

DeviceNet Communications Unit

GRT1-DRT**DeviceNet-compliant Interface Unit with up to 1,024 I/O Points at One Node**

- Connect up to 64 SmartSlice I/O Units.
- Consolidate a large capacity of I/O points into one Slave (up to 1,024 I/O points).
- Save space by configuring different I/O types using one Slave Unit.
- Easily get the system started simply by setting the node addresses.
- Replace SmartSlice I/O Units online while maintaining communications. This helps minimize equipment downtime.
- Smart functions for monitoring equipment operating status. This helps improve preventive maintenance and the utilization rate.
- Registering SmartSlice I/O for planned future expansion decreases design work when changes are made. (Supported for unit version 2.0 or higher.)

**Ordering Information**

Name	Specifications	Model
DeviceNet Communications Unit	Up to 64 Slice I/O Units can be connected. (1,024 I/O points max.)	GRT1-DRT

General Specifications

Item	Model	GRT1-DRT
Network power supply voltage		11 to 25 V DC (Supplied from the communications connector)
Unit power supply voltage		20.4 to 26.4 VDC (24 VDC -15%/+10%)
I/O power supply voltage		20.4 to 26.4 VDC * (24 V +10%/-15%)
Noise immunity		Conforms to IEC 61000-4-4, 2 kV (power line)
Vibration resistance		10 to 60 Hz, 0.7-mm double amplitude 60 to 150 Hz: 50 m/s ²
Shock resistance		150 m/s ²
Dielectric strength		500 V AC between isolated circuits
Insulation resistance		20 MΩ min. between isolated circuits
Ambient operating temperature		-10°C to 55°C (with no icing or condensation)
Ambient operating humidity		25% to 85%
Ambient operating atmosphere		No corrosive gases
Ambient storage temperature		-25°C to 65°C (with no icing or condensation)
Mounting method		DIN 35 mm-track mounting

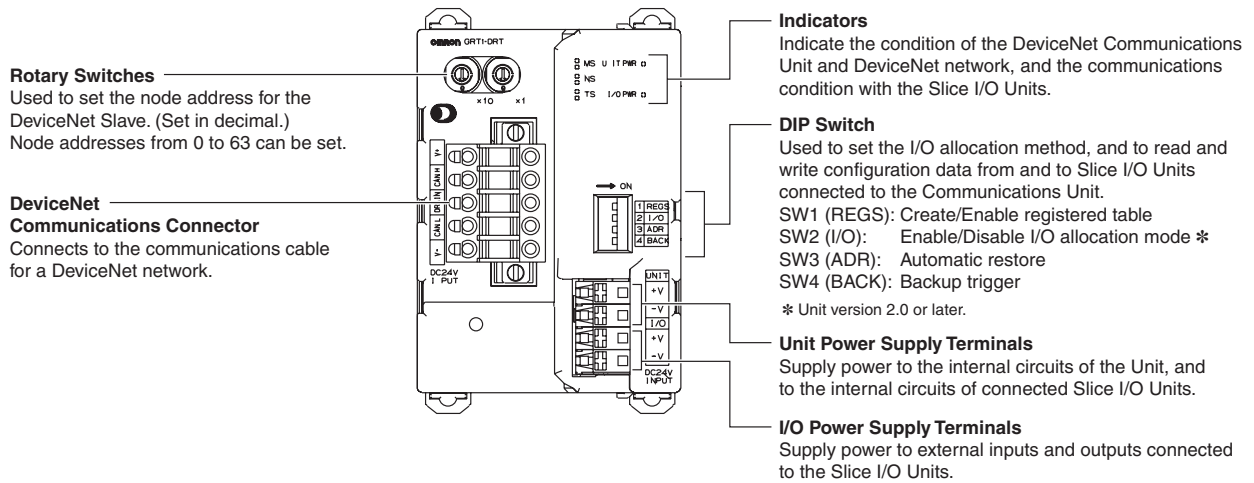
* For power supply input to the Slice I/O Units.

DeviceNet Communications Unit Specifications

Item	Model	GRT1-DRT
I/O points		1,024 max. (128 bytes), including inputs and outputs
Connectable Slice I/O Units		64 max.
Communications with Slice I/O Units		64 Units max. in a horizontal connection configuration (for an extension of approx. 2 m max.) Power consumption is limited to 80 W per block, and the extension must be done using Turnback Cables (two 1-m cables max., for a distance of 2 m max.)
Slice I/O Unit data capacity		(1) 0, 2, or 4 bits (2) 0 to 16 words (in word increments)
Status flags		One word is allocated (Communications Unit Status Flags)
Parameter back-up and restore functions		2 KB of data can be backed up and restored per Unit
Message communications function		Supported
Automatic baud rate detection		Supported
Connector		1 DeviceNet open connector with screws Connectable with multi-drop connector
Terminals		2 terminals for I/O power supply, 2 terminals for Unit power supply
Power supply per 1 block		80 W max. (Unit power supply)
I/O power supply consumption current		4 A max.
Weight		137 g

Nomenclature and Functions

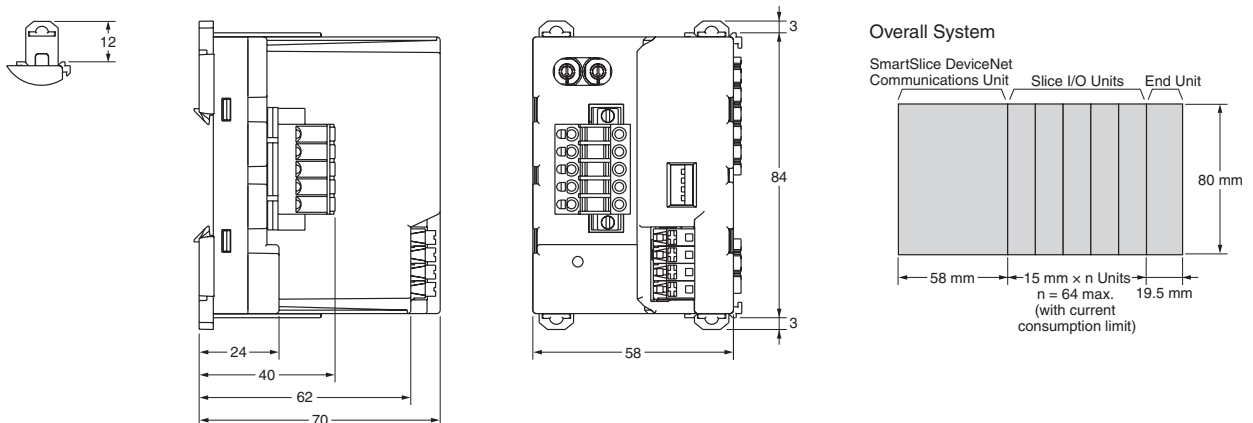
GRT1-DRT



Dimensions

(Unit: mm)

GRT1-DRT



Ordering Information

Name		Appearance	Specifications	Model
DeviceNet Communications Unit			Up to 64 SmartSlice I/O Units can be connected (1,024 I/O points).	GRT1-DRT
SmartSlice I/O Units	Digital I/O Units		4 inputs, NPN	GRT1-ID4
			4 inputs, PNP	GRT1-ID4-1
			4 outputs, NPN	GRT1-OD4
			4 outputs, PNP	GRT1-OD4-1
			8 inputs, NPN	GRT1-ID8
			8 inputs, PNP	GRT1-ID8-1
			8 outputs, NPN	GRT1-OD8
			8 outputs, PNP	GRT1-OD8-1
			2 relay outputs	GRT1-ROS2
			4 AC inputs	GRT1-IA4-1 GRT1-IA4-2
	Analog I/O Units		2 inputs (current or voltage)	GRT1-AD2
			2 outputs (current)	GRT1-DA2C
			2 outputs (voltage)	GRT1-DA2V
	Temperature Input Unit (resistance thermometer)		2 temperature inputs (Pt100 resistance thermometer)	GRT1-TS2P
2 temperature inputs (Pt1000 resistance thermometer)			GRT1-TS2PK	
2 thermocouple inputs			GRT1-TS2T	
Counter Units		1 counter input, 1 external output, NPN	GRT1-CT1	
		1 counter input, 1 external output, PNP	GRT1-CT1-1	
System Units	Turnback Units		For right-side turnback (Used to divide a SmartSlice I/O Terminal into blocks)	GRT1-TBR
			For left-side turnback (Used to divide a SmartSlice I/O Terminal into blocks)	GRT1-TBL
	Turnback Cable	--	Length: 1 m	GCN2-100
	I/O Power Feed Unit		Used if the total current consumption of the I/O Power Supply exceeds 4 A or to use a separate I/O power supply.	GRT1-PD2
				GRT1-PD2G
Used to add V and G terminals for the I/O power supply.			GRT1-PD8	
			GRT1-PD8-1	
End Unit *1		Required at the end of SmartSlice I/O Terminals.	GRT1-END	
Option	Terminal blocks	--	Terminal blocks (5 blocks)	GRT1-BT1-5

*1. The End Unit is sold separately. (End Units are not included with Communications Units.)

*2. Use the GCN2-100 as a set with the GRT1-TBR and GRT1-TBL.

For details, refer to the following catalogs and user manuals.
SmartSlice GRT1-series Catalog (Cat. No. R139)
GRT1-DRT SmartSlice DeviceNet Communications Unit User's Manual (Cat. No. W454)
GRT1-series SmartSlice I/O Unit User's Manual (Cat. No. W455)

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 LIABILITY.

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.

2009.8

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

OMRON Corporation
Industrial Automation Company

<http://www.ia.omron.com/>

(c)Copyright OMRON Corporation 2009 All Right Reserved.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Omron:

[GRT1-CRT](#) [GRT1-PNT](#) [GRT1-ML2](#) [GRT1-ID8](#) [GRT1-ID8-1](#) [GRT1-OD8-1](#) [GRT1-OD8G-1](#) [GRT1-CT1](#) [GRT1-CT1-1](#) [GRT1-CP1-L](#) [GRT1-AD2](#) [GRT1-DA2V](#) [GRT1-DA2C](#) [GRT1-TS2P](#) [GRT1-TS2PK](#) [GRT1-TS2T](#) [GRT1-PD2](#) [GRT1-PD8](#) [GRT1-PD8-1](#) [GRT1-PC8-1](#)

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9