


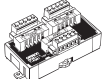
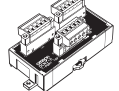
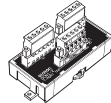
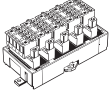
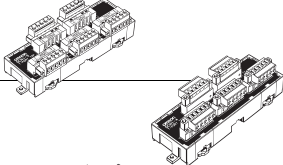
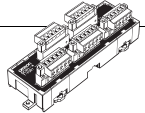
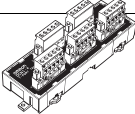
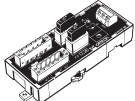
Peripheral Devices



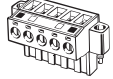






General-purpose Peripheral Devices

Peripheral Devices for DeviceNet Communications




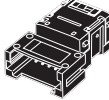




Ordering Information

● General-purpose Models

| Product | Appearance | Model | Specifications | |
|---|---|---|--|---|
| T-branch Tap for 1 branch line |  | DCN1-1NC | Cable wiring direction: Toward top Cable lock direction: From top Connector screw direction: From top | Provided with 3 parallel connectors with clamps (XW4G-05C1-H1-D), standard terminating resistor |
| |  | DCN1-1C | Cable wiring direction: Toward side Cable screw direction: From top Connector screw direction: From side | Provided with 3 parallel connectors with screws (XW4B-05C1-H1-D), standard terminating resistor |
| |  | DCN1-2C | Cable wiring direction: Toward top Cable screw direction: From side Connector screw direction: From top | |
| |  | DCN1-2R | Cable wiring direction: Toward side Cable screw direction: From top Connector screw direction: From top | Provided with 3 orthogonal connectors with screws (XW4B-05C1-VIR-D), standard terminating resistor |
| T-branch Tap for 3 branch lines |  | DCN1-3NC | Cable wiring direction: Toward top Cable lock direction: From top Connector screw direction: From top | Provided with 5 parallel clamp connectors with screws (XW4G-05C1-H1-D), standard terminating resistor |
| |  | DCN1-3C | Cable wiring direction: Toward side Cable screw direction: From top Connector screw direction: From side | Provided with 5 parallel connectors with screws (XW4B-05C1-H1-D), standard terminating resistor |
| |  | DCN1-4C | Cable wiring direction: Toward top Cable screw direction: From side Connector screw direction: From top | |
|  | DCN1-4R | Cable wiring direction: Toward side Cable screw direction: From top Connector screw direction: From top | Provided with 5 orthogonal clamp connectors with screws (XW4B-05C1-VIR-D), standard terminating resistor | |
| Power Supply Tap |  | DCN1-1P | Tap provided with 2 connectors, standard terminating resistor, and fuse | |

| Product | | Appearance | Model | Specifications |
|---------------------------|--------------|---|-----------------|---|
| Connectors | |  | XW4G-05C1-H1-D | Parallel clamp connector with screws Connector insertion and wiring both performed horizontally. |
| | |  | XW4G-05C4-TF-D | Parallel multi-branching clamp connector with screws Connector insertion and wiring performed in same direction. |
| | |  | XW4B-05C1-H1-D | Parallel connector with screws Connector insertion and wiring performed in same direction. |
| | |  | XW4B-05C4-T-D | Parallel, screw-less, multi-branching connector Connector insertion and wiring performed in same direction. |
| | |  | XW4B-05C4-TF-D | Parallel, multi-branching connector with screws Connector insertion and wiring performed in same direction. |
| | |  | XW4B-05C1-VIR-D | Orthogonal connector with screws Connector insertion and wiring performed at a right angle. |
| DeviceNet Standard Cables | Thin Cables |  | DCA1-5C10(-B) | Outer diameter: 7.00 mm Length: 100 m DCA1-5C10-B: Cable color: Blue DCA1-5C10: Cable color: Gray |
| | Thick Cables |  | DCA2-5C10(-B) | Outer diameter: 11.6 mm Length: 100 m DCA2-5C10-B: Cable color: Blue DCA2-5C10: Cable color: Gray |
| Terminal-block Terminator | |  | DRS1-T | Resistance of 121 Ω |

● Peripheral Devices for Flat Cables

| Product | Appearance | Model | Specifications |
|--|---|-----------|---|
| Connector for Flat Cable |  | DCN4-SF4D | Connector with lock screws for crimping flat cable |
| Conversion Connector for Standard Thin Cable and Flat Cable |  | DCN4-BR4D | Used as a set with a DCN4-TR4 when Thin Cable is branched on a branch line. |
| Power Supply Terminal Block with Terminating Resistance for Flat Cable |  | DCN4-TP4D | Can be used to supply communications power from terminals when Flat Cable is used. |
| Flat Connector Socket |  | DCN4-TR4 | Used as a set with a DCN4-BR4 Flat Connector Plug in the following applications. <ul style="list-style-type: none"> • Extending the trunk line • T-branching the trunk line into branch lines |
| | | | Used alone in the following applications. <ul style="list-style-type: none"> • Connecting a DCN4-TM4 Terminating Resistor to the trunk line |
| Flat Connector Plug |  | DCN4-BR4 | Used as a set with a DCN4-TR4 Flat Connector Socket in the following applications. <ul style="list-style-type: none"> • Extending the trunk line • T-branching the trunk line into branch lines |
| Terminating Resistor |  | DCN4-TM4 | Connector terminating resistor for flat cable. Attached to the DCN4-TR4 Flat Connector Socket at the end of the trunk line. |
| Flat Cable |  | DCA4-4F10 | Four-core flat cable (UL 2555) Length: 100 m Conductor diameters: 0.75 mm ² x 2, 0.5 mm ² x 2 |
| Simple Manual Crimp Tool |  | DWT-A01 | Crimping tool for DCN4-TR4 Flat Connector Socket or DCN4-BR4 Flat Connector Plug. |

Specifications

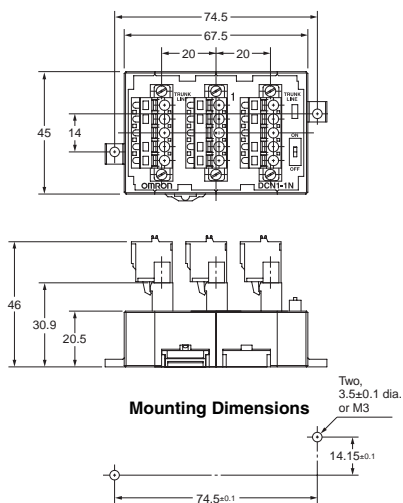
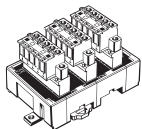
● General-purpose Models (T-branch Taps)

| | |
|--------------------------------------|--|
| Rated current | Between main lines: 8 A (power supply line) and 2 A (signal line) |
| | Between main and branch lines: 3 A (power supply line) and 1 A (signal line) |
| Insulation resistance | 100 MΩ min. (at 500 VDC) |
| Dielectric strength | 500 VAC for 1 min, leakage current: 1 mA max. |
| Ambient operating temperature | 0°C to 55°C |

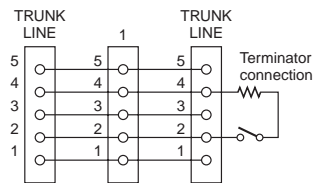
Dimensions

● General-purpose Models

T-branch Tap for 1 branch line DCN1-1NC (With Three Branching Connectors)

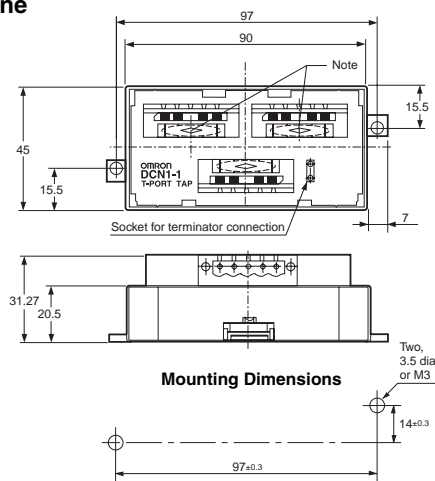
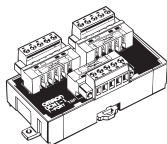


Internal Circuit

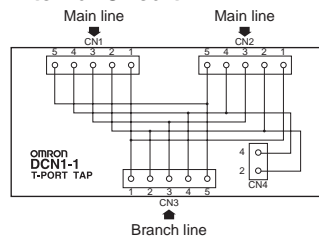


| Terminal No. | Name |
|--------------|-------|
| 1 | V- |
| 2 | CAN L |
| 3 | DRAIN |
| 4 | CAN H |
| 5 | V+ |

T-branch Tap for 1 branch line DCN1-1C (With Three Branching Connectors)



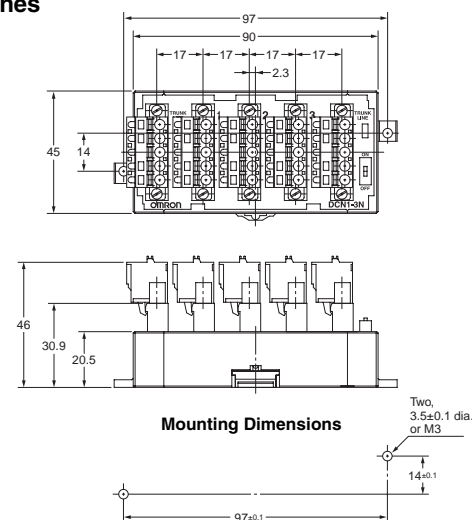
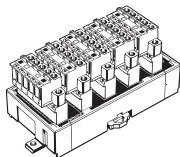
Internal Circuit



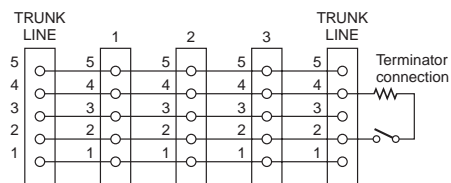
| Terminal No. | Name |
|--------------|-------|
| 1 | V- |
| 2 | CAN L |
| 3 | DRAIN |
| 4 | CAN H |
| 5 | V+ |

Note: When connecting a branch line to the main line, connect the main line to the connector marked with an asterisk because the resistance between the asterisks is minimal.

T-branch Tap for 3 branch lines DCN1-3NC (With Five Branching Connectors)

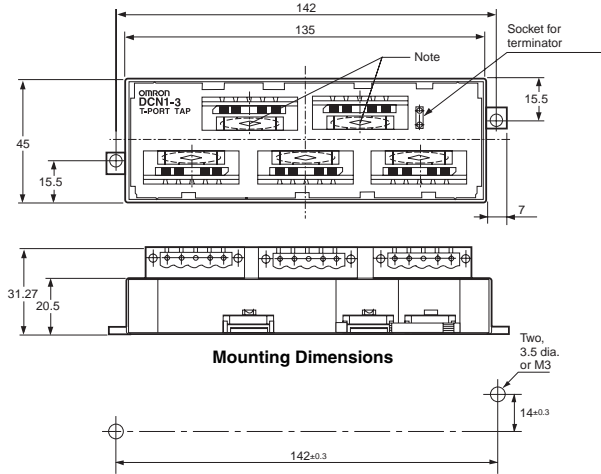
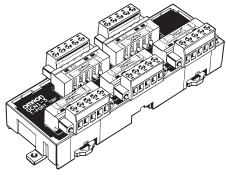


Internal Circuit



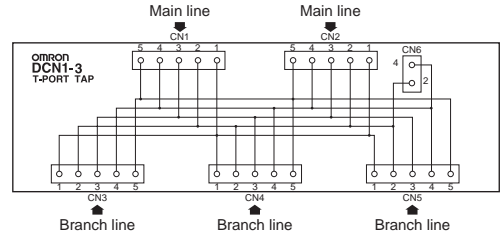
| Terminal No. | Name |
|--------------|-------|
| 1 | V- |
| 2 | CAN L |
| 3 | DRAIN |
| 4 | CAN H |
| 5 | V+ |

**T-branch Tap for 3 branch lines
DCN1-3C
(With Five Branching
Connectors)**



Mounting Dimensions

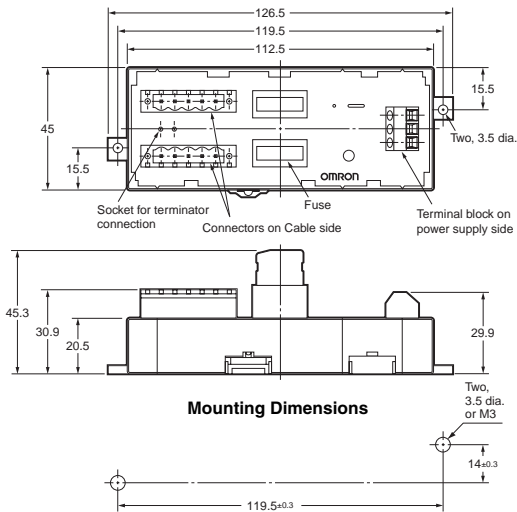
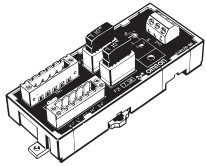
Internal Circuit



| Terminal No. | Name |
|--------------|-------|
| 1 | V- |
| 2 | CAN L |
| 3 | DRAIN |
| 4 | CAN H |
| 5 | V+ |

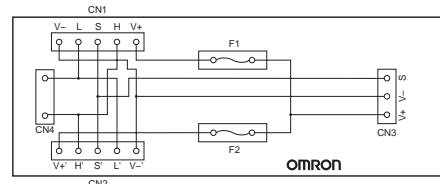
Note: When connecting a branch line to the main line, connect the main line to the connector marked with an asterisk because the resistance between the asterisked portion is minimal.

**Power Supply Tap
DCN1-1P
(With Two Branching
Connectors)**



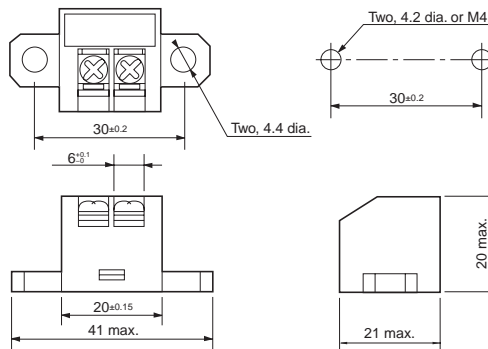
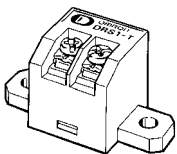
Mounting Dimensions

Internal Circuit



| Terminal No. | Name |
|--------------|-------|
| V- | V- |
| L | CAN L |
| S | DRAIN |
| H | CAN H |
| V+ | V+ |

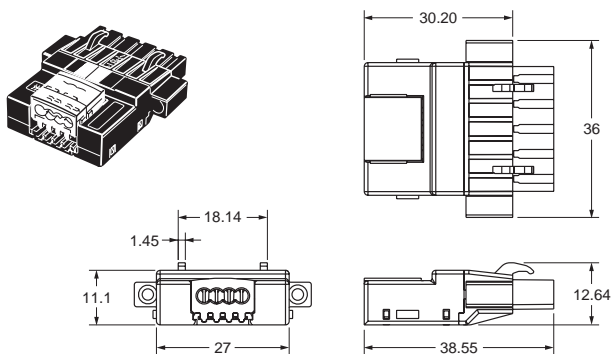
**DRS1-T
(Terminal-block Terminator)**



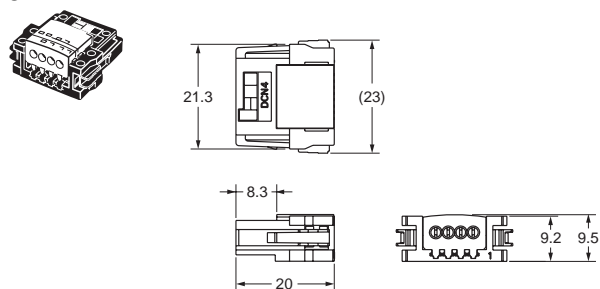
Mounting Dimensions

● Flat Cable

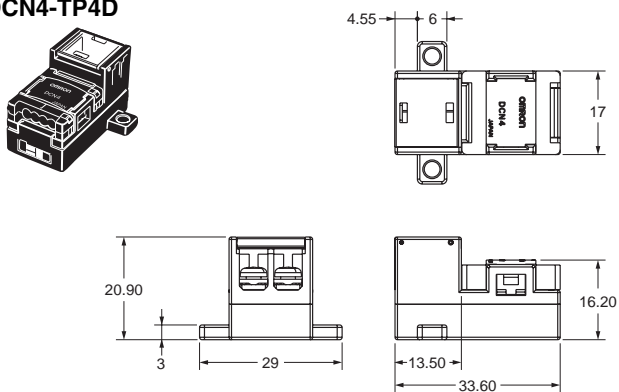
**Connector for Flat Cable
DCN4-SF4D**



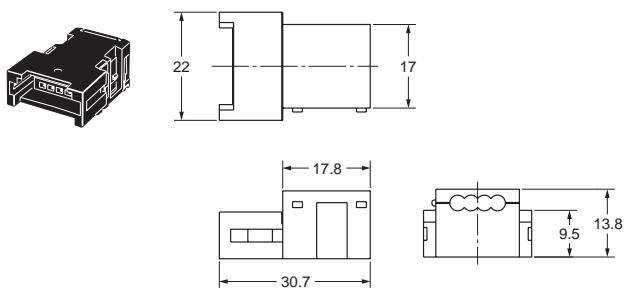
**Conversion Connector for Standard Thin Cable and
Flat Cable
DCN4-BR4D**



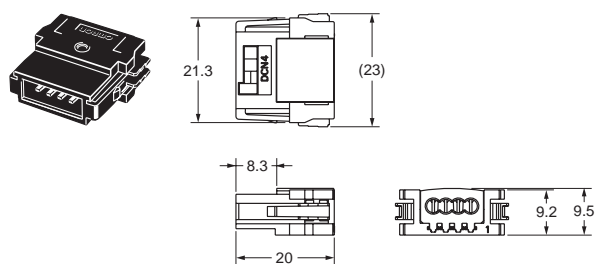
**Power Supply Terminal Block with Terminating Resistance
for Flat Cable
DCN4-TP4D**



**Flat Connector Socket
DCN4-TR4**



**Flat Connector Plug
DCN4-BR4**



I/O Peripheral Devices

■ I/O Connectors for Connector Terminals

● MIL Connectors

Applicable Connectors

| Type | Model | Remarks |
|---|--------------------|--------------------|
| Flat Cable Pressure-welded Connectors | XG4M-4030-T | |
| Pressure-welded Connectors with Loose Wires | Socket | XG5M-4032-N |
| | | XG5M-4035-N |
| | Semicover | XG5S-2001 |
| | Hood Cover * | XG5S-4022 |

* DeviceNet connectors for multi-drop wiring cannot be used with the Hood Cover.

Cable Models

| Type | Model | Connected device | Applicable models |
|---|----------------------|------------------|---------------------------|
| Cable with Connectors (1:2) | G79-I□□-□□-D1 | G7TC/G70D/G70A | DRT2-ID32ML |
| | G79-M□□-□□-D1 | | DRT2-MD32ML |
| | G79-O□□-□□-D1 | | DRT2-OD32ML/DRT1-OD32ML-1 |
| | G79-I□□-□□-D2 | | DRT2-ID32ML-1 |
| | G79-M□□-□□-D2 | | DRT2-MD32ML-1 |
| Cable with Connector (1:1) | XW2Z-C□□K | | |
| Cable with Loose Wires with Crimp Terminals | G79-Y□00C-D1 | -- | All models |
| Cable with Loose Wires | G79-A□00C-D1 | | |

Applicable Cables with Connectors

● Cables with Connectors (1-to-2 Connection)/G79-□□-□-D□

| Appearance | Cable length (mm) | Cable length (mm) | | Model |
|------------|-------------------|-------------------|-----|----------------------|
| | | (A) | (B) | |
| | 500 | 250 | | G79-I50-25-D1 |
| | 750 | 500 | | G79-I75-50-D1 |
| | 500 | 250 | | G79-O50-25-D1 |
| | 750 | 500 | | G79-O75-50-D1 |
| | 500 | 250 | | G79-M50-25-D1 |
| | 750 | 500 | | G79-M75-50-D1 |
| | 500 | 250 | | G79-I50-25-D2 |
| | 750 | 500 | | G79-I75-50-D2 |
| | 500 | 250 | | G79-M50-25-D2 |
| | 750 | 500 | | G79-M75-50-D2 |

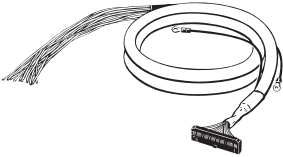
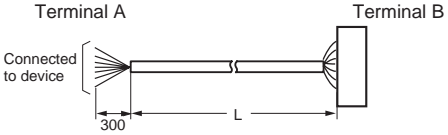
● Cables with Connectors (1-to-1 Connection)/XW2Z-C□□K

| Appearance | Cable length (mm) | Model |
|------------|-------------------|------------------|
| | 250 | XW2Z-C25K |
| | 500 | XW2Z-C50K |

● Cables with Crimp Terminals (at the End of Loose Wires)/G79-Y□C-D1

| Appearance | Cable length (mm) | Model |
|------------|-------------------|---------------------|
| | 1,000 | G79-Y100C-D1 |
| | 2,000 | G79-Y200C-D1 |
| | 5,000 | G79-Y500C-D1 |

● Cables with Loose Wires/G79-A□C

| Appearance | Cable length (mm) | Model |
|---|---|------------------------------|
|  |  | 2,000 G79-A200C-D1 |
| | | 5,000 G79-A500C-D1 |

I/O Connectors for MULTIPLE I/O TERMINALS

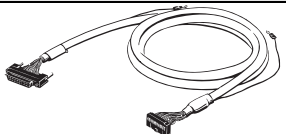

Applicable Connectors

| Type | | Model | Remark | Connectable model | | |
|----------------------------------|---------------------------|-----------------|------------------------------|--|--|-------------------------------|
| Molex connector | Crimped terminals | Housing | 50-57-9403 | Corresponding to 24 to 30 AWG | Digital I/O Units GT1-ID16MX(-1)/GT1-OD16MX(-1) | |
| | | Chain terminal | 16-02-0069 | | | Corresponding to 22 to 24 AWG |
| | | Loose terminal | 16-02-0096 | | | Corresponding to 24 to 30 AWG |
| | | | 16-02-0102 | | | Corresponding to 22 to 24 AWG |
| | | Press-fit tool | 57036-5000 | | | Corresponding to 22 to 26 AWG |
| | | 57037-5000 | Corresponding to 24to 30 AWG | Analog I/O Units GT1-AD08MX/GT1-DA04MX | | |
| Fujitsu connector (16 points) | Soldered terminals | FCN361J024-AU | | | | |
| | Pressure-welded terminals | FCN367J024-AU/F | | | | |
| | Crimped terminals | FCN363J024-AU | | | | |
| Fujitsu connector (32 points) | Soldered terminals | FCN361J040-AU | | Digital I/O Units GT1-ID32ML(-1)/GT1-OD32ML(-1) | | |
| | Pressure-welded terminals | FCN367J040-AU/F | | | | |
| | Crimped terminals | FCN363J040-AU | | | | |
| OMRON D-sub connector | Pulg | XM2A-2501 | | Digital I/O Units GT1-ID16DS(-1)/GT1-OD16DS(-1) | | |
| | Hood | XM2S-2513 | #4-40UNC inch screws | | | |

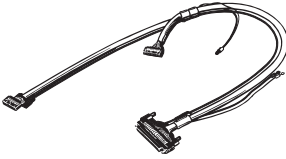
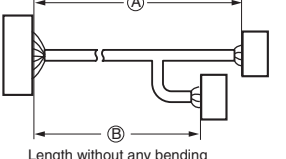
Applicable Cables with Connectors (Fujitsu Connectors)

| I/O classification | Model | Connectable model |
|---------------------------|-----------|-------------------------------------|
| Digital input, 16 points | XW2Z-□□□A | Digital I/O Units GT1-ID16ML(-1) |
| | G79-□C | |
| Digital output, 16 points | XW2Z-□□□A | Digital I/O Units GT1-OD16ML(-1) |
| | G79-□C | |
| Digital input, 32 points | XW2Z-□□□B | Digital I/O Units GT1-ID32ML(-1) |
| | G79-□C□ | |
| Digital output, 32 points | XW2Z-□□□B | Digital I/O Units GT1-OD32ML(-1) |
| | G79-□C□ | |

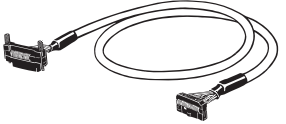
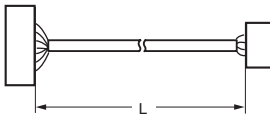
● Cables with Connectors (1-to1 Connection)/G79-□C For Digital Input/Output (16 Points)

| Appearance | Cable length (mm) | Model |
|---|---|----------|
|  |  | 1,000 |
| | | 1,500 |
| | | 2,000 |
| | | 3,000 |
| | | 5,000 |
| | | G79-100C |
| | | G79-150C |
| | | G79-200C |
| | | G79-300C |
| | | G79-500C |

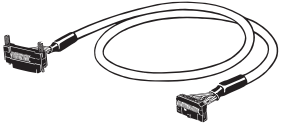
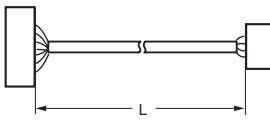
● Cables with Connectors (1-to-2 Connection)/G79-□□C-□, G79-□□C-□ For Digital Input/Output (32 Points)

| Appearance | Cable length (mm) | | Model | | |
|---|---|-------|-------|---------------|---------------|
| | Ⓐ | Ⓑ | Input | Output | |
|  |  | 1,000 | 750 | G79-I100C-75 | G79-O100C-75 |
| | | 1,500 | 1,250 | G79-I150C-125 | G79-O150C-125 |
| | | 2,000 | 1,750 | G79-I200C-175 | G79-O200C-175 |
| | | 3,000 | 2,750 | G79-I300C-275 | G79-O300C-275 |
| | | 5,000 | 4,750 | G79-I500C-475 | G79-O500C-475 |
| | | | | | |

For Digital Input/Output (16 Points)

| Appearance | Cable length (mm) | Model |
|---|---|-----------|
|  |  | 500 |
| | | 1,000 |
| | | 1,500 |
| | | 2,000 |
| | | 3,000 |
| | | 5,000 |
| | | XW2Z-050A |
| | | XW2Z-100A |
| | | XW2Z-150A |
| | | XW2Z-200A |
| | | XW2Z-300A |
| | | XW2Z-500A |

For Digital Input/Output (32 Points)

| Appearance | Cable length (mm) | Model |
|---|---|-----------|
|  |  | 500 |
| | | 1,000 |
| | | 1,500 |
| | | 2,000 |
| | | 3,000 |
| | | 5,000 |
| | | XW2Z-050B |
| | | XW2Z-100B |
| | | XW2Z-150B |
| | | XW2Z-200B |
| | | XW2Z-300B |
| | | XW2Z-500B |


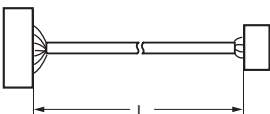
■ I/O Connector for Programmable Slaves

Applicable Connector Terminal Conversion Units

| Applicable cable | Connected product | Remarks |
|------------------|-------------------|---|
| XW2Z-□□□A | XW2D-20G6 | Slim type (with M3 screw terminals) |
| | XW2B-20G4 | Flat cable connectors (with M3 terminal screws for flat-blade screwdriver) |

Applicable Cables with Connectors

● Cables with Connectors/XW2Z
For Digital Input/Output (16 Points)

| Appearance | Cable length (mm) | Model |
|---|---|-----------|
|  |  | 500 |
| | | XW2Z-050A |
| | | 1,000 |
| | | XW2Z-100A |
| | | 1,500 |
| | | XW2Z-150A |
| 2,000 | | |
| XW2Z-200A | | |
| 3,000 | | |
| XW2Z-300A | | |
| 5,000 | | |
| XW2Z-500A | | |

Peripheral Devices for Environment-resistive Slaves

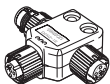
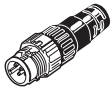
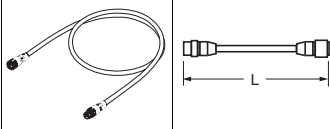
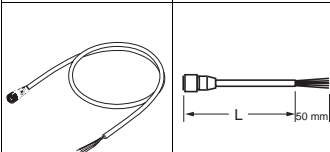
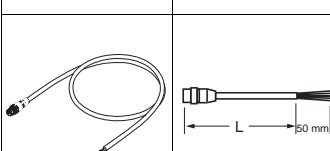


Peripheral Devices for DeviceNet Communications

Ordering Information

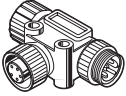
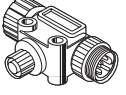


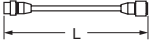
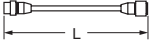
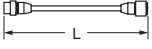
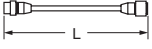






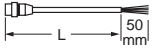
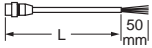
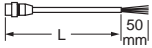
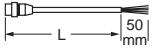








● Environment-resistive Connection Products (for Thin Cable, M12 Micro Connectors)

| Product | Appearance | Model | Specifications |
|---|------------|--------------|---|
| Sealed Assembling-type Connector (male) | | XS2G-D5S7 | For communications (plug) |
| Sealed Assembling-type Connector (female) | | XS2C-D5S7 | For communications (socket) |
| Sealed T-branch Connector | | DCN2-1 | For 1 branch line |
| Sealed Connector with Terminating Resistor | | DRS2-1 | Plug |
| | | DRS2-2 | Socket |
| Cables with Sealed Connectors | | DCA1-5CNC5W1 | Length (L): 0.5 m |
| | | DCA1-5CN01W1 | Length (L): 1 m |
| | | DCA1-5CN02W1 | Length (L): 2 m |
| | | DCA1-5CN03W1 | Length (L): 3 m |
| | | DCA1-5CN05W1 | Length (L): 5 m |
| | | DCA1-5CN10W1 | Length (L): 10 m |
| | | DCA1-5CNC5F1 | Length (L): 0.5 m |
| | | DCA1-5CN01F1 | Length (L): 1 m |
| | | DCA1-5CN02F1 | Length (L): 2 m |
| | | DCA1-5CN03F1 | Length (L): 3 m |
| | | DCA1-5CN05F1 | Length (L): 5 m |
| | | DCA1-5CN10F1 | Length (L): 10 m |
| | | DCA1-5CNC5H1 | Length (L): 0.5 m |
| | | DCA1-5CN01H1 | Length (L): 1 m |
| | | DCA1-5CN02H1 | Length (L): 2 m |
| | | DCA1-5CN03H1 | Length (L): 3 m |
| | | DCA1-5CN05H1 | Length (L): 5 m |
| | | DCA1-5CN10H1 | Length (L): 10 m |
| Shielded Panel-mounting Connectors (female) | | DCA1-5CNC5P1 | Panel-mounting connector (socket) with 0.5-m cable |
| | | XS2P-D522-2 | Panel-mounting connector socket |
| Shielded Panel-mounting Connectors (male) | | DCA1-5CNC5M1 | Panel-mounting connector (plug) with 0.5-m cable |
| | | XS2M-D524-4 | Panel-mounting connector (plug) with solder-cup terminals |
| Waterproof cover (for socket) | | XS2Z-22 | Used to cover an unused connector section |
| Dust cover (for socket) | | XS2Z-15 | |

● Environment-resistive Models (for Thin Wires and M12 Micro Connectors) 

| Product | Appearance | Model | Specifications |
|---|---|--------------|----------------------|
| Sealed T-branch Connector |  | DCN2-1S | For 1 branch line |
| Sealed Assembling type Connector (female) |  | DRS2-1S | Plug |
| | | DRS2-2S | Socket |
| Connectors with Shielded Cables |  | DCA1-5CSC5W1 | Length (L): 0.5 m |
| | | DCA1-5CS01W1 | Length (L): 1 m |
| | | DCA1-5CS02W1 | Length (L): 2 m |
| | | DCA1-5CS03W1 | Length (L): 3 m |
| | | DCA1-5CS05W1 | Length (L): 5 m |
| | | DCA1-5CS10W1 | Length (L): 10 m |
| |  | DCA1-5CSC5F1 | Length (L): 0.5 m |
| | | DCA1-5CS01F1 | Length (L): 1 m |
| | | DCA1-5CS02F1 | Length (L): 2 m |
| | | DCA1-5CS03F1 | Length (L): 3 m |
| | | DCA1-5CS05F1 | Length (L): 5 m |
| | | DCA1-5CS10F1 | Length (L): 10 m |
| |  | DCA1-5CSC5H1 | Length (L): 0.5 m |
| | | DCA1-5CS01H1 | Length (L): 1 m |
| | | DCA1-5CS02H1 | Length (L): 2 m |
| | | DCA1-5CS03H1 | Length (L): 3 m |
| | | DCA1-5CS05H1 | Length (L): 5 m |
| | | DCA1-5CS10H1 | Length (L): 10 m |
| Shielded Branch Relay Box |  | DCN2-S4C5H1 | 4 ports, 0.5-m cable |
| |  | DCN2-S8C5H1 | 8 ports, 0.5-m cable |

● Environment-resistive Models for Thick Wires with 7/8-16UN Mini Connectors

| Product | Appearance | Model | Specifications | | | |
|--|---|--|---|------------------|--|--|
| Sealed T-branch Connector |  | DCN3-11 | T-branch Connector | | | |
| |  | DCN3-12 | T-branch Connector (Branch connector is M12.) | | | |
| Sealed Connector with Terminating Resistor |  | DRS3-1 | Plug | | | |
| Cables with Sealed Connectors |  |  | DCA2-5CN01W1 | Length (L): 1 m | Cable with connectors on both ends | |
| | |  | DCA2-5CN02W1 | Length (L): 2 m | | |
| | |  | DCA2-5CN05W1 | Length (L): 5 m | | |
| | |  | DCA2-5CN10W1 | Length (L): 10 m | | |
| |  |  | DCA2-5CN01F1 | Length (L): 1 m | Cable with connector on one end (socket) | |
| | |  | DCA2-5CN02F1 | Length (L): 2 m | | |
| | |  | DCA2-5CN05F1 | Length (L): 5 m | | |
| | |  | DCA2-5CN10F1 | Length (L): 10 m | | |
| |  |  | DCA2-5CN01H1 | Length (L): 1 m | Cable with connector on one end (plug) | |
| | |  | DCA2-5CN02H1 | Length (L): 2 m | | |
| | |  | DCA2-5CN05H1 | Length (L): 5 m | | |
| | |  | DCA2-5CN10H1 | Length (L): 10 m | | |
| | |  |  | DCA1-5CN01W5 | Length (L): 1 m | Cable with connectors on both ends Thin cable M12 socket |
| | | |  | DCA1-5CN02W5 | Length (L): 2 m | |
| | | |  | DCA1-5CN05W5 | Length (L): 5 m | |
| | | |  | DCA1-5CN10W5 | Length (L): 10 m | |
| Panel-mounting Connector (female) |  | DCA2-5CNC5P1 | Panel-mounting connector (socket) with 0.5-m cable | | | |
| Panel-mounting Connector (male) |  | DCA2-5CNC5M1 | Panel-mounting connector (plug) with 0.5-m cable | | | |
| Panel-mounting Connector (male) |  | XS4M-D521-1 | Panel-mounting connector (plug) DIP terminals | | | |
| Waterproof Cap (for Plug) | - | XS4Z-11 | Used to cover an unused connector section. | | | |
| Waterproof Cap (for Socket) | - | XS4Z-12 | | | | |

Specifications

● Environment-resistive Connection Products (for Thin Cable, M12 Micro Connectors)

| Type | Connectors with Cables DCA1-5CN□□□1 | T-branch Connector DCN2-1 | Assembling-type Connector XS2□-D5S7 | Connectors with Terminating Resistor DRS2-□ |
|---------------------------------|---|------------------------------|--|--|
| Rated current | 3 A | | | |
| Rated voltage | 125 VDC | | | |
| Contact resistance (connector) | 40 mΩ max. (at 20 mVDC max. and 100 mA max.) | | | |
| Insulation resistance | 1,000 MΩ min. (at 500 VDC) | | | |
| Dielectric strength (connector) | 1,500 VAC for 60 seconds (leakage current: 1 mA max.) | | | |
| Ambient operating temperature | -20°C to 65°C | | | |
| Storage temperature range | -25°C to 70°C | | | |
| Degree of protection | IEC IP67 | | | |
| Insertion durability | 200 times | | | |
| Cable strength | 98 N for 15 s | -- | | |
| Vibration resistance | No current interruptions of more than 1 μs while performing simple vibrations at either 10 to 500 Hz with 1.52-mm full amplitude or at acceleration 100 m/s ² , whichever is smaller | | | |

● Environment-resistive Models (for Thin Wires and M12 Micro Connectors)

| Type | Connectors with Cables DCA1-5CS□□□1 | T-branch Connector DCN2-1S | Connectors with Terminating Resistor DRS2-□S | Branch Relay Box DCN2-S□C5H |
|---------------------------------|---|-------------------------------|---|--------------------------------|
| Rated current | 3 A | | | |
| Rated voltage | 125 VDC | | | |
| Contact resistance (connector) | 40 mΩ max. (at 20 mVDC max. and 100 mA max.) | | | |
| Insulation resistance | 1,000 MΩ min. (at 500 VDC) | | | |
| Dielectric strength (connector) | 1,500 VAC for 60 seconds (leakage current: 1 mA max.) | | | 1,000 VAC for 60 seconds |
| Ambient operating temperature | -20°C to 65°C | | | |
| Storage temperature range | -25°C to 70°C | | | |
| Degree of protection | IEC IP67 | | | |
| Insertion durability | 200 times | | | |
| Cable strength | 98 N for 15 s | -- | | |
| Vibration resistance | No current interruptions of more than 1 μs while performing simple vibrations at either 10 to 500 Hz with 1.52-mm full amplitude or at acceleration 100 m/s ² , whichever is smaller | | | |
| Lock strength | Pulling: 100 N/15 s, Rotating: 1 N·m/15 s | | | |
| Lock force | 0.1 to 0.25 N·m | | | |

● Environment-resistive Models for Thick Wires with 7/8-16UN Mini Connectors

| Type | Connectors with Thick Cables DCA2-5CN□□□1 | Connectors with Thin Cables DCA1-5CN□□□W5 | T-branch Connector DCN3-11 | T-branch Connector DCN3-12 | Connectors with Terminating Resistor DRS3-1 | Panel Mounting Connector DCA2-5CNC5P1 | Panel Mounting Connector XS4M-D521-1 |
|---------------------------------|---|--|-------------------------------|-------------------------------|--|--|---|
| Rated current | 8 A | 3 A | 8 A | 3 A * | 8 A | | |
| Rated voltage | 125 VDC | | | | | | |
| Contact resistance (connector) | 30 mΩ max. (at 20 mVDC max. and 100 mA max.) | | | | | | |
| Insulation resistance | 1,000 MΩ min. (at 500 VDC) | | | | | | |
| Dielectric strength (connector) | 1,500 VAC for 60 seconds (leakage current: 1 mA max.) | | | | | | |
| Ambient operating temperature | -20°C to 65°C | | | | | | |
| Storage temperature range | -25°C to 70°C | | | | | | |
| Degree of protection | IEC IP67 | | | | | | |
| Insertion durability | 200 times | | | | | | |
| Cable strength | 98 N for 15 s | | | -- | | 98 N for 15 s | -- |
| Vibration resistance | No current interruptions of more than 1 μs while performing simple vibrations at either 10 to 500 Hz with 1.52-mm full amplitude or at acceleration 100 m/s ² , whichever is smaller | | | | | | |

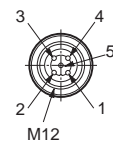
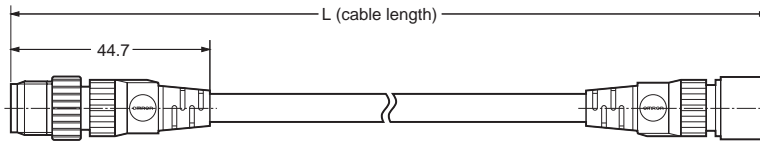
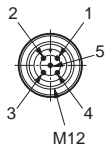
* The rated current between thick wires is 8 A.

Dimensions

● Environment-resistive Connection Products (for Thin Cable, M12 Micro Connectors)

Cables with Connectors on Both Ends

DCA1-5CN□□W1

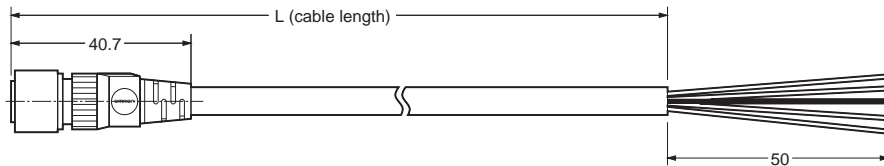
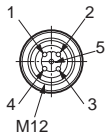
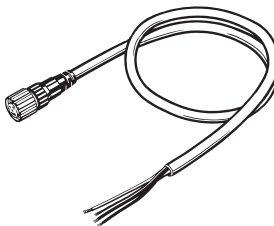


Wiring

| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

Cables with Connector on Single End (Socket)

DCA1-5CN□□F1

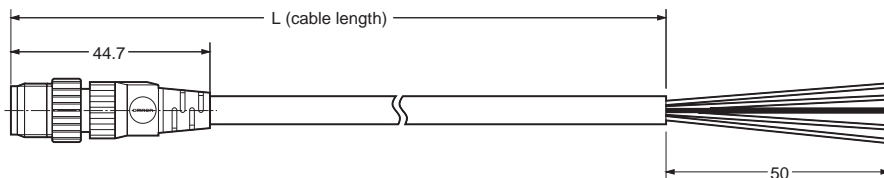
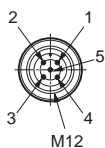
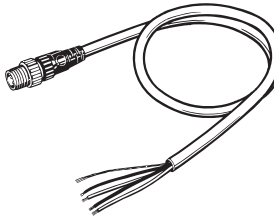


Wiring

| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

Cables with Connector on Single End (Plug)

DCA1-5CN□□H1

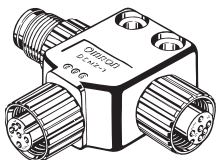


Wiring

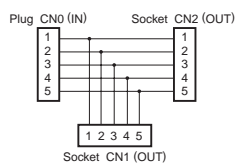
| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

T-branch Connector

DCN2-1

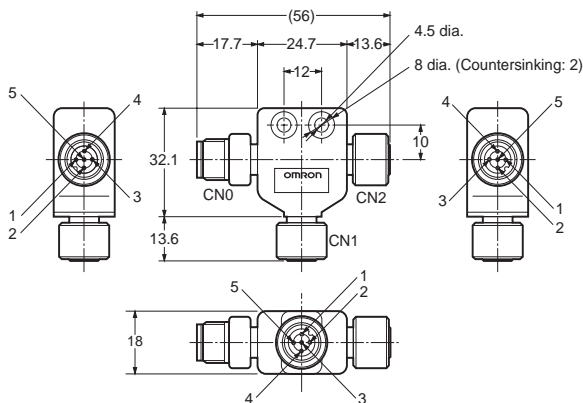


Connections Diagram



Wiring

| Terminal No. | Name |
|--------------|--------|
| 1 | SHIELD |
| 2 | V+ |
| 3 | V- |
| 4 | CAN H |
| 5 | CAN L |



Connectors with Terminating Resistance

DRS2-1 (Plug)

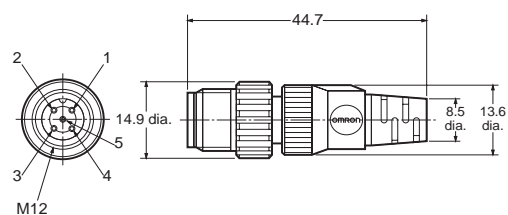
DRS2-2 (Socket)



Wiring

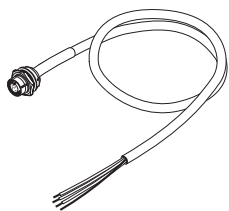
| Terminal No. | Name |
|--------------|---------------------------|
| 1 | DRAIN : NC |
| 2 | V+ : NC |
| 3 | V- : NC |
| 4 | CAN H : $\sim 121 \Omega$ |
| 5 | CAN L : $\sim 121 \Omega$ |

Note: Terminating resistance (121 Ω) is connected between terminals 4 and 5.



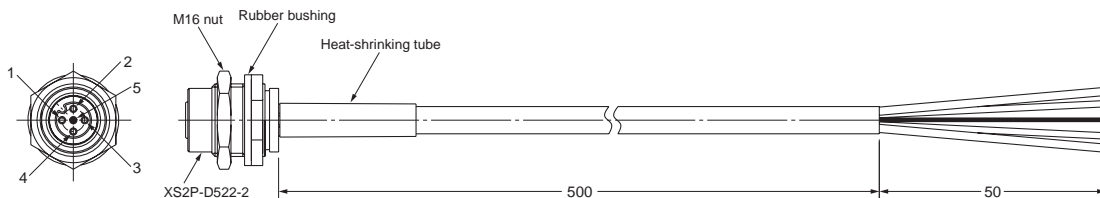
Note: The diagram shows the DRS2-1 (plug).

Panel-mounting Connector (Socket) with 0.5 m Cable
DCA1-5CNC5P1



Wiring

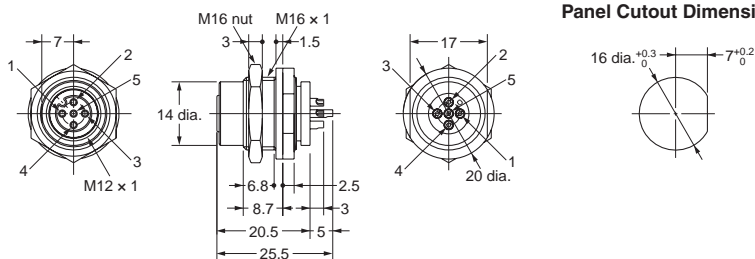
| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |



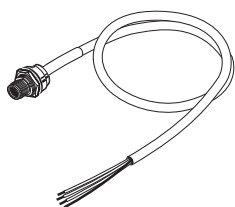
Panel-mounting Connector (Socket), Solder-cup Terminals
XS2P-D522-2



Panel Cutout Dimensions

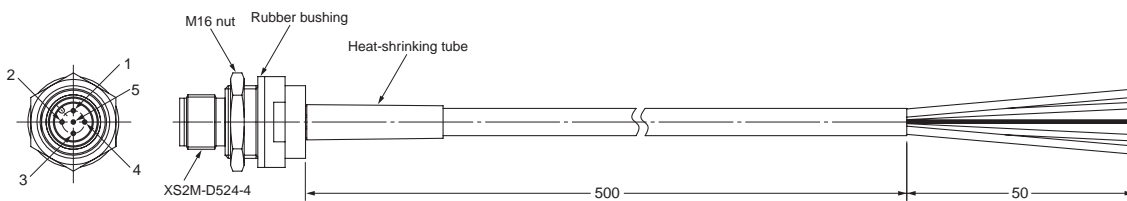


Panel-mounting Connector (Plug) with 0.5 m Cable
DCA1-5CNC5M1

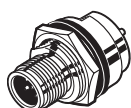


Wiring

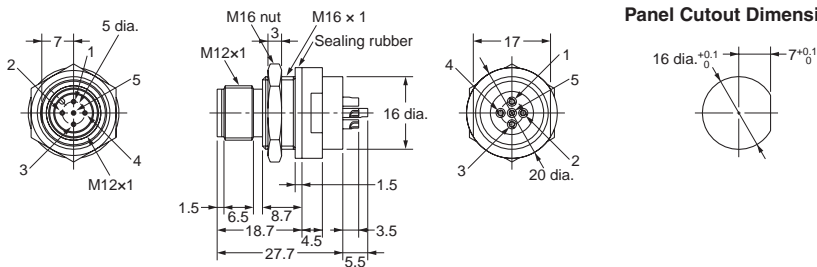
| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |



Panel-mounting Connector (Socket), Solder-cup Terminals
XS2M-D524-4

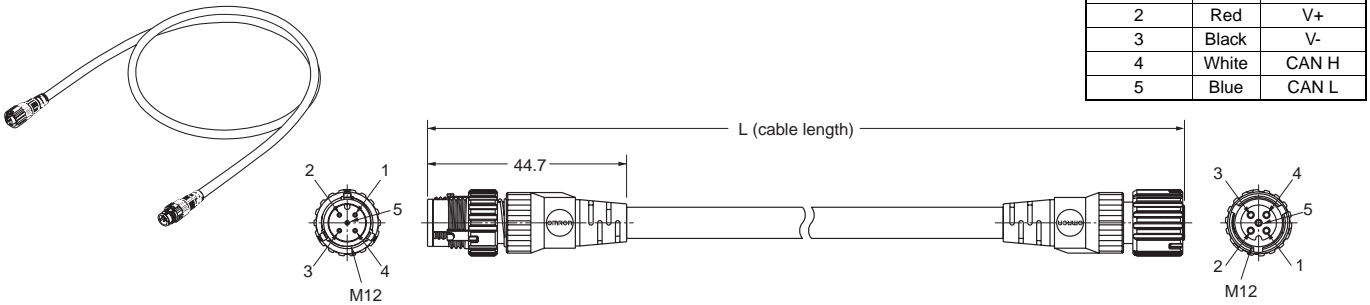


Panel Cutout Dimensions

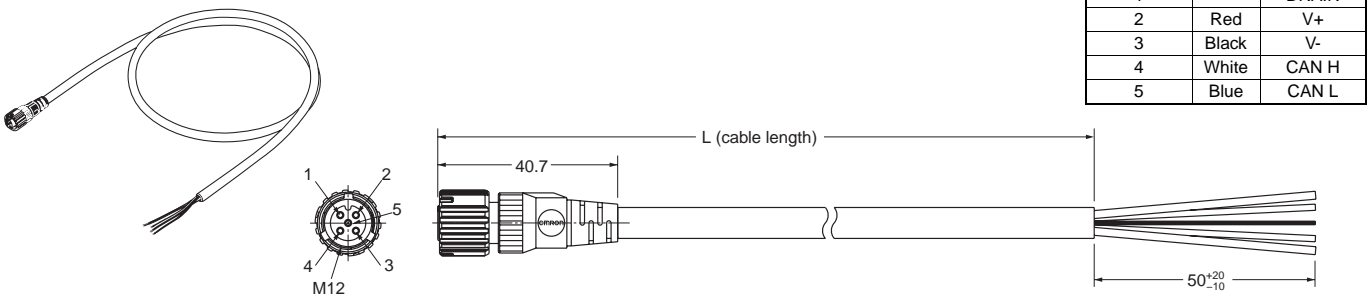


● Environment-resistive Models (for Thin Wires and M12 Micro Connectors)

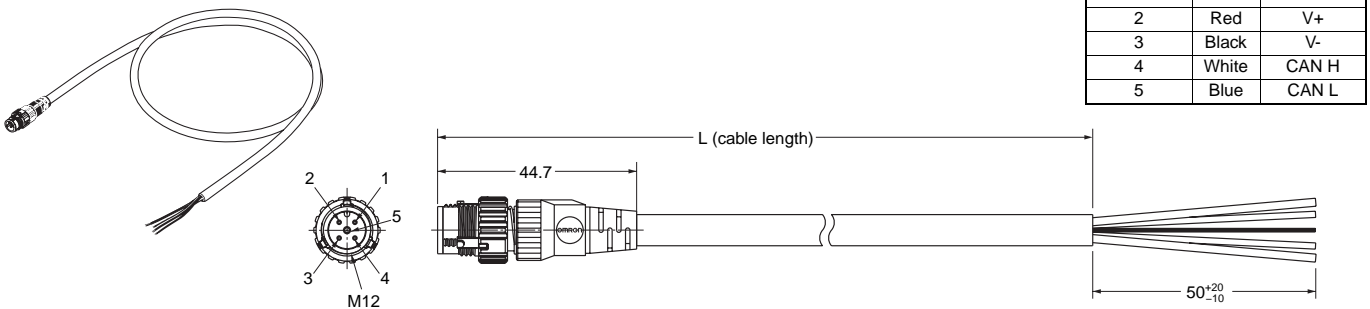
Cables with Connectors on Both Ends
DCA1-5CS□□W1



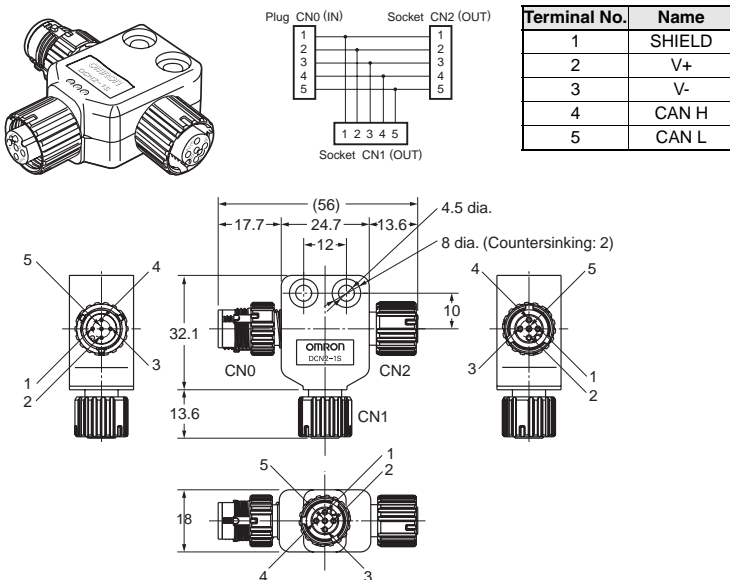
Cables with Connector on Single End (Socket)
DCA1-5CS□□F1



Cables with Connector on Single End (Plug)
DCA1-5CS□□H1

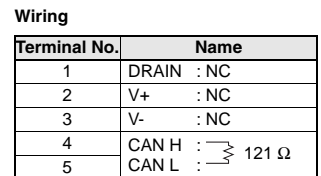
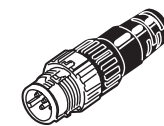


T-branch Connector
DCN2-1S

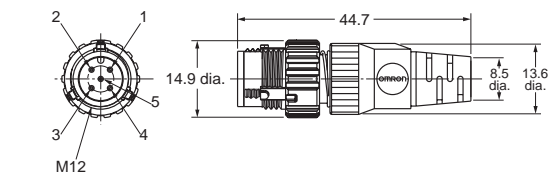


Connectors with Terminating Resistance

DRS2-1S (Plug)
DRS2-2S (Socket)

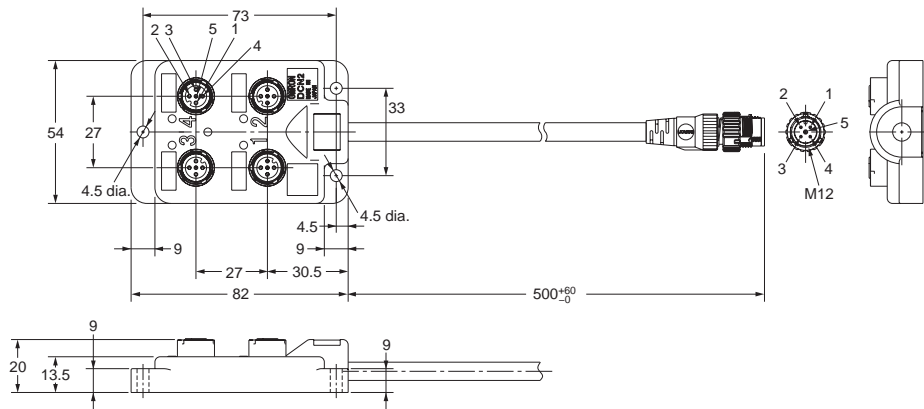
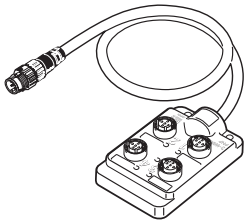


Note: Terminating resistance (121 Ω) is connected between terminals 4 and 5.

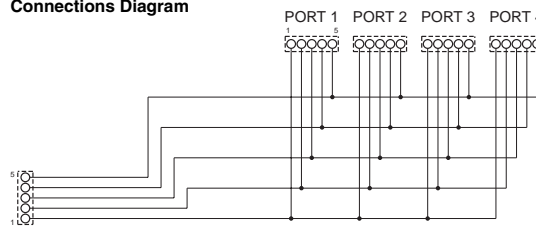


Note: The diagram shows the DRS2-1 (plug).

Shielded Branch Relay Box with Four Ports
DCN2-S4C5H1



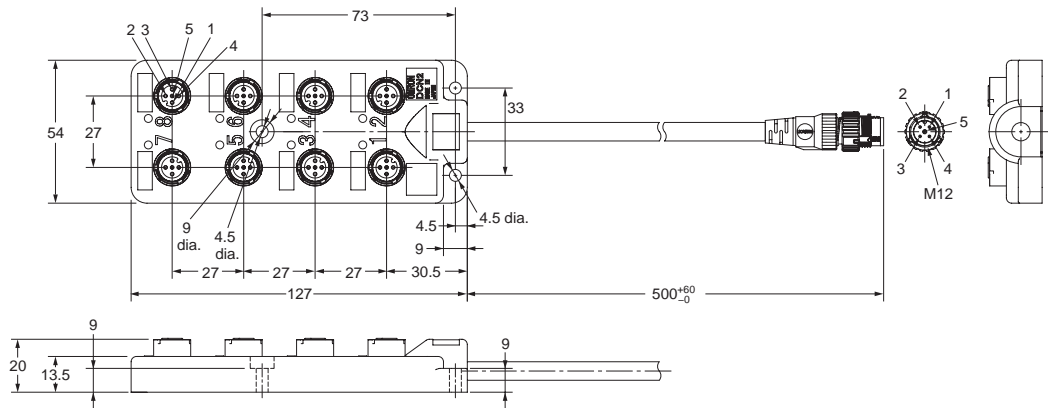
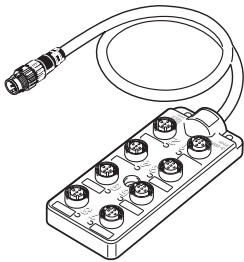
Connections Diagram



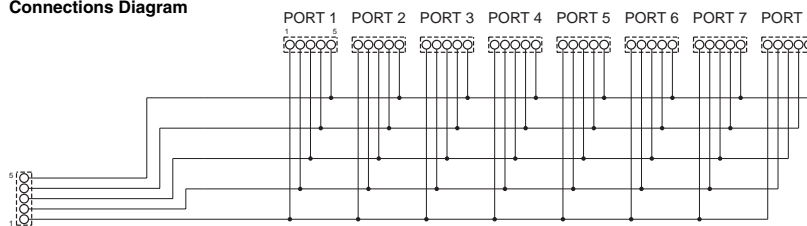
Wiring

| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

Shielded Branch Relay Box with Eight Ports
DCN2-S8C5H1



Connections Diagram

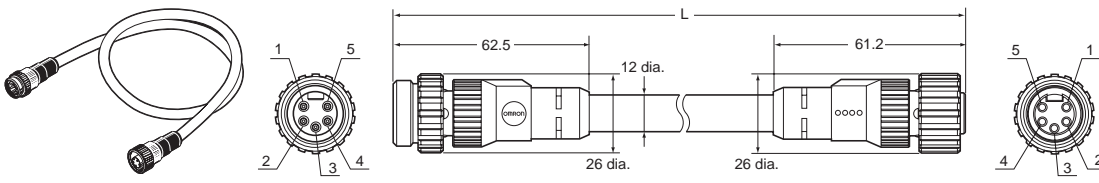


Wiring

| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

● Environment-resistive Models for Thick Wires with 7/8-16UN Mini Connectors

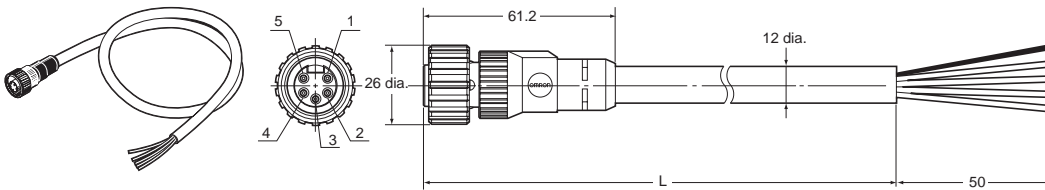
Thick Cable with Connectors on Both Ends (5 Conductors for Communications)
DCA2-5CN□□W1



Wiring

| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

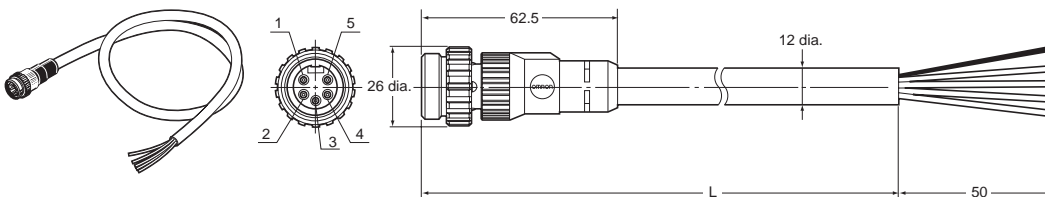
Thick Cable with Connector Socket on One End (5 Conductors for Communications)
DCA2-5CN□□F1



Wiring

| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

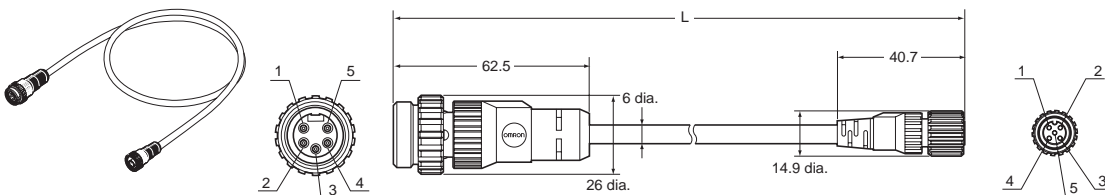
Thick Cable with Connector Plug on One End (5 Conductors for Communications)
DCA2-5CN□□H1



Wiring

| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

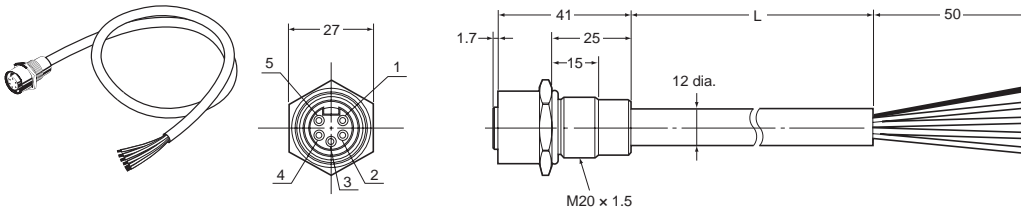
Thin Cable with Connectors on Both Ends (5 Conductors for Communications)
DCA1-5CN□□W5



Wiring

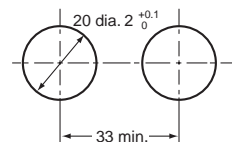
| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

Thin Cable with Panel-mounting Connector Socket on One End (5 Conductors for Communications)
DCA2-5CNC5P1



Note: A rubber seal and nut for panel mounting are included.

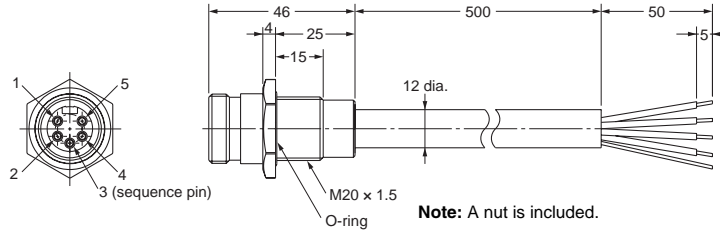
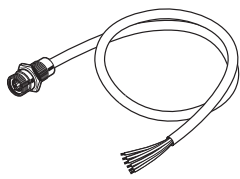
Panel Cutout Dimensions



Wiring

| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

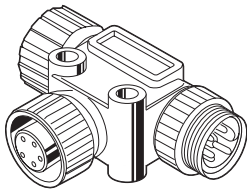
**Panel-mounting Connector (Plug) with 0.5 m Cable
DCA2-5CNC5M1**



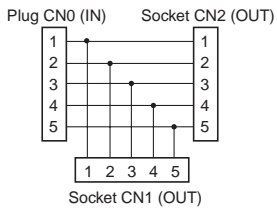
Wiring

| Terminal No. | Color | Name |
|--------------|-------|-------|
| 1 | - | DRAIN |
| 2 | Red | V+ |
| 3 | Black | V- |
| 4 | White | CAN H |
| 5 | Blue | CAN L |

**T-branch Connector (5 Conductors for Communications,
Thick Wire Branch Line)
DCN3-11**

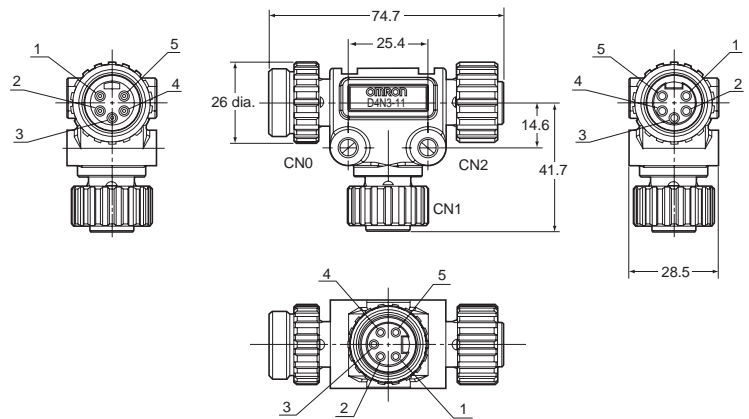


Connections Diagram

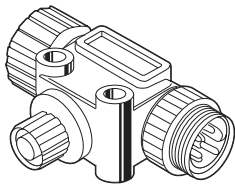


Wiring

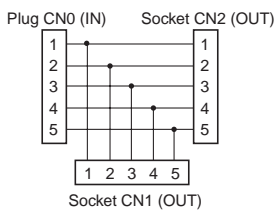
| Terminal No. | Name |
|--------------|-------|
| 1 | DRAIN |
| 2 | V+ |
| 3 | V- |
| 4 | CAN H |
| 5 | CAN L |



**T-branch Connector (5 Conductors for Communications,
Thin Wire Branch Line)
DCN3-12**

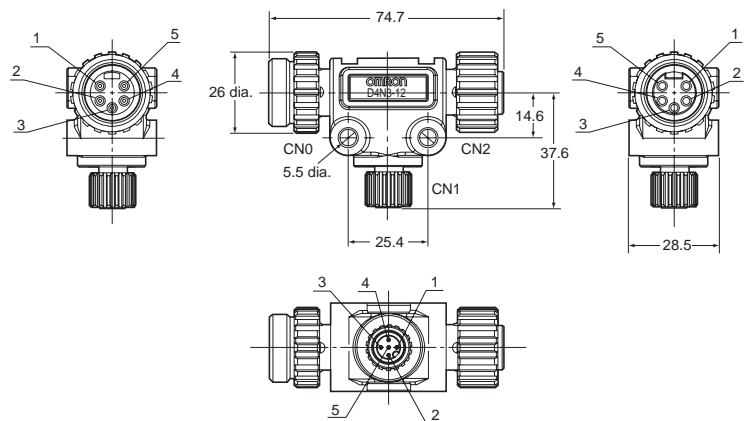


Connections Diagram

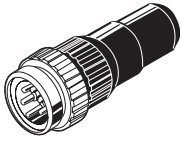


Wiring

| Terminal No. | Name |
|--------------|-------|
| 1 | DRAIN |
| 2 | V+ |
| 3 | V- |
| 4 | CAN H |
| 5 | CAN L |



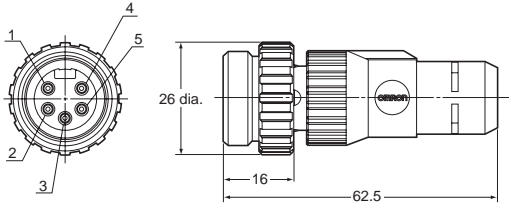
**Connector (Plug) with Terminating Resistance
DRS3-1**



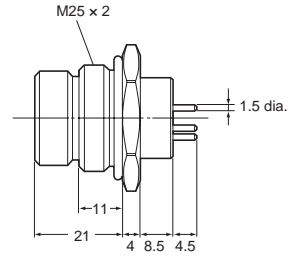
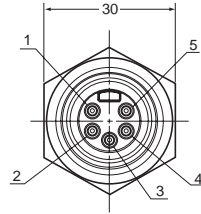
Wiring

| Terminal No. | Name |
|--------------|----------------|
| 1 | DRAIN : NC |
| 2 | V+ : NC |
| 3 | V- : NC |
| 4 | CAN H : 121 Ω |
| 5 | CAN L : 121 Ω |

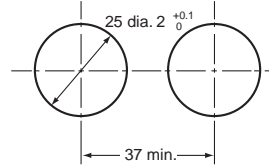
Note: Terminating resistance (121 Ω) is connected between terminals 4 and 5.



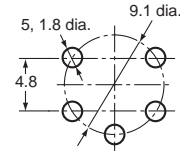
**Panel-mounting Connector (5 Pins for Communications)
XS4M-D521-1**



Panel Cutout Dimensions



PCB Processing Dimensions

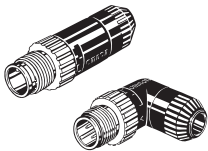


Note: A rubber seal and nut for panel mounting are included.

I/O Peripheral Devices


Applicable Connectors

● **Assembly Connector Plugs for M12 Microconnectors**

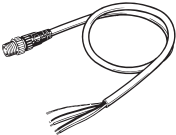
| Appearance | Applicable cable diameter (mm) | Cable direction | Number of poles | Connection method | | |
|---|--------------------------------|-----------------|-----------------|-------------------|-----------|-----------|
| | | | | Crimping | Soldering | Screws |
|  | For 6 dia. (5 to 6 dia.) | Straight | 4 | XS2G-D4C1 | XS2G-D421 | XS2G-D4S1 |
| | | L-shaped | | -- | XS2G-D422 | XS2G-D4S2 |
| | For 5 dia. (4 to 5 dia.) | Straight | | XS2G-D4C3 | XS2G-D423 | XS2G-D4S3 |
| | | L-shaped | | -- | XS2G-D424 | XS2G-D4S4 |
| | For 3 dia. (3 to 4 dia.) | Straight | | XS2G-D4C5 | XS2G-D425 | XS2G-D4S5 |
| | | L-shaped | | -- | XS2G-D426 | XS2G-D4S6 |
| | For 7 dia. (6 to 7 dia.) | Straight | | -- | -- | XS2G-D4S9 |
| | For 8 dia. (7 to 8 dia.) | | | -- | -- | XS2G-D4S7 |

Applicable Cables with Connectors

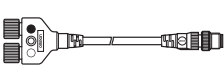
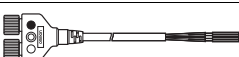

● **Cables with Connector (Socket/Plug) on Both Ends (M12 Microconnectors for Power Supply and I/O)**

| Appearance | Cable direction | Number of core wires | Cable length (m) | Standard cable | Robot (earthquake-resistant) cable |
|--|-------------------|----------------------|------------------|-----------------|------------------------------------|
|  | Straight/Straight | 4 | 1 | XS2W-D421-C81-A | XS2W-D421-C81-R |
| | | | 2 | XS2W-D421-D81-A | XS2W-D421-D81-R |
| | | | 5 | XS2W-D421-G81-A | XS2W-D421-G81-R |
| | L-shaped/L-shaped | | 2 | XS2W-D422-D81-A | -- |
| | | | 5 | XS2W-D422-G81-A | |
| | | | 2 | XS2W-D423-D81-A | |
| | Straight/L-shaped | | 5 | XS2W-D423-G81-A | |
| | | | 2 | XS2W-D424-D81-A | |
| | L-shaped/Straight | | 5 | XS2W-D424-G81-A | |

● **Cables with connector plug on One End (M12 Microconnectors for I/O)**


| Appearance | Cable direction | Number of core wires | Cable length (m) | Standard cable |
|---|-----------------|----------------------|------------------|-----------------|
|  | Straight | 3 | 0.3 | XS2H-D421-AC0-A |
| | | 4 | | XS2H-D421-A80-A |
| | | 3 | 1 | XS2H-D421-CC0-A |
| | | 4 | | XS2H-D421-C80-A |

● **Plugs and Sockets on Y-shaped Joints (M12 Microconnectors for I/O)**

| Appearance | Cable | Connector | DC models | |
|---|---------------|-------------------------|------------------|-----------------|
| | | | Cable length (m) | Model |
|  | With cable | Connectors on both ends | 0.5 | XS2R-D426-B11-F |
| | | | 1 | XS2R-D426-C11-F |
| | | | 2 | XS2R-D426-D11-F |
| | | | 3 | XS2R-D426-E11-F |
|  | | Connector on one end | 2 | XS2R-D426-D10-F |
| | | | 5 | XS2R-D426-G10-F |
|  | Without cable | Connectors on both ends | -- | XS2R-D426-1 |

Note: Use is supported only for Environment-resistive Terminals (DRT2-□D16C(L)(-1)).


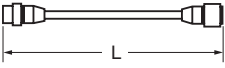

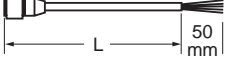

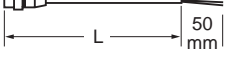
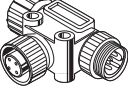


● **Connector Cover for M12 Microconnectors**

| Appearance | Product | Model | Application |
|---|---------------------------|---------|------------------------------------|
|  | Waterproof cover (socket) | XS2Z-22 | For covering unused I/O connectors |

Power Supply Peripheral Devices

Applicable Cables with Connectors

● Power Supply Connectors (7/8-16UN Miniconnectors)

| Appearance | Product | Cable length L (mm) | Model |
|--|---|---------------------|-----------------|
|  |  | 1 | XS4W-D421-101-A |
| | | 2 | XS4W-D421-102-A |
| | | 5 | XS4W-D421-105-A |
| | | 10 | XS4W-D421-110-A |
|  |  | 1 | XS4F-D421-101-A |
| | | 2 | XS4F-D421-102-A |
| | | 5 | XS4F-D421-105-A |
| | | 10 | XS4F-D421-110-A |
|  |  | 1 | XS4H-D421-101-A |
| | | 2 | XS4H-D421-102-A |
| | | 5 | XS4H-D421-105-A |
| | | 10 | XS4H-D421-110-A |
|  | T-branch Connector | -- | XS4R-D424-5 |
|  | Panel mounting connector socket Cable: 50 cm | -- | XS4P-D421-1C5-A |
|  | Panel mounting connector plug DIP terminals | -- | XS4M-D421-1 |
| - | Waterproofing Cap for Plug | -- | XS4Z-11 |
| - | Waterproofing Cap for Socket | -- | XS4Z-12 |

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2011.8

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