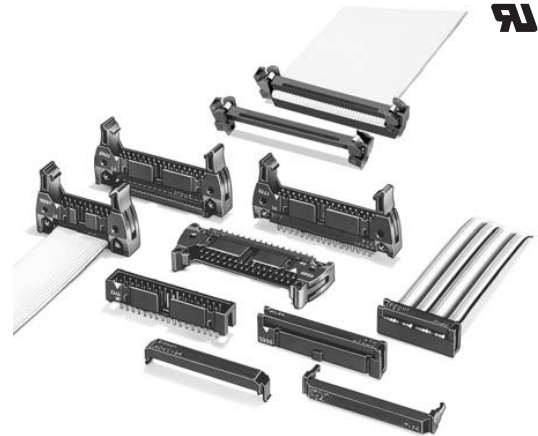




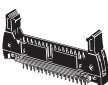

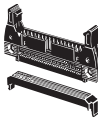


Flat Cable Connectors XG4

Industry Standard Circuit Board Connectors Conform to MIL Standards with Improved Design

- Space-saving Box-type Plugs (XG4C) available.
- IDC Plugs (XG4E) can be used for relaying.
- An endless number of combinations can be made using the XG-5 IDC Connectors for discrete wires, XG8 Original Plugs, and the XG2 IDC Connectors for PCBs.
- The Original Plugs (XG8) and the Box-type Plugs (XG4C) can be locked using Lock Levers.
- Conforms to MIL standards (MIL-C-83503).
- UL recognition (file No. E103202)



Ordering Information

| Model | XG4M XG4M-U | XG4M XG4T | XG4A | XG4A | XG4E XG4S | XG4C | XG4H |
|------------|---|---|--|--|---|---|---|
| Appearance | MIL sockets with strain relief (with lock)  | MIL sockets with strain relief  | MIL plugs  | Plugs with dual ports  | IDC plugs with strain relief  | Box-type plugs  | Board-to-board connector sockets  |
| Page | 2 | 4 | 5 to 10 | 9 to 10 | 11 to 12 | 13 to 14 | 15 to 16 |

■ Ratings and Characteristics

| Item | MIL Sockets: XG4M Relay Plug: XG4E | MIL Plugs: XG4A Box-type Plugs: XG4C PCB-to-PCB Connectors: XG4H |
|-----------------------|--|--|
| Rated current | 1 A | 3 A (See note 1.) |
| Rated voltage | 250 VAC | 300 VAC |
| Contact resistance | 20 mΩ max. (at 20 mV, 100 mA max.) | |
| Insulation resistance | 1,000 MΩ min. (at 500 VDC) | |
| Dielectric strength | 500 VAC for 1 min (leakage current: 1 mA max.) | |
| Connector insertion | 1.96 N max. per contact | |
| Contact removal | 0.39 N min. (with test gauge, t= 0.64 mm) | |
| Insertion durability | 50 times (See note 2.) | |
| Ambient temperature | Operating: -55 to 105°C (with no icing) | |

- Note:**
1. The rated current will depend on the Socket you are using. It is 1 A using the XG4M for example.
 2. For standard 0.15-μm gold plating.

Materials and Finish

| Item | | MIL Plugs: XG4A Box-type Plugs: XG4C | Relay Plugs: XG4E (Strain Relief: XG4S) | MIL Sockets: XG4M (Strain Relief: XG4T) | Board-to-board Connector: XG4H |
|----------------|--------------------|--|---|---|-----------------------------------|
| Housings | | Fiber-glass reinforced PBT resin (UL94V-0)/black | | | |
| Covers | | — | Polyamide resin (UL94V-0)/ black | Fiber-glass reinforced PBT resin (UL94V-0)/black | — |
| Contacts | Mating end | Brass/nickel base, 0.15- μ m gold plating (See note.) | Phosphor bronze/nickel base, 0.15- μ m gold plating (See note.) | | |
| | Terminal Press fit | Brass/nickel base, tin plating | Phosphor bronze/nickel base, tin plating | | |
| Strain Reliefs | | — | Polyamide resin (UL94V-0)/ black | Fiber-glass reinforced PBT resin (UL94V-0)/black | — |

Note: For non-standard plating, contact your OMRON representative.

Applicable Wires

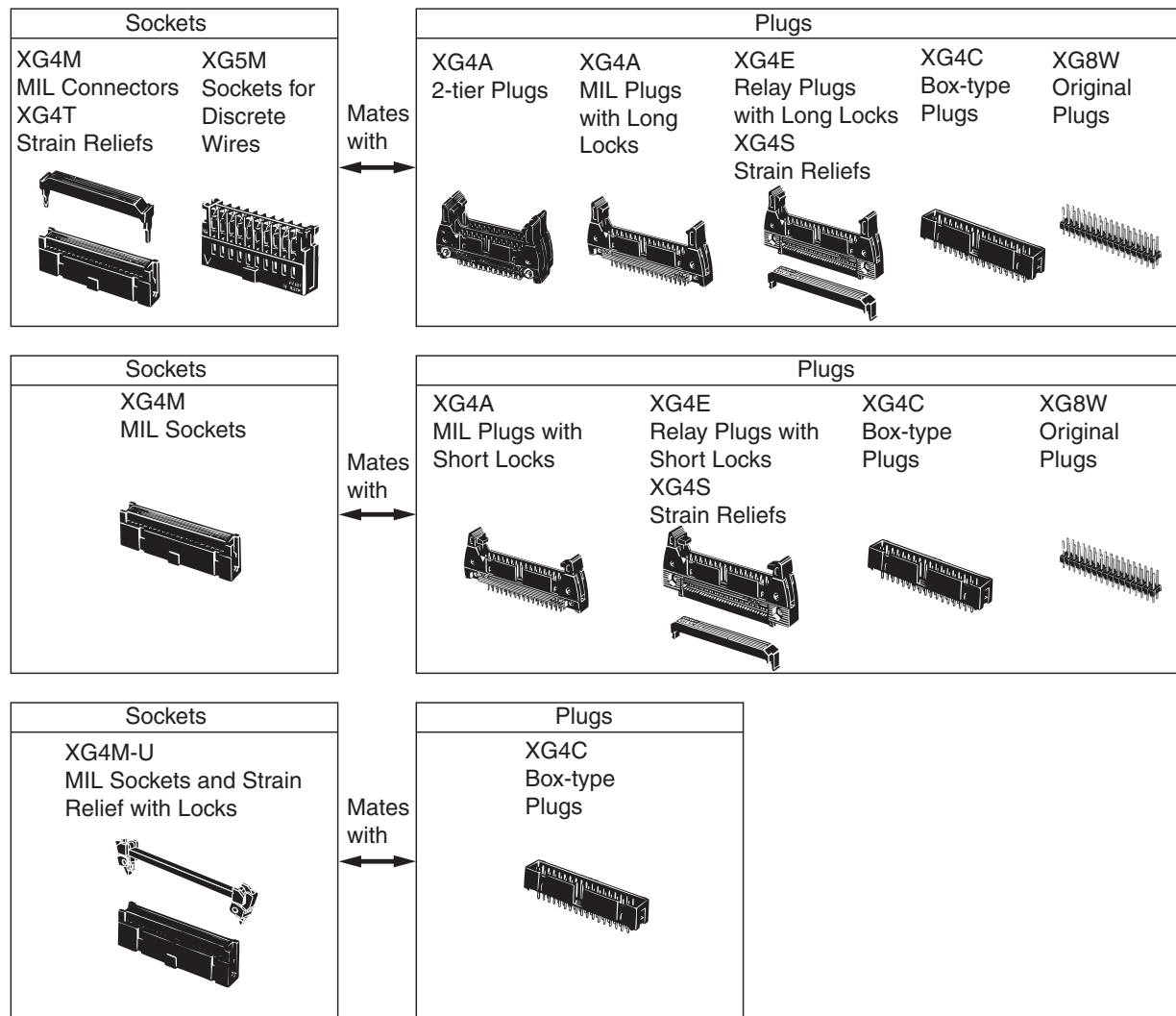
1.27-mm pitch, 7-strand flat cable

• UL2651(standard cable)

• UL20012 (folding cable)

• UL20028 (color-coded cable)

Mating Combinations for XG4 and XG5

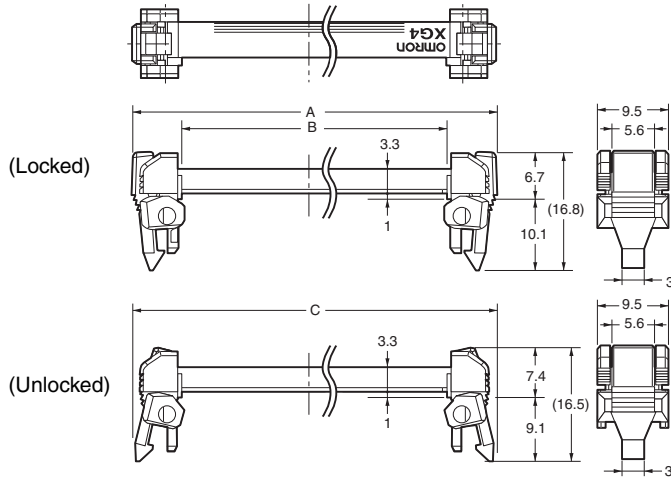


XG4M-U MIL Connectors with Socket Locks

■ Dimensions

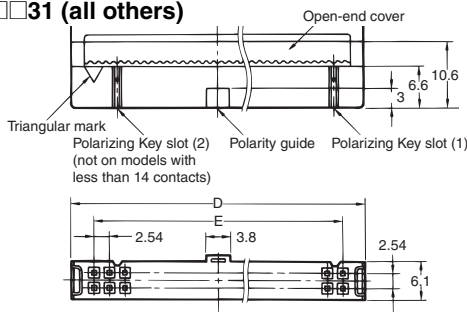
XG4U

Strain Reliefs with Locks



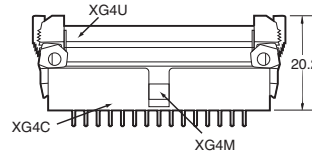
XG4M-□□30 (one polarity guide)

XG4M-□□31 (all others)

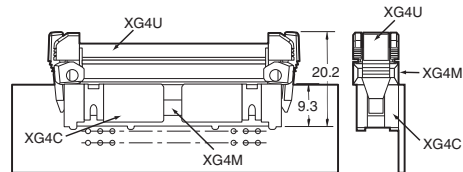


■ Mating Diagrams for XG4M

XG4U + XG4M + XG4C (with straight terminals)



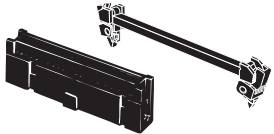
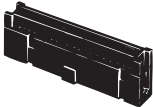

XG4U + XG4M + XG4C (with right-angle terminals)



Dimensions

| No. of contacts | Dimensions (mm) | | | | |
|-----------------|-----------------|------|------|------|-------|
| | A | B | C | D | E |
| 10 | 26.8 | 13.2 | 26.2 | 17.3 | 10.16 |
| 14 | 31.8 | 18.2 | 31.2 | 22.3 | 15.24 |
| 16 | 34.4 | 20.8 | 33.8 | 24.9 | 17.78 |
| 20 | 39.5 | 25.9 | 38.9 | 30.0 | 22.86 |
| 26 | 47.1 | 33.5 | 46.5 | 37.6 | 30.48 |
| 30 | 52.2 | 38.6 | 51.6 | 42.7 | 35.56 |
| 34 | 57.2 | 43.6 | 56.6 | 47.7 | 40.64 |
| 40 | 64.9 | 51.3 | 64.3 | 55.4 | 48.26 |
| 50 | 77.6 | 64.0 | 77.0 | 68.1 | 60.96 |
| 60 | 90.3 | 76.7 | 89.7 | 80.8 | 73.66 |
| 64 | 95.3 | 81.7 | 94.7 | 85.8 | 78.74 |

■ Ordering Information

| No. of contacts | No. of polarity guides | Socket and Strain Relief Sets (See note 1.) | Socket with Open-end Cover (See note 2.) | Strain Relief with Locks |
|-----------------|------------------------|---|--|---|
| 10 | 0 |  XG4M-1031-U |  XG4M-1031 |  XG4U-1004 |
| | 1 | XG4M-1030-U | XG4M-1030 | |
| 14 | 1 | XG4M-1430-U | XG4M-1430 | XG4U-1404 |
| 16 | 1 | XG4M-1630-U | XG4M-1630 | XG4U-1604 |
| 20 | 1 | XG4M-2030-U | XG4M-2030 | XG4U-2004 |
| 26 | 1 | XG4M-2630-U | XG4M-2630 | XG4U-2604 |
| 30 | 1 | XG4M-3030-U | XG4M-3030 | XG4U-3004 |
| 34 | 1 | XG4M-3430-U | XG4M-3430 | XG4U-3404 |
| 40 | 1 | XG4M-4030-U | XG4M-4030 | XG4U-4004 |
| 50 | 1 | XG4M-5030-U | XG4M-5030 | XG4U-5004 |
| | 2 (See note 3.) | XG4M-5031-U | XG4M-5031 | |
| 60 | 1 | XG4M-6030-U | XG4M-6030 | XG4U-6004 |
| | 2 (See note 3.) | XG4M-6031-U | XG4M-6031 | |
| 64 | 1 | XG4M-6430-U | XG4M-6430 | XG4U-6404 |
| | 2 (See note 3.) | XG4M-6431-U | XG4M-6431 | |

Note: 1. With open-end cover.

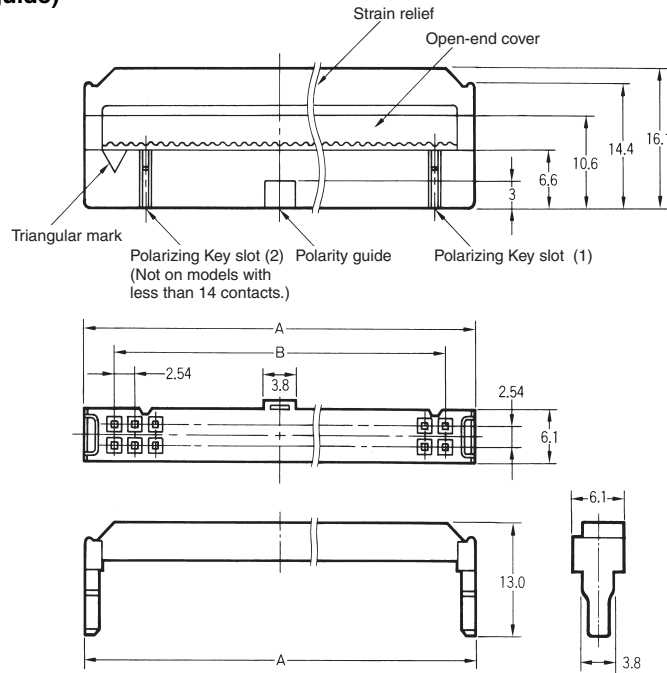
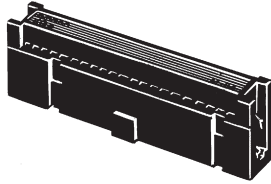
2. Strain Relief sold separately.

3. Polarity guide pitch is 22.86 mm.

XG4M MIL Sockets

■ Dimensions

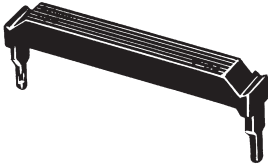
XG4M-□□30 (one polarizing guide)
XG4M-□□31 (all others)



Dimensions

| No of contacts | Dimensions (mm) | |
|----------------|-----------------|-------|
| | A | B |
| 10 | 17.3 | 10.16 |
| 14 | 22.3 | 15.24 |
| 16 | 24.9 | 17.78 |
| 20 | 30.0 | 22.86 |
| 26 | 37.6 | 30.48 |
| 30 | 42.7 | 35.56 |
| 34 | 47.7 | 40.64 |
| 40 | 55.4 | 48.26 |
| 50 | 68.1 | 60.96 |
| 60 | 80.8 | 73.66 |
| 64 | 85.8 | 78.74 |

XG4T-□□04
Strain Relief



XG4M-□□30-T (XG4M-□□30 + XG4T-□□04)
XG4M-□□31-T (XG4M-□□31 + XG4T-□□04)
MIL Socket and Strain Relief Sets

■ Ordering Information

| No. of contacts | No. of polarity guides | Socket and Strain Relief Set (See note 1.) | Socket with Open-end Cover (See note 2.) | Strain Relief for the XG4M |
|-----------------|------------------------|--|--|----------------------------|
| 10 | 0 | | | XG4T-1004 |
| | 1 | XG4M-1031-T | XG4M-1031 | |
| 14 | 1 | | | XG4T-1404 |
| | 1 | XG4M-1430-T | XG4M-1430 | |
| 16 | 1 | | | XG4T-1604 |
| | 1 | XG4M-1630-T | XG4M-1630 | |
| 20 | 1 | | | XG4T-2004 |
| | 1 | XG4M-2030-T | XG4M-2030 | |
| 26 | 1 | | | XG4T-2604 |
| | 1 | XG4M-2630-T | XG4M-2630 | |
| 30 | 1 | | | XG4T-3004 |
| | 1 | XG4M-3030-T | XG4M-3030 | |
| 34 | 1 | | | XG4T-3404 |
| | 1 | XG4M-3430-T | XG4M-3430 | |
| 40 | 1 | | | XG4T-4004 |
| | 1 | XG4M-4030-T | XG4M-4030 | |
| 50 | 1 | | | XG4T-5004 |
| | 2 (See note 3.) | XG4M-5030-T | XG4M-5030 | |
| | 2 (See note 3.) | XG4M-5031-T | XG4M-5031 | |
| 60 | 1 | | | XG4T-6004 |
| | 2 (See note 3.) | XG4M-6030-T | XG4M-6030 | |
| | 2 (See note 3.) | XG4M-6031-T | XG4M-6031 | |
| 64 | 1 | | | XG4T-6404 |
| | 2 (See note 3.) | XG4M-6430-T | XG4M-6430 | |
| | 2 (See note 3.) | XG4M-6431-T | XG4M-6431 | |

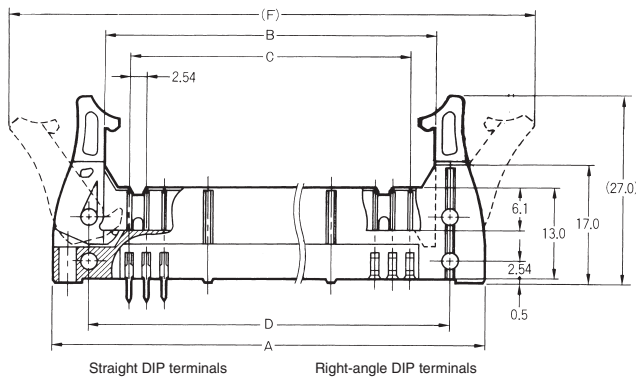
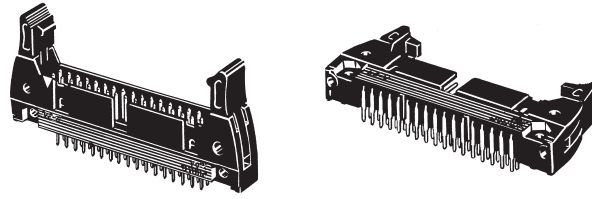
Note: 1. With open-end cover.
2. Strain Relief sold separately.

3. Polarity guide pitch is 22.86 mm

■ Dimensions

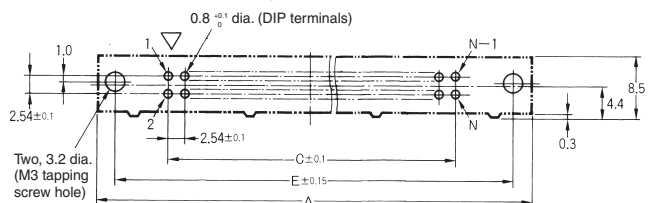
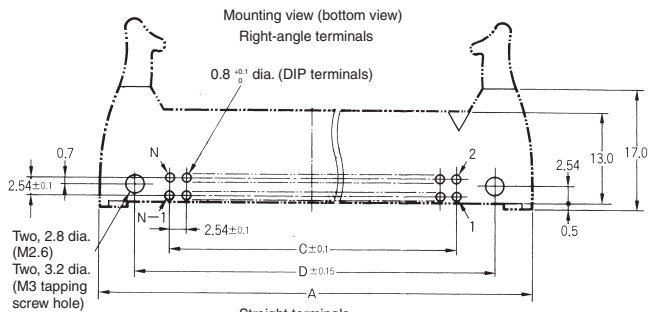
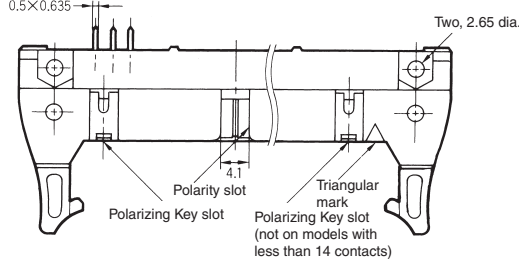
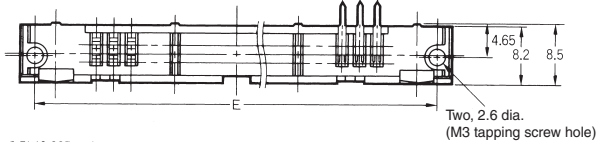
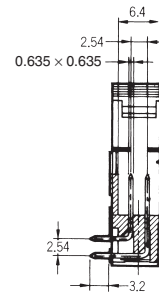
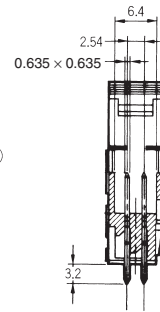
XG4A-□□31/□□71 (With straight DIP terminals)

XG4A-□□34/□□74 (With right-angle DIP terminals)



Straight DIP terminals

Right-angle DIP terminals



Dimensions

| No. of contacts | Dimensions (mm) | | | | | |
|-----------------|-----------------|------|-------|------|------|-------|
| | A | B | C | D | E | F |
| 10 | 32.0 | 17.5 | 10.16 | 21.8 | 27.9 | 46.4 |
| 14 | 37.1 | 22.6 | 15.24 | 26.9 | 33.0 | 51.5 |
| 16 | 39.6 | 25.2 | 17.78 | 29.5 | 35.6 | 54.1 |
| 20 | 44.7 | 30.2 | 22.86 | 34.5 | 40.6 | 59.1 |
| 26 | 52.3 | 37.9 | 30.48 | 42.2 | 48.3 | 66.8 |
| 30 | 57.4 | 42.9 | 35.56 | 47.2 | 53.3 | 71.8 |
| 34 | 62.5 | 48.0 | 40.64 | 52.3 | 58.4 | 76.9 |
| 40 | 70.1 | 55.6 | 48.26 | 59.9 | 66.0 | 84.5 |
| 50 | 82.8 | 68.3 | 60.96 | 72.6 | 78.7 | 97.2 |
| 60 | 95.5 | 81.0 | 73.66 | 85.3 | 91.4 | 109.9 |
| 64 | 100.6 | 86.1 | 78.74 | 90.4 | 96.5 | 115.0 |

Note: See page 14 for details on the availability (10-contact Connectors) and pitch (with 50, 60, or 64-contact Connectors) of polarity slots.

■ Ordering Information

Use in Combination with Strain-relief Sockets.

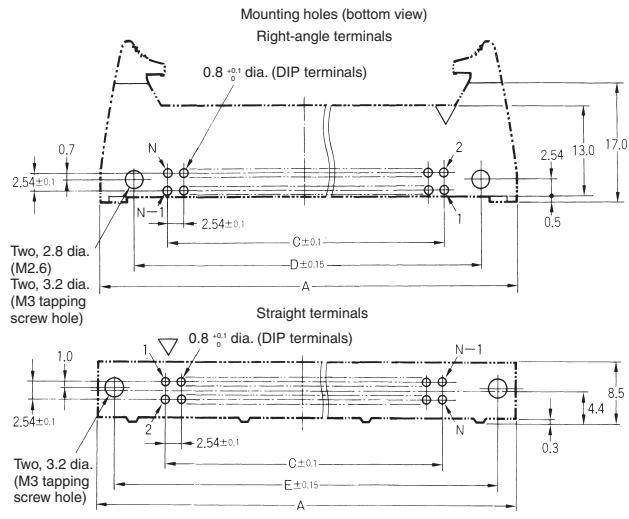
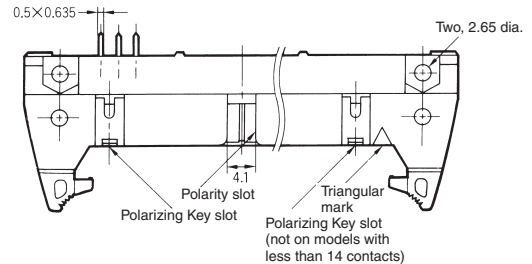
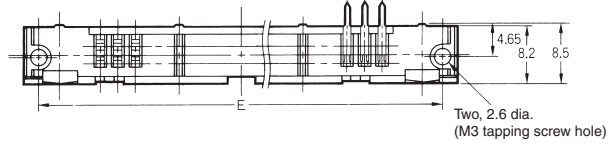
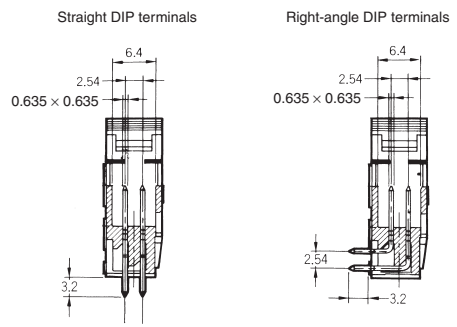
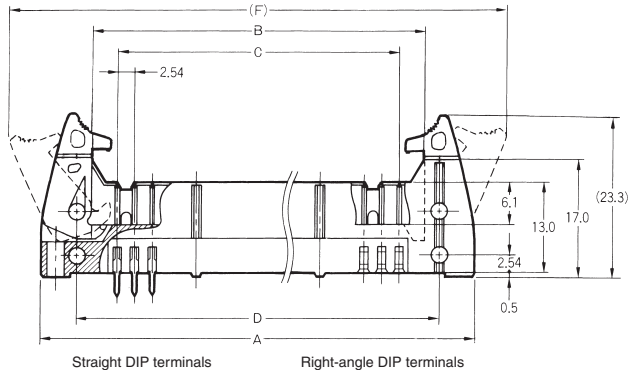
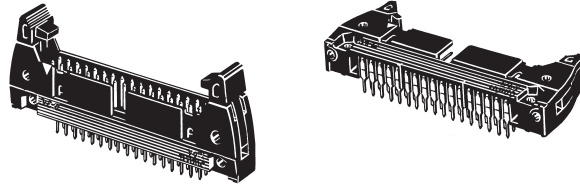
| No. of contacts | No. of polarizing slots | Plugs with straight DIP terminals | Plugs with right-angle DIP terminals |
|-----------------|-------------------------|-----------------------------------|--------------------------------------|
| 10 | 0 | XG4A-1071 | XG4A-1074 |
| | 1 | XG4A-1031 | XG4A-1034 |
| 14 | 1 | XG4A-1431 | XG4A-1434 |
| 16 | 1 | XG4A-1631 | XG4A-1634 |
| 20 | 1 | XG4A-2031 | XG4A-2034 |
| 26 | 1 | XG4A-2631 | XG4A-2634 |
| 30 | 1 | XG4A-3031 | XG4A-3034 |
| 34 | 1 | XG4A-3431 | XG4A-3434 |
| 40 | 1 | XG4A-4031 | XG4A-4034 |
| 50 | 1 | XG4A-5031 | XG4A-5034 |
| | 2 (See note.) | XG4A-5071 | XG4A-5074 |
| 60 | 1 | XG4A-6031 | XG4A-6034 |
| | 2 (See note.) | XG4A-6071 | XG4A-6074 |
| 64 | 1 | XG4A-6431 | XG4A-6434 |
| | 2 (See note.) | XG4A-6471 | XG4A-6474 |

Note: Polarizing slot pitch is 22.86 mm.

XG4A MIL Plugs with Short Locks

■ Dimensions

XG4A-□□32/-□□72 (With straight DIP terminals)
 XG4A-□□35/-□□75 (With right-angle DIP terminals)

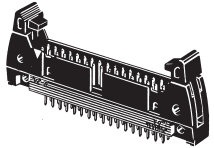
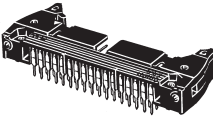


Dimensions

| No. of contacts | Dimensions (mm) | | | | | |
|-----------------|-----------------|------|-------|------|------|-------|
| | A | B | C | D | E | F |
| 10 | 32.0 | 17.5 | 10.16 | 21.8 | 27.9 | 40.4 |
| 14 | 37.1 | 22.6 | 15.24 | 26.9 | 33.0 | 45.5 |
| 16 | 39.6 | 25.2 | 17.78 | 29.5 | 35.6 | 48.0 |
| 20 | 44.7 | 30.2 | 22.86 | 34.5 | 40.6 | 53.1 |
| 26 | 52.3 | 37.9 | 30.48 | 42.2 | 48.3 | 60.7 |
| 30 | 57.4 | 42.9 | 35.56 | 47.2 | 53.3 | 65.8 |
| 34 | 62.5 | 48.0 | 40.64 | 52.3 | 58.4 | 70.9 |
| 40 | 70.1 | 55.6 | 48.26 | 59.9 | 66.0 | 78.5 |
| 50 | 82.8 | 68.3 | 60.96 | 72.6 | 78.7 | 91.2 |
| 60 | 95.5 | 81.0 | 73.66 | 85.3 | 91.4 | 103.9 |
| 64 | 100.6 | 86.1 | 78.74 | 90.4 | 96.5 | 109.0 |

Note: See page 14 for details on the availability (10-contact Connectors) and pitch (with 50, 60, or 64-contact Connectors) of polarity slots.

■ Ordering Information

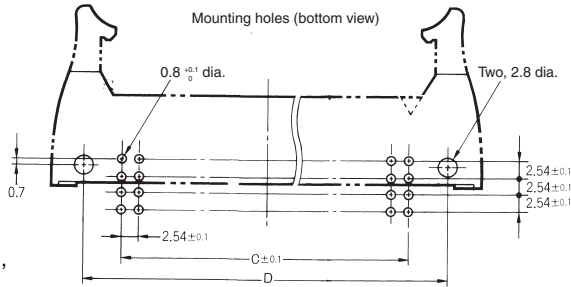
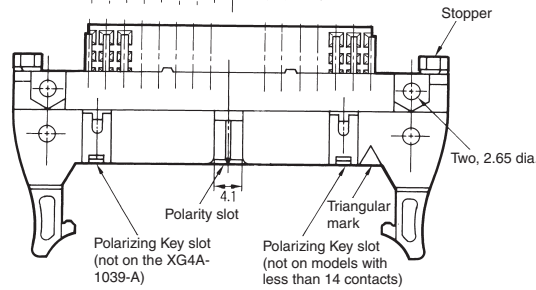
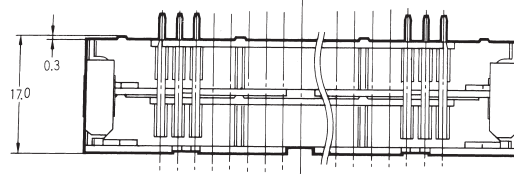
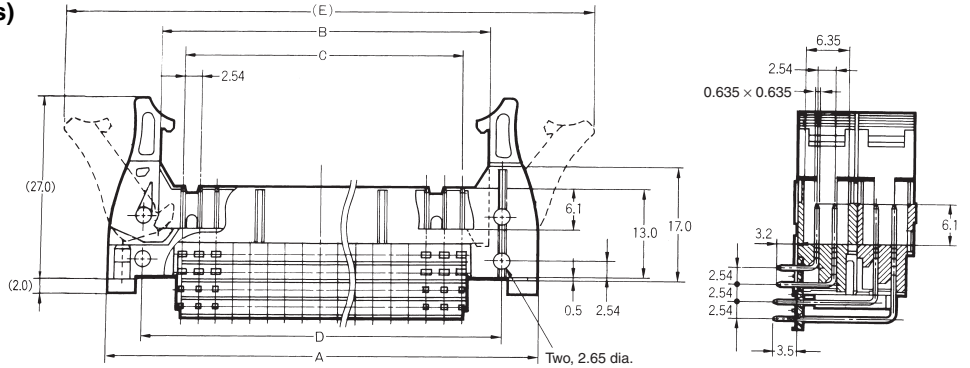
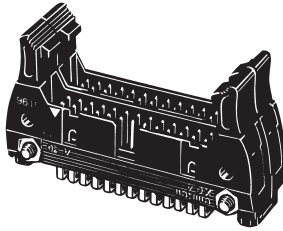
| No. of contacts | No. of polarizing slots | Plugs with straight DIP terminals  | Plugs with right-angle DIP terminals  |
|-----------------|-------------------------|--|--|
| 10 | 0 | XG4A-1072 | XG4A-1075 |
| | 1 | XG4A-1032 | XG4A-1035 |
| 14 | 1 | XG4A-1432 | XG4A-1435 |
| 16 | 1 | XG4A-1632 | XG4A-1635 |
| 20 | 1 | XG4A-2032 | XG4A-2035 |
| 26 | 1 | XG4A-2632 | XG4A-2635 |
| 30 | 1 | XG4A-3032 | XG4A-3035 |
| 34 | 1 | XG4A-3432 | XG4A-3435 |
| 40 | 1 | XG4A-4032 | XG4A-4035 |
| 50 | 1 | XG4A-5032 | XG4A-5035 |
| | 2 (See note.) | XG4A-5072 | XG4A-5075 |
| 60 | 1 | XG4A-6032 | XG4A-6035 |
| | 2 (See note.) | XG4A-6072 | XG4A-6075 |
| 64 | 1 | XG4A-6432 | XG4A-6435 |
| | 2 (See note.) | XG4A-6472 | XG4A-6475 |

Note: Polarizing slot pitch is 22.86 mm.

XG4A 2-tier Plugs with Long Lock

■ Dimensions

XG4A-□□39-A/□□79-A (With long locks and right-angle DIP terminals)



Dimensions

| No. of contacts | Dimensions (mm) | | | | |
|-----------------|-----------------|------|-------|------|-------|
| | A | B | C | D | E |
| 10 × 2 | 32.0 | 17.5 | 10.16 | 21.8 | 46.4 |
| 14 × 2 | 37.1 | 22.6 | 15.24 | 26.9 | 51.5 |
| 16 × 2 | 39.6 | 25.2 | 17.78 | 29.5 | 54.1 |
| 20 × 2 | 44.7 | 30.2 | 22.86 | 34.5 | 59.1 |
| 26 × 2 | 52.3 | 37.9 | 30.48 | 42.2 | 66.8 |
| 30 × 2 | 57.4 | 42.9 | 35.56 | 47.2 | 71.8 |
| 34 × 2 | 62.5 | 48.0 | 40.64 | 52.3 | 76.9 |
| 40 × 2 | 70.1 | 55.6 | 48.26 | 59.9 | 84.9 |
| 50 × 2 | 82.8 | 68.3 | 60.96 | 72.6 | 97.2 |
| 60 × 2 | 95.5 | 81.0 | 73.66 | 85.3 | 109.9 |
| 64 × 2 | 100.6 | 86.1 | 78.74 | 90.4 | 115.0 |

Note: Polarizing slot pitch is 22.86 mm for 50-, 60-, and 64-contact Connectors.

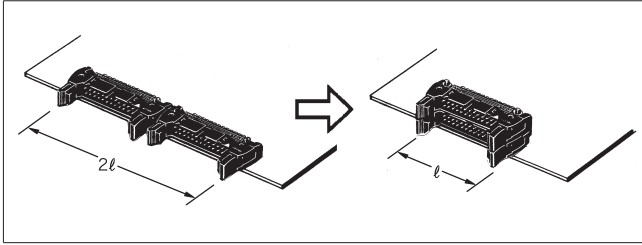
■ Ordering Information

| No. of contacts | No. of polarizing slots | Model | No. of contacts | No. of polarizing slots | Model |
|-----------------|-------------------------|-------------|-----------------|-------------------------|-------------|
| 10 × 2 | 0 | XG4A-1079-A | 40 × 2 | 1 | XG4A-4039-A |
| | 1 | XG4A-1039-A | | | |
| 14 × 2 | 1 | XG4A-1439-A | 50 × 2 | 1 | XG4A-5039-A |
| 16 × 2 | 1 | XG4A-1639-A | | | |
| 20 × 2 | 1 | XG4A-2039-A | 60 × 2 | 1 | XG4A-6039-A |
| 26 × 2 | 1 | XG4A-2639-A | | | |
| 30 × 2 | 1 | XG4A-3039-A | 64 × 2 | 1 | XG4A-6439-A |
| 34 × 2 | 1 | XG4A-3439-A | | | |
| | | | | 2 (See note 2.) | XG4A-5079-A |
| | | | | 2 (See note 2.) | XG4A-6079-A |
| | | | | 2 (See note 2.) | XG4A-6479-A |

Note: 1. Comes in a set with stopper and screws included.

2. Polarizing slot pitch is 22.86 mm.

■ Mounting Example



■ 2-tier Plug Features

- Recommended for high-density mounting.
- MIL-compliant cable ensures faster delivery times and lower cost than half-pitch board cable. The 2.54-mm pitch simplifies patterning.

■ Applicable Sockets

| No. of contacts | No. of polarity slots | Model | XG4M for flat cable (See note 1.) | XG5M-N for discrete wire (See note 2.) |
|-----------------|-----------------------|-------------|-----------------------------------|--|
| 10 × 2 | 0 | XG4A-1079-A | XG4M-1031 | XG5M-103□-N |
| | 1 | XG4A-1039-A | XG4M-1030 | XG5M-103□-N |
| 14 × 2 | 1 | XG4A-1439-A | XG4M-1430 | XG5M-143□-N |
| 16 × 2 | 1 | XG4A-1639-A | XG4M-1630 | XG5M-163□-N |
| 20 × 2 | 1 | XG4A-2039-A | XG4M-2030 | XG5M-203□-N |
| 26 × 2 | 1 | XG4A-2639-A | XG4M-2630 | XG5M-263□-N |
| 30 × 2 | 1 | XG4A-3039-A | XG4M-3030 | XG5M-303□-N |
| 34 × 2 | 1 | XG4A-3439-A | XG4M-3430 | XG5M-343□-N |
| 40 × 2 | 1 | XG4A-4039-A | XG4M-4030 | XG5M-403□-N |
| 50 × 2 | 1 | XG4A-5039-A | XG4M-5030 | XG5M-503□-N |
| | 2 (See note 3.) | XG4A-5079-A | XG4M-5031 | |
| 60 × 2 | 1 | XG4A-6039-A | XG4M-6030 | XG5M-603□-N |
| | 2 (See note 3.) | XG4A-6079-A | XG4M-6031 | |
| 64 × 2 | 1 | XG4A-6439-A | XG4M-6430 | XG5M-643□-N |
| | 2 (See note 3.) | XG4A-6479-A | XG4M-6431 | |

- Note:**
1. Use with the supplied Strain Relief.
 2. Use with the supplied Semi-cover. Hood Cover cannot be used.
 3. Polarity slot pitch is 22.86 mm.

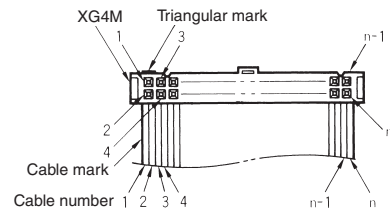
■ Cable Number and Contact Position

Cable and Corresponding Contact Number

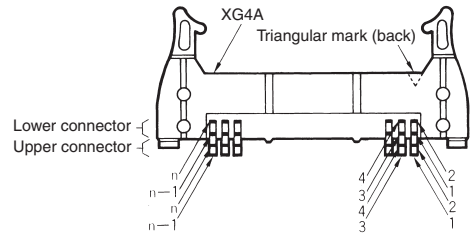
The contact numbers are not marked on the Connector. Use the triangular mark as a guide when wiring and designing circuit boards.

For the cable number, count starting from the cable mark side as shown below.

Socket (mating side)



Right-angle terminals



■ Precautions

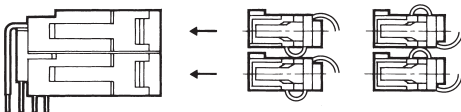
Correct Use

Mounting

- Be sure to anchor the board with screws before mounting.
- Note that a Polarizing Key cannot be mounted on the lower Plug.

Connecting the Socket

- Before connecting the XG4M with Strain Relief, remove as much slack from the cable as possible. Insert as shown below.
- Attach the Semi-cover before connecting the XG5M-N. It is not possible to use the Hood Cover.



Soldering

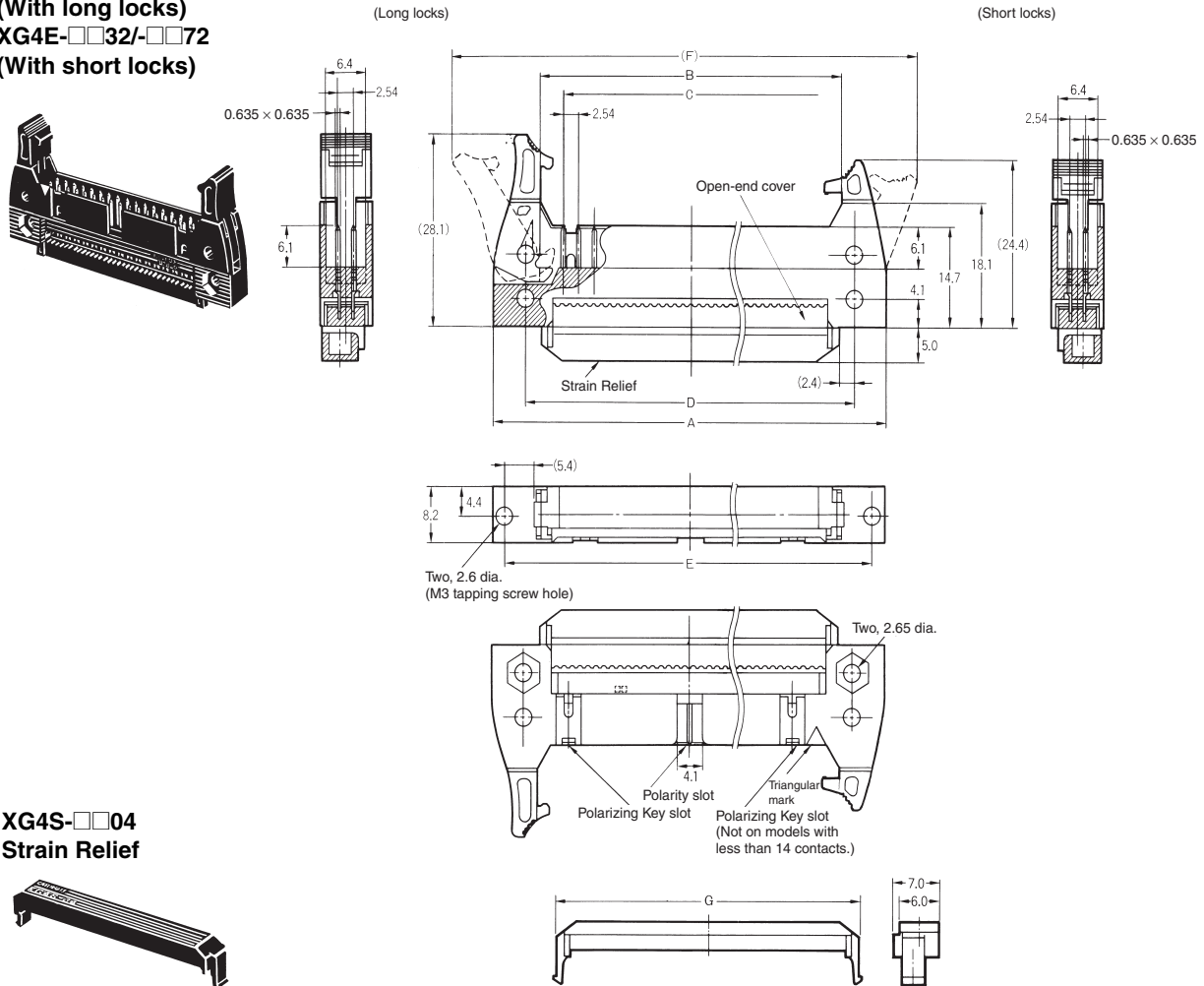
Automated Soldering Conditions (Jet Flow)

1. Soldering temperature: 250 ±5°C
2. Continuous soldering time: Within 5 s

XG4E Relay Plugs

■ Dimensions

XG4E-□□31/-□□71
 (With long locks)
XG4E-□□32/-□□72
 (With short locks)



XG4S-□□04
 Strain Relief



Dimensions

| No. of contacts | Dimensions (mm) | | | | | | | |
|-----------------|-----------------|------|-------|------|------|-----------|------------|------|
| | A | B | C | D | E | F | | G |
| | | | | | | Long Lock | Short Lock | |
| 10 | 32.0 | 17.5 | 10.16 | 21.8 | 27.9 | 46.4 | 40.4 | 16.9 |
| 14 | 37.1 | 22.6 | 15.24 | 26.9 | 33.0 | 51.5 | 45.5 | 22.0 |
| 16 | 39.6 | 25.2 | 17.78 | 29.5 | 35.6 | 54.1 | 46.0 | 24.6 |
| 20 | 44.7 | 30.2 | 22.86 | 34.5 | 40.6 | 59.1 | 53.1 | 29.6 |
| 26 | 52.3 | 37.9 | 30.48 | 42.2 | 48.3 | 66.8 | 60.7 | 38.0 |
| 30 | 57.4 | 42.9 | 35.56 | 47.2 | 53.3 | 71.8 | 65.8 | 42.3 |
| 34 | 62.5 | 48.0 | 40.64 | 52.3 | 58.4 | 76.9 | 70.9 | 47.4 |
| 40 | 70.1 | 55.6 | 48.26 | 59.9 | 66.0 | 84.5 | 78.5 | 55.0 |
| 50 | 82.8 | 68.3 | 60.96 | 72.6 | 78.7 | 97.2 | 91.2 | 67.7 |
| 60 | 95.5 | 81.0 | 73.66 | 85.3 | 91.4 | 109.9 | 103.9 | 80.4 |
| 64 | 100.6 | 86.1 | 78.74 | 90.4 | 96.5 | 115.0 | 109.0 | 85.5 |

Note: See the following page for details on the availability (10-contact Connectors) and pitch (with 50, 60, or 64-contact Connectors) of polarity slots.

Ordering Information

Relay Plugs

Use Long-lock Plugs together with Strain-relief Sockets, and use Short-lock Plugs together with Non-strain-relief Sockets.

| No. of contacts | No. of polarizing slots | Long-lock Plugs with Open-end Covers (See note 1.) | Short-lock Plugs with Open-end Covers (See note 1.) | Strain Reliefs for XG4E |
|-----------------|-------------------------|--|---|-------------------------|
| 10 | 0 | XG4E-1071 | XG4E-1072 | XG4S-1004 |
| | 1 | XG4E-1031 | XG4E-1032 | |
| 14 | 1 | XG4E-1431 | XG4E-1432 | XG4S-1404 |
| 16 | 1 | XG4E-1631 | XG4E-1632 | XG4S-1604 |
| 20 | 1 | XG4E-2031 | XG4E-2032 | XG4S-2004 |
| 26 | 1 | XG4E-2631 | XG4E-2632 | XG4S-2604 |
| 30 | 1 | XG4E-3031 | XG4E-3032 | XG4S-3004 |
| 34 | 1 | XG4E-3431 | XG4E-3432 | XG4S-3404 |
| 40 | 1 | XG4E-4031 | XG4E-4032 | XG4S-4004 |
| 50 | 1 | XG4E-5031 | XG4E-5032 | XG4S-5004 |
| | 2 (See note 2.) | XG4E-5071 | XG4E-5072 | |
| 60 | 1 | XG4E-6031 | XG4E-6032 | XG4S-6004 |
| | 2 (See note 2.) | XG4E-6071 | XG4E-6072 | |
| 64 | 1 | XG4E-6431 | XG4E-6432 | XG4S-6404 |
| | 2 (See note 2.) | XG4E-6471 | XG4E-6472 | |

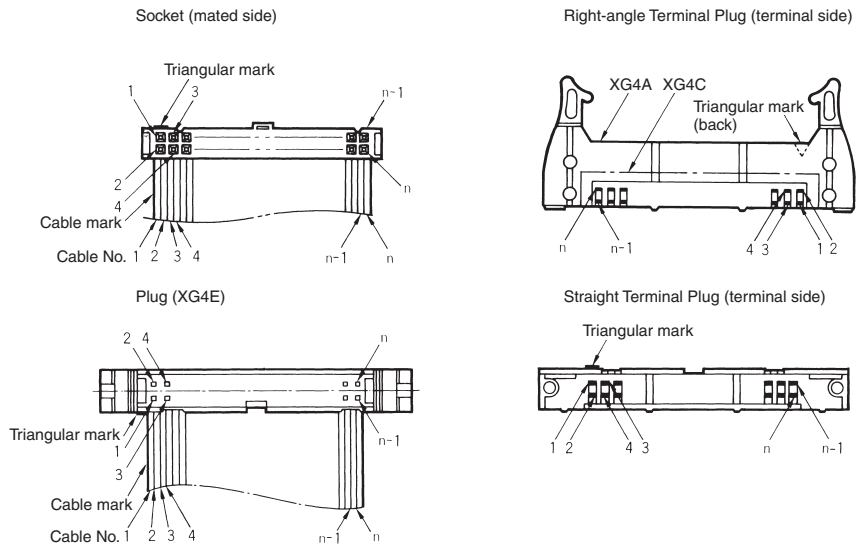
Note: 1. Strain Relief sold separately.
2. Polarity slot pitch is 22.86 mm.

Cable Number and Contact Position

Cable and Corresponding Contact Number

The contact numbers are not marked on the Connector. Use the triangular mark as a guide when wiring and designing circuit boards.

For the cable number, count starting from the cable mark side as shown on the right.

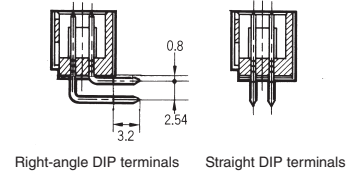
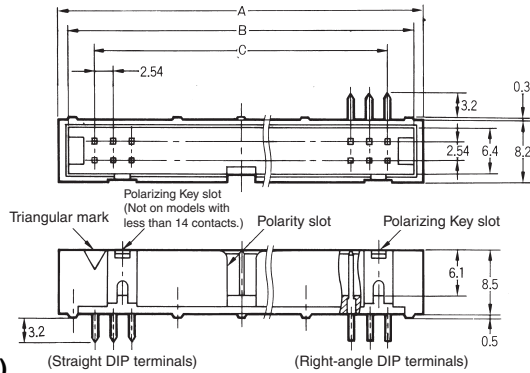
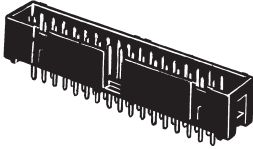


XG4C Box-type Plugs

■ Dimensions

XG4C-□□31/-□□71

(With straight DIP terminals)



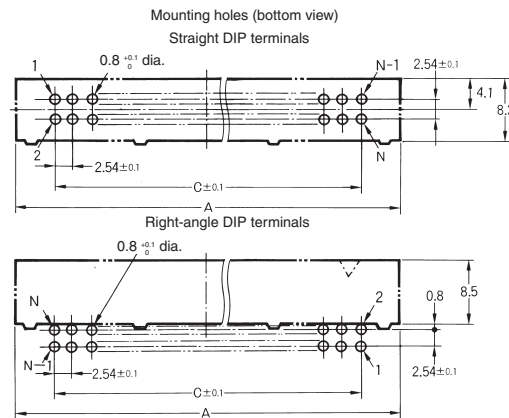
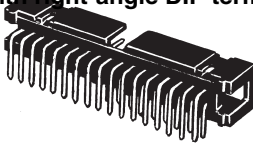
Right-angle DIP terminals Straight DIP terminals

Dimensions

| No. of contacts | Dimensions (mm) | | |
|-----------------|-----------------|------|-------|
| | A | B | C |
| 10 | 20.0 | 17.5 | 10.16 |
| 14 | 25.1 | 22.6 | 15.24 |
| 16 | 27.6 | 25.2 | 17.78 |
| 20 | 32.7 | 30.2 | 22.86 |
| 26 | 40.3 | 37.9 | 30.48 |
| 30 | 45.4 | 42.9 | 35.56 |
| 34 | 50.5 | 48.0 | 40.64 |
| 40 | 58.1 | 55.6 | 48.26 |
| 50 | 70.8 | 68.3 | 60.96 |
| 60 | 83.5 | 81.0 | 73.66 |
| 64 | 88.6 | 86.1 | 78.74 |

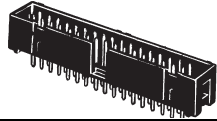
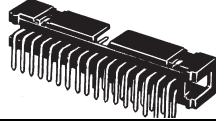
XG4C-□□34/-□□74

(With right-angle DIP terminals)



Note: See the following page for details on the availability (10-contact Connectors) and pitch (with 50, 60, or 64-contact Connectors) of polarity slots.

■ Ordering Information

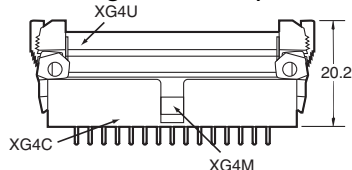
| No. of contacts | No. of polarizing slots | Plugs with straight DIP terminals | Plugs with right-angle DIP terminals |
|-----------------|-------------------------|---|--|
| | |  |  |
| 10 | 0 | XG4C-1071 | XG4C-1074 |
| | 1 | XG4C-1031 | XG4C-1034 |
| 14 | 1 | XG4C-1431 | XG4C-1434 |
| 16 | 1 | XG4C-1631 | XG4C-1634 |
| 20 | 1 | XG4C-2031 | XG4C-2034 |
| 26 | 1 | XG4C-2631 | XG4C-2634 |
| 30 | 1 | XG4C-3031 | XG4C-3034 |
| 34 | 1 | XG4C-3431 | XG4C-3434 |
| 40 | 1 | XG4C-4031 | XG4C-4034 |
| 50 | 1 | XG4C-5031 | XG4C-5034 |
| | 2 (See note 1.) | XG4C-5071 | XG4C-5074 |
| 60 | 1 | XG4C-6031 | XG4C-6034 |
| | 2 (See note 1.) | XG4C-6071 | XG4C-6074 |
| 64 | 1 | XG4C-6431 | XG4C-6434 |
| | 2 (See note 1.) | XG4C-6471 | XG4C-6474 |

Note: 1. Polarizing slot pitch is 22.86 mm.

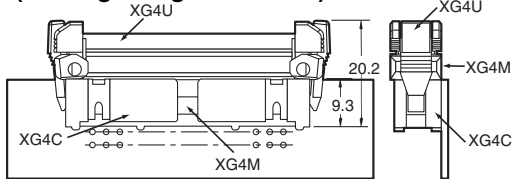
2. The Box-type Plug can be locked using Lock Lever II (sold separately).

■ Mating Diagrams for XG4M

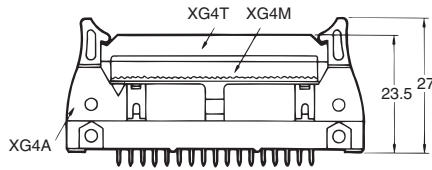
XG4U + XG4M + XG4C
(With straight terminals)



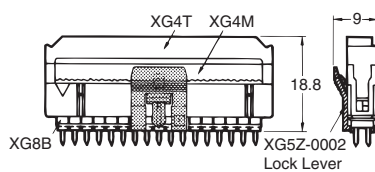
XG4U + XG4M + XG4C
(With right-angle terminals)



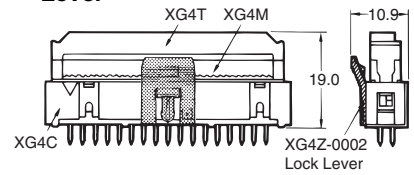
XG4T + XG4M + XG4A



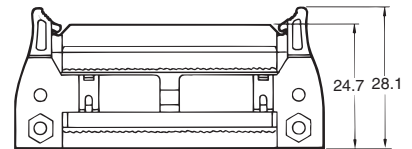
XG4T + XG4M + XG8B
(Unshrouded Plug) + Lock Lever



XG4T + XG4M, + XG4C + Lock Lever



XG4T + XG4M + XG4E



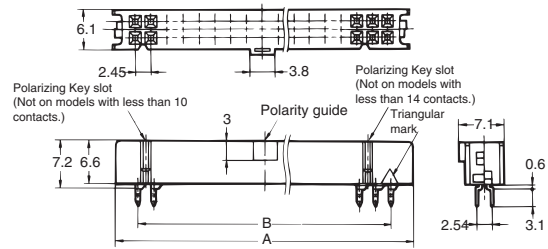
■ Polarity Slot and Polarizing Key Slot Number and Position

| Classification | No. of contacts | | | |
|--|-----------------|---------------|-------------------|---|
| | 10 contacts | 14 contacts | 16 to 40 contacts | 50 to 64 contacts |
| XG4M MIL Socket | XG4M-1031 | XG4M-1030 | XG4M-1430 | XG4M-1630 to XG4M-6430 |
| | | | | XG4M-5031, XG4M-6031, XG4M-6431 |
| XG4A MIL Plug XG4E IDC Plug | XG4A-107□ | XG4A-103□ | XG4A-143□ | XG4A-163□ to XG4A-643□ |
| | XG4E-107□ | XG4E-103□ | XG4E-143□ | XG4E-163□ to XG4E-643□ XG4A-507□, XG4A-607□, XG4A-647□ |
| XG4C Box-type Plug | XG4C-107□ | XG4C-103□ | XG4C-143□ | XG4C-163□ to XG4C-643□ |
| | | | | XG4C-507□, XG4C-607□, XG4C-647□ |
| No. of polarizing guides (Polarizing Slots) | 0 | 1 | 1 | 1 2 (H = 22.86 mm) |
| No. of Polarizing Key slot (Polarizing Key Slots) | 1 | 0 | 1 | 2 |

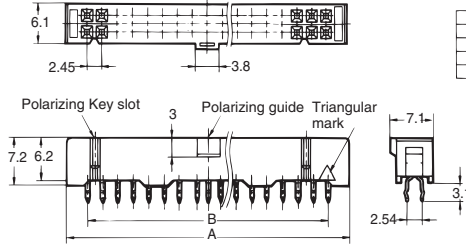
XG4H Board-to-Board Sockets

■ Dimensions

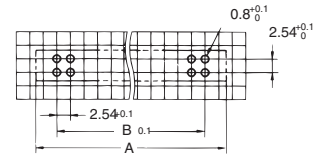
XG4H-□□31/□□71
(With straight DIP terminals)



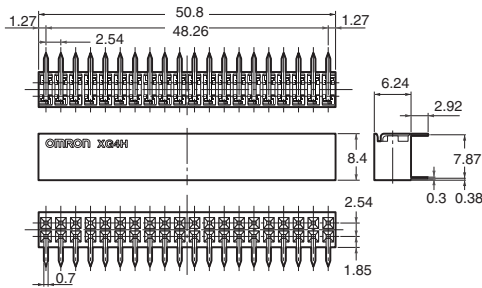
XG4H-3431-1
XG4H-4031-1
(With straight DIP terminals)
*Sockets with model numbers ending in -1 are available only with 34 or 40 contacts (provide kinked terminals and standoff to prevent the Sockets from falling over).



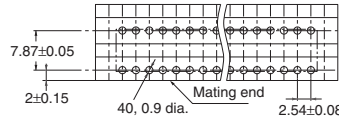
Mounting holes (bottom view)



XG4H-4034
(With right-angle DIP)



Mounting holes (bottom view)



Dimensions

| No. of contacts | A | B |
|-----------------|------|-------|
| 10 | 17.3 | 10.16 |
| 14 | 22.3 | 15.24 |
| 16 | 24.9 | 17.78 |
| 20 | 30.0 | 22.86 |
| 26 | 37.6 | 30.48 |
| 30 | 42.7 | 35.56 |
| 34 | 47.7 | 40.64 |
| 40 | 55.4 | 48.26 |
| 50 | 68.1 | 60.96 |
| 60 | 80.8 | 73.66 |
| 64 | 85.8 | 78.74 |

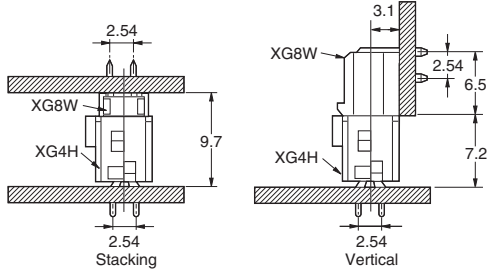
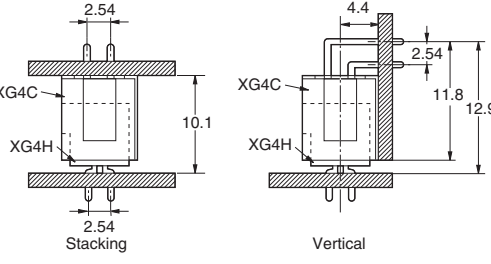
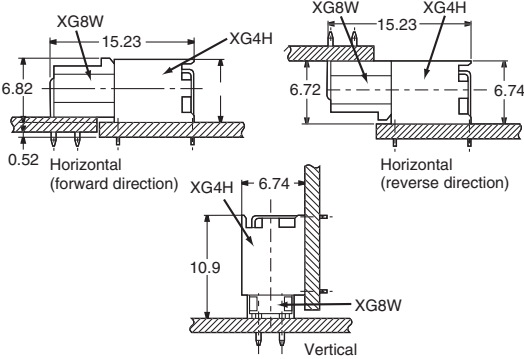
■ Ordering Information

| No. of contacts | No. of polarizing slots | Sockets with straight DIP terminals |
|-----------------|-------------------------|-------------------------------------|
| | | |
| 10 | 1 | XG4H-1031 |
| 14 | 1 | XG4H-1431 |
| 16 | 1 | XG4H-1631 |
| 20 | 1 | XG4H-2031 |
| 26 | 1 | XG4H-2631 |
| 30 | 1 | XG4H-3031 |
| 34 | 1 | XG4H-3431-1 |
| 40 | 1 | XG4H-4031-1 |
| 50 | 1 | XG4H-5031 |
| | 2 (See note.) | XG4H-5071 |
| 60 | 1 | XG4H-6031 |
| | 2 (See note.) | XG4H-6071 |
| 64 | 1 | XG4H-6431 |
| | 2 (See note.) | XG4H-6471 |

| No. of contacts | Sockets with right-angle DIP terminals |
|-----------------|--|
| | |
| 40 | XG4H-4034 |

Note: Polarizing guide pitch is 22.86 mm.

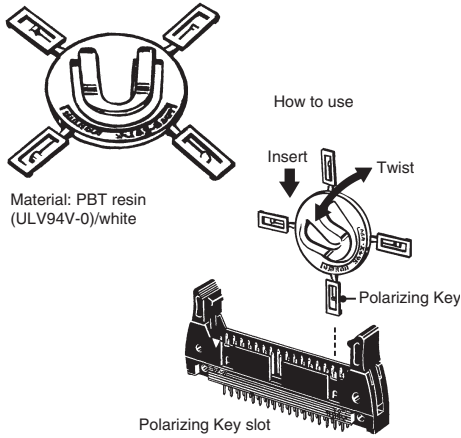
■ Mating Diagrams for XG4H

| Socket | Plug | XG8W Original Plugs | XG4C Box-type Plugs |
|---|---|--|---------------------|
| XG4H-□□31/-□□71 (With straight DIP terminals) |  |  | |
| XG4H-4034 (With right-angle DIP terminals) |  | <p style="text-align: center;">—</p> | |

Tools and Accessories (Sold Separately)

XG4Z-0004 Polarizing Key

Polarity guides and slots can be used by themselves to help prevent reverse insertion. Use the Polarizing Key as well for best results.

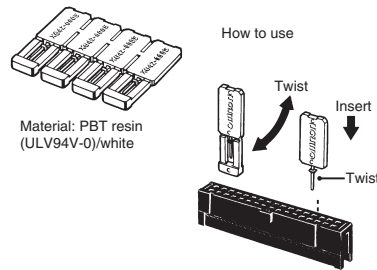


Note: Each XG4Z-0004 has 4 Polarizing Keys.

XG4Z-0005 Coding Pin

(To prevent erroneous insertion)

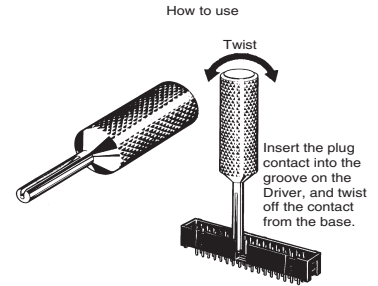
The Coding Pin is used to prevent confusion when many Connectors with the same number of contacts are lined up. It can also be used to prevent reverse insertion when using Connectors without a shroud like the XG8 Unshrouded Plug. The Coding Pin can also be used with XC2, XC5, and XC6 DIN Connectors as well as with XG5 Discrete-wire IDC Connectors.



Note: 1. A contact with a Coding Pin inserted cannot be used.
2. Each XG4Z-0005 has 4 Polarizing Keys.

XY2E-0002 Contact Cutting Driver

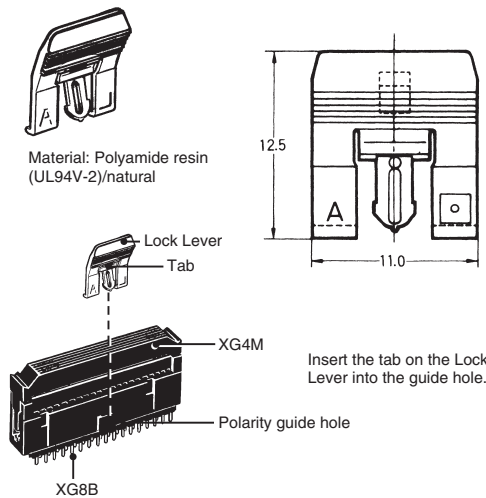
The Contact Cutting Driver is used to cut (twist off) a contact on the mating Plug when using an XG4Z-0005 Coding Pin.



Lock Lever for XG8B and XG8W Plugs (With Right-angle Terminals)

XG5Z-0002

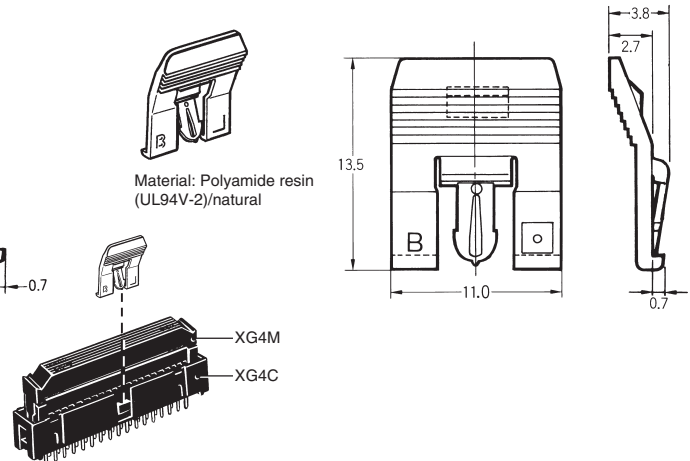
Use to lock Unshrouded Plugs (for XG8B and XG8W Plugs with right-angle terminals).



Lock Lever II for XG4C Plugs

XG4Z-0002

Use to lock XG4C Box-type Plugs.



Precautions

Correct Use

Automated Soldering Conditions (Jet Flow)

1. Soldering temperature: $250 \pm 5^\circ\text{C}$
2. Continuous soldering time: Within 5 s

Terms and Conditions of Sales

I. GENERAL

1. **Definitions:** The words used herein are defined as follows.
 - (a) **Terms:** These terms and conditions
 - (b) **Seller:** Omron Electronic Components LLC and its subsidiaries
 - (c) **Buyer:** The buyer of Products, including any end user in section III through VI
 - (d) **Products:** Products and/or services of Seller
 - (e) **Including:** Including without limitation
2. **Offer/Acceptance:** These Terms are deemed part of all quotations, acknowledgments, invoices, purchase orders and other documents, whether electronic or in writing, relating to the sale of Products by Seller. Seller hereby objects to any Terms proposed in Buyer's purchase order or other documents which are inconsistent with, or in addition to, these Terms.
3. **Distributor:** Any distributor shall inform its customer of the contents after and including section III of these Terms.

II. SALES

1. **Prices/Payment:** All prices stated are current, subject to change without notice by Seller. Buyer agrees to pay the price in effect at time of shipment. Payments for Products received are due net 30 days unless otherwise stated in the invoice. Buyer shall have no right to set off any amounts against the amount owing in respect of this invoice.
2. **Discounts:** Cash discounts, if any, will apply only on the net amount of invoices sent to Buyer after deducting transportation charges, taxes and duties, and will be allowed only if (a) the invoice is paid according to Seller's payment terms and (b) Buyer has no past due amounts owing to Seller.
3. **Interest:** Seller, at its option, may charge Buyer 1.5% interest per month or the maximum legal rate, whichever is less, on any balance not paid within the stated terms.
4. **Orders:** Seller will accept no order less than 200 U.S. dollars net billing.
5. **Currencies:** If the prices quoted herein are in a currency other than U.S. dollars, Buyer shall make remittance to Seller at the then current exchange rate most favorable to Seller; provided that if remittance is not made when due, Buyer will convert the amount to U.S. dollars at the then current exchange rate most favorable to Seller available during the period between the due date and the date remittance is actually made.
6. **Governmental Approvals:** Buyer shall be responsible for all costs involved in obtaining any government approvals regarding the importation or sale of the Products.
7. **Taxes:** All taxes, duties and other governmental charges (other than general real property and income taxes), including any interest or penalties thereon, imposed directly or indirectly on Seller or required to be collected directly or indirectly by Seller for the manufacture, production, sale, delivery, importation, consumption or use of the Products sold hereunder (including customs duties and sales, excise, use, turnover and license taxes) shall be charged to and remitted by Buyer to Seller.
8. **Financial:** If the financial position of Buyer at any time becomes unsatisfactory to Seller, Seller reserves the right to stop shipments or require satisfactory security or payment in advance. If Buyer fails to make payment or otherwise comply with these Terms or any related agreement, Seller may (without liability and in addition to other remedies) cancel any unshipped portion of Products sold hereunder and stop any Products in transit until Buyer pays all amounts, including amounts payable hereunder, whether or not then due, which are owing to it by Buyer. Buyer shall in any event remain liable for all unpaid accounts.
9. **Cancellation/ Etc:** Orders are not subject to rescheduling or cancellation unless Buyer indemnifies Seller fully against all costs or expenses arising in connection therewith.
10. **Force Majeure:** Seller shall not be liable for any delay or failure in delivery resulting from causes beyond its control, including earthquakes, fires, floods, strikes or other labor disputes, shortage of labor or materials, accidents to machinery, acts of sabotage, riots, delay in or lack of transportation or the requirements of any government authority.
11. **Shipping/ Delivery:** Unless otherwise expressly agreed in writing by Seller:
 - (a) All sales and shipments of Products shall be FOB shipping point (unless otherwise stated in writing by Seller), at which point title to and all risk of loss of the Products shall pass from Seller to Buyer, provided that Seller shall retain a security interest in the Products until the full purchase price is paid by Buyer;
 - (b) Delivery and shipping dates are estimates only; and
 - (c) Seller will package Products as it deems proper for protection against normal handling and extra charges apply to special conditions.
12. **Claims:** Any claim by Buyer against Seller for shortage or damage to the Products occurring before delivery to the carrier must be presented in detail in writing to Seller within 30 days of receipt of shipment.

III. PRECAUTIONS

1. **Suitability:** IT IS THE BUYER'S SOLE RESPONSIBILITY TO ENSURE THAT ANY OMRON PRODUCT IS FIT AND SUFFICIENT FOR USE IN A MOTORIZED VEHICLE APPLICATION. BUYER SHALL BE SOLELY RESPONSIBLE FOR DETERMINING APPROPRIATENESS OF THE PARTICULAR PRODUCT WITH RESPECT TO THE BUYER'S APPLICATION INCLUDING (A) ELECTRICAL OR ELECTRONIC COMPONENTS, (B) CIRCUITS, (C) SYSTEM ASSEMBLIES, (D) END PRODUCT, (E) SYSTEM, (F) MATERIALS OR SUBSTANCES OR (G) OPERATING ENVIRONMENT. Buyer acknowledges that it alone has determined that the Products will meet their requirements of the intended use in all cases. Buyer must know and observe all prohibitions of use applicable to the Products/s.
2. **Use with Attention:** The followings are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible use of any Product, nor to imply that any use listed may be suitable for any Product:
 - (a) Outdoor use, use involving potential chemical contamination or electrical interference.
 - (b) Use in consumer Products or any use in significant quantities.

3. **Prohibited Use:** NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.
4. **Motorized Vehicle Application:** USE OF ANY PRODUCT/S FOR A MOTORIZED VEHICLE APPLICATION MUST BE EXPRESSLY STATED IN THE SPECIFICATION BY SELLER.
5. **Programmable Products:** Seller shall not be responsible for the Buyer's programming of a programmable Product.

IV. WARRANTY AND LIMITATION

1. **Warranty:** Seller's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Seller (or such other period expressed in writing by Seller). SELLER MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT ALL OTHER WARRANTIES, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS.
2. **Buyer Remedy:** Seller's sole obligation hereunder shall be to replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product or, at Seller's election, to repay or credit Buyer an amount equal to the purchase price of the Product; provided that there shall be no liability for Seller or its affiliates unless Seller's analysis confirms that the Products were handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be approved in writing by Seller before shipment.
3. **Limitation on Liability:** SELLER AND ITS AFFILIATES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY. FURTHER, IN NO EVENT SHALL LIABILITY OF SELLER OR ITS AFFILIATES EXCEED THE INDIVIDUAL PRICE OF THE PRODUCT ON WHICH LIABILITY IS ASSERTED.
4. **Indemnities:** Buyer shall indemnify and hold harmless Seller, its affiliates and its employees from and against all liabilities, losses, claims, costs and expenses (including attorney's fees and expenses) related to any claim, investigation, litigation or proceeding (whether or not Seller is a party) which arises or is alleged to arise from Buyer's acts or omissions under these Terms or in any way with respect to the Products.

V. INFORMATION; ETC.

1. **Intellectual Property:** The intellectual property embodied in the Products is the exclusive property of Seller and its affiliates and Buyer shall not attempt to duplicate it in any way without the written permission of Seller. Buyer (at its own expense) shall indemnify and hold harmless Seller and defend or settle any action brought against Seller to the extent that it is based on a claim that any Product made to Buyer specifications infringed intellectual property rights of another party.
2. **Property/ Confidentiality:** Notwithstanding any charges to Buyer for engineering or tooling, all engineering and tooling shall remain the exclusive property of Seller. All information and materials supplied by Seller to Buyer relating to the Products are confidential and proprietary, and Buyer shall limit distribution thereof to its trusted employees and strictly prevent disclosure to any third party.
3. **Performance Data:** Performance data is provided as a guide in determining suitability and does not constitute a warranty. It may represent the result of Seller's test conditions, and the users must correlate it to actual application requirements.
4. **Change In Specifications:** Product specifications and description may be changed at any time based on improvements or other reasons. It is Seller's practice to change part numbers when published ratings or features are changed, or when significant engineering changes are made. However, some specifications of the Product may be changed without any notice.
5. **Errors And Omissions:** The information on Seller's website or in other documentation has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.
6. **Export Controls:** Buyer shall comply with all applicable laws, regulations and licenses regarding (a) export of the Products or information provided by Seller; (b) sale of Products to forbidden or other proscribed persons or organizations; (c) disclosure to non-citizens of regulated technology or information.

VI. MISCELLANEOUS

1. **Waiver:** No failure or delay by Seller in exercising any right and no course of dealing between Buyer and Seller shall operate as a waiver of rights by Seller.
2. **Assignment:** Buyer may not assign its rights hereunder without Seller's written consent.
3. **Law:** These Terms are governed by Illinois law (without regard to conflict of laws). Federal and state courts in Illinois have exclusive jurisdiction for any dispute hereunder.
4. **Amendment:** These Terms constitute the entire agreement between Buyer and Seller relating to the Products, and no provision may be changed or waived unless in writing signed by the parties.
5. **Severability:** If any provision hereof is rendered ineffective or invalid, such provision shall not invalidate any other provision.

Certain Precautions on Specifications and Use

1. **Suitability for Use.** Seller shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in Buyer's application or use of the Product. At Buyer's request, Seller will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases but the following is a non-exhaustive list of applications for which particular attention must be given:
 - (i) Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this document.
 - (ii) Energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
 - (iii) Use in consumer products or any use in significant quantities.
 - (iv) Systems, machines and equipment that could present a risk to life or property. Please know and observe all prohibitions of use applicable to this product.
 2. **Programmable Products.** Seller shall not be responsible for the user's programming of a programmable product, or any consequence thereof.
 3. **Performance Data.** Performance data given in this publication is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Seller's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to Seller's Warranty and Limitations of Liability.
 4. **Change in Specifications.** Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Seller representative at any time to confirm actual specifications of purchased Product.
 5. **Errors and Omissions.** The information in this publication has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors, or omissions.
 6. **RoHS Compliance.** Where indicated, our products currently comply, to the best of our knowledge as of the date of this publication, with the requirements of the European Union's Directive on the Restriction of certain Hazardous Substances ("RoHS"), although the requirements of RoHS do not take effect until July 2006. These requirements may be subject to change. Please consult our website for current information.
- NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Complete "Terms and Conditions of Sale" for product purchase and use are on Omron's website at <http://www.components.omron.com> – under the "About Us" tab, in the Legal Matters section.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.



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