

Repeater Unit

CRS1-RPT01

Simple and Intelligent Repeater Units Extend the Network

Repeater Units can make CompoNet Networks easier to wire, and extend cable length.

When Repeater Units are connected in series from the Master Unit, up to two extra segment layers can be created (i.e., up to 2 Repeater Units are allowed between a Slave Unit and the Master Unit).

- Expand the network to up to 1,500 m using two segment layers of Repeater Units (baud rate: 93.75 kbps).
- Avoid total system breakdown caused by errors in lower-level Units.
- Repeater Units allow a different cable types to be used in the same network.
- Implement various network layouts by branching lines or extending the trunk line.
- Display a network configuration list or identify error locations by using the setting and monitoring software for CompoNet.
- Monitor the power supply for the entire network with communications power supply monitoring function.



Ordering Information

Name	Specifications	Model
Repeater Unit	A sub-trunk line can be connected downstream (for trunk-branch line configuration) or further branching is enabled downstream (for configurations with no wiring restrictions) in the same way as for a Master Unit. A Repeater Unit can be used to branch the trunk line and increase the number of connected Units, as well as to extend the length of the communications line.	CRS1-RPT01 *

* These Units are also available with a DCN-TB4 Terminal Conversion Adapter included in the package. Add "(-B)" to the end of the model number to receive the Adapter as well.

Specifications

Item	Specification
Model	CRS1-RPT01
Communications ports	Upstream port (port 1): Trunk line or sub-trunk line Downstream port (port 2): Sub-trunk line (Can be wired with the same communications specifications as the Master Unit.) Different types of communications cable can be connected to the upstream and downstream ports.
Maximum number of layers	Up to two extra segment layers can be created from the Master Unit.
Number of nodes per network (per Master Unit)	64 nodes
Number of nodes per trunk line or sub-trunk line	32 nodes (Including Slave Units)
Communications power supply connector	One downstream communications port power supply connector Note: Communications power for the Repeater Unit is supplied from the BS+ and BS- terminals on the upstream port communications connector (PORT1).
Communications power supply connector allowable current capacity	5 A max.
Noise immunity	Conforms to IEC 61000-4-4 2 kV (power line).
Vibration resistance	10 to 150 Hz with double-amplitude of 0.7 mm or 50 m/s ²
Shock resistance	150 m/s ²
Dielectric strength	500 VAC (between isolated circuits)
Insulation resistance	20 MΩ min. (between isolated circuits)
Ambient operating temperature	-10 to 55°C
Ambient operating humidity	25% to 85% (with no condensation)
Ambient operating atmosphere	No corrosive gases
Storage temperature	-25 to 65°C
Storage humidity	25% to 85% (with no condensation)
Installation	DIN Track or M4 screws
Weight	73 g
Communications power supply voltage	14 to 26.4 VDC
Communications power supply current consumption	95 mA max.

● Slave Port Communications Power Supply Connector

This connector supplies communications power to Slave Units and Repeater Units connected to the Slave port communications connector (port 2).

BS+	Communications power supply +
BS-	Communications power supply -

Note: Communications power for the Repeater Unit is supplied from the BS+ and BS- terminals on the upstream port communications connector (port 1).

Recommended Ferrules

The following ferrules are recommended for the communications power supply cable.

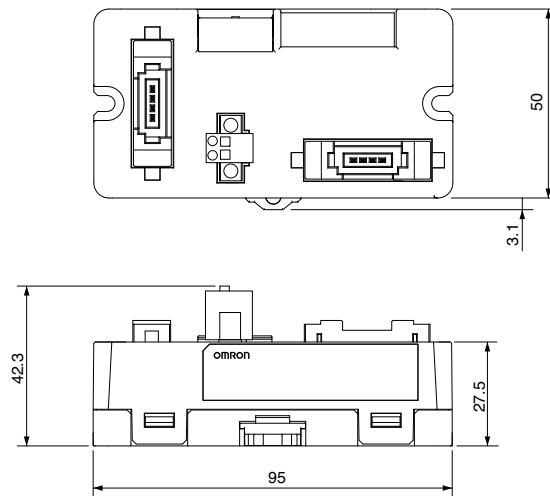
Product number	Applicable power cable size	Crimping tool	Manufacturer
A10,5-10 WH	0.5 mm (AWG20)	CRIMPFOX UD6 (Product No. 1204436) or CRIMPFOX ZA3 series	Phoenix Contact K.K.
H0.5/16 orange	0.5 mm (AWG20)	Crimper PZ1.5 (Product No. 900599)	Weidmueller Japan Co.,Ltd.

The following screwdriver is recommended for use when removing ferrules.

Product number	Manufacturer
XW4Z-00C	OMRON Corporation

Dimensions

(Unit: mm)

CRS1-RPT01

Read and Understand This Catalog

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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.

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