# **Peripheral Devices**

# **General-purpose Peripheral Devices**

### **Peripheral Devices for DeviceNet Communications**

### **Ordering Information**

### General-purpose Models

Product	Appearance	Model	Specifications		
		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	
T-branch Tap for		DCN1-1C	Cable wiring direction: Toward side Cable screw direction: From top Connector screw direction: From side	Provided with 3 parallel connectors with screws	
1 branch line		Cable wiring direction: Toward top Cable screw direction: From side Connector screw direction: From top		(XW4B-05C1-H1-D), standard terminating resistor	
		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	
		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	
T-branch Tap for		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	
3 branch lines		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		

Produ	ct	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.	
		60000	XW4B-05C1-H1-D	Parallel connector with screws Connector insertion and wiring performed in same direction.	
		66066	XW4B-05C4-T-D	Parallel, screw-less, multi-branching connector Connector insertion and wiring performed in same direction.	
	·	60000	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	Thin Cables		DCA1-5C10(-B)	Outer diameter: 7.00 mm Length: 100 m DCA1-5C10-B: Cable color: Blue DCA1-5C10: Cable color: Gray	
Standard Cables 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-bloc Terminator	k		DRS1-T	Resistance of 121 $\Omega$	

### 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 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.  • Extending the trunk line  • T-branching the trunk line into branch lines	
			Used alone in the following applications.  • 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.  • 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 mm² x 2, 0.5 mm² 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)

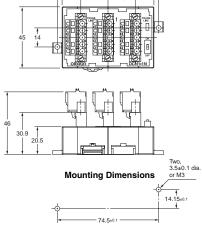
Rated current	Between main lines: 8 A (power supply line) and 2 A (signal line)		
nateu current	Between main and branch lines: 3 A (power supply line) and 1 A (signal line)		
Insulation resistance	100 M $\Omega$ min. (at 500 VDC)		
Dielectric strength	500 VAC for 1 min, leakage current: 1 mA max.		
Ambient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

**Dimensions** (Unit: mm)

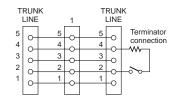
### ● General-purpose Models

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





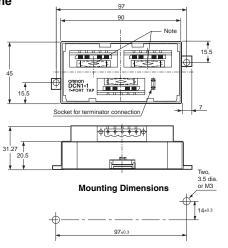
### **Internal Circuit**



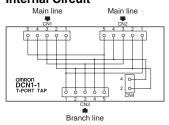
Terminal No.	Name
1	V-
2	CAN L
3	DRAIN
4	CAN H
5	V+

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





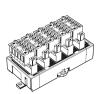
### **Internal Circuit**

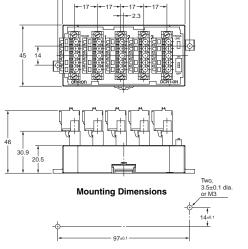


Terminal No.	Name
1	V-
2	CAN L
3	DRAIN
4	CAN H
5	V+

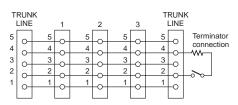
**Note:** When connecting a branch line to the main line, connect the main line to the connector marked with an asterisk because the resistance between the asterisks is minimal.

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

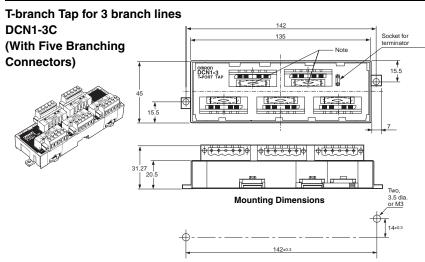




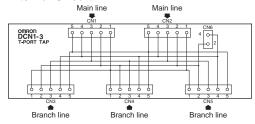
#### **Internal Circuit**



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



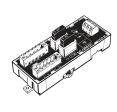
### **Internal Circuit**

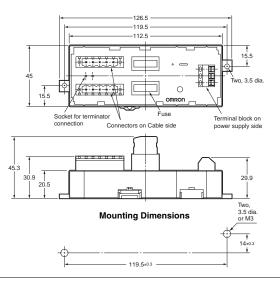


Terminal No.	Name		
1	V-		
2	CAN L		
3	DRAIN		
4	CAN H		
5	V+		

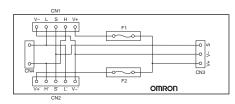
Note: When connecting a branch line to the main line, connect the main line to the connector marked with an asterisk because the resistance between the asterisked portion is minimal.

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





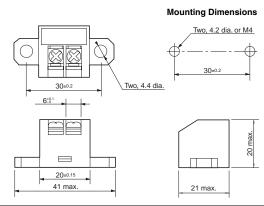
### **Internal Circuit**



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

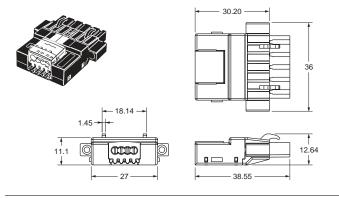
DRS1-T (Terminal-block Terminator)





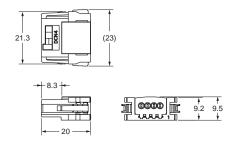
### ● Flat Cable

# Connector for Flat Cable DCN4-SF4D



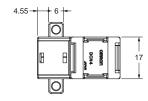
# Conversion Connector for Standard Thin Cable and Flat Cable DCN4-BR4D

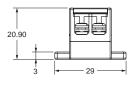


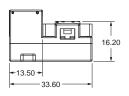


# Power Supply Terminal Block with Terminating Resistance for Flat Cable



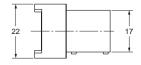




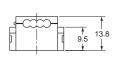


# Flat Connector Socket DCN4-TR4









# Flat Connector Plug DCN4-BR4









### I/O Peripheral Devices

### ■ I/O Connectors for Connector Terminals

### MIL Connectors

### **Applicable Connectors**

Туре		Model	Remarks
Flat Cable Pressure-welded Connectors		XG4M-4030-T	
	Socket	XG5M-4032-N	Corresponding to 24 AWG
Pressure-welded Connectors with		XG5M-4035-N	Corresponding to 28 to 26 AWG
Loose Wires	Semicover	XG5S-2001	
	Hood Cover *	XG5S-4022	

<sup>\*</sup> DeviceNet connectors for multi-drop wiring cannot be used with the Hood Cover.

### **Cable Models**

Туре	Model	Connected device	Applicable models	
	G79-I□□-□□-D1		DRT2-ID32ML	
	G79-M□□-□□-D1		DRT2-MD32ML	
Cable with Connectors (1:2)	G79-O□□-□□-D1	G7TC/G70D/G70A	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)		Model	
Appearance		A	B	wodei
		500	250	G79-I50-25-D1
	<b> </b>	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
The state of the s	(120)	500	250	G79-I50-25-D2
The state of the s		750	500	G79-I75-50-D2
	Length without any bending	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	
To the state of th	Terminal A Terminal B	1,000	G79-Y100C-D1
	Connected to device	2,000	G79-Y200C-D1
	300	5,000	G79-Y500C-D1

### ● Cables with Loose Wires/G79-A□C

Appearance	Cable length (mm)	Model	
	Terminal A Terminal B	2,000	G79-A200C-D1
18	to device	5,000	G79-A500C-D1

### ■ I/O Connectors for MULTIPLE I/O TERMINALs

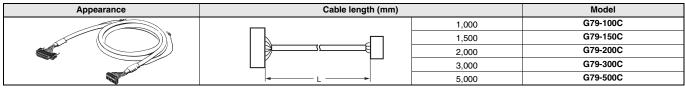
### **Applicable Connectors**

	Туре		Model	Remark	Connectable model
	Housing	50-57-9403			
		Chain terminal	16-02-0069	Corresponding to 24 to 30 AWG	Digital I/O Units
		Chain terminal	16-02-0086	Corresponding to 22 to 24 AWG	Digital I/O Units     GT1-ID16MX(-1)/GT1-OD16MX(-1)
Molex connector	Crimped terminals	Loose terminal	16-02-0096	Corresponding to 24 to 30 AWG	
	terriiriais	Loose terminal	16-02-0102	Corresponding to 22 to 24 AWG	Analog I/O Units GT1-AD08MX/GT1-DA04MX
	Dunna fit to al	57036-5000	Corresponding to 22 to 26 AWG	GTT-AD08MX/GTT-DA04MX	
		Press-fit tool	57037-5000	Corresponding to 24to 30 AWG	
	Soldered term	inals	FCN361J024-AU		
Fujitsu connector (16 points)	Pressure-weld	ed terminals	FCN367J024-AU/F		
(10 points)	Crimped termi	nals	FCN363J024-AU		
	Soldered term	inals	FCN361J040-AU		
(32 points)	Pressure-weld	Pressure-welded terminals			Digital I/O Units GT1-ID32ML(-1)/GT1-OD32ML(-1)
	Crimped termi	Crimped terminals			
OMRON Pulg			XM2A-2501		Digital I/O Units
	Hood			#4-40UNC inch screws	ĞT1-ID16DS(-1)/GT1-OD16DS(-1)

### Applicable Cables with Connectors (Fujitsu Connectors)

I/O classification	Model	Connectable model
Digital input, 16 points	XW2Z-□□□A	Digital I/O Units
Digital input, 10 points	G79-□C	GT1-ID16ML(-1)
Digital output, 16 points	XW2Z-□□□A	Digital I/O Units
	G79-□C	GT1-OD16ML(-1)
Digital input 32 points	XW2Z-□□□B	Digital I/O Units
Digital input, 32 points	G79-I□C□	GT1-ID32ML(-1)
Digital output, 32 points	XW2Z-□□□B	Digital I/O Units
Digital output, 32 points	G79-O□C□	GT1-OD32ML(-1)

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



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

Annogrange	Cable length (mm)			Model	
Appearance		A	B	Input	Output
	<b>A</b>	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
	Length without any bending	5,000	4,750	G79-I500C-475	G79-O500C-475

### For Digital Input/Output (16 Points)

Appearance	Cable length (mm)	Model	
		500	XW2Z-050A
	35	1,000	XW2Z-100A
		1,500	XW2Z-150A
		2,000	XW2Z-200A
		3,000	XW2Z-300A
		5,000	XW2Z-500A

### For Digital Input/Output (32 Points)

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

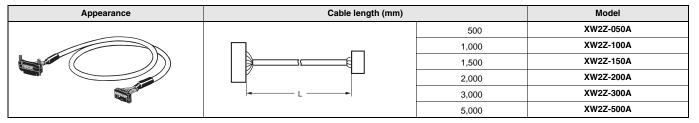
# ■ I/O Connector for Programmable Slaves

### **Applicable Connector Terminal Conversion Units**

Applicable cable	Connected product	Remarks
XW2Z-□□□A	XW2D-20G6	Slim type (with M3 screw terminals)
XW22-UUA	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)



# **Peripheral Devices for Environment-resistive Slaves**

### **Peripheral Devices for DeviceNet Communications**

### **Ordering Information**

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

Product	Appea	arance	Model	-	Specifications	
Sealed Assembling-type Connector (male)	60		XS2G-D5S7	For communications (plu	ig)	
Sealed Assembling-type Connector (female)			XS2C-D5S7	For communications (so	cket)	
Sealed T-branch Connector			DCN2-1	For 1 branch line		
Sealed Connector with			DRS2-1	Plug		
Terminating Resistor			DRS2-2	Socket		
			DCA1-5CNC5W1	Length (L): 0.5 m		
			DCA1-5CN01W1	Length (L): 1 m		
			DCA1-5CN02W1	Length (L): 2 m	Cable with connectors on both ands	
		L —	DCA1-5CN03W1	Length (L): 3 m	Cable with connectors on both ends	
			DCA1-5CN05W1	Length (L): 5 m		
			DCA1-5CN10W1	Length (L): 10 m		
			DCA1-5CNC5F1	Length (L): 0.5 m		
		L — SO mm	DCA1-5CN01F1	Length (L): 1 m		
Cables with Sealed			DCA1-5CN02F1	Length (L): 2 m	1	
Connectors			DCA1-5CN03F1	Length (L): 3 m	Cable with connector on one end (socket)	
			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			
		L Somm	DCA1-5CN02H1	Length (L): 2 m		
			DCA1-5CN03H1	Length (L): 3 m	Cable with connector on one end (plug)	
			DCA1-5CN05H1	Length (L): 5 m		
			DCA1-5CN10H1	Length (L): 10 m	_	
Shielded Panel-mounting Connectors (female)			DCA1-5CNC5P1	Panel-mounting connect	or (socket) with 0.5-m cable	
			XS2P-D522-2	Panel-mounting connector socket		
Shielded Panel-mounting Connectors (male)			DCA1-5CNC5M1	Panel-mounting connect	or (plug) with 0.5-m cable	
			XS2M-D524-4	Panel-mounting connect	Panel-mounting connector (plug) with solder-cup terminals	
Waterproof cover (for socket)			XS2Z-22	Used to cover an unuser	d connector section	
Dust cover (for socket)			XS2Z-15	Used to cover an unused connector section		

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

Product	Appearance	Model		Specifications
Sealed T-branch Connector		DCN2-1S	For 1 branch line	
Sealed Assembling type		DRS2-1S	Plug	
Connector (female)		DRS2-2S	Socket	
		DCA1-5CSC5W1	Length (L): 0.5 m	
		DCA1-5CS01W1	Length (L): 1 m	
		DCA1-5CS02W1	Length (L): 2 m	Cable with connectors on both ends
	L —	DCA1-5CS03W1	Length (L): 3 m	Cable with connectors on both ends
	<b>6</b> 7	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	
Connectors with Shielded		DCA1-5CS02F1	Length (L): 2 m	Cable with connector on one end (socket)
Cables	L	DCA1-5CS03F1	Length (L): 3 m	- Cable with connector on one end (socke
		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	Cable with connector on one end (plug)
	L	DCA1-5CS03H1	Length (L): 3 m	Cable with connector on one end (plug)
		DCA1-5CS05H1	Length (L): 5 m	
		DCA1-5CS10H1	Length (L): 10 m	
		DCN2-S4C5H1	4 ports, 0.5-m cable	
Shielded Branch Relay Box		DCN2-S8C5H1	8 ports, 0.5-m cable	

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

Product	Appea	arance	Model		Specifications		
Sealed T-branch Connector			DCN3-11	T-branch Connector			
Coulou Filanoi Commodo.			DCN3-12	T-branch Connector (Br	anch connector is M12.)		
Sealed Connector with Terminating Resistor			DRS3-1	Plug			
			DCA2-5CN01W1	Length (L): 1 m			
	<b>510</b>		DCA2-5CN02W1	Length (L): 2 m	Cable with connectors on both ends		
		L	DCA2-5CN05W1	Length (L): 5 m	Cable with connectors on both ends		
	<b>9</b> 1		DCA2-5CN10W1	Length (L): 10 m			
	OF O		DCA2-5CN01F1	Length (L): 1 m			
		L   50	DCA2-5CN02F1	Length (L): 2 m	Cable with connector on one end (socket)		
			DCA2-5CN05F1	Length (L): 5 m	Cable with connector on one end (socket)		
Cables with Sealed			DCA2-5CN10F1	Length (L): 10 m			
Connectors		L 50	DCA2-5CN01H1	Length (L): 1 m			
			DCA2-5CN02H1	Length (L): 2 m	Cable with connector on one and (alve)		
			DCA2-5CN05H1	Length (L): 5 m	Cable with connector on one end (plug)		
			DCA2-5CN10H1	Length (L): 10 m			
			DCA1-5CN01W5	Length (L): 1 m			
			DCA1-5CN02W5	Length (L): 2 m	Cable with connectors on both ends Thin cable		
			L ——	L —	DCA1-5CN05W5	Length (L): 5 m	M12 socket
	<b>◆</b> W		DCA1-5CN10W5	Length (L): 10 m			
Panel-mounting Connector (female)			DCA2-5CNC5P1	Panel-mounting connec	tor (socket) with 0.5-m cable		
Panel-mounting Connector (male)			DCA2-5CNC5M1	Panel-mounting connec	tor (plug) with 0.5-m cable		
Panel-mounting Connector (male)			XS4M-D521-1	Panel-mounting connec DIP terminals	tor (plug)		
Waterproof Cap (for Plug)		-	XS4Z-11				
Waterproof Cap (for Socket)		-	XS4Z-12	Used to cover an unuse	d connector section.		

### **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	3 A			
Rated voltage	125 VDC				
Contact resistance (connector)	40 m $\Omega$ 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	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/s², whichever is smaller				

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

Туре	Connectors with Cables DCA1-5CS□□□1	T-branch Connector DCN2-1S	Connectors with Terminating Resistor	Branch Relay Box DCN2-S□C5H
Item	204. 000000	20112 10	DRS2-□S	20112 000011
Rated current	3 A			
Rated voltage	125 VDC			
Contact resistance (connector)	40 m $\Omega$ 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 of	,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	EC IP67			
Insertion durability	200 times	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/s², whichever is smaller			
Lock strength	Pulling: 100 N/15 s, Rotating: 1 N·m/	Pulling: 100 N/15 s, Rotating: 1 N·m/15 s		
Lock force	0.1 to 0.25 N·m	0.1 to 0.25 N⋅m		

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

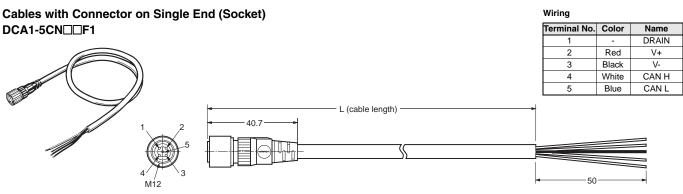
Type Item	Connectors with Thick Cables DCA2-5CN□□□1	Connectors with Thin Cables DCA1-5CN□□W5	T-branch Connector DCN3-11	T-branch Connector DCN3-12	Connectors with Terminating Resistor DRS3-1	Panel Mounting Connector DCA2-5CNC5P1	Panel Mounting Connector XS4M-D521-1
Rated current	8 A	3 A	8 A	3 A *	8 A		
Rated voltage	125 VDC	25 VDC					
Contact resistance (connector)	30 mΩ max. (at 20 n	0 mΩ max. (at 20 mVDC max. and 100 mA max.)					
Insulation resistance	1,000 MΩ min. (at 50	00 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	IEC IP67					
Insertion durability	200 times	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/s², whichever is smaller						

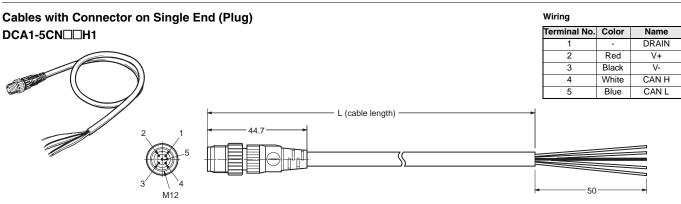
<sup>\*</sup> The rated current between thick wires is 8 A.

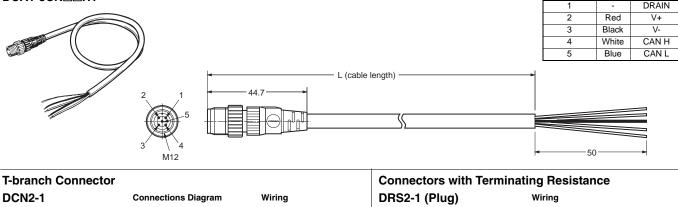
### **Dimensions**

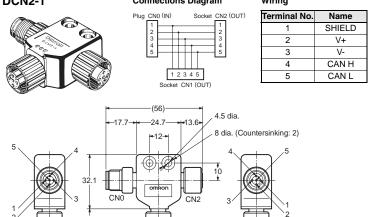
### ● Environment-resistive Connection Products (for Thin Cable, M12 Micro Connectors)

### **Cables with Connectors on Both Ends** Wiring Terminal No. Color DCA1-5CN□□W1 Name DRAIN Red V+ Black White CAN H CAN L Blue L (cable length)





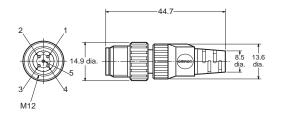




DRS2-2 (Socket)

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

Note: Terminating resistance (121  $\Omega$ ) is connected between terminals 4 and 5.



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

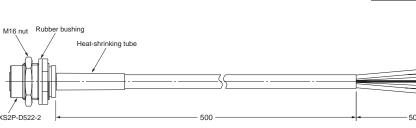
# Panel-mounting Connector (Socket) with 0.5 m Cable DCA1-5CNC5P1

### Wiring





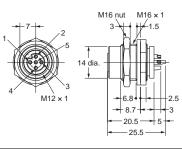




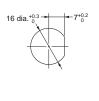
# Panel-mounting Connector (Socket), Solder-cup Terminals XS2P-D522-2







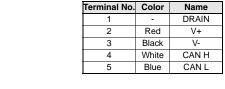


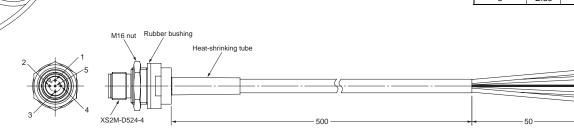


# Panel-mounting Connector (Plug) with 0.5 m Cable DCA1-5CNC5M1

### Wiring



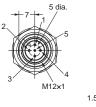


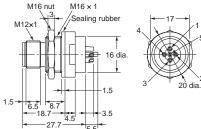


# Panel-mounting Connector (Socket), Solder-cup Terminals XS2M-D524-4





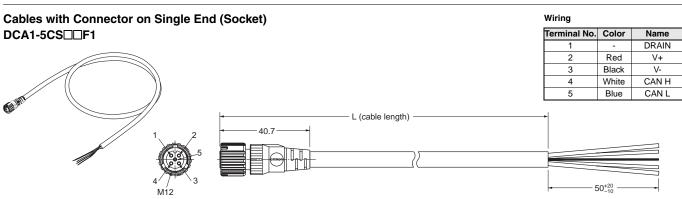




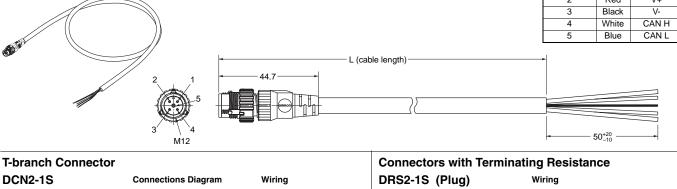


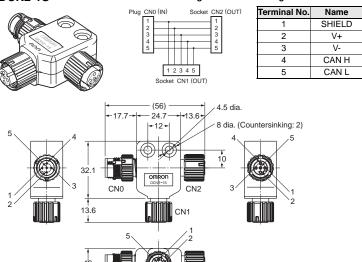
### ● Environment-resistive Models (for Thin Wires and M12 Micro Connectors)

#### **Cables with Connectors on Both Ends** Wiring Terminal No. Color DCA1-5CS□□W1 Name DRAIN Red V+ Black White CAN H CAN L Blue L (cable length)



#### Cables with Connector on Single End (Plug) Wiring Terminal No. Color DCA1-5CS□□H1 Name DRAIN Red V+ Black ٧/-White CAN H Blue CAN L L (cable length)



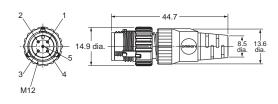


DRS2-2S (Socket)



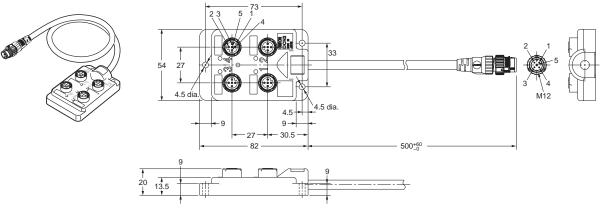
Terminal No.		Name
1	DRAIN	: NC
2	V+	: NC
3	V-	: NC
4	CAN H	: → 121 Ω
5	CAN L	: - 2 12132

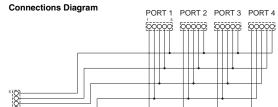
Note: Terminating resistance (121  $\Omega$ ) is connected between terminals 4 and 5.



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

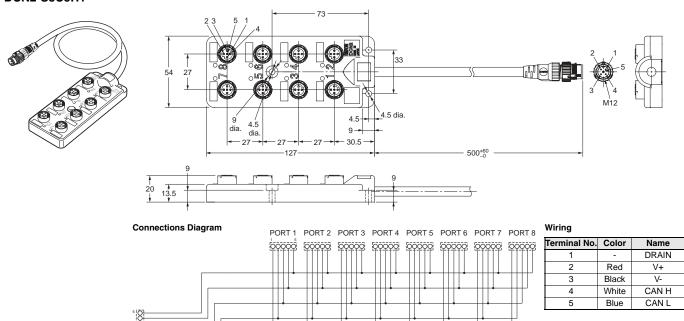
# Shielded Branch Relay Box with Four Ports DCN2-S4C5H1





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

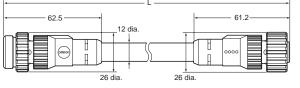


#### ● Environment-resistive Models for Thick Wires with 7/8-16UN Mini Connectors

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





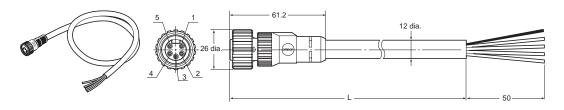




#### Wiring

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

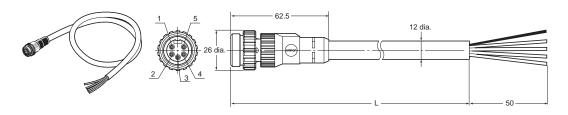
### Thick Cable with Connector Socket on One End (5 Conductors for Communications) DCA2-5CN□□F1



#### 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



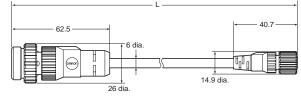
#### Wiring

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







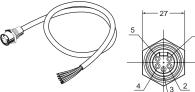


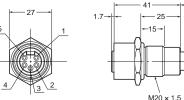
#### Wiring

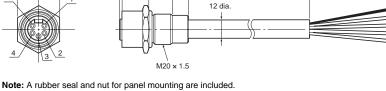
Terminal No.	Color	Name
1	-	DRAIN
2	Red	V+
3	Black	V-
4	White	CAN H
5	Blue	CAN L

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

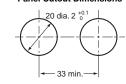
DCA2-5CNC5P1







### **Panel Cutout Dimensions**

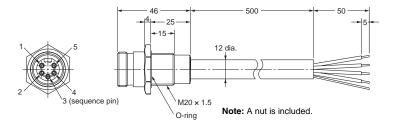


Wiring

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



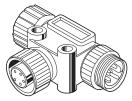


### Wiring

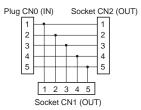
Terminal No.	Color	Name
1	-	DRAIN
2	Red	V+
3	Black	V-
4	White	CAN H
5	Blue	CAN L

# T-branch Connector (5 Conductors for Communications, Thick Wire Branch Line)

### DCN3-11

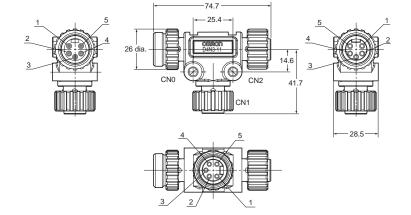


**Connections Diagram** 



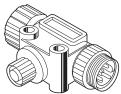
Wiring

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

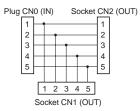


# T-branch Connector (5 Conductors for Communications, Thin Wire Branch Line)

### DCN3-12

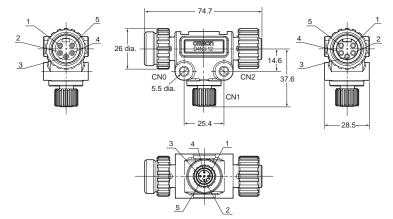


**Connections Diagram** 



Wiring

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



↓ ‡ 1.5 dia.

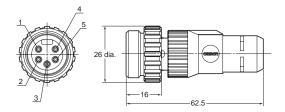
### Connector (Plug) with Terminating Resistance DRS3-1



### Wiring

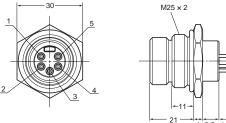
Terminal No.		Name
1	DRAIN	: NC
2	V+	: NC
3	V-	: NC
4	CAN H	⋮_} 121 Ω
5	CAN L	: 12132

Note: Terminating resistance (121  $\Omega$ ) is connected between terminals 4 and 5.



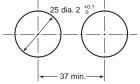
### Panel-mounting Connector (5 Pins for Communications) XS4M-D521-1





**Panel Cutout Dimensions** 

**PCB Processing Dimensions** 5, 1.8 dia





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

### I/O Peripheral Devices

### **Applicable Connectors**

### ● Assembly Connector Plugs for M12 Microconnectors

Annogrange	Applicable cable diameter (mm)	Cable direction	Number of	Connection method			
Appearance			poles	Crimping	Soldering	Screws	
	For 6 dia.	Straight		XS2G-D4C1	XS2G-D421	XS2G-D4S1	
	(5 to 6 dia.)	L-shaped	4		XS2G-D422	XS2G-D4S2	
	For 5 dia. (4 to 5 dia.)  For 3 dia. (3 to 4 dia.)  For 7 dia. (6 to 7 dia.)  For 8 dia. (7 to 8 dia.)  Straight  L-shaped  Straight  L-shaped  Straight	Straight		XS2G-D4C3	XS2G-D423	XS2G-D4S3	
		L-shaped		4		XS2G-D424	XS2G-D4S4
		Straight			XS2G-D4C5	XS2G-D425	XS2G-D4S5
		L-shaped				XS2G-D426	XS2G-D4S6
					XS2G-D4S9		
			-		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	
			1	XS2W-D421-C81-A	XS2W-D421-C81-R	
	Straight/Straight		2	XS2W-D421-D81-A	XS2W-D421-D81-R	
		4	5	XS2W-D421-G81-A	XS2W-D421-G81-R	
	L-shaped/L-shaped		4	2	XS2W-D422-D81-A	
	L-Silapeu/L-Silapeu			4	5	XS2W-D422-G81-A
	Straight/L-shaped		2	XS2W-D423-D81-A		
			5	XS2W-D423-G81-A	-	
	L-shaped/Straight		2	XS2W-D424-D81-A		
	L-Snaped/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
	Citalgrit	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	
		Connector	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
			2	XS2R-D426-D10-F
		Connector on one end	5	XS2R-D426-G10-F
	Without cable	Connectors on both ends		XS2R-D426-1

 $\textbf{Note:} \ \, \textbf{Use is supported only for Environment-resistive Terminals (DRT2-$\square$D16C(L)(-1))}.$ 

### ● 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
	<b>←</b> L →	5	XS4W-D421-105-A
Ø Jir		10	XS4W-D421-110-A
		1	XS4F-D421-101-A
		2	XS4F-D421-102-A
	L 50 mm	5	XS4F-D421-105-A
		10	XS4F-D421-110-A
		1	XS4H-D421-101-A
ave ( )		2	XS4H-D421-102-A
	L 50 mm	5	XS4H-D421-105-A
		10	XS4H-D421-110-A
	T-branch Connector		XS4R-D424-5
0 V	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

#### **Read and Understand This Catalog**

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments

### Warranty and Limitations of Liability

#### WARRANTY

OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, REGARDING NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR PARTICULAR PURPOSE OF THE PRODUCTS. ANY BUYER OR USER ACKNOWLEDGES THAT THE BUYER OR USER ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. OMRON DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED.

#### LIMITATIONS OF LIABILITY

OMRON SHALL NOT BE RESPONSIBLE FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT

In no event shall the responsibility of OMRON for any act exceed the individual price of the product on which liability is asserted.

IN NO EVENT SHALL OMRON BE RESPONSIBLE FOR WARRANTY, REPAIR, OR OTHER CLAIMS REGARDING THE PRODUCTS UNLESS OMRON'S ANALYSIS CONFIRMS THAT THE PRODUCTS WERE PROPERLY HANDLED, STORED, INSTALLED, AND MAINTAINED AND NOT SUBJECT TO CONTAMINATION, ABUSE, MISUSE, OR INAPPROPRIATE MODIFICATION OR REPAIR.

### **Application Considerations**

#### **SUITABILITY FOR USE**

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of products in the customer's application or use of the products.

At the customer's request, OMRON will provide applicable third party certification documents identifying ratings and limitations of use that apply to the products. This information by itself is not sufficient for a complete determination of the suitability of the products in combination with the end product, machine, system, or other application or use.

The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:

- Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this catalog.
- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCTS ARE PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

### PROGRAMMABLE PRODUCTS

OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

### **Disclaimers**

#### **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 model numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the products may be changed without any notice. When in doubt, special model numbers may be assigned to fix or establish key specifications for your application on your request. Please consult with your OMRON representative at any time to confirm actual specifications of purchased products.

### **DIMENSIONS AND WEIGHTS**

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

#### PERFORMANCE DATA

Performance data given in this catalog 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 users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

#### **ERRORS AND OMISSIONS**

The information in this document has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical, or proofreading errors, or omissions.

2011.8

In the interest of product improvement, specifications are subject to change without notice.

