

# Intelligent Power Control Device

For CC-Link

# CC-SSR4

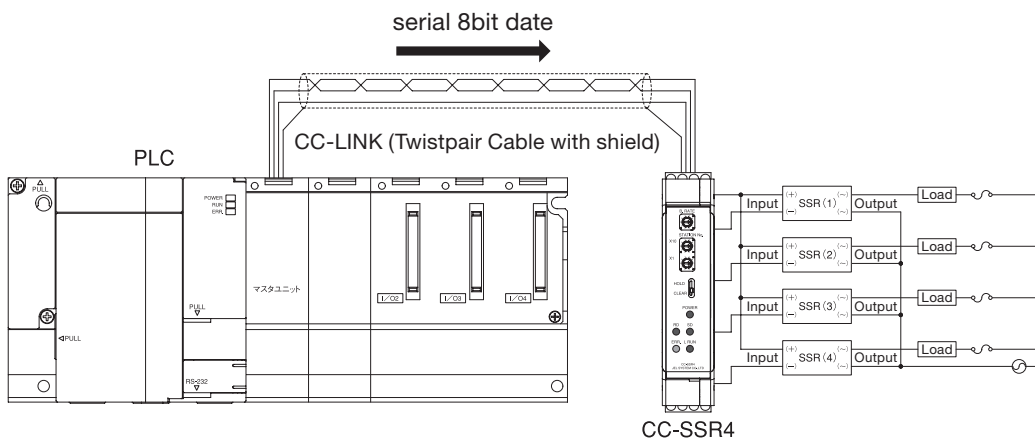


## Overview

CC-SSR4 are in the system configuration centering on the PLC (programmable logic controller) that is central to a variety of applications in the industrial field of machinery and production equipment, it is a SSR controller for power adjustment compatible with the field network.

## Features

- One controller controls up to 4 SSR.
- The optimum control theory in SSR by the serial data from PLC is achieved by using CC-Link
- The selection of SSR according to usage is enabled and space-saving and a low cost are achieved compared with a past power regulation unit.



※ Description in the catalogue is subject to change without notice. Please read the specifications thoroughly before using.  
 ※ Please contact JEL SYSTEM for further information.

## Specifications

Item	Property Value	Remarks
Channel Type	remote I/O channel	
Number of Occupation Channel	1 bureaux	SSR1-4 (Open collector output)
Power-Supply Voltage	24V±10%	
SSR Driving Voltage	30V and below	SSR1-4 (Open collector output)
SSR Drive Current	100mA and below (Hit by one output)	SSR1-4 (Open collector output)
Voltage SSR Drive Terminal Descent When It Is On	DC1V and below (at 100mA)	
When It Is off, It Is SSR Drive Terminal Leakage of Current	DC 0.1mA and below (at 30VDC)	
Range of Electric Power Adjustment	0~100%	SSR1-4 (Open collector output)
Range of Exchange Voltage Input	AC85~264Vrms	Between AC1-AC2
Load Voltage Frequency Range	50Hz	50/60Hz (Auto-change)
	60Hz	
Operating Temperature Range	0~60°C	
Operating Humidity Range	35~85%RH (No-condensation)	
Isolation Resistance	100MΩ and above	
Dielectric Strength	AC 2500Vrms	
Weight	Approx 150g	

### ● Communication Specifications

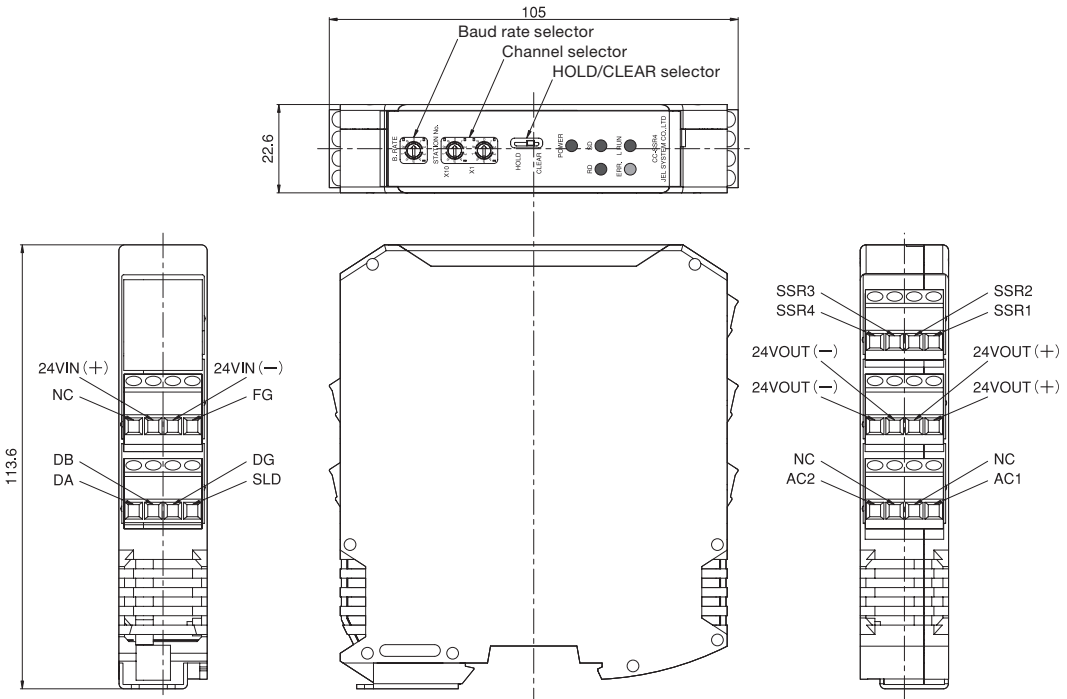
Transmission Rate	10M/5M/2.5M/625K/156K
Communication Method	Broadcast polling method
Synchro System	Frame synchronous communication
Encoding Method	NRZI
Transmission Line Form	Bus form (conforming EIA RS485)
Transmission Format	conforming HDLC
Error Control Method	CRC ( $X^{16} + X^{12} + X^5 + 1$ )

※ Please refer to the Mitsubishi Electric Corporation's catalog and instruction manual for further CC-Link details.

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■ Dimensions and Part Names



■ Terminal names

Symbols	Terminal names
24VIN(+)	Input Power Supply Terminal(+)
24VIN(-)	Input Power Supply Terminal(-)
DA	Serial Data Terminal
DB	Serial Data Terminal
DG	Serial Data Ground Terminal
SLD	Shield Connection Terminal
FG	Frame Ground (connected to SLD internally)

Symbols	Terminal names
SSR1	SSR Control Terminal (1)
SSR2	SSR Control Terminal (2)
SSR3	SSR Control Terminal (3)
SSR4	SSR Control Terminal (4)
24VOUT(+)	Output Terminal(+)
24VOUT(-)	Output Terminal(-)
AC1	AC Power Supply Input Terminal
AC2	AC Power Supply Input Terminal

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## ● Indications and Settings

### LED Indications

Indications	Contents
<b>POWER</b>	Lights by Power ON
<b>L RUN</b>	Lights on receiving Data without error from Master Unit
<b>SD</b>	Lights on sending Data
<b>RD</b>	Lights on receiving Data
<b>ERR.</b>	Lights by communication error, lights off by time over, and lights by channel select error or baud rate select error

### Channel selector

Settings	Contents
<b>X10</b>	Tens place digit of channel
<b>X1</b>	One place digit of channel

- ※ "ERR" lights on setting 00 or over 64.
- ※ Overlap channel setting is impossible.

### HOLD/CLEAR selector

Settings	Contents
<b>HOLD</b>	To hold Output when occurring error.
<b>CLEAR</b>	To reset Output when occurring error.

### Baud rate selector

Settings	Baud rate
<b>0</b>	156 Kbps
<b>1</b>	625 Kbps
<b>2</b>	2.5 Mbps
<b>3</b>	5 Mbps
<b>4</b>	10 Mbps

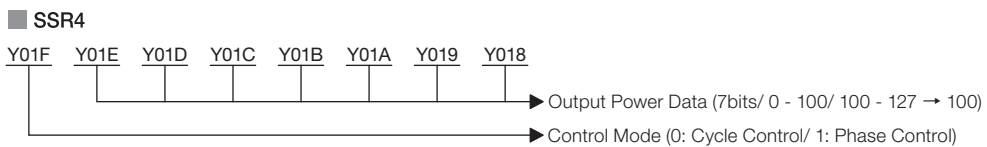
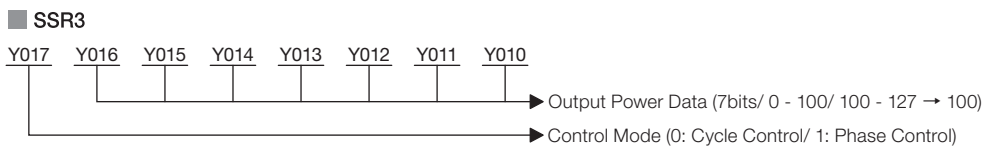
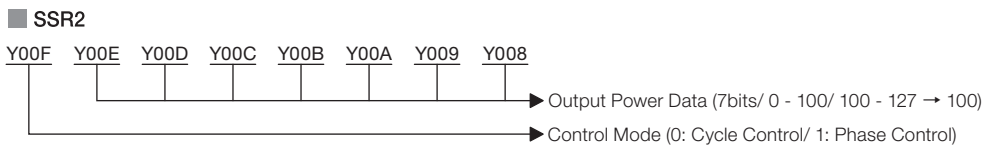
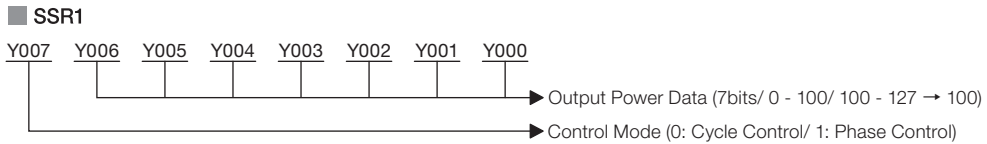
- ※ "ERR" lights on setting the value except above.

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● Control Method

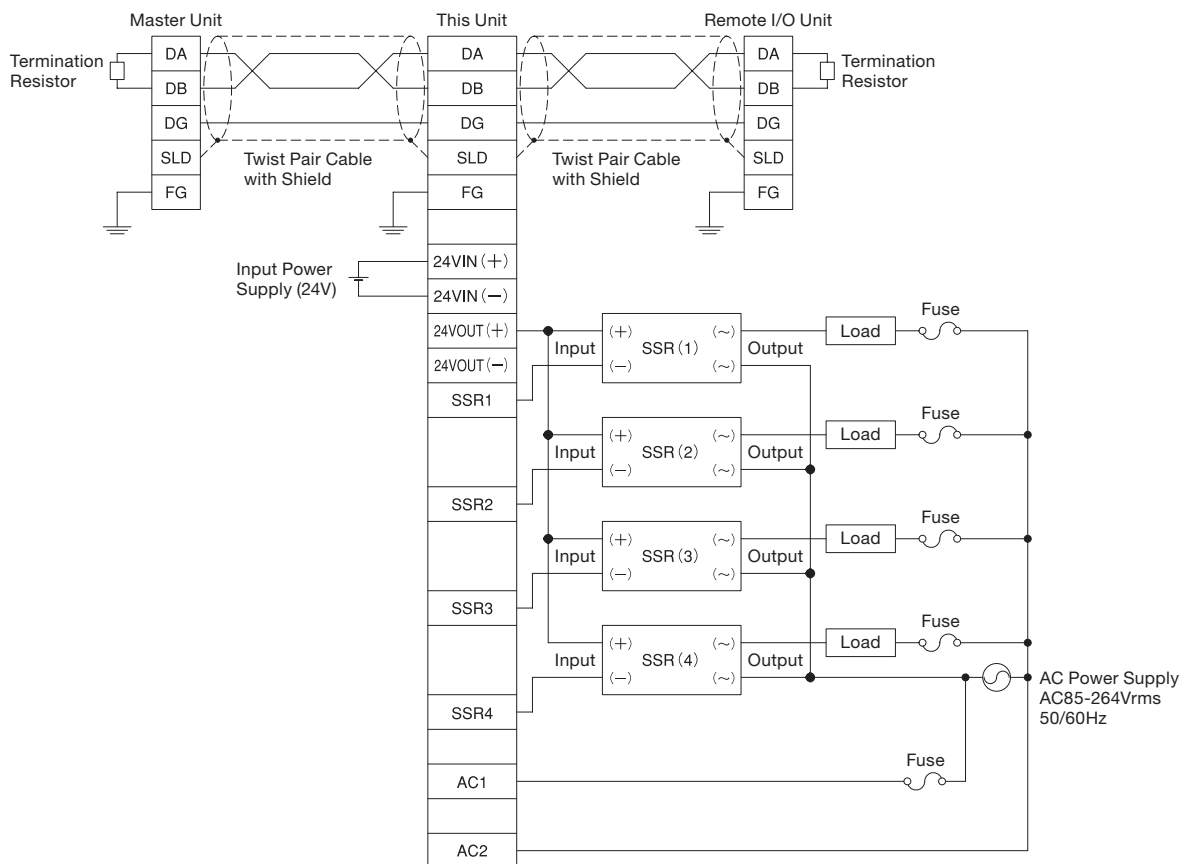
In case that Remote Output Device, this unit, is set to “Y000 - Y11F” 32 outputs.  
 (It means this unit is set to 01 channel.)

Each 8bits of Remote Output Device, 32 outputs, are set to 4 SSRs.  
 Control Mode is set by upper side bit of 8 bits data of each SSR.  
 Output power, 0 - 100 %, is set by other 7 bits.  
 Output power is limited to 100% even if it is set over 100%.



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## ■ Connection



- 1) Use cables recommended by Mitsubishi Electric Co., Ltd.
- 2) Connect Termination Resistor to between DA and DB of each terminal block of Master Unit and the end of Remote I/O.
- 3) As for connection of Serial Communication Line, see the catalog or the instruction manual of Mitsubishi Electric Co., Ltd.
- 4) As for selection of Fuse, refer to Specifications of SSR for use.
- 5) In case of using DC 24 V of this unit, use it by considering of voltage drop of this unit and wirings and by checking input voltage range of SSR.
- 6) In case of use of SSR except input voltage 24 V, prepare other power supply to drive those SSRs.
- 7) SSR: Solid State Relay (Random Access Type)
- 8) Recommended Tightening Torque: 0.5 N·m - 0.6 N·m
- 9) Recommended Wire Size, Single wire: 0.2 - 4 m<sup>2</sup>/ Twisted wire 0.2 - 2.5 m<sup>2</sup> (AWG 24 - 12)

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