#### **Flat Cable Connectors**

XG4

# The Mainstream of Circuit Board Connectors conforming MIL Standards with Improved Design.

- Our new production system improves reliability.
- 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.
- Conform to MIL standards (MIL-C-83503).
- UL standards (file No. E103202) (All XG4 models except those with XG4U)





#### MIL standard

Abbreviation for Military Standard. To unify the compatibility and quality assurance condition of each company, MILC-83503 (applicable to connectors) was established in 1977.

#### Open-end cover

An open-end cover has a structure where a flat cable can be pulled out from both sides of the cover when a cable is attached to a connector. (The cover having a structure where a flat cable can be pulled out from only one side of the cover is called a "Closed-end cover.")



#### Standoff

Part provided for lifting the housing from the board (This part improves airflow at the through-hole for better assembly.)

#### ■ Ordering Information

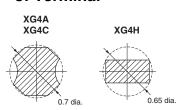
Model	XG4M XG4M-U	XG4M XG4T	XG4A	XG4A	XG4E XG4S	XG4C	XG4H
Appear- ance	MIL sockets with strain relief (with lock)	MIL sockets with strain relief	MIL plugs	Plugs with dual ports	IDC plugs with strain relief	Box-type plugs	Board-to-board sockets
						The second of th	THE PROPERTY OF
Page	3	4	5 to 10	11 to 12	13 to 14	15 to 16	17 to 18

#### ■ Ratings and Characteristics

Item	MIL Sockets: XG4M Relay Plug: XG4E	MIL Plugs: XG4A Box-type Plugs: XG4C Board-to-board Sockets: 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 m	nax.)		
Insulation resistance	1,000 MΩ min. (at 500 VDC)	1,000 MΩ min. (at 500 VDC)		
Dielectric strength	500 VAC for 1 min (leakage curre	nt: 1 mA max.)		
Total insertion force	1.96 N max. per contact			
Removal force	0.39 N min. (with test gauge, t= 0.	64 mm)		
Insertion durability	50 times			
Ambient operating temperature	-55 to 105°C (with no icing at low	temperature)		

Note: 1. The rated current will depend on the Socket you are using. It is 1 A using the XG4M for example.

# ■ Cross-sectional View of Terminal



#### ■ Materials and Finish

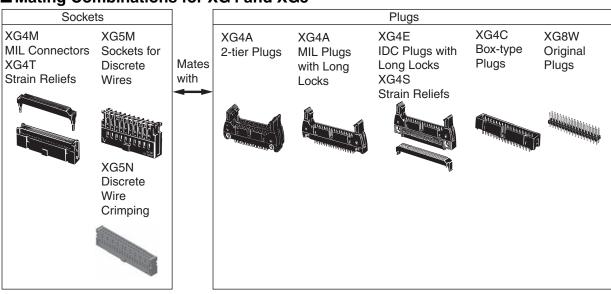
Item		MIL Plugs: XG4A Box-type Plugs: XG4C	rpe Plugs: XG4C (Strain Relief: XG4S) (Strain Relief: XG4T)		Board-to-board Sockets: XG4H
Housings		Fiber-glass reinforced PBT resi	n (UL94 V-0)/black		
Covers			Polyamide resin (UL94 V-0)/ black	Fiber-glass reinforced PBT resin (UL94 V-0)/black	
Contacts	Mating end	Brass/nickel base, 0.15-μm gold plating	Phosphor bronze/nickel base, 0.15-μm gold plating		
	Terminal Press fit	Brass/nickel base, 2.0-μm tin plating	n tin Phosphor bronze/nickel base, 2.0-μm tin plating		
Strain Reliefs			Polyamide resin (UL94 V-0)/ black	Fiber-glass reinforced PBT resin (UL94 V-0)/black	

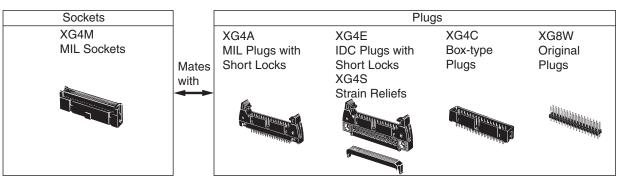
#### **■** Applicable Wires

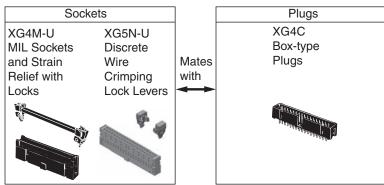
#### For pressing

- 1.27-mm pitch flat cable incorporating AWG28 wires
- UL2651(standard cable)
- UL20012 (folding cable)
- UL20028 (color-code cable)

#### ■ Mating Combinations for XG4 and XG5



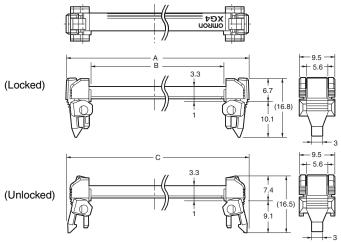




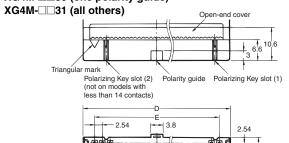
# XG4M-U MIL Connectors with Socket Locks

### ■ Dimensions (Unit: mm)



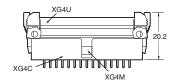


XG4M-□□30 (one polarity guide)

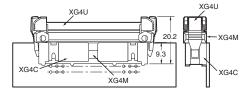


### ■ Mating Diagrams for XG4M

XG4U + XG4M + XG4C (with straight terminals)



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



#### Dimensions

No. of		Dimensions (mm)					
contacts	Α	В	С	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

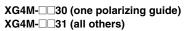
No. of contacts	No. of polarity guides	Socket and Strain Relief Sets (See note 1.)	Socket with Open-end Cover (See note 2.)	Strain Relief with Locks
10	0	XG4M-1031-U	XG4M-1031	XG4U-1004
	1	XG4M-1030-U	XG4M-1030	
14	1	XG4M-1430-U	XG4M-1430	XG4U-1404
16	1	XG4M-1630-U	XG4M-1630	XG4U-1604
20	1	XG4M-2030-U	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.

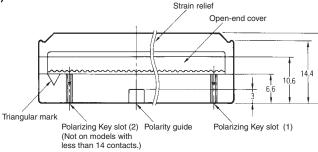
- 2. Strain Relief sold separately.
- 3. Polarity guide pitch is 22.86 mm.

# XG4M MIL Sockets

#### **■** Dimensions (Unit: mm)







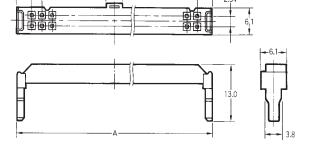
3.8

-2.54

# **Dimensions**







No. of	Dimensions (mm)			
contacts	Α	В		
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		

XG4M-\( \Big 30-T \) (XG4M-\( \Big 30 + XG4T-\( \Big 04) \) XG4M-\( \Big 31-T \) (XG4M-\( \Big 31 + XG4T-\( \Big 04) \)

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	XG4M-1031-T	XG4M-1031	XG4T-1004
10	1	XG4M-1030-T	XG4M-1030	Na+1-100+
14	1	XG4M-1430-T	XG4M-1430	XG4T-1404
16	1	XG4M-1630-T	XG4M-1630	XG4T-1604
20	1	XG4M-2030-T	XG4M-2030	XG4T-2004
26	1	XG4M-2630-T	XG4M-2630	XG4T-2604
30	1	XG4M-3030-T	XG4M-3030	XG4T-3004
34	1	XG4M-3430-T	XG4M-3430	XG4T-3404
40	1	XG4M-4030-T	XG4M-4030	XG4T-4004
50	1	XG4M-5030-T	XG4M-5030	XG4T-5004
	2 (See note 3.)	XG4M-5031-T	XG4M-5031	
60	1	XG4M-6030-T	XG4M-6030	XG4T-6004
	2 (See note 3.)	XG4M-6031-T	XG4M-6031	
64	1	XG4M-6430-T	XG4M-6430	XG4T-6404
	2 (See note 3.)	XG4M-6431-T	XG4M-6431	

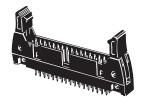
Note: 1. With open-end cover.

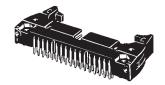
- 2. Strain Relief sold separately.
- 3. Polarity guide pitch is 22.86 mm

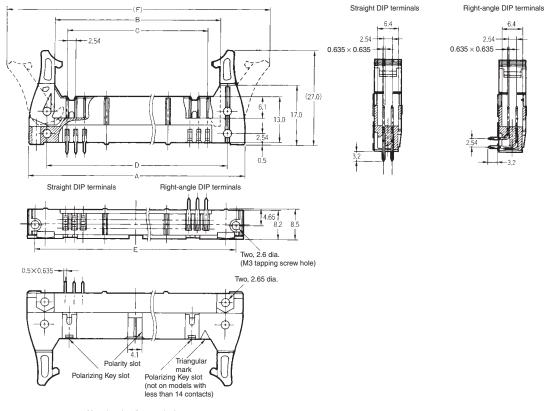
# XG4A MIL Plugs with Long Locks (MIL Standards)

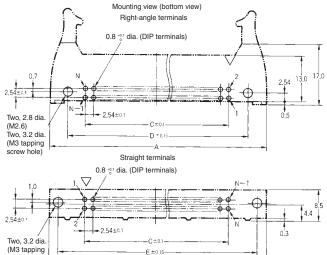
■ Dimensions (Unit: mm)

XG4A-\( \Bigcup 31/-\( \Bigcup 71\) (With straight DIP terminals)
XG4A-\( \Bigcup 34/-\( \Bigcup 74\) (With right-angle DIP terminals)









#### **Dimensions**

No. of	Dimensions (mm)					
contacts	Α	В	С	D	Е	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 16 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.

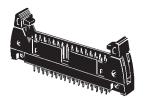
No. of contacts	No. of polarizing slots	Plugs with straight DIP terminals	Plugs with right-angle DIP terminals
10	0	XG4A-1071	XG4A-1074
	1	XG4A-1031	XG4A-1034
14	1	XG4A-1431	XG4A-1434
16	1	XG4A-1631	XG4A-1634
20	1	XG4A-2031	XG4A-2034
26	1	XG4A-2631	XG4A-2634
30	1	XG4A-3031	XG4A-3034
34	1	XG4A-3431	XG4A-3434
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

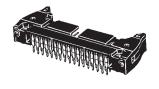
Note: Polarizing slot pitch is 22.86 mm.

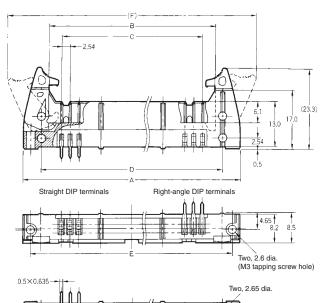
# XG4A MIL Plugs with Short Locks

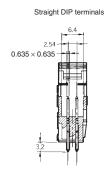
■ Dimensions (Unit: mm)

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

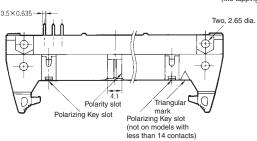


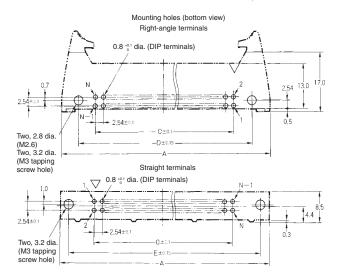












#### **Dimensions**

No. of	Dimensions (mm)						
contacts	Α	В	С	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 16 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 sockets without strain-relief.

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

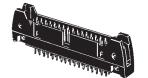
Note: Polarizing slot pitch is 22.86 mm.

# XG4A MIL Plugs without Lock Levers (Lock Levers mounted later)

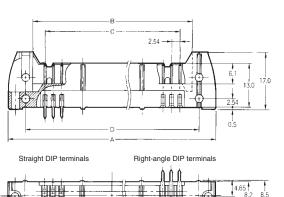
#### **■** Dimensions

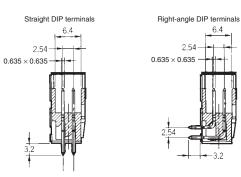
(Unit: mm)

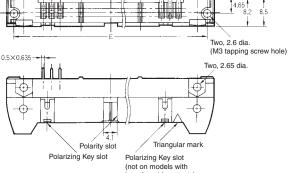
XG4A-033/-073 (With straight DIP terminals) XG4A- 36/- 76 (With right-angle DIP terminals)

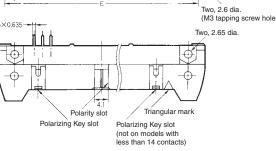




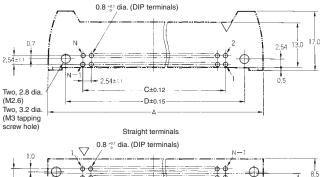








Mounting holes (bottom view) Right-angle terminals



0.8 +0.1 dia. (D	OIP terminals)		
1.0		N-1	
		/	•
	<u> </u>		<del></del>
T T T T T T T T T T T T T T T T T T T	— · · · · · · · · · · · · · · · · · · ·	<b>*</b> T	4.4
2.54±0.1		N ~	0.3
Two, 3.2 dia.	— C±0.1—————	-	
(M3 tapping	-E±n.15		
screw hole)	A		

#### **Dimensions**

No. of		Dimensions (mm)					
contacts	Α	В	С	D	E		
10	32.0	17.5	10.16	21.8	27.9		
14	37.1	22.6	15.24	26.9	33.0		
16	39.6	25.2	17.78	29.5	35.6		
20	44.7	30.2	22.86	34.5	40.6		
26	52.3	37.9	30.48	42.2	48.3		
30	57.4	42.9	35.56	47.2	53.3		
34	62.5	48.0	40.64	52.3	58.4		
40	70.1	55.6	48.26	59.9	66.0		
50	82.8	68.3	60.96	72.6	78.7		
60	95.5	81.0	73.66	85.3	91.4		
64	100.6	86.1	78.74	90.4	96.5		

Note: See page 16 for details on the availability (10-contact Connectors) and pitch (with 50, 60, or 64-contact Connectors) of polarizing slots.

## **■** Ordering Information

No. of contacts	No. of polarizing slots	Plugs with straight DIP terminals	Plugs right-angle DIP terminals
10	0	XG4A-1073	XG4A-1076
	1	XG4A-1033	XG4A-1036
14	1	XG4A-1433	XG4A-1436
16	1	XG4A-1633	XG4A-1636
20	1	XG4A-2033	XG4A-2036
26	1	XG4A-2633	XG4A-2636
30	1	XG4A-3033	XG4A-3036
34	1	XG4A-3433	XG4A-3436
40	1	XG4A-4033	XG4A-4036
50	1	XG4A-5033	XG4A-5036
	2 (See note.)	XG4A-5073	XG4A-5076
60	1	XG4A-6033	XG4A-6036
	2 (See note.)	XG4A-6073	XG4A-6076
64	1	XG4A-6433	XG4A-6436
	2 (See note.)	XG4A-6473	XG4A-6476

Note: Polarity slot pitch is 22.86 mm.

#### **Lock Levers**

- This series of Connectors allows you to attach Lock Levers on Right-angle Terminal Plugs after automated soldering is completed.
- Lock Levers can be easily mounted simply by manually pushing them in.







Long Lock Lever

XG4Z-0011 Short Lock Lever

Туре	Model
Long Lock Levers	XG4Z-0010
Short Lock Levers	XG4Z-0011

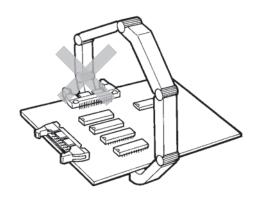
Note: The left and right Lock Levers are identical. One pair is needed for each Plug.

#### **Attachment after Soldering**

- Long Levers interfere with automated mounting.
- Long Levers are in the way when boards are packed.



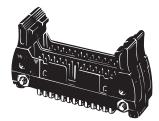
• These problems are resolved using Connectors with Long Levers that can be attached after soldering is completed.

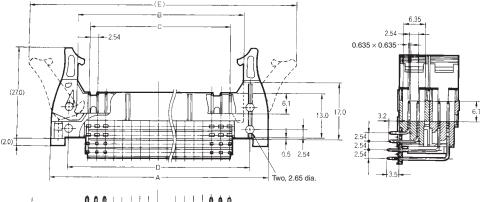


# XG4A 2-tier Plugs with Long Lock

#### **■** Dimensions (Unit: mm)

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

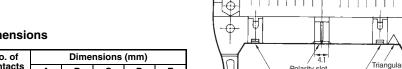






Stopper (For connecting top and bottom connectors)

Two, 2.65 dia.

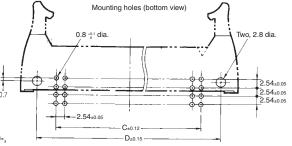


Polarizing Key slot (not on models with less than 14 contacts) Polarizina Kev slot (not on the XG4A-1039-A)

#### **Dimensions**

No. of	Dimensions (mm)					
contacts	Α	В	С	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

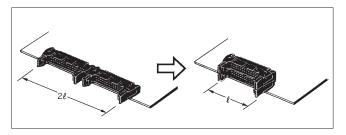
No. of contacts	No. of polarizing slots	Model	No. of contacts	No. of polarity slots	Model
10 × 2	0	XG4A-1079-A	40 × 2	1	XG4A-4039-A
	1	XG4A-1039-A			
14 × 2	1	XG4A-1439-A	50 × 2	1	XG4A-5039-A
16 × 2	1	XG4A-1639-A		2 (See note 2.)	XG4A-5079-A
20 × 2	1	XG4A-2039-A	60 × 2	1	XG4A-6039-A
26 × 2	1	XG4A-2639-A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

Note: 1. Set containing a stopper, mounting screw (assembled with washer) and nut.

Screw size: M2.6 x 20 mm

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.

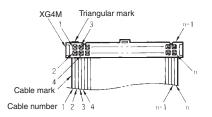
# ■ Cable Number and Contact Position

#### Cable and Corresponding Contact Number

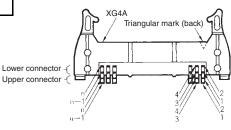
The contact numbers are not marked on the Connector. Use the triangular mark as a guide when wiring and designing circuit boards.

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

Socket (mating side)



Right-angle terminals (terminal side)



#### ■ Precautions

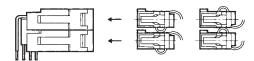
#### **Correct Use**

#### 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  $5 \pm 1$  s

#### **Lock Lever Operation**

When you operate the lock lever, do not force it past the movable range.

The connector may be damaged.

Do not use any type of tool to operate the lock lever. Operate it only with your hand.

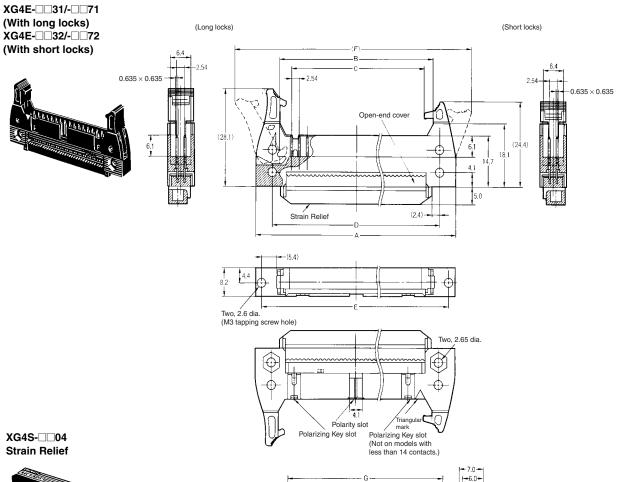
The connector may be damaged.

Always release the lock mechanism before you disconnect the connector from the connected socket.

The connector may be damaged.

# XG4E IDC Plugs

■ Dimensions (Unit: mm)





#### **Dimensions**

No. of		Dimensions (mm)						
contacts	Α	В	С	D	Е		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	48.0	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

### **IDC 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	1
60	1	XG4E-6031	XG4E-6032	XG4S-6004
	2 (See note 2.)	XG4E-6071	XG4E-6072	1
64	1	XG4E-6431	XG4E-6432	XG4S-6404
	2 (See note 2.)	XG4E-6471	XG4E-6472	1

Note: 1. Strain Relief sold separately.

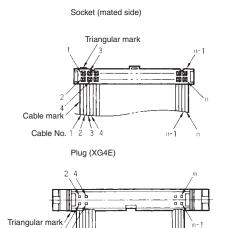
2. Polarity slot pitch is 22.86 mm.

#### ■ 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.



Right-angle Terminal Plug (terminal side)

XG4A XG4C

Triangular mark
(back)

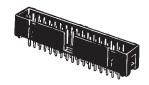
Straight Terminal Plug (terminal side)

Triangular mark

# XG4C Box-type Plugs

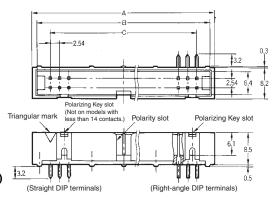
#### **■** Dimensions (Unit: mm)

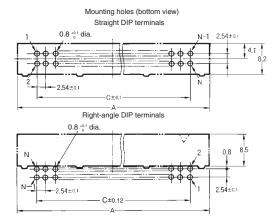
XG4C-031/-071 (With straight DIP terminals)

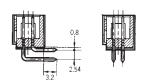


XG4C-□□34/-□□74 (With right-angle DIP terminals)









Right-angle DIP terminals

Straight DIP terminals

#### **Dimensions**

No. of	Dimensions (mm)				
contacts	Α	В	С		
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		

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.

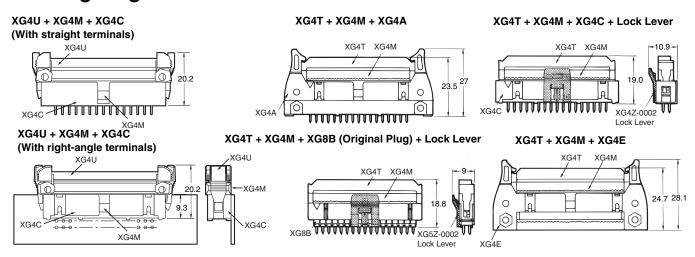
## **■** Ordering Information

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). (See XG4Z-0002 on page 19.)

# ■ Mating Diagrams for XG4M



#### ■ Polarity Slot and Polarizing Key Slot Number and Position

Classification			No. of contacts	;	
	10 co	ntacts	14 contacts	16 to 40 contacts	50 to 64 contacts
XG4M MIL Sockets	XG4M-1031	XG4M-1030	XG4M-1430		arizing Key slot  XG4M-5031, XG4M-6031, XG4M-6431  Polarizing guide
XG4A MIL Plugs XG4E IDC Plugs	XG4A-107□	XG4A-103 () () () () () () () () () () () () ()	XG4A-143		
XG4C Box-type Plugs No. of polarizing	XG4C-107□	XG4C-103	XG4C-143□		XG4C-507 XG4C-607 XG4C-647
guides (Polarizing Slots)					2 (H = 22.86 mm)
No. of Polarizing Key slot (Polarizing Key Slots)	1	0	1	2	2

# XG4H Board-to-Board Sockets

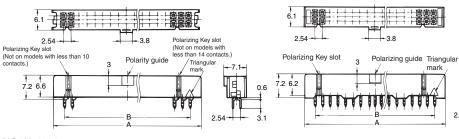
■ Dimensions (Unit: mm)



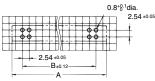
#### XG4H-3431-1 XG4H-4031-1

#### (With straight DIP terminals)

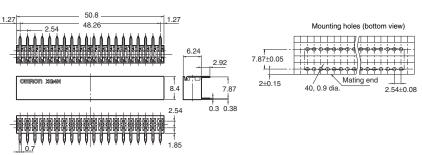
\*Sockets with model numbers ending in -1 are available only with 34 or 40 contacts (provide kinked terminals and standoff to prevent the Sockets from falling over).



Mounting holes (bottom view)



XG4H-4034 (With right-angle DIP terminals)



**Dimensions** 

No. of contacts	A	В
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

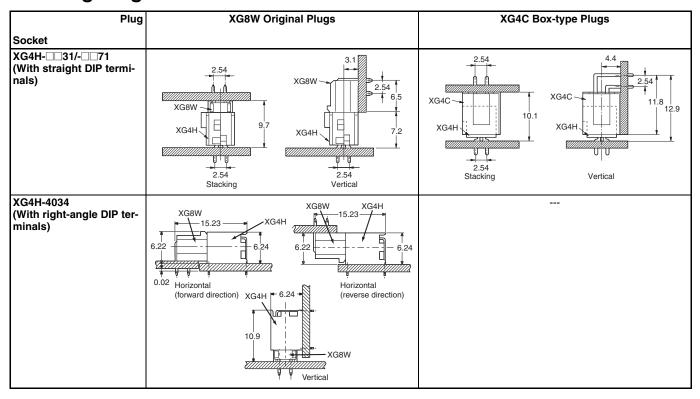
### **■** Ordering Information

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.

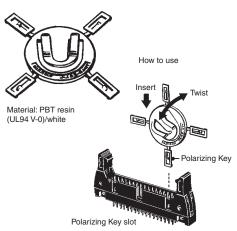
# ■ Mating Diagrams for XG4H



#### ■ 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.

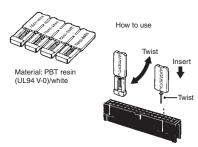


**Note:** Each XG4Z-0004 has 4 Polarizing Keys.

#### 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 XC5, and XC6 DIN Connectors as well as with XG5 Discrete-wire IDC Connectors.

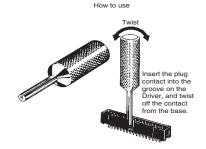


Note: 1. A contact with a Coding Pin inserted cannot be used.

2. Each XG4Z-0005 has 4 Polarizing Kevs.

#### 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.

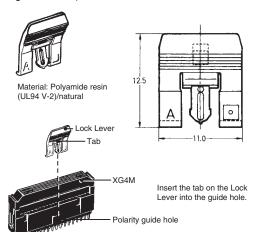


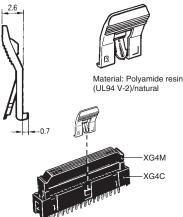
Model		
XG4Z-0004		
XG4Z-0005		
XY2E-0002		

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

#### XG5Z-0002

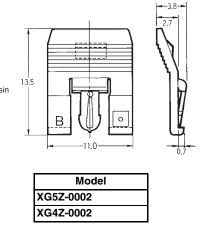
Use to lock Unshrouded Plugs (for XG8B and XG8W Plugs with right-angle terminals).





#### 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 ±5°C
- 2. Continuous soldering time: Within 5±1 s

#### Soldering

Solder-mount the XG4A with the lock levers fully closed or fully open.

Solder-mounting the XG4A with the lock lever half-open may cause play in lock lever due to thermal deformation of the housing.

#### Storage

If the lock levers of the XG4A or XG4E connector are left at an intermediate position for a long time, they may get to feel loose in operation due to deterioration of the plastic part. When the lock levers are not used, store the plug with the lock levers fully closed or fully open.

<ul> <li>Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.</li> <li>Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.</li> </ul>				
Note:	Do not use this document to operate the Unit.			

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