

| | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|---|--------------------------|----|------|------|-------|--------------------------|----|------|------|
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|---------------------|-----------------------------|------------------------|---------------------------|--------------------|
| APPLICABLE STANDARD | | | | |
| RATING | OPERATING TEMPERATURE RANGE | -35 °C TO 85 °C(NOTE1) | STORAGE TEMPERATURE RANGE | -10 °C TO 60 °C |
| | VOLTAGE | 30 V A C | APPLICABLE CONNECTOR | DF30*-*DP-0.4V(**) |
| | CURRENT | 0.3 A | | |

SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|------|-------------|--------------|----|----|
|------|-------------|--------------|----|----|

CONSTRUCTION

| | | | | |
|---------------------|---------------------------------------|-----------------------|---|---|
| GENERAL EXAMINATION | VISUALLY AND BY MEASURING INSTRUMENT. | ACCORDING TO DRAWING. | X | X |
| MARKING | CONFIRMED VISUALLY. | | X | X |

ELECTRICAL CHARACTERISTICS

| | | | | |
|-----------------------|-------------------------|----------------------------|---|---|
| CONTACT RESISTANCE | 100 mA (DC OR 1000 Hz). | 100 mΩ MAX. | X | - |
| INSULATION RESISTANCE | 100 V DC. | 50 MΩ MIN. | X | - |
| VOLTAGE PROOF | 100 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | X | - |

MECHANICAL CHARACTERISTICS

| | | | | |
|----------------------|---|---|---|---|
| MECHANICAL OPERATION | 50 TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE: 100mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X | - |
| VIBRATION | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, 10 CYCLES OF EACH 3 AXIAL DIRECTION FOR 5 min. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X | - |
| SHOCK | 490 m/s ² DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X | - |

ENVIRONMENTAL CHARACTERISTICS

| | | | | |
|-----------------------------|--|--|---|---|
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40±2 °C, 90 TO 95 %, 96 h. | ① CONTACT RESISTANCE: 100mΩ MAX. ② INSULATION RESISTANCE: 25 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X | - |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -55→5 TO 35→85→5 TO 35 °C TIME 30→10 TO 15→30→10 TO 15 min UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 100mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X | - |
| CORROSION SALT MIST | EXPOSED IN 5% SALT WATER SPRAY FOR 48 h. (TEST STANDARD:IEC60068) | ① CONTACT RESISTANCE: 100mΩ MAX. ② NO HEAVY CORROSION. | X | - |
| SULPHUR DIOXIDE | EXPOSED IN 25 PPM FOR 96h. (TEST STANDARD:IEC60068) | ① CONTACT RESISTANCE: 100mΩ MAX. ② NO HEAVY CORROSION. | X | - |

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|---|----------|---------------|-----------|----------|----------|
| REMARKS | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT. | T. Nishi | K. Miderikawa | K. Akashi | J. Ono | |
| Unless otherwise specified, refer to IEC60512. | 04.08.25 | 04.08.25 | 04.08.25 | 04.08.25 | |

Note QT: Qualification Test AT: Assurance Test X: Applicable Test

| | | |
|--------------------------------------|-------------------------------|----------------------------------|
| HRS HIROSE ELECTRIC CO., LTD. | SPECIFICATION SHEET | PART NO. DF30FC-*DS-0.4V (82) |
| CODE NO.(OLD) CL | DRAWING NO. ELC4-303556-03 | CODE NO. CL684-****-*82 |

1/1



TO

| 1 | 2 | | 3 | | 4 | | | | |
|-------|--------------------------|------------|------|------|----------|--------------------------|----|------|------|
| COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
| △ | 4 | RE-H-06664 | YM | TS | 04.12.17 | △ | | | . . |
| △ | | | | | | △ | | | . . |
| △ | | | | | | △ | | | . . |

■ NOTES WHEN MATING DF30 SERIES CONNECTORS.

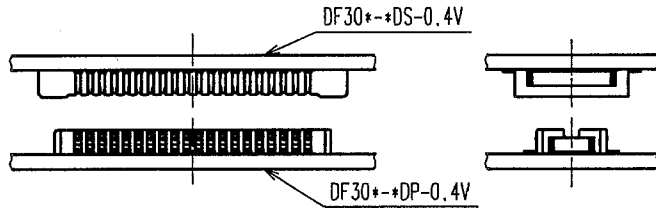


FIGURE-1

PLEASE LOCATE EACH CONNECTOR IN PARALLEL WHEN YOU PUT THEM IN MATING POSITION.

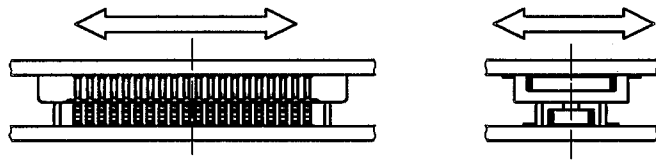


FIGURE-2

THE INSULATOR WILL BE DAMAGED AND THE CONTACTS WILL BE DEFORMED IF THE CONNECTORS ARE LOCATED INCLINED AND MATED BY EXCESSIVE FORCE.

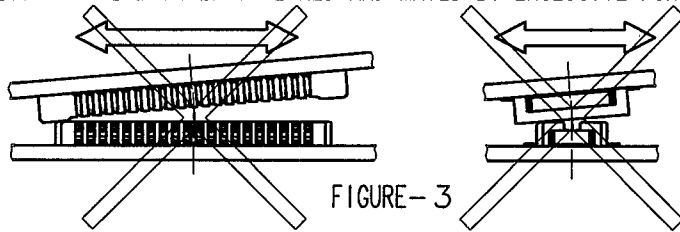


FIGURE-3

WHEN YOU LOCATE TWO CONNECTORS IN A PROPER POSITION, THEY WILL GO DOWN SLIGHTLY AT A LOWER LEVEL AND YOU WILL FIND THAT THEY GET LOCATED CORRECTLY. PLEASE MATE EACH CONNECTOR IN PARALLEL AFTER YOU CONFIRMED THAT THEY GO DOWN LOWER TO SOME EXTENT.

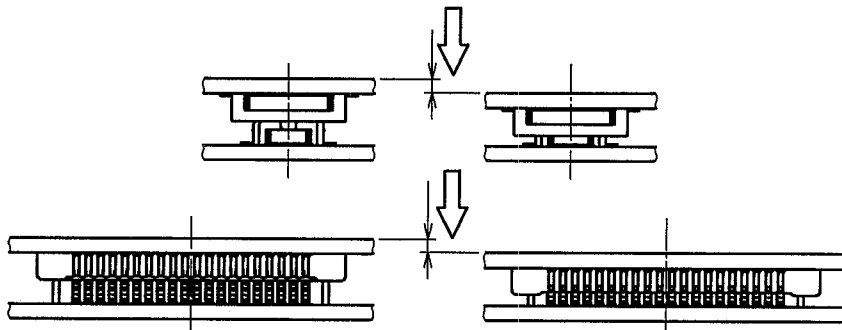


FIGURE-4

THE MATED CONDITIONS CAN BE RELEASED BY A DROP IMPACT OR THE APPLIED FORCE CAUSED BY FPC-HANDLING. FIX THE CONNECTORS BY APPLYING PRESSURE IN THE MATING DIRECTION WITH THE DEVICE OR A BUFFER MATERIAL.

| | | | | | | | |
|-------------------|--------------------------|-------------|-------------|----------|---|----------|---|
| CODE NO. (OLD) | | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED | |
| | | Y.MICHIDA | A.TAKAHASHI | T.SAKATA | T.OMA | | |
| NOTES WHEN MATING | | 04.12.16 | 04.12.16 | 04.12.16 | 04.12.16 | | |
| | DRAWING NO. | PART NO. | | | | | |
| | EDSC4-830174 | DF30 Series | | | | | |
| SCALE FREE : 1 | | CODE NO. | | | <table border="1"> <tr> <td>1</td> </tr> <tr> <td>3</td> </tr> </table> | 1 | 3 |
| 1 | | | | | | | |
| 3 | | | | | | | |
| UNITS mm | HIROSE ELECTRIC CO.,LTD. | CL684 | | | | | |

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|-------|--------------------------|----|------|------|-------|--------------------------|----|------|------|--|
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| △ | | | | | △ | | | | . . | |
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■ NOTES WHEN EXTRACTING

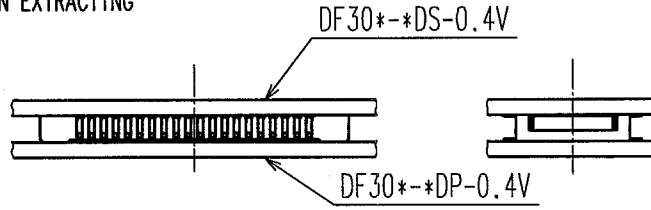


FIGURE-5

WHEN YOU EXTRACT CONNECTORS, PLEASE EXTRACT IN PARALLEL.

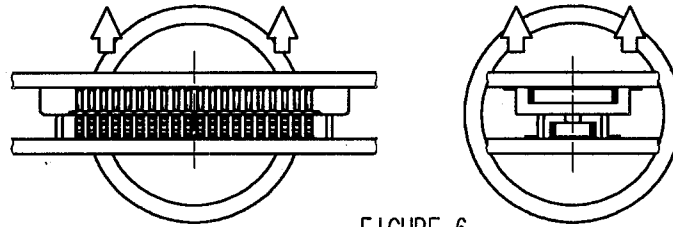


FIGURE-6

⚠ IF YOU'RE UNABLE TO EXTRACT IN PARALLEL DUE TO SET STRUCTURE OR SPACE, PLEASE EXTRACT AS FIGURE-7 (IN LONGER DIMENSION). PLEASE BE CAREFUL NOT TO DAMAGE CONTACTS AT SIDES, WHERE STRESS IS LIKELY TO GATHER WHEN CONNECTORS ARE MOUNTED ON SOFT FPC.

⚠ ESPECIALLY, PLEASE DO NOT EXTRACT FROM THE CORNER AS FIGURE-8. IT GIVES CRITICAL STRESS TO THE CONTACTS ON THE CROSS CORNER.

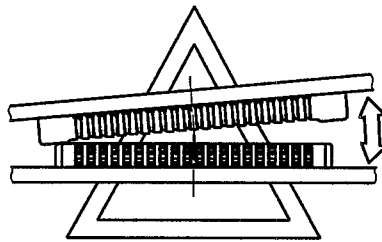


FIGURE-7

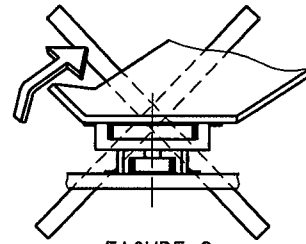


FIGURE-8

⚠ PLEASE DO NOT EXTRACT AS FIGURE-9. THE STRESS CONCENTRATES ON ONE ROW, AND MIGHT DAMAGE CONNECTORS TO MALFUNCTION.

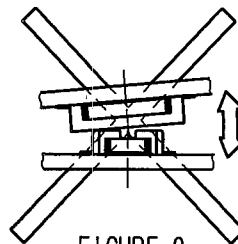


FIGURE-9

| | | | | | | |
|--------------------------------|--------------------------|-----------|-------------|----------|----------|----------|
| CODE NO. (OLD) | | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | | Y.MICHIDA | A.TAKAHASHI | T.SAKATA | T.OMA | |
| NOTES WHEN EXTRACTING | | 04.12.16 | 04.12.16 | 04.12.16 | 04.12.16 | |
| SCALE FREE : 1 UNITS mm | DRAWING NO. | | PART NO. | | | |
| | EDSC4-830174 | | DF30 Series | | | |
| | HIROSE ELECTRIC CO.,LTD. | | CODE NO. | | CL684 | |
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| △ | | | | | △ | | | | . | |
| △ | | | | | △ | | | | . | |
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⚠ WHEN FPC IS SOFT, STRESS IS CONCENTRATED ON THE CONTACTS AT CORNERS. PLEASE PAY ATTENTION TO THIS POINT AND DO NOT UNMATE CONNECTORS FROM CORNERS AS FIGURE-10. THIS GIVES SERIOUS DAMAGE ON CONTACTS, AND OCCURS SOLDER PEEL-OFF OR CONTACT COME-OFF.

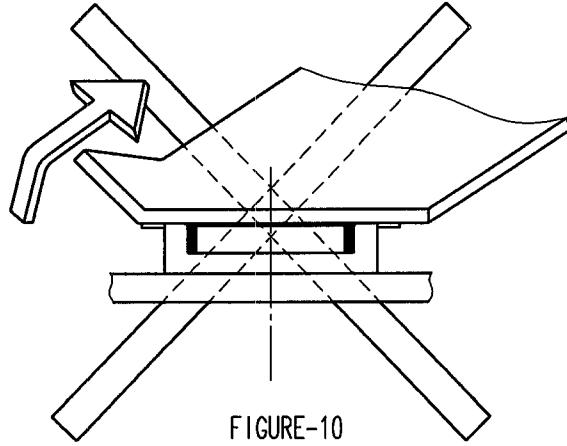


FIGURE-10

IF YOU MOUNT PLUG CONNECTOR ON FPC, CONTACTS MIGHT COME OFF FROM HOUSING MOLD.

CONTACT MIGHT COME OFF FROM HOUSING MOLD.

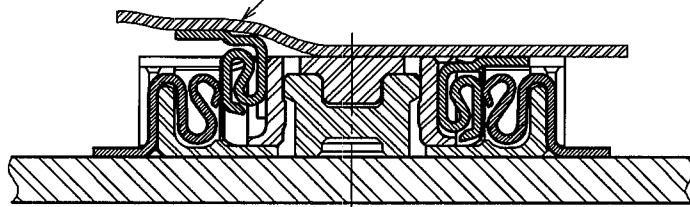


FIGURE-11

IN CASE YOU MOUNT RECEPTACLE CONNECTOR ON FPC, THERE IS NO RISK OF CONTACT COME-OFF. HIROSE RECOMMEND THAT RECEPTACLE IS MOUNTED ON FPC.

IN ORDER TO AVOID THIS RISK, IT IS RECOMMENDED THAT YOU MOUNT RECEPTACLE CONNECTOR ON FPC.

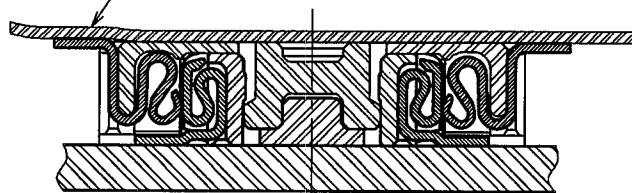


FIGURE-12

| | | | | | | |
|--|--|-----------|-------------------------|----------|----------|----------|
| CODE NO. (OLD) | | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| NOTES WHEN EXTRACTING (SUPPLEMENTARY DATA) | | Y.MICHIDA | A.TAKAHASHI | T.SAKATA | T.OMA | |
| | | 04.12.16 | 04.12.16 | 04.12.16 | 04.12.16 | |
| DRAWING NO. EDSC4-830174 | | | PART NO. DF30 Series | | | |
| UNITS mm | | | CODE NO. CL684 | | | 3/3 |

