

Connect Connector-Terminal Block Conversion Units (XW2□) to I/O Units for Programmable Controllers with one touch.



Shielded

Ratings and Specifications

| | |
|-------------------------------|---|
| Rated current | 1 A |
| Rated voltage | 125 VAC 30 VDC |
| Contact resistance | 20 mΩ max. (at 20 mV, 100 mA max.) *1 |
| Insulation resistance | 100 MΩ min. (at 500 VDC) |
| Dielectric strength | 500 VAC for 1 min (leakage current: 1 mA max.) *2 |
| Ambient operating temperature | -20 to +75°C (with no condensation or icing) *3 |

Note: This cable is for fixed parts. Do not use it for moving parts.

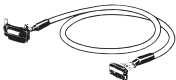
*1. Contact resistance for the Connector.

*2. Dielectric strength for the Connector.

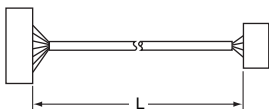
*3. However, when bending the cable to perform wiring, maintenance, and other work, do so within the temperature range of 0 to 75°C in consideration of severing of the cable.

Ordering Information

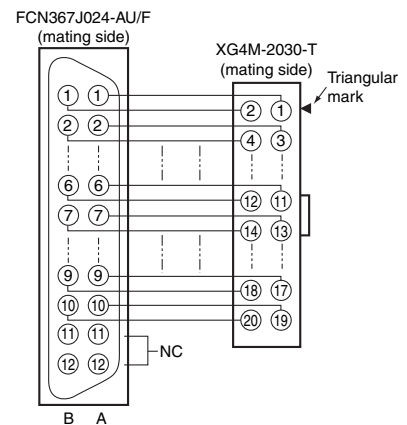
FCN 24-pin - MIL 20-pin, Straight Wiring XW2Z-□□□A

| Appearance | Cable length L (m) * | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|----------------------|-----------|--|
|  | 0.5 | XW2Z-050A | 7.8 dia./R63 |
| | 1.0 | XW2Z-100A | |
| | 1.5 | XW2Z-150A | |
| | 2.0 | XW2Z-200A | |
| | 3.0 | XW2Z-300A | |
| | 5.0 | XW2Z-500A | |
| | 10.0 | XW2Z-010A | |
| | 15.0 | XW2Z-15MA | |
| | 20.0 | XW2Z-20MA | |

*Cable length L (m)




Wiring Diagram

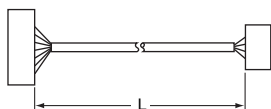


FCN 40-pin - MIL 40-pin, Straight Wiring

XW2Z-□□□B

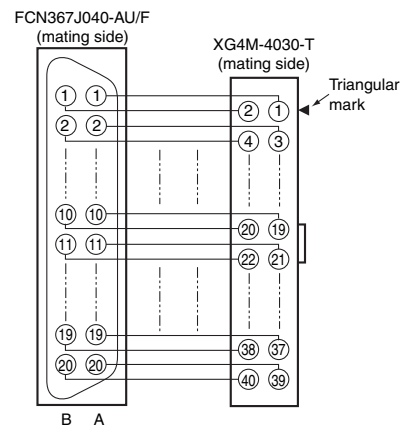
| Appearance | Type | Cable length L (m) * | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|-----------------|----------------------|--------------|--|
|  | Straight wiring | 0.5 | XW2Z-050B | 10.4 dia./R84 |
| | | 1.0 | XW2Z-100B | |
| | | 1.5 | XW2Z-150B | |
| | | 2.0 | XW2Z-200B | |
| | | 3.0 | XW2Z-300B | |
| | | 5.0 | XW2Z-500B | |
| | | 10.0 | XW2Z-010B | |
| | | 15.0 | XW2Z-15MB | |
| | 20.0 | XW2Z-20MB | | |
| | Reverse wiring | 0.5 | XW2Z-050B-R1 | |
| | | 1.0 | XW2Z-100B-R1 | |
| | | 1.5 | XW2Z-150B-R1 | |
| | | 2.0 | XW2Z-200B-R1 | |
| | | 3.0 | XW2Z-300B-R1 | |
| 5.0 | | XW2Z-500B-R1 | | |

*Cable length L (m)

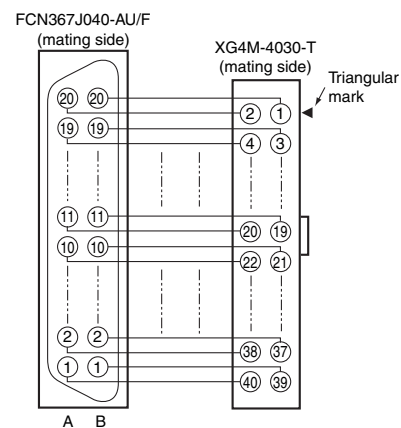


Wiring Diagram


• Straight wiring



• Reverse wiring



XW2Z-□□□B-A

| Appearance | Type | Cable length L (m) * | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|-----------------|----------------------|-------------|--|
|  | Straight wiring | 1.0 | XW2Z-100B-A | 10.4 dia./R84 |
| | | 1.5 | XW2Z-150B-A | |
| | | 2.0 | XW2Z-200B-A | |
| | | 3.0 | XW2Z-300B-A | |
| | | 5.0 | XW2Z-500B-A | |

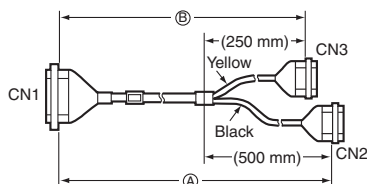
Wiring Diagram

| FCN367J040-AU/F | XG4M-4030-T |
|-----------------|-------------|
| B20 | 1 |
| B19 | 2 |
| B18 | 3 |
| B17 | 5 |
| B16 | 7 |
| B15 | 9 |
| B14 | 11 |
| B13 | 13 |
| B12 | 15 |
| B11 | 17 |
| B10 | 19 |
| B9 | 4 |
| B8 | 6 |
| B7 | 8 |
| B6 | 10 |
| B5 | 12 |
| B4 | 14 |
| B3 | 16 |
| B2 | 18 |
| B1 | 20 |
| A20 | 21 |
| A19 | 22 |
| A18 | 23 |
| A17 | 25 |
| A16 | 27 |
| A15 | 29 |
| A14 | 31 |
| A13 | 33 |
| A12 | 35 |
| A11 | 37 |
| A10 | 39 |
| A9 | 24 |
| A8 | 26 |
| A7 | 28 |
| A6 | 30 |
| A5 | 32 |
| A4 | 34 |
| A3 | 36 |
| A2 | 38 |
| A1 | 40 |

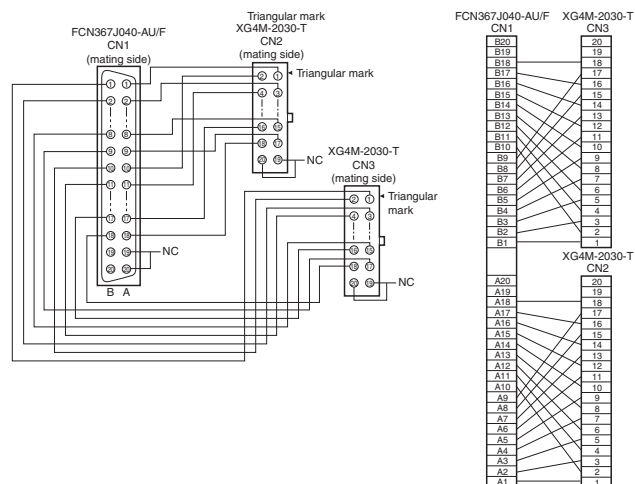
FCN 40-pin - MIL 20-pin, MIL 20-pin
XW2Z-□□□□D

| Appearance | Cable length L (m) * | | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|------------|----------------------|-----------|-----------|---|
| | A | B | | |
| | 1.0 | 0.75 | XW2Z-100D | 10.4 dia./R84 |
| | 1.5 | 1.25 | XW2Z-150D | |
| | 2.0 | 1.75 | XW2Z-200D | |
| | 3.0 | 2.75 | XW2Z-300D | |
| | 5.0 | 4.75 | XW2Z-500D | |
| | 10.0 | 9.75 | XW2Z-010D | |
| | 15.0 | 14.75 | XW2Z-15MD | |
| 20.0 | 19.75 | XW2Z-20MD | | |

*Cable length L (m)



Wiring Diagram

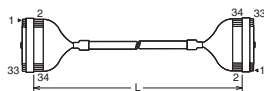


Note: XW2Z-R Cables for I/O Relay Terminals have different wiring and cannot be used with the XW2C.

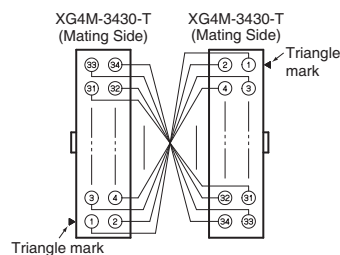
MIL 34-pin - MIL 34-pin, Straight Wiring
XW2Z-□□□□EE

| Appearance | Cable length L (m) * | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|------------|----------------------|------------|---|
| | 0.5 | XW2Z-050EE | 9.8 dia./R79 |
| | 1 | XW2Z-100EE | |
| | 1.5 | XW2Z-150EE | |
| | 2 | XW2Z-200EE | |
| | 3 | XW2Z-300EE | |
| 5 | XW2Z-500EE | | |

*Cable length L (m)



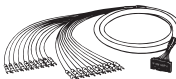
Wiring Diagram



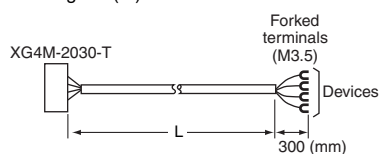
Note: Wire the pins 1:1 so that the Connector pin numbers match.

MIL 20-pin - Discrete-wire Press-fit Terminals

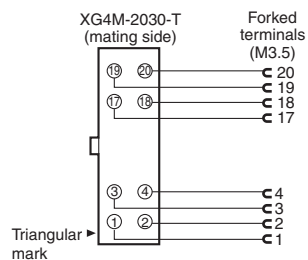
XW2Z-□□□F

| Appearance | Cable length L (m) * | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|----------------------|-----------|---|
|  | 1.0 | XW2Z-100F | 7.8 dia./R63 |
| | 1.5 | XW2Z-150F | |
| | 2.0 | XW2Z-200F | |
| | 3.0 | XW2Z-300F | |
| | 5.0 | XW2Z-500F | |
| | 10.0 | XW2Z-010F | |
| | 15.0 | XW2Z-15MF | |
| | 20.0 | XW2Z-20MF | |

*Cable length L (m)



Wiring Diagram

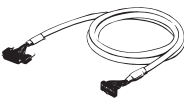


Connector Pin No. Table

| Forked terminal | No. of cores | Insulation color | Dot marks | Dot color | Connector pin No. |
|-----------------|--------------|------------------|-----------|-----------|-------------------|
| 1 | 1 | Blue | □ | Red | 1 ◁ |
| 2 | | Blue | □ | Black | 2 |
| 3 | 2 | Pink | □ | Red | 3 |
| 4 | | Pink | □ | Black | 4 |
| 5 | 3 | Green | □ | Red | 5 |
| 6 | | Green | □ | Black | 6 |
| 7 | 4 | Orange | □ | Red | 7 |
| 8 | | Orange | □ | Black | 8 |
| 9 | 5 | Gray | □ | Red | 9 |
| 10 | | Gray | □ | Black | 10 |
| 11 | 6 | Blue | □□ | Red | 11 |
| 12 | | Blue | □□ | Black | 12 |
| 13 | 7 | Pink | □□ | Red | 13 |
| 14 | | Pink | □□ | Black | 14 |
| 15 | 8 | Green | □□ | Red | 15 |
| 16 | | Green | □□ | Black | 16 |
| 17 | 9 | Orange | □□ | Red | 17 |
| 18 | | Orange | □□ | Black | 18 |
| 19 | 10 | Gray | □□ | Red | 19 |
| 20 | | Gray | □□ | Black | 20 |

FCN 56-pin - MIL 60-pin

XW2Z-□□□H-1 (For CS1-series I/O Unit Connection)

| Appearance | Special Connecting Cables * | | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|-----------------------------|--------------|--|
| | Cable length L (m) | | |
| | | Model | |
|  | 0.5 | XW2Z-050H-1 | 12.1 dia./R99 |
| | 1.0 | XW2Z-100H-1 | |
| | 1.5 | XW2Z-150H-1 | |
| | 2.0 | XW2Z-200H-1 | |
| | 3.0 | XW2Z-300H-1 | |
| | 5.0 | XW2Z-500H-1 | |
| | 7.0 | XW2Z-700H-1 | |
| | 10.0 | XW2Z-010H-1 | |
| | 1.0 | XW2Z-100H-1G | |
| | 1.5 | XW2Z-150H-1G | |
| | 2.0 | XW2Z-200H-1G | |
| | 3.0 | XW2Z-300H-1G | |
| | 5.0 | XW2Z-500H-1G | |

*Cable length L (m)




*Up to two cables required for each Programmable Controller I/O Unit.

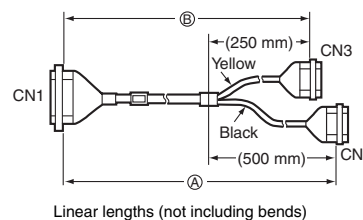
Note: CS1 signal names connected to the XW2D are different for the XW2Z-□□□H-□ and the XW2Z-□□□H-□G.
Refer to the I/O Signal Tables on page 6.

FCN 56-pin - MIL 20-pin, MIL 40-pin

XW2Z-□□□H-2 (For CS1-series I/O Unit Connection)

| Appearance | Special Connecting Cables * | | | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|-----------------------------|------|--------------|--|
| | Cable length L (m) | | Model | |
| | (A) | (B) | | |
|  | 1.0 | 0.75 | XW2Z-100H-2 | 12.1 dia./R99 |
| | 1.5 | 1.25 | XW2Z-150H-2 | |
| | 2.0 | 1.75 | XW2Z-200H-2 | |
| | 3.0 | 2.75 | XW2Z-300H-2 | |
| | 5.0 | 4.75 | XW2Z-500H-2 | |
| | 10.0 | 9.75 | XW2Z-010H-2 | |
| | 1.0 | 0.75 | XW2Z-100H-2G | |
| | 1.5 | 1.25 | XW2Z-150H-2G | |
| | 2.0 | 1.75 | XW2Z-200H-2G | |
| | 3.0 | 2.75 | XW2Z-300H-2G | |
| | 5.0 | 4.75 | XW2Z-500H-2G | |

*Cable length L (m)




*Up to two cables required for each Programmable Controller I/O Unit.

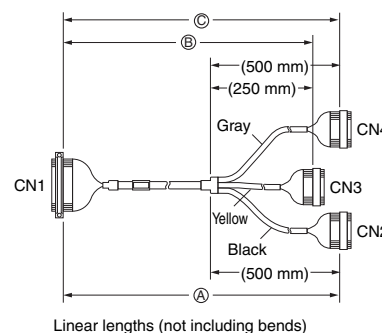
Note: CS1 signal names connected to the XW2D are different for the XW2Z-□□□H-□ and the XW2Z-□□□H-□G.
Refer to the I/O Signal Tables on page 6.

FCN 56-pin - MIL 20-pin, MIL 20-pin, MIL 20-pin

XW2Z-□□□H-3 (For CS1-series I/O Unit Connection)

| Appearance | Special Connecting Cables * | | | | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|-----------------------------|------|------|-------------|--|
| | Cable length L (m) | | | Model | |
| | (A) | (B) | (C) | | |
|  | 1.0 | 0.75 | 1.0 | XW2Z-100H-3 | 12.1 dia./R99 |
| | 1.5 | 1.25 | 1.5 | XW2Z-150H-3 | |
| | 2.0 | 1.75 | 2.0 | XW2Z-200H-3 | |
| | 3.0 | 2.75 | 3.0 | XW2Z-300H-3 | |
| | 5.0 | 4.75 | 5.0 | XW2Z-500H-3 | |
| | 10.0 | 9.75 | 10.0 | XW2Z-010H-3 | |

*Cable length L (m)



*Up to two cables required for each Programmable Controller I/O Unit.

I/O Signal Tables (Example Using CN1 on CS1W-OD291)

XW2Z-□□□H-□ Connecting Cables

| | | | |
|-------------|---------------------|-----------------------|-----------------------|
| XW2Z-□□□H-3 | XW2□-20G□ | | |
| | <p>Word N (CN2)</p> | <p>Word N+1 (CN3)</p> | <p>Word N+2 (CN4)</p> |
| XW2Z-□□□H-2 | XW2□-40G□ | | XW2□-20G□ |
| | <p>Word N (CN2)</p> | <p>Word N+1 (CN2)</p> | <p>Word N+2 (CN3)</p> |

XW2Z-□□□H-□G/XW2Z-R□□□C-□□□-□□□ Connecting Cables

| | | | |
|--------------------|---------------------|-----------------------|-----------------------|
| XW2Z-R□□□C-□□□-□□□ | XW2□-20G□ | | |
| | <p>Word N (CN2)</p> | <p>Word N+1 (CN3)</p> | <p>Word N+2 (CN4)</p> |
| XW2Z-□□□H-2G | XW2□-40G□ | | XW2□-20G□ |
| | <p>Word N (CN2)</p> | <p>Word N+1 (CN2)</p> | <p>Word N+2 (CN3)</p> |

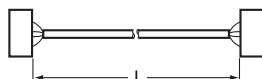
Note: The XW2Z-□□□H-□G I/O signal arrangement is oriented the same as the XW2Z-R Cables for I/O Relay Terminals.

FCN 40-pin - MIL 40-pin, Straight Wiring

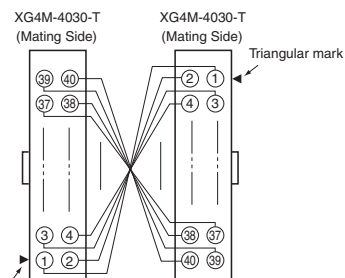
XW2Z-□□□K

| Appearance | Cable length L (m) * | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|------------|----------------------|-----------|--|
| | 0.25 | XW2Z-C25K | 10.4 dia./R84 |
| | 0.5 | XW2Z-C50K | |
| | 1.0 | XW2Z-100K | |
| | 1.5 | XW2Z-150K | |
| | 2.0 | XW2Z-200K | |
| | 3.0 | XW2Z-300K | |
| | 5.0 | XW2Z-500K | |

*Cable length L (m)




Wiring Diagram



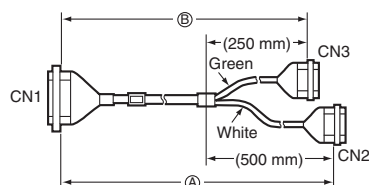
Triangular mark

Note: Wire the pins 1:1 so that the Connector pin numbers match.

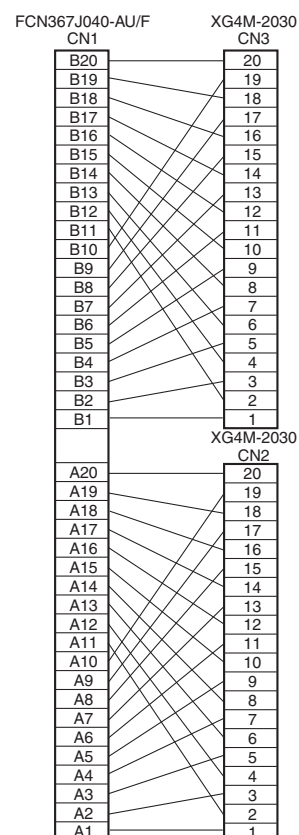
FCN 40-pin - MIL 20-pin, MIL 20-pin XW2Z-□□□L

| Appearance | Cable length L (m) * | | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|----------------------|-------|-----------|--|
| | (A) | (B) | | |
|  | 1.0 | 0.75 | XW2Z-100L | 10.4 dia./R84 |
| | 1.5 | 1.25 | XW2Z-150L | |
| | 2.0 | 1.75 | XW2Z-200L | |
| | 3.0 | 2.75 | XW2Z-300L | |
| | 5.0 | 4.75 | XW2Z-500L | |
| | 10.0 | 9.75 | XW2Z-010L | |
| | 15.0 | 14.75 | XW2Z-15ML | |
| | 20.0 | 19.75 | XW2Z-20ML | |


*Cable length L (m)



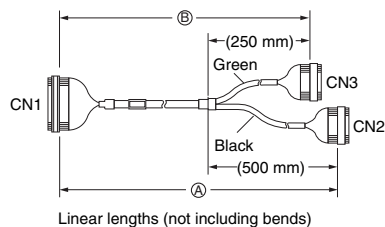
Wiring Diagram



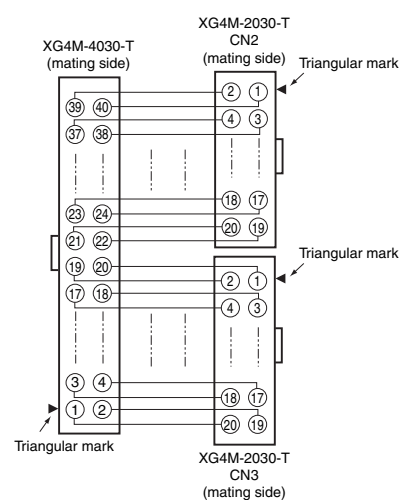
MIL 40-pin - MIL 20-pin, MIL 20-pin XW2Z-□□□N

| Appearance | Cable length L (m) * | | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|----------------------|-------|-----------|--|
| | (A) | (B) | | |
|  | 1.0 | 0.75 | XW2Z-100N | 10.4 dia./R84 |
| | 1.5 | 1.25 | XW2Z-150N | |
| | 2.0 | 1.75 | XW2Z-200N | |
| | 3.0 | 2.75 | XW2Z-300N | |
| | 5.0 | 4.75 | XW2Z-500N | |
| | 10.0 | 9.75 | XW2Z-010N | |
| | 15.0 | 14.75 | XW2Z-15MN | |
| | 20.0 | 19.75 | XW2Z-20MN | |

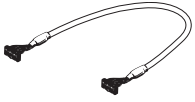
*Cable length L (m)



Wiring Diagram



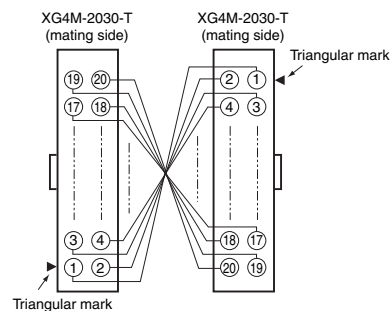
MIL 20-pin - MIL 20-pin, Straight Wiring
XW2Z-□□□X

| Appearance | Cable length L (m) * | Model | Sheath outer diameter (mm)/ Minimum bending radius (mm) |
|---|----------------------|------------------|--|
|  | 0.5 | XW2Z-C50X | 7.8 dia./R63 |
| | 1.0 | XW2Z-100X | |
| | 2.0 | XW2Z-200X | |
| | 3.0 | XW2Z-300X | |
| | 5.0 | XW2Z-500X | |
| | 10.0 | XW2Z-010X | |

*Cable length L (m)



Wiring Diagram



Note: Connector pins are connected 1-to-1 so that pin numbers correspond.

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Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.

Suitability of Use.

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron 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.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Programmable Products.

Omron Companies shall not be responsible for the user's programming of a programmable Product, or any consequence thereof.

Performance Data.

Data presented in Omron Company websites, catalogs and other materials is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Omron's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Omron's Warranty and Limitations of Liability.

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 Omron's representative at any time to confirm actual specifications of purchased Product.

Errors and Omissions.

Information presented by Omron Companies has been checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.