

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

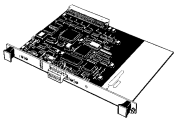
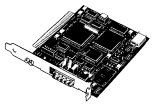
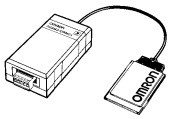
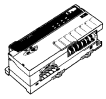
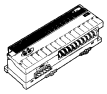
- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

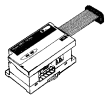
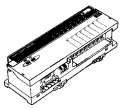
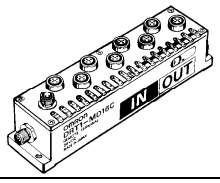
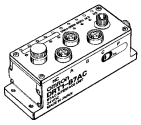
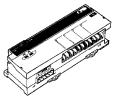
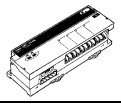
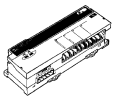
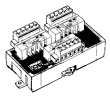
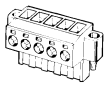
Expert team | Trust guarantee | 100% satisfaction

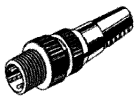
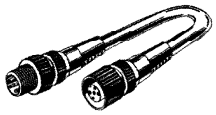
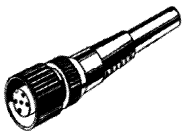
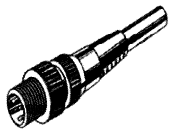
All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

Ordering Information

Product	Appearance	Model	Specifications	Standards
Master		CVM1-DRM21-V1	For CVM1/CV Series	U, C, CE
		C200HW-DRM21-V1	For SYSMAC C200HS, C200HX, C200HG, and C200HE	
		3G8B3-DRM21-E	VME Board	---
DeviceNet Configurator		3G8F5-DRM21-E	ISA Board (provided with software running on Windows 95 or NT)	---
		3G8E2-DRM21-E	PC Card (provided with software running on Windows 95)	
I/O Link Module		C200HW-DRT21	For C200HX/HG/HE	U, C, CE
		CQM1-DRT21	For CQM1	
Remote I/O Module	 	DRT1-ID08	8 transistor inputs for terminals with NPN, positive common	U, C
		DRT1-ID08-1	8 transistor inputs for terminals with PNP, negative common	
		DRT1-ID16	16 transistor inputs for terminals with NPN, positive common	
		DRT1-ID16-1	16 transistor inputs for terminals with PNP, negative common	
		DRT1-OD08	8 transistor outputs for terminals with NPN, positive common	
		DRT1-OD08-1	8 transistor outputs for terminals with PNP, negative common	
		DRT1-OD16	16 transistor outputs for terminals with NPN, positive common	
		DRT1-OD16-1	16 transistor outputs for terminals with PNP, negative common	

Product	Appearance	Model	Specifications	Standards
Remote Adapter		DRT1-ID16X	16 inputs with pull-wire connectors for adapters with NPN, positive common	U, C
		DRT1-ID16X-1	16 inputs with pull-wire connectors for adapters with PNP, negative common	
		DRT1-OD16X	16 outputs with pull-wire connectors for adapters with NPN, positive common	
		DRT1-OD16X-1	16 outputs with pull-wire connectors for adapters with PNP, negative common	
Sensor Module		DRT1-HD16S	8 points for sensors with self-diagnostic function	---
		DRT1-ND16S	8 points for sensors with automatic teaching function	
Dura Blocs		DRT1-ID08C	8 transistor inputs	CE
		DRT1-OD08C	8 transistor outputs	
		DRT1-MD16C	8 transistor inputs, 8 transistor outputs	
B7AC Interface Module		DRT1-B7AC	10 inputs x 3 Units	CE
Analog I/O Module		DRT1-AD04	4 points	CE
		DRT1-AD04H		---
		DRT1-DA02	2 points	CE
Temperature Input Module		DRT1-TS04T	4 points	---
		DRT1-TS04P		
RS-232C Module		DRT1-232C2	2 ports	U, C, CE
T-branch Tap		DCN1-1C	T-branch Tap for 1 branch line (with connector), standard terminating resistor	---
		DCN1-3C	T-branch Tap for 3 branch lines (with connector), standard terminating resistor	
Shielded T-branch Tap Connector		DCN2-1	Connector for 1 branch line	---
Connector		XW4B-05C1-H1-D	---	---
Terminal-block Terminator		DRS1-T	Resistance of 121 Ω	---

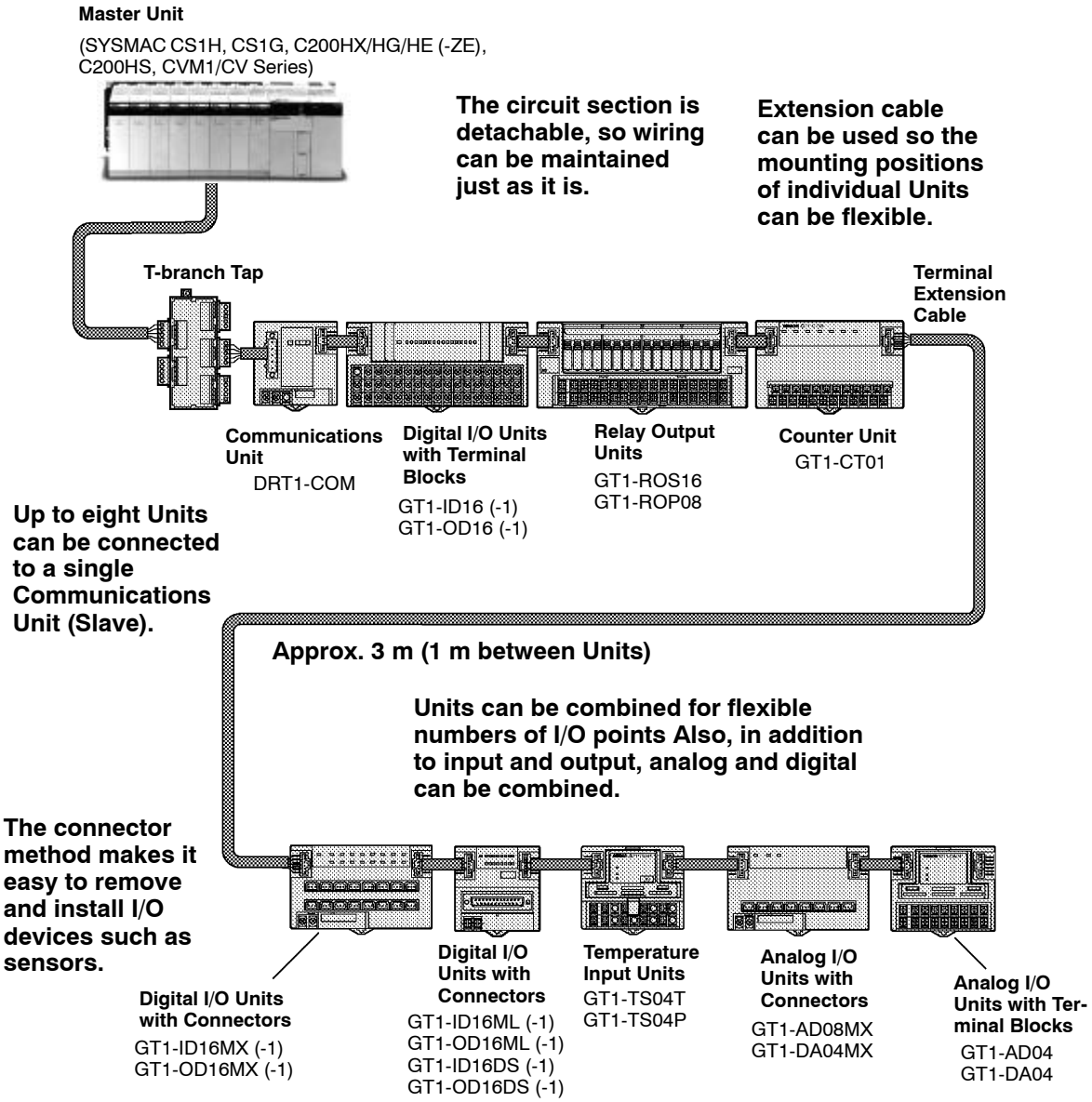
Product	Appearance	Model	Specifications	Standards
Shielded Terminating Resistor		DR2S-1	Plug model	---
		DR2S-2	Socket model	
Shielded Connector Cable			Cable with connectors at both ends	---
		DCA1-5CNC5W1	0.5 m cable	
		DCA1-5CN01W1	1 m cable	
		DCA1-5CN02W1	2 m cable	
		DCA1-5CN03W1	3 m cable	
		DCA1-5CN05W1	5 m cable	
		DCA1-5CN10W1	10 m cable	
			Cable with female connector only	---
		DCA1-5CNC5F1	0.5 m cable	
		DCA1-5CN01F1	1 m cable	
		DCA1-5CN02F1	2 m cable	
		DCA1-5CN03F1	3 m cable	
		DCA1-5CN05F1	5 m cable	
		DCA1-5CN10F1	10 m cable	
			Cable with male connector only	---
		DCA1-5CNC5H1	0.5 m cable	
		DCA1-5CN01H1	1 m cable	
		DCA1-5CN02H1	2 m cable	
		DCA1-5CN03H1	3 m cable	
		DCA1-5CN05H1	5 m cable	
		DCA1-5CN10H1	10 m cable	

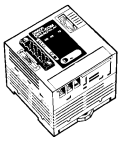
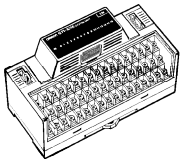
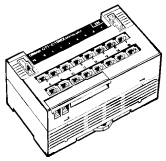
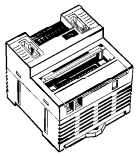
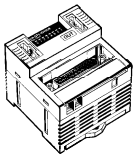
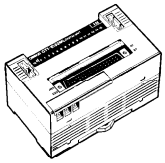
■ MULTIPLE I/O TERMINAL

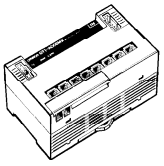
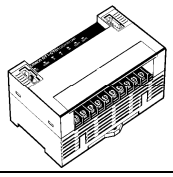
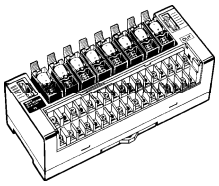
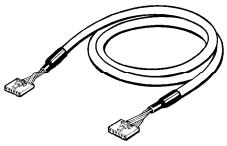
A MULTIPLE I/O TERMINAL with a flexible combination of numerous versatile I/O Units handles digital I/O, analog I/O, counter inputs, or relay outputs and boosts on-site productivity higher than ever. Using a MULTIPLE I/O TERMINAL, one Slave (Communications Unit) can connect to a maximum of eight I/O Units to achieve control of a maximum of 1,024 I/O points.

Note: 1. Using the DeviceNet Configurator (purchased separately) enables up to 4,800 points to be used with CS1G, CS1H, or C200HX/HG/HE (-ZE) Master and up to 6,400 points with a CVM1/CV-series Master.
2. The number of I/O points under control may be restricted by the application. Refer to the *DeviceNet MULTIPLE I/O TERMINAL Operation Manual (W348)* for details.

MULTIPLE I/O TERMINAL Configuration Example



MULTIPLE I/O MODULES		DRT1-COM	Communications Module	U, C, CE
		GT1-ID16	Digital Input Module for NPN, positive common terminal block model	U, C, CE
		GT1-ID16-1	Digital Input Module for PNP, negative common terminal block model	
		GT1-OD16	Digital Output Module for NPN, positive common terminal block model	
		GT1-OD16-1	Digital Output Module for PNP, negative common terminal block model	
		GT1-ID16MX	Digital Input Module for NPN, positive common connector model	
		GT1-ID16MX-1	Digital Input Module for PNP, negative common connector model	
		GT1-OD16MX	Digital Output Module for NPN, positive common connector model	
		GT1-OD16MX-1	Digital Output Module for PNP, negative common connector model	
		GT1-ID16ML	Digital Input Module for NPN, positive common connector model	CE
		GT1-ID16ML-1	Digital Input Module for PNP, negative common connector model	
		GT1-OD16ML	Digital Output Module for NPN, positive common connector model	
		GT1-OD16ML-1	Digital Output Module for PNP, negative common connector model	
		GT1-ID16DS	Digital Input Module for NPN, positive common high-density connector model	
		GT1-ID16DS-1	Digital Input Module for PNP, negative common high-density connector model	
		GT1-OD16DS	Digital Output Module for NPN, positive common high-density connector model	
		GT1-OD16DS-1	Digital Output Module for PNP, positive common high-density connector model	
		GT1-ID32ML	Digital Input Module for NPN, positive common high-density connector model	U, C, CE
		GT1-ID32ML-1	Digital Input Module for PNP, positive common high-density connector model	
		GT1-OD32ML	Digital Output Module for NPN, positive common high-density connector model	
		GT1-OD32ML-1	Digital Output Module for PNP, positive common high-density connector model	

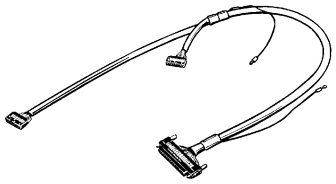
MULTIPLE I/O MODULES		GT1-AD08MX	Analog Input Module with 8 points	U, C, CE
		GT1-AD04	Analog Input Module with 4 points	
		GT1-DA04MX	Analog Output Module with 4 points	
		GT1-DA04		
		GT1-CT01	Counter Module with 1 input and 2 outputs	CE
		GT1-ROP08	Relay Output Module with 8 points	U, C, CE
		GT1-ROS16	Relay Output Module with 16 points	CE
		GCN1-100	I/O Module Cable	---
		GCNI-004A	Bag of 10 communications connectors for multiple I/O modules	---

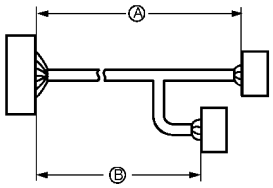
Note: 1. The abbreviations of standards correspond as follows: U = UL; C = CSA; CE = EC.

2. OMRON devices that comply with EC Directives also conform to the related EMC standards so that they can be more easily built into other devices or the overall machine. The actual products have been checked for conformity to EMC standards. Whether the products conform to the standards in the system used by the customer, however, must be checked by the customer. EMC-related performance of the OMRON devices that comply with EC Directives will vary depending on the configuration, wiring, and other conditions of the equipment or control panel on which the OMRON devices are installed. The customer must, therefore, perform the final check to confirm that devices and the overall machine conform to EMC standards.

■ Cable with Connectors/G79-□C*

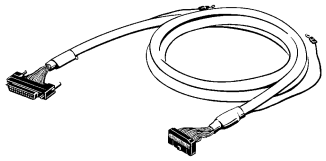
Size (mm)		Input	Output
A	B	Model	
1,000	750	G79-I100C-75	G79-O100C-75
1,500	1,250	G79-I150C-125	G79-O150C-125
2,000	1,750	G79-I200C-175	G79-O200C-175
3,000	2,750	G79-I300C-275	G79-O300C-275
5,000	4,750	G79-I500C-475	G79-O500C-475



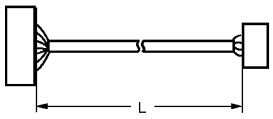


Length (without any bending)

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



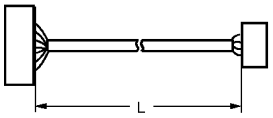
Cable length L (mm)



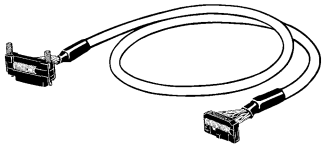
■ Cable with Connectors/XW2Z*

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

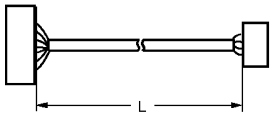
Cable length L (mm)



Cable length L (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



Cable length L (mm)



***** Use these cables with connectors to connect DeviceNet modules with “ML” designation to relay terminals or wiring terminals, e.g., G7TC, G70A, XW2B.

■ Model Number Legend

DRT1-□□□□□

1 2 3 4 5

1. I/O Module Replacement

None: Impossible

2. I/O Specifications

I: Input
O: Output
H: 2 inputs (with self-diagnostic output)
N: Input and output (with remote teaching)
AD: Analog input
DA: Analog output
TS: Temperature sensor input

3. I/O Voltage Specifications

D: DC
None: Analog I/O

4. I/O Points

08: 8 points
16: 16 points

5. I/O Connection Method

None: Screw terminals
S: Connector
X: Flat cable connector
T: Thermocouple input
P: Platinum resistance thermometer input

DIP Switch Settings vs. Node Addresses

The following indicate DIP switch settings for corresponding node addresses. The name or pin orientation of the DIP switch of the Slave Unit may vary with the Slave Unit model. Each pin, however, corresponds to a binary digit.

■ DIP SWITCH SETTINGS AND CORRESPONDING NODE ADDRESSES

Node address	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Node address	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
	1	2	4	8	16	32		1	2	4	8	16	32
#0	0	0	0	0	0	0	#32	0	0	0	0	0	1
#1	1	0	0	0	0	0	#33	1	0	0	0	0	1
#2	0	1	0	0	0	0	#34	0	1	0	0	0	1
#3	1	1	0	0	0	0	#35	1	1	0	0	0	1
#4	0	0	1	0	0	0	#36	0	0	1	0	0	1
#5	1	0	1	0	0	0	#37	1	0	1	0	0	1
#6	0	1	1	0	0	0	#38	0	1	1	0	0	1
#7	1	1	1	0	0	0	#39	1	1	1	0	0	1
#8	0	0	0	1	0	0	#40	0	0	0	1	0	1
#9	1	0	0	1	0	0	#41	1	0	0	1	0	1
#10	0	1	0	1	0	0	#42	0	1	0	1	0	1
#11	1	1	0	1	0	0	#43	1	1	0	1	0	1
#12	0	0	1	1	0	0	#44	0	0	1	1	0	1
#13	1	0	1	1	0	0	#45	1	0	1	1	0	1
#14	0	1	1	1	0	0	#46	0	1	1	1	0	1
#15	1	1	1	1	0	0	#47	1	1	1	1	0	1
#16	0	0	0	0	1	0	#48	0	0	0	0	1	1
#17	1	0	0	0	1	0	#49	1	0	0	0	1	1
#18	0	1	0	0	1	0	#50	0	1	0	0	1	1
#19	1	1	0	0	1	0	#51	1	1	0	0	1	1
#20	0	0	1	0	1	0	#52	0	0	1	0	1	1
#21	1	0	1	0	1	0	#53	1	0	1	0	1	1
#22	0	1	1	0	1	0	#54	0	1	1	0	1	1
#23	1	1	1	0	1	0	#55	1	1	1	0	1	1
#24	0	0	0	1	1	0	#56	0	0	0	1	1	1
#25	1	0	0	1	1	0	#57	1	0	0	1	1	1
#26	0	1	0	1	1	0	#58	0	1	0	1	1	1
#27	1	1	0	1	1	0	#59	1	1	0	1	1	1
#28	0	0	1	1	1	0	#60	0	0	1	1	1	1
#29	1	0	1	1	1	0	#61	1	0	1	1	1	1
#30	0	1	1	1	1	0	#62	0	1	1	1	1	1
#31	1	1	1	1	1	0	#63	1	1	1	1	1	1

Note: Node addresses are all factory-set to #0.

DeviceNet™

Advanced DeviceNet Technology Makes It Possible to Manufacture Highly-functional, Inexpensive and Unique Products Compatible with Products of Different Manufacturers

■ CAN PROTOCOL (ISO 11898, PART A)

OMRON uses the CAN (Control Area Network) protocol for physical and data link layers, thus making it possible to construct inexpensive, high-performance, reliable networks that resist noise. Inexpensive mass-produced communications chips can be supplied from a variety of manufacturers. With the CSMA/NMB (Carrier Sense Multiple Access with Non-destructive Bitwise Arbitration) method, the 100% efficiency of the networks can be assured. Each packet can be placed in priority order, which ensures real-time control data transmission within a certain period while device setting data is transmitted in the same network.

■ OBJECT ORIENTED

The application layer has the standardized device profile, thus ensuring multi-vendor compatibility. This application layer makes it to construct flexible networks that can use the unique data transmission functions of a variety of manufacturers.

■ SUMMARY OF COMMUNICATIONS SPECIFICATIONS

- Max. number of nodes: 64
- Max. cable length: 500 m for 125,000 bps, 250 m for 250,000 bps, and 100 m for 500,000 bps.
- The trunk or drop-line connection and daisy chain can be used together, which makes it possible to wire cables with ease.
- There is no minimum distance for drop lines or between taps. The maximum length of a drop line is 6 m.
- All devices, tap connectors, and cables are standardized and maintained with ease.

Note: The device profile consists of specifications for the operation of devices.

ODVA is Making Efforts to Popularize DeviceNet

The ODVA (Open DeviceNet Vendor Association, Inc.), which was established as a non-profit organization by machine manufacturers, has been mainly controlling the specifications and promotion of the DeviceNet.

■ TECHNOLOGY DEVELOPMENT

The ODVA's SIGs (Special Internet Groups) unify new device profiles, develop new media, and control the specifications of the DeviceNet according to the type of machine or theme.

■ SUPPORT

The ODVA provides machine manufacturers with specification sheets and vendor IDs for the development of machines. Also, the ODVA provides machine users with information through the Internet and catalogs of products conforming to the DeviceNet specifications for easy reference.

■ PROMOTION

The ODVA takes part in exhibitions all over the world to promote the DeviceNet and the products of ODVA members that conform to the DeviceNet specifications.

Open DeviceNet Vendor Association, Inc.
8222 Wiles Rd – Suite 287
Coral Springs, FL 33067
Phone: (1) 305-340-5412
Fax: (1) 305-340-5413
Internet Address: http://www.odva.org

NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

OMRON®

OMRON ELECTRONICS, INC.
One East Commerce Drive
Schaumburg, IL 60173
1-800-55-OMRON

OMRON CANADA, INC.
885 Milner Avenue
Scarborough, Ontario M1B 5V8
416-286-6465

Cat. No. P10FAX1A 6/00 Specifications subject to change without notice. Printed in U.S.A.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP