

FORM HD0011-2-1

|                                                                                                  |                             |                                                                                                               |                                                                                                                                                       |                 |                |
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| APPLICABLE STANDARD                                                                              |                             |                                                                                                               |                                                                                                                                                       |                 |                |
| RATING                                                                                           | OPERATING TEMPERATURE RANGE | -40°C TO +125°C                                                                                               | STORAGE TEMPERATURE RANGE                                                                                                                             | -10°C TO +60°C  |                |
|                                                                                                  | VOLTAGE                     | AC 250 V, DC 250 V                                                                                            | —                                                                                                                                                     | —               |                |
|                                                                                                  | CURRENT                     | —                                                                                                             | APPLICABLE CABLE                                                                                                                                      | —               |                |
| 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              |
| ELECTRIC CHARACTERISTICS                                                                         |                             |                                                                                                               |                                                                                                                                                       |                 |                |
| CONTACT RESISTANCE                                                                               |                             | CONTACT SHALL BE MEASURED AT —                                                                                | — mΩ MAX.                                                                                                                                             | —               | —              |
| INSULATION RESISTANCE                                                                            |                             | 500 V DC.                                                                                                     | 5000 MΩ MIN.                                                                                                                                          | X               | X              |
| VOLTAGE PROOF                                                                                    |                             | 2210 V AC. FOR 1 min.                                                                                         | NO FLASHOVER OR BREAKDOWN.                                                                                                                            | X               | X              |
| MECHANICAL CHARACTERISTICS                                                                       |                             |                                                                                                               |                                                                                                                                                       |                 |                |
| CONTACT INSERTION AND WITHDRAWAL FORCES                                                          |                             | — BY STEEL GAUGE.                                                                                             | INSERTION AND WITHDRAWAL FORCES : — N MIN.                                                                                                            | —               | —              |
| CONNECTOR INSERTION AND WITHDRAWAL FORCES                                                        |                             | MEASURED BY APPLICABLE CONNECTOR.                                                                             | INSERTION AND WITHDRAWAL FORCES : 100 N MAX.                                                                                                          | X               | —              |
| CONTACT RETENTION FORCE                                                                          |                             | PULL A TERMINAL BY 50N FROM TERMINAL AREA.                                                                    | DO NOT MOVE THE TERMINAL.                                                                                                                             | X               | —              |
| MECHANICAL OPERATION                                                                             |                             | 500 TIMES INSERTIONS AND EXTRACTIONS.                                                                         | CONTACT RESISTANCE: — mΩ MAX.                                                                                                                         | —               | —              |
| VIBRATION                                                                                        |                             | FREQUENCY: 10 → 55 → 10 (Hz) (1CYC, 5min),<br>SINGLE AMPLITUDE 0.75 mm, AT 10 CYC, FOR 3 DIRECTIONS.          | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                | X               | —              |
| SHOCK                                                                                            |                             | IN OPPOSITE DIRECTIONS OF EACH 3 DEMENSION AXIS FOR 3 TIMES AT 490 m/s <sup>2</sup> DURATIONS OF PULSE 11 ms. | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                | X               | —              |
| ENVIRONMENTAL CHARACTERISTICS                                                                    |                             |                                                                                                               |                                                                                                                                                       |                 |                |
| RAPID CHANGE OF TEMPERATURE                                                                      |                             | TEMPERATURE -55 → R/T <sup>(1)</sup> → +125 → R/T °C<br>TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES.    | ① INSULATION RESISTANCE: 5000 MΩ MIN..<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                                  | X               | —              |
| DAMP HEAT (STEADY STATE)                                                                         |                             | EXPOSED AT 40 °C, 90 TO 95 %, 96 h.                                                                           | ① INSULATION RESISTANCE: 50 MΩ MIN (AT HIGH HUMIDITY).<br>② INSULATION RESISTANCE: 500 MΩ MIN (AT DRY).<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X               | —              |
| CORROSION SALT MIST                                                                              |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                     | NO HEAVY CORROSION RUIN THE FUNCTION.                                                                                                                 | X               | —              |
| SEALING                                                                                          |                             | EXPOSED AT A DEPTH OF 1.8 m FOR 48 h.                                                                         | NO WATER PENETRATION INSIDE CONNECTOR.                                                                                                                | X               | —              |
| AIR TIGHTNESS                                                                                    |                             | APPLY AIR PRESSURE 17.6kPa FOR 0.5min TO INSIDE CONNECTOR.                                                    | NO AIR BUBBLES INSIDE CONNECTOR.                                                                                                                      | X               | —              |
|                                                                                                  |                             |                                                                                                               |                                                                                                                                                       |                 |                |
|                                                                                                  | COUNT                       | DESCRIPTION OF REVISIONS                                                                                      | DESIGNED                                                                                                                                              | CHECKED         | DATE           |
| ①                                                                                                |                             |                                                                                                               |                                                                                                                                                       |                 |                |
| REMARK                                                                                           |                             |                                                                                                               | APPROVED                                                                                                                                              | SU. OBARA       | 09. 10. 05     |
| NOTE (1) R/T : ROOM TEMPERATURE                                                                  |                             |                                                                                                               | CHECKED                                                                                                                                               | HY. KOBAYASHI   | 09. 10. 05     |
| (2) ABOVE SPECIFICATIONS SHOWS THE VALUES IN ASSEMBLED CONDITION WITH APPLICABLE CRIMP CONTACTS. |                             |                                                                                                               | DESIGNED                                                                                                                                              | HS. NAGANO      | 09. 10. 02     |
| Unless otherwise specified, refer to JIS C 5402.                                                 |                             |                                                                                                               | DRAWN                                                                                                                                                 | HS. NAGANO      | 09. 10. 02     |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                   |                             |                                                                                                               | DRAWING NO.                                                                                                                                           |                 | ELC4-115596-00 |
| HRS                                                                                              | SPECIFICATION SHEET         |                                                                                                               | PART NO.                                                                                                                                              | EM35WBP-4SC     |                |
|                                                                                                  | HIROSE ELECTRIC CO., LTD.   |                                                                                                               | CODE NO.                                                                                                                                              | CL138-0008-3-00 | △ 1/1          |

|                                                                                                  |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|
| APPLICABLE STANDARD                                                                              |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| RATING                                                                                           | OPERATING TEMPERATURE RANGE                                                                                   | -40°C TO +125°C                       | STORAGE TEMPERATURE RANGE                                                                                                                             | -10°C TO +60°C  |            |
|                                                                                                  | VOLTAGE                                                                                                       | AC 250 V, DC 250 V                    | —                                                                                                                                                     | —               |            |
|                                                                                                  | CURRENT                                                                                                       | —                                     | APPLICABLE CABLE                                                                                                                                      | —               |            |
| 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          |
| ELECTRIC CHARACTERISTICS                                                                         |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| CONTACT RESISTANCE                                                                               | CONTACT SHALL BE MEASURED AT —                                                                                |                                       | — mΩ MAX.                                                                                                                                             | —               | —          |
|                                                                                                  | BETWEEN GROUND CONTACT TO SHELL SHALL BE MEASURED AT DC 1A.                                                   |                                       | 100 mΩ MAX.                                                                                                                                           | X               | X          |
| INSULATION RESISTANCE                                                                            | 500 V DC.                                                                                                     |                                       | 5000 MΩ MIN.                                                                                                                                          | X               | X          |
| VOLTAGE PROOF                                                                                    | 2210 V AC. FOR 1 min.                                                                                         |                                       | NO FLASHOVER OR BREAKDOWN.                                                                                                                            | X               | X          |
| MECHANICAL CHARACTERISTICS                                                                       |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| CONTACT INSERTION AND WITHDRAWAL FORCES                                                          | — BY STEEL GAUGE.                                                                                             |                                       | INSERTION AND WITHDRAWAL FORCES : — N MIN.                                                                                                            | —               | —          |
| CONNECTOR INSERTION AND WITHDRAWAL FORCES                                                        | MEASURED BY APPLICABLE CONNECTOR.                                                                             |                                       | INSERTION AND WITHDRAWAL FORCES : 100 N MAX.                                                                                                          | X               | —          |
| CONTACT RETENTION FORCE                                                                          | PULL A TERMINAL BY 50N FROM TERMINAL AREA.                                                                    |                                       | DO NOT MOVE THE TERMINAL.                                                                                                                             | X               | —          |
| MECHANICAL OPERATION                                                                             | 500 TIMES INSERTIONS AND EXTRACTIONS.                                                                         |                                       | CONTACT RESISTANCE: — mΩ MAX.                                                                                                                         | —               | —          |
|                                                                                                  |                                                                                                               |                                       | GROUND CONTACT TO SHELL RESISTANCE: 100 mΩ MAX.                                                                                                       | X               | —          |
| VIBRATION                                                                                        | FREQUENCY: 10 → 55 → 10 (Hz) (1CYC, 5min), SINGLE AMPLITUDE 0.75 mm, AT 10 CYC, FOR 3 DIRECTIONS.             |                                       | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                | X               | —          |
| SHOCK                                                                                            | IN OPPOSITE DIRECTIONS OF EACH 3 DEMENSION AXIS FOR 3 TIMES AT 490 m/s <sup>2</sup> DURATIONS OF PULSE 11 ms. |                                       | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                | X               | —          |
| ENVIRONMENTAL CHARACTERISTICS                                                                    |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| RAPID CHANGE OF TEMPERATURE                                                                      | TEMPERATURE -55 → R/T <sup>(1)</sup> → +125 → R/T °C<br>TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES.    |                                       | ① INSULATION RESISTANCE: 5000 MΩ MIN. .<br>② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.                                                                 | X               | —          |
| DAMP HEAT (STEADY STATE)                                                                         | EXPOSED AT 40 °C, 90 TO 95 %, 96 h.                                                                           |                                       | ① INSULATION RESISTANCE: 50 MΩ MIN (AT HIGH HUMIDITY).<br>② INSULATION RESISTANCE: 500 MΩ MIN (AT DRY).<br>③ NO DAMAGE. CRACK AND LOOSENESS OF PARTS. | X               | —          |
| CORROSION SALT MIST                                                                              | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                     |                                       | NO HEAVY CORROSIN RUIN THE FUNCTION.                                                                                                                  | X               | —          |
| SEALING                                                                                          | EXPOSED AT A DEPTH OF 1.8 m FOR 48 h.                                                                         |                                       | NO WATER PENETRATION INSIDE CONNECTOR.                                                                                                                | X               | —          |
| AIR TIGHTNESS                                                                                    | APPLY AIR PRESSURE 17.6kPa FOR 0.5min TO INSIDE CONNECTOR.                                                    |                                       | NO AIR BUBBLES INSIDE CONNECTOR.                                                                                                                      | X               | —          |
|                                                                                                  |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| COUNT                                                                                            | DESCRIPTION OF REVISIONS                                                                                      | DESIGNED                              | CHECKED                                                                                                                                               | DATE            |            |
| 0                                                                                                |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| REMARK                                                                                           |                                                                                                               |                                       | APPROVED                                                                                                                                              | SU. OBARA       | 09. 10. 20 |
| NOTES (1) R/T : ROOM TEMPERATURE                                                                 |                                                                                                               |                                       | CHECKED                                                                                                                                               | HY. KOBAYASHI   | 09. 10. 19 |
| (2) ABOVE SPECIFICATIONS SHOWS THE VALUES IN ASSEMBLED CONDITION WITH APPLICABLE CRIMP CONTACTS. |                                                                                                               |                                       | DESIGNED                                                                                                                                              | HS. NAGANO      | 09. 10. 19 |
| Unless otherwise specified, refer to JIS C 5402.                                                 |                                                                                                               |                                       | DRAWN                                                                                                                                                 | HS. NAGANO      | 09. 10. 19 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                   |                                                                                                               | DRAWING NO.                           | ELC4-115597-00                                                                                                                                        |                 |            |
| HRS                                                                                              | SPECIFICATION SHEET                                                                                           |                                       | PART NO.                                                                                                                                              | EM35WBR-4PC     |            |
|                                                                                                  | HIROSE ELECTRIC CO., LTD.                                                                                     |                                       | CODE NO.                                                                                                                                              | CL138-0009-6-00 | △ 1/1      |

参考図：ご確認用。正式には別途納入仕様書をご請求願います。

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FORM HD0011-2-1

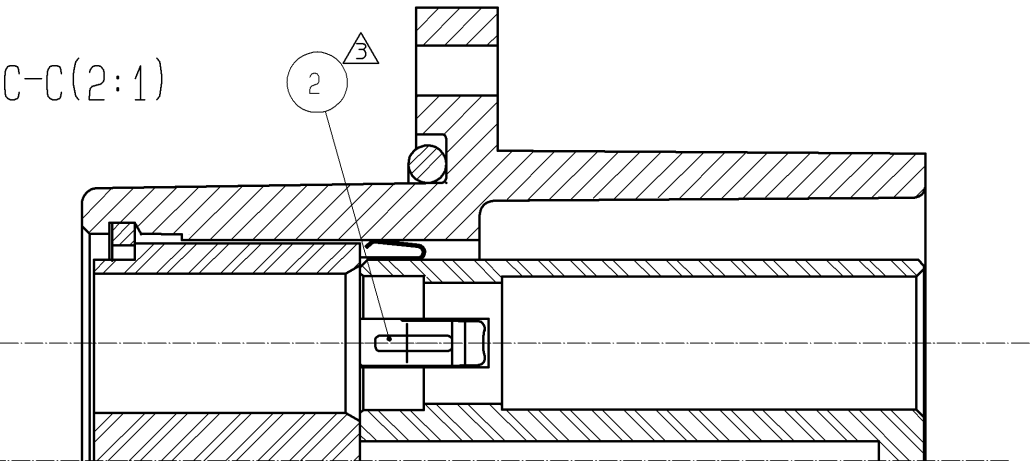
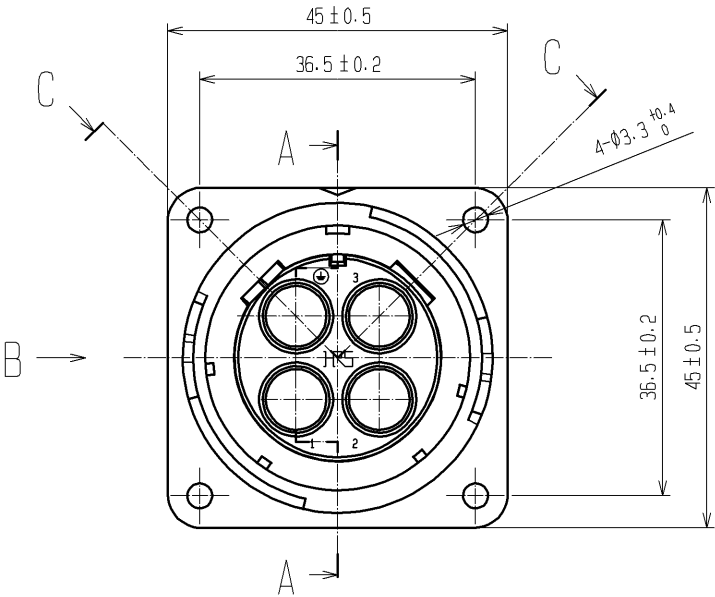
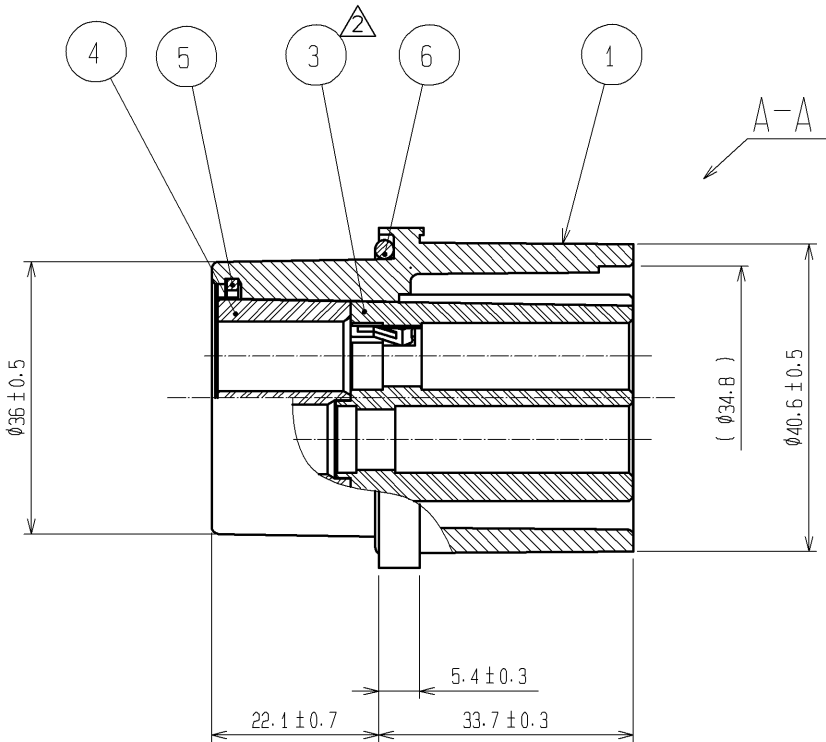
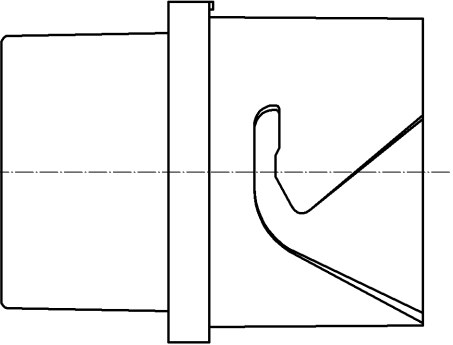
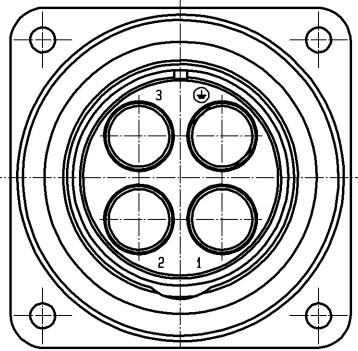
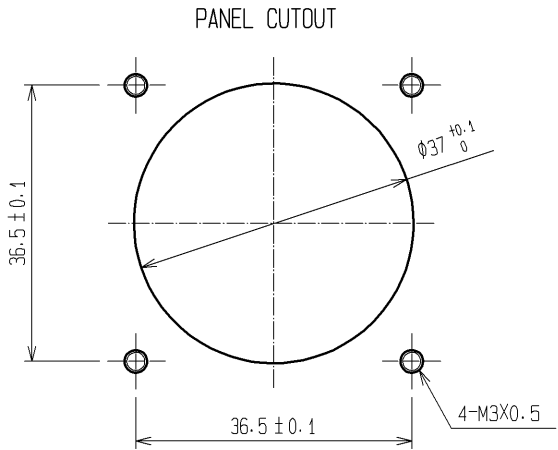
|                                                                                                  |                             |                                                                                                               |                                                                                                                                                       |                 |            |
|--------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|
| APPLICABLE STANDARD                                                                              |                             |                                                                                                               |                                                                                                                                                       |                 |            |
| RATING                                                                                           | OPERATING TEMPERATURE RANGE | -40°C TO +125°C                                                                                               | STORAGE TEMPERATURE RANGE                                                                                                                             | -10°C TO +60°C  |            |
|                                                                                                  | VOLTAGE                     | AC 250 V , DC 250 V                                                                                           | —                                                                                                                                                     | —               |            |
|                                                                                                  | CURRENT                     | —                                                                                                             | APPLICABLE CABLE                                                                                                                                      | —               |            |
| 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          |
| ELECTRIC CHARACTERISTICS                                                                         |                             |                                                                                                               |                                                                                                                                                       |                 |            |
| CONTACT RESISTANCE                                                                               |                             | CONTACT SHALL BE MEASURED AT —                                                                                | — mΩ MAX.                                                                                                                                             | —               | —          |
| INSULATION RESISTANCE                                                                            |                             | 500 V DC.                                                                                                     | 5000 MΩ MIN.                                                                                                                                          | X               | X          |
| VOLTAGE PROOF                                                                                    |                             | 2210 V AC. FOR 1 min.                                                                                         | NO FLASHOVER OR BREAKDOWN.                                                                                                                            | X               | X          |
| MECHANICAL CHARACTERISTICS                                                                       |                             |                                                                                                               |                                                                                                                                                       |                 |            |
| CONTACT INSERTION AND WITHDRAWAL FORCES                                                          |                             | — BY STEEL GAUGE.                                                                                             | INSERTION AND WITHDRAWAL FORCES : — N MIN.                                                                                                            | —               | —          |
| CONNECTOR INSERTION AND WITHDRAWAL FORCES                                                        |                             | MEASURED BY APPLICABLE CONNECTOR.                                                                             | INSERTION AND WITHDRAWAL FORCES : 100 N MAX.                                                                                                          | X               | —          |
| CONTACT RETENTION FORCE                                                                          |                             | PULL A TERMINAL BY 50N FROM TERMINAL AREA.                                                                    | DO NOT MOVE THE TERMINAL.                                                                                                                             | X               | —          |
| MECHANICAL OPERATION                                                                             |                             | 500 TIMES INSERTIONS AND EXTRACTIONS.                                                                         | CONTACT RESISTANCE: — mΩ MAX.                                                                                                                         | —               | —          |
| VIBRATION                                                                                        |                             | FREQUENCY: 10 → 55 → 10 (Hz) (1CYC, 5min),<br>SINGLE AMPLITUDE 0.75 mm, AT 10 CYC, FOR 3 DIRECTIONS.          | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                | X               | —          |
| SHOCK                                                                                            |                             | IN OPPOSITE DIRECTIONS OF EACH 3 DEMENSION AXIS FOR 3 TIMES AT 490 m/s <sup>2</sup> DURATIONS OF PULSE 11 ms. | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                | X               | —          |
| ENVIRONMENTAL CHARACTERISTICS                                                                    |                             |                                                                                                               |                                                                                                                                                       |                 |            |
| RAPID CHANGE OF TEMPERATURE                                                                      |                             | TEMPERATURE -55→ R/T <sup>(1)</sup> → +125 → R/T °C<br>TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES.     | ① INSULATION RESISTANCE: 5000 MΩ MIN..<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                                  | X               | —          |
| DAMP HEAT (STEADY STATE)                                                                         |                             | EXPOSED AT 40 °C, 90 TO 95 %, 96 h.                                                                           | ① INSULATION RESISTANCE: 50 MΩ MIN (AT HIGH HUMIDITY).<br>② INSULATION RESISTANCE: 500 MΩ MIN (AT DRY).<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X               | —          |
| CORROSION SALT MIST                                                                              |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                     | NO HEAVY CORROSION RUIN THE FUNCTION.                                                                                                                 | X               | —          |
| SEALING                                                                                          |                             | EXPOSED AT A DEPTH OF 1.8 m FOR 48 h.                                                                         | NO WATER PENETRATION INSIDE CONNECTOR.                                                                                                                | X               | —          |
| AIR TIGHTNESS                                                                                    |                             | APPLY AIR PRESSURE 17.6kPa FOR 0.5min TO INSIDE CONNECTOR.                                                    | NO AIR BUBBLES INSIDE CONNECTOR.                                                                                                                      | X               | —          |
|                                                                                                  |                             |                                                                                                               |                                                                                                                                                       |                 |            |
| COUNT                                                                                            | DESCRIPTION OF REVISIONS    | DESIGNED                                                                                                      | CHECKED                                                                                                                                               | DATE            |            |
| 0                                                                                                |                             |                                                                                                               |                                                                                                                                                       |                 |            |
| REMARK                                                                                           |                             |                                                                                                               | APPROVED                                                                                                                                              | SU. OBARA       | 09. 10. 05 |
| NOTE (1) R/T : ROOM TEMPERATURE                                                                  |                             |                                                                                                               | CHECKED                                                                                                                                               | HY. KOBAYASHI   | 09. 10. 05 |
| (2) ABOVE SPECIFICATIONS SHOWS THE VALUES IN ASSEMBLED CONDITION WITH APPLICABLE CRIMP CONTACTS. |                             |                                                                                                               | DESIGNED                                                                                                                                              | HS. NAGANO      | 09. 10. 02 |
| Unless otherwise specified, refer to JIS C 5402.                                                 |                             |                                                                                                               | DRAWN                                                                                                                                                 | HS. NAGANO      | 09. 10. 02 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                   |                             | DRAWING NO.                                                                                                   | ELC4-115774-00                                                                                                                                        |                 |            |
| HRS                                                                                              | SPECIFICATION SHEET         |                                                                                                               | PART NO.                                                                                                                                              | EM35WBP-4PC     |            |
|                                                                                                  | HIROSE ELECTRIC CO., LTD.   |                                                                                                               | CODE NO.                                                                                                                                              | CL138-0013-3-00 | △ 1/ 1     |

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|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|
| APPLICABLE STANDARD                                                                              |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| RATING                                                                                           | OPERATING TEMPERATURE RANGE                                                                                   | -40°C TO +125°C                       | STORAGE TEMPERATURE RANGE                                                                                                                             | -10°C TO +60°C  |            |
|                                                                                                  | VOLTAGE                                                                                                       | AC 250 V, DC 250 V                    | —                                                                                                                                                     | —               |            |
|                                                                                                  | CURRENT                                                                                                       | —                                     | APPLICABLE CABLE                                                                                                                                      | —               |            |
| 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          |
| ELECTRIC CHARACTERISTICS                                                                         |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| CONTACT RESISTANCE                                                                               | CONTACT SHALL BE MEASURED AT —                                                                                |                                       | — mΩ MAX.                                                                                                                                             | —               | —          |
|                                                                                                  | BETWEEN GROUND CONTACT TO SHELL SHALL BE MEASURED AT DC 1A.                                                   |                                       | 100 mΩ MAX.                                                                                                                                           | X               | X          |
| INSULATION RESISTANCE                                                                            | 500 V DC.                                                                                                     |                                       | 5000 MΩ MIN.                                                                                                                                          | X               | X          |
| VOLTAGE PROOF                                                                                    | 2210 V AC. FOR 1 min.                                                                                         |                                       | NO FLASHOVER OR BREAKDOWN.                                                                                                                            | X               | X          |
| MECHANICAL CHARACTERISTICS                                                                       |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| CONTACT INSERTION AND WITHDRAWAL FORCES                                                          | — BY STEEL GAUGE.                                                                                             |                                       | INSERTION AND WITHDRAWAL FORCES : — N MIN.                                                                                                            | —               | —          |
| CONNECTOR INSERTION AND WITHDRAWAL FORCES                                                        | MEASURED BY APPLICABLE CONNECTOR.                                                                             |                                       | INSERTION AND WITHDRAWAL FORCES : 100 N MAX.                                                                                                          | X               | —          |
| CONTACT RETENTION FORCE                                                                          | PULL A TERMINAL BY 50N FROM TERMINAL AREA.                                                                    |                                       | DO NOT MOVE THE TERMINAL.                                                                                                                             | X               | —          |
| MECHANICAL OPERATION                                                                             | 500 TIMES INSERTIONS AND EXTRACTIONS.                                                                         |                                       | CONTACT RESISTANCE: — mΩ MAX.                                                                                                                         | —               | —          |
|                                                                                                  |                                                                                                               |                                       | GROUND CONTACT TO SHELL RESISTANCE: 100 mΩ MAX.                                                                                                       | X               | —          |
| VIBRATION                                                                                        | FREQUENCY: 10 → 55 → 10 (Hz) (1CYC, 5min), SINGLE AMPLITUDE 0.75 mm, AT 10 CYC, FOR 3 DIRECTIONS.             |                                       | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                | X               | —          |
| SHOCK                                                                                            | IN OPPOSITE DIRECTIONS OF EACH 3 DEMENSION AXIS FOR 3 TIMES AT 490 m/s <sup>2</sup> DURATIONS OF PULSE 11 ms. |                                       | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                | X               | —          |
| ENVIRONMENTAL CHARACTERISTICS                                                                    |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| RAPID CHANGE OF TEMPERATURE                                                                      | TEMPERATURE -55 → R/T <sup>(1)</sup> → +125 → R/T °C<br>TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES.    |                                       | ① INSULATION RESISTANCE: 5000 MΩ MIN. .<br>② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.                                                                 | X               | —          |
| DAMP HEAT (STEADY STATE)                                                                         | EXPOSED AT 40 °C, 90 TO 95 %, 96 h.                                                                           |                                       | ① INSULATION RESISTANCE: 50 MΩ MIN (AT HIGH HUMIDITY).<br>② INSULATION RESISTANCE: 500 MΩ MIN (AT DRY).<br>③ NO DAMAGE. CRACK AND LOOSENESS OF PARTS. | X               | —          |
| CORROSION SALT MIST                                                                              | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                     |                                       | NO HEAVY CORROSIN RUIN THE FUNCTION.                                                                                                                  | X               | —          |
| SEALING                                                                                          | EXPOSED AT A DEPTH OF 1.8 m FOR 48 h.                                                                         |                                       | NO WATER PENETRATION INSIDE CONNECTOR.                                                                                                                | X               | —          |
| AIR TIGHTNESS                                                                                    | APPLY AIR PRESSURE 17.6kPa FOR 0.5min TO INSIDE CONNECTOR.                                                    |                                       | NO AIR BUBBLES INSIDE CONNECTOR.                                                                                                                      | X               | —          |
|                                                                                                  |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| COUNT                                                                                            | DESCRIPTION OF REVISIONS                                                                                      | DESIGNED                              | CHECKED                                                                                                                                               | DATE            |            |
| 0                                                                                                |                                                                                                               |                                       |                                                                                                                                                       |                 |            |
| REMARK                                                                                           |                                                                                                               |                                       | APPROVED                                                                                                                                              | SU. OBARA       | 09. 10. 20 |
| NOTES(1) R/T : ROOM TEMPERATURE                                                                  |                                                                                                               |                                       | CHECKED                                                                                                                                               | HY. KOBAYASHI   | 09. 10. 19 |
| (2) ABOVE SPECIFICATIONS SHOWS THE VALUES IN ASSEMBLED CONDITION WITH APPLICABLE CRIMP CONTACTS. |                                                                                                               |                                       | DESIGNED                                                                                                                                              | HS. NAGANO      | 09. 10. 19 |
| Unless otherwise specified, refer to JIS C 5402.                                                 |                                                                                                               |                                       | DRAWN                                                                                                                                                 | HS. NAGANO      | 09. 10. 19 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                   |                                                                                                               | DRAWING NO.                           | ELC4-115775-00                                                                                                                                        |                 |            |
| HRS                                                                                              | SPECIFICATION SHEET                                                                                           |                                       | PART NO.                                                                                                                                              | EM35WBR-4SC     |            |
|                                                                                                  | HIROSE ELECTRIC CO., LTD.                                                                                     |                                       | CODE NO.                                                                                                                                              | CL138-0014-6-00 | △ 1/1      |

参考図：ご確認用。正式には別途納入仕様書をご請求願います。

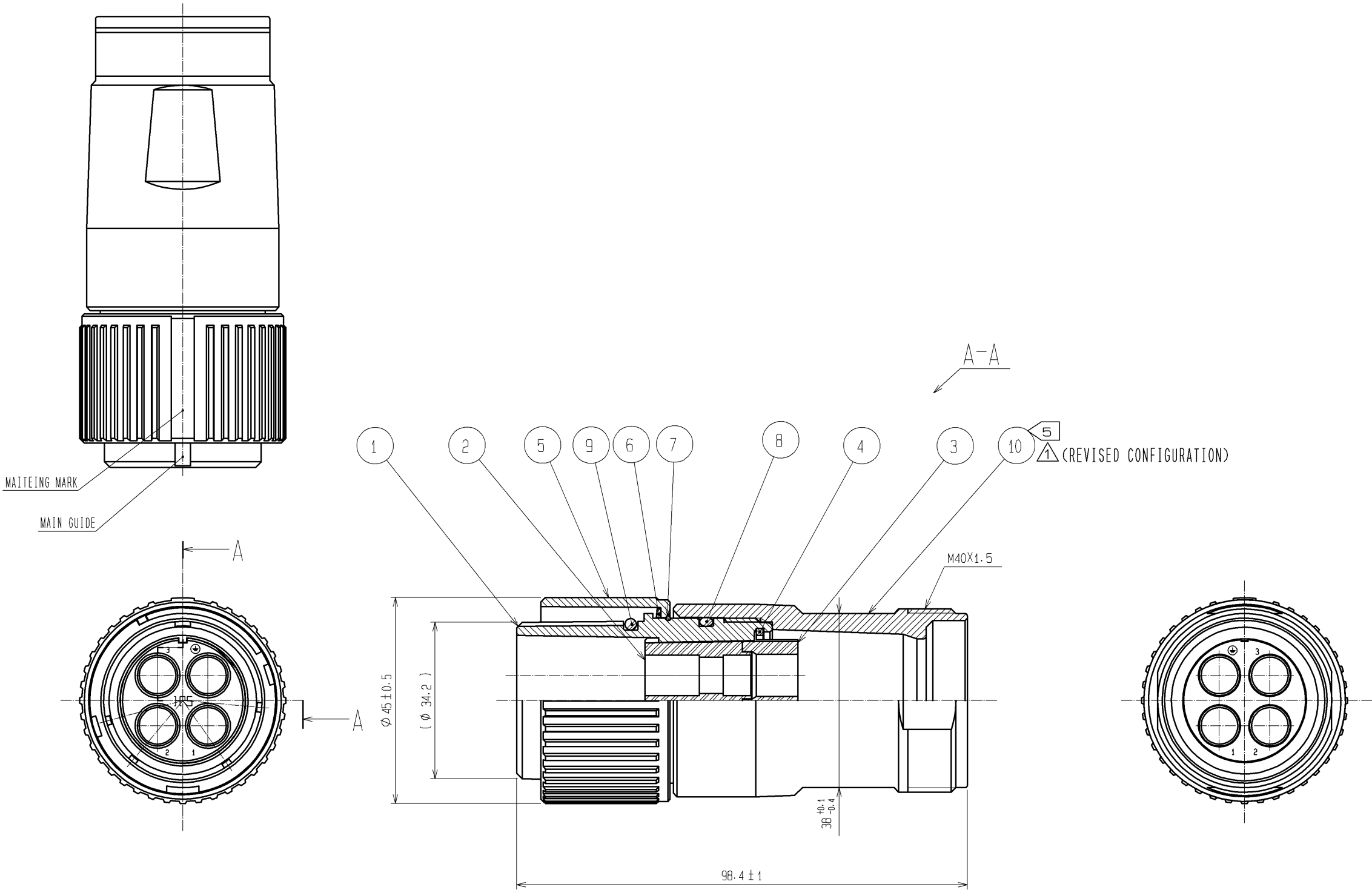
2010/03/25 20:23:05 SROper

FORM HD0011-2-1



- NOTES
- 1 APPLICABLE CRIMPING CONTACT:EM-SC-133(CL138-0018-7)
  - 2 APPLICABLE CRIMP CONTACT EXTRACTION TOOL:EM-8-TP(CL150-0249-3)
  - 3 THE ASSEMBLY OF THIS PRODUCT APPLIES TO THE MANUAL ATAD-C0155.
  - 4 CHECK REF NO.⑥ IS PRPPERLY SET AT THE GROOVE OF REF.NO.①.  
WHILE MOUNTING THE CONNECTOR,MAKE SURE THAT REF No.⑥ IS NOT CAUGHT.

|                       |                |                               |                     |                                          |                         |
|-----------------------|----------------|-------------------------------|---------------------|------------------------------------------|-------------------------|
| 3                     | PBT            | (BLACK) UL94V-0               | 6                   | SILICONE RUBBER                          | (RED)                   |
| 2                     | COPPER ALLOY   | TIN PLATING                   | 5                   | STAINLESS STEEL                          |                         |
| 1                     | ALUMINUM ALLOY | NICKEL PLATING                | 4                   | PBT                                      | (BLACK) UL94V-0         |
| NO.                   | MATERIAL       | FINISH , REMARKS              | NO.                 | MATERIAL                                 | FINISH , REMARKS        |
| UNITS<br>mm           | ①              | SCALE<br>1 : 1                | COUNT<br>1          | DESCRIPTION OF REVISIONS<br>DIS-C-001430 | DESIGNED<br>HS. NAGANO  |
| APPROVED : MO. SATOH  | 07. 11. 16     | DRAWING NO.<br>EDC3-115775-00 | CHECKED : EJ. KUNII | 07. 11. 16                               | PART NO.<br>EM35WBR-4SC |
| DESIGNED : HS. NAGANO | 07. 11. 15     | CODE NO.<br>CL138-0014-6-00   | DRAWN : HS. NAGANO  | 07. 11. 15                               |                         |



NOTES

③ 1 APPLICABLE CRIMPING CONTACT: EM-PC-133 (CL138-0019-0)

2 APPLICABLE CRIMP CONTACT EXTRACTION TOOL: EM-8-TP (CL150-0249-3)

3 APPLICABLE CABLE CLAMP: EM35WCC-※

※ SHOWS THE APPLICABLE CABLE DIAMETER.

4 THE ASSEMBLY OF THIS PRODUCT APPLIES TO THE MANUAL ATAD-C0155.

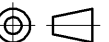
② ⑤ THE RECOMMENDED TIGHTENING TORQUE, ADHESIVE FOR SCREW PORTION OF REF NO. ④ AS FOLLOWINGS.

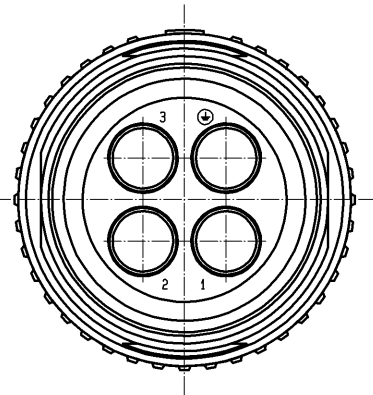
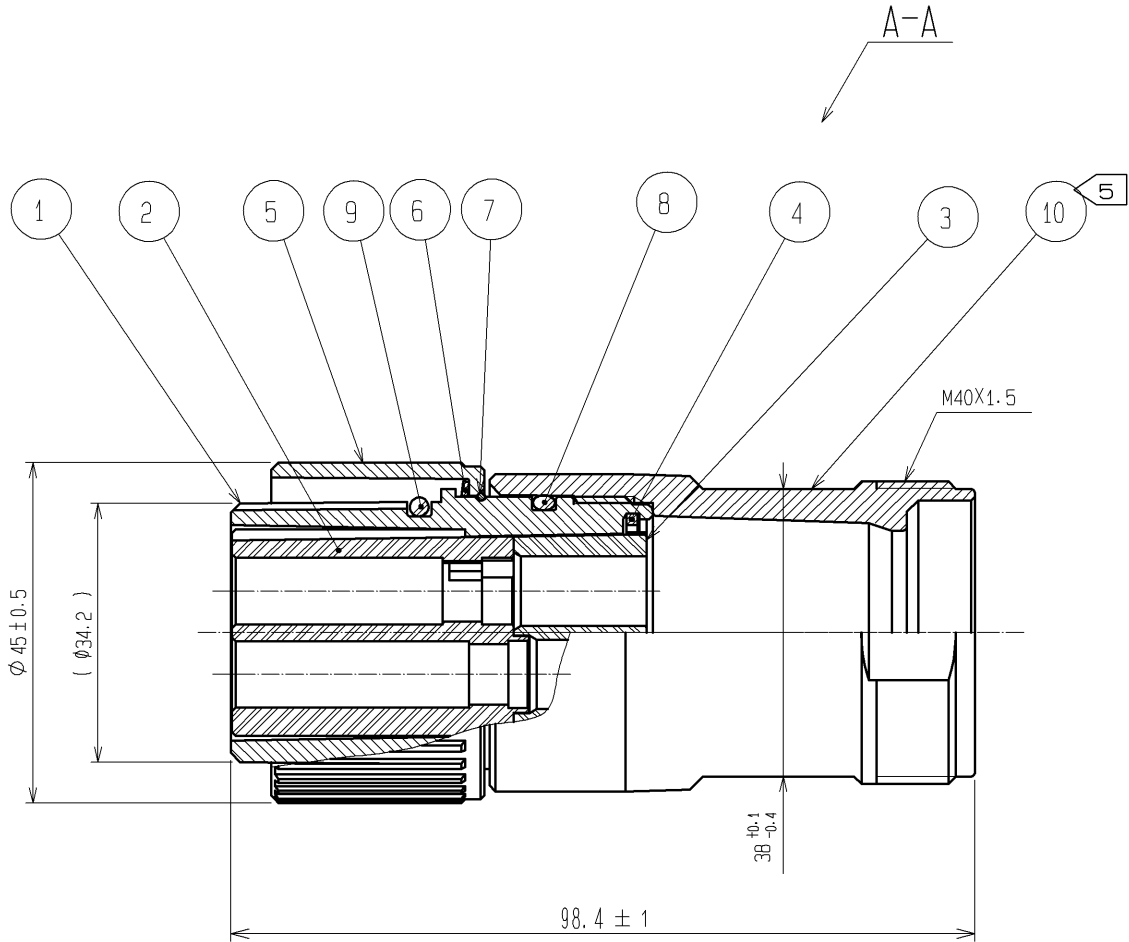
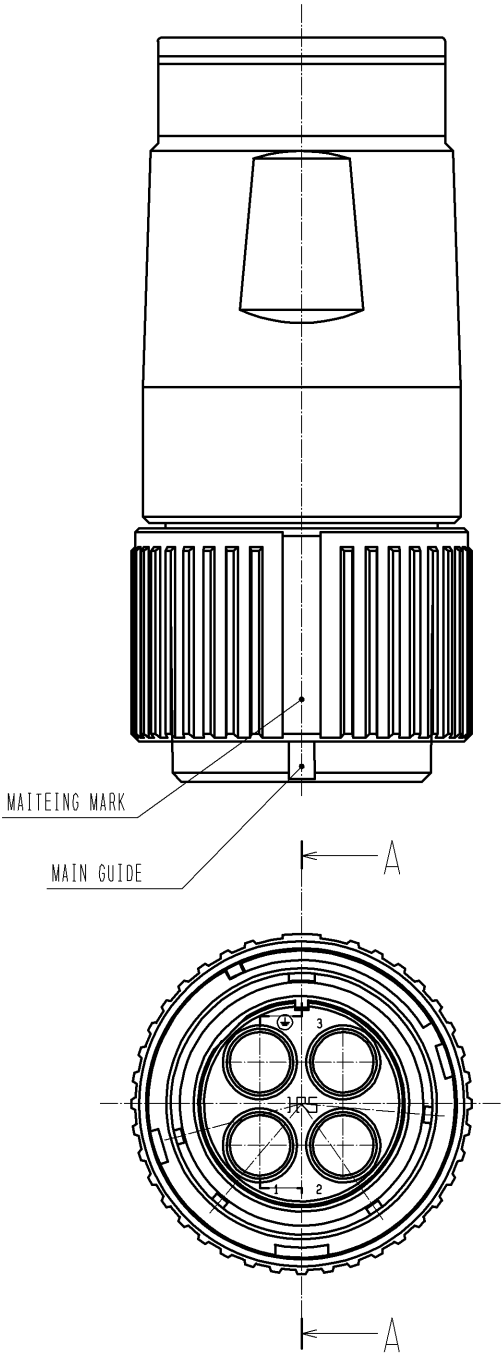
THE ADHESIVE SHOULD BE ATTACHED ON THE SCREW PORTION OF REF NO. ④

TIGHTENING TORQUE: 6 TO 7 N·m.

ADHESIVE: LOCTITE 242 MADE BY HENKEL JAPAN LTD.

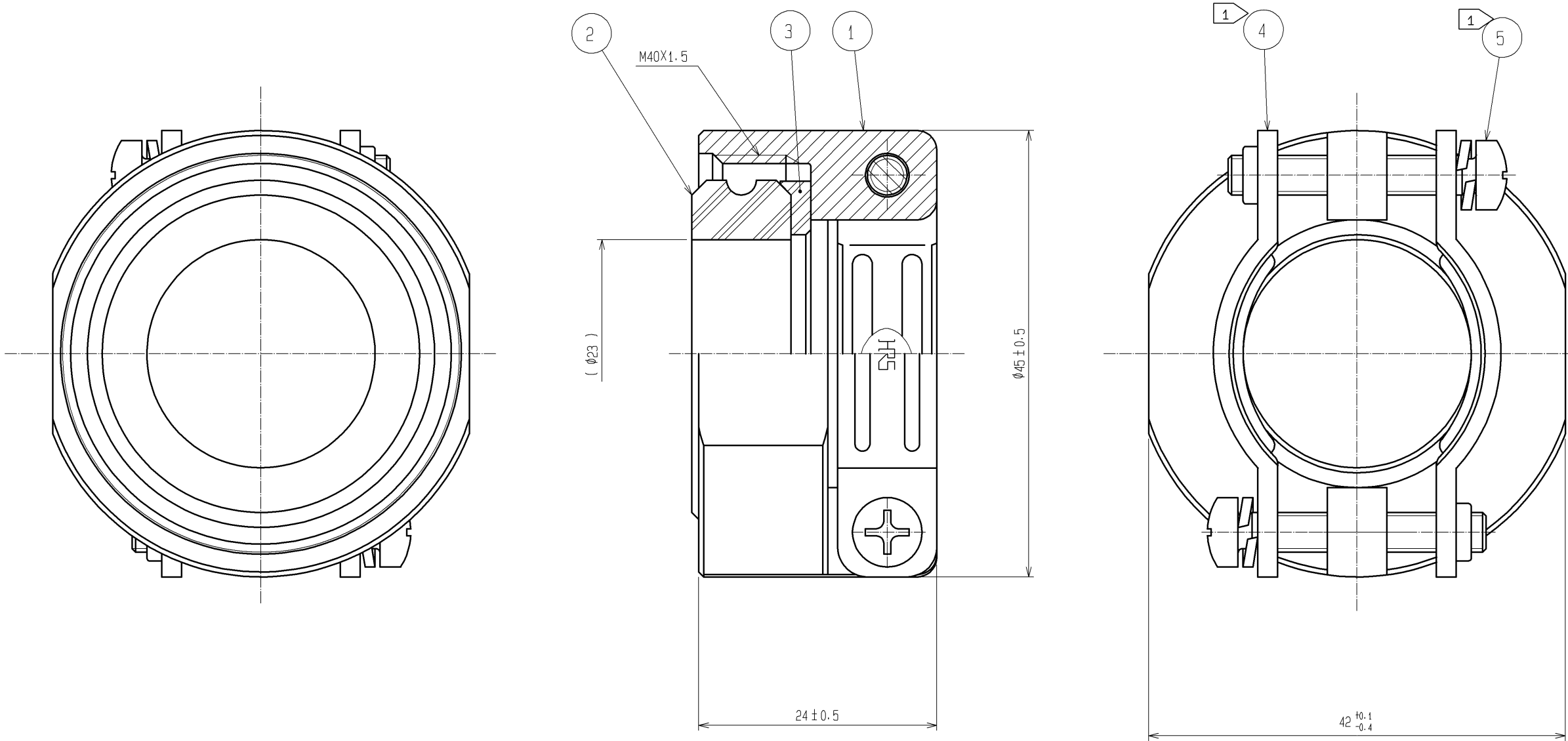
6 ROTATION EXAMPLES ARE SHOWN FOR REF. NO. ①, ②, AND ④.

|                                                                                                                 |                 |                                                                                       |    |                       |                                                                                       |                  |                                                                                                                                                                             |                        |                          |                  |
|-----------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------|----|-----------------------|---------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------|------------------|
| 5                                                                                                               | ALUMINUM ALLOY  | NICKEL PLATING                                                                        | 10 | ALUMINUM ALLOY        | NICKEL PLATING                                                                        |                  |                                                                                                                                                                             |                        |                          |                  |
| 4                                                                                                               | STAINLESS STEEL |                                                                                       | 9  | SILICONE RUBBER       | (RED)                                                                                 |                  |                                                                                                                                                                             |                        |                          |                  |
| 3                                                                                                               | PBT             | (BLACK) UL94V-0                                                                       | 8  | SILICONE RUBBER       | (RED)                                                                                 |                  |                                                                                                                                                                             |                        |                          |                  |
| 2                                                                                                               | PBT             | (BLACK) UL94V-0                                                                       | 7  | STAINLESS STEEL       |                                                                                       |                  |                                                                                                                                                                             |                        |                          |                  |
| 1                                                                                                               | ALUMINUM ALLOY  | NICKEL PLATING                                                                        | 6  | STAINLESS STEEL       |                                                                                       |                  |                                                                                                                                                                             |                        |                          |                  |
| NO.                                                                                                             | MATERIAL        | FINISH . REMARKS                                                                      |    | NO.                   | MATERIAL                                                                              | FINISH . REMARKS |                                                                                                                                                                             |                        |                          |                  |
| UNITS<br>mm                                                                                                     |                 |  |    | SCALE<br>1 : 1        |  | COUNT<br>1       | DESCRIPTION OF REVISIONS<br>DIS-C-001430                                                                                                                                    | DESIGNED<br>HS. NAGANO | CHECKED<br>HY. KOBAYASHI | DATE<br>09.10.05 |
|  HIROSE ELECTRIC CO., LTD. |                 |                                                                                       |    | APPROVED : MO. SATOH  |                                                                                       | 07.11.16         | DRAWING NO.<br>EDC3-115774-00                                                                                                                                               |                        |                          |                  |
|                                                                                                                 |                 |                                                                                       |    | CHECKED : EJ. KUNII   |                                                                                       | 07.11.16         | PART NO.<br>EM35WBP-4PC                                                                                                                                                     |                        |                          |                  |
|                                                                                                                 |                 |                                                                                       |    | DESIGNED : HS. NAGANO |                                                                                       | 07.11.15         | CODE NO.<br>CL138-0013-3-00                                                                                                                                                 |                        |                          |                  |
|                                                                                                                 |                 |                                                                                       |    | DRAWN : HS. NAGANO    |                                                                                       | 07.11.15         |                                                                                                                                                                             |                        |                          |                  |
|                                                                                                                 |                 |                                                                                       |    |                       |                                                                                       |                  |   |                        |                          |                  |



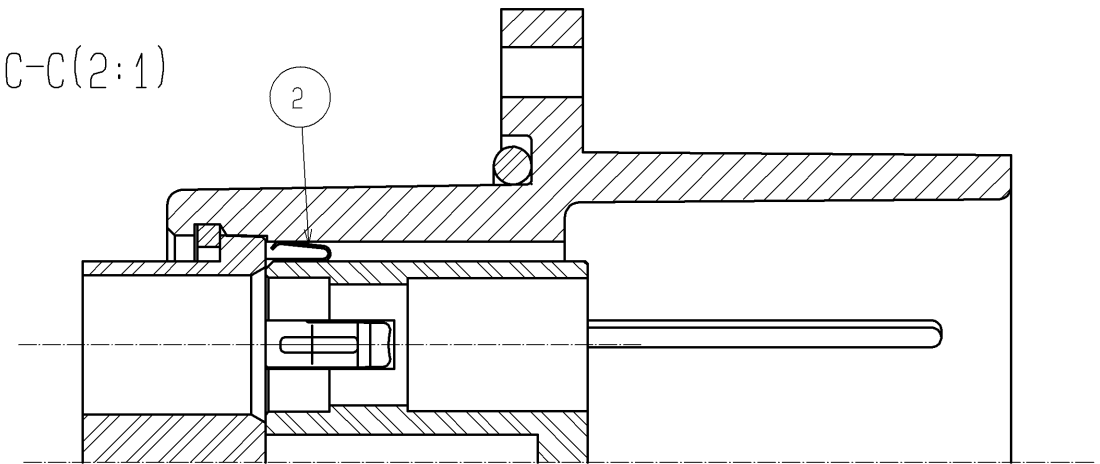
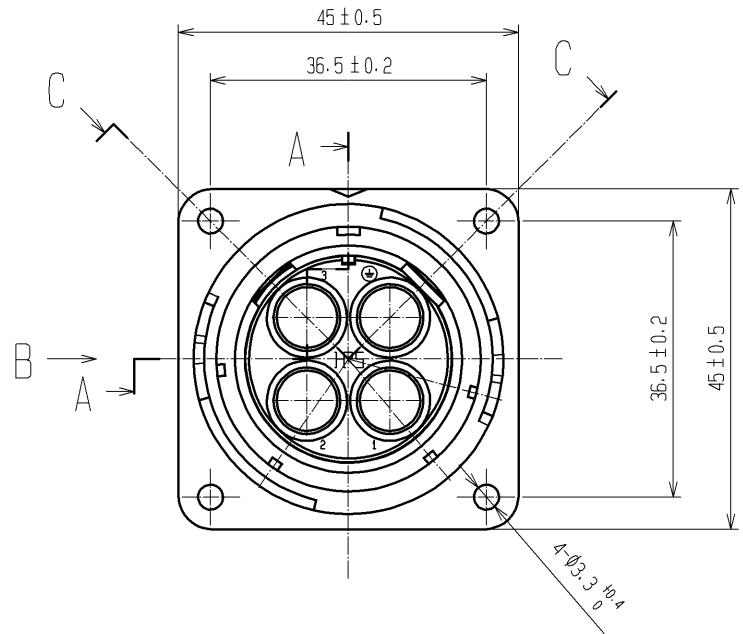
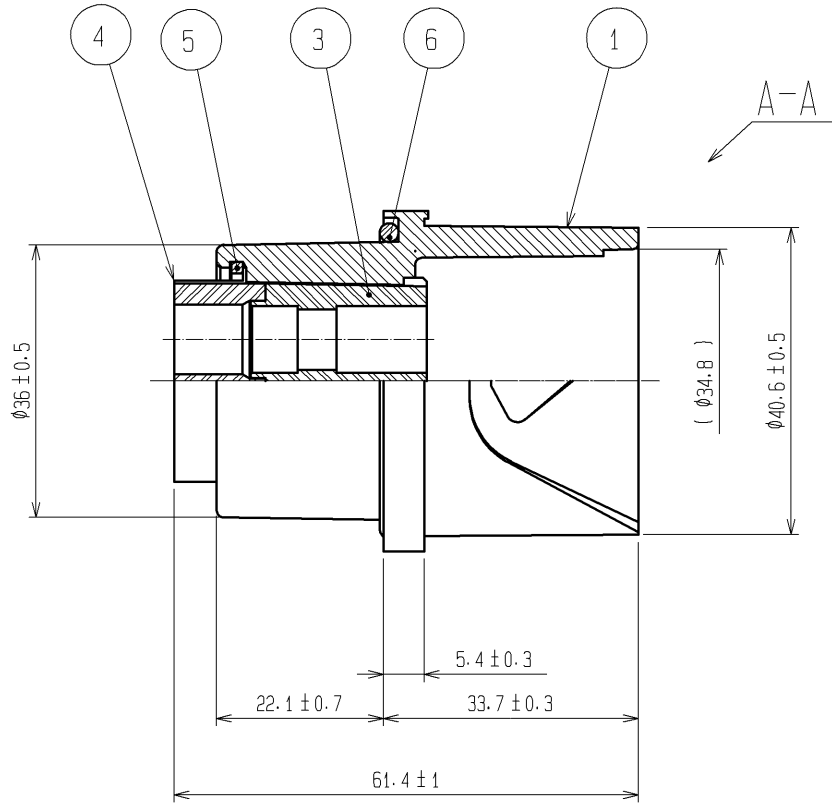
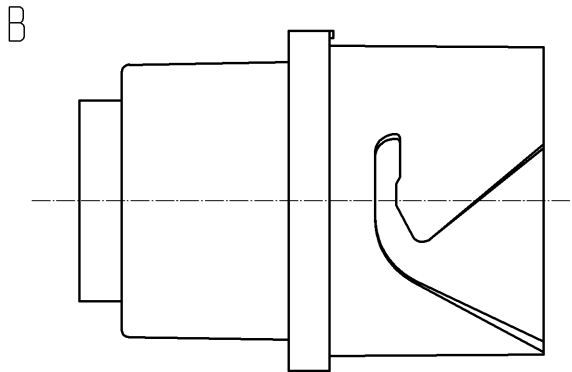
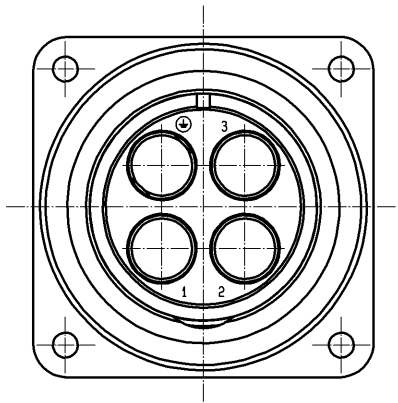
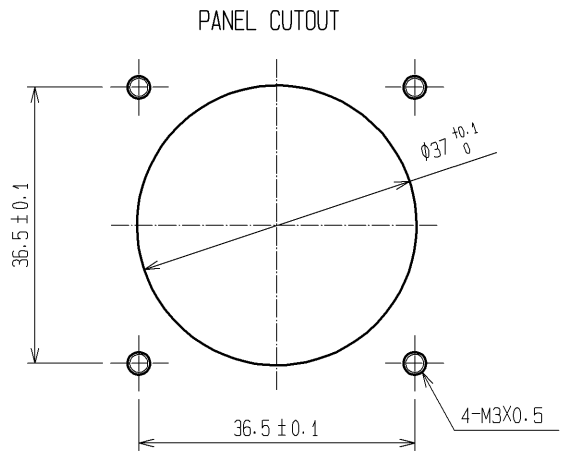
- △ NOTES 1 APPLICABLE CRIMPING CONTACT:EM-SC-133(CL138-0018-7)  
2 APPLICABLE CRIMP CONTACT EXTRACTION TOOL:EM-8-TP(CL150-0249-3)  
3 APPLICABLE CABLE CLAMP:EM35WCC-※  
※SHOWS THE APPLICABLE CABLE DIAMETER.  
4 THE ASSEMBLY OF THIS PRODUCT APPLIES TO THE MANUAL ATAD-C0155.  
5 THE RECOMMENDED TIGHTENING TORQUE, ADHESIVE FOR SCREW PORTION OF REF NO.⑩ AS FOLLOWINGS.  
THE ADHESIVE SHOULD BE ATTACHED ON THE SCREW PORTION OF REF NO.⑩  
TIGHTENING TORQUE: 6 TO 7 N·m.  
ADHESIVE: LOCTITE 242 MADE BY HENKEL JAPAN LTD.  
6 ROTATION EXAMPLES ARE SHOWN FOR REF. NO. ①, ②, AND ③.

|                                 |                 |                        |            |                                          |                          |
|---------------------------------|-----------------|------------------------|------------|------------------------------------------|--------------------------|
| 5                               | ALUMINUM ALLOY  | NICKEL PLATING         | 10         | ALUMINUM ALLOY                           | NICKEL PLATING           |
| 4                               | STAINLESS STEEL |                        | 9          | SILICONE RUBBER                          | (RED)                    |
| 3                               | PBT             | (BLACK) UL94V-0        | 8          | SILICONE RUBBER                          | (RED)                    |
| 2                               | PBT             | (BLACK) UL94V-0        | 7          | STAINLESS STEEL                          |                          |
| 1                               | ALUMINUM ALLOY  | NICKEL PLATING         | 6          | STAINLESS STEEL                          |                          |
| NO.                             | MATERIAL        | FINISH . REMARKS       | NO.        | MATERIAL                                 | FINISH . REMARKS         |
| UNITS<br>mm                     |                 | SCALE<br>1 : 1         | COUNT<br>1 | DESCRIPTION OF REVISIONS<br>DIS-C-001463 | DESIGNED<br>HS. NAGANO   |
| HIROSE<br>ELECTRIC<br>CO., LTD. |                 | APPROVED : SU. OBARA   | 09. 10. 05 | DRAWING NO.<br>EDC3-115596-00            | CHECKED<br>HY. KOBAYASHI |
|                                 |                 | CHECED : HY. KOBAYASHI | 09. 10. 05 | PART NO.<br>EM35WBP-4SC                  | DATE<br>09. 10. 30       |
|                                 |                 | DESIGNED : HS. NAGANO  | 09. 10. 02 | CODE NO.<br>CL138-0008-3-00              |                          |
|                                 |                 | DRAWN : HS. NAGANO     | 09. 10. 02 |                                          |                          |



- NOTES
- 1 THE RECOMMENDED TIGHTENING TORQUE REF NO. ①: 6 TO 7 N · m.  
THE RECOMMENDED TIGHTENING TORQUE REF NO. ⑤: 1.2 TO 1.5 N · m.  
THE RECOMMENDED ADHESIVE OF REF NO. ①: LOCTITE 242 BY HENKEL JAPAN LTD.
  - 2 WATER RESISTANCE, CABLE CLAMP FORCE, CABLE RETENTION FORCE IN AXIAL DIRECTION AND OTHER CHARACTERISTICS COULD VARY DEPENDING ON EACH CABLE CONSTRUCTION. CONFIRMATION IS REQUIRED PRIOR TO USE.
  - 3 THIS PRODUCT IS DELIVERED DISASSEMBLED.

|                                 |                 |                         |           |                          |                             |
|---------------------------------|-----------------|-------------------------|-----------|--------------------------|-----------------------------|
| 3                               | POLYACETAL      | (WHITE)                 |           |                          |                             |
| 2                               | SILICONE RUBBER | (BLACK)                 | 5         | STAINLESS STEEL          |                             |
| 1                               | ALUMINUM ALLOY  | NIKEL PLATING           | 4         | STAINLESS STEEL          |                             |
| NO.                             | MATERIAL        | FINISH . REMARKS        | NO.       | MATERIAL                 | FINISH . REMARKS            |
| UNITS<br>mm                     |                 | SCALE<br>2 : 1          | COUNT<br> | DESCRIPTION OF REVISIONS | DESIGNED<br>CHECKED<br>DATE |
| HIROSE<br>ELECTRIC<br>CO., LTD. |                 | APPROVED : SU. OBARA    | 09.10.20  | DRAWING<br>NO.           | EDC3-115589-00              |
|                                 |                 | CHECKED : HY. KOBAYASHI | 09.10.19  | PART<br>NO.              | EM35WCC-23                  |
|                                 |                 | DESIGNED : HS. NAGANO   | 09.10.19  | CODE<br>NO.              | CL138-0007-0-00             |
|                                 |                 | DRAWN : HS. NAGANO      | 09.10.19  |                          |                             |



- NOTES
- 1 APPLICABLE CRIMPING CONTACT:EM-PC-133(CL138-0019-0)
  - 2 APPLICABLE CRIMP CONTACT EXTRACTION TOOL:EM-8-TP(CL150-0249-3)
  - 3 THE ASSEMBLY OF THIS PRODUCT APPLIES TO THE MANUAL ATAD-C0155.
  - 4 CHECK REF NO.⑥ IS PRPPERLY SET AT THE GROOVE OF REF.NO.①.  
WHILE MOUNTING THE CONNECTOR,MAKE SURE THAT REF No.⑥ IS NOT CAUGHT.

|                                |                |                        |           |                          |                  |
|--------------------------------|----------------|------------------------|-----------|--------------------------|------------------|
| 3                              | PBT            | (BLACK) UL94V-0        | 6         | SILICONE RUBBER          | (RED)            |
| 2                              | COPPER ALLOY   | TIN PLATING            | 5         | STAINLESS STEEL          |                  |
| 1                              | ALUMINUM ALLOY | NICKEL PLATING         | 4         | PBT                      | (BLACK) UL94V-0  |
| NO.                            | MATERIAL       | FINISH , REMARKS       | NO.       | MATERIAL                 | FINISH , REMARKS |
| UNITS<br>mm                    |                | SCALE<br>1 : 1         | COUNT<br> | DESCRIPTION OF REVISIONS | DESIGNED         |
| HIROSE<br>ELECTRIC<br>CO.,LTD. |                | APPROVED : SU. OBARA   | 09.10.20  | DRAWING<br>NO.           | EDC3-115597-00   |
|                                |                | CHECED : HY. KOBAYASHI | 09.10.19  | PART<br>NO.              | EM35WBR-4PC      |
|                                |                | DESIGNED : HS. NAGANO  | 09.10.19  | CODE<br>NO.              | CL138-0009-6-00  |
|                                |                | DRAWN : HS. NAGANO     | 09.10.19  |                          |                  |
|                                |                |                        |           |                          | 1/1              |