## External Dimensions

**Units:** mm

### Base-Mounted SERVOPACKs

1. **Analog Voltage Reference**, Model: SGDV-1R7ES1A, -2R9ES1A
   - Pulse Train Reference, Model: SGDV-1R7EP1A, -2R9EP1A

   ![Analog Voltage Reference Diagram](image1)
   - 2-M4 Screw Holes
   - Mounting Hole Diagram
   - Approx. Mass: 0.3 kg

2. **MECHATROLINK-II Communications Reference**, Model: SGDV-1R7E11A, -2R9E11A

   ![MECHATROLINK-II Reference Diagram](image2)
   - 2-M4 Screw Holes
   - Mounting Hole Diagram
   - Approx. Mass: 0.3 kg

3. **MECHATROLINK-III Communications Reference**, Model: SGDV-1R7E21A, -2R9E21A

   ![MECHATROLINK-III Reference Diagram](image3)
   - 2-M4 Screw Holes
   - Mounting Hole Diagram
   - Approx. Mass: 0.3 kg
Cover Dimensions and Connectors

(1) Analog Voltage Reference /Pulse Train Reference

(2) MECHATROLINK-II Communications Reference

(3) MECHATROLINK-III Communications Reference

Port | Model | Pin | Manufacturer
---|---|---|---
CN1 | 10226-52A2PL | 26 | Sumitomo 3M Ltd.
CN2 | 3E106-0220KV | 6 | Sumitomo 3M Ltd.
CN3 | 43045-0600 | 6 | Molex Japan Co., Ltd.
CN4 | 43045-0400 | 4 | Molex Japan Co., Ltd.
CN5 | DA3R018HB1 | 18 | Japan Aviation Electronics Industry, Ltd.
CN7 | UX60SC-MB-SS8 | 5 | Hirose Electric Corporation.

Note: The connectors above or their equivalents are used for SERVOPACKs.

Port | Model | Pin | Manufacturer
---|---|---|---
CN1 | 10226-52A2PL | 12 | Molex Japan Co., Ltd.
CN2 | 3E106-0220KV | 6 | Sumitomo 3M Ltd.
CN3 | 43045-0600 | 6 | Molex Japan Co., Ltd.
CN4 | 43045-0400 | 4 | Molex Japan Co., Ltd.
CN5 | DF11-6DP-2DS | 6 | Hirose Electric Corporation.
CN6A/CN6B | 1903815-1 | 8 | Tyco Electronics Japan G.K.
CN7 | UX60SC-MB-SS8 | 5 | Hirose Electric Corporation.

Note: The connectors above or their equivalents are used for SERVOPACKs.

Port | Model | Pin | Manufacturer
---|---|---|---
CN1 | 10226-52A2PL | 12 | Molex Japan Co., Ltd.
CN2 | 3E106-0220KV | 6 | Sumitomo 3M Ltd.
CN3 | 43045-0600 | 6 | Molex Japan Co., Ltd.
CN4 | 43045-0400 | 4 | Molex Japan Co., Ltd.
CN5 | DF11-6DP-2DS | 6 | Hirose Electric Corporation.
CN6A/CN6B | 1981386-1 | 8 | Tyco Electronics Japan G.K.
CN7 | UX60SC-MB-SS8 | 5 | Hirose Electric Corporation.

Note: The connectors above or their equivalents are used for SERVOPACKs.