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# Product List

| Product Name                         | IL-312-A80P-VF-A1       |
|--------------------------------------|-------------------------|
| Series Name                          | IL-312 Series           |
| Contact spacing (mm)                 | 0.5                     |
| Number of contacts                   | 80                      |
| Number of rows                       | 2                       |
| Connector type                       | Plug                    |
| PCB mounting method                  | Soldering               |
| Surface mounting flag                | TRUE                    |
| PCB side connector styles            | Straight                |
| PCB mounted height (mm)              | 1.55                    |
| Finish of contact in connecting area | Gold                    |
| Material of insulator                | Heat resisting plastics |
|                                      |                         |

| Material of contact           | Copper alloy          |  |
|-------------------------------|-----------------------|--|
| Existence of polarization key | None                  |  |
| Existence of location boss    | None                  |  |
| Existence of hold-down        | None                  |  |
| Existence of mount            | None                  |  |
| Existence of hook-pin         | None                  |  |
| Remarks                       |                       |  |
| Related Documents             | DWG 105Kbytes         |  |
|                               | SPEC 167Kbytes        |  |
|                               | IL-312-A80SB-VF-A1    |  |
|                               | IL-312-A80SB-VFH05-A1 |  |
| Pair                          | IL-312-A80S-VF-A1     |  |
|                               | IL-312-A80S-VFH05-A1  |  |
|                               |                       |  |

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- The values specified in this web site 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.

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  - (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:

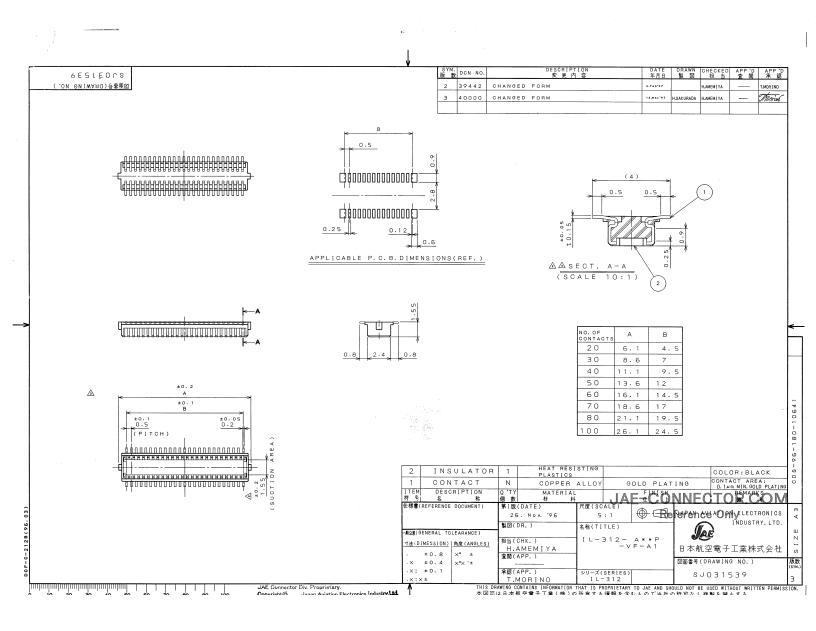
       Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster evention equipment, etc.
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| JAPAN AVIATION ELECTRONICS IND., LTD. |
|---------------------------------------|
| CONNECTOR DIVISION                    |
| 日本航空電子工業株式会社                          |
| コネクタ事業部                               |

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## SPECIFICATION TABLE 製品規格表

Connector Specification No. JACS-1460-0

JACS-1460-0

Connector Series Name 品名 IL-312 connector (Gold plated)

Applicable Drawing No. 製品図面 SJ028719, SJ028720...etc

ΤK

С

|            | 許可のない限り複写を熱  | 禁じます。  |                |                  |                   |
|------------|--------------|--------|----------------|------------------|-------------------|
| Rev.<br>版数 | Date<br>発行日  | DCN No | Drawn by<br>担当 | Checked by<br>查閱 | Approved by<br>承認 |
| 1          | 21 Dec.1994  |        | Amemiya        | · -              | Morino            |
| 4          | 24 Jun.1998  | 42367  | Kikuchi        | Amemiya          | Morino            |
| 5          | 20 Feb. 2003 | 5/560  | Kohyma.        | _                | 9. Kashiwayi      |

Standard data 定格

| Rated current               | 0.3A AC, DC per contact |   |
|-----------------------------|-------------------------|---|
| 電流                          | AC,DC 各 0.3A/1 組当り      |   |
| Rated voltage               | 200V AC, 300V DC        |   |
| 電圧                          | AC200V,DC300V           |   |
| Operating temperature range | -40°C∼+85°C             | , |
| 使用温度範囲                      |                         |   |

#### Note 備考

This specification covers requirements for mated, gold plated IL-312 connector.

1. IL-312コネクタを嵌合させた状態での性能を規定する。

2. 金メッキ仕様に適用する。

| ltem                     | Procedure 試験方法   | Requirement 規定                              |
|--------------------------|--|---|
|                          | MECHANICAL 機械的性能   | •   |
| Examination of product   | Visual, dimensional and functional inspection.   | Meets requirements of product drawing.      |
| 構造寸法表示                   |  | 図面と相違ないこと                                   |
| Material & Finish        |  | Meets requirements of product drawing.      |
| 材料仕上加工法                  |  | 図面と相違ないこと                                   |
| Connector mating force   | Measure force necessary to mate between counterpart connectors.                                    | 2N x n (Max.)<br>"n" = number of pins       |
| 総合挿入力                    | 適合コネクタ間にて挿入を行う。  | 2N×n以下 n:芯数                                 |
| Connector unmating force | Measure force necessary to unmate between counterpart connectors.                                  | 0.1N x n (Min.)<br>"n" = number of pins     |
| 総合抜去力                    | 適合コネクタ間にて抜去を行う。  | 0.1N×n 以上 n:芯数                              |
| Contact retention        | Measure Contact retention with Tensile strength tester.  | 3N (Min.)                                   |
| コンタクト保持カ                 | 引っ張り試験機にてコンタクト保持力を測定   | 3N 以上                                       |
| Vibration                | Subject specimens to 10-55-10 Hz at 1.5mm  |   |
| ,                        | amplitude, 2 hours each of 3 mutually perpendicular planed, 6 hours in total                       |   |
|                          | pranod, o nodio in social  | No electrical discontinuity more than 1 µs. |
| 耐振性                      | [<br>全振幅:1.5mm 10~55Hz 各 2h 計 3 軸 6h   | ·   |
| Shock                    | MIL-STD-202 method 202, 490m/s <sup>2</sup> An appropriate holder for fixing may be applied to the | NEGEORGOM<br>erence Only                    |
| 耐衝擊性                     | MIL-STD-202 METHOD202 490m/s <sup>2</sup><br>3 軸 振動及び衝撃試験に於いては取付に適当なホルタ・<br>を用いてもよい。               |   |

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|                             |   | JAUS-1460-0 2/2                               |
|-----------------------------|---|---|
| ltem                        | Procedure 試験方法  | Requirement 規定                                |
| Durability                  | Mate and unmate the connectors for 50 cycles.   | Insulation resistance: 80m $\Omega$ (Max.)    |
| 寿命試験                        | 50 回の挿抜を行う  | 接触抵抗:80m $\Omega$ 以下                          |
|                             | ELECTRICAL 電気的性能  | •   |
| Voltage proof               | Apply the specified voltage between adjacent  | 500VAC r.m.s No breakdown caused for 1        |
| •                           | contacts.   | minute.                                       |
| 耐電圧                         |   |   |
|                             | 近接コンタクト間に規定電圧を印加  | AC500Vr.m.s 1分間異常のないこと                        |
| Insulation resistance       | Apply 500V DC between adjacent contacts and measure its resistance within one minute.                       | 100M $\Omega$ (Min.)                          |
| 絶縁抵抗                        | 近接コンタクト間に D.C.500V を印加、1 分間以内に測定する。   | 100ΜΩ以上                                       |
| Contact resistance          | Measure Contact resistance with less than 20mV (low level) and 1mA.   | 40m $\Omega$ (Max.)                           |
| 接触抵抗                        | 低いル 20mV 以下,1mA 以下にて測定  | 40mΩ以下  |
|                             | ENVIRONMENTAL 環境的性能   |   |
| Rapid change of temperature | Subject specimens to continuous 5 cycles between -55 and 85°C for 30minutes each.                           | Insulation resistance: 50M $\Omega$ minimum   |
| 熱衝撃                         | <br>  熱衝撃試験-55℃~+85℃(各 30 分)連続5サイクル   | 絶縁抵抗 50M Ω 以上                                 |
| Damp heat, steady           | Temperature: 60°C   | Voltage proof: 250V r.m.s. , 1 minute No      |
| state                       | Humidity: 90 to 95 % RH   | breakdown.                                    |
|                             | Time: 96 hours  | Contact resistance: 80m $\Omega$ (Max.)       |
| 耐湿性                         | 湿度試験 60℃ 90~95%RH 96h   | <br> 耐電圧250Vr.m.s. 1分間異常のないこと<br> 接触抵抗 80mΩ以下 |
| Corrosion, salt mist        | Subject specimens to 5% salt concentration at 35 °C   | There should be no corrosion detrimental to   |
| Corrosions, sait mist       | for 48 hours  | contact connection.                           |
|                             |   | contact resistance: 80m $\Omega$ (Max.)       |
| 耐腐食性                        | │<br>│ 塩水噴霧試験 塩水濃度 5% 35°C 48h  | <br>  コンタクトの接触上有害な腐食が生じないこと                   |
| 测扬及江                        | · 加尔曼物的联 · 加尔波及 370 00 0 0 1011   | 接触抵抗 80m $\Omega$ 以下                          |
| Resistance to soldering     | Leave specimens in the 260 ± 5 °C chamber for 2   | No damage.                                    |
| heat                        | minutes.  |   |
| 半田耐熱性                       | <br>  260℃±5℃の恒温槽に2分間放置   | <br>  外観等、異常のないこと                             |
| Solderability               | After dipping the connector specimens in the applicable flux for 5 to 10 seconds, dip in the Sn: Pb = 60:40 | Wet solder coverage: 95% (Min.)               |
|                             | Solder of 230 ± 5°C for 3 ± 0.5 seconds   |   |
| 半田付性                        | 適合フラックスに5~10s浸漬し<br>Sn:Pb=60:40 半田 230±5°Cに3±0.5s   | 浸した部分の 95%以上が半田で覆われていること                      |
|                             | 浸漬する。   |   |
| Dry heat                    | Subject specimens to 85 °C for 96hours  | Contact resistance: 80m \Omega (Max.)         |
| (High temperature)          | continuously  |   |
| 耐熱性                         | <br>  耐熱試験 85℃ 96h 連続   | 接触抵抗 80m ①以下                                  |
|                             |   |   |