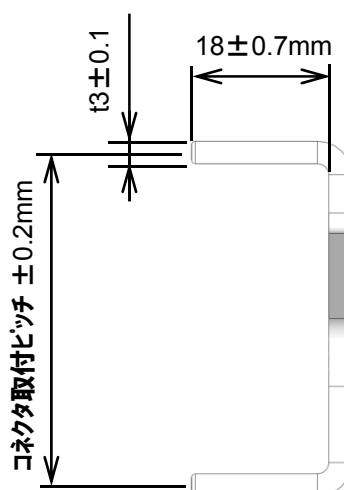
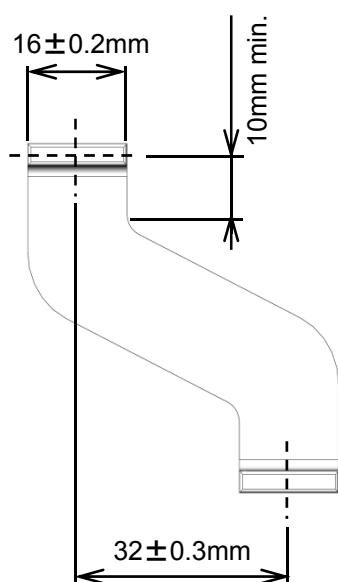


Connection between batteries
using Bus Bar

Connection of the terminal ends
using Bus Bar.

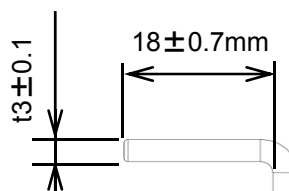
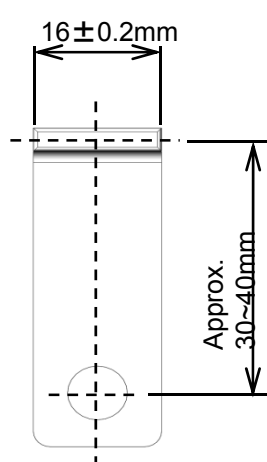
Note: By applying bus bar cover electrical shock will be prevented.
Also, noise countermeasure for signal cable is taken in to consideration.

Bus Bar Outer Dimensions (for reference)



- Material: pure copper system material
- Surface Finish: Ag plating

L-shaped Bus Bar Outer Dimensions (for reference)



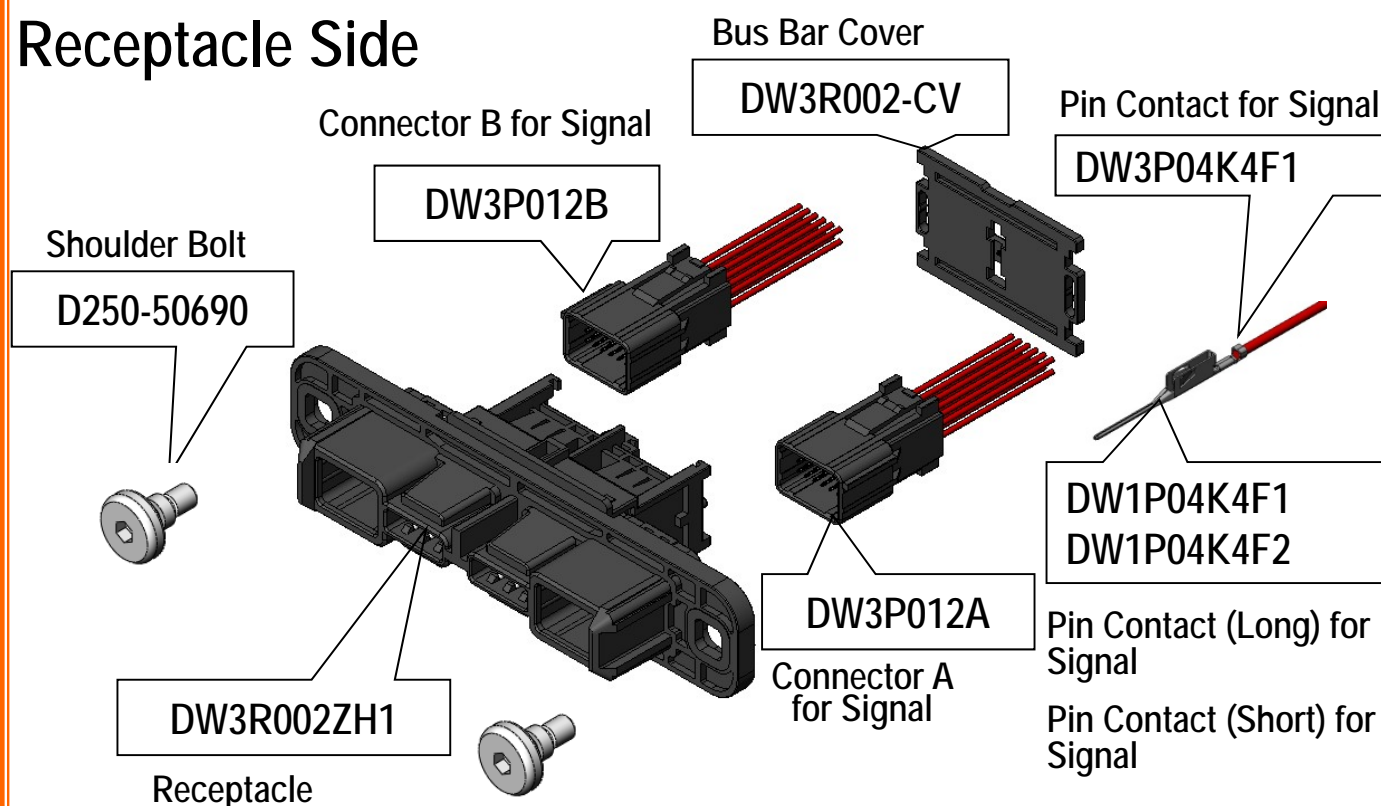
- Material: pure copper system material
- Surface Finish: Ag plating

*Above Dimensions are for reference, please contact us for more information on bus bar.

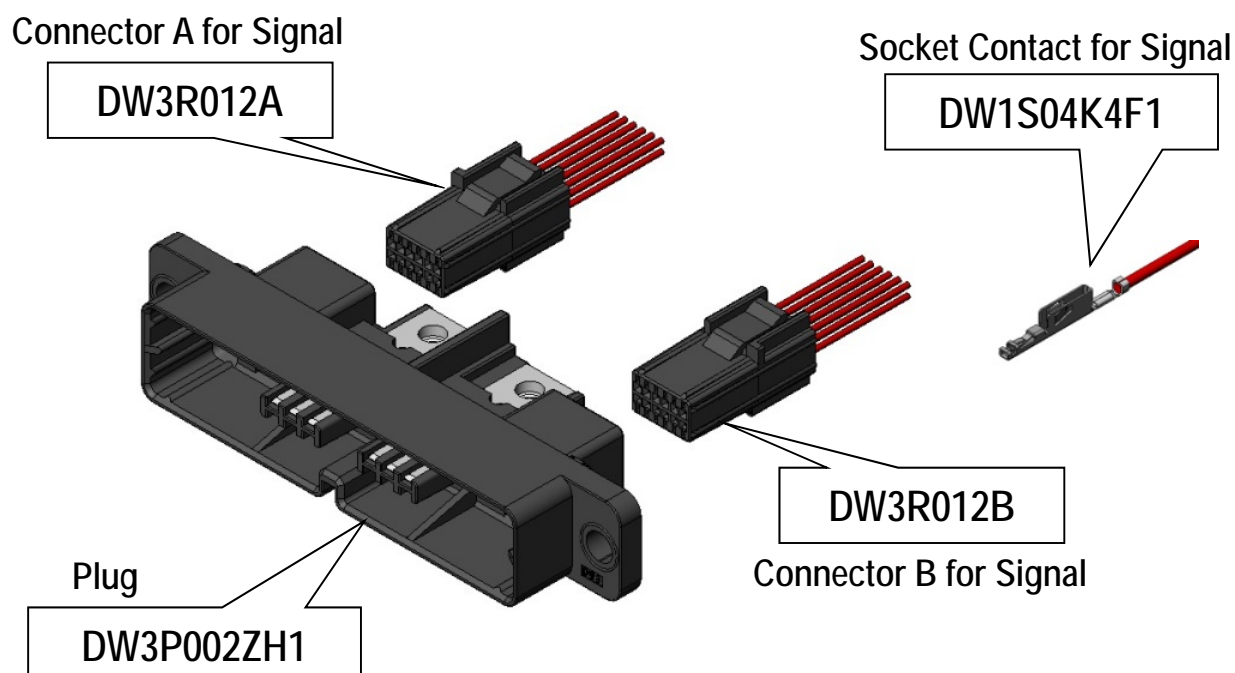
DW3 Series

*Contact is Reel Part Number

Receptacle Side



Plug Side



Technical Documents

	Technical Document No. (Document Content)
Product Drawings	SJ112646 (DW3 Plug) SJ112647 (DW3 Receptacle) SJ112648 (DW3 Connector A for Signal Plug Side) SJ112649 (DW3 Connector B for Signal Plug Side) SJ112650 (DW3 Connector A for Signal Receptacle Side) SJ112651 (DW3 Connector B for Signal Receptacle Side) SJ112652 (Bus Bar Cover) SJ112654 (Shoulder Bolt) SJ112653 (DW3 Pin Contact for Signal Receptacle Side) SJ111310 (DW1 Socket Contact for Signal Plug Side) SJ111311 (DW1 Pin Contact Long for Signal Receptacle Side) SJ111312 (DW1 Pin Contact Short for Signal Receptacle Side)
Specifications	JACS-30260
Handling Instructions	JAHL-30260
Crimp Applicator Handling Instructions	T703488 (for semi-automatic crimping machine) * Please contact us regarding automatic crimp tool.
Hand Crimp Tool Handling Instructions	T700315

Notice:

1. The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products.

For purchase, a product specification must be agreed upon.

2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.

3. The products presented in this brochure are designed for the uses recommended below.

We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

(1) Applications that require consultation:

(i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:

Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.

(ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as :

Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.

(2) Recommended applications include:

Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc

Japan Aviation Electronics Industry, Limited

Product Marketing Division

Aobadai Building, 3-1-19, Aobadai, Meguro-ku, Tokyo 153-8539

Phone: +81-3-3780-2882 FAX: +81-3-3780-2946

* The specifications in this brochure are subject to change without notice. Please contact JAE for information.

Mouser Electronics

Authorized Distributor

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