



DENKI SEIGYO

DSRC SERIES



Industrial Relay Card Modules

1. PRODUCT OVERVIEW

The **Denki Seigyo DSRC Series Relay Card Modules** are industrial-grade relay interface boards designed for reliable signal isolation and load switching between PLCs, controllers, and field devices.

Available in **4-channel, 8-channel, and 16-channel configurations**, the DSRC Series provides flexible solutions for machine automation, industrial control panels, process automation, building management systems, and power switching applications.

Featuring **optocoupler isolation, LED status indication, industrial-grade relays, and protective transparent covers**, the DSRC Series ensures safe and dependable operation in demanding industrial environments.

2. KEY FEATURES

- ✓ 4, 8, and 16 channel relay configurations
- ✓ 24VDC PLC compatible control input
- ✓ SPDT relay outputs
- ✓ Optocoupler isolation
- ✓ LED indication for each relay channel
- ✓ Screw terminal wiring
- ✓ Transparent safety cover



- ✓ High switching capacity
- ✓ Built-in surge suppression
- ✓ Reverse polarity protection
- ✓ DIN rail and panel mounting
- ✓ Industrial-grade PCB design
- ✓ Maintenance-friendly construction

3. PRODUCT SERIES

Model	Channels	Application
DSRC4-G5NB/DC24	4 Channel	Small Automation Panels
DSRC8-G5NB/DC24	8 Channel	Medium PLC Systems
DSRC16-G5NB/DC24	16 Channel	Large Automation Systems

4. MODEL STRUCTURE

Example:

DSRC8-G5NB/DC24

Code	Description
DS	Denki Seigyo
RC	Relay Card
8	8 Channels
G5NB	Relay Type
DC24	24VDC Control Voltage



5. TECHNICAL SPECIFICATIONS

General Specifications

Parameter	Specification
Series	DSRC
Type	Relay Card Module
Relay Configuration	SPDT (1C)
Available Channels	4 / 8 / 16
Control Voltage	24VDC

Electrical Specifications

Parameter	Specification
Input Voltage	24VDC
Relay Type	SPDT (1C)
Contact Rating	10A @ 250VAC / 30VDC
Coil Power	Approx. 0.9W per Channel
Input Type	DC Logic (Sink Input)
Isolation	Optocoupler (Galvanic Isolation)
Response Time	ON ≤ 10 ms / OFF ≤ 5 ms
LED Indicator	Yes (Per Channel)

Protection Features

Parameter	Specification
Reverse Polarity Protection	Yes
Flyback Diode Protection	Yes
Surge Suppression	Yes
Electrical Isolation	Optocoupler

Mechanical Specifications

Parameter	Specification
Wiring Method	Screw Terminal
Terminal Pitch	5.08 mm
Mounting Method	DIN Rail / Panel Mount
Cover Type	Transparent Protective Cover
PCB Material	Industrial Grade FR4



Environmental Specifications

Parameter	Specification
Operating Temperature	-25°C to +70°C
Storage Temperature	-40°C to +85°C
Humidity	35 ~ 85% RH
Vibration Resistance	Industrial Grade
Protection Cover	Removable Transparent Cap

6. CHANNEL CONFIGURATION

DSRC4-G5NB/DC24

- 4 Independent Relay Outputs
- Compact Control Panels
- Machine Automation

DSRC8-G5NB/DC24

- 8 Independent Relay Outputs
- PLC Interface Systems
- Medium Automation Panels

DSRC16-G5NB/DC24

- 16 Independent Relay Outputs
- Large Industrial Systems
- Multi-I/O Control Applications

7. TERMINAL CONFIGURATION

Relay Output Contacts

Terminal	Function
COM	Common
NO	Normally Open
NC	Normally Closed



Input Side

Terminal	Function
V+	24VDC
IN1-IN16	Control Inputs
GND	Common Ground

8. WIRING DIAGRAM

Typical PLC Interface Connection

PLC

OUT1 ----- IN1
OUT2 ----- IN2
OUT3 ----- IN3
OUT4 ----- IN4

DSRC MODULE

+24V ----- V+
0V ----- GND

COM ----- LOAD
NO ----- LOAD OUTPUT
NC ----- OPTIONAL

9. LED INDICATION

LED Status	Description
OFF	Relay De-energized
ON	Relay Energized
Flashing	Input Signal Switching

10. APPLICATIONS

The DSRC Series is suitable for:

- PLC I/O Expansion
- Industrial Automation Systems
- Machine Control Panels
- Process Automation
- Building Automation Systems
- Lighting Control Systems
- Motor Control Circuits
- Relay Interface Applications
- Power Switching Systems



11. ORDERING INFORMATION

Model	Channels	Voltage	Relay Type	Contact Rating
DSRC4-G5NB/DC24	4	24VDC	SPDT	10A
DSRC8-G5NB/DC24	8	24VDC	SPDT	10A
DSRC16-G5NB/DC24	16	24VDC	SPDT	10A

12. INSTALLATION NOTES

- Verify control voltage before wiring.
- Ensure correct terminal connections.
- Use DIN rail or panel mounting.
- Do not exceed relay contact ratings.
- Tighten screw terminals securely.
- Replace protective cover after wiring.
- Keep module free from excessive dust and moisture.

13. PRODUCT SUMMARY

The **Denki Seigyo DSRC Series Relay Card Modules** provide:

- ✓ Reliable PLC interfacing
- ✓ High-current relay switching
- ✓ Optocoupler isolation protection
- ✓ LED channel indication
- ✓ Flexible 4, 8, and 16 channel options
- ✓ Industrial-grade reliability

Designed for industrial automation and control systems, the DSRC Series delivers safe, reliable, and efficient relay switching performance for modern automation panels and machinery.

DENKI SEIGYO

Innovation Meets Automation

Relays • Sensors • Controllers • Automation Components