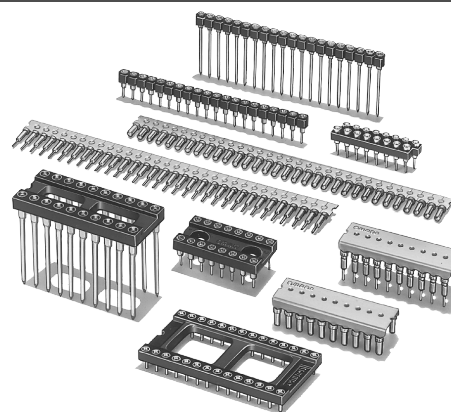


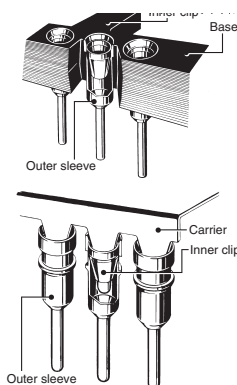
IC Sockets XR2

OMRON's IC Connectors Have Excellent Reliability and Can Tolerate Momentary Interruptions in Power.

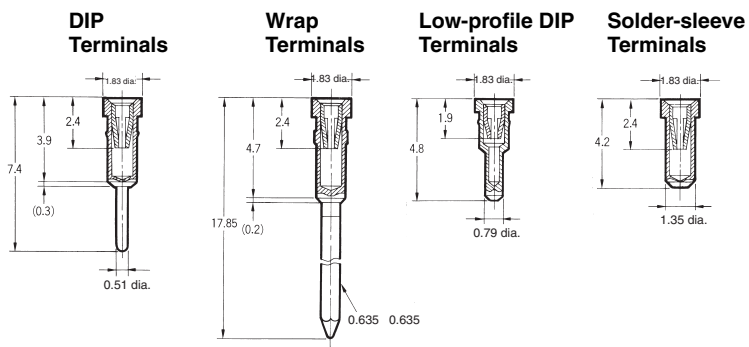
- Round pins and 4-point (4-finger) contact construction with contact entry holes that are large for easy insertion.
- IC lead contacts placed high for solid connections.
- A wide product range: open-frame, closed-frame, single-row, carrier-type DIP terminals, wrap terminals, solder-sleeve terminals, and low-profile DIP terminals.
- Conforms to UL standards (file no. E 103202) and CSA standards (file no. LR 62678).



Construction



Contact Dimensions



Ratings and Characteristics

| Item | Gold plated | Gold flash plated |
|-------------------------------|--|-------------------|
| Rated current | 1 A | |
| Rated voltage | 300 VAC | |
| Contact resistance | 20 mΩ max. (at 20 mV, 100 mA max.) | |
| Insulation resistance | 1,000 MΩ min. (at 500 VDC) | |
| Dielectric strength | 1,000 VAC for 1 min (leakage current: 1 mA max.) | |
| Contact insertion (See note.) | 400 gf (3.92 N) max. | |
| Contact removal (See note.) | 65 gf (0.64 N) min. with gold plating or with solder plating | |
| Insertion durability | 100 times (0.75-μm gold plating), 50 times (0.25-μm gold plating) | 20 times |
| Ambient temperature | Operating: -55 to 125°C (with no icing) | |

Note: The contact insertion force and contact removal force are for a test gauge, t = 0.432 mm.

Materials and Finish

| | |
|--------------|--|
| Base | Fiber-glass reinforced PBT resin (UL94V-0)/black |
| Carrier | Aluminum |
| Inner clip | Beryllium copper/nickel base, gold plated |
| Outer sleeve | Brass/nickel base, gold flash plating |

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

Applicable Wrap Post Wire Sizes

AWG30, AWG28, AWG26, AWG24
(Solid wire: 0.25 to 0.51 mm dia.)

Wrap Post Length

3 wires

Applicable IC Lead Dimensions

DIP, Wrap, and Solder-sleeve Terminals

| | Depth × width (mm) | |
|------------|-------------------------------------|----------------|
| Flat lead | 0.29 ±0.09 × 0.46 ±0.08 (See note.) | |
| Round lead | 0.53 dia. max. | 0.41 dia. min. |

Note: Do not use wire where the diagonal is more than 0.56 mm.

Low-profile DIP Terminals

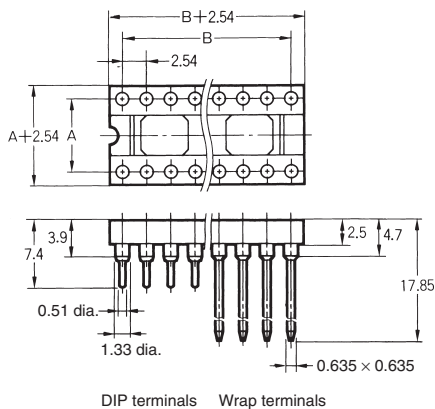
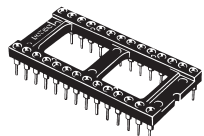
| | Depth × width (mm) | |
|------------|-------------------------------------|----------------|
| Flat lead | 0.29 ±0.09 × 0.46 ±0.08 (See note.) | |
| Round lead | 0.50 dia. max. | 0.41 dia. min. |

Note: Do not use wire where the diagonal is more than 0.52 mm.

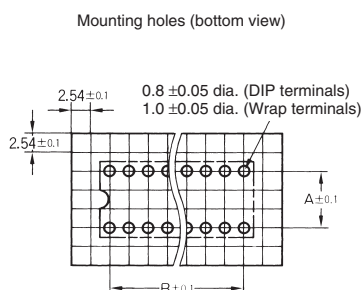
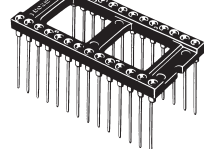
XR2A Open-frame Sockets

■ Dimensions

XR2A-□□11-N
 XR2A-2463-N
 XR2A-2473-N
 XR2A-□□01-N
 XR2A-2461-N
 XR2A-2471-N
 XR2A-□□21-N
 XR2A-2467-N
 XR2A-2477-N
 (With DIP terminals)



XR2A-□□02
 (With wrap terminals)



Dimensions

| No. of contacts | Dimensions (mm) | |
|------------------|-----------------|-------|
| | A | B |
| 8 | 7.62 | 7.62 |
| 14 | 7.62 | 15.24 |
| 16 | 7.62 | 17.78 |
| 18 | 7.62 | 20.32 |
| 20 | 7.62 | 22.86 |
| 22 | 10.16 | 25.40 |
| 24 (See note 1.) | 15.24 | 27.94 |
| 24 (See note 2.) | 10.16 | 27.94 |
| 24 (See note 3.) | 7.62 | 27.94 |
| 28 | 15.24 | 33.02 |
| 32 | 15.24 | 38.10 |
| 40 | 15.24 | 48.26 |
| 42 | 15.24 | 50.80 |
| 48 | 15.24 | 58.42 |
| 50 | 22.86 | 60.96 |
| 64 | 22.86 | 78.74 |

- Note:**
1. XR2A-2401-N/XR2A-2402/
XR2A-2411N/XR2A-2421-N
 2. XR2A-2461-N/XR2A-2463-N/
XR2A-2467-N
 3. XR2A-2471-N/XR2A-2473-N/
XR2A-2477-N

■ Ordering Information

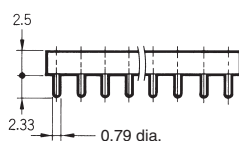
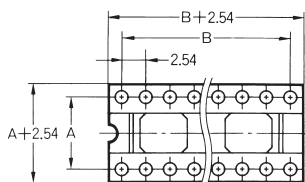
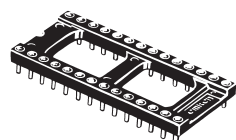
| Appearance | | Sockets with DIP terminals | | | Sockets with wrap terminals |
|----------------|--------------------|---------------------------------|---------------------------------|-------------------------|---------------------------------|
| No of contacts | Row pitch (A) (mm) | Sockets with DIP terminals | | | Sockets with wrap terminals |
| | | With 0.25- μ m gold plating | With 0.75- μ m gold plating | With gold flash plating | With 0.75- μ m gold plating |
| 8 | 7.62 | XR2A-0811-N | XR2A-0801-N | XR2A-0821-N | XR2A-0802 |
| 14 | 7.62 | XR2A-1411-N | XR2A-1401-N | XR2A-1421-N | XR2A-1402 |
| 16 | 7.62 | XR2A-1611-N | XR2A-1601-N | XR2A-1621-N | XR2A-1602 |
| 18 | 7.62 | XR2A-1811-N | XR2A-1801-N | XR2A-1821-N | XR2A-1802 |
| 20 | 7.62 | XR2A-2011-N | XR2A-2001-N | XR2A-2021-N | XR2A-2002 |
| 22 | 10.16 | XR2A-2211-N | XR2A-2201-N | XR2A-2221-N | XR2A-2202 |
| 24 | 15.24 | XR2A-2411-N | XR2A-2401-N | XR2A-2421-N | XR2A-2402 |
| 24 | 10.16 | XR2A-2463-N | XR2A-2461-N | XR2A-2467-N | — |
| 24 | 7.62 | XR2A-2473-N | XR2A-2471-N | XR2A-2477-N | XR2A-2472 |
| 28 | 15.24 | XR2A-2811-N | XR2A-2801-N | XR2A-2821-N | XR2A-2802 |
| 32 | 15.24 | XR2A-3211-N | XR2A-3201-N | XR2A-3221-N | XR2A-3202 |
| 40 | 15.24 | XR2A-4011-N | XR2A-4001-N | XR2A-4021-N | XR2A-4002 |
| 42 | 15.24 | XR2A-4211-N | XR2A-4201-N | XR2A-4221-N | XR2A-4202 |
| 48 | 15.24 | XR2A-4811-N | XR2A-4801-N | — | XR2A-4802 |
| 50 | 22.86 | XR2A-5011-N | XR2A-5001-N | — | — |
| 64 | 22.86 | XR2A-6411-N | XR2A-6401-N | — | XR2A-6402 |

XR2A Open-frame Sockets (with Low-profile DIP Terminals)

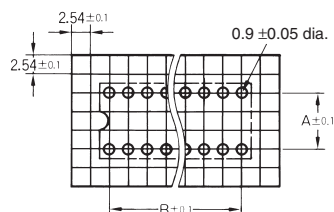
■ Dimensions

XR2A-□□15
 XR2A-2466
 XR2A-2476
 XR2A-□□05
 XR2A-2465
 XR2A-2475
 XR2A-□□25
 XR2A-2468
 XR2A-2478

(With low-profile DIP terminals)



Mounting holes (bottom view)



Dimensions

| No. of contacts | Dimensions (mm) | |
|---------------------|-----------------|-------|
| | A | B |
| 8 | 7.62 | 7.62 |
| 14 | 7.62 | 15.24 |
| 16 | 7.62 | 17.78 |
| 18 | 7.62 | 20.32 |
| 20 | 7.62 | 22.86 |
| 22 | 10.16 | 25.40 |
| 24 (See note 1.) | 15.24 | 27.94 |
| 24 (See note 2.) | 10.16 | 27.94 |
| 24 (See note 3.) | 7.62 | 27.94 |
| 28 | 15.24 | 33.02 |
| 32 | 15.24 | 38.10 |
| 40 | 15.24 | 48.26 |
| 42 | 15.24 | 50.80 |
| 48 | 15.24 | 58.42 |
| 64 | 22.86 | 78.74 |

- Note: 1.** XR2A-2415/XR2A-2405/
XR2A-2425
2. XR2A-2466/XR2A-2465/
XR2A-2468
3. XR2A-2476/XR2A-2475/
XR2A-2478

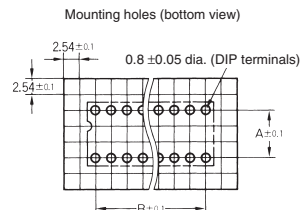
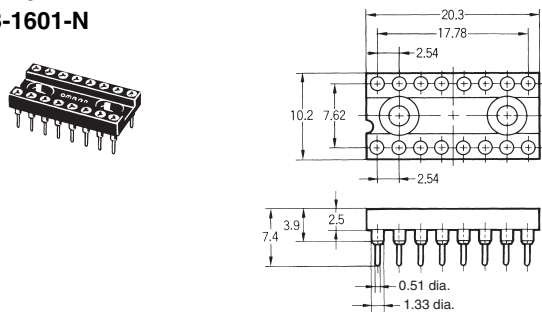
■ Ordering Information

| Appearance | | Sockets with DIP terminals | | |
|-----------------|--------------------|---------------------------------|---------------------------------|-------------------------|
| | | | | |
| No. of contacts | Row pitch (A) (mm) | With 0.25- μ m gold plating | With 0.75- μ m gold plating | With gold flash plating |
| 8 | 7.62 | XR2A-0815 | XR2A-0805 | XR2A-0825 |
| 14 | 7.62 | XR2A-1415 | XR2A-1405 | XR2A-1425 |
| 16 | 7.62 | XR2A-1615 | XR2A-1605 | XR2A-1625 |
| 18 | 7.62 | XR2A-1815 | XR2A-1805 | XR2A-1825 |
| 20 | 7.62 | XR2A-2015 | XR2A-2005 | XR2A-2025 |
| 22 | 10.16 | XR2A-2215 | XR2A-2205 | XR2A-2225 |
| 24 | 15.24 | XR2A-2415 | XR2A-2405 | XR2A-2425 |
| 24 | 10.16 | XR2A-2466 | XR2A-2465 | XR2A-2468 |
| 24 | 7.62 | XR2A-2476 | XR2A-2475 | XR2A-2478 |
| 28 | 15.24 | XR2A-2815 | XR2A-2805 | XR2A-2825 |
| 32 | 15.24 | XR2A-3215 | XR2A-3205 | XR2A-3225 |
| 40 | 15.24 | XR2A-4015 | XR2A-4005 | XR2A-4025 |
| 42 | 15.24 | XR2A-4215 | XR2A-4205 | — |
| 48 | 15.24 | XR2A-4815 | XR2A-4805 | — |
| 64 | 22.86 | XR2A-6415 | XR2A-6405 | — |

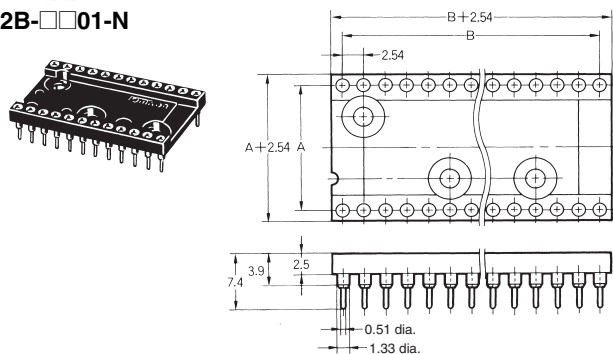
XR2B Closed-frame Sockets

■ Dimensions

XR2B-1611-N
XR2B-1601-N



XR2B-□□11-N
XR2B-□□01-N



Dimensions

| No. of contacts | Dimensions (mm) | |
|-----------------|-----------------|-------|
| | A | B |
| 16 | 7.62 | 17.78 |
| 24 | 15.24 | 27.94 |
| 28 | 15.24 | 33.02 |
| 32 | 15.24 | 38.10 |
| 40 | 15.24 | 48.26 |

■ Ordering Information

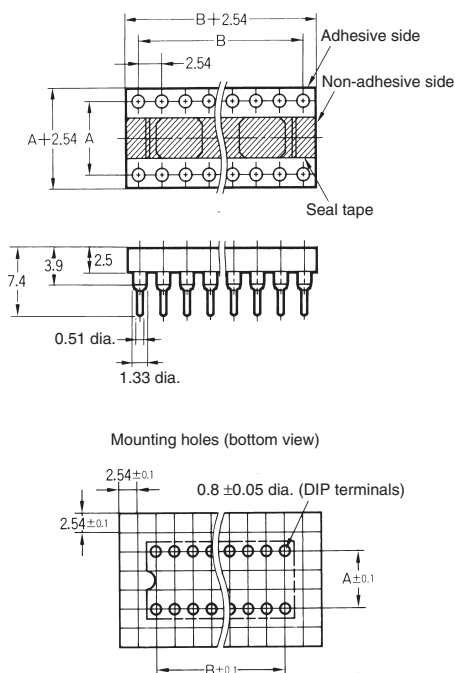
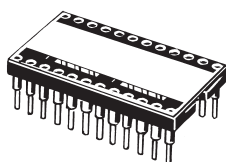
| Appearance | | Sockets with DIP terminals | |
|-----------------|--------------------|---------------------------------|---------------------------------|
| No. of contacts | Row pitch (A) (mm) | With 0.25- μ m gold plating | With 0.75- μ m gold plating |
| 16 | 7.62 | XR2B-1611-N | XR2B-1601-N |
| 24 | 15.24 | XR2B-2411-N | XR2B-2401-N |
| 28 | 15.24 | XR2B-2811-N | XR2B-2801-N |
| 32 | 15.24 | XR2B-3211-N | XR2B-3201-N |
| 40 | 15.24 | XR2B-4011-N | XR2B-4001-N |

XR2T Open-frame Sockets with Seal Tape

- Equipped with seal tape to prevent flux cleaning liquids from entering the Socket.
- The same round-pin, 4-point contact structure as the RX2A is used for the contacts.
- The seal tape is made of transparent polyethylene (adhesive portion) and yellow polypropolyene (non-adhesive portion).

■ Dimensions

XR2T-□□11-N
 XR2T-2463-N
 XR2T-2473-N
 XR2T-□□01-N
 XR2T-2461-N
 XR2T-2471-N
 XR2T-□□21-N
 XR2T-2467-N
 XR2T-2477-N



Dimensions

| No. of contacts | Dimensions (mm) | |
|------------------|-----------------|-------|
| | A | B |
| 8 | 7.62 | 7.62 |
| 14 | 7.62 | 15.24 |
| 16 | 7.62 | 17.78 |
| 18 | 7.62 | 20.32 |
| 20 | 7.62 | 22.86 |
| 22 | 10.16 | 25.40 |
| 24 (See note 1.) | 15.24 | 27.94 |
| 24 (See note 2.) | 10.16 | 27.94 |
| 24 (See note 3.) | 7.62 | 27.94 |
| 28 | 15.24 | 33.02 |
| 32 | 15.24 | 38.10 |
| 40 | 15.24 | 48.26 |
| 48 | 15.24 | 58.42 |

- Note:**
1. XR2T-2411-N/XR2T-2401-N/
XR2A-2421-N
 2. XR2T-2463-N/XR2T-2461-N/
XR2T-2467-N
 3. XR2T-2473-N/XR2T-2471-N/
XR2T-2477-N

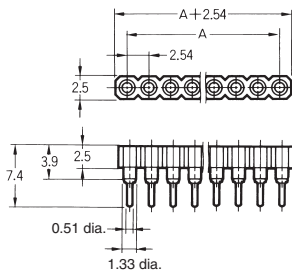
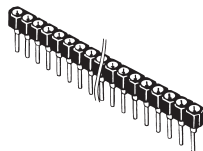
■ Ordering Information

| Appearance | | Sockets with DIP terminals | | |
|-----------------|--------------------|---------------------------------|---------------------------------|-------------------------|
| No. of contacts | Row pitch (A) (mm) | | | |
| | | With 0.25- μ m gold plating | With 0.75- μ m gold plating | With gold flash plating |
| 8 | 7.62 | XR2T-0811-N | XR2T-0801-N | XR2T-0821-N |
| 14 | 7.62 | XR2T-1411-N | XR2T-1401-N | XR2T-1421-N |
| 16 | 7.62 | XR2T-1611-N | XR2T-1601-N | XR2T-1621-N |
| 18 | 7.62 | XR2T-1811-N | XR2T-1801-N | XR2T-1821-N |
| 20 | 7.62 | XR2T-2011-N | XR2T-2001-N | XR2T-2021-N |
| 22 | 10.16 | XR2T-2211-N | XR2T-2201-N | XR2T-2221-N |
| 24 | 15.24 | XR2T-2411-N | XR2T-2401-N | XR2T-2421-N |
| 24 | 10.16 | XR2T-2463-N | XR2T-2461-N | XR2T-2467-N |
| 24 | 7.62 | XR2T-2473-N | XR2T-2471-N | XR2T-2477-N |
| 28 | 15.24 | XR2T-2811-N | XR2T-2801-N | XR2T-2821-N |
| 32 | 15.24 | XR2T-3211-N | XR2T-3201-N | XR2T-3221-N |
| 40 | 15.24 | XR2T-4011-N | XR2T-4001-N | XR2T-4021-N |
| 48 | 15.24 | XR2T-4811-N | XR2T-4801-N | --- |

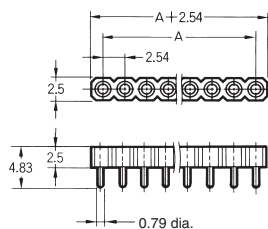
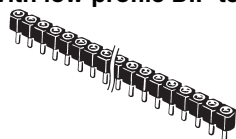
XR2C Single-row Sockets

■ Dimensions

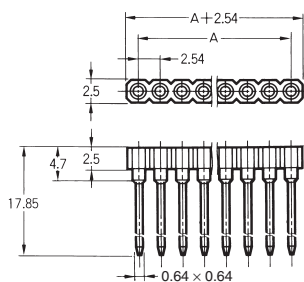
XR2C-□□11-N
 XR2C-□□01-N
 XR2C-□□21-N
 (With DIP terminals)



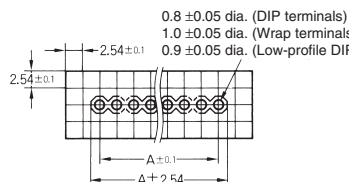
XR2C-□□15
 XR2C-□□05
 XR2C-□□25
 (With low-profile DIP terminals)



XR2C-□□02
 (With wrap terminals)



Mounting holes (bottom view)



Dimensions

| No. of contacts | A (mm) |
|-----------------|--------|
| 20 | 48.26 |
| 32 | 78.74 |

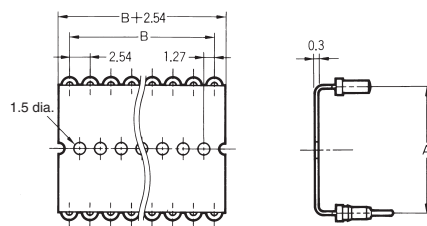
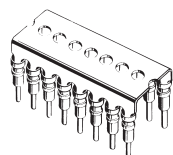
■ Ordering Information

| Appearance | No. of contacts | With 0.25-μm gold plating | With 0.75-μm gold plating | With gold flash plating |
|--|-----------------|---------------------------|---------------------------|-------------------------|
| Sockets with DIP terminals | 10 | XR2C-1011-N | — | — |
| | 16 | XR2C-1611-N | — | — |
| | 20 | XR2C-2011-N | XR2C-2001-N | XR2C-2021-N |
| | 32 | XR2C-3211-N | XR2C-3201-N | XR2C-3221-N |
| Sockets with low-profile DIP terminals | 20 | XR2C-2015 | XR2C-2005 | XR2C-2025 |
| | 32 | XR2C-3215 | XR2C-3205 | XR2C-3225 |
| Sockets with wrap terminals | 20 | — | XR2C-2002 | — |
| | 32 | — | XR2C-3202 | — |

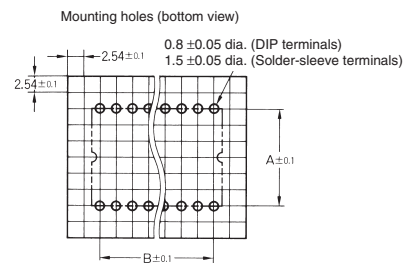
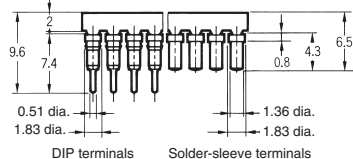
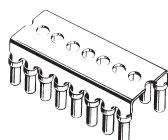
XR2D Double-row Carrier Sockets

■ Dimensions

XR2D-□□01-N
(With DIP terminals)



XR2D-□□04
(With solder-sleeve terminals)



Mounting holes (bottom view)

| No. of contacts | Dimensions (mm) | |
|-----------------|-----------------|-------|
| | A | B |
| 8 | 7.62 | 7.62 |
| 14 | 7.62 | 15.24 |
| 16 | 7.62 | 17.78 |
| 18 | 7.62 | 20.32 |
| 20 | 7.62 | 22.86 |
| 24 | 15.24 | 27.94 |
| 28 | 15.24 | 33.02 |
| 32 | 15.24 | 38.10 |
| 40 | 15.24 | 48.26 |

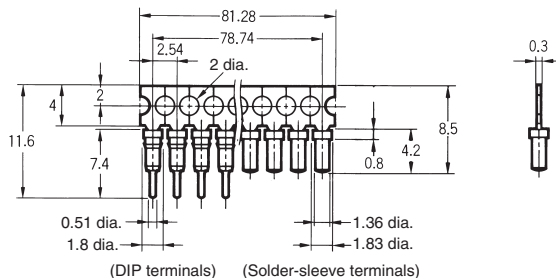
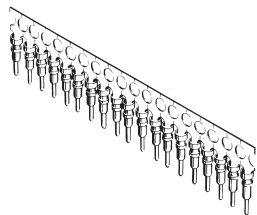
■ Ordering Information

| Appearance | | Sockets with DIP terminals | Sockets with solder-sleeve terminals |
|-----------------|--------------------|----------------------------|--------------------------------------|
| | | | |
| No. of contacts | Row pitch (A) (mm) | With 0.75-μm gold plating | With 0.75-μm gold plating |
| 8 | 7.62 | XR2D-0801-N | XR2D-0804 |
| 14 | 7.62 | XR2D-1401-N | XR2D-1404 |
| 16 | 7.62 | XR2D-1601-N | XR2D-1604 |
| 18 | 7.62 | XR2D-1801-N | XR2D-1804 |
| 20 | 7.62 | XR2D-2001-N | XR2D-2004 |
| 24 | 15.24 | XR2D-2401-N | XR2D-2404 |
| 28 | 15.24 | XR2D-2801-N | XR2D-2804 |
| 32 | 15.24 | XR2D-3201-N | XR2D-3204 |
| 40 | 15.24 | XR2D-4001-N | XR2D-4004 |

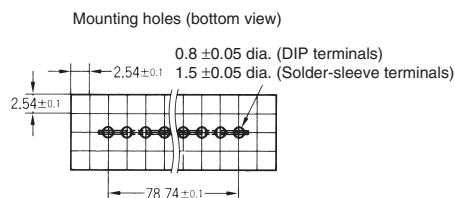
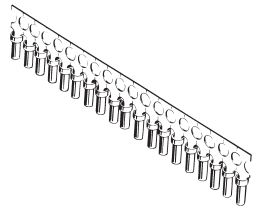
XR2E Single-row Carrier Sockets

■ Dimensions

XR2E-3201-N
(With DIP terminals)



XR2E-3204
(With solder-sleeve terminals)



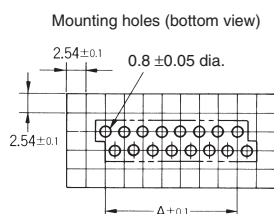
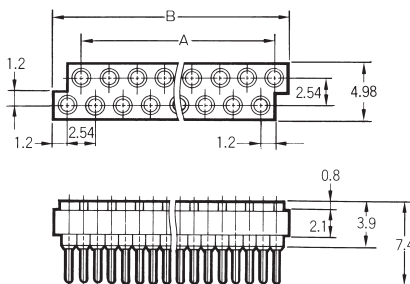
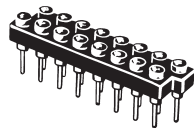
■ Ordering Information

| Appearance | Sockets with DIP Terminals | Sockets with Solder-sleeve Terminals |
|-----------------|---------------------------------|--------------------------------------|
| | | |
| No. of contacts | With 0.75- μ m gold plating | With 0.75- μ m gold plating |
| 32 | XR2E-3201-N | XR2E-3204 |

XR2H ZIP (Zigzag) Sockets

■ Dimensions

XR2H-□□11-N
(With DIP terminals)



Dimensions

| No. of contacts | Dimensions (mm) | |
|-----------------|-----------------|------|
| | A | B |
| 16 | 17.78 | 21.5 |
| 20 | 22.86 | 26.5 |
| 24 | 27.94 | 31.6 |
| 28 | 33.02 | 36.7 |

■ Ordering Information

| Appearance | Sockets with DIP terminals |
|-----------------|---------------------------------|
| | |
| No. of contacts | With 0.25- μ m gold plating |
| 16 | XR2H-1611-N |
| 20 | XR2H-2011-N |
| 24 | XR2H-2411-N |
| 28 | XR2H-2811-N |

XR2P Single-row Round Pin Plugs

Single-row Round Pins for Low-profile Stacking

- Single row with 2.54-mm pitch.
- Low-profile stacking possible in combination with Single-row IC Sockets (XR2C).
- Easily divided into the desired number of contacts.

■ Ratings and Characteristics

| | |
|-----------------------------------|--|
| Rated current | 1 A |
| Rated voltage | 300 VAC |
| Contact resistance (See note.) | 20 mΩ max. (at 20 mV, 10 mA max.) |
| Insulation resistance | 1,000 MΩ min. (at 500 VDC) |
| Dielectric strength | 1,000 VAC for 1 min (leakage current: 1 mA max.) |
| Ambient operating temperature | -55 to 125°C (with no icing at low temperature) |

Note: The contact and vibration resistance are the values when the Plug is mated with an XR2C.

■ Materials and Finish

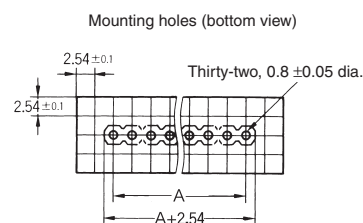
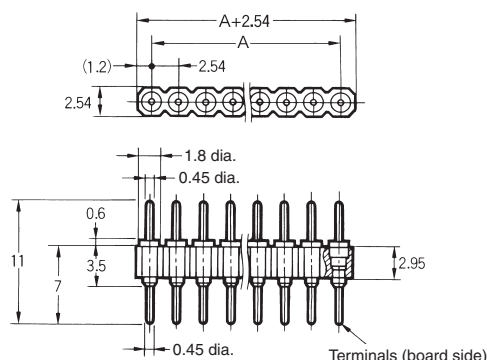
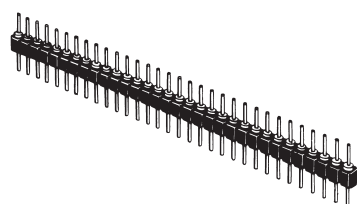
| | | |
|----------|--|---|
| Base | Fiber-glass reinforced PBT resin (UL94V-0)/black | |
| Contacts | Mating end | Brass/nickel base with 0.25-μm gold plating |
| | Terminal | |

■ Applicable Sockets

| | |
|-------------|-------------------------------------|
| XR2C-□□11-N | IC Sockets (single row) |
| XR2C-3215 | IC Socket (single row, low profile) |

■ Dimensions

XR2P-□□41
(With DIP straight terminals)



Dimensions

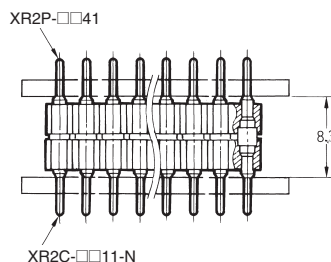
| No. of contacts | A (mm) |
|-----------------|--------|
| 10 | 22.86 |
| 16 | 38.1 |
| 20 | 48.26 |
| 32 | 78.74 |

■ Ordering Information

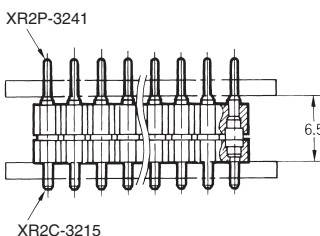
| No. of contacts | Model |
|-----------------|-----------|
| 10 | XR2P-1041 |
| 16 | XR2P-1641 |
| 20 | XR2P-2041 |
| 32 | XR2P-3241 |

■ Mated Dimensions

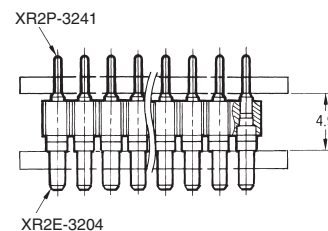
XR2P-□□41 with XR2C-□□11-N
Single-row IC Socket



XR2P-3241 with XR2C-3215
Single-row Low-profile IC Socket

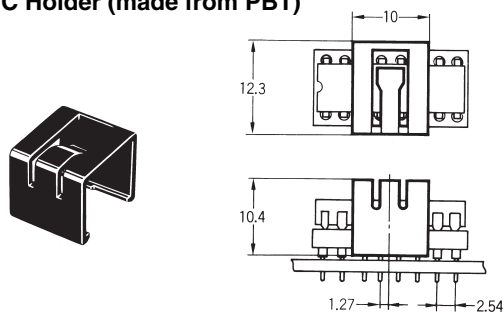


XR2P-3241 with XR2E-3204
Single-row Carrier Socket with Solder-sleeve Terminals

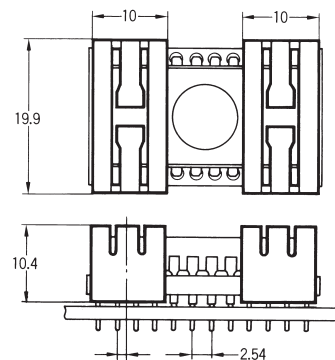
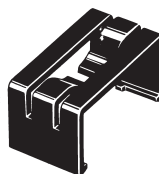


Tools and Accessories

XR2Z-11
IC Holder (made from PBT)



XR2Z-13

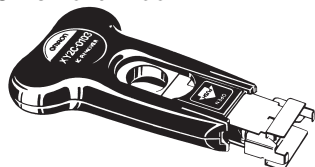


Note: Order the following models in multiples of the minimum order.

| Model | No. of IC Socket contacts | IC socket width | Order in multiples of |
|---------|---------------------------|-----------------|-----------------------|
| XR2Z-11 | 14, 16, 18, 20, 24 | 7.62 mm | 100 |
| XR2Z-13 | 24, 28, 32, 40, 42, 48 | 15.24 mm | 500 |

Note: This Holder protects the IC from falling out due to shock. The IC will not fall out even with a 980 m/s² shock. Applicable IC height: 2.7 to 5.6 mm.

XY2C-0101
XY2C-0103
IC Removal Tool



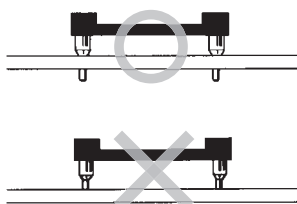
| Model | No. of IC Socket contacts | IC socket width |
|-----------|---------------------------|-----------------|
| XY2C-0101 | 14, 16, 18, 20 | 7.62 mm |
| XY2C-0103 | 24, 28, 32, 40 | 15.24 mm |

Precautions

Correct Use

Soldering

- When soldering, make sure that the outer sleeve of the IC Socket does not stick out of the circuit board through-holes.



- Make sure that no flux enters the IC Socket from the top.

Removing ICs

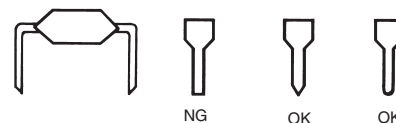
- Use the XY2C-0101 or XY2C-0103 IC Removal Tool to remove ICs.
- Do not use a screwdriver to remove the IC. It may damage the circuit board.
- Do not use a testing rod or check pin to check contacts or circuits. This may damage the inner clips or plating and may lead to improper contact.
- Four-point contact construction is used for plated products to make them more tolerant of momentary power interruptions. We recommend using gold-plated contacts in areas subject to vibration and shock.

Automated Soldering Conditions (Jet Flow)

- Soldering temperature: 250±5°C
- Continuous soldering time: Within 5 s

Applicable IC Lead Dimensions

- Use leads that are within the range shown here. For details, refer to the first page of this datasheet. Use an IC with leads longer than 3 mm. If the leads are too long, the IC will not sit flush on the board.
- Use an IC with tapered leads for easy insertion, a minimum amount of bending, and minimum damage to the leads.



MEMO

A large grid of dashed lines for taking notes, consisting of 20 columns and 30 rows of squares. The grid is intended for handwritten notes.

Omron Electronic Components, LLC

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