connectwell
THE RIGHT CONNECTION

ELECTRONIC SOLUTIONS

PRODUCT CATALOGUE | 25-26

connectwell

INDEX

Making A Million Connections Everyday

A story of **billions** of electrical connections made over **4 decades**

From very humble beginnings to becoming one of the leading manufacturers of Terminal Blocks in the world, Connectwell is a dynamic organization focused on making the highest quality electro-mechanical and electronic products.

15+ international product certifications backed by the most stringent quality standards put our products through 40+ quality tests. This has ensured a ready acceptance of our products across 80+ countries and in thousands of projects and applications.

With world class manufacturing infrastructure and systems which are ISO certified, Connectwell today has become a synonym for

... The Right Connection

VISION

We will build a brand that puts people at the center of it's business.

For our employees we will create an environment which inspires them to achieve higher goals.

For our customers we will provide products which bring them the right value.

For the society at large we will create meaningful employment and will support those in need.

MISSION

Connectwell is dedicated to achieve customer satisfaction by, supplying the Right Product, at the Right Time and at the Right Cost.

connectwell TODAY

1 M+
Connections Made Everyday

45+ Yrs.
Delighting Customers

15+
Global Product Approvals

40+
Quality Tests

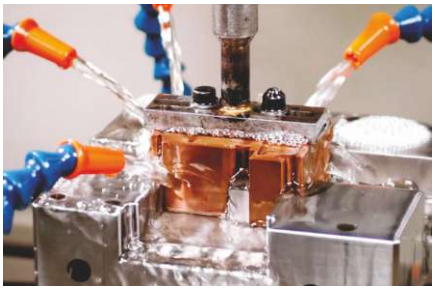
80+
Countries Serviced

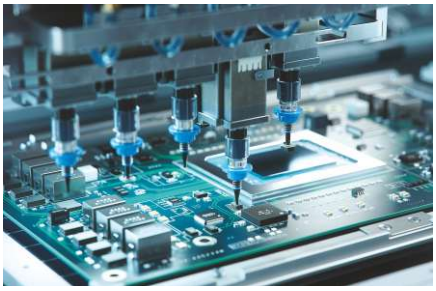
300+
Channel Partners

OUR STRENGTHS

From product conceptualization to realization, we are well equipped with the latest software and high precision machinery to meet the requirements of our customers. Some of these strengths are:

- Precision High Volume Plastic Moulding
- High Speed Sheet Metal Processing
- Precision Electronic Manufacturing
- High Volume Automated Assembly
- Electro-mechanical and Electronic Product Design
- Tool Design and Development
- Highly Automated Supply Chain Management





QUALITY
as a way of life

International Product Approvals
IEC, UL, CSA, VDE, CCC

Industry Specific Approvals
ATEX, IECEX, AEX, EAC, INMETRO

QMS System
ISO9001:2015

Environmental Consciousness
ISO14001:2015

Work Place Safety
ISO45001:2018

UL Accredited Laboratory
Enable rapid and consistent product testing

Enterprise Class Software
SAP, Dynamics, Team Center

Operational Excellence
TPM, Lean Six Sigma

SOLUTIONS
ACROSS INDUSTRIES

Our customers range from the largest to smallest enterprises across a variety of industries.

Here are some interesting case studies.

Power

Continuous Process

Machinery & Factory Automation

Building Infrastructure

READ MORE CASE STUDIES HERE

Railways

PRESENT
Where & When YOU NEED US

VIRTUAL
Product Configuration

Our Visual Solution Configurator allows you to create custom solutions for your needs in minutes.

<<< WIDE >>>
Network of Distributors

Our dealers across India and the world, ensure the availability of our products and mitigate any supply chain hindrances.

100+ Sales & Product Support Personnel

Our skilled Sales and Marketing Team, backed by Product Experts, is here to guide you to the right solution for your needs.

Present in 80+ Countries

No Matter where your business takes you, you will find Connectwell present to help you with products and solutions

Self Service Portal

Our Self Service Portal enables you with the correct information on the status of your orders and more.

HIGH PERFORMANCE MODULAR RELAYS

BUILT TO LAST

Industrial applications can be quite demanding when it comes to their needs for switching and protection. Connectwell CRM Series High Performance Relay Modules are designed and built for such challenging applications which require a long operational life and when failure is not a choice. The rugged design of the Relay Base along along with the superior electrical and mechanical performance of the Relays make these modules the right choice for the most demanding applications.

Superior Choice of
V0 GRADE
Flammability
Rating Housing

True Modular
Design with
IP 20 SAFETY Rating

PLUGGABLE
ELECTROMECANICAL
RELAYS

True Full
Contact Rating
CONTINUOUS OPERATION

Superior **AESTHETICS**
with consistent Profile
for 1 CO, 2CO
& 4CO Contacts

SUPERIOR RELAYS
with Increased
Operational life

MODULAR RELAYS

1 Change Over (Miniature)

- 1 Change over Relay
- 3.5 mm Pitch PCB Pin Connection
- 10 Ampere current - 250 VAC, 30 VDC
- High Mechanical and Electrical Life
- Compact Size
- Flame Retardant Shell
- Widely used manufacturing and control systems for PLC, CNC and automatic assembly lines
- Input universal polarity

cULus CE RoHS

TECHNICAL DATA

Mechanical Life	≥1000 x 10^4 cycles		
Electrical Life	≥10 x 10^4 cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤10 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1 min	Between poles: 1000 VAC / 1 min	Between contacts & coil: 5000 VAC / 1 min
Insulation Resistance	≥1000 MΩ (500 VDC)		
Operating Temperature	-40 to +65°C		
Air Pressure	86 to 106 KPa		
Shock Resistance	Stability 10 G, Destructiveness 100 G		
Vibration Resistance	10 to 55 Hz Double-amplitude: 1.5 mm		
Degree of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	1CO (SPDT)
Rated Switching Voltage	250 VAC / 30 VDC
Max Switching Capacity	2500 VA / 300 W
Max Switching Current	10 A
Min Switching Current	10 mA @ 17 V
Contact Resistance	≤50 mΩ
Contact Material	Ag Alloy

COIL SPECIFICATION

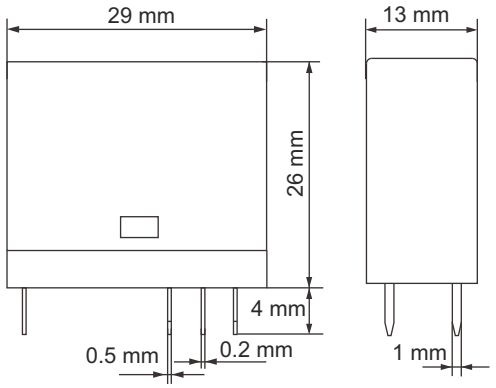
Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	26.4 VAC	126.5 VAC	253 VAC
Coil Resistance*	270 Ω	1100 Ω	4300 Ω	22800 Ω	240 Ω	6300 Ω	23000 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.53 W	0.53 W	0.53 W	0.53 W	1 VA	1 VA	1 VA

Note: *Coil resistance: Under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110 V with tolerance of ±15%Ω.

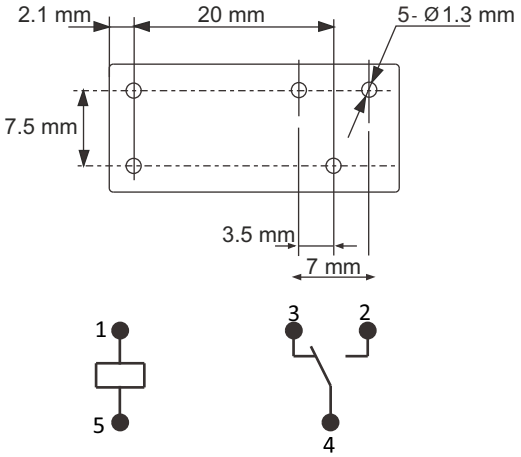
ORDERING INFORMATION

Coil Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Cat. No.	CRLA1S012D	CRLA1S024D	CRLA1S048D	CRLA1S110D	CRLA1S024A	CRLA1S115A	CRLA1S230A
Standard Pack	20	20	20	20	20	20	20

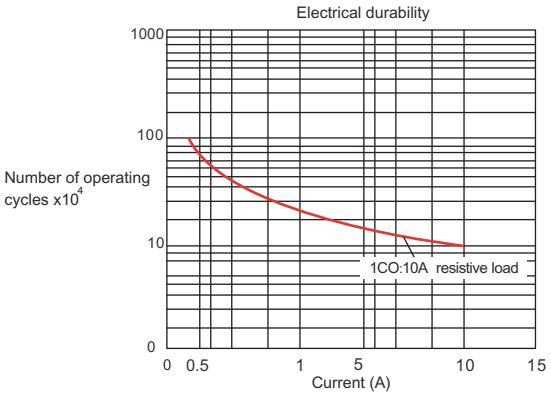
DIMENSIONS



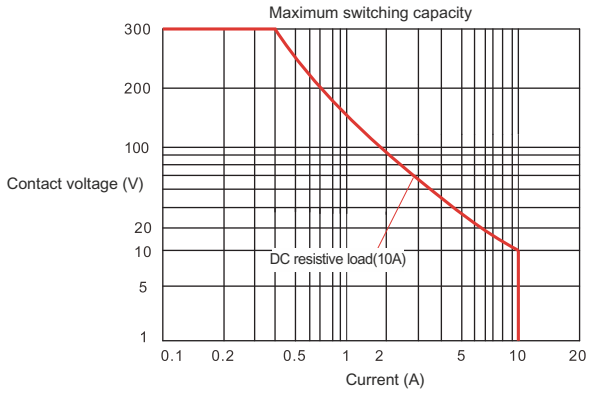
PIN CONFIGURATION



ELECTRICAL PERFORMANCE



CONTACT PERFORMANCE



ACCESSORIES

Socket

Type / Cat. No.	CRS1COY
Rated Current	10 A Per Contact
Connection Type	Screw Clamp
Mounting Type	DIN Rail / Panel
Additional information	Page No.: 19, 20
Standard Pack	10

Retainer Bracket

Type / Cat. No.	CRB1
Material	Polyamide
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB1M
Material	Metal
Standard Pack	20

Pluggable LED Module

Type / Cat. No.	
12-60V(AC/DC)	CRLD12-60V
110-230V(AC/DC)	CRLD110-230V
LED Type	Bi-Directional
Standard Pack	20

Markers

Type / Cat. No.	
Marker Tag	MT - CRM2CO
Group Marker	CA-509/G4
Standard Pack	100

Screwdriver

Type / Cat. No.	SCS0.5/3AC
Standard Pack	1

MODULAR RELAYS

2 Change Over (Miniature)

- General Purpose 2CO Relay
- 5mm Pitch PCB Pin Connection
- 5 Ampere current - 250 VAC, 30 VDC
- High Mechanical and Electrical Life
- Compact Size
- IEC61810-1 Standard Relay
- Flame Retardant Shell
- Widely used manufacturing and control systems for PLC, CNC and automatic assembly lines
- Input universal polarity

cULus CE RoHS

TECHNICAL DATA

Mechanical Life	≥1000 x 10^4 cycles		
Electrical Life	≥10 x 10^4 cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤10 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1 min	Between poles: 1000 VAC / 1 min	Between contacts & coil: 5000 VAC / 1 min
Insulation Resistance	≥1000 MΩ (500 VDC)		
Operating Temperature	-40 to +65°C		
Air Pressure	86 to 106 KPa		
Shock Resistance	Stability 10 G, Destructiveness 100 G		
Vibration Resistance	10 to 55 Hz Double-amplitude: 1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	2CO (DPDT)
Rated Switching Voltage	250 VAC / 30VDC
Max Switching Capacity	1250 VA / 150 W
Max Switching Current	5 A
Min Switching Current	10 mA (@ 17 V)
Contact Resistance	≤50 mΩ
Contact Material	Ag Alloy

COIL SPECIFICATION

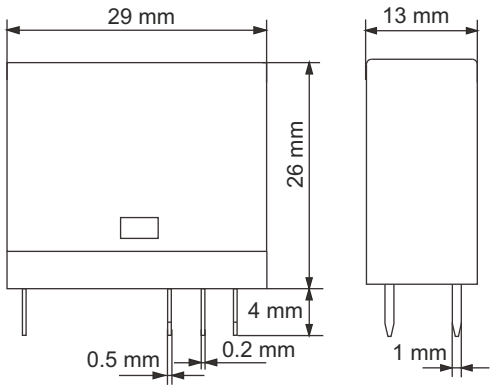
Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	26.4 VAC	126.5 VAC	253 VAC
Coil Resistance*	270 Ω	1100 Ω	4300 Ω	22800 Ω	240 Ω	6300 Ω	23000 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.53 W	0.53 W	0.53 W	0.53 W	1 VA	1 VA	1 VA

Note: *Coil resistance: Under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110 V with tolerance of ±15%Ω.

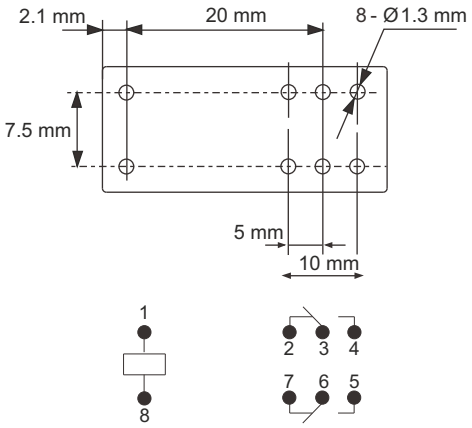
ORDERING INFORMATION

Coil Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Cat. No.	CRLA2S012D	CRLA2S024D	CRLA2S048D	CRLA2S110D	CRLA2S024A	CRLA2S115A	CRLA2S230A
Standard Pack	20	20	20	20	20	20	20

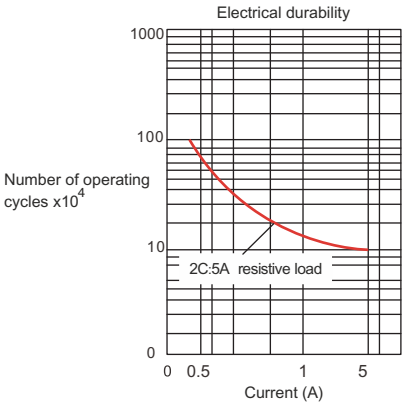
DIMENSIONS



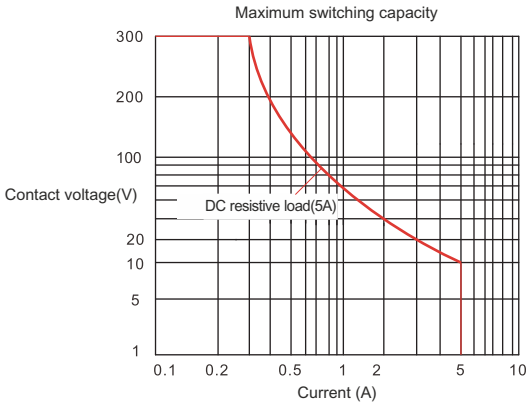
PIN CONFIGURATION



ELECTRICAL PERFORMANCE



CONTACT PERFORMANCE



ACCESSORIES

Socket

Type / Cat. No.	CRS2COY
Rated Current	10 A Per Contact
Connection Type	Screw Clamp
Mounting Type	DIN Rail / Panel
Additional Information	Page No.: 21, 22
Standard Pack	10

Retainer Bracket

Type / Cat. No.	CRB1
Material	Polyamide
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB1M
Material	Metal
Standard Pack	20

Pluggable LED Module

Type / Cat. No.	
12-60V(AC/DC)	CRLD12-60V
110-230V(AC/DC)	CRLD110-230V
LED Type	Bi-Directional
Standard Pack	20

Markers

Type / Cat. No.	
Marker Tag	MT - CRM2CO
Group Marker	CA-509/G4
Standard Pack	100

Screwdriver

Type / Cat. No.	SCS0.5/3AC
Standard Pack	1

MODULAR RELAYS

2 Change Over (Power)

- General Purpose 2CO Power Relay
- 250VAC, 30VDC / 7A Switching Contact
- High Mechanical and Electrical Life
- Flat Pin Connection
- Compact Size
- IEC61810-1 Standard Relay
- Flame Retardant Shell
- Integrated Freewheeling Diode protection
- LED for Coil Status Indication
- Red and Green LED for AC and DC Coil
- Mechanical Flag Indicators
- Input universal polarity

cULus CE RoHS

TECHNICAL DATA

Mechanical Life	≥2000 x 10^4 cycles		
Electrical Life	≥40 x 10^4 cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤20 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1 min	Between poles: 2000 VAC / 1 min	Between contacts & coil: 2000 VAC / 1 min
Impulse Withstand Voltage	4000 V		
Insulation Resistance / Voltage	≥500 MΩ / 250 VAC		
Operating / Storage Temperature	-55 to +70°C / -55 to +85°C		
Over voltage Category	III	Pollution Degree	3
Air Pressure	86 to 106 KPa		
Shock / Vibration Resistance	Stability 10 G, Destructiveness 100 G / 10 to 55 Hz Double-amplitude: 1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	2CO (DPDT)	
Rated Switching Voltage	250 VAC / 30 VDC	
Max Switching Capacity	1750 VA / 210 W	
Max Switching Current	7 A	
Min Switching Current	10 mA (@ 17 V)	
Contact Resistance / Material	≤50 mΩ / Ag Alloy	
Status Indication	DC - Green LED	AC - Red LED

COIL SPECIFICATION

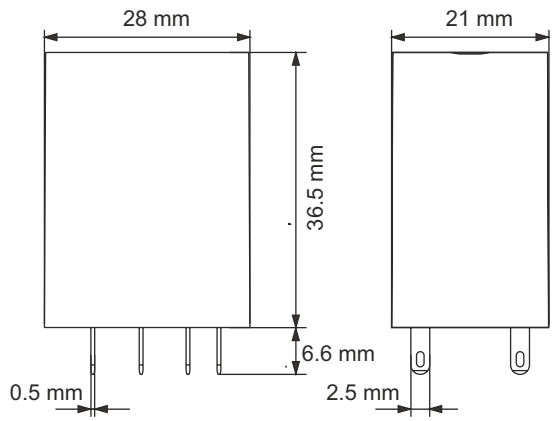
Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**220 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	242 VDC	26.4 VAC	126.5 VAC	253 VAC
Coil Resistance*	180 Ω	640 Ω	2600 Ω	13000 Ω	42000 Ω	180 Ω	4430 Ω	16500 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	165 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	22 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W	1.2 VA	1.2 VA	1.2 VA

Note: *Coil resistance: Under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110 V with tolerance of ±15%Ω.

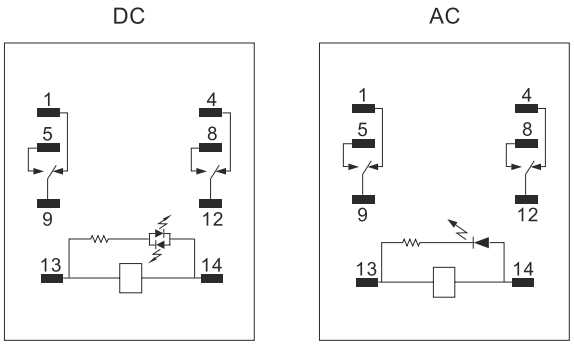
ORDERING INFORMATION

Coil Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**220 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Cat. No.	CRLA2PS012DL	CRLA2PS024DL	CRLA2PS048DL	CRLA2PS110DL	CRLA2PS220DL	CRLA2PS024AL	CRLA2PS115AL	CRLA2PS230AL
Standard Pack	20	20	20	20	20	20	20	20

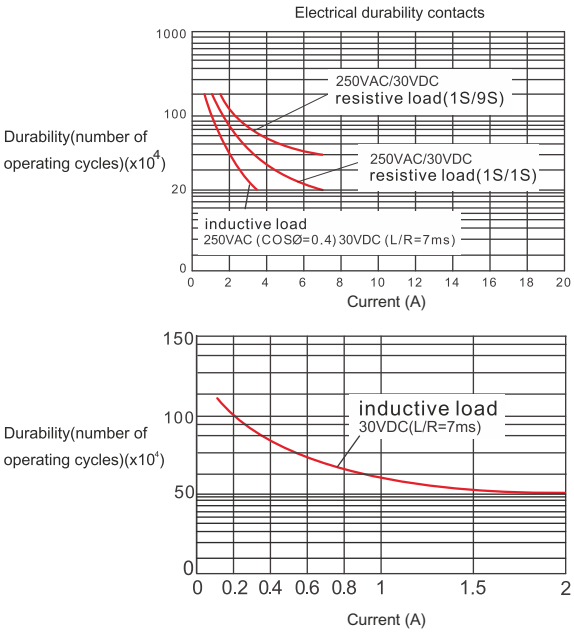
DIMENSIONS



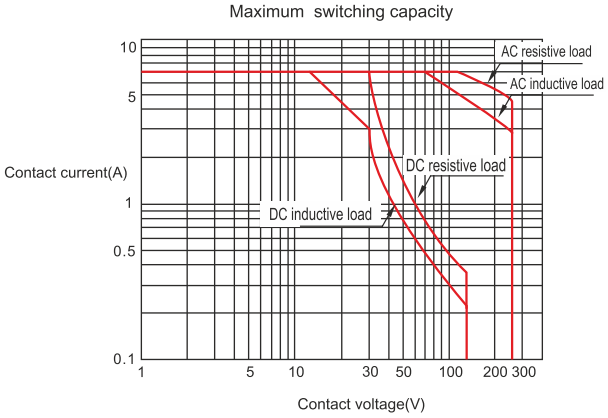
PIN CONFIGURATION



ELECTRICAL PERFORMANCE



CONTACT PERFORMANCE



ACCESSORIES

Socket

Type / Cat. No.	CRS2COPY
Rated Current	12 A Per Contact
Connection Type	Screw Clamp
Mounting Type	DIN Rail / Panel
Additional information	Page No.: 23, 24
Standard Pack	10

Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Marker Tag

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	100

Screwdriver

Type / Cat. No.	
Standard Pack	1

MODULAR RELAYS

2 Change Over (Power - Test Button)

- General Purpose 2CO High Power Relay
- 250VAC, 30VDC / 12A Switching Contact
- High Mechanical and Electrical Life
- Flat Pin Connection
- Compact Size
- IEC61810-1 Standard Relay
- Flame Retardant Shell
- Integrated Freewheeling Diode protection
- LED for Coil Status Indication
- Red and Green LED for AC and DC Coil
- Manual Override test button
- Input universal polarity

cULus CE RoHS

TECHNICAL DATA

Mechanical Life	≥2000 x 10^4 cycles		
Electrical Life	≥40 x 10^4 cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤20 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1 min	Between poles: 2000 VAC / 1 min	Between contacts & coil: 2000 VAC / 1 min
Impulse Withstand Voltage	4000 V		
Insulation Voltage / Resistance	250 VAC / ≥1000 MΩ		
Operating / Storage Temperature	-55 to +70°C / -55 to +85°C		
Overvoltage Category	III	Pollution Degree	3
Air Pressure	86 to 106 KPa		
Shock / Vibration Resistance	10 G (half sine shock pulse: 11 ms) / 10 to 55Hz Double-amplitude: 1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	2CO (DPDT)	
Rated Switching Voltage	250 VAC / 30 VDC	
Max Switching Capacity	3000 VA / 360 W	
Max Switching Current	12 A	
Min Switching Current	10 mA (@ 17 V)	
Contact Resistance / Material	≤50 mΩ / Ag Alloy	
Status Indication	DC - Green LED	AC - Red LED
Functionality Test	Manual Overide button: DC - Blue / AC - Red	

COIL SPECIFICATION

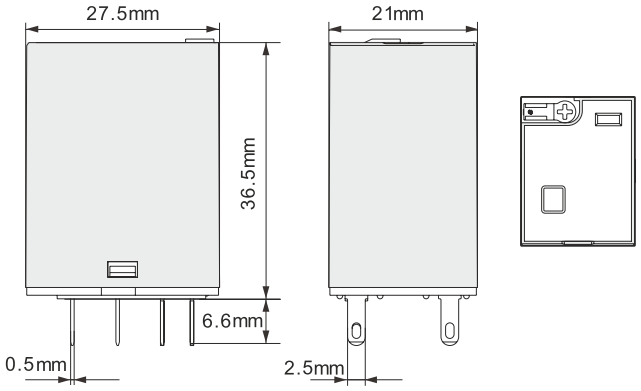
Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**220 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	242 VDC	26.4 VAC	126.5 VAC	253 VAC
Coil Resistance*	180 Ω	640 Ω	2600 Ω	13000 Ω	42000 Ω	180 Ω	4430 Ω	16500 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	165 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	22 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W	1.2 VA	1.2 VA	1.2 VA

Note: *Coil resistance: Under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110 V with tolerance of ±15%Ω.

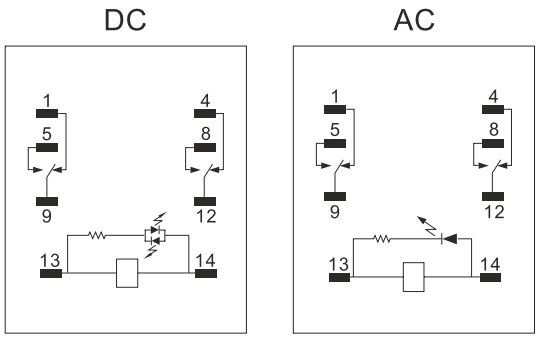
ORDERING INFORMATION

Coil Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**220 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Cat. No.	CRLA2PP012DLT	CRLA2PP024DLT	CRLA2PP048DLT	CRLA2PP110DLT	CRLA2PP220DLT	CRLA2PP024ALT	CRLA2PP115ALT	CRLA2PP230ALT
Standard Pack	20	20	20	20	20	20	20	20

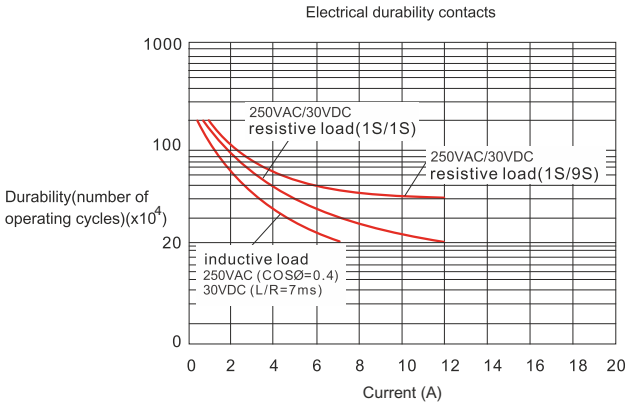
DIMENSIONS



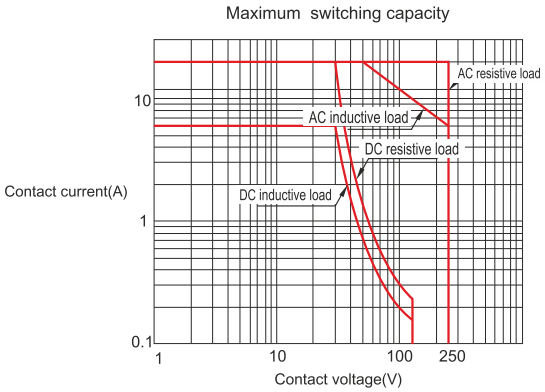
PIN CONFIGURATION



ELECTRICAL PERFORMANCE



CONTACT PERFORMANCE



ACCESSORIES

Socket

Type / Cat. No.	CRS2COPY
Rated Current	12 A Per Contact
Connection Type	Screw Clamp
Mounting Type	DIN Rail / Panel
Additional information	Page No.: 23, 24
Standard Pack	10

Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Markers

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	100

Screwdriver

Type / Cat. No.	SCS0.5/3AC
Standard Pack	1

MODULAR RELAYS

4 Change Over (Power)

- General Purpose 4CO Relay
- 250VAC, 30VDC / 5A Switching Contact
- High Mechanical and Electrical Life
- Flat Pin Connection
- Compact Size
- IEC61810-1 Standard Relay
- Flame Retardant Shell
- Integrated Freewheeling Diode protection
- LED for Coil Status Indication
- Red and Green LED for AC and DC Coil
- Mechanical Flag Indicators
- Input universal polarity

cULus CE RoHS

TECHNICAL DATA

Mechanical Life	≥2000 x 10^4 cycles		
Electrical Life	≥40 x 10^4 cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤20 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1 min	Between poles: 2000 VAC / 1 min	Between contacts & coil: 2000 VAC / 1 min
Impulse Withstand Voltage	4000 V		
Insulation Voltage / Resistance	250 VAC / ≥500 MΩ		
Operating / Storage Temperature	-55 to +70°C / -55 to +85°C		
Overvoltage Category	III	Pollution Degree	3
Air Pressure	86 to 106 KPa		
Shock / Vibration Resistance	Stability 10 G, Destructiveness 100 G / 10 to 55Hz Double-amplitude: 1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	4CO (QPDT)	
Rated Switching Voltage	250 VAC / 30 VDC	
Max Switching Capacity	1250 VA, 150 W	
Max Switching Current	5 A	
Min Switching Current	10 mA (@ 17 V)	
Contact Resistance	≤50 mΩ	
Contact Material	Ag Alloy	
Status Indication	DC - Green LED	AC - Red LED

COIL SPECIFICATION

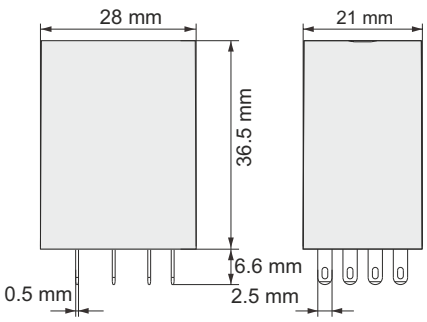
Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**220 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	242 VDC	26.4 VAC	126.5 VAC	253 VAC
Coil Resistance*	180 Ω	640 Ω	2600 Ω	13000 Ω	42000 Ω	370 Ω	4430 Ω	16500 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	165 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	22 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W	1.2 VA	1.2 VA	1.2 VA

Note: *Coil resistance: Under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110 V with tolerance of ±15%Ω.

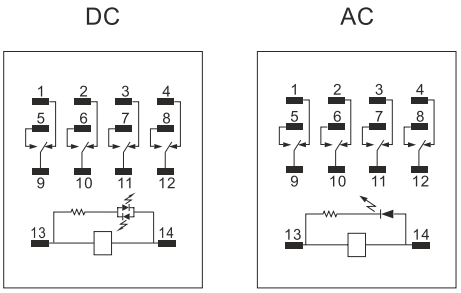
ORDERING INFORMATION

Coil Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**220 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Cat. No.	CRLA4S012DL	CRLA4S024DL	CRLA4S048DL	CRLA4S110DL	CRLA4S220DL	CRLA4S024AL	CRLA4S115AL	CRLA4S230AL
Standard Pack	20	20	20	20	20	20	20	20

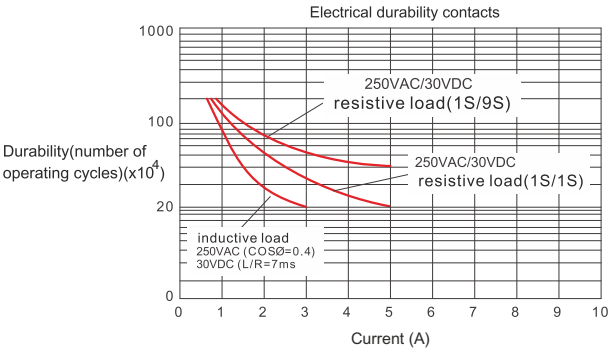
DIMENSIONS



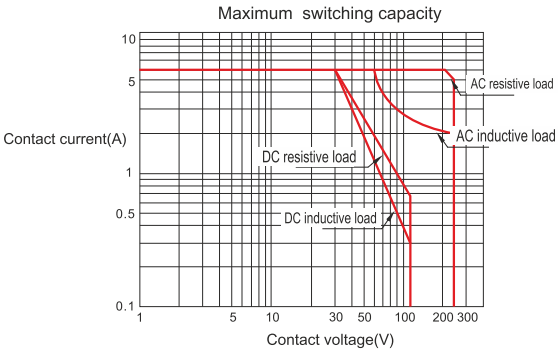
PIN CONFIGURATION



ELECTRICAL PERFORMANCE

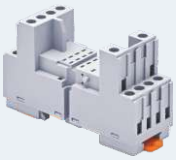


CONTACT PERFORMANCE



ACCESSORIES

Socket



Type / Cat. No.	CRS4COY
Rated Current	10 A Per Contact
Connection Type	Screw Clamp
Mounting Type	DIN Rail / Panel
Additional information	Page No.: 25, 26
Standard Pack	10

Retainer Bracket

Type / Cat. No.	CRB4
Material	Polyamide
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Pluggable LED Module

Type / Cat. No.	
12-60V(AC/DC)	CRLD12-60V
110-230V(AC/DC)	CRLD110-230V
LED Type	Bi-Directional
Standard Pack	20

Markers

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	100

Screwdriver

Type / Cat. No.	SCS0.5/3AC
Standard Pack	1

MODULAR RELAYS

4 Change Over (Power - Test Button)

- General Purpose 4CO High Power Relay
- 250VAC, 30VDC / 6A Switching Contact
- High Mechanical and Electrical Life
- Flat Pin Connection
- IEC61810-1 Standard Relay
- Flame Retardant Shell
- Integrated Freewheeling Diode protection
- LED for Coil Status Indication
- Red and Green LED for AC and DC Coil
- Manual Override test button for no load testing purpose
- Visual identification of Relay voltage type by colour of override test button
- Input universal polarity

cULus CE RoHS

TECHNICAL DATA

Mechanical Life	≥2000 x 10^4cycles		
Electrical Life	≥40 x 10^4cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤20 ms		
Dielectric Strength	Between open contacts:1000 VAC / 1 min	Between poles: 2000 VAC / 1 min	Between contacts & coil 2000 VAC / 1 min
Impulse Withstand Voltage	4000 V		
Insulation Voltage / Resistance	250 VAC / ≥1000 MΩ		
Operating Temperature / Storage	-55 to +70°C / -55 to +85°C		
Overvoltage Category	II	Pollution Degree	2
Air Pressure	86 to 106 KPa		
Shock / Vibration Resistance	10 G (half sine shock pulse: 11 ms) / 10 to 55 Hz Double-amplitude: 1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	4CO
Rated Switching Voltage	250 VAC / 30 VDC
Max Switching Capacity	1500 VA, 180 W
Max Switching Current	6 A
Min Switching Current	10 mA (@ 17 V)
Contact / Material Resistance	≤50 mΩ / Ag Alloy
Status Indication	DC - Green LED AC - Red LED
Functionality Test	Manual Overide button: DC - Blue / AC - Red

COIL SPECIFICATION

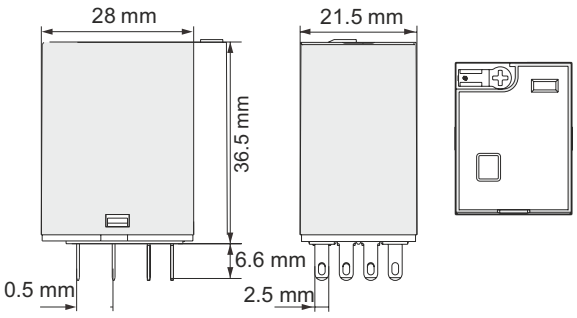
Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	242 VDC	26.4 VAC	126.5 VAC	253 VAC
Coil Resistance*	180 Ω	640 Ω	2600 Ω	13000 Ω	42000 Ω	180 Ω	4430 Ω	16500 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	165 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	22 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W	1.2 VA	1.2 VA	1.2 VA

Note: *Coil resistance: Under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110 V with tolerance of ±15%Ω.

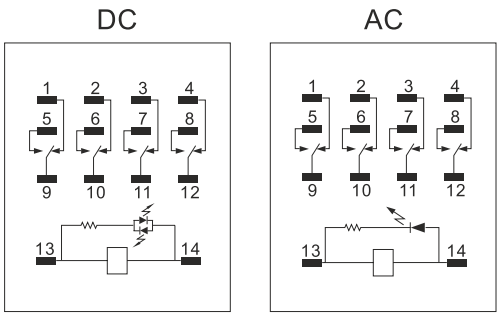
ORDERING INFORMATION

Coil Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Cat. No.	CRLA4P012DLT	CRLA4P024DLT	CRLA4P048DLT	CRLA4P110DLT	CRLA4P220DLT	CRLA4P024ALT	CRLA4P115ALT	CRLA4P230ALT
Standard Pack	20	20	20	20	20	20	20	20

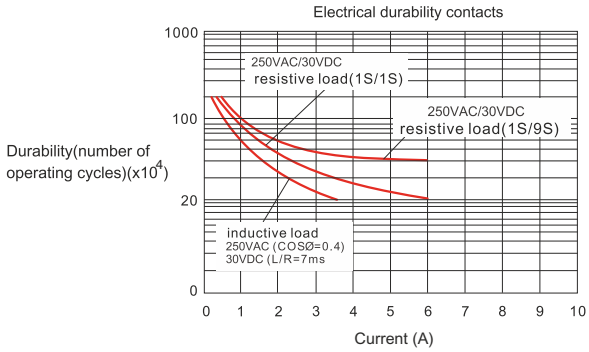
DIMENSIONS



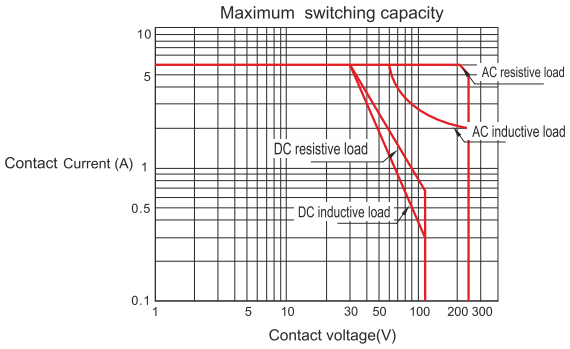
PIN CONFIGURATION



ELECTRICAL PERFORMANCE

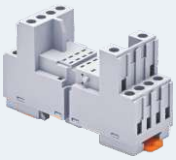


CONTACT PERFORMANCE



ACCESSORIES

Socket



Type / Cat. No.	CRS4COY
Rated Current	10 A Per Contact
Connection Type	Screw Clamp
Mounting Type	DIN Rail / Panel
Additional information	Page No.: 25, 26
Standard Pack	10

Retainer Bracket

Type / Cat. No.	CRB4
Material	Polyamide
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Pluggable LED Module

Type / Cat. No.	
12-60V(AC/DC)	CRLD12-60V
110-230V(AC/DC)	CRLD110-230V
LED Type	Bi-Directional
Standard Pack	20

Markers

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	100

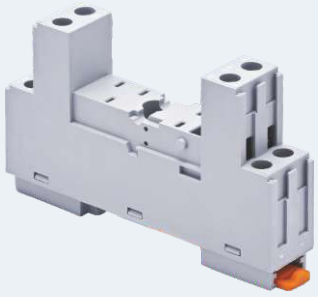
Screwdriver

Type / Cat. No.	SCS0.5/3AC
Standard Pack	1

RELAY SOCKET

1 Change Over

- 1CO Relay Base
- 10 A Rated Current
- Universal DIN Rail & Panel Mountable
- Laser etched Marking
- Guided Wire Entry
- V0 Flame Retardant
- Spring Loaded Snap Lock



cULus CE RoHS

TECHNICAL DATA

Rated Voltage	250 V
Rated Current / Channel	10 A
Housing Material	Polyamide 6, 6
Flammability Grade	V0
Rated Impulse voltage	4 kV
Operating Temperature	- 40 to + 55°C
Storage Temperature	- 40 to + 85°C
Degree of Protection	IP20
Over voltage Category	III
Pollution Degree	2

ORDERING INFORMATION

PartCode	**CRS1COY**
Contact Configuration	1CO (SPDT)
Compatible Relay Series	CRLA1XXX
Additional information	Page No. 3, 4
Standard Pack	10

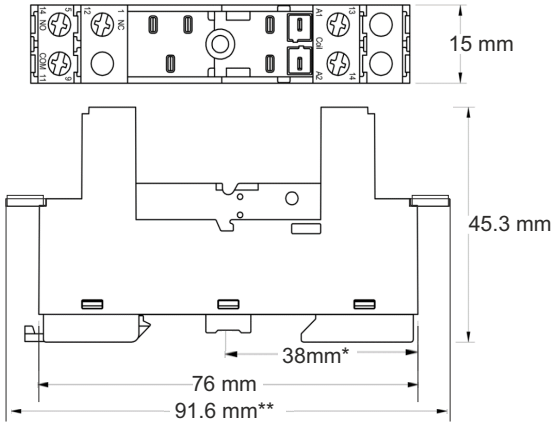
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2- 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2- 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)

MECHANICAL DATA

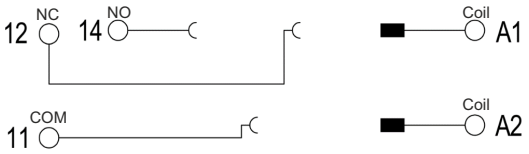
Width	15 mm
Height	45.3 mm
Depth	76 mm

DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

PIN CONFIGURATION



ACCESSORIES

Relay

Type / Cat. No.	CRLA1S Series
Dimensions (HxWxD)	29 x 13 x 26 mm
Rated Current	10 A
Additional information	Page No.: 7, 8
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB1
Material	Polyamide
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB1M
Material	Metal
Standard Pack	20

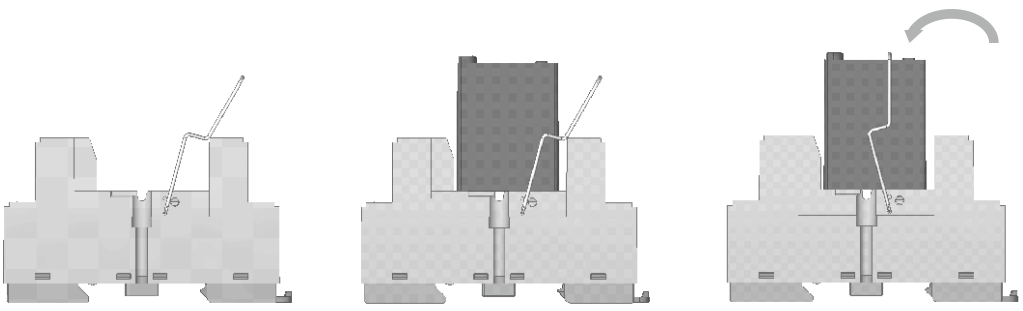
Pluggable LED Module

Type / Cat. No.	
12-60V(AC/DC)	CRLD12-60V
110-230V(AC/DC)	CRLD110-230V
LED Type	Bi-Directional
Standard Pack	20

Markers

Type / Cat. No.	
Marker Tag	MT - CRM2CO
Group Marker	CA-509/G4
Std. Pack(Pcs)	100

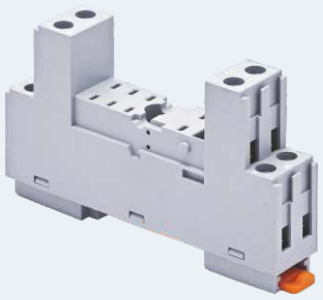
CLIP MOUNTING



RELAY SOCKET

2 Change Over

- 2CO Relay Base
- 10 A Rated Current
- Universal DIN Rail & Panel Mountable
- Laser etched Marking
- Guided Wire Entry
- V0 Flame Retardant
- Spring Loaded Snap Lock



cULus CE RoHS

TECHNICAL DATA

Rated Voltage	250 V
Rated Current / Channel	10 A
Insulation Type	Class A
Housing Material	Polyamide 6, 6
Flammability Grade	V0
Rated Impulse voltage	4 kV
Operating Temperature	- 40 to + 55°C
Storage Temperature	- 40 to + 85°C
Degree of Protection	IP20
Over voltage Category	III
Pollution Degree	2

ORDERING INFORMATION

Cat. No.	**CRS2COY**
Contact Configuration	2 CO
Compatible Relay Series	CRLA2XXX
Additional information	Page No. 5, 6
Standard Pack	10

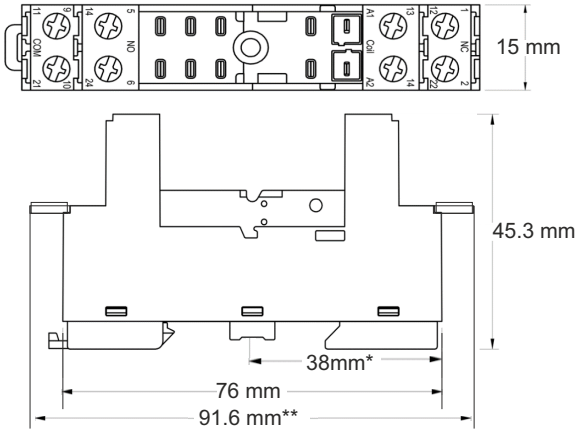
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2- 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2- 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)

MECHANICAL DATA

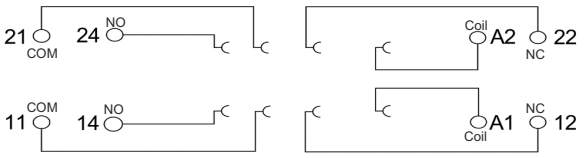
Width	15 mm
Height	45.3 mm
Depth	76 mm

DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

PIN CONFIGURATION



ACCESSORIES

Relay

Type / Cat. No.	CRLA2S Series
Dimensions (HxWxD)	29 x 13 x 26 mm
Rated Current	5 A
Additional information	Page No.: 9, 10
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB1
Material	Polyamide
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB1M
Material	Metal
Standard Pack	20

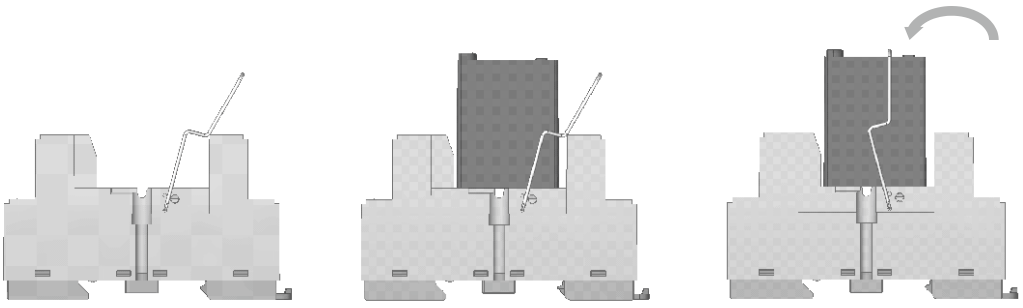
Pluggable LED Module

Type / Cat. No.	
12-60V(AC/DC)	CRLD12-60V
110-230V(AC/DC)	CRLD110-230V
LED Type	Bi-Directional
Standard Pack	20

Markers

Type / Cat. No.	
Marker Tag	MT - CRM2CO
Group Marker	CA-509/G4
Standard Pack	100

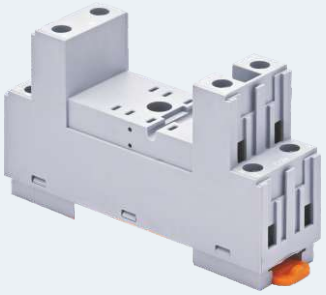
CLIP MOUNTING



RELAY SOCKET

2 Change Over (Power)

- 2COP Relay Base
- 12 A Rated Current
- Universal DIN Rail Mountable
- Laser etched Marking
- Guided Wire Entry
- V0 Flame Retardant
- Spring Loaded Snap Lock



cULus CE RoHS

TECHNICAL DATA

Rated Voltage	250 V
Rated Current / Channel	12 A
Insulation Type	Class A
Housing Material	Polyamide 6, 6
Flamability Grade	V0
Rated Impulse voltage	4 kV
Operating Temperature	- 40 to + 55°C
Storage Temperature	- 40 to + 85°C
Degree of Protection	IP20
Overvoltage Category	III
Pollution Degree	2

ORDERING INFORMATION

Cat. No.	**CRS2COPY**
Contact Configuration	2CO
Compatible Relay Series	CRLA2PXXX
Additional information	Page No. 7, 8
Standard Pack	10

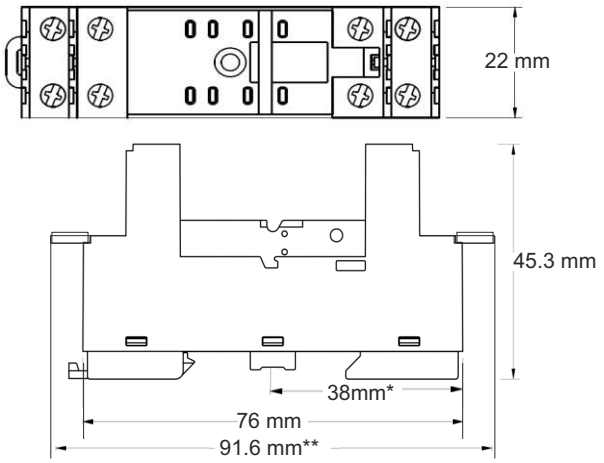
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2 - 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2 - 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)

MECHANICAL DATA

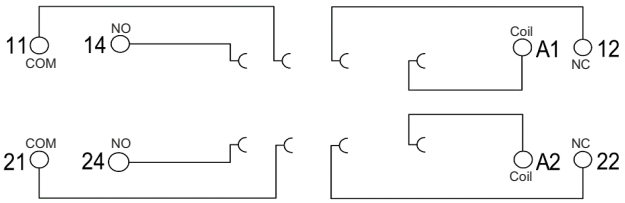
Width	22 mm
Height	45.3 mm
Depth	76 mm

DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

PIN CONFIGURATION



ACCESSORIES

Relay

Type / Cat. No.	CRLA2P Series
Dimensions (HxWxD)	36.5 x 21 x 27.5 mm
Rated Current	7 A / 12 A
Additional information	Page No.: 11 - 14
Standard Pack	20

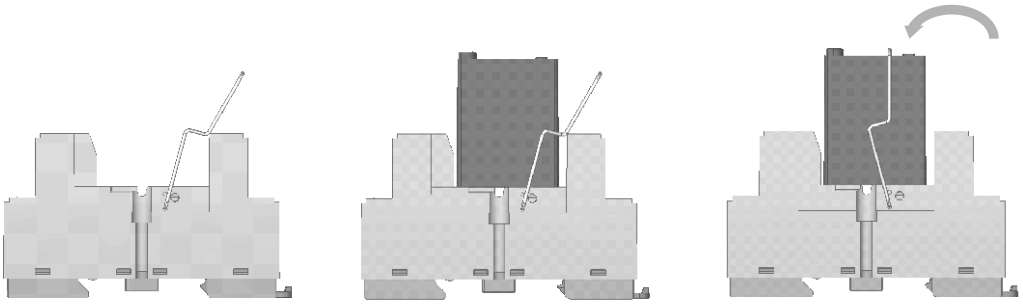
Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Marker Tag

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	100

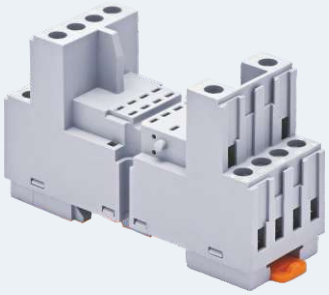
CLIP MOUNTING



RELAY SOCKET

4 Change Over (Power)

- 4CO Relay Base
- 10A Rated Current
- Universal DIN Rail Mountable
- Laser etched Marking
- Guided Wire Entry
- V0 Flame Retardant
- Spring Loaded Snap Lock



cULus CE RoHS

TECHNICAL DATA

Rated Voltage	250 V
Rated Current / Channel	10 A
Insulation Type	Class A
Housing Material	Polyamide 6, 6
Flamability Grade	V0
Rated Impulse voltage	4 kV
Operating Temperature	- 40 to + 55°C
Storage Temperature	- 40 to + 85°C
Degree of Protection	IP20
Overvoltage Category	III
Pollution Degree	2

ORDERING INFORMATION

Cat. No.	**CRS4COY**
Contact Configuration	4CO
Compatible Relay Series	CRLA4XXX
Additional information	Page No. 11, 12
Standard Pack	10

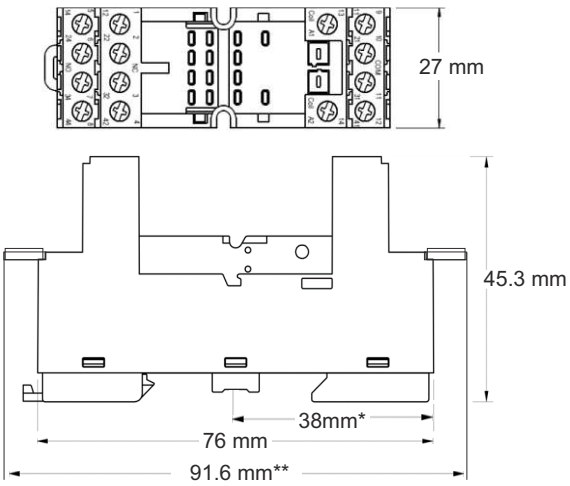
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2- 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2- 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)

MECHANICAL DATA

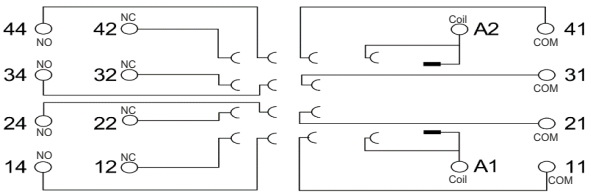
Width	27 mm
Height	45.3 mm
Depth	76 mm

DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

PIN CONFIGURATION



ACCESSORIES

Relay

Type / Cat. No.	CRLA4 Series
Dimensions (HxWxD)	36.5 x 21 x 27.5 mm
Rated Current	5 A / 6 A
Additional information	Page No.: 15 - 18
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB4
Material	Polyamide
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Pluggable LED Module

Type / Cat. No.	
12-60V(AC/DC)	CRLD12-60V
110-230V(AC/DC)	CRLD110-230V
LED Type	Bi-Directional
Standard Pack	20

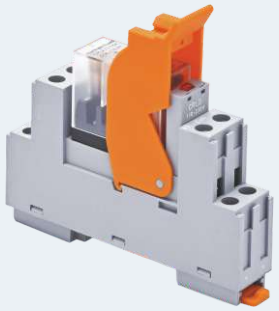
Marker Tag

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	100

RELAY + SOCKET

1 Change Over

- Compact & Modular design with retainer clip
- Variety of operating voltages
- 250VAC/10A switching capacity.
- Low coil power consumption
- LED Indication on Coil activation
- Widely used in the output signal and safety drive of PLC, CNC system, robot, intelligent manufacturing and other control systems.
- Long-life laser marking for circuit identification
- High Mechanical and Electrical Life
- IEC 61810-1 Standard
- Input universal polarity



cULus LISTED CE RoHS

TECHNICAL DATA

Mechanical Life	≥1000 x 10^4 cycles		
Electrical Life	≥10 x 10^4 cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤10 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1 min	Between poles: 1000 VAC / 1 min	Between contacts & coil: 5000 VAC / 1 min
Insulation Resistance	≥1000 MΩ (500 V)		
Operating Temperature	-40 to +65°C		
Air Pressure	86 to 106 KPa		
Shock Resistance	Stability 10 G, Destructiveness 100 G		
Vibration Resistance	10 to 55 Hz Double-amplitude: 1.5 mm		
Degree of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	1CO (SPDT)
Rated Switching Voltage	250 VAC / 30VDC
Max Switching Capacity	2500 VA / 300 W
Max Switching Current	10 A
Min Switching Current	10 mA @ 17 V
Contact Resistance	≤50 mΩ
Contact Material	Ag Alloy

COIL SPECIFICATION

Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	26.4 VAC	126.5 VAC	253 VAC
*Coil Resistance	270 Ω	1100 Ω	4300 Ω	22800 Ω	240 Ω	6300 Ω	23000 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.53 W	0.53 W	0.53 W	0.53 W	1 VA	1 VA	1 VA

Note: *Coil resistance: under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110 V with tolerance of ±15%Ω.

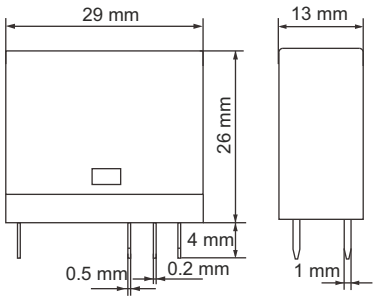
ORDERING INFORMATION

Coil Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Cat. No.	CRMA1S012DYL	CRMA1S024DYL	CRMA1S048DYL	CRMA1S110DYL	CRMA1S024AYL	CRMA1S115AYL	CRMA1S230AYL
Standard Pack	10	10	10	10	10	10	10

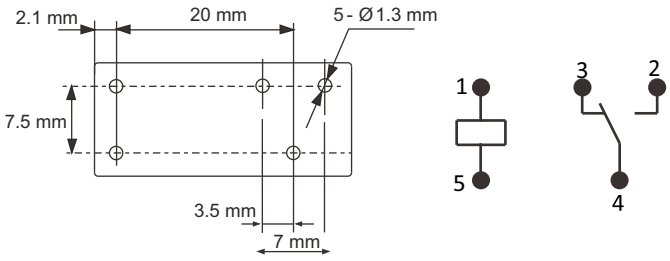
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2 - 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2 - 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)

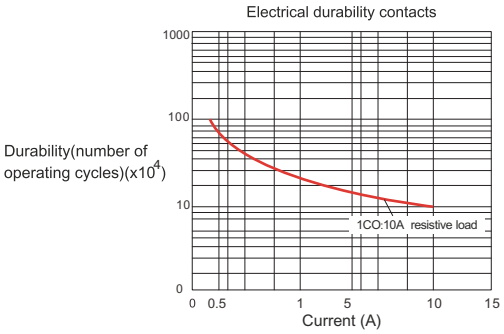
RELAYS DIMENSIONS



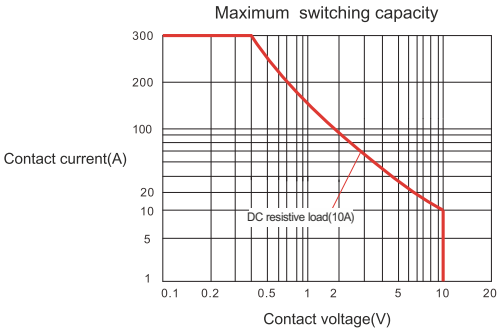
PIN CONFIGURATION



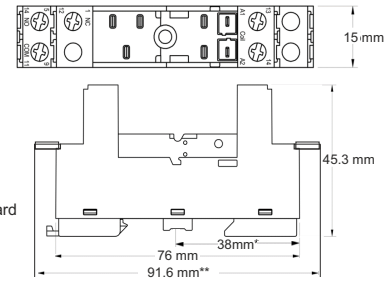
ELECTRICAL PERFORMANCE



CONTACT PERFORMANCE

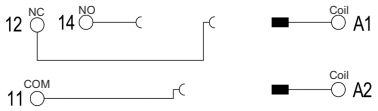


SOCKET DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

ELECTRICAL CONNECTION DIAGRAM



ACCESSORIES

Marker Tag

Type / Cat. No.	
Marker Tag	MT - CRM2CO
Group Marker	CA-509/G4
Standard Pack	100

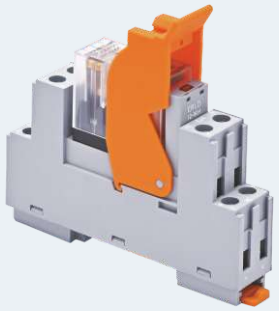
Screwdriver

Type / Cat. No.	SCS0.5/3AC
Standard Pack	1

RELAY + SOCKET

2 Change Over

- Compact & Modular design with retainer clip
- Variety of operating voltages
- Low coil power consumption
- LED Indication on Coil activation
- Long-life laser marking for circuit identification
- Integrated Input Protection (Freewheeling diode)
- 250VAC / 5A high power switching capacity.
- High Mechnical and Electrical Life
- IEC 61810-1 Standard
- Input universal polarity



cULus LISTED CE RoHS

TECHNICAL DATA

Mechanical Life	≥1000 x 10^4 cycles		
Electrical Life	≥10 x 10^4 cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤10 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1 min	Between poles: 1000 VAC / 1 min	Between contacts & coil: 5000 VAC / 1 min
Insulation Resistance	≥1000 MΩ (500 V)		
Operating Temperature	-40 to +65°C		
Air Pressure	86 to 106 Kpa		
Shock Resistance	Stability 10 G, Destructiveness 100 G		
Vibration Resistance	10 to 55 Hz Double-amplitude: 1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	2CO (DPDT)
Rated Switching Voltage	250 VAC / 30VDC
Max Switching Capacity	1250 VA / 150 W
Max Switching Current	5 A
Min Switching Current	10 mA (@ 17 V)
Contact Resistance	≤50 mΩ
Contact Material	Ag Alloy

COIL SPECIFICATION

Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	26.4 VAC	126.5 VAC	253 VAC
*Coil Resistance	270 Ω	1100 Ω	4300 Ω	22800 Ω	240 Ω	6300 Ω	23000 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.53 W	0.53 W	0.53 W	0.53 W	1 VA	1 VA	1 VA

Note: *Coil resistance: under coil voltage 110V are measured with tolerance of ±10%Ω, above 110V with tolerance of ±15%Ω.

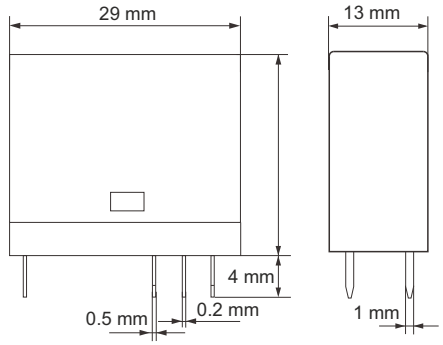
ORDERING INFORMATION

Coil Voltage	**12 VDC**	**24 VDC**	**48 VDC**	**110 VDC**	**24 VAC**	**115 VAC**	**230 VAC**
Cat. No.	CRMA2S012DYL	CRMA2S024DYL	CRMA2S048DYL	CRMA2S110DYL	CRMA2S024AYL	CRMA2S115AYL	CRMA2S230AYL
Standard Pack	10	10	10	10	10	10	10

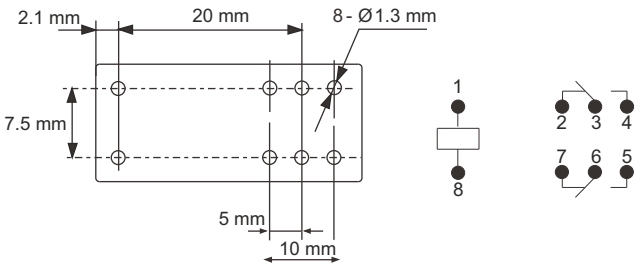
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2 - 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2 - 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)

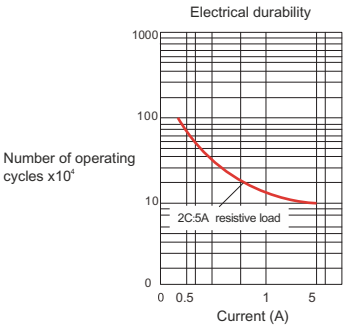
RELAYS DIMENSIONS



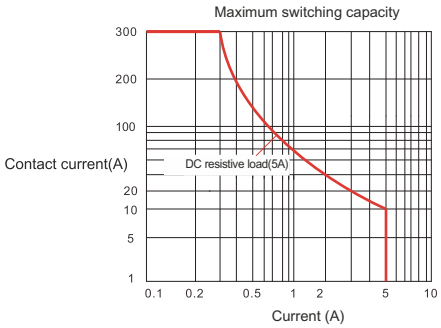
PIN CONFIGURATION



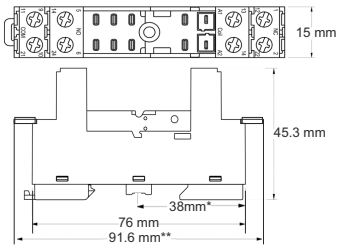
ELECTRICAL PERFORMANCE



CONTACT PERFORMANCE

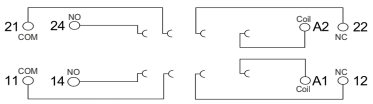


SOCKET DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

ELECTRICAL CONNECTION DIAGRAM



ACCESSORIES

Marker Tag

Type / Cat. No.	
Marker Tag	MT - CRM2CO
Group Marker	CA-509/G4
Standard Pack	100

Screwdriver

Type / Cat. No.	SCS0.5/3AC
Standard Pack	1

RELAY + SOCKET

2 Change Over (Power)

- Compact & Modular design with retainer clip
- Variety of operating voltages
- High switching current: up to 7A
- Low coil power consumption
- LED Indication on Coil activation
- Output mechanical flag indicator
- Long-life laser marking for circuit identification
- Integrated Input Protection (Freewheeling diode)
- High Mechanical and Electrical Life
- IEC 61810-1 Standard
- Input universal polarity

cULus LISTED CE RoHS

TECHNICAL DATA

Mechanical Life	≥2000 x 10^4 cycles		
Electrical Life	≥40 x 10^4 cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤20 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1min	Between poles: 2000 VAC / 1min	Between contacts & coil: 2000 VAC / 1min
Impulse Withstand Voltage	4000 V		
Insulation Resistance	≥500 MΩ		
Operating Temperature	-55 to +70°C		
Storage Temperature	-55 to +85°C		
Insulation Voltage	250 VAC		
Over voltage Category	III		
Pollution Degree	3		
Air Pressure	86 to 106 KPa		
Shock Resistance	Stability 10 G, Destructiveness 100 G		
Vibration Resistance	10 to 55 Hz Double-amplitude: 1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	2CO (DPDT)	
Rated Switching Voltage	250 VAC / 30 VDC	
Max Switching Capacity	1750 VA / 210 W	
Max Switching Current	7 A	
Min Switching Current	10 mA (@ 17 V)	
Contact Resistance	≤50 mΩ	
Contact Material	Ag Alloy	
Status Indication	DC - Green LED	AC - Red LED

COIL SPECIFICATION

Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	242 VDC	26.4 VAC	126.5 VAC	253 VAC
*Coil Resistance	180 Ω	640 Ω	2600 Ω	13000 Ω	42000 Ω	180 Ω	4430 Ω	16500 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	165 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	22 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W	1.2 VA	1.2 VA	1.2 VA

Note: *Coil resistance: under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110 V with tolerance of ±15%Ω.

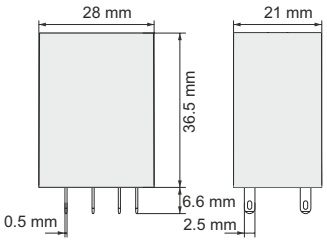
ORDERING INFORMATION

Coil Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Cat. No.	CRMA2PS012DYL	CRMA2PS024DYL	CRMA2PS048DYL	CRMA2PS110DYL	CRMA2PS220DYL	CRMA2PS024AYL	CRMA2PS115AYL	CRMA2PS230AYL
Standard Pack	10	10	10	10	10	10	10	10

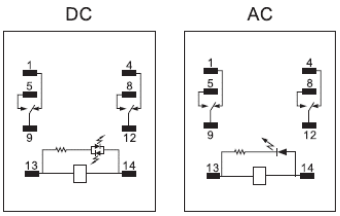
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2- 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2- 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75^0 C)

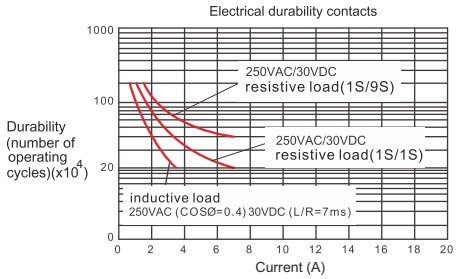
RELAYS DIMENSIONS



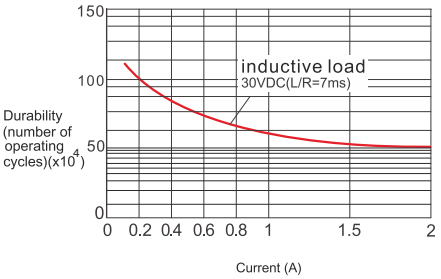
PIN CONFIGURATION



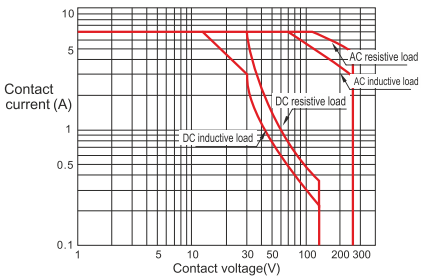
ELECTRICAL LIFE (RESISTIVE LOAD)



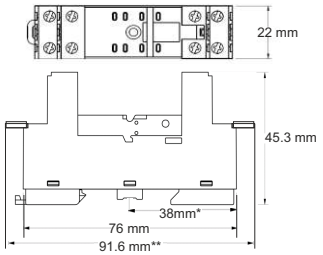
ELECTRICAL LIFE (INDUCTIVE LOAD)



MAXIMUM SWITCHING CAPACITY

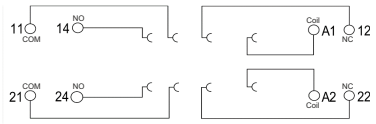


SOCKET DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

ELECTRICAL CONNECTION DIAGRAM



ACCESSORIES

Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Marker Tag

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	100

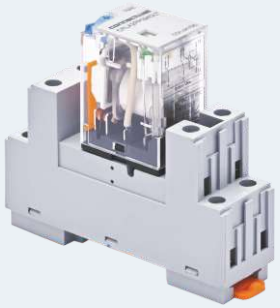
Screwdriver

Type / Cat. No.	SCS0.5/3AC
Standard Pack	1

RELAY + SOCKET

2 Change Over (Power - Test Button)

- Compact & Modular design with retainer clip
- Variety of operating voltages
- High switching current: up to 12A
- Low coil power consumption
- LED Indication on Coil activation
- Output mechanical flag indicator
- Long-life laser marking for circuit identification
- Integrated Input Protection (Freewheeling diode)
- High Mechanical and Electrical Life
- IEC 61810-1 Standard
- Manual Over-ride test button for no load testing purpose
- Visual identification of Relay voltage type by colour of override test button
- Input universal polarity



cULus LISTED CE RoHS

TECHNICAL DATA

Mechanical Life	≥2000 x 10^4 cycles		
Electrical Life	≥40 x 10^4 cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤20 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1min	Between poles: 2000 VAC / 1min	Between contacts & coil: 2000 VAC / 1min
Impulse Withstand Voltage	4000 V		
Insulation Voltage	250 VAC		
Insulation Resistance	≥1000 MΩ		
Operating Temperature	-55 to +70°C		
Storage Temperature	-55 to +85°C		
Overvoltage Category	III		
Pollution Degree	3		
Air Pressure	86 to 106 KPa		
Shock Resistance	10 G (half sine shock pulse: 11 ms)		
Vibration Resistance	10 to 55 Hz Double-amplitude: 1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	2CO (DPDT)	
Rated Switching Voltage	250 VAC / 30VDC	
Max Switching Capacity	3000VA / 360W	
Max Switching Current	12 A	
Min Switching Current	10 mA (@ 17 V)	
Contact Resistance	≤50 mΩ	
Contact Material	Ag Alloy	
Status Indication	DC - Green LED	AC - Red LED
Functionality Test	Manual Overide button: DC - Blue / AC - Red	

COIL SPECIFICATION

Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	242 VDC	26.4 VAC	126.5 VAC	253 VAC
*Coil Resistance	180 Ω	640 Ω	2600 Ω	13000 Ω	42000 Ω	180 Ω	4430 Ω	16500 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	165 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	22 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W	1.2 VA	1.2 VA	1.2 VA

Note: *Coil resistance: under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110 V with tolerance of ±15%Ω.

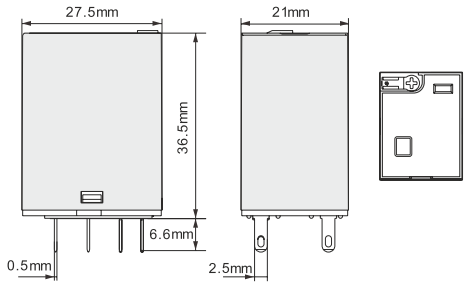
ORDERING INFORMATION

Coil Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Cat. No.	CRMA2PP012DYLT	CRMA2PP024DYLT	CRMA2PP048DYLT	CRMA2PP110DYLT	CRMA2PP220DYLT	CRMA2PP024AYLT	CRMA2PP115AYLT	CRMA2PP230AYLT
Standard Pack	10	10	10	10	10	10	10	10

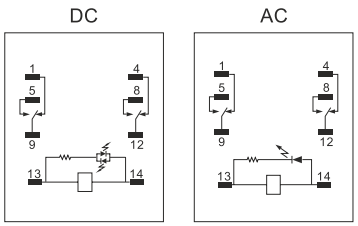
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2 - 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2 - 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75^0 C)

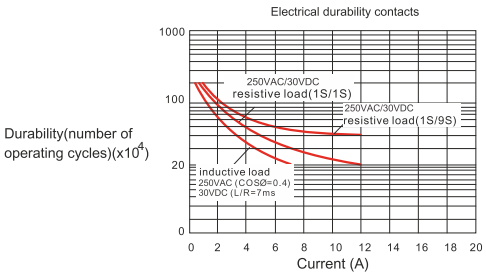
RELAYS DIMENSIONS



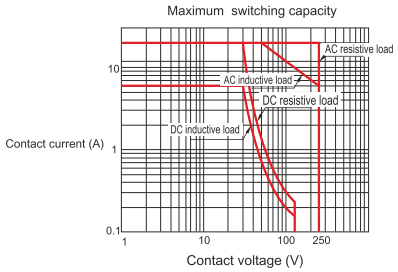
PIN CONFIGURATION



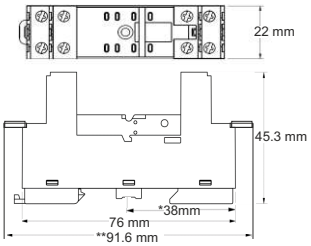
ELECTRICAL LIFE



CONTACT PERFORMANCE

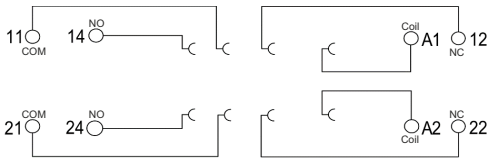


SOCKET DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

ELECTRICAL CONNECTION DIAGRAM



ACCESSORIES

Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Marker Tag

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	100

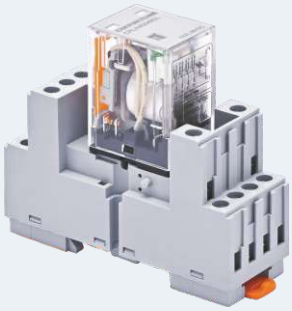
Screwdriver

Type / Cat. No.	SCS0.5/3AC
Standard Pack	1

RELAY + SOCKET

4 Change Over (Power)

- Compact & Modular design with retainer clip
- Variety of operating voltages
- Low coil power consumption
- LED Indication on Coil activation
- Output mechanical flag indicator
- Long-life laser marking for circuit identification
- Integrated Input Protection (Freewheeling diode)
- 250VAC/5A high power switching capacity.
- High Mechanical and Electrical Life
- IEC 61810-1 Standard
- Input universal polarity



cULus LISTED CE RoHS

TECHNICAL DATA

Mechanical Life	≥2000 x 10^4cycles		
Electrical Life	≥40 x 10^4cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤20 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1 min	Between poles: 2000 VAC / 1min	Between contacts & coil: 2000 VAC / 1min
Impulse Withstand Voltage	4000 V		
Insulation Voltage	250 VAC		
Insulation Resistance	≥500 MΩ		
Operating Temperature	-55 to +70°C		
Storage Temperature	-55 to +85°C		
Overvoltage Category	III		
Pollution Degree	3		
Air Pressure	86 to 106 KPa		
Shock Resistance	Stability 10 G, Destructiveness 100 G		
Vibration Resistance	10 to 55Hz Double-amplitude: 1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	4CO	
Rated Switching Voltage	250 VAC / 30 VDC	
Max Switching Capacity	1250 VA,150 W	
Max Switching Current	5 A	
Min Switching Current	10 mA (@ 17 V)	
Contact Resistance	≤50 mΩ	
Contact Material	Ag Alloy	
Status Indication	DC - Green LED	AC - Red LED

COIL SPECIFICATION

Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	242 VDC	26.4 VAC	126.5 VAC	253 VAC
*Coil Resistance	180 Ω	640 Ω	2600 Ω	13000 Ω	42000 Ω	370 Ω	4430 Ω	16500 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	165 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	22 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W	1.2 VA	1.2 VA	1.2 VA

Note: *Coil resistance: under coil voltage 110V are measured with tolerance of ±10%Ω, above 110V with tolerance of ±15%Ω.

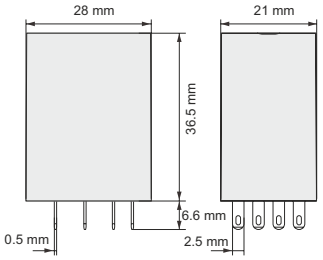
ORDERING INFORMATION

Coil Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Cat. No.	CRMA4S012DYL	CRMA4S024DYL	CRMA4S048DYL	CRMA4S110DYL	CRMA4S220DYL	CRMA4S024AYL	CRMA4S115AYL	CRMA4S230AYL
Std. Pack	10	10	10	10	10	10	10	10

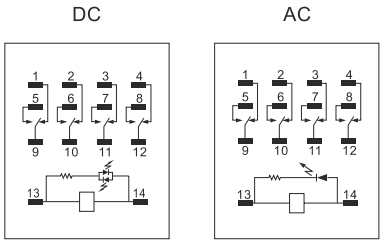
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2- 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2- 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)

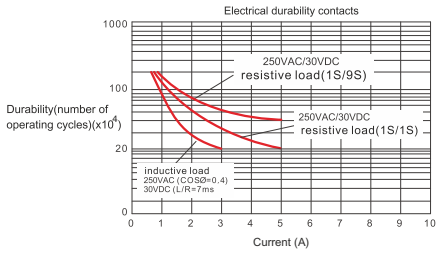
RELAYS DIMENSIONS



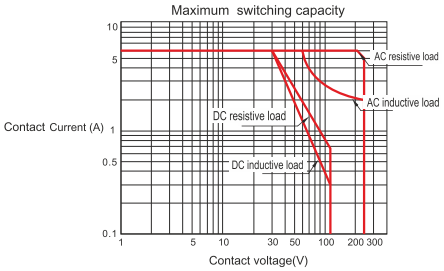
PIN CONFIGURATION



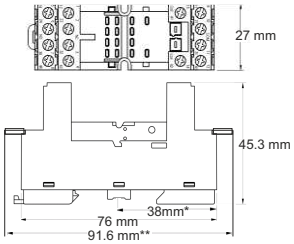
ELECTRICAL LIFE



CONTACT PERFORMANCE

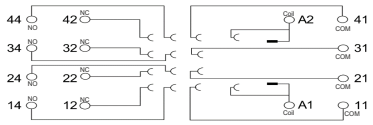


SOCKET DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

ELECTRICAL CONNECTION DIAGRAM



ACCESSORIES

Retainer Bracket

Type / Cat. No.	CRB4
Material	Polyamide
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Pluggable LED Module

Type / Cat. No.	
12-60V(AC/DC)	CRLD12-60V
110-230V(AC/DC)	CRLD110-230V
LED Type	Bi-Directional
Standard Pack	20

Marker Tag

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	100

RELAY + SOCKET

4 Change Over (Power - Test Button)

- Compact & Modular design with retainer clip
- Variety of operating voltages
- Low coil power consumption
- LED Indication on Coil activation
- Output mechanical flag indicator
- Long-life laser marking for circuit identification
- Integrated Input Protection (Freewheeling diode)
- 250VAC/6A high power switching capacity.
- High Mechanical and Electrical Life
- IEC 61810-1 Standard
- Manual Over-ride test button for no load testing purpose
- Visual identification of Relay voltage type by colour of override test button
- Input universal polarity

cULus LISTED CE RoHS

TECHNICAL DATA

Mechanical Life	≥2000 x 10^4cycles		
Electrical Life	≥40 x 10^4cycles		
Switching Frequency	No Load: 18000 Operations / Hour	Full Load: 1800 Operations / Hour	
Operate Time / Release Time	≤20 ms / ≤20 ms		
Dielectric Strength	Between open contacts: 1000 VAC / 1 min	Between poles: 2000 VAC / 1 min	Between contacts & coil 2000 VAC / 1min
Impulse Withstand Voltage	4000 V		
Insulation Voltage	250 VAC		
Insulation Resistance	≥1000 MΩ		
Operating Temperature	-55 to +70°C		
Storage Temperature	-55 to +85°C		
Overvoltage Category	II		
Pollution Degree	2		
Air Pressure	86 to 106 KPa		
Shock Resistance	10 G (half sine shock pulse: 11 ms)		
Vibration Resistance	10 to 55 Hz Double-amplitude:1.5 mm		
Degree Of Protection	IP20		

CONTACT SPECIFICATION

Contact Configuration	4 CO	
Rated Switching Voltage	250 VAC / 30VDC	
Max Switching Capacity	1500 VA, 180 W	
Max Switching Current	6 A	
Min Switching Current	10 mA (@ 17 V)	
Contact Resistance	≤50 mΩ	
Contact Material	Ag Alloy	
Status Indication	DC - Green LED	AC - Red LED
Functionality Test	Manual Overide button: DC - Blue / AC - Red	

COIL SPECIFICATION

Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Maximum Coil Voltage	13.2 VDC	26.4 VDC	52.8 VDC	121 VDC	242 VDC	26.4 VAC	126.5 VAC	253 VAC
*Coil Resistance	180 Ω	640 Ω	2600 Ω	13000 Ω	42000 Ω	180 Ω	4430 Ω	16500 Ω
Pickup Voltage	9 VDC	18 VDC	36 VDC	82.5 VDC	165 VDC	19.2 VAC	92 VAC	184 VAC
Dropout Voltage	1.2 VDC	2.4 VDC	4.8 VDC	11 VDC	22 VDC	7.2 VAC	34.5 VAC	69 VAC
Coil Power Consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W	1.2 VA	1.2 VA	1.2 VA

Note: *Coil resistance: under coil voltage 110 V are measured with tolerance of ±10%Ω, above 110V with tolerance of ±15%Ω.

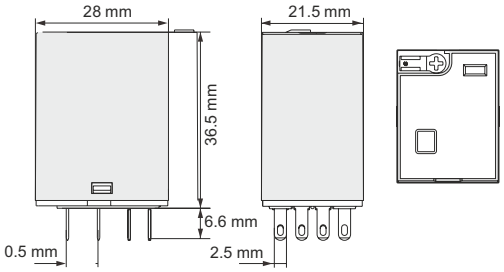
ORDERING INFORMATION

Coil Voltage	12 VDC	24 VDC	48 VDC	110 VDC	220 VDC	24 VAC	115 VAC	230 VAC
Cat. No.	CRMA4P012DYLT	CRMA4P024DYLT	CRMA4P048DYLT	CRMA4P110DYLT	CRMA4P220DYLT	CRMA4P024AYLT	CRMA4P115AYLT	CRMA4P230AYLT
Standard Pack	10	10	10	10	10	10	10	10

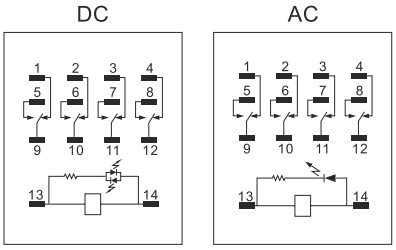
CONNECTION SPECIFICATION

Screw Size	M3
Connection type	Screw
Wire Size-Solid	0.2 mm^2- 4 mm^2
Wire Size-Stranded/Flexible	0.2 mm^2- 4 mm^2
Wire Size-Solid	24 AWG - 10 AWG
Wire Size-Stranded/Flexible	24 AWG - 10 AWG
Wire Stripping Length	8 mm
Torque	0.4 Nm / 4.5 lb-in
Suitable wire / conductor	Copper wire (Temperature Range 60/75^0 C)

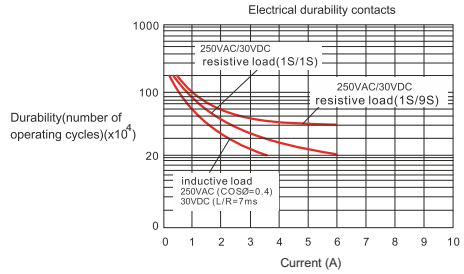
RELAYS DIMENSIONS



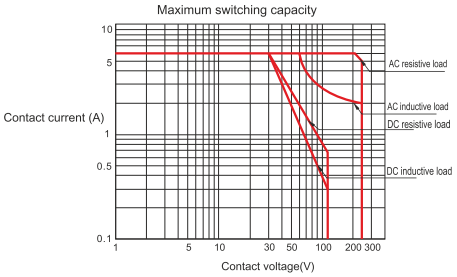
PIN CONFIGURATION



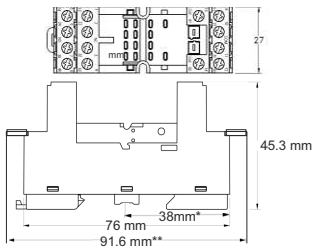
ELECTRICAL LIFE



CONTACT PERFORMANCE

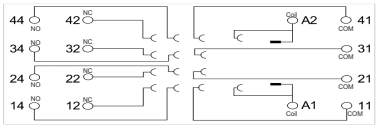


SOCKET DIMENSIONS



Note: *Panel mount position
** Dimension along with Marker Card

ELECTRICAL CONNECTION DIAGRAM



ACCESSORIES

Retainer Bracket

Type / Cat. No.	CRB4
Material	Polyamide
Standard Pack	20

Retainer Bracket

Type / Cat. No.	CRB4M
Material	Metal
Standard Pack	20

Pluggable LED Module

Type / Cat. No.	
12-60 V(AC/DC)	CRLD12-60V
110-230 V(AC/DC)	CRLD110-230V
LED Type	Bi-Directional
Standard Pack	20

Marker Tag

Type / Cat. No.	
Marker Tag	MT - CRM4CO
Group Marker	CA-509/G3
Standard Pack	20

COMPACT SLIM RELAYS

BUILT TO SAVE PANEL SPACE

The world of automation is constantly evolving and becoming more complex with ever more sensor and actuator loops being incorporated into control systems. This brings about a need for miniaturizing every control component including relays so as to make Control Panels more dense yet managable.

Connectwell's CSR Series - Slim Relay Modules are the thinnest control and protection relay modules with just 6mm space required on the DIN Rail for 1CO Relays and 12mm for 2 CO Relays. This allows you to build ever more complex control loops without having to worry about Panel Space.

Choice of
ELECTROMECHANICAL & ELECTRONIC RELAYS

True Modular Design with
IP 20 SAFETY Rating

Design to Save Panel Space:
Upto **66%** Saving

Superior **AESTHETICS** with consistent Profile for 1 CO & 2CO Contacts

True Full Contact Rating
CONTINUOUS OPERATION

CE & UL Approved

SLIM RELAYS

Electro Mechanical Relay - 1 Change Over

- Compact 6.0 mm thin design
- Variety of Operating Voltages
- High switching current: up to 6 A at 250 VAC
- Low coil power consumption: 175 mW
- LED Indication on Coil activation
- No requirement on polarity of input voltage (except 5 VDC & 24 VDC Relay)
- Possibility of Jumpering
- Easy Legibility marker
- Choice of Screw & Spring Clamp Connection
- Special RC Snubber based Slim Relays are Available (Optional)
- Integrated Input Protection (Reverse polarity and freewheeling diode)

RoHS

INPUT DATA (COIL SIDE)

Coil Voltage	5 VDC	24 VDC	12 VUC	24 VUC	48-60 VUC	120 VUC	230 VUC
Nominal input voltage	5 VDC	24 VDC	12 V AC/DC	24 V AC/DC	48-60 V AC/DC	120V AC/DC	230 V AC/DC
Nominal input current	34 mA	7 mA	14.16 mA	14.1 mA	6.2 mA	7.4 mA	3.9 mA
Pickup voltage	3.75 VDC	18 VDC	9 VDC	19 V	43 V	90 V	170 V
Dropout voltage	0.25 VDC	1.20 VDC	0.6 VDC	4.5 V	10.5 V	21 V	36 V
Typical response time	8 ms	8 ms	8 ms	8 ms	8 ms	8 ms	8 ms
Typical release time	10 ms	10 ms	10 ms	10 ms	10 ms	10 ms	10 ms
Coil Resistance	147 Ω	3.43 kΩ	847.45 Ω	3.43 kΩ	9.75 kΩ	16.21 kΩ	58.97 kΩ
Operating Voltage Display	3mm Green LED	3mm Green LED	3mm Green LED	3mm Green LED	3mm Green LED	3mm Green LED	3mm Green LED
Nominal input power	170 mW	168 mW	169.92 mW	340 mW	300 mW	890 mW	897 mW

ORDERING INFORMATION

Screw Termination	CSR1S-5DYB	CSR1S-24DYB	CSR1S-12UYB	CSR1S-24UYB	CSR1S-48-60UYB	CSR1S-120UYB	CSR1S-230UYB
Screw Termination + RC	--	--	--	--	--	CSR1S-120UYB-SN	CSR1S-230UYB-Sn
Spring Termination	CSR1S-5DXB	CSR1S-24DXB	CSR1S-12UXB	CSR1S-24UXB	CSR1S-48-60UXB	CSR1S-120UXB	CSR1S-230UXB
Spring Termination + RC	--	--	--	--	–	CSR1S-120UXB-SN	CSR1S-230UXB-SN
Standard Pack	10	10	10	10	10	10	10
Pluggable Relay							
12 VDC		SRL1-12D	SRL1-12D				
24VDC				SRL1-24D	SRL1-24D	SRL1-24D	
60VDC							SRL1-60D
Standard Pack		15	15	15	15	15	15

OUTPUT DATA

Contact switching type	1CO (SPDT)
Contact resistance	100 mΩ @ 1A 6VDC
Contact material	$AgSnO_2$
Limiting continuous current	6 A
Switching Voltage	230 VAC / 30 VDC
Maximum Switching power	1500 VA, 180 W

ENVIROMENTAL AND REAL LIFE CONDITION

Degree of protection (Relay Base)	IP20
Ambient Operating Temperature	-40 to +55°C
Housing Material	PA 6,6
Ambient temperature storage	-40 to +85°C

CONNECTION SPECIFICATION

Type of Connection	Spring / Screw Connection
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)
Wire Stripping Length	10 mm
Wire Size-Solid/Stranded/Flexible With Ferrule(IEC) without Ferrule	0.2 - 2.5 mm^2
Wire Size-Stranded/Flexible With Ferrule(IEC)	0.2 - 2.5 mm^2
Wire Size-Solid With Ferrule(IEC)	0.2 - 2.5 mm^2
Wire Size-Stranded/Flexible With Ferrule(UL)	24 - 14 AWG
Wire Size-Solid With Ferrule(UL)	24 - 14 AWG
Wire Size-Solid/Stranded/Flexible With Ferrule(UL) without Ferrule	24 - 14 AWG
Wire Size- Solid With TWIN Ferrule(UL)	24 - 16 AWG
Wire Size- Stranded/Flexible With TWIN Ferrule(IEC)	0.2 - 1.5 mm^2

ACCESSORIES

Jumpers	Cat. NO.	Standard Pack
Coil Side & Contact Side - 2 Pole	JX4/2	100
Coil Side & Contact Side - 3 Pole	JX4/3	50
Coil Side & Contact Side - 4 Pole	JX4/4	50
Coil Side & Contact Side - 5 Pole	JX4/5	50
Coil Side & Contact Side - 8 Pole	JX4/8	10
Coil Side & Contact Side - 10 Pole	JX4/10	10
Coil Side & Contact Side - 16 Pole	JX4/16	10
Marker Card	MC6 (Blank)	10
	MC6WP (Printed)	10
Screwdriver	SCS0.5/3	10
End Clamp	CA103	50
	CA104	50
Mounting Rail (1 M Length)		**Standard Pack**
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M	50
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S	50
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M	50
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S	50

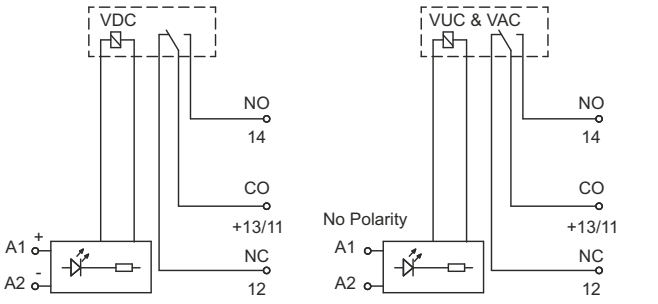
INSULATION

Insulation type	Class A (UL)
Insulation resistance	1000 MΩ at 500 VDC
Insulation test voltage	5000 VAC (1Min)
Over voltage category	III
Creepage Distance	10 mm
Pollution Degree	2
Dielectric strength:-	
1) Between Winding & Coil	4000 VAC (50Hz 1min)
2) Between Contact Sets	2000 VAC (50Hz 1min)
3) Between Open Contacts	1000 VAC (50Hz 1min)
4) Between UUT Live Parts/ Din Rail	2000 VAC (50Hz 1min)
Service Life Electrical	NO-30,000 OPS, NC-10,000 OPS

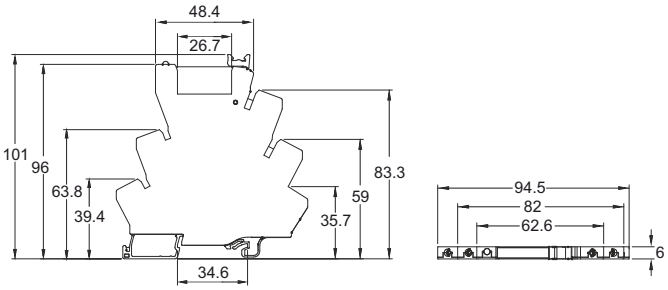
PROPERTIES

Product type	Electromechanical Relay
Product family	Slim Relay
Application	PLC, Power, Machine Building, Automation Panels
Mechanical Service Life	10,000,000 operations min.
Dimensions in mm (W x H x D)	6 x 94.5 x 96

ELECTRICAL CONNECTION DIAGRAM



MECHANICAL DIMENSIONS (mm)



SLIM RELAYS

Electro Mechanical Relay - 2 Change Over

- Compact thin design
- Variety of Operating Voltages
- High switching current: up to 8 A at 250 VAC
- Low coil power consumption
- LED Indication on Coil activation
- No requirement on polarity of input voltage
- Possibility of Jumpering up to 8 channels with a single link
- Easy Legibility marker
- Integrated Input Protection. (Rectifier and freewheeling diode)

RoHS

INPUT DATA (COIL SIDE)

Coil Voltage	12 VUC	24 VUC	48-60 VUC	120 VUC	230 VUC
Nominal input voltage	12 V AC/DC	24 V AC/DC	48-60 V AC/DC	120 V AC/DC	230 V AC/DC
Nominal input current	32 mA	24 mA	20 mA	5.1 mA	3.9 mA
Pickup voltage AC	9.7 VAC	18.5 VAC	42.5 VAC	76 VAC	120 VAC
Pickup voltage DC	10.8 VDC	19 VDC	43 VDC	80 VDC	110 VDC
Dropout Voltage AC	3.6 VAC	6 VAC	18.5 VAC	25 VAC	40 VAC
Dropout Voltage DC	2.7 VDC	5 VDC	16.5 VDC	19.5 VDC	40 VDC
Typical response time	8 ms	8 ms	10 ms	9 ms	9 ms
Typical release time	10 ms	10 ms	13 ms	12 ms	12 ms
Coil Resistance	360 Ω	1.44 k Ω	5.36 k Ω	23.56 k Ω	38.34 k Ω
Operating Voltage Display	3mm Green LED	3mm Green LED	3mm Green LED	3mm Green LED	3mm Green LED
Nominal input power	384 mW	480 mW	552 mW	612 mW	660 mW

ORDERING INFORMATION

Screw Termination	CSR2S-12UYC	CSR2S-24UYC	CSR2S-48-60UYC	CSR2S-120UYA	CSR2S-230UYA
Screw Termination+RC	-	-	-	CSR2S-120UYA-SN	CSR2S-230UYA-SN
Standard Pack	10	10	10	10	10

OUTPUT DATA

Contact switching type	2 CO (DPDT)
Contact resistance	100 mΩ
Contact material	Ag Alloy (Cd Free)
Limiting continuous current	8 A
Switching Voltage	230 VAC / 30 VDC
Maximum Switching power	2000 VA, 240 W

ENVIROMENTAL AND REAL LIFE CONDITION

Degree of protection (Relay Base)	IP20
Ambient Operating Temperature	-40 to +55°C
Housing Material	PA 6,6
Ambient temperature storage	-40 to +85°C

CONNECTION SPECIFICATION

Type of Connection	Screw Connection
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)
Wire Stripping Length	10 mm
Wire Size-Solid/Stranded/Flexible With Ferrule(IEC) without Ferrule	0.2 - 2.5 mm^2
Wire Size-Stranded/Flexible With Ferrule(IEC)	0.2 - 2.5 mm^2
Wire Size-Solid With Ferrule(IEC)	0.2 - 2.5 mm^2
Wire Size-Stranded/Flexible With Ferrule(UL)	24 - 14 AWG
Wire Size-Solid With Ferrule(UL)	24 - 14 AWG
Wire Size-Solid/Stranded/Flexible With Ferrule(UL) without Ferrule	24 - 14 AWG
Wire Size- Solid With TWIN Ferrule(UL)	24 - 16 AWG
Wire Size- Stranded/Flexible With TWIN Ferrule(IEC)	0.2 - 1.5 mm^2

ACCESSORIES

Jumpers	Cat. NO.	Standard Pack
Coil Side - 2 Pole	JX1.5/14/2	100
Coil Side - 3 Pole	JX1.5/14/3	50
Coil Side - 4 Pole	JX1.5/14/4	50
Contact Side - 4 Pole	JX1.5/7/4	50
Contact Side - 6 Pole	JX1.5/7/6	50
Contact Side - 8 Pole	JX1.5/7/8	50
Marker Card	MC12 (Blank)	10
	MC12WP (Printed)	10
Screwdriver	SCS0.5/3	10
End Clamp	CA202	25
	CA702	50
Mounting Rail (1 M Length)		**Standard Pack**
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M	50
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S	50
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M	50
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S	50

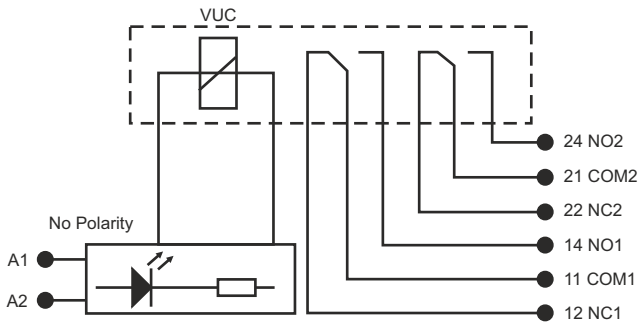
INSULATION

Insulation type	Class A (UL)
Insulation resistance	1000 MΩ at 500 VDC
Insulation test voltage	5000 VAC (1Min)
Over voltage category	III
Creepage Distance	10 mm
Pollution Degree	2
Dielectric strength:-	
1) Between Winding & Coil	4000 VAC (50Hz 1min)
2) Between Contact Sets	2000 VAC (50Hz 1min)
3) Between Open Contacts	1000 VAC (50Hz 1min)
4) Between UUT Live Parts/ Din Rail	2000 VAC (50Hz 1min)
Service Life Electrical	NO-30,000 OPS, NC-10,000 OPS

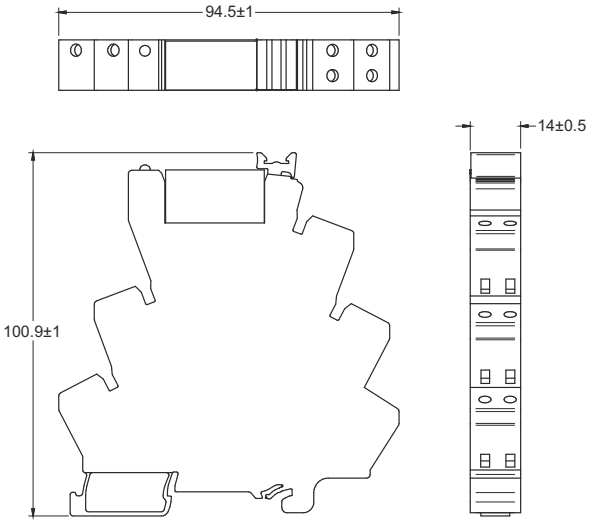
PROPERTIES

Product type	Electromechanical Relay
Product family	Slim Relay
Application	PLC, Power, Machine Building, Automation Panels
Mechanical Service Life	10,000,000 operations min.
Dimensions in mm (W x H x D)	14 x 94.5 x 96

ELECTRICAL CONNECTION DIAGRAM



MECHANICAL DIMENSIONS (mm)



SLIM RELAYS

Solid State Relays

- Compact 6.0 mm thin design
- Variety of operating voltages
- High switching current: up to 4 A at 48 VDC and 2 A at 230 VAC
- Low drive current (<21 mA)
- LED status indicator
- Opto isolation
- Zero cross turn on (AC output)
- BJT/MOSFET DC output
- TTL & CMOS compatible
- Suitable for PLC drive loads
- Choice of Screw & Spring Clamp Connection
- Integrated Input Protection. (Reverse polarity)

RoHS

INPUT DATA

Input Voltage	24 VDC	24 VUC	48-60 VUC	120 VUC	230 VAC
Nominal input voltage	24 VDC	24 V AC/DC	48-60 V AC/DC	120 V AC/DC	230 VAC
Nominal input current	7.5 mA	7 mA	6.2 mA	14.1 mA	14.1 mA
Pickup voltage AC	-	18.5 VAC	42.5 VAC	76 VAC	120 VAC
Pickup voltage DC	10.5 VDC	19 VDC	43 VDC	80 VDC	-
Dropout Voltage AC	-	6 VAC	18.5 VAC	25 VAC	40 VAC
Dropout Voltage DC	7.5 VDC	5 VDC	16.5 VDC	19.5 VDC	-
Operating Voltage Display	3mm Green LED	3mm Green LED	3mm Green LED	3mm Green LED	3mm Green LED
Switching Frequency (DC)	1.2 KHz	1.2 KHz	1.2 KHz	1.2 KHz	1.2 KHz

ORDERING INFORMATION

Screw Termination					
DC Output 48 V / 4A	CSER1-24D48D4YC	CSER1-24U48D4YC	CSER1-4860U48D4YC	CSER1-120U48D4YC	CSER1-230A48D4YC
DC Output 48 V / 100 mA	CSER1-24D48D100YC	CSER1-24U48D100YC	CSER1-4860U48D100YC	CSER1-120U48D100YC	CSER1-230A48D100YC
AC Output 380 V / 2A	CSER1-24D380A2YC	CSER1-24U380A2YC	CSER1-4860U380A2YC	CSER1-120U380A2YC	CSER1-230A380A2YC
Spring Termination					
DC Output 48 V / 4A	CSER1-24D48D4XC	CSER1-24U48D4XC	CSER1-4860U48D4XC	CSER1-120U48D4XC	CSER1-230A48D4XC
DC Output 48 V / 100 mA	CSER1-24D48D100XC	CSER1-24U48D100XC	CSER1-4860U48D100XC	CSER1-120U48D100XC	CSER1-230A48D100XC
AC Output 380 V / 2A	CSER1-24D380A2XC	CSER1-24U380A2XC	CSER1-4860U380A2XC	CSER1-120U380A2XC	CSER1-230A380A2XC
Standard Pack	10	10	10	10	10

PROPERTIES

Product type	Solid State Relay
Product family	Slim Relay
Application	PLC, Power, Machine Building, Automation Panels
Service Life	10,000,000 operations min.
Dimensions in mm (W x H x D)	6 x 94.5 x 96

ENVIROMENTAL AND REAL LIFE CONDITION

Degree of protection (Relay Base)	IP20
Ambient Operating Temperature	-40 to 55°C
Housing Material	PA 6,6
Ambient temperature storage	-40 to 85°C

OUTPUT DATA

Contact switching type	1NO (Solid State)
Output Load	
Option 1	100 mA / 48 VDC Output
Option 2	4 A / 48 VDC Output
Option 3	2 A / 380 VAC Output
Low voltage range	
Option 1 & 2	3 - 58 VDC
Option 3	48 - 380 VAC
Maximum on state voltage drop	
Option 1	1.5 VDC (100 mA / 48 VDC Output)
Option 2	0.5 VDC (4 A / 48 VDC Output)
Option 3	0.35 VDC (2 A / 380 VAC Output)
Maximum Leakage Current	
Option 1 & 2	100 uA (DC Output)
Option 3	1.5 mA (AC Output)
Maximum Transient Voltage	
Option 1 & 2	58 VDC (DC Output)
Option 3	600 Vpk (AC Output)
Turn on time (0 cross turn on)	
Option 1 & 2	300 us
Option 3	1/2 AC Cycle + 1 ms
Turn off time	
Option 1 & 2	300 us
Option 3	1/2 AC Cycle + 1 ms

CONNECTION SPECIFICATION

Type of Connection	Spring / Screw Connection
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)
Wire Stripping Length	10 mm
Wire Size-Solid/Stranded/Flexible With Ferrule(IEC) without Ferrule	0.2 - 2.5 mm^2
Wire Size-Stranded/Flexible With Ferrule(IEC)	0.2 - 2.5 mm^2
Wire Size-Solid With Ferrule(IEC)	0.2 - 2.5 mm^2
Wire Size-Stranded/Flexible With Ferrule(UL)	24 - 14 AWG
Wire Size-Solid With Ferrule(UL)	24 - 14 AWG
Wire Size-Solid/Stranded/Flexible With Ferrule(UL) without Ferrule	24 - 14 AWG
Wire Size- Solid With TWIN Ferrule(UL)	24 - 16 AWG
Wire Size- Stranded/Flexible With TWIN Ferrule(IEC)	0.2 - 1.5 mm^2

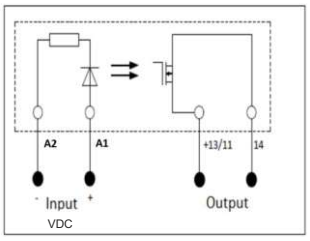
INSULATION

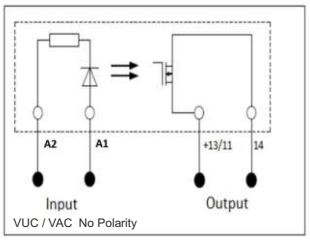
Insulation type	Class A (UL)
Insulation resistance	1000 MΩ at 500 VDC
Insulation test voltage	5000 VAC (1Min)
Over voltage category	III
Creepage Distance	10 mm
Pollution Degree	2
Dielectric strength:-	
1) Between Winding & Coil	4000 VAC (50Hz 1min)
2) Between Contact Sets	2000 VAC (50Hz 1min)
3) Between Open Contacts	1000 VAC (50Hz 1min)
4) Between UUT Live Parts/ Din Rail	2000 VAC (50Hz 1min)
Service Life Electrical	NO-30,000 OPS, NC-10,000 OPS

ACCESSORIES

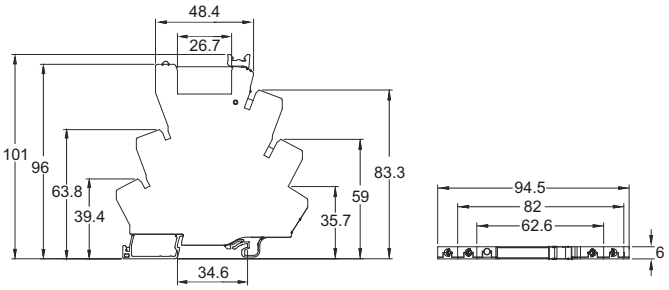
Jumpers	Cat. NO.	Standard Pack
Coil Side & Contact Side - 2 Pole	JX4/2	100
Coil Side & Contact Side - 3 Pole	JX4/3	50
Coil Side & Contact Side - 4 Pole	JX4/4	50
Coil Side & Contact Side - 5 Pole	JX4/5	50
Coil Side & Contact Side - 8 Pole	JX4/8	10
Coil Side & Contact Side - 10 Pole	JX4/10	10
Coil Side & Contact Side - 16 Pole	JX4/16	10
Marker Card	MC6 (Blank)	10
	MC6WP (Printed)	10
Screwdriver	SCS0.5/3	10
End Clamp	CA103	50
	CA104	50
Mounting Rail (1 M Length)		**Standard Pack**
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M	50
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S	50
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M	50
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S	50

ELECTRICAL CONNECTION DIAGRAM





MECHANICAL DIMENSIONS (mm)



SLIM RELAY ADAPTOR WITH DSUB CONNECTOR

Wiring the electrical control panel take huge amount of time, The CW Slim Relay Adapter is an easy plug in accessory used for slim relay to connect it with the PLC/DCS Input or Output System. Thanks to compact, easy solution which allow user for quick and error free connections for wide range for applications. With the help of this pluggable slim relay adapter and prefab cable from Connectwell you can save up to 95% time over conventional screw or spring connection.

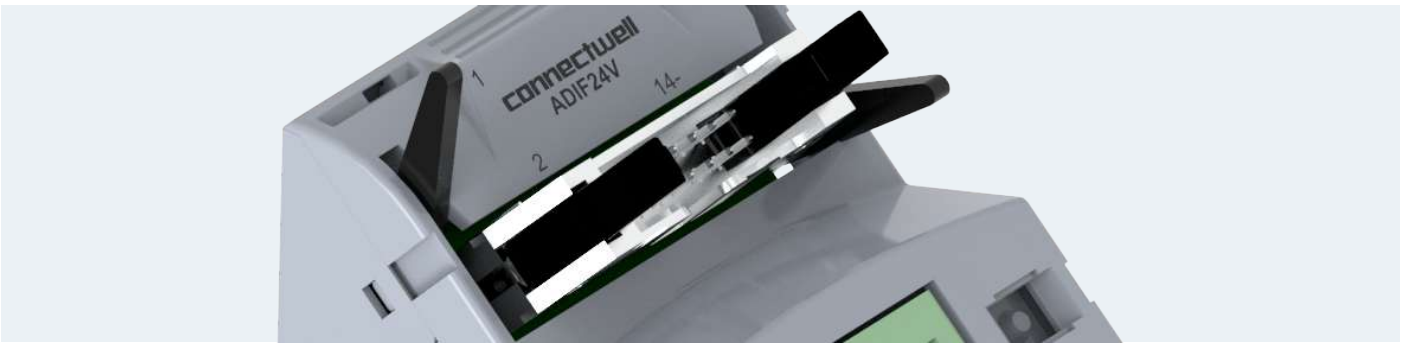
SUITABLE FOR	
CSR1S-24DYB	Slim Relay Module 1CO 24VDC - Screw Connection
CSR1S-24UYB	Slim Relay Module 1CO 24VUC - Screw Connection
CSR1S-24UXB	Slim Relay Module 1CO 24VUC - Spring Connection
CSR1S-24DXB	Slim Relay Module 1CO 24VDC - Spring Connection

ORDERING INFORMATION

Cat. No.	Description	STD. PACK
ADID24V	Slim Relay Adapter -Input side-24VDC (DSUB)	1
ADOD24V	Slim Relay Adapter -Output side-24VDC (DSUB)	1
ADIF24V	Slim Relay Adapter -Inputt side-24VDC (FRC)	1
ADOF24V	Slim Relay Adapter -Output side-24VDC (FRC)	1

PRODUCT SPECIFICATIONS

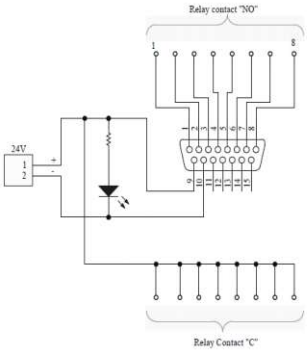
Conductor Cross Section in AWG	12 AWG
Conductor Cross Section in sq. mm	2.5 mm^2
Height	56.25 mm
Length	47.52 mm
Rated Current	2A
Rated Voltage	24 V
Suitable For	Slim Relay
Torque	0.4 Nm
Width (Thickness)	53.7 mm

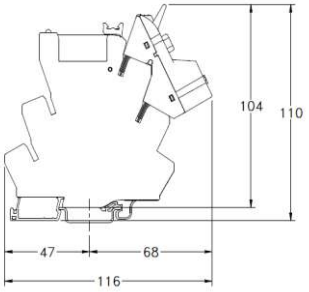


CIRCUIT DIAGRAM

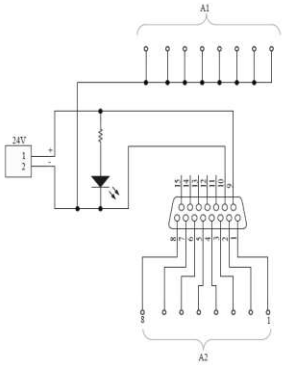
PRODUCT DIAGRAM

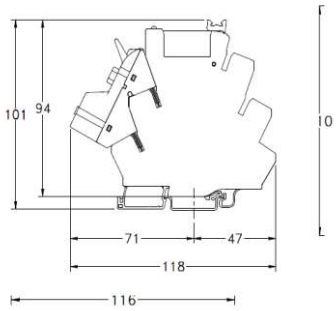
ADID24V





ADOD24V





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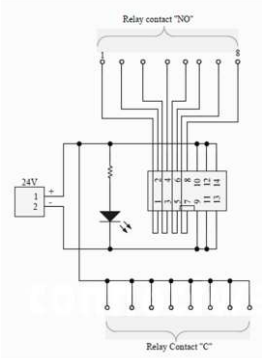
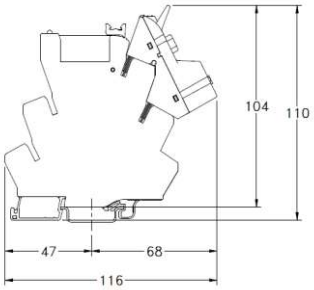
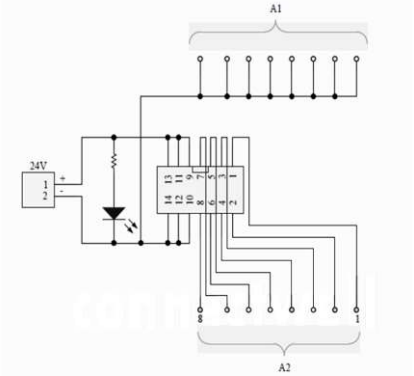
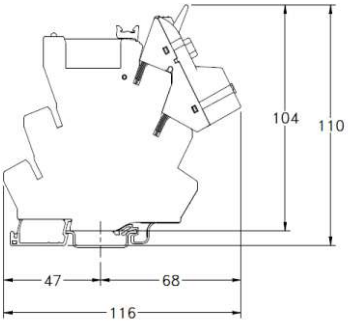


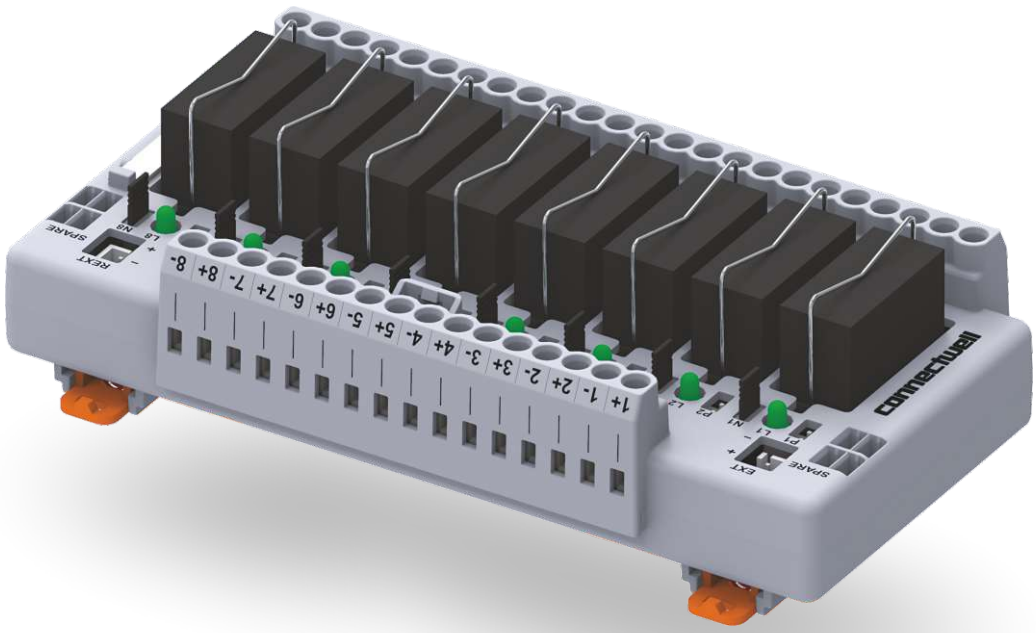


ADOF24V





NEXT GENERATION RELAY INTERFACE MODULES



BUILT TO DELIVER VALUE

Maximise flexibility and safety in automation with Connectwell's completely enclosed, DIN rail-mounted, compact CIMRE Relay Modules. A first-in-class design, this IP20 finger-safe product offers flexible and modular configurations for connecting 2 to 32 channels of electrical signals between PLCs and field devices.

Fully enclosed **IP20** rated design

Custom configuration upto **32 CHANNELS**

True **10 AMPERES** performance

Pre-installed long tail **JUMPERS**

EASE OF WIRE ENTRY clearly visible status indicators

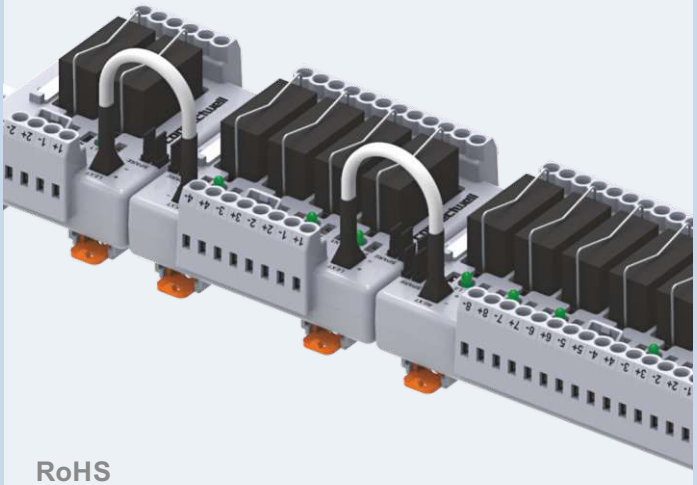
Industry first long-life **LASER MARKING** for circuit identification

COMPACT & SECURE mounting

Additional **ALL AXIS** marking provision

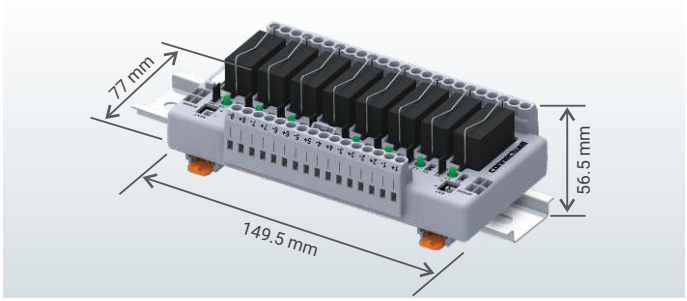
NEXT GENERATION RELAY MODULES
1 Change Over

- Fully-enclosed IP20 rated design
- Custom configurations up to 32 channels
- True 10 Amperes performance
- Ease of wire entry, clearly visible status indicators
- Pre-installed long tail jumpers
- Industry first long-life laser marking for circuit identification
- Compact and secure mounting
- Additional all-axis marking provision
- Easy to replace pluggable relays
- Freewheeling diode protection for DC coil
- Variety of operating voltage



RoHS

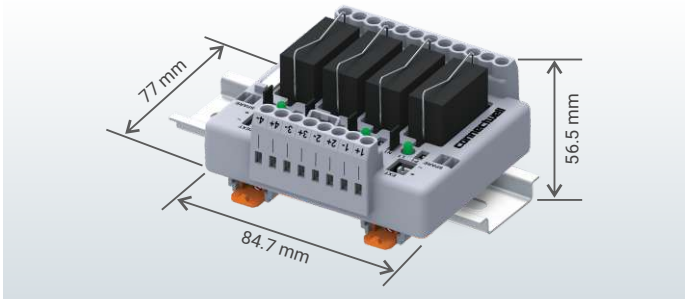
8 Channel, 1 Changeover (SPDT)



Ordering Information

Operating Voltage	Part Number with Pluggable Relay	Part Number with Soldered Relay	Std. Pack
12 VDC	CIMRE1SS8/12/OM	CIMRE1S8/12/OM	1
24 VDC	CIMRE1SS8/24/OM	CIMRE1S8/24/OM	1
24 VAC	CIMRE1SS8/24A/OM	CIMRE1S8/24A/OM	1
110 VAC	CIMRE1SS8/110A/OM	CIMRE1S8/110A/OM	1
230 VAC	CIMRE1SS8/230A/OM	CIMRE1S8/230A/OM	1

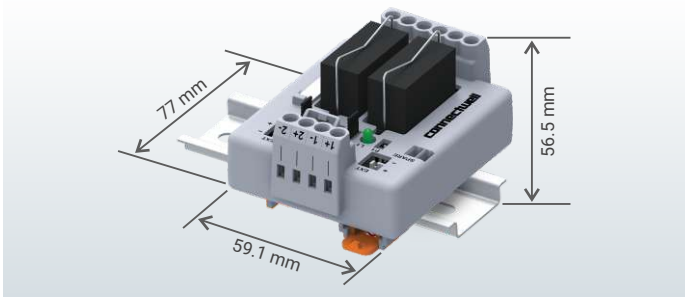
4 Channel, 1 Changeover (SPDT)



Ordering Information

Operating Voltage	Part Number with Pluggable Relay	Part Number with Soldered Relay	Std. Pack
12 VDC	CIMRE1SS4/12/OM	CIMRE1S4/12/OM	1
24 VDC	CIMRE1SS4/24/OM	CIMRE1S4/24/OM	1
24 VAC	CIMRE1SS4/24A/OM	CIMRE1S4/24A/OM	1
110 VAC	CIMRE1SS4/110A/OM	CIMRE1S4/110A/OM	1
230 VAC	CIMRE1SS4/230A/OM	CIMRE1S4/230A/OM	1

2 Channel, 1 Changeover (SPDT)



Ordering Information

Operating Voltage	Part Number with Pluggable Relay	Part Number with Soldered Relay	Std. Pack
12 VDC	CIMRE1SS2/12/OM	CIMRE1S2/12/OM	1
24 VDC	CIMRE1SS2/24/OM	CIMRE1S2/24/OM	1
24 VAC	CIMRE1SS2/24A/OM	CIMRE1S2/24A/OM	1
110 VAC	CIMRE1SS2/110A/OM	CIMRE1S2/110A/OM	1
230 VAC	CIMRE1SS2/230A/OM	CIMRE1S2/230A/OM	1

Note - Product height shown is for pluggable relay (G2R) modules mounted on DIN 35 x 7.5 mm Rail.
- For soldered module product height will be 13 mm less than pluggable relay modules.
- Modules are preconfigured to common negative

GENERAL DATA

Supply Voltage Indication	3 mm Green LED
Ambient Operating Temperature	-20° to 50° C
Mounting Possibility	DIN 35 / DIN 35-15 Rail
Housing Material	Polycarbonate
Housing Colour	Grey
Relay Protection (DC Variant)	Using 1N4007 Free Wheeling Diode
Bussing Possiblity	Yes, With long tail jumpers
Standard	IEC 60664

CONNECTION DATA

Type of Connection	Screw Connection
Min. Wire Size (mm^2)	0.2 mm^2
Max. Wire Size (mm^2)	2.5 mm^2
Min. Wire Size (AWG)	22 AWG
Max. Wire Size (AWG)	14 AWG
Wire Stripping Length	8 mm
Applicable Torque	0.4 Nm (3.5 lb.in)
Screw Size	M2.5

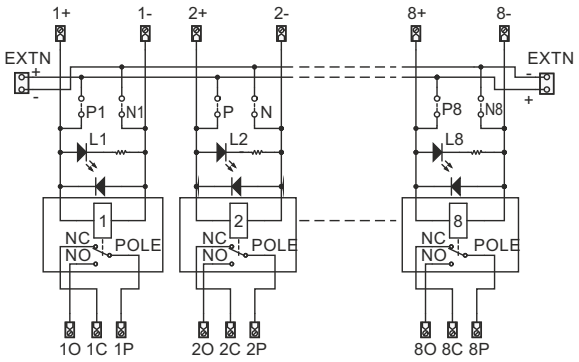
RELAYS

Operting Voltage	Part Number	Standard Pack
12 VDC / OMRON	IMACC/G2RL1/12DC	50
24 VDC / OMRON	IMACC/G2RL1/24DC	50
24 VAC / OMRON	IMACC/G2RL1/24AC	50
110 VAC / OMRON	IMACC/G2RL1/110AC	50
230 VAC / OMRON	IMACC/G2RL1/230AC	50

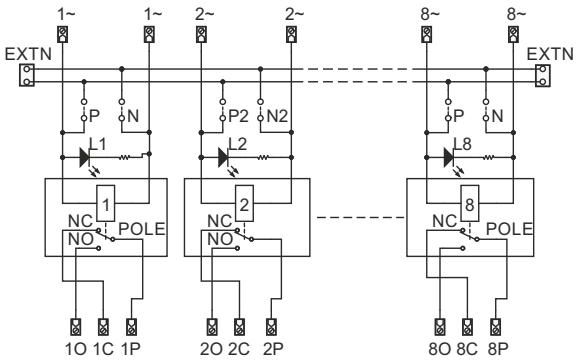
ACCESSORIES

Operting Voltage	Part Number	Standard Pack
Extension Cable	IMACC/CIMRE/EXT	10
DIN Rail 35 - 1 meter	CA701-1M / CA701-1M-S	50
DIN Rail 35 - 2 meter	CA701-2M / CA701-2M-S	50
Group Marker	GMH8 / GMH8N	100
Screwdriver	SCS0.5/3	10

Circuit Diagram - For DC operating voltage Relay Modules



Circuit Diagram - For AC operating voltage Relay Modules



RELAY DATA

RELAY COIL DATA

Rated Coil Voltage (V)	**12 VDC**	**24 VDC**	**24 VAC**	**110 VAC**	**220 VAC**
Coil Resistance (ohms)	275	1440	260	4600	20,200
Rated Coil Current (mA)	43.6	16.7	46.5	11	5.5
Must Operate / Must Release Voltage (V)	8.4 / 1.8	16.8 / 2.4	19.2 / 7.2	88 / 33	176 / 66
Max. Voltage	13.2	31.2	26.4	121	242
Nominal Input Power	530 mW	400 mW	0.9 VA	0.9 VA	0.9 VA

RELAY CONTACT DATA

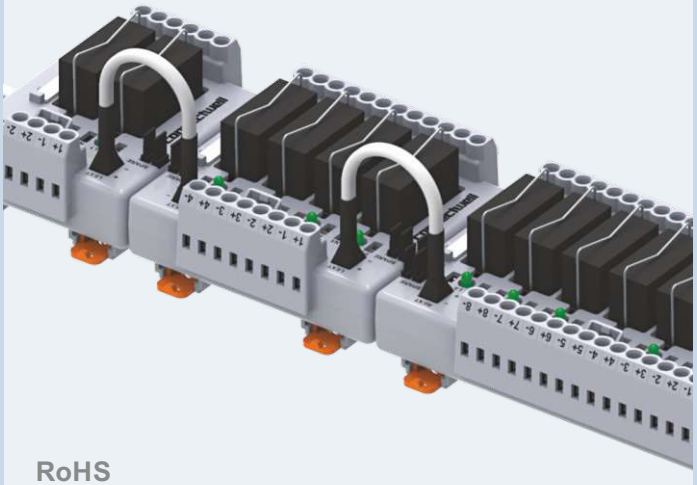
Contact Type	1CO (SPDT)	1CO (SPDT)	1CO (SPDT)	1CO (SPDT)	1CO (SPDT)
Contact Material	Ag-alloy (Cd free)	Ag-alloy (Cd free)	Ag-alloy (Cd free)	Ag-alloy (Cd free)	Ag-alloy (Cd free)
Rated Current(resistive)	10A@250VAC/24VDC	12A@250VAC/24VDC	10A@250VAC/24VDC	10A@250VAC/24VDC	10A@250VAC/24VDC
Max. Switching Voltage	380VAC,125VDC	440VAC,300VDC	380VAC,125VDC	380VAC,125VDC	380VAC,125VDC
Turn-Off Time / Turn-On Time	5 ms / 15 ms	5 ms / 15 ms	5 ms / 15 ms	10 ms / 15 ms	10 ms / 15 ms
Max. Mech Operating Freq. (At Rated Load)	18000 Opr./Hr	18000 Opr./Hr	18000 Opr./Hr	18000 Opr./Hr	18000 Opr./Hr
Max. Elect Operating Freq. (At Rated Load)	1,800 Opr./Hr	1,800 Opr./Hr	1,800 Opr./Hr	1,800 Opr./Hr	1,800 Opr./Hr
Mechanical Life expectancy	20 x 10^6	20 x 10^6	10 x 10^6	10 x 10^6	10 x 10^6
Electrical Life expectancy	100 x 10^3	50 x 10^3	100 x 10^3	100 x 10^3	100 x 10^3

RELAY GENERAL DATA

Relay Make/Series	OMRON/G2RL-1	OMRON/G2RL-1	OMRON/G2RL-1	OMRON/G2RL-1	OMRON/G2RL-1
Dielectric Strength (Between coil & contacts)	5000 VAC	5000 VAC	5000 VAC	5000 VAC	5000 VAC
Dielectric Strength (Between contacts)	1000 VAC	1000 VAC	1000 VAC	1000 VAC	1000 VAC

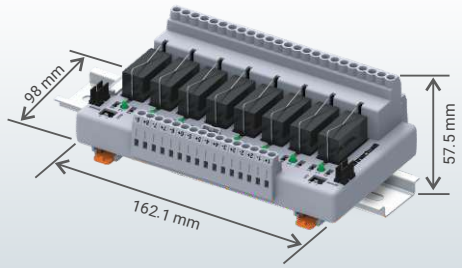
NEXT GENERATION RELAY MODULES
2 Change Over

- Fully-enclosed IP20 rated design
- Custom configurations up to 32 channels
- True 5 Amperes performance
- Ease of wire entry, clearly visible status indicators
- Pre-installed long tail jumpers
- Industry first long-life laser marking for circuit identification
- Compact and secure mounting
- Additional all-axis marking provision
- Easy to replace pluggable relays
- Freewheeling diode protection for DC coil
- IP 20 protection Class
- Variety of operating voltage



RoHS

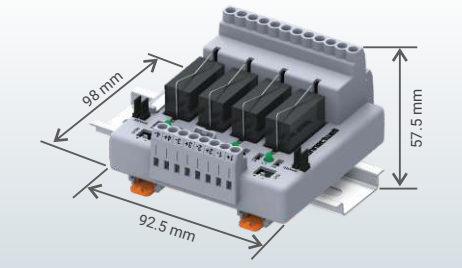
8 Channel, 2 Changeover (DPDT)



Ordering Information

Operating Voltage	Part Number with Pluggable Relay	Part Number with Soldered Relay	Std. Pack
12VDC	CIMRE2SS8/12/OM	CIMRE2S8/12/OM	1
24VDC	CIMRE2SS8/24/OM	CIMRE2S8/24/OM	1
24VAC	CIMRE2SS8/24A/OM	CIMRE2S8/24A/OM	1
110VAC	CIMRE2SS8/110A/OM	CIMRE2S8/110A/OM	1
230VAC	CIMRE2SS8/230A/OM	CIMRE2S8/230A/OM	1

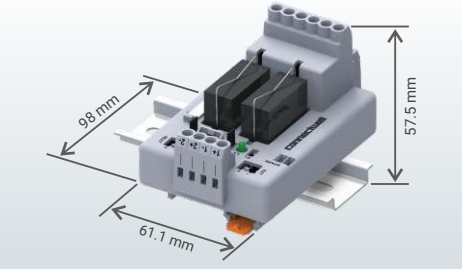
4 Channel, 2 Changeover (DPDT)



Ordering Information

Operating Voltage	Part Number with Pluggable Relay	Part Number with Soldered Relay	Std. Pack
12VDC	CIMRE2SS4/12/OM	CIMRE2S4/12/OM	1
24VDC	CIMRE2SS4/24/OM	CIMRE2S4/24/OM	1
24VAC	CIMRE2SS4/24A/OM	CIMRE2S4/24A/OM	1
110VAC	CIMRE2SS4/110A/OM	CIMRE2S4/110A/OM	1
230VAC	CIMRE2SS4/230A/OM	CIMRE2S4/230A/OM	1

2 Channel, 2 Changeover (DPDT)



Ordering Information

Operating Voltage	Part Number with Pluggable Relay	Part Number with Soldered Relay	Std. Pack
12VDC	CIMRE2SS2/12/OM	CIMRE2S2/12/OM	1
24VDC	CIMRE2SS2/24/OM	CIMRE2S2/24/OM	1
24VAC	CIMRE2SS2/24A/OM	CIMRE2S2/24A/OM	1
110VAC	CIMRE2SS2/110A/OM	CIMRE2S2/110A/OM	1
230VAC	CIMRE2SS2/230A/OM	CIMRE2S2/230A/OM	1

Note - Product height shown is for pluggable relay modules mounted on DIN 35 x 7.5 mm Rail.
- Modules are pre-configured to common negative

GENERAL DATA

Supply Voltage Indication	3 mm Green LED
Ambient Operating Temperature	-20° to 50° C
Mounting Possibility	DIN 35 / DIN 35-15 Rail
Housing Material	Polycarbonate
Housing Colour	Grey
Relay Protection (DC Variant)	Using 1N4007 Free Wheeling Diode
Bussing Possiblity	Yes, With long tail jumpers
Standard	IEC 60664

CONNECTION DATA

Type of Connection	Screw Connection
Min. Wire Size (mm^2)	0.2 mm^2
Max. Wire Size (mm^2)	2.5 mm^2
Min. Wire Size (AWG)	22 AWG
Max. Wire Size (AWG)	14 AWG
Wire Stripping Length	8 mm
Applicable Torque	0.4 Nm (3.5 lb.in)
Screw Size	M2.5

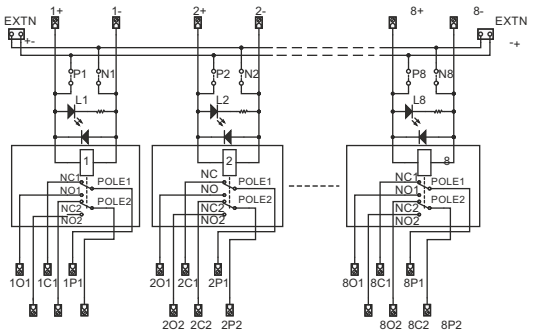
RELAYS

Operting Voltage	Part Number	Standard Pack
12 VDC / OMRON	IMACC/G2RL2/12DC	50
24 VDC / OMRON	IMACC/G2RL2/24DC	50
24 VAC / OMRON	IMACC/G2RL2/24AC	50
110 VAC / OMRON	IMACC/G2RL2/110AC	50
230 VAC / OMRON	IMACC/G2RL2/230AC	50

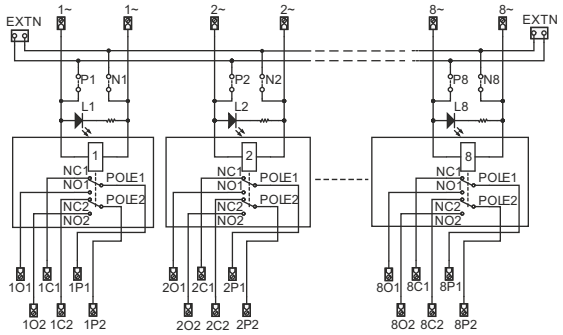
ACCESSORIES

Operting Voltage	Part Number	Standard Pack
Extension Cable	IMACC/CIMRE/EXT	10
DIN Rail 35 - 1 meter	CA701-1M / CA701-1M-S	50
DIN Rail 35 - 2 meter	CA701-2M / CA701-2M-S	50
Group Marker	GMH8 / GMH8N	100
Screwdriver	SCS0.5/3	10

Circuit Diagram - For DC operating voltage Relay Modules



Circuit Diagram - For AC operating voltage Relay Modules



RELAY DATA

RELAY COIL DATA

Rated Coil Voltage (V)	**12 VDC**	**24 VDC**	**24 VAC**	**110 VAC**	**220 VAC**
Coil Resistance (ohms)	275	1440	260	4600	20,200
Rated Coil Current (mA)	43.6	16.7	46.5	11	5.5
Must Operate / Must Release Voltage (V)	8.4 / 1.8	16.8 / 2.4	19.2 / 7.2	88 / 33	176 / 66
Max. Voltage	13.2	31.2	26.4	121	242
Nominal Input Power	530 mW	400 mW	0.9 VA	0.9 VA	0.9 VA

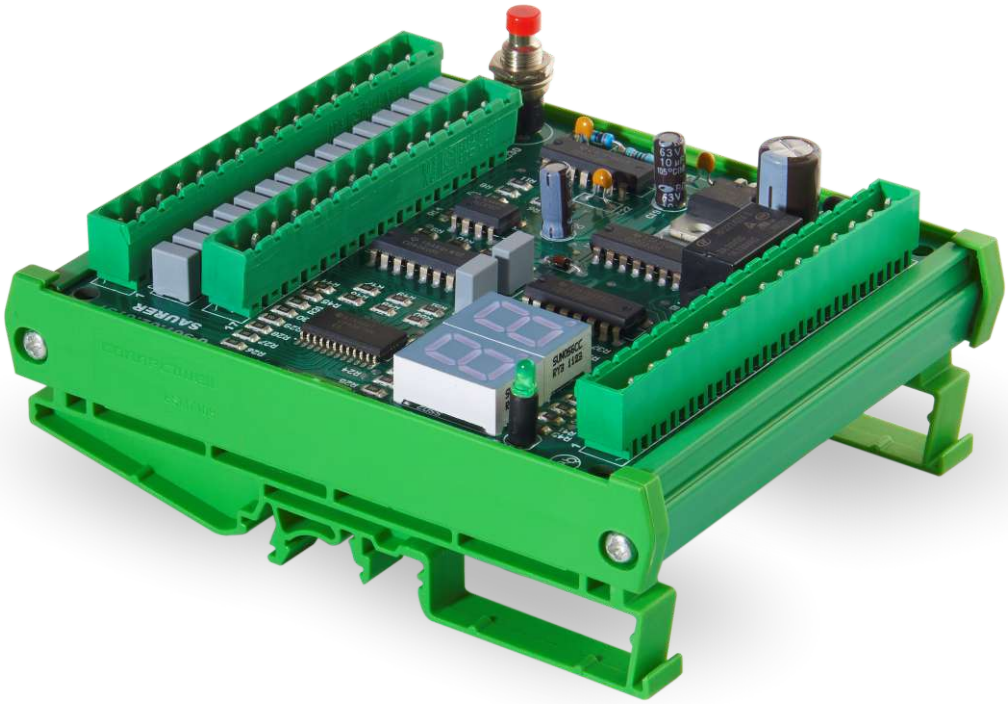
RELAY CONTACT DATA

Contact Type	2CO (DPDT)	2CO (DPDT)	2CO (DPDT)	2CO (DPDT)	2CO (DPDT)
Contact Material	Ag-alloy (Cd free)	Ag-alloy (Cd free)	Ag-alloy (Cd free)	Ag-alloy (Cd free)	Ag-alloy (Cd free)
Rated Current(resistive)	5A@250VAC/30VDC	8A@250VAC/30VDC	5A@250VAC/24VDC	5A@250VAC/30VDC	5A@250VAC/30VDC
Max. Switching Voltage	380VAC,125VDC	440VAC,300VDC	380VAC,125VDC	380VAC,125VDC	380VAC,125VDC
Turn-Off Time / Turn-On Time	5 ms / 15 ms	5 ms / 15 ms	5 ms / 15 ms	10 ms / 15 ms	10 ms / 15 ms
Max. Mech Operating Freq. (At Rated Load)	18000 Opr./Hr	18000 Opr./Hr	18000 Opr./Hr	18000 Opr./Hr	18000 Opr./Hr
Max. Elect Operating Freq. (At Rated Load)	1,800 Opr./Hr	1,800 Opr./Hr	1,800 Opr./Hr	1,800 Opr./Hr	1,800 Opr./Hr
Mechanical Life expectancy	20 x 10^6	20 x 10^6	10 x 10^6	10 x 10^6	10 x 10^6
Electrical Life expectancy	100 x 10^3	30 x 10^3	100 x 10^3	100 x 10^3	100 x 10^3

RELAY GENERAL DATA

Relay Make/Series	OMRON/G2RL-2	OMRON/G2RL-2	OMRON/G2RL-2	OMRON/G2RL-2	OMRON/G2RL-2
Dielectric Strength (Between coil & contacts)	5000 VAC	5000 VAC	5000 VAC	5000 VAC	5000 VAC
Dielectric Strength (Between contacts)	1000 VAC	1000 VAC	1000 VAC	1000 VAC	1000 VAC

CUSTOM INTERFACE MODULES



BUILT JUST FOR YOU

Standard Relay Modules which use a single type of relay or standard input and output protection circuits often are unable to meet the needs of certain industrial applications. Connectwell's IMRE Series Custom Relay Interfaces allows customers to configure Relay Interfaces for the specific needs of their application. Practically every aspect of the Relay Board design can be custom built to create the most suitable solution for answering the switching and protection needs of the end application.

Superior Choice of

V0 GRADE

Flammability
Rating Housing

True Full
Contact Rating

CONTINUOUS OPERATION

Choice of

ELECTROMECHANICAL & ELECTRONIC RELAYS

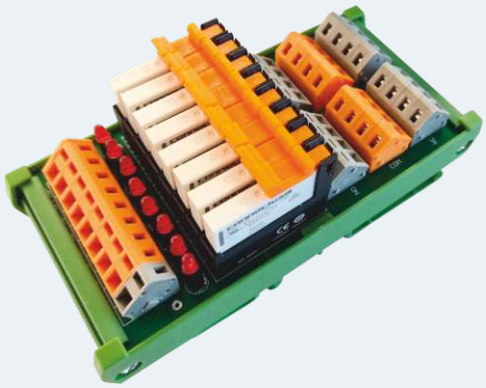
SUPERIOR RELAYS

with Increased
Operational life

Superior AESTHETICS
with consistent Profile
for 1 CO, 2CO
& 4CO Contacts

SLIM RELAY MODULES
8 Channel

- Supply voltage 24V.
- Easy to replace pluggable slim relays.
- LED Indication on Coil activation.
- Pluggable Terminals at input side.
- Low coil power consumption.
- Freewheeling diode for all relays.
- Reverse polarity protection.
- Output connections of relay will be directly terminated using screw less connector.
- 8 separate signals for relay activation & one common negative.
- DIN Rail Mounting



RoHS

ORDERING INFORMATION

Description	Cat. No.
8 Channel Module with Pluggable Relays	IMSR1SS8/24/N/SC

CONNECTION DATA

Type of Connection	Spring Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 28 -12 AWG
Stripping Length	6.5 mm

GENERAL DATA

Number of Channels	8
Width (mm)	60
Height (mm)	66
Length (mm)*	125
Bussing	Common Negative
Power ON Indication	3 mm Red LED
Relay Protection	Using 1N4007 Freewheeling Diode.
Ambient Temperature (Operation)	-20° C ... +55°C
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

OUTPUT DATA

Contact Type	1 Form C (SPDT)
Contact Material	AgSnO2
Contact Resistance	Max 100m W at 6 VDC,1A
Rated Contact Current (Resistive Load)	2 A
Load Voltage Range	24 VDC
Maximum Switching Voltage	250 VAC
Maximum Operating Frequency	50-60 Hz
Turn-Off Time	4.2 mS
Turn-On Time (0 Cross Turn On)	5.2 mS

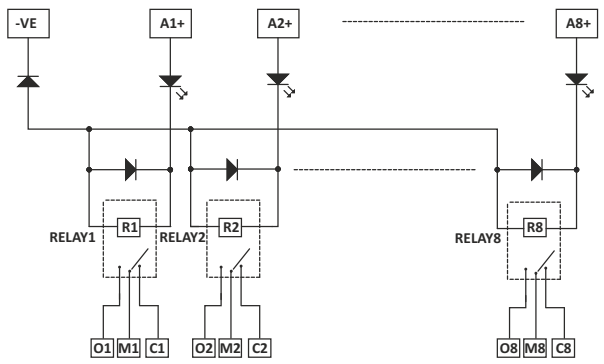
RELAY COIL DATA

Rated Coil Voltage	24 VDC
Coil Resistance	3430 Ω
Rated Coil Current	7 mA
Must Operate Voltage	18 VDC
Must Release Voltage	2.4 VDC
Max. Voltage	26.4 VDC

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

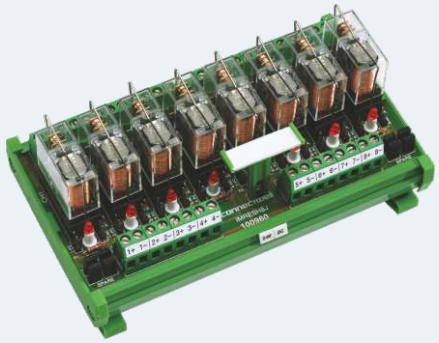
** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

CIRCUIT DIAGRAM



1 CO RELAY MODULES

- Variety of Operating Voltages
- Switching Current upto 10 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays
- Possibility of Bussing (Jumpering) relays in common negative or common positive configurations
- LED Indication to denote relay actuation
- Relay Coil Protection by means of a Freewheeling Diode
- DIN Rail mounting



RoHS

ORDERING INFORMATION

Description	Cat. No.	Cat. No.	Cat. No.	Cat. No.
1 Channel Module with Pluggable Relays	IMRE1SS1/12/OM	IMRE1SS1/24/OM	IMRE1SS1/110A/OM	IMRE1SS1/230A/OM
1 Channel Module with Soldered Relays	IMRE1S1/12/OM	IMRE1S1/24/OM	IMRE1S1/110A/OM	IMRE1S1/230A/OM
16 Channel Module with Pluggable Relays	IMRE1SS16/12/OM	IMRE1SS16/24/OM	IMRE1SS16/110A/OM	IMRE1SS16/230A/OM
16 Channel Module with Soldered Relays	IMRE1S16/12/OM	IMRE1S16/24/OM	IMRE1S16/110A/OM	IMRE1S16/230A/OM

GENERAL DATA

Number of Channels	1	16
Width (mm)	88	88
Height (mm)	74	74
Length (mm)*	23	289
Positive Bussing Possibility	By using spare jumpers.	
Negative Bussing Possibility	By using spare jumpers.	
Power ON Indication	3 mm Red LED	
Relay Protection	Using 1N4007 Freewheeling Diode.	
Ambient Temperature (Operation)	-20°C ... +50°C	
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**	
Housing Insulation Material	PVC / V0 Grade	
Housing Colour	Green	

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

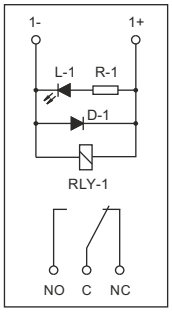
CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

RELAY CONTACT DATA

Contact Type	1 CO
Type of Connection	Screw Connection
Contact Material	Ag Alloy
Rated Current	10A @230 VAC / 30 VDC
Max. Switching Voltage	380 VAC, 125 VDC
Timing Data	18,000 operations/hr
Mechanical Life expectancy	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.

CIRCUIT DIAGRAM

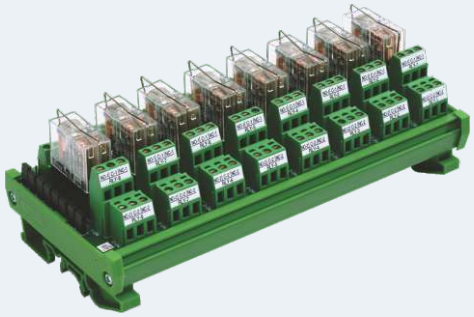


RELAY COIL DATA

Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
Coil Resistance Ω	270	1100	4600	26850
Rated Coil Current (mA)	44.5	21.8	11.0	4.7
Must Operate Voltage	8.4	16.8	88	184
Must Release Voltage	1.2	2.4	33	69
Max. Voltage	20.4	39.6	184	253

2 CO RELAY MODULES

- Variety of Operating Voltages
- Switching Current upto 5 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays
- Possibility of Bussing (Jumpering) relays in common negative or common positive configurations
- LED Indication to denote relay actuation
- Relay Coil Protection by means of a Freewheeling Diode
- DIN Rail mounting



RoHS

ORDERING INFORMATION

Description	Cat. No.	Cat. No.	Cat. No.	Cat. No.
1 Channel Module with Pluggable Relays	IMRE2SS1/12/OM	IMRE2SS1/24/OM	IMRE2SS1/110A/OM	IMRE2SS1/230A/OM
1 Channel Module with Soldered Relays	IMRE2S1/12/OM	IMRE2S1/24/OM	IMRE2S1/110A/OM	IMRE2S1/230A/OM
16 Channel Module with Pluggable Relays	IMRE2SS16/12/OM	IMRE2SS16/24/OM	IMRE2SS16/110A/OM	IMRE2SS16/230A/OM
16 Channel Module with Soldered Relays	IMRE2S16/12/OM	IMRE2S16/24/OM	IMRE2S16/110A/OM	IMRE2S16/230A/OM

GENERAL DATA

Number of Channels	1	16
Width (mm)	88	88
Height (mm)	74	74
Length (mm)*	29	377
Positive Bussing Possibility	By using spare jumpers.	
Negative Bussing Possibility	By using spare jumpers.	
Power ON Indication	3 mm Red LED	
Relay Protection	Using 1N4007 Freewheeling Diode.	
Ambient Temperature (Operation)	-20°C ... +50°C	
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**	
Housing Insulation Material	PVC / V0 Grade	
Housing Colour	Green	

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

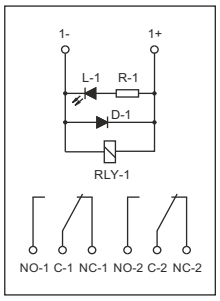
CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

RELAY CONTACT DATA

Contact Type	2 CO
Type of Connection	Screw Connection
Contact Material	Ag Alloy
Rated Current	5A @230 VAC / 30 VDC
Max. Switching Voltage	380 VAC, 125 VDC
Timing Data	18,000 operations/hr
Mechanical Life expectancy	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.

CIRCUIT DIAGRAM

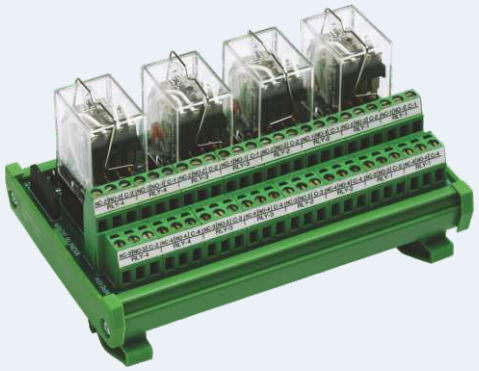


RELAY COIL DATA

Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
Coil Resistance Ω	270	1100	4600	26850
Rated Coil Current (mA)	44.5	21.8	11.0	4.7
Must Operate Voltage	8.4	16.8	88	184
Must Release Voltage	1.2	2.4	33	69
Max. Voltage	20.4	39.6	184	253

4 CO RELAY MODULES

- Variety of Operating Voltages
- Switching Current upto 5 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays
- Possibility of Bussing (Jumpering) relays in common negative or common positive configurations
- LED Indication to denote relay actuation
- Relay Coil Protection by means of a Freewheeling Diode
- DIN Rail mounting



RoHS

ORDERING INFORMATION

Description	Cat. No.	Cat. No.	Cat. No.
1 Channel Module with Pluggable Relays	IMRE4SS1/24/OM	IMRE4SS1/110/OM	IMRE4SS1/230A/OM
2 Channel Module with Pluggable Relays	IMRE4SS2/24/OM	IMRE4SS2/110/OM	IMRE4SS2/230A/OM
4 Channel Module with Pluggable Relays	IMRE4SS4/24/OM	IMRE4SS4/110/OM	IMRE4SS4/230A/OM
8 Channel Module with Pluggable Relays	IMRE4SS8/24/OM	IMRE4SS8/110/OM	IMRE4SS8/230A/OM

GENERAL DATA

Number of Channels	1	2	4	8
Width (mm)	88	88	88	88
Height (mm)	74	74	74	74
Length (mm)*	40	71	137	257
Positive Bussing Possibility	By using spare jumpers.			
Negative Bussing Possibility	By using spare jumpers.			
Power ON Indication	3 mm Red LED			
Relay Protection	Using 1N4007 Freewheeling Diode.			
Ambient Temperature (Operation)	-20°C ... +50°C			
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**			
Housing Insulation Material	PVC / V0 Grade			
Housing Colour	Green			

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

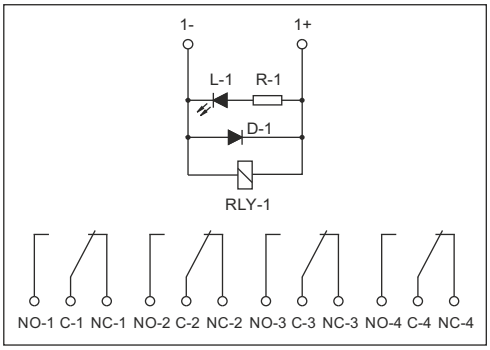
CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

RELAY CONTACT DATA

Contact Type	4 CO
Type of Connection	Screw Connection
Contact Material	Ag Alloy
Rated Current	3A @230 VAC / 30 VDC
Max. Switching Voltage	250 VAC, 125 VDC
Timing Data	18,000 operations/hr
Mechanical Life expectancy	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations

CIRCUIT DIAGRAM

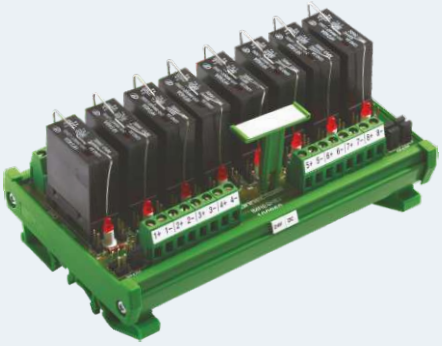


RELAY COIL DATA

Rated Coil Voltage	24 VDC	110 VAC	230 VAC
Coil Resistance Ω	1100	4600	26850
Rated Coil Current (mA)	21.8	11.0	4.7
Must Operate Voltage	16.8	88	184
Must Release Voltage	2.4	33	69
Max. Voltage	26.4	184	253

SSR MODULES DC INPUT - DC OUTPUT | DC INPUT - AC OUTPUT

- Variety of Operating Voltages.
- Low Drive Current (20 mA)
- 2500V Dielectric Strength
- LED Status Indicator
- Photo Isolation
- Built-In Snubber (AC Output)
- Zero Cross Turn-On (AC Output)
- Bipolar Transistor / MOSFET Output (DC Output)
- DIN Rail mounting
- Easy to replace pluggable SSR
- Replaceable fuses with simple to operate Horizontal fuse holders



RoHS

ORDERING INFORMATION - PLUGGABLE RELAYS

Rated Coil Voltage	5 VDC	12 VDC	24 VDC
DC Output 2A			
1 Channel	IMERS1/5D125D2	IMERS1/12D125D2	IMERS1/24D125D2
2 Channel	IMERS2/5D125D2	IMERS2/12D125D2	IMERS2/24D125D2
4 Channel	IMERS4/5D125D2	IMERS4/12D125D2	IMERS4/24D125D2
8 Channel	IMERS8/5D125D2	IMERS8/12D125D2	IMERS8/24D125D2
16 Channel	IMERS16/5D125D2	IMERS16/12D125D2	IMERS16/24D125D2
AC Output 3A			
1 Channel	IMERS1/5D400A3	IMERS1/12D400A3	IMERS1/24D400A3
2 Channel	IMERS2/5D400A3	IMERS2/12D400A3	IMERS2/24D400A3
4 Channel	IMERS4/5D400A3	IMERS4/12D400A3	IMERS4/24D400A3
8 Channel	IMERS8/5D400A3	IMERS8/12D400A3	IMERS8/24D400A3
16 Channel	IMERS16/5D400A3	IMERS16/12D400A3	IMERS16/24D400A3

ORDERING INFORMATION - SOLDERED RELAYS

Rated Coil Voltage	5 VDC	12 VDC	24 VDC
DC Output 2A			
1 Channel	IMER1/5D125D2	IMER1/12D125D2	IMER1/24D125D2
2 Channel	IMER2/5D125D2	IMER2/12D125D2	IMER2/24D125D2
4 Channel	IMER4/5D125D2	IMER4/12D125D2	IMER4/24D125D2
8 Channel	IMER8/5D125D2	IMER8/12D125D2	IMER8/24D125D2
16 Channel	IMER16/5D125D2	IMER16/12D125D2	IMER16/24D125D2
AC Output 3A			
1 Channel	IMER1/5D400A3	IMER1/12D400A3	IMER1/24D400A3
2 Channel	IMER2/5D400A3	IMER2/12D400A3	IMER2/24D400A3
4 Channel	IMER4/5D400A3	IMER4/12D400A3	IMER4/24D400A3
8 Channel	IMER8/5D400A3	IMER8/12D400A3	IMER8/24D400A3
16 Channel	IMER16/5D400A3	IMER16/12D400A3	IMER16/24D400A3

GENERAL DATA

Number of Channels	1	2	4	8	16
Width (mm)	88	88	88	88	88
Height (mm)	74	74	74	74	74
Length (mm)*	23	45	79	148	289
Positive Bussing Possibility	By using spare jumpers.				
Negative Bussing Possibility	By using spare jumpers.				
Power ON Indication	3 mm Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20°C ... +50°C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

* Module Lengths mentioned are for RAIL Mounting option only.
The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request.
Please use the suffix -P with the cat. no. for ordering.

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

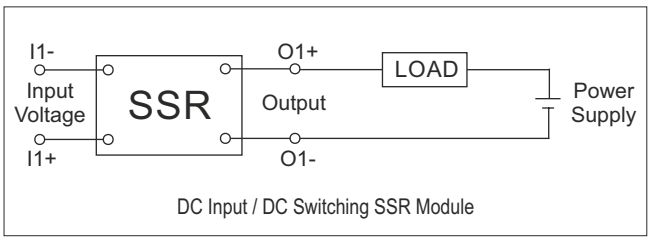
SSR OUTPUT DATA

Contact Type	1 NO (DC Output)	1 NO (AC Output)
Load Voltage Range	3-125 VDC	75-400 VAC
Load Current Range	0.1 - 2A	0.1 - 3A
Max. Surge Current	10 Times of rated current	10 Times of rated current
Max. Leakage Current	0.1 mA	1.5 mA
Max. On State Voltage Drop	1.5 VDC	1.5 VAC
Turn On Time (Zero Cross Turn on)	1 mS	1 / 2 cycle + 1 mS
Turn Off Time	1 mS	1 / 2 cycle + 1 mS
Max. Transient Voltage	125 Vpk	600 Vpk

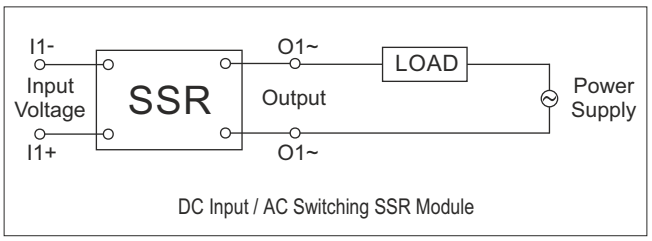
SSR INPUT DATA

Control Voltage Input Range	5 VDC	12 VDC	24 VDC
Must Operate Votage	4 VDC	9.6 VDC	19.2 VDC
Must Release Voltage	1 VDC	1 VDC	1 VDC
Max. Input Current	20 mA	20 mA	20 mA
Max. Reverse Voltage Protection	-6VDC	-14.4 VDC	-28.8 VDC

CIRCUIT DIAGRAM



DC Input / DC Switching SSR Module

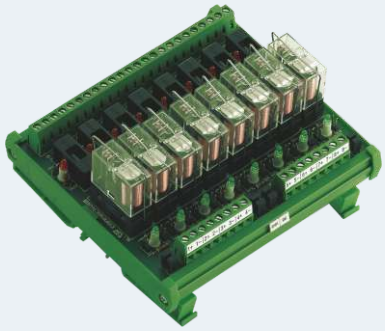


DC Input / AC Switching SSR Module

1 CO RELAY MODULES WITH FUSE

FUSE AT OUTPUT | FUSE AT INPUT | FUSE FAIL INDICATION

- Replaceable fuses with simple to operate Horizontal fuse holders
- Fast Blow & Slow Blow fuses available as standard
- Fuse ratings from 0.1 A to 6.3 A available
- Variety of Operating Voltages
- Switching Current upto 10 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays
- Possibility of Bussing (Jumpering) relays in common negative or common positive configurations
- Relay Coil Protection by means of a Freewheeling Diode
- Green LED Indication to denote relay actuation
- Red LED Indication to denote fuse fail indication
- DIN Rail Mounting



RoHS

GENERAL DATA

Number of Channels	1	2	4	8	16
Width (mm)	120	120	120	120	120
Height (mm)	74	74	74	74	74
Length (mm)*	23	39	69	130	252
Positive Bussing Possibility	By using spare jumpers.				
Negative Bussing Possibility	By using spare jumpers.				
Power ON Indication	3 mm Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20°C ... +50°C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

RELAY CONTACT DATA

Contact Type	1 CO
Type of Connection	Screw Connection
Contact Material	Ag Alloy
Rated Current	10A @250 VAC; 10A @24 VDC
Max. Switching Voltage	400 VAC, 250 VDC
Timing Data	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations
Relay Approvals	
Other Coil Voltages etc.	Voltages like 6 VDC, 48 VDC, 24 VAC are available on request.

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

FUSE HOLDER DATA

Cap Design	Flat
Fuse Link Size	5 x 20 mm
Mounting Style	Horizontal
Rated Current	6.3 A

FUSE DATA

Fuse Size	5 x 20 mm
Fuse Type	Fast Blow / Slow Blow
Fuse Ratings (A)	0.1, 0.5, 0.6, 1, 2, 3, 4, 5, 6, 6.3

RELAY COIL DATA

Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
Coil Resistance Ω	270	1100	4600	26850
Rated Coil Current (mA)	44.5	21.8	11.0	4.7
Must Operate Voltage	8.4	16.8	88	184
Must Release Voltage	1.2	2.4	33	69
Max. Voltage	20.4	39.6	184	253

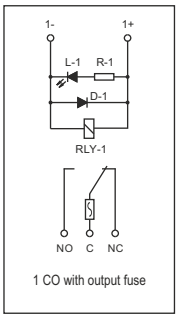
ORDERING INFORMATION - PLUGGABLE RELAYS

Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
With Fuse at Output				
1 Channel	IMRE1SSF1/12/OM	IMRE1SSF1/24/OM	IMRE1SSF1/110A/OM	IMRE1SSF1/230A/OM
2 Channel	IMRE1SSF2/12/OM	IMRE1SSF2/24/OM	IMRE1SSF2/110A/OM	IMRE1SSF2/230A/OM
4 Channel	IMRE1SSF4/12/OM	IMRE1SSF4/24/OM	IMRE1SSF4/110A/OM	IMRE1SSF4/230A/OM
8 Channel	IMRE1SSF8/12/OM	IMRE1SSF8/24/OM	IMRE1SSF8/110A/OM	IMRE1SSF8/230A/OM
16 Channel	IMRE1SSF16/12/OM	IMRE1SSF16/24/OM	IMRE1SSF16/110A/OM	IMRE1SSF16/230A/OM
With Fuse at Input				
1 Channel	IMREF1SS1/12/OM	IMREF1SS1/24/OM	IMREF1SS1/110A/OM	IMREF1SS1/230A/OM
2 Channel	IMREF1SS2/12/OM	IMREF1SS2/24/OM	IMREF1SS2/110A/OM	IMREF1SS2/230A/OM
4 Channel	IMREF1SS4/12/OM	IMREF1SS4/24/OM	IMREF1SS4/110A/OM	IMREF1SS4/230A/OM
8 Channel	IMREF1SS8/12/OM	IMREF1SS8/24/OM	IMREF1SS8/110A/OM	IMREF1SS8/230A/OM
16 Channel	IMREF1SS16/12/OM	IMREF1SS16/24/OM	IMREF1SS16/110A/OM	IMREF1SS16/230A/OM
With Fuse Fail Indication at Output *				
1 Channel	IMRE1SSFI1/12/OM/X	IMRE1SSFI1/24/OM/X	IMRE1SSFI1/110A/OM/X	IMRE1SSFI1/230A/OM/X
2 Channel	IMRE1SSFI2/12/OM/X	IMRE1SSFI2/24/OM/X	IMRE1SSFI2/110A/OM/X	IMRE1SSFI2/230A/OM/X
4 Channel	IMRE1SSFI4/12/OM/X	IMRE1SSFI4/24/OM/X	IMRE1SSFI4/110A/OM/X	IMRE1SSFI4/230A/OM/X
8 Channel	IMRE1SSFI8/12/OM/X	IMRE1SSFI8/24/OM/X	IMRE1SSFI8/110A/OM/X	IMRE1SSFI8/230A/OM/X
16 Channel	IMRE1SSFI16/12/OM/X	IMRE1SSFI16/24/OM/X	IMRE1SSFI16/110A/OM/X	IMRE1SSFI16/230A/OM/X

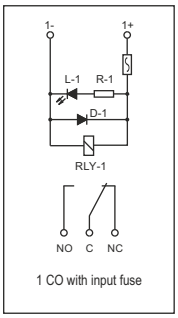
ORDERING INFORMATION - SOLDERED RELAYS

Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
With Fuse at Output				
1 Channel	IMRE1SF1/12/OM	IMRE1SF1/24/OM	IMRE1SF1/110A/OM	IMRE1SF1/230A/OM
2 Channel	IMRE1SF2/12/OM	IMRE1SF2/24/OM	IMRE1SF2/110A/OM	IMRE1SF2/230A/OM
4 Channel	IMRE1SF4/12/OM	IMRE1SF4/24/OM	IMRE1SF4/110A/OM	IMRE1SF4/230A/OM
8 Channel	IMRE1SF8/12/OM	IMRE1SF8/24/OM	IMRE1SF8/110A/OM	IMRE1SF8/230A/OM
16 Channel	IMRE1SF16/12/OM	IMRE1SF16/24/OM	IMRE1SF16/110A/OM	IMRE1SF16/230A/OM
With Fuse at Input				
1 Channel	IMREF1S1/12/OM	IMREF1S1/24/OM	IMREF1S1/110A/OM	IMREF1S1/230A/OM
2 Channel	IMREF1S2/12/OM	IMREF1S2/24/OM	IMREF1S2/110A/OM	IMREF1S2/230A/OM
4 Channel	IMREF1S4/12/OM	IMREF1S4/24/OM	IMREF1S4/110A/OM	IMREF1S4/230A/OM
8 Channel	IMREF1S8/12/OM	IMREF1S8/24/OM	IMREF1S8/110A/OM	IMREF1S8/230A/OM
16 Channel	IMREF1S16/12/OM	IMREF1S16/24/OM	IMREF1S16/110A/OM	IMREF1S16/230A/OM
With Fuse Fail Indication at Output				
1 Channel	IMRE1SFI1/12/OM/X	IMRE1SFI1/24/OM/X	IMRE1SFI1/110A/OM/X	IMRE1SFI1/230A/OM/X
2 Channel	IMRE1SFI2/12/OM/X	IMRE1SFI2/24/OM/X	IMRE1SFI2/110A/OM/X	IMRE1SFI2/230A/OM/X
4 Channel	IMRE1SFI4/12/OM/X	IMRE1SFI4/24/OM/X	IMRE1SFI4/110A/OM/X	IMRE1SFI4/230A/OM/X
8 Channel	IMRE1SFI8/12/OM/X	IMRE1SFI8/24/OM/X	IMRE1SFI8/110A/OM/X	IMRE1SFI8/230A/OM/X
16 Channel	IMRE1SFI16/12/OM/X	IMRE1SFI16/24/OM/X	IMRE1SFI16/110A/OM/X	IMRE1SFI16/230A/OM/X

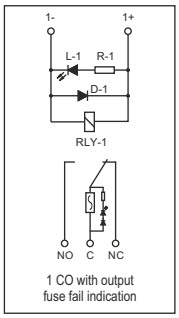
CIRCUIT DIAGRAM



1 CO with output fuse



1 CO with input fuse

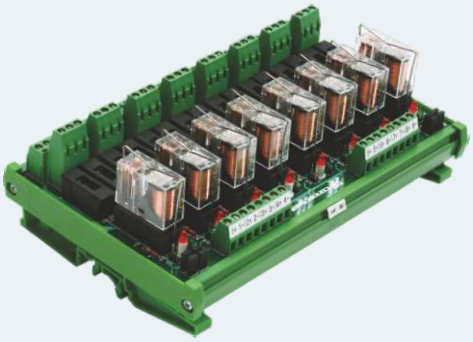


1 CO with output fuse fail indication

2 CO RELAY MODULES WITH FUSE

FUSE AT OUTPUT | FUSE AT INPUT | FUSE FAIL INDICATION

- Replaceable fuses with simple to operate Horizontal fuse holders
- Fast Blow & Slow Blow fuses available as standard
- Fuse ratings from 0.1 A to 6.3 A available
- Variety of Operating Voltages
- Switching Current upto 5 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays
- Possibility of Bussing (Jumpering) relays in common negative or common positive configurations
- Relay Coil Protection by means of a Freewheeling Diode
- Green LED Indication to denote relay actuation
- Red LED Indication to denote fuse fail indication
- DIN Rail mounting



RoHS

GENERAL DATA

Number of Channels	1	2	4	8	16
Width (mm)	120	120	120	120	120
Height (mm)	74	74	74	74	74
Length (mm)* Fuse at Output	32	52	102	235	373
Length (mm)* Fuse at Intput	26	39	69	130	254
Positive Bussing Possibility	By using spare jumpers				
Negative Bussing Possibility	By using spare jumpers				
Power ON Indication	3 mm Red LED				
Fuse Fail Indication for Input Fuse	Green LED				
Fuse Fail Indication for Output Fuse	Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20°C ... +50°C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

RELAY CONTACT DATA

Contact Type	2 CO
Type of Connection	Screw Connection
Contact Material	Ag Alloy
Rated Current	5A @250 VAC; 5A @24 VDC
Max. Switching Voltage	400 VAC, 250 VDC
Timing Data	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations
Relay Approvals	
Other Coil Voltages etc.	Voltages like 6 VDC, 48 VDC, 24 VAC are available on request.

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

FUSE HOLDER DATA

Cap Design	Flat
Fuse Link Size	5 x 20 mm
Mounting Style	Horizontal
Rated Current	6.3 A

FUSE DATA

Fuse Size	5 x 20 mm
Fuse Type	Fast Blow / Slow Blow
Fuse Ratings (A)	0.1, 0.5, 0.6, 1, 2, 3, 4, 5, 6, 6.3

RELAY COIL DATA

Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
Coil Resistance Ω	270	1100	4600	26850
Rated Coil Current (mA)	44.5	21.8	11.0	4.7
Must Operate Voltage	8.4	16.8	88	184
Must Release Voltage	1.2	2.4	33	69
Max. Voltage	20.4	39.6	121	253

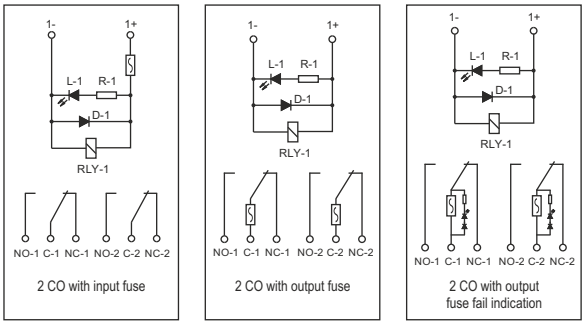
ORDERING INFORMATION - PLUGGABLE RELAYS

Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
With Fuse at Output				
1 Channel	IMRE2SSF1/12/OM	IMRE2SSF1/24/OM	IMRE2SSF1/110A/OM	IMRE2SSF1/230A/OM
2 Channel	IMRE2SSF2/12/OM	IMRE2SSF2/24/OM	IMRE2SSF2/110A/OM	IMRE2SSF2/230A/OM
4 Channel	IMRE2SSF4/12/OM	IMRE2SSF4/24/OM	IMRE2SSF4/110A/OM	IMRE2SSF4/230A/OM
8 Channel	IMRE2SSF8/12/OM	IMRE2SSF8/24/OM	IMRE2SSF8/110A/OM	IMRE2SSF8/230A/OM
16 Channel	IMRE2SSF16/12/OM	IMRE2SSF16/24/OM	IMRE2SSF16/110A/OM	IMRE2SSF16/230A/OM
With Fuse at Input				
1 Channel	IMREF2SS1/12/OM	IMREF2SS1/24/OM	IMREF2SS1/110A/OM	IMREF2SS1/230A/OM
2 Channel	IMREF2SS2/12/OM	IMREF2SS2/24/OM	IMREF2SS2/110A/OM	IMREF2SS2/230A/OM
4 Channel	IMREF2SS4/12/OM	IMREF2SS4/24/OM	IMREF2SS4/110A/OM	IMREF2SS4/230A/OM
8 Channel	IMREF2SS8/12/OM	IMREF2SS8/24/OM	IMREF2SS8/110A/OM	IMREF2SS8/230A/OM
16 Channel	IMREF2SS16/12/OM	IMREF2SS16/24/OM	IMREF2SS16/110A/OM	IMREF2SS16/230A/OM
With Fuse Fail Indication at Output				
1 Channel	IMRE2SSFI1/12/OM	IMRE2SSFI1/24/OM	IMRE2SSFI1/110A/OM	IMRE2SSFI1/230A/OM
2 Channel	IMRE2SSFI2/12/OM	IMRE2SSFI2/24/OM	IMRE2SSFI2/110A/OM	IMRE2SSFI2/230A/OM
4 Channel	IMRE2SSFI4/12/OM	IMRE2SSFI4/24/OM	IMRE2SSFI4/110A/OM	IMRE2SSFI4/230A/OM
8 Channel	IMRE2SSFI8/12/OM	IMRE2SSFI8/24/OM	IMRE2SSFI8/110A/OM	IMRE2SSFI8/230A/OM
16 Channel	IMRE2SSFI16/12/OM	IMRE2SSFI16/24/OM	IMRE2SSFI16/110A/OM	IMRE2SSFI16/230A/OM

ORDERING INFORMATION - SOLDERED RELAYS

Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
With Fuse at Output				
1 Channel	IMRE2SF1/12/OM	IMRE2SF1/24/OM	IMRE2SF1/110A/OM	IMRE2SF1/230A/OM
2 Channel	IMRE2SF2/12/OM	IMRE2SF2/24/OM	IMRE2SF2/110A/OM	IMRE2SF2/230A/OM
4 Channel	IMRE2SF4/12/OM	IMRE2SF4/24/OM	IMRE2SF4/110A/OM	IMRE2SF4/230A/OM
8 Channel	IMRE2SF8/12/OM	IMRE2SF8/24/OM	IMRE2SF8/110A/OM	IMRE2SF8/230A/OM
16 Channel	IMRE2SF16/12/OM	IMRE2SF16/24/OM	IMRE2SF16/110A/OM	IMRE2SF16/230A/OM
With Fuse at Input				
1 Channel	IMREF2S1/12/OM	IMREF2S1/24/OM	IMREF2S1/110A/OM	IMREF2S1/230A/OM
2 Channel	IMREF2S2/12/OM	IMREF2S2/24/OM	IMREF2S2/110A/OM	IMREF2S2/230A/OM
4 Channel	IMREF2S4/12/OM	IMREF2S4/24/OM	IMREF2S4/110A/OM	IMREF2S4/230A/OM
8 Channel	IMREF2S8/12/OM	IMREF2S8/24/OM	IMREF2S8/110A/OM	IMREF2S8/230A/OM
16 Channel	IMREF2S16/12/OM	IMREF2S16/24/OM	IMREF2S16/110A/OM	IMREF2S16/230A/OM
With Fuse Fail Indication at Output *				
1 Channel	IMRE2SFI1/12/OM	IMRE2SFI1/24/OM	IMRE2SFI1/110A/OM	IMRE2SFI1/230A/OM
2 Channel	IMRE2SFI2/12/OM	IMRE2SFI2/24/OM	IMRE2SFI2/110A/OM	IMRE2SFI2/230A/OM
4 Channel	IMRE2SFI4/12/OM	IMRE2SFI4/24/OM	IMRE2SFI4/110A/OM	IMRE2SFI4/230A/OM
8 Channel	IMRE2SFI8/12/OM	IMRE2SFI8/24/OM	IMRE2SFI8/110A/OM	IMRE2SFI8/230A/OM
16 Channel	IMRE2SFI16/12/OM	IMRE2SFI16/24/OM	IMRE2SFI16/110A/OM	IMRE2SFI16/230A/OM

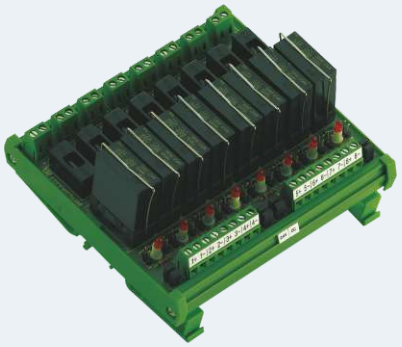
CIRCUIT DIAGRAM



SSR MODULES WITH FUSE

DC INPUT - DC OUTPUT | DC INPUT - AC OUTPUT

- Variety of Operating Voltages.
- Low Drive Current (20 mA)
- 2500V Dielectric Strength
- LED Status Indicator
- Photo Isolation
- Built-In Snubber (AC Output)
- Zero Cross Turn-On (AC Output)
- Bipolar Transistor / MOSFET Output (DC Output)
- DIN Rail mounting
- Easy to replace pluggable SSR.
- Replaceable fuses with simple to operate Horizontal fuse holders
- Fast Blow & Slow Blow fuses available as standard
- Fuse ratings from 0.1 A to 6.3 A available.



RoHS

GENERAL DATA

Number of Channels	1	2	4	8	16
Width (mm)	88	88	88	88	88
Height (mm)	74	74	74	74	74
Length (mm)*	23	45	79	148	239
Positive Bussing Possibility	By using spare jumpers				
Negative Bussing Possibility	By using spare jumpers				
Power ON Indication	3 mm Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20°C ... +50°C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

* Module Lengths mentioned are for RAIL Mounting option only.
The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request.
Please use the suffix -P with the cat. no. for ordering.

SSR OUTPUT DATA

Contact Type	1 NO (DC Output)	1 NO (AC Output)
Load Voltage Range	3-125 VDC	75-400 VAC
Load Current Range	0.1 - 2A	0.1 - 3A
Max. Surge Current	10 Times of rated current	10 Times of rated current
Max. Leakage Current	0.1 mA	1.5 mA
Max. On State Voltage Drop	1.5 VDC	1.5 VAC
Turn On Time (Zero Cross Turn on)	1 mS	1 / 2 cycle + 1 mS
Turn Off Time	1 mS	1 / 2 cycle + 1 mS
Max. Transient Voltage	125 Vpk	600 Vpk

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

FUSE HOLDER DATA

Cap Design	Flat
Fuse Link Size	5 x 20 mm
Mounting Style	Horizontal
Rated Current	6.3 A

FUSE DATA

Fuse Size	5 x 20 mm
Fuse Type	Fast Blow / Slow Blow
Fuse Ratings (A)	0.1, 0.5, 0.6, 1, 2, 3, 4, 5, 6, 6.3

SSR INPUT DATA

Control Voltage Input Range	5 VDC	12 VDC	24 VDC
Must Operate Votage	4 VDC	9.6 VDC	19.2 VDC
Must Release Voltage	1 VDC	1 VDC	1 VDC
Max. Input Current	20 mA	20 mA	20 mA
Max. Reverse Voltage Protection	-6VDC	-14.4 VDC	-28.8 VDC

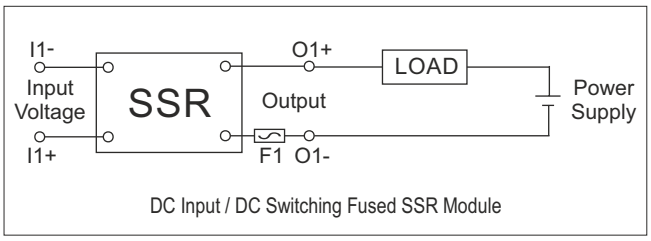
ORDERING INFORMATION - PLUGGABLE RELAYS

Rated Coil Voltage	5 VDC	12 VDC	24 VDC
DC Output 2A WITH FUSE			
1 Channel	IMERSF1/5D125D2	IMERSF1/12D125D2	IMERSF1/24D125D2
2 Channel	IMERSF2/5D125D2	IMERSF2/12D125D2	IMERSF2/24D125D2
4 Channel	IMERSF4/5D125D2	IMERSF4/12D125D2	IMERSF4/24D125D2
8 Channel	IMERSF8/5D125D2	IMERSF8/12D125D2	IMERSF8/24D125D2
16 Channel	IMERSF16/5D125D2	IMERSF16/12D125D2	IMERSF16/24D125D2
AC Output 3A WITH FUSE			
1 Channel	IMERSF1/5D400A3	IMERSF1/12D400A3	IMERSF1/24D400A3
2 Channel	IMERSF2/5D400A3	IMERSF2/12D400A3	IMERSF2/24D400A3
4 Channel	IMERSF4/5D400A3	IMERSF4/12D400A3	IMERSF4/24D400A3
8 Channel	IMERSF8/5D400A3	IMERSF8/12D400A3	IMERSF8/24D400A3
16 Channel	IMERSF16/5D400A3	IMERSF16/12D400A3	IMERSF16/24D400A3

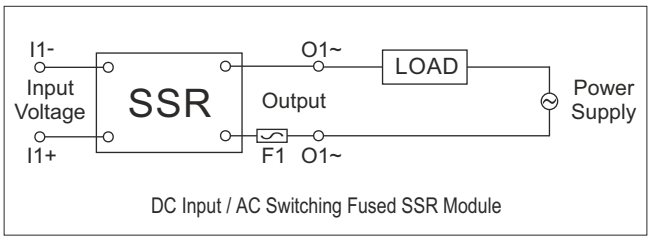
ORDERING INFORMATION - SOLDERED RELAYS

Rated Coil Voltage	5 VDC	12 VDC	24 VDC
DC Output 2A WITH FUSE			
1 Channel	IMERF1/5D125D2	IMERF1/12D125D2	IMERF1/24D125D2
2 Channel	IMERF2/5D125D2	IMERF2/12D125D2	IMERF2/24D125D2
4 Channel	IMERF4/5D125D2	IMERF4/12D125D2	IMERF4/24D125D2
8 Channel	IMERF8/5D125D2	IMERF8/12D125D2	IMERF8/24D125D2
16 Channel	IMERF16/5D125D2	IMERF16/12D125D2	IMERF16/24D125D2
AC Output 3A WITH FUSE			
1 Channel	IMERF1/5D400A3	IMERF1/12D400A3	IMERF1/24D400A3
2 Channel	IMERF2/5D400A3	IMERF2/12D400A3	IMERF2/24D400A3
4 Channel	IMERF4/5D400A3	IMERF4/12D400A3	IMERF4/24D400A3
8 Channel	IMERF8/5D400A3	IMERF8/12D400A3	IMERF8/24D400A3
16 Channel	IMERF16/5D400A3	IMERF16/12D400A3	IMERF16/24D400A3

CIRCUIT DIAGRAM



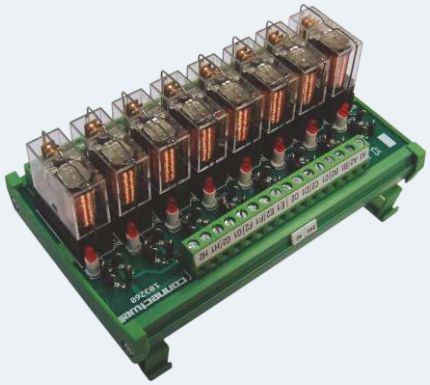
DC Input / DC Switching Fused SSR Module



DC Input / AC Switching Fused SSR Module

1 CO RELAY RECTIFIER BASED MODULES (24 VUC)

- Works with universal input 24 VAC & 24 VDC
- Switching Current upto 10 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays
- LED Indication to denote relay actuation
- Relay Coil Protection by means of a Freewheeling Diode
- DIN Rail mounting



RoHS

ORDERING INFORMATION

1 Channel Module with Pluggable Relays	IMRE1SS1/24A/OMRE
2 Channel Module with Pluggable Relays	IMRE1SS2/24A/OMRE
4 Channel Module with Pluggable Relays	IMRE1SS4/24A/OMRE
8 Channel Module with Pluggable Relays	IMRE1SS8/24A/OMRE
16 Channel Module with Pluggable Relays	IMRE1SS16/24A/OMRE

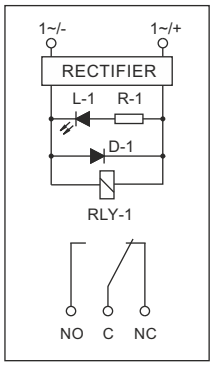
GENERAL DATA

Number of Channels	1	2	4	8	16
Width (mm)	88	88	88	88	88
Height (mm)	74	74	74	74	74
Length (mm)*	38	45	81	160	315
Power ON Indication	3 mm Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20°C ... +50°C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

CIRCUIT DIAGRAM



CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

RELAY CONTACT DATA

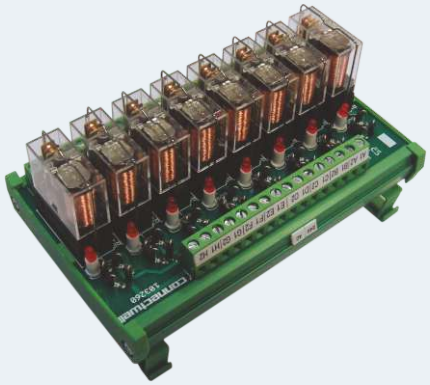
Contact Type	1 CO
Type of Connection	Screw Connection
Contact Material	Ag Alloy
Rated Current	10A @230 VAC / 30 VDC
Max. Switching Voltage	400 VAC, 300 VDC
Timing Data	18,000 operations/hr
Mechanical Life expectancy	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations
Relay Approvals	
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.

RELAY COIL DATA

Rated Coil Voltage	24 VUC
Coil Resistance	1100 Ω
Rated Coil Current	21.8 mA
Must Operate Voltage	16.8
Must Release Voltage	2.4
Max. Voltage	39.6

2 CO RELAY RECTIFIER BASED MODULES (24 VUC)

- Works with universal input 24 VAC & 24 VDC
- Switching Current upto 5 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays
- LED Indication to denote relay actuation
- Relay Coil Protection by means of a Freewheeling Diode
- DIN Rail mounting



RoHS

ORDERING INFORMATION

1 Channel Module with Pluggable Relays	IMRE2SS1/24A/OMRE
2 Channel Module with Pluggable Relays	IMRE2SS2/24A/OMRE
4 Channel Module with Pluggable Relays	IMRE2SS4/24A/OMRE
8 Channel Module with Pluggable Relays	IMRE2SS8/24A/OMRE
16 Channel Module with Pluggable Relays	IMRE2SS16/24A/OMRE

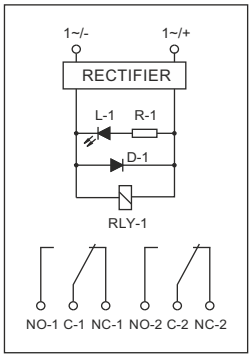
GENERAL DATA

Number of Channels	1	2	4	8	16
Width (mm)	88	88	88	88	88
Height (mm)	74	74	74	74	74
Length (mm)*	38	45	81	160	315
Power ON Indication	3 mm Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20°C ... +50°C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

CIRCUIT DIAGRAM



CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

RELAY CONTACT DATA

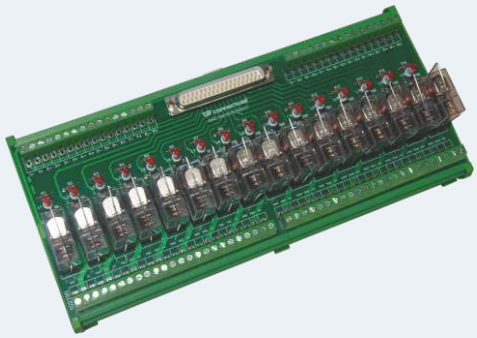
Contact Type	2 CO
Type of Connection	Screw Connection
Contact Material	Ag Alloy
Rated Current	5A @230 VAC / 30 VDC
Max. Switching Voltage	400 VAC, 300 VDC
Timing Data	18,000 operations/hr
Mechanical Life expectancy	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations
Relay Approvals	
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.

RELAY COIL DATA

Rated Coil Voltage	24 VUC
Coil Resistance	1100 Ω
Rated Coil Current	21.8 mA
Must Operate Voltage	16.8
Must Release Voltage	2.4
Max. Voltage	39.6

1 CO RELAY MODULES WITH DSUB INPUT

- Option to give switching signal through male DSUB 37 connector or through screw terminals
- Switching Current upto 10 A at 250 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays
- LED Indication to denote relay actuation
- Relay Coil Protection by means of a Freewheeling Diode
- DIN Rail mounting



RoHS

ORDERING INFORMATION

16 Channel Module with Pluggable Relays	IMRE1SS16/24/DM37

GENERAL DATA

Number of Channels	16
Width W (mm)	120
Height H (mm)	74
Length L (mm)*	261
Power ON Indication	3 mm Red LED
Relay Protection	Using 1N4007 Freewheeling Diode.
Ambient Temperature (Operation)	-20°C ... +60°C
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

RELAY CONTACT DATA

Contact Type	1 CO
Type of Connection	Screw Connection
Contact Material	Ag Alloy
Rated Current	10A @250 VAC; 10A @24 VDC
Max. Switching Voltage	400 VAC, 250 VDC
Timing Data	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations
Relay Approvals	
Other Coil Voltages etc.	Voltages like 6 VDC, 48 VDC, 24 VAC are available on request.

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

DSUB CONNECTOR ELECTRICAL RATINGS

Contact Resistance	15 m ohm maximum at 500 VDC
Current Rating	10 A Max
Operation Voltage	250 VAC
Dielectric Withstanding Voltage	1000 VAC for one minute
Number of Contacts	37 (This varies based on no. of channels)

DSUB CONNECTOR MATERIALS

Insulator	PBT, Rated UL94V-0
Contacts	Brass
Shell	Steel
Rivet, Boardlock	Copper Alloy

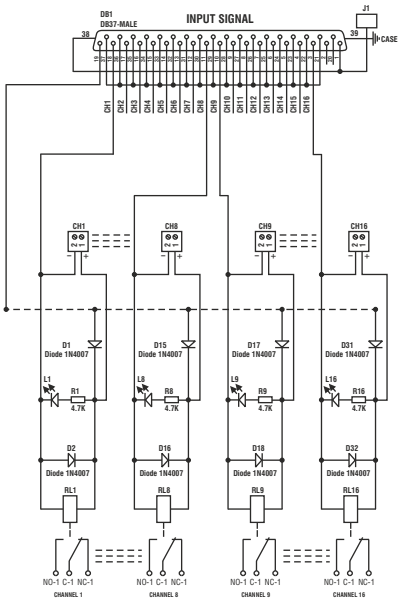
RELAY COIL DATA

Rated Coil Voltage	24 VDC
Coil Resistance	1100 Ω
Rated Coil Current	21.8 mA
Must Operate Voltage	16.8
Must Release Voltage	2.4
Max. Voltage	39.6

D-SUB PIN ASSIGNMENT

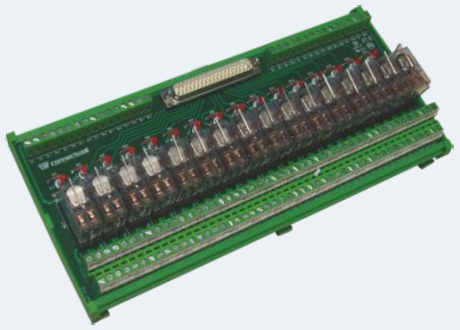
Width	72	
Channel	DB1	1 CO FIELD TERMINAL
CH1	18	1NO 1NC 1C
CH2	17	2NO 2NC 2C
CH3	16	3NO 3NC 3C
CH4	15	4NO 4NC 4C
CH5	14	5NO 5NC 5C
CH6	13	6NO 6NC 6C
CH7	12	7NO 7NC 7C
CH8	11	8NO 8NC 8C
CH9	10	9NO 9NC 9C
CH10	9	10NO 10NC 10C
CH11	8	11NO 11NC 11C
CH12	7	12NO 12NC 12C
CH13	6	13NO 13NC 13C
CH14	5	14NO 14NC 14C
CH15	4	15NO 15NC 15C
CH16	3	16NO 16NC 16C

CIRCUIT DIAGRAM



2 CO RELAY MODULES WITH DSUB INPUT

- Option to give switching signal through male DSUB 37 connector or through screw terminals
- Switching Current upto 5 A at 250 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays
- LED Indication to denote relay actuation
- Relay Coil Protection by means of a Freewheeling Diode
- DIN Rail mounting



RoHS

ORDERING INFORMATION

16 Channel Module with Pluggable Relays	IMRE2SS16/24/DM37

GENERAL DATA

Number of Channels	16
Width W (mm)	120
Height H (mm)	74
Length L (mm)*	261
Power ON Indication	3 mm Red LED
Relay Protection	Using 1N4007 Freewheeling Diode.
Ambient Temperature (Operation)	-20°C ... +60°C
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

RELAY CONTACT DATA

Contact Type	2 CO
Type of Connection	Screw Connection
Contact Material	Ag Alloy
Rated Current	5A @250 VAC; 5A @24 VDC
Max. Switching Voltage	400 VAC, 250 VDC
Timing Data	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations
Relay Approvals	
Other Coil Voltages etc.	Voltages like 6 VDC, 48 VDC, 24 VAC are available on request.

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

DSUB CONNECTOR ELECTRICAL RATINGS

Contact Resistance	15 m ohm maximum at 500 VDC
Current Rating	5 A Max
Operation Voltage	250 VAC
Dielectric Withstanding Voltage	1000 VAC for one minute
Number of Contacts	37 (This varies based on no. of channels)

DSUB CONNECTOR MATERIALS

Insulator	PBT, Rated UL94V-0
Contacts	Brass
Shell	Steel
Rivet, Boardlock	Copper Alloy

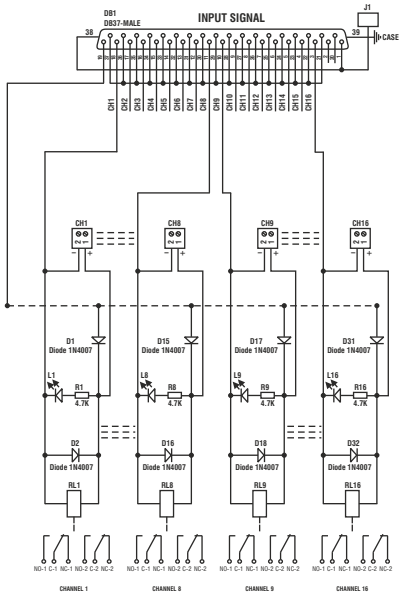
RELAY COIL DATA

Rated Coil Voltage	24 VDC
Coil Resistance	1100 Ω
Rated Coil Current	21.8 mA
Must Operate Voltage	16.8
Must Release Voltage	2.4
Max. Voltage	39.6

D-SUB PIN ASSIGNMENT

Channel	DB1	2 CO FIELD TERMINAL	
CH1	18	1NO-1 1NC-1 1C-1	1NO-2 1NC-2 1C-2
CH2	17	2NO-1 2NC-1 2C-1	2NO-2 2NC-2 2C-2
CH3	16	3NO-1 3NC-1 3C-1	3NO-2 3NC-2 3C-2
CH4	15	4NO-1 4NC-1 4C-1	4NO-2 4NC-2 4C-2
CH5	14	5NO-1 5NC-1 5C-1	5NO-2 5NC-2 5C-2
CH6	13	6NO-1 6NC-1 6C-1	6NO-2 6NC-2 6C-2
CH7	12	7NO-1 7NC-1 7C-1	7NO-2 7NC-2 7C-2
CH8	11	8NO-1 8NC-1 8C-1	8NO-2 8NC-2 8C-2
CH9	10	9NO-1 9NC-1 9C-1	9NO-2 9NC-2 9C-2
CH10	9	10NO-1 10NC-1 10C-1	10NO-2 10NC-2 10C-2
CH11	8	11NO-1 11NC-1 11C-1	11NO-2 11NC-2 11C-2
CH12	7	12NO-1 12NC-1 12C-1	12NO-2 12NC-2 12C-2
CH13	6	13NO-1 13NC-1 13C-1	13NO-2 13NC-2 13C-2
CH14	5	14NO-1 14NC-1 14C-1	14NO-2 14NC-2 14C-2
CH15	4	15NO-1 15NC-1 15C-1	15NO-2 15NC-2 15C-2
CH16	3	16NO-1 16NC-1 16C-1	16NO-2 16NC-2 16C-2

CIRCUIT DIAGRAM

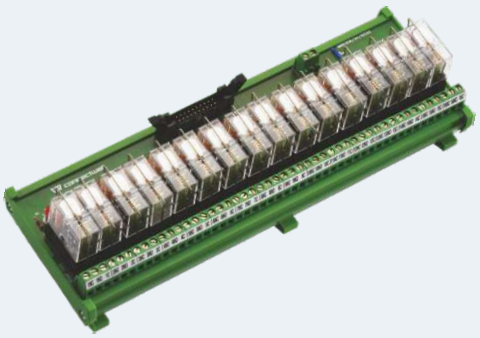


16 I/O INTERFACE MODULES FOR SCHNEIDER PLC

This module simplifies wiring by accommodating 16 channel signals through a Flat Ribbon Cable Connector. The module is best suited for interfacing Schneider PLC.

The Module can also be used with other PLCs which meets the pin configuration.

1 NO Relay Output is also available as standard product.



RoHS

ORDERING INFORMATION

Module Type	16 CH 1 CO
With Pluggable Relays	IMRE1SS16/24/IDC20
With Soldered Relays	IMRE1S16/24/IDC20

GENERAL DATA

Power ON Indication	3 mm Red LED
Relay Protection	Using 1N4007 Freewheeling Diode.
Ambient Temperature (Operation)	-20°C ... +60°C
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

IDC / FRC CONNECTOR DATA

Insulation Material	PBT, glass reinforced
Contact Material	Brass
Rated Current	2 A
Contact Resistance	30 mΩ maximum
Insulation Resistance	3000 MΩ minimum
Dielectric withstanding Voltage	500 VAC for 1 minute

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

DSUB CONNECTOR ELECTRICAL RATINGS

Contact Resistance	15 m ohm maximum at 500 VDC
Current Rating	5A Max
Operation Voltage	250 VAC
Dielectric Withstanding Voltage	1000 VAC for one minute
Number of Contacts	37 (This varies based on no. of channels)

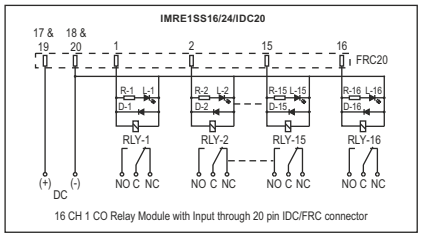
DSUB CONNECTOR MATERIALS

Insulator	PBT, Rated UL94V-0
Contacts	Brass
Shell	Steel
Rivet, Boardlock	Copper Alloy

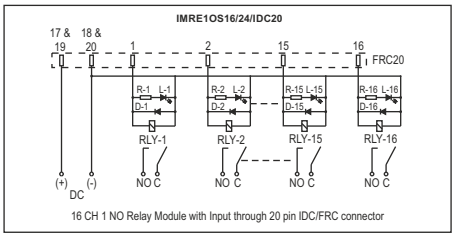
RELAY DATA

Contact Type	1CO (SPDT)
Standard Coil Voltag	24VDC (Relay coil voltage like 6 VDC, 12 VDC, 48 DC, 24 VAC, 110 VAC & 230 VAC etc. are available on request.)
Contact Material	$AgSnO_2$
Rated Current	10A @230 VAC / 30 VDC

CIRCUIT DIAGRAM



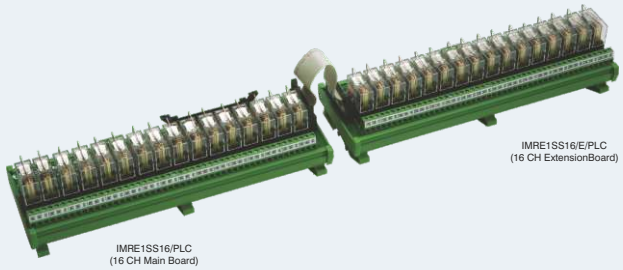
16 CH 1 CO Relay Module with Input through 20 pin IDC/FRC connector



16 CH 1 NO Relay Module with Input through 20 pin IDC/FRC connector

32 I/O INTERFACE MODULES FOR SIEMENS SIMATIC S7-300 / ET200MPLC

This module simplifies wiring by accommodating 32 channel signals through a Flat Ribbon Cable Connector. The module is supplied in two parts, as the main module (IMRE1SS16/PLC) and it's extension module (IMRE1SS16/E/PLC) along with a 20 core FRC cable to connect them. The module is best suited for interfacing Siemens SIMATIC S7-300 / ET200M PLC.



RoHS

ORDERING INFORMATION

Module Type	16 CH Main Board
With Pluggable Relays	IMRE1SS16/PLC
With Soldered Relays	IMRE1S16/PLC

GENERAL DATA

Power ON Indication	3 mm Red LED
Relay Protection	Using 1N4007 Freewheeling Diode.
Ambient Temperature (Operation)	-20°C ... +60°C
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

IDC / FRC CONNECTOR DATA

Insulation Material	PBT, glass reinforced
Contact Material	Brass
Rated Current	2 A
Contact Resistance	30 mΩ maximum
Insulation Resistance	3000 MΩ minimum
Dielectric withstanding Voltage	500 VAC for 1 minute

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

DSUB CONNECTOR ELECTRICAL RATINGS

Contact Resistance	15 m ohm maximum at 500 VDC
Current Rating	5 A Max
Operation Voltage	250 VAC
Dielectric Withstanding Voltage	1000 VAC for one minute
Number of Contacts	37 (This varies based on no. of channels)

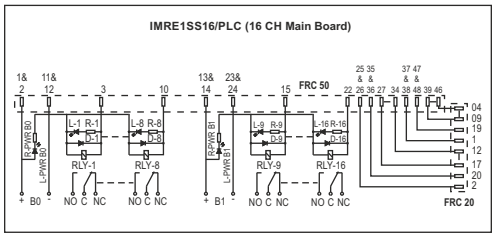
DSUB CONNECTOR MATERIALS

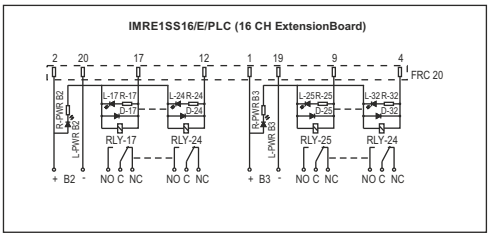
Insulator	PBT, Rated UL94V-0
Contacts	Brass
Shell	Steel
Rivet, Boardlock	Copper Alloy

RELAY DATA

Contact Type	1CO (SPDT)
Standard Coil Voltag	24VDC (Relay coil voltage like 6 VDC, 12 VDC, 48 DC, 24 VAC, 110 VAC & 230 VAC etc. are available on request.)
Contact Material	$AgSnO_2$
Rated Current	10A @230 VAC / 30 VDC

CIRCUIT DIAGRAM





32 I/O INTERFACE MODULES FOR ALLEN BRADLEY SLC 500 PLC

This module simplifies wiring by accommodating 32 channel signals through a Flat Ribbon Cable Connector. The module is supplied in two parts, as the main module (IMRE1SS16/SLC) and it's extension module (IMRE1SS16/E/SLC) along with a 20 core FRC cable to connect them. The module is best suited for interfacing ALLEN BRADLEY SLC 500 PLCs.

RoHS

ORDERING INFORMATION

16 CH Main Board	
With Pluggable Relays	IMRE1SS16/SLC
With Soldered Relays	IMRE1S16/SLC
16 CH Extension Board	
With Pluggable Relays	IMRE1SS16/E/SLC
With Soldered Relays	IMRE1S16/E/SLC

GENERAL DATA

Supply Voltage Indication	3 mm Green LED
Relay ON Indication	3 mm Red LED
Relay Protection	Using 1N4007 Freewheeling Diode.
Ambient Temperature (Operation)	-20°C ... +50°C
Mounting Types	DIN32 / DIN35 / DIN35-15 / PANEL
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

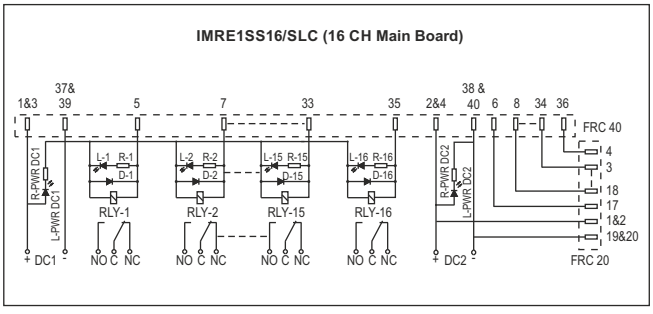
RELAY DATA

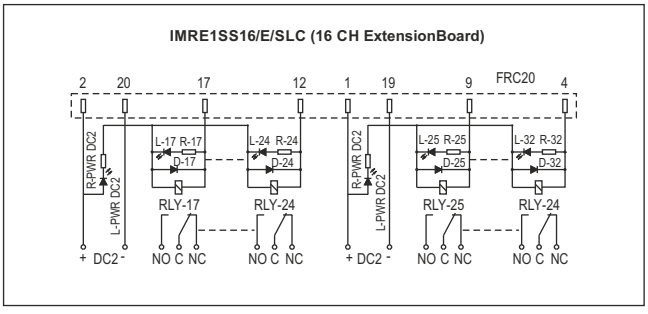
Contact Type	1CO (SPDT)
Standard Coil Voltag	24VDC (Relay coil voltage like 6 VDC, 12 VDC, 48 DC, 24 VAC, 110 VAC & 230 VAC etc. are available on request.)
Contact Material	$AgSnO_2$
Rated Current	10A @230 VAC / 30 VDC

IDC / FRC CONNECTOR DATA

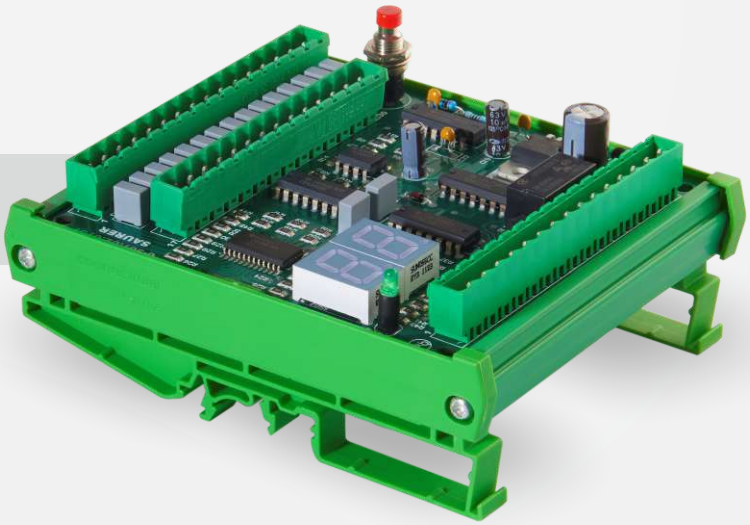
Insulation Material	PBT, glass reinforced
Contact Material	Brass
Rated Current	2A
Contact Resistance	30 mΩ maximum
Insulation Resistance	3000 MΩ minimum
Dielectric withstanding Voltage	500 VAC for 1 minute

CIRCUIT DIAGRAM





Custom Interface Modules

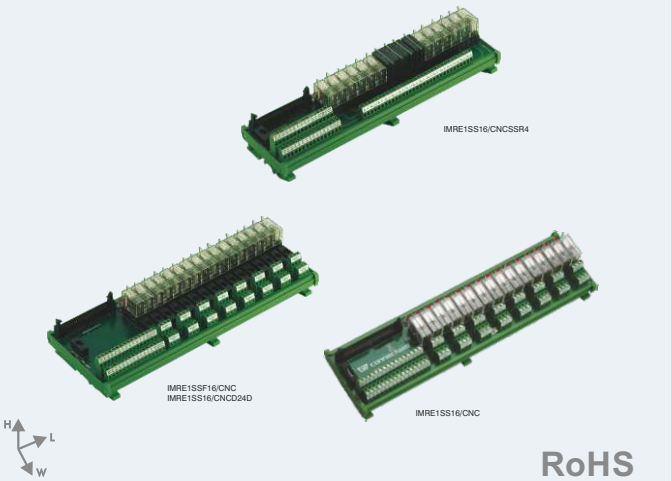


Fan Monitoring & Control Device

Power Supplies

CNC INTERFACE MODULES

IMRE1SS16/CNC and IMRE1SS16/CNCSSRx Interface Modules from Connectwell ease PLC wiring in CNC machines. These modules provide connection possibility for both the input and output side of a PLC in a single module and are compatible with various PLCs from Fanuc, GE, Mitsubishi, Schneider & Siemens.



RoHS

ORDERING INFORMATION

Module Type	CNC Module	CNC SSR Module	CNC with Fuse Module	CNC SSR with Fuse Module
With Pluggable Relays	IMRE1SS16/OM/CNC	IMRE1SS16/CNCSSRx	IMRE1SSF16/OM/CNC	IMRE1SSF16/CNCD24D
With Soldered Relays	IMRE1S16/OM/CNC	IMRE1S16/CNCSSRx	IMRE1SF16/OM/CNC	IMRE1SF16/CNCD24D
x - no. of SSR				

GENERAL DATA

Relay ON Indication	3 mm Red LED
Relay Protection	Using 1N4007 Freewheeling Diode.
Ambient Temperature (Operation)	-20°C ... +50°C
Mounting Types	DIN32 / DIN35 / DIN35-15 / PANEL
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

IDC / FRC CONNECTOR DATA

Insulation Material	PBT, glass reinforced
Contact Material	Brass
Rated Current	2A
Contact Resistance	30m ohms maximum
Insulation Resistance	3000M ohms minimum
Dielectric withstanding Voltage	500VAC for 1 minute
Contact Type	1CO (SPDT) 24 VDC
Standard Coil Voltage	(Relay coil voltages like 6 VDC, 12 VDC, 48 VDC, 24 VAC, 110 VAC & 230 VAC etc. are available on request.)
Contact Material	Ag Alloy
Rated Current	10A @230 VAC; 10 @30 VDC

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

FUSE HOLDER DATA

Cap Design	Flat
Fuse Link Size	5 x 20 mm
Mounting Style	Horizontal
Rated Current	6.3 A

FUSE DATA

Fuse Size	5 x 20 mm
Fuse Type	Fast Blow / Slow Blow
Fuse Ratings (A)	0.1, 0.5, 0.6, 1, 2, 3, 4, 5, 6, 6.3

SSR OUTPUT DATA

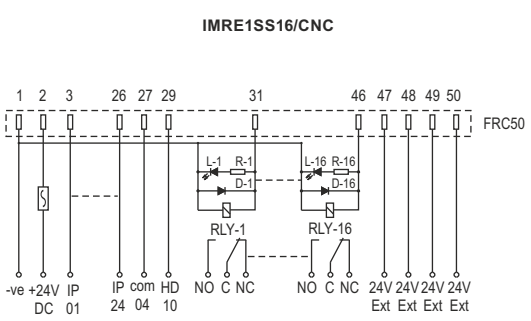
	DC Output	AC Output
Contact Type	1NO (SPST)	1NO (SPST)
Load Voltage Range	3 to 125 VDC	75 to 400 VAC
Load Current Range	0.1 to 2A	0.1 to 3A
Max. Surge Current	10 times of rated current	10 times of rated current
Max. Leakage Current	0.1 mA	1.5 mA
Max. On State Voltage Drop	1.5 VDC	1.5 VAC
Turn-on Time (Zero Cross turn on)	1 ms	1/2 Cycle + 1 ms
Turn-off Time	1 ms	1/2 Cycle + 1 ms
Max. Transient Voltage	125 Vpk	600 Vpk

SSR INPUT DATA

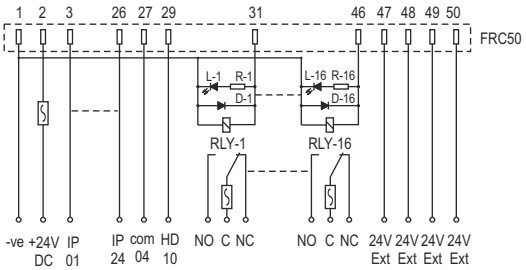
Control Voltage Range	5 VDC	12 VDC	24 VDC
Must Operate Voltage	4 VDC	9.6 VDC	19.2 VDC
Must Release Voltage	1 VDC	1 VDC	1 VDC
Max. Reverse Protection	-6 VDC	-14.4 VDC	-28.8 VDC
Max. Input Current	20 mA	20 mA	20 mA

CIRCUIT DIAGRAM

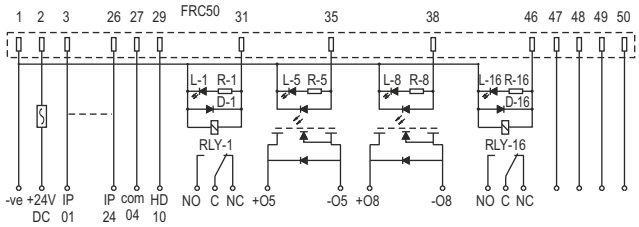
IMRE1SS16/CNC



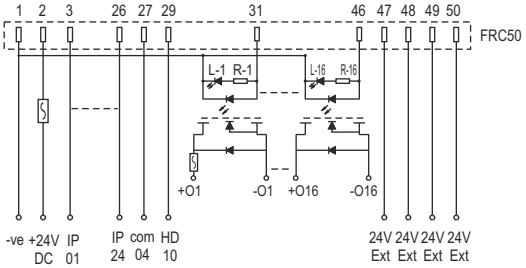
IMRE1SSF16/CNC



IMRE1SS16/CNCSSRx



IMRE1SSF16/CNCD24D



DIGITAL INPUT & DIGITAL OUTPUT RELAY MODULES

These modules act as input or output modules for PLCs or other digital controllers. The digital output (DO) modules have the added convenience of providing trigger / switching signal to the relays from the PLC by use of a DSUB Connector.

The digital input (DI) modules provide isolation between two wire field sensors and the input of controllers like PLC. In addition the connection between the digital input module and the PLC is through a convenient DSUB Connector.

Both of these modules have an added safety feature of glass fuses. The power terminals on the modules help provide power signal to either the load (DO) or the sensors (DI).

In addition to the DSUB Connector, standard PCB Terminal Blocks are also provided for connecting the input signals.

RoHS

ORDERING INFORMATION

Type of Module	With Pluggable Relays
16 Channel DI Module	IMRE/DI16/24/DM37
16 Channel DO Module	IMRE/DO16/24/DM37

GENERAL DATA

Number of Channels	16
Width W (mm)	120
Height H (mm)	74
Length L (mm)*	261
Power ON Indication	3 mm Red LED
Relay Protection	Using 1N4007 Freewheeling Diode.
Ambient Temperature (Operation)	-20°C ... +50°C
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

DSUB CONNECTOR ELECTRICAL RATINGS

Contact Resistance	15 m ohm maximum at 500 VDC
Current Rating	3A Max
Operation Voltage	250 VAC
Dielectric Withstanding Voltage	1000 VAC for one minute
Number of Contacts	37 (This varies based on no. of channels)

DSUB CONNECTOR MATERIALS

Insulator	PBT, Rated UL94V-0
Contacts	Brass
Shell	Steel
Rivet, Boardlock	Copper Alloy

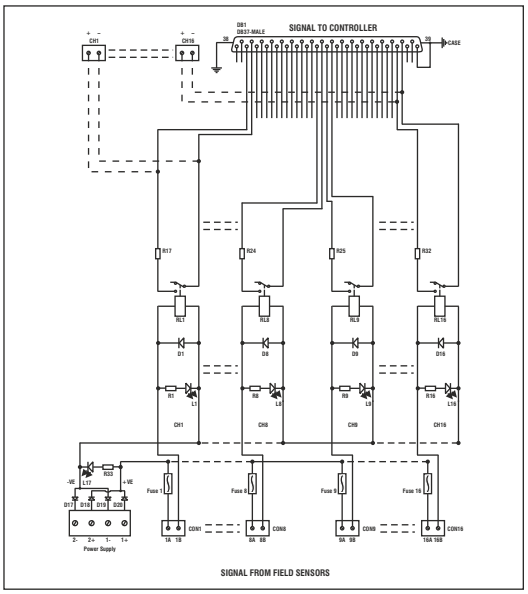
IDC / FRC CONNECTOR DATA

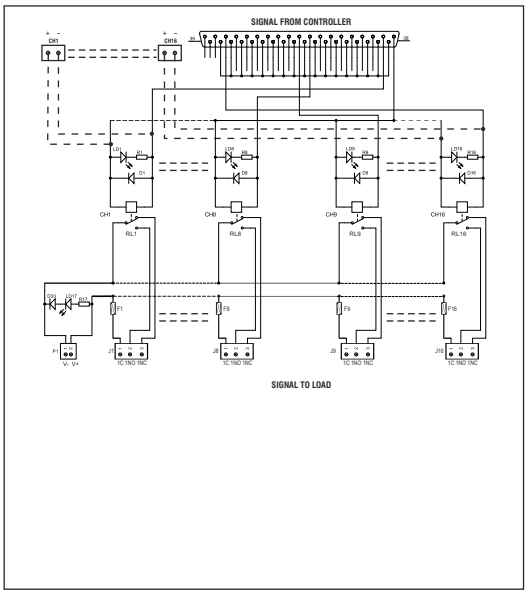
Contact Type	1 CO	2 CO
Contact Material	Ag Alloy	Ag Alloy
Rated Current	10A @250 VAC; 10A @30 VDC	5A @250 VAC; 5A @24 VDC
Max. Switching Voltage	400 VAC, 250 VDC	400 VAC, 250 VDC
Timing Data	18,000 operations/hr	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations	Min. 100 x 10^3 operations
Relay Approval		

IDC / FRC CONNECTOR DATA

Rated Coil Voltage	24 VDC
Coil Resistance	1100 Ω
Rated Coil Current	21.8 mA
Must Operate Voltage	16.8 V
Must Release Voltage	2.4 V
Max. Voltage	39.6 V

CIRCUIT DIAGRAM





D-SUB PIN ASSIGNMENT (DI MODULE)

CHANNEL	RELAY INPUT	DSUBM-37	FIELD INPUT
CH1	POS	18	1A 1B
	NEG	36	
CH2	POS	17	2A 2B
	NEG	35	
CH3	POS	16	3A 3B
	NEG	34	
CH4	POS	15	4A 4B
	NEG	33	
CH5	POS	14	5A 5B
	NEG	32	
CH6	POS	13	6A 6B
	NEG	31	
CH7	POS	12	7A 7B
	NEG	30	
CH8	POS	11	8A 8B
	NEG	29	
CH9	POS	10	9A 9B
	NEG	28	
CH10	POS	9	10A 10B
	NEG	27	
CH11	POS	8	11A 11B
	NEG	26	
CH12	POS	7	12A 12B
	NEG	25	
CH13	POS	6	13A 13B
	NEG	24	
CH14	POS	5	14A 14B
	NEG	23	
CH15	POS	4	15A 15B
	NEG	22	
CH16	POS	3	16A 16B
	NEG	21	

DB1_PIN 1, 38 & 39: GND, PIN 19, 37, 2 & 20: NULL

D-SUB PIN ASSIGNMENT (DO MODULE)

CHANNEL	DB1	FIELD TERMINAL
CH1	18	1A 1B 1C
CH2	17	2A 2B 2C
CH3	16	3A 3B 3C
CH4	15	4A 4B 4C
CH5	14	5A 5B 5C
CH6	13	6A 6B 6C
CH7	12	7A 7B 7C
CH8	11	8A 8B 8C
CH9	10	9A 9B 9C
CH10	9	10A 10B 10C
CH11	8	11A 11B 11C
CH12	7	12A 12B 12C
CH13	6	13A 13B 13C
CH14	5	14A 14B 14C
CH15	4	15A 15B 15C
CH16	3	16A 16B 16C

DB1_21~37 SHORT, DB1_19:24V
DB1_1, 2 AND 20: NULL

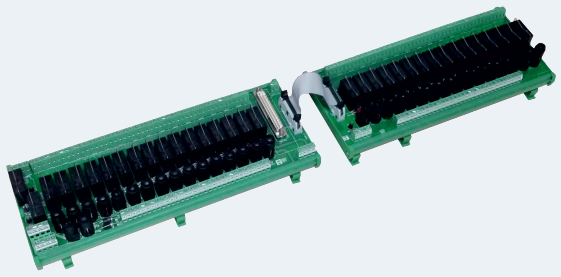
32 CHANNEL DIGITAL INPUT MODULE

These modules act as input or output modules for PLCs or other digital controllers. The digital output (DO) modules have the added convenience of providing trigger / switching signal to the relays from the PLC by use of a DSUB Connector.

The digital input (DI) modules provide isolation between two wire field sensors and the input of controllers like PLC. In addition the connection between the digital input module and the PLC is through a convenient DSUB Connector.

Both of these modules have an added safety feature of glass fuses. The power terminals on the modules help provide power signal to either the load (DO) or the sensors (DI).

In addition to the DSUB Connector, standard PCB Terminal Blocks are also provided for connecting the input signals.



RoHS

ORDERING INFORMATION

Cat. No.	Description
IMRE/DI32/24/DM37	2CO 32(MAIN16CH)
	24DC BASE DI DB37-FBM217
IMRE/DI32/24/DM37E	2CO 32(EXTN16CH)
	24DC BASEDI+CBLE-FBM217

GENERAL DATA

Cat. No.	
IMRE/DI32/24/DM37	310 Length L (mm)*
IMRE/DI32/24/DM37E	270 Length L (mm)*
Number of Channels	16
Width W (mm)	123
Height H (mm)	74
Power ON Indication	3 mm Red LED
Relay Protection	Using 1N4007 Freewheeling Diode.
Ambient Temperature (Operation)	-20°C ... +50°C
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

DSUB CONNECTOR ELECTRICAL RATINGS

Contact Resistance	15 m ohm maximum at 500 VDC
Current Rating	3A Max
Dielectric Withstanding Voltage	1000 VRMS
Number of Contacts	37

IDC/FRC CONNECTOR DATA

Contact Resistance	30 m ohm maximum at 500 VDC
Current Rating	1.5 A
Dielectric Withstanding Voltage	500 VRMS
Number of Contacts	20

RELAY CONTACT DATA

Contact Type	1 CO	2 CO
Contact Material	Ag Alloy	Ag Alloy
Rated Current	10A @250 VAC; 10A @30 VDC	5A @250 VAC; 5A @24 VDC
Max. Switching Voltage	400 VAC, 250 VDC	400 VAC, 250 VDC
Timing Data	18,000 operations/hr	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations	Min. 100 x 10^3 operations
Relay Approvals		

D-SUB PIN ASSIGNMENT (DO MODULE)

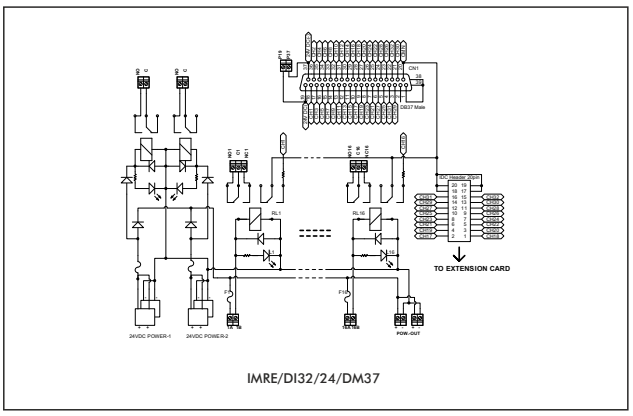
CHANNEL	DB1	FIELD TERMINAL
CH1	18	1A 1B
CH2	36	2A 2B
CH3	17	3A 3B
CH4	35	4A 4B
CH5	16	5A 5B
CH6	34	6A 6B
CH7	15	7A 7B
CH8	33	8A 8B
CH9	14	9A 9B
CH10	32	10A 10B
CH11	13	11A 11B
CH12	31	12A 12B
CH13	12	13A 13B
CH14	30	14A 14B
CH15	11	15A 15B
CH16	29	16A 16B
CH17	10	17A 17B
CH18	28	18A 18B
CH19	9	19A 19B
CH20	27	20A 20B
CH21	7	21A 21B
CH22	25	22A 22B
CH23	8	23A 23B
CH24	26	24A 24B
CH25	5	25A 25B
CH26	23	26A 26B
CH27	6	27A 27B
CH28	24	28A 28B
CH29	3	29A 29B
CH30	21	30A 30B
CH31	4	31A 31B
CH32	22	32A 32B

RELAY COIL DATA

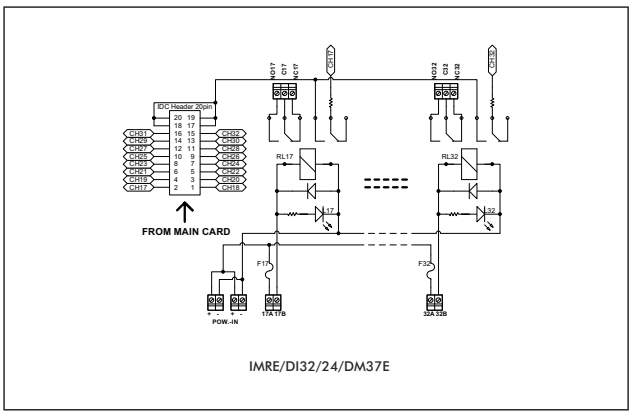
Rated Coil Voltage	24 VDC
Coil Resistance	1100 Ω
Rated Coil Current	21.8 mA
Must Operate Voltage	16.8 V
Must Release Voltage	2.4 V
Max. Voltage	31.2 V

COMMON FOR CH1 to CH3220
SHORTED TO SHIELD1
NOT CONNECTED2
TERMINATED ON PCB TB19
TERMINATED ON PCB TB37

CIRCUIT DIAGRAM



IMRE/DI32/24/DM37

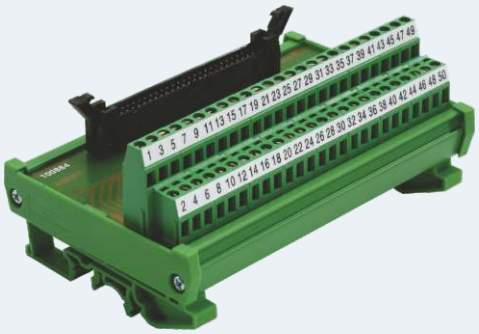


IMRE/DI32/24/DM37E

IDC / FRC MODULES

- Housed in V0 fire retardant grade PVC mounting track
- Ease of connection with the use of standard screw connection PCB Terminal Blocks or Screwless Terminal Blocks
- Maximum current rating of 2 A per pin
- Available with all standard pin configurations from 10 to 64
- Available with LED indication
- Possibility of mounting circuit components between the pins of IDC connectors
- DIN Rail Mounting

Connectwell IDC / FRC modules facilitate quick connections of initiators, actuators and sensors to PLC I/O modules with the aid of pre assembled cable harness.



RoHS

ORDERING INFORMATION

# of Pins	With 1:1 connections (Standard)	With 1:1 connections (Spring Cage)	With Component Mounting Holes	With LED Indication
10	IMIDC/10/S/L	IMIDC/10/SC/L	IMIDC/10/H/L	IMIDC/10/L1/L
14	IMIDC/14/S/L	IMIDC/14/SC/L	IMIDC/14/H/L	IMIDC/14/L1/L
16	IMIDC/16/S/L	IMIDC/16/SC/L	IMIDC/16/H/L	IMIDC/16/L1/L
20	IMIDC/20/S/L	IMIDC/20/SC/L	IMIDC/20/H/L	IMIDC/20/L1/L
26	IMIDC/26/S/L	IMIDC/26/SC/L	IMIDC/26/H/L	IMIDC/26/L1/L
34	IMIDC/34/S/L	IMIDC/34/SC/L	IMIDC/34/H/L	IMIDC/34/L1/L
40	IMIDC/40/S/L	IMIDC/40/SC/L	IMIDC/40/H/L	IMIDC/40/L1/L
50	IMIDC/50/S/L	IMIDC/50/SC/L	IMIDC/50/H/L	IMIDC/50/L1/L
60	IMIDC/60/S/L	IMIDC/60/SC/L	IMIDC/60/H/L	IMIDC/60/L1/L
64	IMIDC/64/S/L	IMIDC/64/SC/L	IMIDC/64/H/L	IMIDC/64/L1/L

DIMENSIONAL DATA

Number of Channels / Pins	10	14	16	20	26	34	40	50	60	64
Width W (mm)	88	88	88	88	88	88	88	88	88	88
Height H (mm)	65	65	65	65	65	65	65	65	65	65
Length L (mm) ***	41	47	52	62	77	97	113	137	163	173

GENERAL DATA

Ambient Temperature (Operation)	-20°C ... +50°C
Mounting Types *	DIN32 / DIN35 / DIN35-15 / PANEL*
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green
Component Mounting Hole Ømm (optional)	1 mm

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

* PANEL mounting modules are available on request. Please use the suffix -P with the above cat. no. for ordering.

** Standard IDC Modules available with Long Latch IDC Connectors, Short Latch IDC Connectors available on request.

*** Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for Panel Mounting.

CONFIGURATIONS **

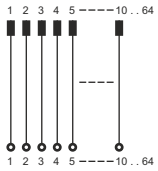
IDC Modules with 1: 1 Screw Connections: IMIDC/xx/S/L
IDC Modules with 1: 1 Spring Connections: IMIDC/xx/SC/L
IDC Modules with Component Mounting Holes: IMIDC/xx/H/L (with 5 component mounting holes / channel)
IDC Modules with LED Indication: IMIDC/xx/L1/L

IDC / FRC CONNECTOR DATA**

Insulation Material	PBT, glass reinforced
Contact Material	Brass
Rated Current	2A
Contact Resistance	30 mΩ maximum
Insulation Resistance	3000 MΩ minimum
Dielectric Withstanding Voltage	500VAC for 1 minute
Pin Configurations Available	10,14,16,20,26,34,40,50,60 & 64
Approvals	c UL us

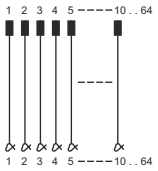
CIRCUIT DIAGRAM

IMIDC/x/S/L
IDC Modules with 1: 1 Connections



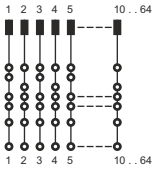
Standard IDC Modules, provide a 1:1 connection between the IDC header and the PCB Terminal Blocks.

IMIDC/x/SC/L
IDC Modules with 1: 1 Connections



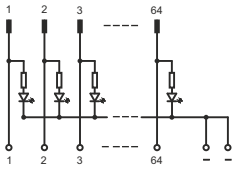
Standard IDC Modules, provide a 1:1 connection between the IDC header and the Spring Cage PCB Terminal Blocks.

IMIDC/x/S/H
IDC Modules with Component Mounting Holes



These Modules Provide the User with Solder Pads for mounting Circuit Building Components.

IMIDC/x/L1
IDC Modules with LED Indication



These provide LED Indication on each Connected Line.

Alternate Circuits to suit the User's needs are available on request.

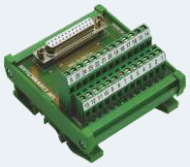
MALE & FEMALE DSUB MODULES

- Housed in V0 fire retardant grade PVC mounting track
- Ease of connection with the use of standard screw connection PCB Terminal Blocks or Screwless Terminal Blocks
- Maximum current rating of 3 A per pin
- Available with male or female DSUB connectors.
- Available with all standard pin configurations from 9 to 50
- Available with LED indication
- Possibility of mounting circuit components between the pins of DSUB connectors
- DIN Rail Mounting

Connectwell DSUB modules facilitate quick connections of initiators, actuators and sensors to PLC I/O modules with the aid of pre assembled cable harness.

MALE DSUB MODULE

MALE DSUB MODULE WITH SPRING TERMINAL BLOCKS



FEMALE DSUB MODULE

RoHS

ORDERING INFORMATION

DSUB Male Modules : IMDSUBM

# of Pins	With 1:1 connections (Standard)	With 1:1 connections (Spring Cage)	With Component Mounting Holes	With LED Indication
9	IMDSUBM/9/S	IMDSUBM/9/SC	IMDSUBM/9/H	IMDSUBM/9/L1
15	IMDSUBM/15/S	IMDSUBM/15/SC	IMDSUBM/15/H	IMDSUBM/15/L1
25	IMDSUBM/25/S	IMDSUBM/25/SC	IMDSUBM/25/H	IMDSUBM/25/L1
37	IMDSUBM/37/S	IMDSUBM/37/SC	IMDSUBM/37/H	IMDSUBM/37/L1
50	IMDSUBM/50/S	IMDSUBM/50/SC	IMDSUBM/50/H	IMDSUBM/50/L1

DSUB Female Modules: IMDSUBF

# of Pins	With 1:1 connections (Standard)	With 1:1 connections (Spring Cage)	With Component Mounting Holes	With LED Indication
9	IMDSUBF/9/S	IMDSUBF/9/SC	IMDSUBF/9/H	IMDSUBF/9/L1
15	IMDSUBF/15/S	IMDSUBF/15/SC	IMDSUBF/15/H	IMDSUBF/15/L1
25	IMDSUBF/25/S	IMDSUBF/25/SC	IMDSUBF/25/H	IMDSUBF/25/L1
37	IMDSUBF/37/S	IMDSUBF/37/SC	IMDSUBF/37/H	IMDSUBF/37/L1
50	IMDSUBF/50/S	IMDSUBF/50/SC	IMDSUBF/50/H	IMDSUBF/50/L1

GENERAL DATA

Number of Channels	9	15	25	37	50
Width (mm)	88	88	88	88	88
Height (mm)	65	65	65	65	65
Length (mm)*	43	55	81	112	148
Ambient Temperature (Operation)	-20°C ... +50°C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				
Component Mounting Hole Ømm (optional)	1 mm				

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

CONNECTION DATA

Type of Connection	Screw Connection	Spring Connection
Rated Current / Voltage	16 A / 300 V	15 A / 300 V
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG	28 -12 AWG
Stripping Length	8.3 mm	8 mm
Torque	4.5 lb-in / 0.5 Nm	-

DSUB CONNECTOR ELECTRICAL RATINGS

Contact Resistance	15 mΩ maximum at 500 VDC
Current Rating	3 A Max
Operation Voltage	250 VAC
Dielectric With standing Voltage	1000 VAC for one minute
Number of Contacts	9, 15, 25, 37, 50

CONFIGURATIONS **

All DSUB Configurations available with Male or Female DSUB Connectors.

1) DSUB Modules with 1: 1 Connections between discrete screw terminals and DSUB pin. (Male: IMDSUBM/xx/S & Female: IMDSUBF/xx/S)

2) DSUB Modules with 1: 1 Connections between discrete spring terminals and DSUB pin. (Male: IMDSUBM/xx/S & Female: IMDSUBF/xx/S)

3) DSUB Modules with 5 Component Mounting Holes / Channel. (Male: IMDSUBM/xx/H & Female: IMDSUBF/xx/H)

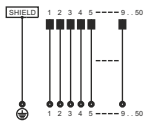
4) DSUB Modules with LED Indication. (Male: IMDSUBM/xx/L1 & Female: IMDSUBF/xx/L1)

DSUB CONNECTOR MATERIALS

Insulator	PBT, Rated UL94V-0
Contacts	Brass
Shell	Steel
Rivet, Boardlock	Copper Alloy

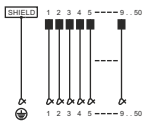
CIRCUIT DIAGRAM

IMDSUBM/x/S



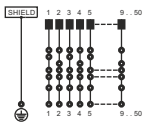
These are the Standard D-SUB Modules which provide 1:1 connection between Double Level Terminal Blocks and Male D-SUB Connectors.

IMDSUBM/x/SC



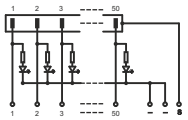
These are the Standard D-SUB Modules which provide 1:1 connection between Spring Cage PCB Terminal Blocks and Male D-SUB Connectors.

IMDSUBM/x/H



These D-SUB Modules provide the user with Solder Pads for mounting Circuit Building Components.

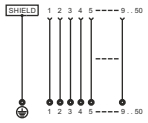
IMDSUBM/x/L1



These provide LED Indication on each Connected Line.

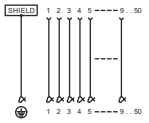
Alternate Circuits to suit the user's needs are available on request.

IMDSUBF/x/S



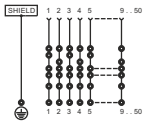
These are the Standard D-SUB Modules which provide 1:1 connection between Double level Terminal Blocks and Female D-SUB Connectors.

IMDSUBF/x/SC



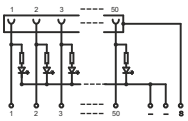
These are the Standard D-SUB Modules which provide 1:1 connection between Spring Cage PCB Terminal Blocks and Female D-SUB Connectors.

IMDSUBF/x/H



These D-SUB Modules provide the user with Solder Pads for mounting Circuit Building Components.

IMDSUBF/x/L1

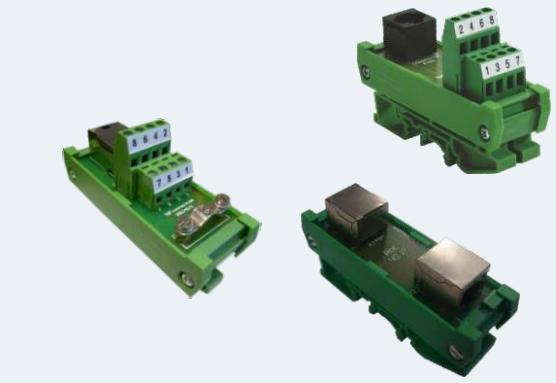


These provide LED Indication on each Connected Line.

Alternate Circuits to suit the user's needs are available on request.

RJ45 INTERFACE MODULES

- Ease of connection with the use of standard screw connection Terminal Blocks.
- DIN Rail Mounting
- Housed in V0 fire retardant grade PVC mounting track.
- Possibility of having standard / cross-over connection using the same module.
- Modules are also available with shielded RJ45 connectors.



RoHS

ORDERING INFORMATION

RJ45 Interface Module with Vertical RJ45 Connector	IMRJ45/8/V
RJ45 Interface Module with Horizontal RJ45 Connector	IMRJ45/8/H
RJ45 Interface Module with Horizontal RJ45 Shielded Connector	IMRJ45/8/HS
RJ45 Interface Module with Horizontal RJ45 Shielded Connector on both the side	IMRJ45/1:1/8/HS
RJ45 Interface Module with Horizontal RJ45 Shielded Connector & Shield Clamp	IMRJ45/8/HS-V1
RJ45 Interface Module with Vertical RJ45 Shielded Connector on both the side	IMRJ45/1:1/8/V
6 Channel RJ45 Interface Module with Vertical RJ45 Connector	IMRJ45/8/V/6 (L: 83 x W:88 x H:65)

GENERAL DATA

	Non Shielded	Shielded
Width (mm)	88	88
Height (mm)	65	65
Length (mm)*	30	36
RJ45 Connector Orientation	Vertical / Horizontal	
Ambient Temperature (Operation)	-20°C ... +50°C	
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL **	
Housing Insulation Material	PVC / V0 Grade	
Housing Colour	Green	

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

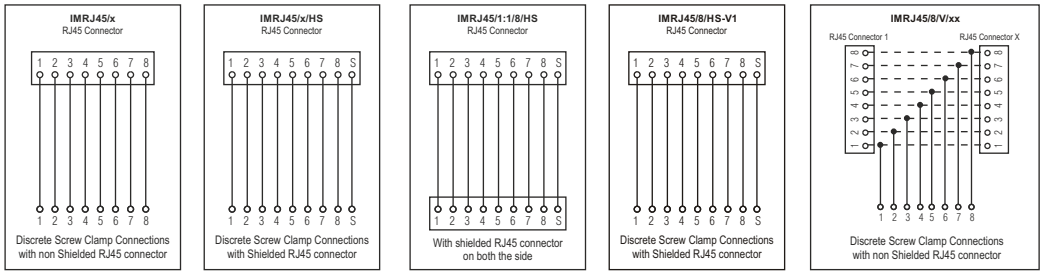
CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

RJ45 CONNECTOR DATA

Voltage Rating	125 VAC RMS.
Current Rating	1.5 AMP
Contact Resistance	30 mΩ max.
Housing Material	Glass Filled Polyester UL94V-0
Housing Color	Black
Contact Material	Phosphor Bronze (Internal Dia. 0.46mm)
Contact Plating	Gold Flash Plating Over Nickel
Shield Material	0.23 Thickness Brass with Nickel Plating

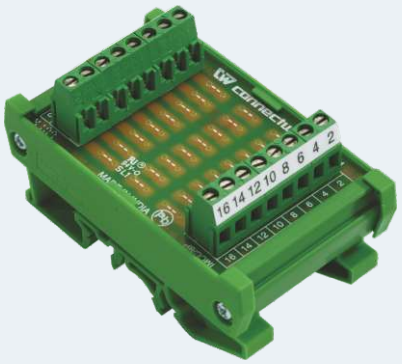
CIRCUIT DIAGRAM



COMPONENT CARRIER MODULES

- Connectwell Component Carrier module is used for the electronic circuit development for R&D purpose
- Ease of connection with the use of standard screw connection Terminal Blocks
- DIN Rail Mounting
- Mounting Holes provided for discrete electronic components
- Maximum PCB track current rating of 10 A
- Housed in V0 fire retardant grade PVC mounting track

Connectwell DIN Rail mount Component Carrier module is simple and attractive way for an experimenters to build an electronic circuit for prototype.



RoHS

ORDERING INFORMATION

# of Channels	Cat. No.
4	IMCC/4
8	IMCC/8
12	IMCC/12
16	IMCC/16
20	IMCC/20
24	IMCC/24

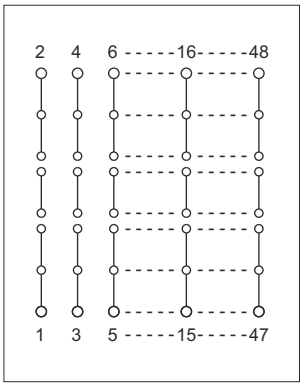
GENERAL DATA

Number of Channels	4	8	12	16	20	24
Width W (mm)	88	88	88	88	88	88
Height H (mm)	51	51	51	51	51	51
Length L (mm)*	32	53	73	93	113	133
Component Mounting Holes / Channel	6					
Component Mounting Hole Ø mm	1.1 mm					
Rated Current Carrying Capacity / Channel	10 A (Max.)					
Ambient Temperature (Operation)	-20°C ... +50°C					
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL **					
Housing Insulation Material	PVC / V0 Grade					
Housing Colour	Green					

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

CIRCUIT DIAGRAM

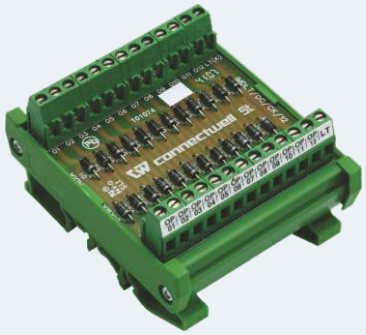


* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

DIODE & LAMP TEST MODULES

- Connectwell Diode & Lamp Test modules is used for testing of indicating lamps in cabinet at a glance or an individual
- Housed in V0 fire retardant grade mounting track
- Ease of connection with the use of standard screw connection PCB Terminal Blocks
- Available with individual, common anode and common cathode standard diode configurations
- Lamp test configurations for DC and AC applications available as standard
- DIN Rail Mounting



RoHS

ORDERING INFORMATION

Diode Modules

# of Channels	Individual Diode Modules	Common Anode Diode Modules	Common Cathode Diode Modules
4	IMD/S/4	-	-
6	-	IMD/CA/6	IMD/CK/6
8	IMD/S/8	-	-
10	IMD/S/10	-	-
12	IMD/S/12	-	-
14	-	IMD/CA/14	IMD/CK/14
16	IMD/S/16	IMD/CA/16	-
20	IMD/S/20	IMD/CA/20	-
22	-	IMD/CA/22	IMD/CK/22
24	IMD/S/24	-	-

DC Lamp Test Modules

# of Channels	Individual Lamp Test Modules	Common Anode Lamp Test Modules	Common Cathode Lamp Test Modules
5	IMDLT/DC/S/5	IMDLT/DC/CA/5	IMDLT/DC/CK/5
6	IMDLT/DC/S/6	-	-
8	IMDLT/DC/S/8	-	IMDLT/DC/CK/8
10	IMDLT/DC/S/10	IMDLT/DC/CA/10	IMDLT/DC/CK/10
12	-	IMDLT/DC/CA/12	IMDLT/DC/CK/12
16	-	IMDLT/DC/CA/16	-
24	-	IMDLT/DC/CA/24	-

AC Lamp Test Modules

# of Channels	Cat. No.
5	IMDLT/AC/5
10	IMDLT/AC/10
22	IMDLT/AC/22

DIMENSIONAL DATA

Number of Channels		4	5	6	8	10	12	14	16	20	22	24
Width	W (mm)	88	88	88	88	88	88	88	88	88	88	88
Height	H (mm)	51	51	51	51	51	51	51	51	51	51	51
Length	**L (mm) ****											
Individual Diode Modules		32	-	-	53	63	73	-	95	113	-	133
Common Anode Diode Modules		-	-	32	-	-	-	53	58	73	73	-
Common Cathode Diode Modules		-	-	32	-	-	-	53	-	-	73	-
Individual Lamp Test Modules		-	63	76	-	113	-	-	-	-	-	-
Common Anode Lamp Test Modules		-	38	-	-	63	73	-	90	-	-	138
Common Cathode Lamp Test Modules		-	38	-	57	63	73	-	-	-	-	-
AC Lamp Test Modules		-	40	-	-	63	-	-	-	-	-	-

GENERAL DATA

Ambient Temperature (Operation)	-20°C ... +50°C
Mounting Types *	DIN32 / DIN35 / DIN35-15 / PANEL*
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

DIODE DATA

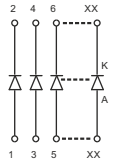
Diode Type	1N4007
Maximum Recurrent Peak Reverse Voltage(VRRM)	1000V
Maximum DC Blocking Voltage(VDC)	1000V
Maximum Average Forward Rectified Current at TA = 75°C	1A
Maximum Instantaneous Forward Voltage at 1.0A DC	1.1V
Maximum DC reverse current at rated DC blocking voltage	500 μA @ TA = 25°C and 30 μA @ TA = 100°C

* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

** PANEL Mounting relay modules are available on request. Please use the suffix -P with the cat. no. for ordering.

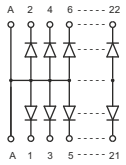
CIRCUIT DIAGRAM

IMD/S/XX
Individual Diode Modules



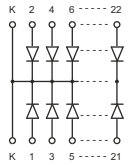
Individual Diodes connected between two PCB Terminal Blocks.

IMD/CA/XX
Common Anode Diode Modules



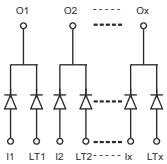
Diode Network with Common Anode and Individual Cathodes.

IMD/CK/XX
Common Cathode Diode Modules



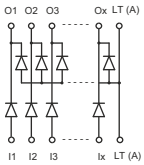
Diode Network with Common Cathode and Individual Anodes.

IMDLT/DC/S/XX
Individual Lamp Test Modules



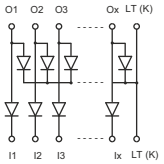
Each channel can be tested with individual test signals.

IMDLT/DC/CA/XX
Common Anode Lamp Test Modules



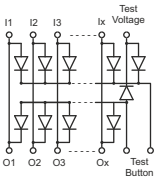
A single Positive signal can be used to check all the channels simultaneously.

IMDLT/DC/CK/XX
Common Cathode Lamp Test Modules



A single Negative signal can be used to check all the channels simultaneously.

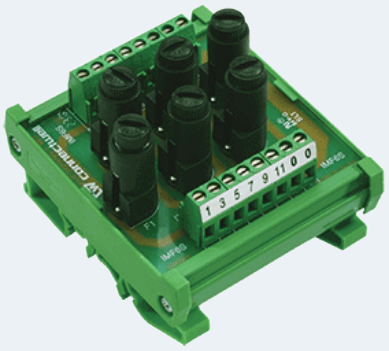
IMDLT/AC/XX
AC Lamp Test Modules



This Module is utilized for AC Lamp Testing applications.

STANDARD FUSE MODULES

- Suitable for fuse range from 0.1 A to 6.3 A
- Replaceable fuses with simple to operate vertical fuse holders
- Fast Blow and Slow Blow fuses available as standard
- Ease of connection with the use of standard screw connection Terminal Blocks
- DIN Rail Mounting
- Housed in V0 fire retardant grade PVC mounting track
- LED warning possible for fuse blow indication



RoHS

ORDERING INFORMATION

# of Channels	Cat. No.
2	IMF/2/S
4	IMF/4/S
8	IMF/8/S
16	IMF/16/S

CONNECTION SPECIFICATIONS

Type of Connection	Screw Connection
Min. Wire Size	0.5 sq.mm
Max. Wire Size	2.5 sq.mm
Min. Wire Size(AWG)	30 AWG
Max. Wire Size(AWG)	14 AWG
Wire Stripping Length	8.3 mm
Torque	4.5 lb-in
Torque	0.5 Nm

OUTPUT DATA

Number of Channels	2	4	8	16
Width W (mm)	120	120	120	120
Height H (mm)	74	74	74	74
Length L (mm)	26	48	93	183
Ambient Temperature (Operation)	-20°C ... +50°C			
Mounting Types	DIN32 / DIN35 / DIN35-15 / PANEL			
Housing Insulation Material	PVC / V0 Grade			
Housing Colour	Green			

CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

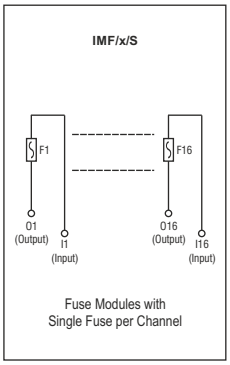
FUSE SPECIFICATIONS

Fuse Type	Fast Blow / Slow Blow
Fuse Rating Available	0.1, 0.5, 0.63, 1, 2, 3, 4, 5, 6, 6.3 A
Fuse Size	5 x 20 mm

FUSE HOLDER SPECIFICATIONS

Mounting Type	PCB-type Horizontal / Vertical
Terminals Type	Solder-type
Cap Design	Flat / Screw in with Coin slot
Fuse Size	5 x 20 mm
Contact Material	Brass Tin Plated
Insulation	Polymide G.F
Rated Current	6.3 A
Contact	10 m ohms max.

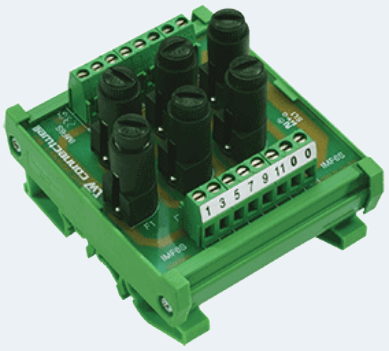
CIRCUIT DIAGRAM



Fuse Modules with Single Fuse per Channel

FUSE MODULES WITH FUSE FAIL INDICATION

- Suitable for fuse range from 0.1 A to 6.3 A
- Replaceable fuses with simple to operate vertical fuse holders
- Fast Blow and Slow Blow fuses available as standard
- Ease of connection with the use of standard screw connection Terminal Blocks
- DIN Rail Mounting
- Housed in V0 fire retardant grade PVC mounting track
- LED warning possible for fuse blow indication



RoHS

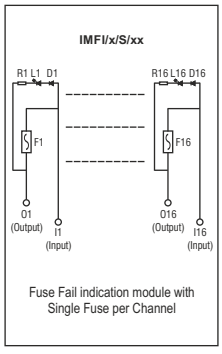
ORDERING INFORMATION

# of Channels		Cat. No.
2	24 V AC/DC	IMFI/2/S/24
4	24 V AC/DC	IMFI/4/S/24
8	24 V AC/DC	IMFI/8/S/24
16	24 V AC/DC	IMFI/16/S/24
2	110 V AC/DC	IMFI/2/S/110
4	110 V AC/DC	IMFI/4/S/110
8	110 V AC/DC	IMFI/8/S/110
16	110 V AC/DC	IMFI/16/S/110
2	230 V AC/DC	IMFI/2/S/230
4	230 V AC/DC	IMFI/4/S/230
8	230 V AC/DC	IMFI/8/S/230
16	230 V AC/DC	IMFI/16/S/230

OUTPUT DATA

Number of Channels	2	4	8	16
Width W (mm)	88	88	88	88
Height H (mm)	74	74	74	74
Length L (mm)	26	50	93	183
Ambient Temperature (Operation)	-20°C ... +50°C			
Mounting Types	DIN32 / DIN35 / DIN35-15 / PANEL			
Housing Insulation Material	PVC / V0 Grade			
Housing Colour	Green			

CIRCUIT DIAGRAM



Fuse Fail indication module with Single Fuse per Channel

CONNECTION DATA

Type of Connection	Screw Connection
Min. Wire Size	0.5 sq.mm
Max. Wire Size	2.5 sq.mm
Min. Wire Size(AWG)	30 AWG
Max. Wire Size(AWG)	14 AWG
Wire Stripping Length	8.3 mm
Torque	4.5 lb-in
Torque	0.5 Nm

FUSE SPECIFICATIONS

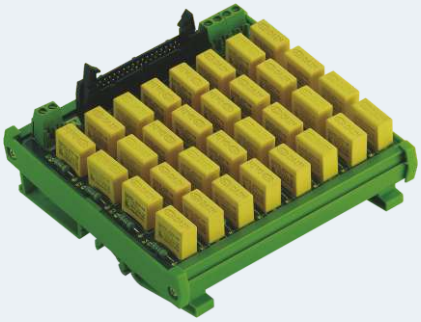
Fuse Type	Fast Blow / Slow Blow
Fuse Rating Available	0.1, 0.5, 0.63, 1, 2, 3, 4, 5, 6, 6.3 A
Fuse Size	5 x 20 mm

FUSE HOLDER SPECIFICATIONS

Mounting Type	PCB-type Horizontal / Vertical
Terminals Type	Solder-type
Cap Design	Flat / Screw in with Coin slot
Fuse Size	5 x 20 mm
Contact Material	Brass Tin Plated
Insulation	Polymide G.F
Rated Current	6.3 A
Contact	10 m ohms max.

32 CHANNEL RC MODULE

- 16/ 32 Channel resistor - capacitor (RC) circuit built-in
- Highly compact in size
- Other capacitor values are also available on request
- DIN Rail Mounting



RoHS

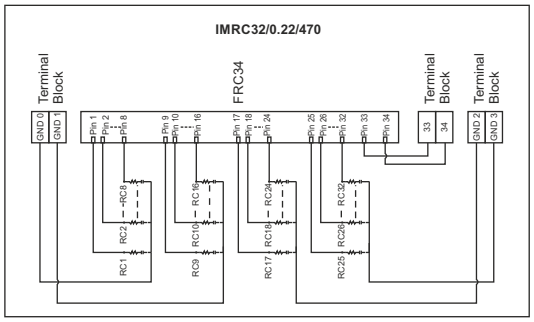
ORDERING INFORMATION

Module Specifications		Cat. No.
0.22 µF 275 VAC, 470Ω ½ W	16 Channel	IMRC16/0.22/470
0.22 µF 275 VAC, 470Ω 2 W	16 Channel	IMRC16/0.22/470/2W
0.22 µF 275 VAC, 1KΩ 2 W	16 Channel	IMRC16/0.22/1k/2W
0.22 µF 275 VAC, 470Ω ½ W	32 Channel	IMRC32/0.22/470
0.22 µF 275 VAC, 470Ω 2 W	32 Channel	IMRC32/0.22/470/2W
0.22 µF 275 VAC, 1KΩ 2 W	32 Channel	IMRC32/0.22/1k/2W

OUTPUT DATA

Number of Channels	32
Description	(0.22µF 275VAC,47Ω ½ Watt)Resistor-apacitor(RC) Module Rail Mount (0.22µF 275VAC,470 2 Watt)Resistor-apacitor(RC) Module Rail Mount (0.22µF 275VAC,1K 2Watt)Resistor-apacitor(RC) Module Rail Mount
Width	128
Height	120
Depth	74
Ambient Operating Temperature	-20°C ... +50°C
Mounting Possibility	DIN32 / DIN35 / DIN35-15 / PANEL
Housing Material	PVC / V0 Grade
Housing Colour	Green

CIRCUIT DIAGRAM



CONNECTION DATA

Type of Connection	Screw Connection
Min. Wire Size	0.5 sq.mm
Max. Wire Size	2.5 sq.mm
Min. Wire Size(AWG)	30 AWG
Max. Wire Size(AWG)	14 AWG
Wire Stripping Length	8.3 mm
Torque	4.5 lb-in
Torque	0.5 Nm

RC SPECIFICATIONS

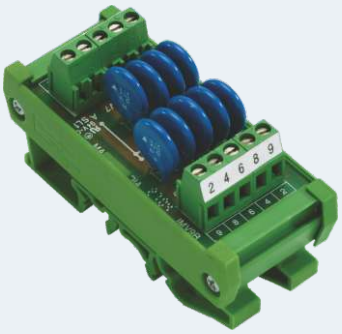
Capacitor Type	MPX(Class-X2)
Capacitance Value	0.22 microFarad ,275 V
Capacitance Tolerance	+/- 20%
Resistance Value	470 ohm 2 Watt / 1k ohm 2 watt

IDC/RFC CONNECTOR SPECIFICATION

Housing Material	PBT,glass reinforced
Housing Colour	Black/Gray
Contact Material	Brass
Rated Current / Pin	2A
Contact Resistance	30 mΩ maximum
Dielectric Withstanding Voltage	500 VAC for 1 minute
Insulation Resistance	3000 MΩ minimum
IDC / FRC Connector Approvals	

VARISTOR MODULES

- Connectwell Varistor module is used to protect the device from line surges and over voltages
- Ease of connection with the use of standard screw connection Terminal Blocks
- Available with individual and common anode standard configurations
- Available with various varistor voltage ratings
- Housed in V0 fire retardant grade PVC mounting track



RoHS

ORDERING INFORMATION

Single Varistor Configuration

# of Channels	50 V	130 V	275 V
3	IMV/3/S/50	IMV/3/S/130	IMV/3/S/275
8	IMV/8/S/50	IMV/8/S/130	IMV/8/S/275

Common Anode Configuration

# of Channels	50 V	130 V	275 V
5	IMV/5/R/50	IMV/5/R/130	IMV/5/R/275
9	IMV/9/R/50	IMV/9/R/130	IMV/9/R/275
14	IMV/14/R/50	IMV/14/R/130	IMV/14/R/275

GENERAL DATA

Number of channels	3	5	8	9	14
Width W (mm)	88	88	88	88	88
Height H (mm)	65	65	65	65	65
Length L (mm) *	31	27	53	37	53
Ambient Temperature (Operation)	-20°C ... +50°C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing insulation material	PVC / V0 Grade				
Housing Colour	Green				

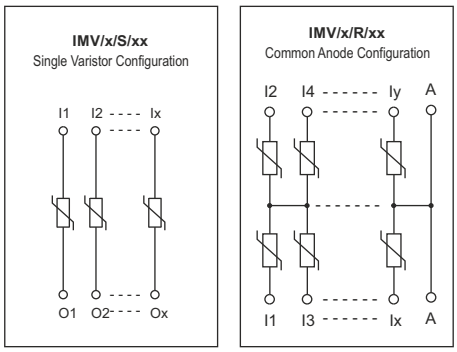
CONNECTION DATA

Type of Connection	Screw Connection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

VARISTOR DATA

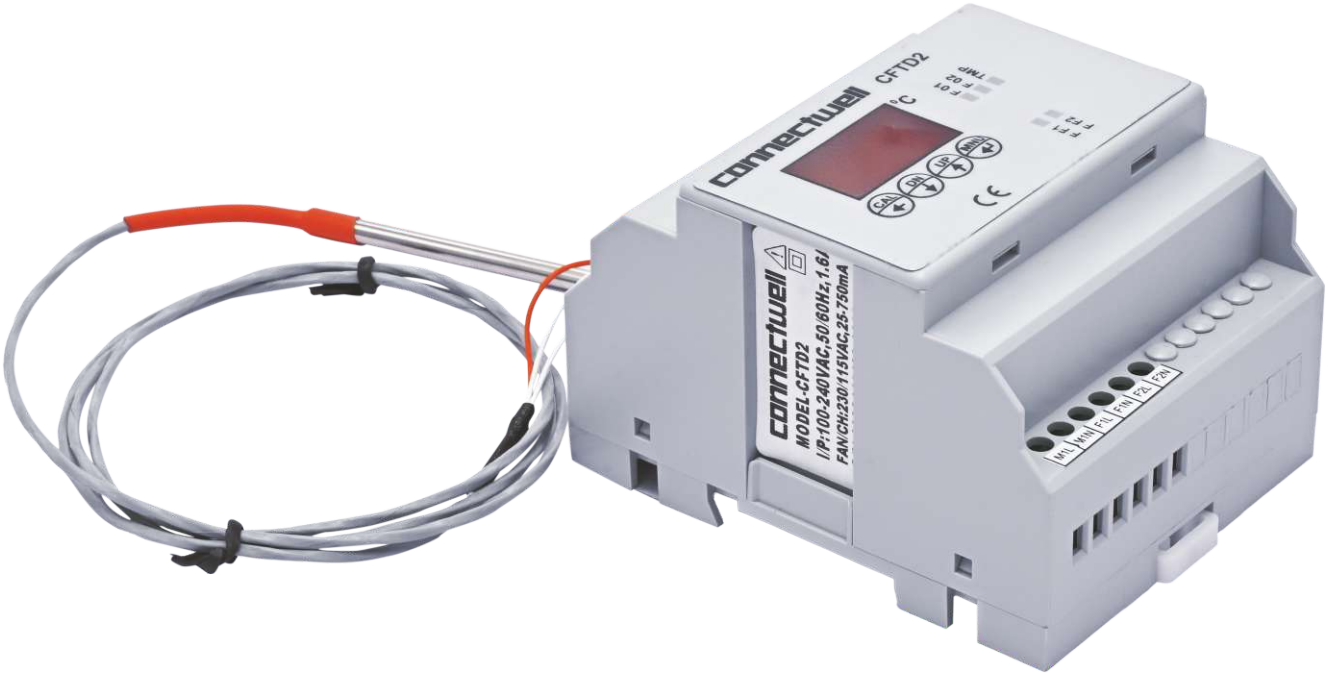
Number of channels	3	5	8914
Varistor Type	14r	ım Diameter	
Varistor Rating ***	50V	130V	275V
Maximum Allowable Voltage AC	50	130	275
Maximum Allowable Voltage DC	65	170	350
Varistor Voltage	59~71	153~187	315~385
Clamping Voltagev	135	340	710
Rated Wattage (Max.)W		0.6	
Maximum Energy (2 μs)joule	15	34	71
Surge Current (8/20 μs) A	4500		
Response Time	< 25 ns		
CONFIGURATIONS			
Varistor Modules with Single Varistor per Channel : IMV/x/S/xx			
Varistor Modules with Common anode configuration : IMV/x/R/xx			

CIRCUIT DIAGRAM



* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting.
** PANEL mounting modules are available on request. Please use the suffix -P with the above cat. no. for ordering.
*** Varistor voltages are indicative of the range available. All other varistor voltages for 14 mm & 20 mm varistors are available on request.

FAN MONITORING & CONTROL DEVICE



CONTINUITY & SAFETY
GURANTEED

Connectwell Fan Monitoring & Control Device (CFMCD) is the ultimate solution for ensuring that your control panels are equipped with a redundancy and alarm mechanism to respond to any adverse event resulting from malfunctioning of fans and the resultant loss of ventilation and cooling.

CFMCD - For Applications and Control Panels, where failure is not an option.

Easy to INSTALL, CALIBRATE & PROGRAM

- Din Rail Mounted
- Automatic Fan Calibaration
- Manual Program option with Button selection and display

Protection at all levels - SELF, FANS, APPLICATION

- Power redudancy mode
- Isolated supply for fans
- 20 mA to 750 mA fan current (suitable for all range of fans)
- Fan overload detection
- Fan Disconnect detection
- MaNdatory Manual Reset of Failure Connection

Continuous status SENSING & MULTIPLE ALARM mechanisms

- Simultanious fan sensing
- Atmospheric Temperature based fan control
- Fan redundancy mode
- Seperate Alarm for temperature and fan fault
- Analog output for live temperature indication

CFMCD
2 Fan with Temperature Control

- Compact and standard DIN Mounting
- Auto Sensing / Manual Sensing saves calibration time.
- LED Indication for FAN OK, FAN FAIL, FUSE FAIL & FAN TRIP SET
- Potential free contact for Fan/Temp Failure
- Display for Temperature Display and program
- 3-Wire PT 100 RTD Interface along with device
- 2 Wire 4-20 mA current output
- Programmable Temperature range for 4-20 mA transmitter
- Programmable Auto Reset functionality
- Universal Input Voltage design (110/230 VAC)
- Fan Redundancy
- Shuffling of fans
- Input Fuse protection

CE RoHS

ORDERING INFORMATION

Cat. No.	CFTD2
Description	Fan Failure Module For
	2 Fans with Temp Monitor
No. of Channels	2
Std. Pack	1

TECHNICAL DETAILS (CONTROLLER)

Ambient Operating Temperature	0^{0}C ... +50^{0}C
Rated Input voltage	100-240 VAC
Rated Current/Channel	25 - 750mA
Input Frequency	50/60Hz
Fuse Fail Indication	Yes
Fan Monitor Units	2
Fan Failure Alarm contact	Yes
Over Temperature Alarm contact	Yes
Live Temperature Display	Yes
Nominal input power	9VA
Degree of protection	IP20
Pollution Degree	2
Fan Protection	Fuse
Indications	
Fan Calibration	Green blinking (All LED)
Fan OK	Green (F01, F02 LED)
Fan Fail	Red (F01, F02 LED)
Over Temp	Red (TMP LED)
Fuse Fail	Red (FF1, FF2 LED)

TEMPERATURE SENSOR

Sensor type	RTD Sensor
Sensor Category	Pt100
Length of sensor	1mtr
Operating temperature range	0 to 99 deg C (Customizable)
Sensor Output	4 to 20 mA

CONNECTION DETAILS

Type of Connection	Screw Connection
Min. Wire Size	0.5 mm^2
Max. Wire Size	2.5 mm^2
Min. Wire Size(AWG)	20 AWG
Max. Wire Size(AWG)	14 AWG
Screw Size	M3
Wire Stripping Length	7 mm

FAN RATING

Fan 1	230VAC / 25-750mA, 110VAC / 25-750mA
Fan 2	230VAC / 25-750mA, 110VAC / 25-750mA

MODES

Single Fan Mode 1	Fan 1-ON, Fan 2-OFF
Single fan Mode 2	Fan 1-OFF, Fan 2-ON
(1)Redundant Fan Mode (1+1 Fan Mode)	Fan 1-ON, Fan 2-Redundant State
(2)Redundant Shuffle Fan Mode	Fan 1, Fan 2 Shuffles State Periodically
Dual Fan Mode	Fan 1- ON, Fan 2 - ON

Note : (1) In Redundant Fan Mode, Fan 1 runs and Fan 2 is disabled under normal condition.
At the instant of Fan 1 in Fault state the F01 LED glows red and Fan 2 is enabled and operates until fault is cleared.

Note : (2) In shuffle mode of operation FAN 1 is enabled and Fan 2 is disabled (redundant) after 8 hours Fan 1 is redundant and Fan 2 starts operating.
This cycles continues alternatively every 8 hours.

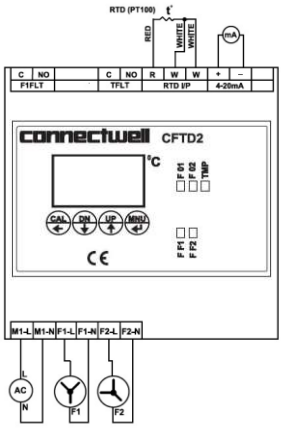
DIMENSIONS (mm)

Width	72
Height	90
Depth	58
Standards	
Safety	IEC-61010-1
EMC	IEC-61326-1, IEC-61000-4-2, IEC-61000-4-3, IEC-61000-4-4 IEC-61000-4-5, IEC-61000-4-6 IEC-61000-4-8, IEC-61000-4-11,CISPR 11

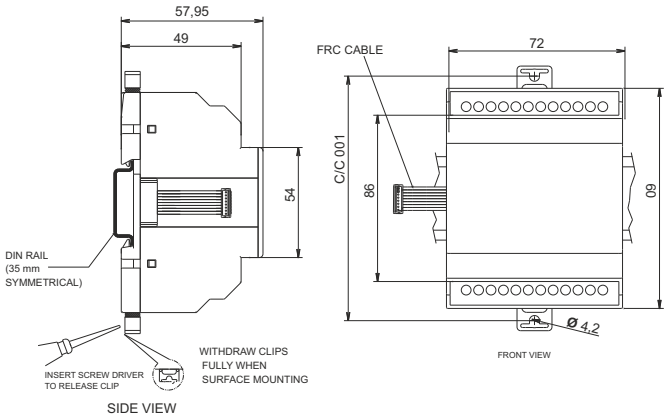
ACCESSORIES

Mounting Rail (1 M Length)	
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S
End Clamp	CA702 (6 mm Pitch)

ELECTRICAL CONNECTION DIAGRAM



MECHANICAL DIMENSIONS (mm)



CFMCD
4 Fan with Temperature Control

- Automatic Fan calibration
- Manual programming of Individual Fans
- Fan Overload, Fault Identification
- Fan Redundancy
- Various fan modes
- 3-Wire PT 100 RTD Interface along with device
- Live temperature display
- 4 - 20 mA analog temperature feedback
- Fan fault relay & Temp fault relay for remote monitoring
- Input Fuse protection
- Universal Input Voltage design (110 - 230 VAC)
- Compact & Standard DIN Rail Mounting

CE RoHS

ORDERING INFORMATION

Cat. No.	CFTD4
Description	Fan Failure Module For
	4 Fans with Temp Monitor
No. of Channels	4
Std. Pack	1

TECHNICAL DETAILS (CONTROLLER)

Ambient Operating Temperature	0^{0}C ... +50^{0}C
Rated Input voltage	100-240 VAC
Rated Current/Channel	25 - 750mA
Input Frequency	50/60Hz
Power Input	9 VA*
Fuse Fail Indication	Yes
Fan Monitor Units	4
Fan Failure Alarm contact	Yes
Over Temperature Alarm contact	Yes
Live Temperature Display	Yes
Nominal input power	9VA
Degree of protection	IP20
Pollution Degree	2
Fan Protection	Fuse
Indications	
Fan Calibration	Green (blinking)
Fan OK	Green
Fan Fail	Red
Over Temp	Red
Fuse Fail	Red

TEMPERATURE SENSOR

Sensor type	RTD Sensor
Sensor Category	PT100
Length of sensor	1mtr
Operating temperature range	0 to 99 deg C
Sensor Output	4 to 20 mA

TECHNICAL DETAILS (SENSOR)

Type of Connection	Screw Connection
Min. Wire Size	0.5 mm^2
Max. Wire Size	2.5 mm^2
Min. Wire Size(AWG)	20 AWG
Max. Wire Size(AWG)	14 AWG
Screw Size	M3
Wire Stripping Length	7 mm

FAN RATING

Fan 1	230VAC / 25-750mA, 110VAC / 25-750mA
Fan 2	230VAC / 25-750mA, 110VAC / 25-750mA
Fan 3	230VAC / 25-750mA, 110VAC / 25-750mA
Fan 4	230VAC / 25-750mA, 110VAC / 25-750mA

MODES

4 Fan	4 Fan Standard Mode
4 Fan Redundancy*	2 Standard + 2 Redundancy Mode
2 Fan	2 Fans Standard Mode
2 Fan Redundancy*	1 Standard + 1 Redundancy Mode
* Redundancy - Fan runs @ Temp fault or Fan fault	

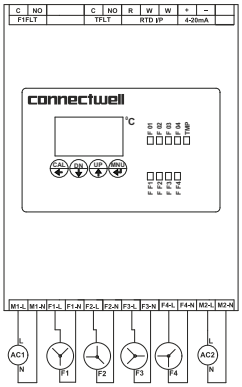
DIMENSIONS (mm)

Width	72
Height	90
Depth	58
Standards	
Safety	IEC-61010-1
EMC	IEC-61326-1, IEC-61000-4-2, IEC-61000-4-3, IEC-61000-4-4 IEC-61000-4-5, IEC-61000-4-6 IEC-61000-4-8, IEC-61000-4-11,CISPR 11

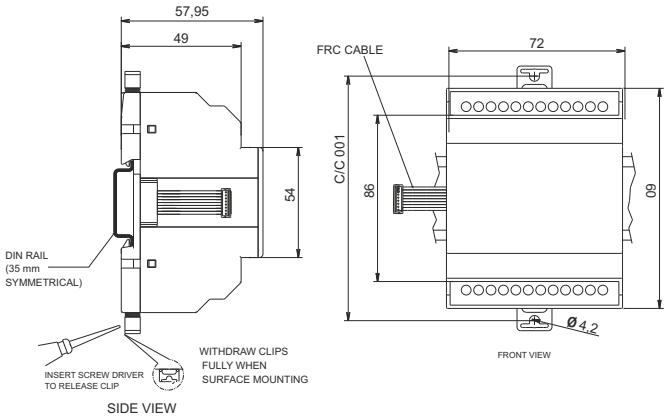
ACCESSORIES

Mounting Rail (1 M Length)	
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S
End Clamp	CA702 (6 mm Pitch)

ELECTRICAL CONNECTION DIAGRAM



MECHANICAL DIMENSIONS (mm)



CFMCD

4 Fan with Temperature Control & Power Redundancy

- Automatic Fan calibration
- Manual programming of Individual Fans
- Fan Overload, Fault Identification
- Fan Redundancy
- Various fan modes
- 3-Wire PT 100 RTD Interface along with device
- Live temperature display
- 4 - 20 mA analog temperature feedback
- Fan fault relay & Temp fault relay for remote monitoring
- Input Fuse protection
- Universal Input Voltage design (110 - 230VAC)
- Compact & Standard DIN Rail Mounting
- Power Redundancy

CE RoHS

ORDERING INFORMATION

Cat. No.	CFTDPR4
Description	Fan Failure Module For 4 Fans with
	Temp Monitor with power redundancy
No. of Channels	4
Std. Pack	1

TECHNICAL DETAILS (CONTROLLER)

Ambient Operating Temperature	$0^{\circ}C$ ... $+50^{\circ}C$
Rated Input voltage	100-240 VAC
Rated Current/Channel	25 - 750mA
Input Frequency	50/60Hz
Power Input	9 VA*
Fuse Fail Indication	Yes
Fan Monitor Units	4
Fan Failure Alarm contact	Yes
Over Temperature Alarm contact	Yes
Live Temperature Display	Yes
Nominal input power	9VA
Degree of protection	IP20
Pollution Degree	2
Fan Protection	Fuse
Indications	
Fan Calibration	Green (blinking)
Fan OK	Green
Fan Fail	Red
Over Temp	Red
Fuse Fail	Red

TEMPERATURE SENSOR

Sensor type	RTD Sensor
Sensor Category	PT100
Length of sensor	1mtr
Operating temperature range	0 to 99 deg C
Sensor Output	4 to 20 mA

TECHNICAL DETAILS (SENSOR)

Type of Connection	Screw Connection
Min. Wire Size	0.5 mm^2
Max. Wire Size	2.5 mm^2
Min. Wire Size(AWG)	20 AWG
Max. Wire Size(AWG)	14 AWG
Screw Size	M3
Wire Stripping Length	7 mm

FAN RATING

Fan 1	230VAC / 25-750mA, 110VAC / 25-750mA
Fan 2	230VAC / 25-750mA, 110VAC / 25-750mA
Fan 3	230VAC / 25-750mA, 110VAC / 25-750mA
Fan 4	230VAC / 25-750mA, 110VAC / 25-750mA

MODES

4 Fan	4 Fan Standard Mode
4 Fan Redundancy*	2 Standard + 2 Redundancy Mode
2 Fan	2 Fans Standard Mode
2 Fan Redundancy*	1 Standard + 1 Redundancy Mode
* Redundancy - Fan runs @ Temp fault or Fan fault	

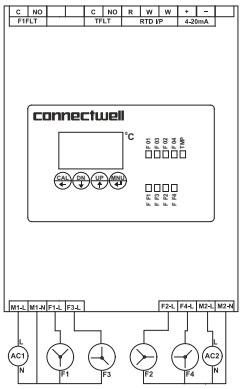
DIMENSIONS (mm)

Width	72
Height	90
Depth	58
Standards	
Safety	IEC-61010-1
EMC	IEC-61326-1, IEC-61000-4-2, IEC-61000-4-3, IEC-61000-4-4 IEC-61000-4-5, IEC-61000-4-6 IEC-61000-4-8, IEC-61000-4-11,CISPR 11

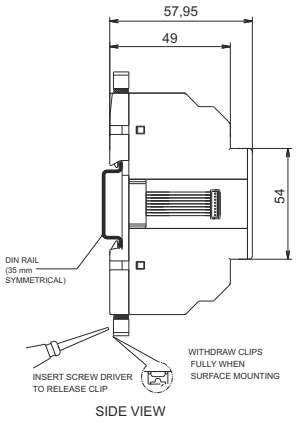
ACCESSORIES

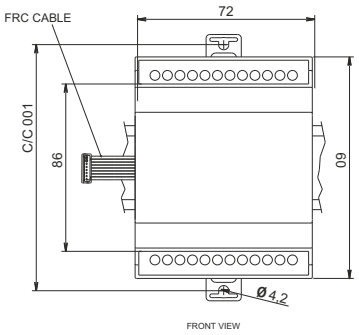
Mounting Rail (1 M Length)	
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S
End Clamp	CA702 (6 mm Pitch)

ELECTRICAL CONNECTION DIAGRAM



MECHANICAL DIMENSIONS (mm)





POWER SUPPLIES

LOADED WITH FEATURES DELIVERS GREAT VALUE

We at Connectwell believe that our customers should never have to cut corners when it comes to choosing the correct product for their applications. Hence our focus on creating products that deliver great value to our customers.

Connectwell Power Supplies are loaded with advanced features that are highly sought after, allowing for these power supplies to be used in a wide range of applications across industries.

Built for EFFICIENCY & PERFORMANCE

- Excellent Load Regulation
- Excellent Line Regulation
- Low Ripple & Low Harmonics
- 130% Continuous Power Boost

Design for UNIVERSAL use

- Wide Input Voltage Range
- Wide Operating Temperature Range
- Silent Operation
- Active Power Factor Correction Circuit

Built to LAST

- Built with highly reliable components
- Corrosion-Free Body
- Over-load & Over-voltage Protection
- Over Temperature Protection
- Short Circuit Protection

Saves RESOURCES

- High Power Factor Rating
- High Power Efficiency with & without load

SAFETY above all

- Compliance with IEC62368-1 Safety Standard
- IP20 Protection
- Built In Filtering
- Compliance with International EMI/EMC & LVD Standards
- Low In-Rush Current

Ready for CONTINGENCIES

- Remote Monitoring Possible
- Designed for Redundancy

SINGLE PHASE POWER SUPPLY

24 V / 2.5 A

- Single Phase AC input & 24V / 2.5A, 60W DC output
- Full Range Input selection from 85 to 264 VAC
- Short circuit / overload protection
- Over voltage / Over temperature protection
- Cooling by natural air convection
- DC ok relay contact
- Typical efficiency of 86%
- Compact design with a width of only 40.5 mm
- Less than 1W no load power consumption

CE RoHS

ORDERING INFORMATION

Cat. No.	CSS60/24/2.5

GENERAL SPECIFICATION

Min Isolation Voltage-AC (Input-FG)	2000 VAC
Min Isolation Voltage-AC (Input-Output)	3000 VAC
Min Isolation Voltage-AC (Output-FG)	500 VAC
Isolation Resistance	>100 MΩ
Ambient Temperature Range (Operational at Vi norm)	-25°C ... +70°C (Refer Derating curve)
Ambient Temperature Range (Storage)	-40°C ... +85°C
Relative Humidity Range (Operational)	20 to 95 %RH Non Condensing
Cooling	Cooling by natural air convection
Pollution Degree	2
LED Indication	Power ON/OFF
Relay Indication	DC Ready (Contact Rating: 30 VDC@1A, Resistive load)

CONTROL AND PROTECTION SPECIFICATIONS

Input fuse	T2A / 250VAC internal
Internal surge voltage protection	MOV
Rated over load protection	120-130% of rated Output Current
Power Ready	DC Ready (Contact Rating: 30 VDC@1A)
Over Current	105 ~ 150% of rated Output Current, above 150% shutdown(Auto Recovery)
Over voltage protection	29 - 33 V
Output short circuit	YES
Degree of protection	IP20

INPUT SPECIFICATIONS

Input Phase	Single
Rated Input Voltage	100 - 240 VAC
AC Input Voltage Range	85 - 264 VAC
DC Input Voltage Range	120 - 370 VDC
Rated Input Current	0.26A - 0.8A
Line Frequency Range	47 - 63Hz
Inrush Current (Typ.)	< 60A
Efficiency (Typ.)	86%
Leakage Current	<3mA / 240VAC
Surge Protection	Varistor

OUTPUT SPECIFICATIONS

Output Voltage	24 V
Output Voltage Accuracy (Adjusted before shipment)	±1%
Rated Current	2.5 A
Rated Power(Note1)	60 W
Line Regulation	±1%
Load Regulation	±1%
Output Voltage Trim Range	21.5 to 28 VDC
Rated Continuous Loading	2.5 A @24 VDC
Hold Up Time	50 ms
Turn On Time	600 ms at full load over entire input range
Rise Time	20 ms at full load over entire input range
Ripple and Noise (BW = 20MHz)	150 mVp-p @ 230 VAC
DC On Indicator	Yes
DC ON Indicator Threshold at start up (Green LED)	21 VDC ±1 %
Efficiency	86%

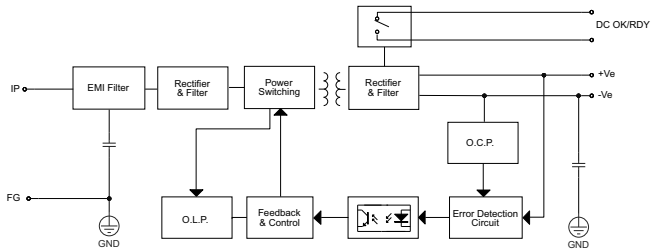
MECHANICAL SPECIFICATION

Dimensions	40 x 90 x 105 mm (W x H x D)
Case Material	Plastic
Net Weight	240 g
Gross Weight	270 g
Packing	Corrugated box packing

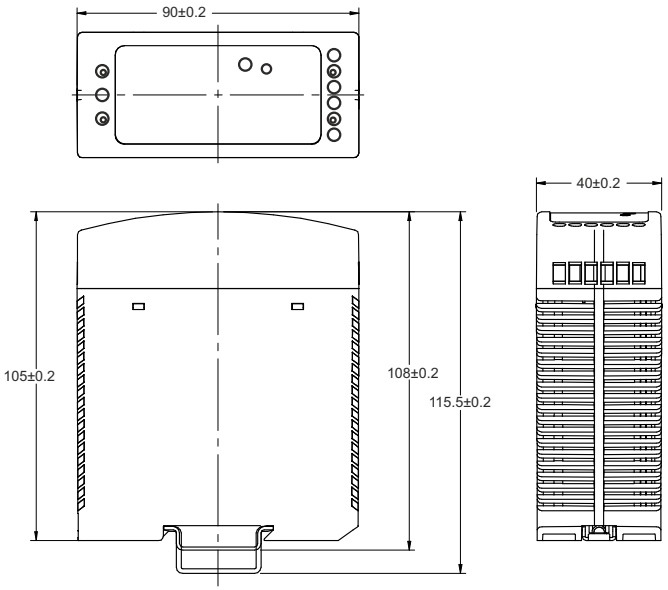
STANDARD USED FOR TESTING

Category	Reference Standards	Testing Level
Conducted Emission	CISPR22	CLASS B
Radiated Emission	CISPR11	CLASS A
Electrostatic Discharge	IEC 61000-4-2	Level 4, Criteria A Level 3, Criteria A
Radiated Susceptibility	IEC 61000-4-3	Level 3, Criteria B
Electrical Fast Transient / Burst	IEC 61000-4-4	Level 3, Criteria A
Surge	IEC 61000-4-5	Level 3, Criteria A
Conducted Susceptibility	IEC 61000-4-6	Level 3, Criteria A
Power Frequency Magnetic Field	IEC 61000-4-8	Level 4, Criteria A
Voltage Dips & Interruption	IEC 61000-4-11	Criteria A & B
SAFETY	IEC/EN62368-1	

BLOCK DIAGRAM



MECHANICAL DIMENSIONS



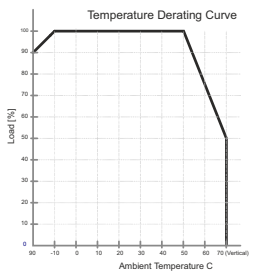
CONNECTION DETAILS

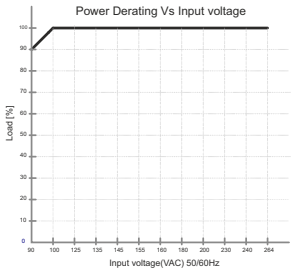
Wire Size	0.5 - 2.5 sq.mm
Rated Torque	0.4 Nm
Wire Size (UL)	20 - 14 AWG
Rated Torque (UL)	3.5 lb-in
Wire Stripping Length	8 mm Use copper conductors only, 60 / 75^{0} C

ACCESSORIES

Mounting Rail (1 M Length)	
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S
Screwdriver	SCS0.5/3
End Clamp	CA103 (6 mm Pitch) CA104 (10 mm Pitch)

TEMPERATURE AND POWER DERATING CURVE





SINGLE PHASE POWER SUPPLY

24 V / 5 A

- Single Phase AC input & 24V / 5A, 120W DC output
- Full Range Input selection from 85 to 264 VAC
- Short circuit / overload protection
- Over voltage / Over temperature protection
- Cooling by natural air convection
- DC ok relay contact
- Typical efficiency of 86%
- Compact design with a width of only 40.5 mm
- Less than 1W no load power consumption

CE RoHS

ORDERING INFORMATION

Cat. No.	CSS120/24/5

GENERAL SPECIFICATION

Min Isolation Voltage-AC (Input-FG)	2000 VAC
Min Isolation Voltage-AC (Input-Output)	3000 VAC
Min Isolation Voltage-AC (Output-FG)	500 VAC
Isolation Resistance	>100 MΩ
Ambient Temperature Range (Operational at Vi norm)	-25°C ... +70°C (Refer Derating curve)
Ambient Temperature Range (Storage)	-40°C ... +85°C
Relative Humidity Range (Operational)	20 to 95 %RH Non Condensing
Cooling	Cooling by natural air convection
Pollution Degree	2
LED Indication	Power ON/OFF
Relay Indication	DC Ready (Contact Rating: 30 VDC@1A, Resistive load)

CONTROL AND PROTECTION SPECIFICATIONS

Input fuse	T3.15 A / 250 VAC internal
Internal surge voltage protection	MOV
Rated over load protection	120-130% of rated Output Current
Power Ready	DC Ready (Contact Rating: 30 VDC@1A)
Over Current	105 ~ 150% of rated Output Current, above 150% shutdown(Auto Recovery)
Over voltage protection	29 - 33V
Output short circuit	YES
Degree of protection	IP20

INPUT SPECIFICATIONS

Input Phase	Single
Rated Input Voltage	100 - 240 VAC
AC Input Voltage Range	90 - 264 VAC
DC Input Voltage Range	127 - 370 VDC
Rated Input Current AC (85 - 264 VAC)	0.6 - 1.2A
Rated Input Current DC (127 - 370 VDC)	0.36 - 1.1A
Line Frequency Range	47 - 63Hz
Inrush Current (Typ.)	< 70A
Power Factor	>0.95
Leakage Current	<3mA / 240VAC
Surge Protection	Varistor

OUTPUT SPECIFICATIONS

Output Voltage	24 V
Output Voltage Accuracy (Adjusted before shipment)	±1%
Rated Current	5A
Rated Power(Note1)	120 W
Line Regulation	±0.5%
Load Regulation	±0.5%
Output Voltage Trim Range	20 to 28 VDC
Rated Continuous Loading	5 A @ 24 VDC
Hold Up Time	16 ms / 115 VAC 20 ms / 230 VAC at full load
Turn On Time	1000 ms at full load over entire input range
Rise Time	90 ms at full load over entire input range
Ripple and Noise (BW = 20MHz)	150 mVp-p @ 230 VAC
DC On Indicator	Yes
DC ON Indicator Threshold at start up (Green LED)	21VDC ±1 %
Efficiency	88%@230 VAC, 85%@115 VAC

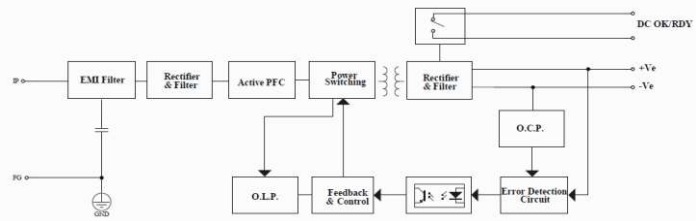
MECHANICAL SPECIFICATION

Dimensions	40 x 125.5 x 124 mm (W x H x D)
Case Material	Metal
Net Weight	590g
Gross Weight	620g
Packing	Corrugated box packing

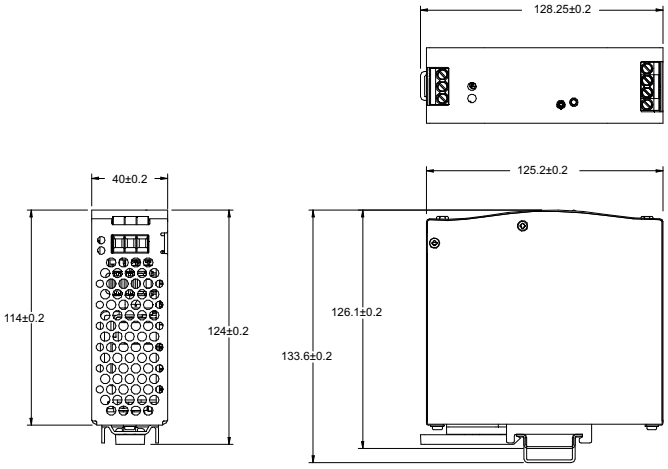
STANDARD USED FOR TESTING

Category	Reference Standards	Testing Level
Conducted Emission	CISPR22	CLASS B
Radiated Emission	CISPR11	CLASS A
Electrostatic Discharge	IEC 61000-4-2	Level 4, Criteria A Level 3, Criteria A
Radiated Susceptibility	IEC 61000-4-3	Level 3, Criteria B
Electrical Fast Transient / Burst	IEC 61000-4-4	Level 3, Criteria A
Surge	IEC 61000-4-5	Level 3, Criteria A
Conducted Susceptibility	IEC 61000-4-6	Level 3, Criteria A
Power Frequency Magnetic Field	IEC 61000-4-8	Level 4, Criteria A
Voltage Dips & Interruption	IEC 61000-4-11	Criteria A & B
SAFETY	IEC/EN62368-1	

BLOCK DIAGRAM



MECHANICAL DIMENSIONS



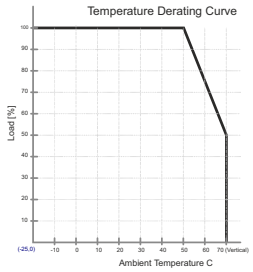
CONNECTION DETAILS

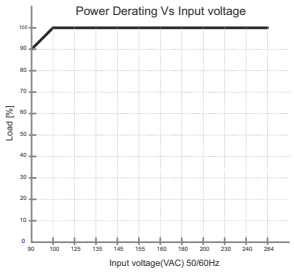
Wire Size	0.5 - 4.0 sq.mm
Rated Torque	0.5 Nm
Wire Size (UL)	20 - 12 AWG
Rated Torque (UL)	4.4 lb-in
Wire Stripping Length	8 mm Use copper conductors only, 60 / 75^0 C

ACCESSORIES

Mounting Rail (1 M Length)	
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S
Screwdriver	SCS0.5/3
End Clamp	CA103 (6 mm Ptich) CA104 (10 mm Pitch)

TEMPERATURE AND POWER DERATING CURVE





Note :

1. Installation clearances: 70mm on top and bottom, 10mm on the left and right side are recommended when loaded with full power.
2. Tolerance : Includes set up tolerance, line regulation and load regulation.
3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

SINGLE PHASE POWER SUPPLY

24 V / 10 A

- Single Phase AC input & 24V / 10A, 240W DC output
- Full Range Input selection from 85 to 264 VAC
- Short circuit / overload protection
- Over voltage / Over temperature protection
- Cooling by natural air convection
- DC ok relay contact
- Typical efficiency of 92%
- Compact design with a width of only 63 mm
- Less than 1W no load power consumption

CE RoHS

ORDERING INFORMATION

Cat. No.	CSS240/24/10

GENERAL SPECIFICATION

Min Isolation Voltage-AC (Input-FG)	2000 VAC
Min Isolation Voltage-AC (Input-Output)	3000 VAC
Min Isolation Voltage-AC (Output-FG)	500 VAC
Isolation Resistance	>100 MΩ
Ambient Temperature Range (Operational at Vi norm)	-25°C ... +70°C(Refer Derating curve)
Ambient Temperature Range (Storage)	-40°C ... +85°C
Relative Humidity Range (Operational)	20 to 95 %RH Non Condensing
Cooling	Cooling by natural air convection
Pollution Degree	2
LED Indication	Power ON/OFF
Relay Indication	DC Ready (Contact Rating: 30 VDC@1A, Resistive load)

CONTROL AND PROTECTION SPECIFICATIONS

Input fuse	T5A / 250VAC internal
Internal surge voltage protection	MOV
Rated over load protection	120-130% of rated Output Current
Power Ready	DC Ready (Contact Rating: 30 VDC@1A)
Over Current	105 ~ 150% of rated Output Current, above 150% shutdown(Auto Recovery)
Over voltage protection	29 - 33V
Output short circuit	YES
Degree of protection	IP20

INPUT SPECIFICATIONS

Input Phase	Single	
Rated Input Voltage	100 - 240 VAC	
AC Input Voltage Range	85 - 264 VAC	
DC Input Voltage Range	120 - 370 VDC	
Rated Input Current AC	2.4A/115VAC	1.13A/230VAC
Line Frequency Range	47 - 63Hz	
Inrush Current (Typ.)	< 12A	
Power Factor	0.93	
Leakage Current	<3mA / 240VAC	
Surge Protection	Varistor	

OUTPUT SPECIFICATIONS

Output Voltage	24 V
Output Voltage Accuracy (Adjusted before shipment)	±1%
Rated Current	10 A
Rated Power(Note1)	240 W
Line Regulation	±0.5%
Load Regulation	±1%
Output Voltage Trim Range	20 to 28 VDC
Rated Continuous Loading	10A @ 24 VDC
Hold Up Time	22 ms / 115 VAC 22 ms / 230 VAC at full load
Turn On Time	2000 ms at full load over entire input range
Rise Time	100 ms at full load over entire input range
Ripple and Noise (BW = 20MHz)	100 mVp-p @ 230 VAC
DC On Indicator	Yes
DC ON Indicator Threshold at start up (Green LED)	21 VDC ±1 %
Efficiency	>92%
Boost Current	12 A

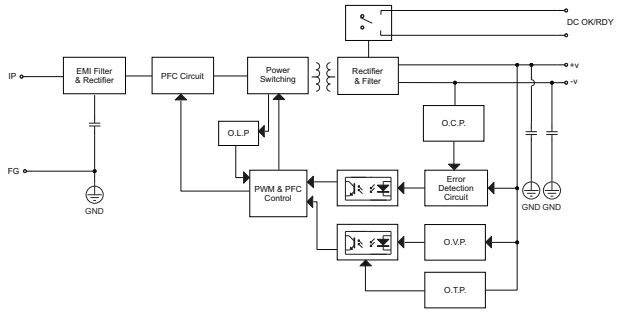
MECHANICAL SPECIFICATION

Dimensions	63 x 125.5 x 124 mm (W x H x D)
Case Material	Metal
Net Weight	747g
Gross Weight	810g
Packing	Corrugated box packing

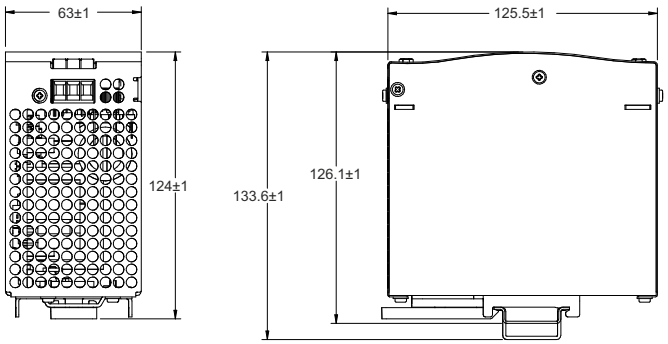
STANDARD USED FOR TESTING

Category	Reference Standards	Testing Level
Conducted Emission	CISPR22	CLASS B
Radiated Emission	CISPR11	CLASS A
Electrostatic Discharge	IEC 61000-4-2	Level 4, Criteria A Level 3, Criteria A
Radiated Susceptibility	IEC 61000-4-3	Level 3, Criteria B
Electrical Fast Transient / Burst	IEC 61000-4-4	Level 3, Criteria A
Surge	IEC 61000-4-5	Level 3, Criteria A
Conducted Susceptibility	IEC 61000-4-6	Level 3, Criteria A
Power Frequency Magnetic Field	IEC 61000-4-8	Level 4, Criteria A
Voltage Dips & Interruption	IEC 61000-4-11	Criteria A & B
SAFETY	IEC/EN62368-1	

BLOCK DIAGRAM



MECHANICAL DIMENSIONS



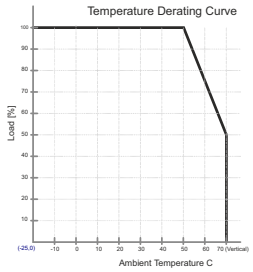
CONNECTION DETAILS

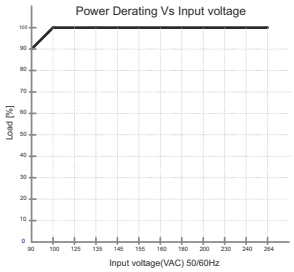
Wire Size	0.5 - 4.0 sq.mm
Rated Torque	0.5 Nm
Wire Size (UL)	20 - 12 AWG
Rated Torque (UL)	4.4 lb-in
Wire Stripping Length	8 mm Use copper conductors only, 60 / 75^0 C

ACCESSORIES

Mounting Rail (1 M Length)	
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S
Screwdriver	SCS0.5/3
End Clamp	CA103 (6 mm Ptich) CA104 (10 mm Pitch)

TEMPERATURE AND POWER DERATING CURVE





Note :

1. Installation clearances: 70mm on top and bottom, 10mm on the left and right side are recommended when loaded with full power.
2. Tolerance : Includes set up tolerance, line regulation and load regulation.
3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

SINGLE PHASE POWER SUPPLY

24 V / 15 A

- Single Phase AC input & 24V / 15A, 360 W DC output
- Full Range Input selection from 85 to 264 VAC
- Short circuit / overload protection
- Over voltage / Over temperature protection
- Cooling by natural air convection
- DC ok relay contact
- Typical efficiency of 92%
- Less than 1W no load power consumption

CE RoHS

ORDERING INFORMATION

Cat. No.	CSS360/24/15

GENERAL SPECIFICATION

Min Isolation Voltage-AC (Input-FG)	2000 VAC
Min Isolation Voltage-AC (Input-Output)	3000 VAC
Min Isolation Voltage-AC (Output-FG)	500 VAC
Isolation Resistance	>100 MΩ / 500 VDC
Ambient Temperature Range (Operational at Vi norm)	-25°C ... +70°C(Refer Derating curve)
Ambient Temperature Range (Storage)	-40°C ... +85°C
Relative Humidity Range (Operational)	20 to 95% RH Non Condensing
Cooling	Cooling by natural air convection
Pollution Degree	2
LED Indication	Power ON/OFF
Relay Indication	DC Ready (Contact Rating: 30 VDC@1A, Resistive load)

CONTROL AND PROTECTION SPECIFICATIONS

Input fuse	Yes
Internal surge voltage protection	MOV
Rated over load protection	105-140% of rated Output Current
Power Ready	DC Ready (Contact Rating: 30 VDC@1A)
Over Current	105 ~ 140% of rated Output Current, above 150% shutdown(Auto Recovery)
Over voltage protection	30 - 33 V
Output short circuit	YES, Hiccup mode-Pass
Degree of protection	IP20

INPUT SPECIFICATIONS

Input Phase	Single
Rated Input Voltage	100 - 240 VAC
AC Input Voltage Range	90 - 264 VAC
DC Input Voltage Range	127 - 370 VDC
Rated Input Current AC	3.8 A/115VAC 1.7 A/230 VAC
Line Frequency Range	47 - 63Hz
Inrush Current (Typ.)	< 23 A @ 230 V
Power Factor	< 0.96 @ 230 V
Leakage Current	<1 mA / 230 VAC
Surge Protection	Varistor

OUTPUT SPECIFICATIONS

Output Voltage	24 V
Output Voltage Accuracy (Adjusted before shipment)	±1%
Rated Current	15 A
Rated Power(Note1)	360 W
Line Regulation	±0.5%
Load Regulation	±1%
Output Voltage Trim Range	20 to 28 VDC
Rated Continuous Loading	15A @ 24 VDC
Hold Up Time	> 21 ms / 115 VAC > 21 ms / 230 VAC at full load
Turn On Time	3000 ms at full load over entire input range
Rise Time	400 ms at full load over entire input range
Ripple and Noise (BW = 20MHz)	100 mVp-p @ 230 VAC
DC On Indicator	Yes
DC ON Indicator Threshold at start up (Green LED)	21 VDC ±1 %
Efficiency	>92%

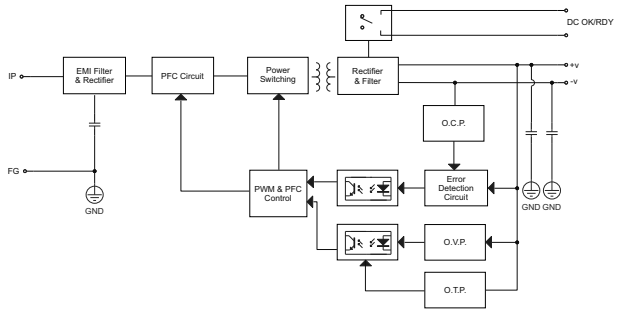
MECHANICAL SPECIFICATION

Dimensions	86 x 125.5 x 140 mm (W x H x D)
Case Material	Metal
Net Weight	1116 g
Gross Weight	1170 g
Packing	Corrugated box packing

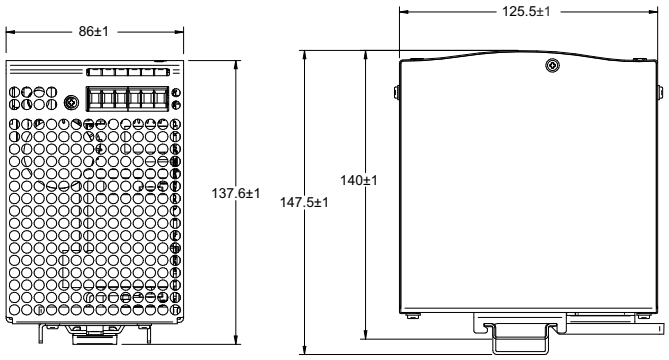
STANDARD USED FOR TESTING

Category	Reference Standards	Testing Level
Conducted Emission	CISPR22	CLASS B
Radiated Emission	CISPR11	CLASS A
Electrostatic Discharge	IEC 61000-4-2	Level 4, Criteria A Level 3, Criteria A
Radiated Susceptibility	IEC 61000-4-3	Level 3, Criteria B
Electrical Fast Transient / Burst	IEC 61000-4-4	Level 3, Criteria A
Surge	IEC 61000-4-5	Level 3, Criteria A
Conducted Susceptibility	IEC 61000-4-6	Level 3, Criteria A
Power Frequency Magnetic Field	IEC 61000-4-8	Level 4, Criteria A
Voltage Dips & Interruption	IEC 61000-4-11	Criteria A & B
SAFETY	IEC/EN62368-1	

BLOCK DIAGRAM



MECHANICAL DIMENSIONS



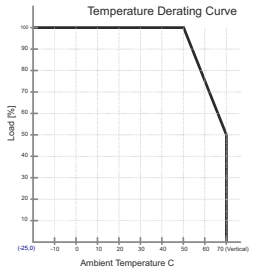
CONNECTION DETAILS

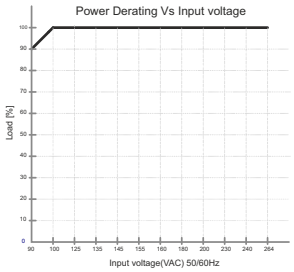
Wire Size	0.5 - 4.0 sq.mm
Rated Torque	0.5 Nm
Wire Size (UL)	20 - 12 AWG
Rated Torque (UL)	4.4 lb-in
Wire Stripping Length	8 mm Use copper conductors only, 60 / 75^0 C

ACCESSORIES

Mounting Rail (1 M Length)	
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S
Screwdriver	SCS0.5/3
End Clamp	CA103 (6 mm Ptich) CA104 (10 mm Pitch)

TEMPERATURE AND POWER DERATING CURVE





Note :

1. Installation clearances: 70mm on top and bottom, 10mm on the left and right side are recommended when loaded with full power.
2. Tolerance : Includes set up tolerance, line regulation and load regulation.
3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

SINGLE PHASE POWER SUPPLY

24 V / 20 A

- Single Phase AC input & 24V / 20A, 480W DC output
- Full Range Input selection from 85 to 264 VAC
- Short circuit / overload protection
- Over voltage / Over temperature protection
- Cooling by natural air convection
- DC ok relay contact
- Typical efficiency of 91.5%
- Compact design with a width of only 63 mm
- Less than 2W no load power consumption

CE RoHS

ORDERING INFORMATION

Cat. No.	CSS480/24/20

GENERAL SPECIFICATION

Min Isolation Voltage-AC (Input-FG)	2000 VAC
Min Isolation Voltage-AC (Input-Output)	3000 VAC
Min Isolation Voltage-AC (Output-FG)	500 VAC
Isolation Resistance	>100 MΩ
Ambient Temperature Range (Operational at Vi norm)	-25°C ... +70°C (Refer Derating curve)
Ambient Temperature Range (Storage)	-40°C ... +85°C
Relative Humidity Range (Operational)	20 to 95 %RH Non Condensing
Cooling	Cooling by natural air convection
Pollution Degree	2
LED Indication	Power ON/OFF
Relay Indication	DC Ready (Contact Rating: 30 VDC@1A, Resistive load)

CONTROL AND PROTECTION SPECIFICATIONS

Input fuse	T5A / 250VAC internal
Internal surge voltage protection	MOV
Rated over load protection	120-130% of rated Output Current
Power Ready	DC Ready (Contact Rating: 30 VDC@1A)
Over Current	105 ~ 150% of rated Output Current, above 150% shutdown(Auto Recovery)
Over voltage protection	29 - 33V
Output short circuit	YES
Degree of protection	IP20

INPUT SPECIFICATIONS

Input Phase	Single	
Rated Input Voltage	100 - 240 VAC	
AC Input Voltage Range	85 - 264 VAC	
DC Input Voltage Range	120 - 370 VDC	
Rated Input Current AC	4.8A/115VAC	2.4A/230VAC
Line Frequency Range	47 - 63Hz	
Inrush Current (Typ.)	< 15A	
Power Factor	>0.97	
Leakage Current	<3mA / 240VAC	
Surge Protection	Varistor	

OUTPUT SPECIFICATIONS

Output Voltage	24 V
Output Voltage Accuracy (Adjusted before shipment)	±1%
Rated Current	20 A
Rated Power(Note1)	480 W
Line Regulation	±0.5%
Load Regulation	±1%
Output Voltage Trim Range	20 to 28 VDC
Rated Continuous Loading	20 A @24 VDC
Hold Up Time	20 ms / 115 VAC 20 ms / 230 VAC at full load
Turn On Time	3000 ms at full load over entire input range
Rise Time	400 ms at full load over entire input range
Ripple and Noise (BW = 20MHz)	150 mVp-p @ 230 VA
DC On Indicator	Yes
DC ON Indicator Threshold at start up (Green LED)	21VDC ±1 %
Efficiency	>91.5%
Boost Current	24 A

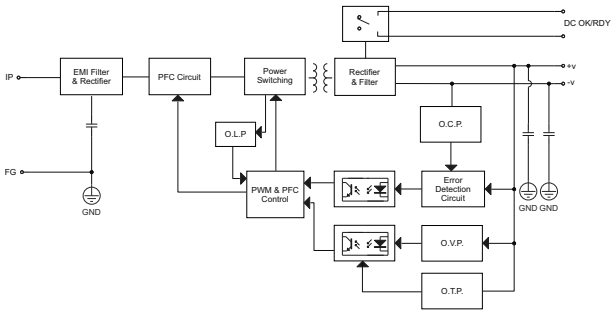
MECHANICAL SPECIFICATION

Dimensions	86 x 125.5 x 140 mm (W x H x D)
Case Material	Metal
Net Weight	1059 g
Gross Weight	1115 g
Packing	Corrugated box packing

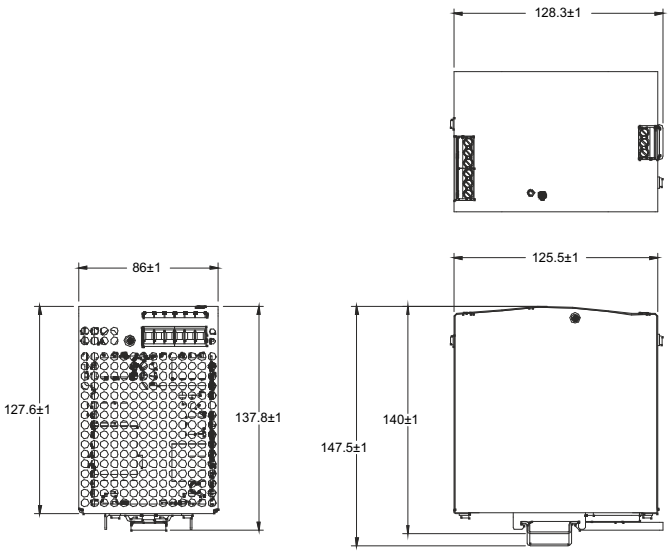
STANDARD USED FOR TESTING

Category	Reference Standards	Testing Level
Conducted Emission	CISPR22	CLASS B
Radiated Emission	CISPR11	CLASS A
Electrostatic Discharge	IEC 61000-4-2	Level 4, Criteria A Level 3, Criteria A
Radiated Susceptibility	IEC 61000-4-3	Level 3, Criteria B
Electrical Fast Transient / Burst	IEC 61000-4-4	Level 3, Criteria A
Surge	IEC 61000-4-5	Level 3, Criteria A
Conducted Susceptibility	IEC 61000-4-6	Level 3, Criteria A
Power Frequency Magnetic Field	IEC 61000-4-8	Level 4, Criteria A
Voltage Dips & Interruption	IEC 61000-4-11	Criteria A & B
SAFETY	IEC/EN62368-1	

BLOCK DIAGRAM



MECHANICAL DIMENSIONS



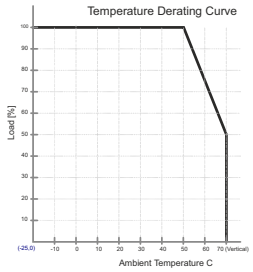
CONNECTION DETAILS

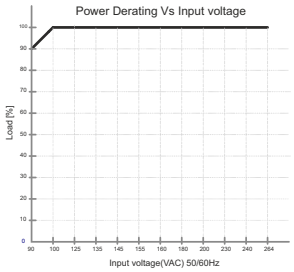
Wire Size	0.5 - 4.0 sq.mm
Rated Torque	0.5 Nm
Wire Size (UL)	20 - 12 AWG
Rated Torque (UL)	4.4 lb-in
Wire Stripping Length	8 mm Use copper conductors only, 60 / 75^0 C

ACCESSORIES

Mounting Rail (1 M Length)	
35mm x 7.5mm DIN Rail - Un slotted	CA701-1M
35mm x 7.5mm DIN Rail - Slotted	CA701-1M-S
35mm x 15mm DIN Rail - Un slotted	CA701-15-1M
35mm x 15mm DIN Rail - Slotted	CA701-15-1M-S
Screwdriver	SCS0.5/3
End Clamp	CA103 (6 mm Ptich) CA104 (10 mm Pitch)

TEMPERATURE AND POWER DERATING CURVE





Note :

1. Installation clearances: 70mm on top and bottom, 10mm on the left and right side are recommended when loaded with full power.
2. Tolerance : Includes set up tolerance, line regulation and load regulation.
3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

REDUNDANCY MODULE

10 A

- 10 A Redundant Module Din Rail Mountable
- 100% decoupling of power supply units connected in parallel
- Suitable for Redundant operation of 12/24V System
- DIN Rail Mounting
- Reverse polarity Protection
- LED indicator for input line

CE RoHS

ORDERING INFORMATION

Cat. No.	CDR10
Output Voltage	12/24 VDC
Output Current	10 A
Output Wattage	240 W
Input Voltage Range	10.2 - 30 VDC
Standard Packing Qty.	1

GENERAL SPECIFICATION

Isolation Voltage -AC (IP/OP-FG)	500 VAC
Isolation Voltage -AC (IP/OP-Relay)	NA
Isolation Voltage -AC (Relay-FG)	NA
Isolation Resistance	>100 MΩ
Ambient Temperature Range (Operational at Vi norm)	-25°C ... +70°C (Refer to Temperature Derating Curve)
Ambient Temperature Range (Storage)	-40°C ... +85°C & 10 - 95% RH
Relative Humidity Range	20 ~ 95% RH Non-condensing
Cooling	Free Air Convection
Pollution Degree	2

CONTROL AND PROTECTION SPECIFICATIONS

Degree of protection	IP20
Internal surge voltage protection: IEC61000-4-5	Yes

CONNECTION DETAILS

Wire Size	0.5 - 4.0 sq.mm
Rated Torque	0.5 Nm
Wire Size (UL)	20 - 12 AWG
Rated Torque (UL)	4.4 lb-in
Wire Stripping Length	8 mm Use copper conductors only, 60 / 75° C

PHYSICAL SPECIFICATION

Dimensions	40 x 125.5 x 124 (W x H x D)
Case Material	Metal
Base	Aluminium
Cover	Metal
Net Weight	299 g
Gross Weight	329 g
Packing	Corrugated Box

INPUT SPECIFICATIONS

Input Current (Max)	10A per input
Rated Input Voltage	12 VDC / 24VDC
DC Input Voltage Range	10.2 to 30VDC
No. of inputs	2

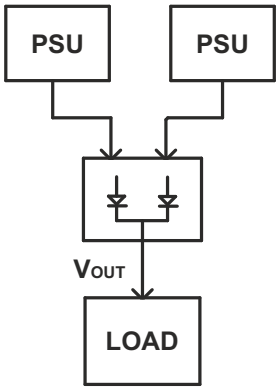
OUTPUT SPECIFICATIONS

Output Voltage	12/24 VDC
Output Current	10 A
Output Voltage Drop: Vin - Vout	0.7 V

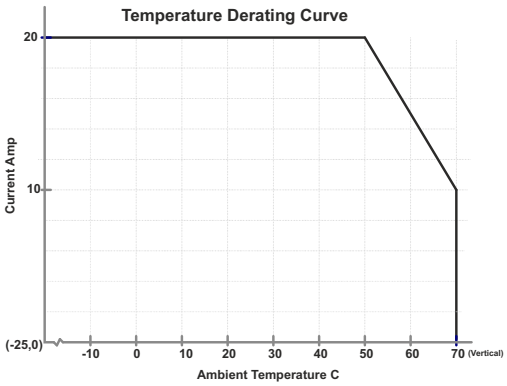
STANDARD USED FOR TESTING

Category	Reference Standards	Testing Level
Conducted Emission	CISPR22	CLASS B
Radiated Emission	CISPR11	CLASS A
Electrostatic Discharge	IEC 61000-4-2	Level 4, Criteria A Level 3, Criteria A
Radiated Susceptibility	IEC 61000-4-3	Level 3, Criteria B
Electrical Fast Transient / Burst	IEC 61000-4-4	Level 3, Criteria A
Surge	IEC 61000-4-5	Level 3, Criteria A
Conducted Susceptibility	IEC 61000-4-6	Level 3, Criteria A
Power Frequency Magnetic Field	IEC 61000-4-8	Level 4, Criteria A
Voltage Dips & Interruption	IEC 61000-4-11	Criteria A & B
SAFETY	IEC/EN62368-1	

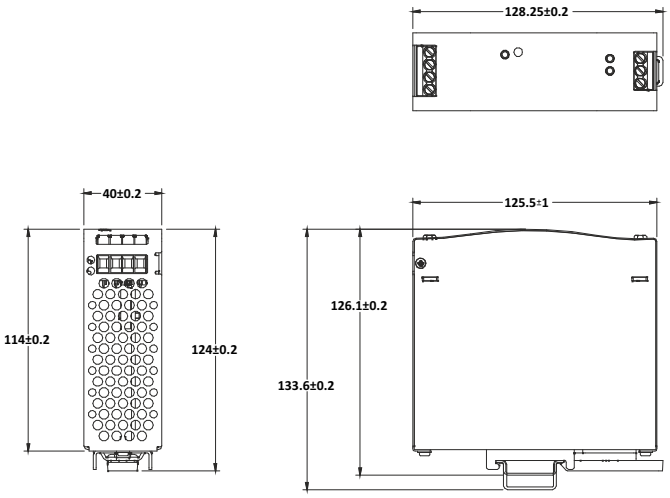
BLOCK DIAGRAM



TEMPERATURE AND POWER DERATING CURVE



MECHANICAL DIMENSIONS



Note :

1. Installation clearances: 40mm on top and bottom, 10mm on the left and right side are recommended when loaded with full power.

REDUNDANCY MODULE

20 A

- 20 A Redundant Module Din Rail Mountable
- 100% decoupling of power supply units connected in parallel
- Suitable for Redundant operation of 12/24V System
- DIN Rail Mounting
- Reverse polarity Protection
- LED indicator for input line

CE RoHS

ORDERING INFORMATION

Cat. No.	CDR20
Output Voltage	12/24 VDC
Output Current	20 A
Output Wattage	480 W
Input Voltage Range	10.2 - 30 VDC
Standard Packing Qty.	1

GENERAL SPECIFICATION

Isolation Voltage -AC (IP/OP-FG)	500 VAC
Isolation Voltage -AC (IP/OP-Relay)	500 VAC
Isolation Voltage -AC (Relay-FG)	500 VAC
Isolation Resistance	>100 MΩ
Ambient Temperature Range (Operational at Vi norm)	-25°C ... +70°C (Refer to Temperature Derating Curve)
Ambient Temperature Range (Storage)	-40°C ... +85°C & 10 - 95% RH
Relative Humidity Range	20 ~ 95% RH Non-condensing
Cooling	Free Air Convection
Pollution Degree	2

CONTROL AND PROTECTION SPECIFICATIONS

Degree of protection	IP20
Internal surge voltage protection: IEC61000-4-5	Yes

STANDARD USED FOR TESTING

EMC Emission	CISPR32
Electrostatic Discharge	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transient / Burst	IEC 61000-4-4
Surge	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Power Frequency Magnetic Field	IEC 61000-4-8
Voltage Dips & Interruption	IEC 61000-4-11
Safety	IEC62368-1

PHYSICAL SPECIFICATION

Dimensions	40 x 125.5 x 124 (W x H x D)
Case Material	Metal
Base	Aluminium
Cover	Metal
Net Weight	310 g
Gross Weight	340 g
Packing	Corrugated Box

INPUT SPECIFICATIONS

Input Current (max)	20 A
Rated Input Voltage	12 VDC / 24 VDC
DC Input Voltage Range	10.2 to 30 VDC
No. of inputs	2
Transient surge protection	Varistor

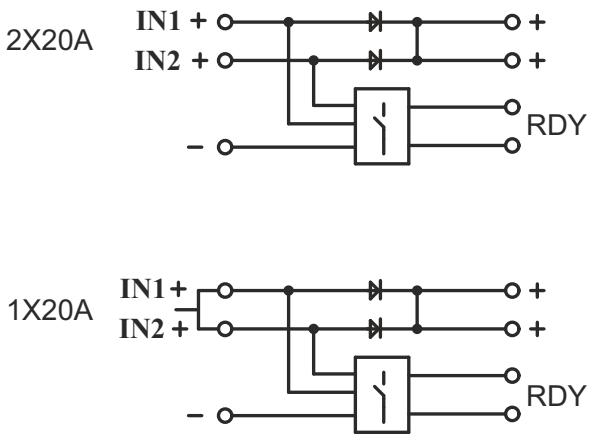
OUTPUT SPECIFICATIONS

Output Voltage	12/24 VDC
Output Current	20 A
Output Voltage Drop: Vin - Vout	0.7 V
LED Iindicators	LED redundancy OK / In1 & IN2 > 10.2 V: LED ON

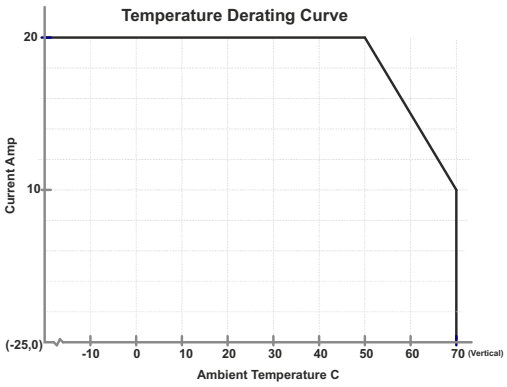
CONNECTION DETAILS

Wire Size	0.5 - 4.0 sq.mm
Rated Torque	0.5 Nm
Wire Size (UL)	20 - 12 AWG
Rated Torque (UL)	4.4 lb-in
Wire Stripping Length	8 mm Use copper conductors only, 60 / 75°C

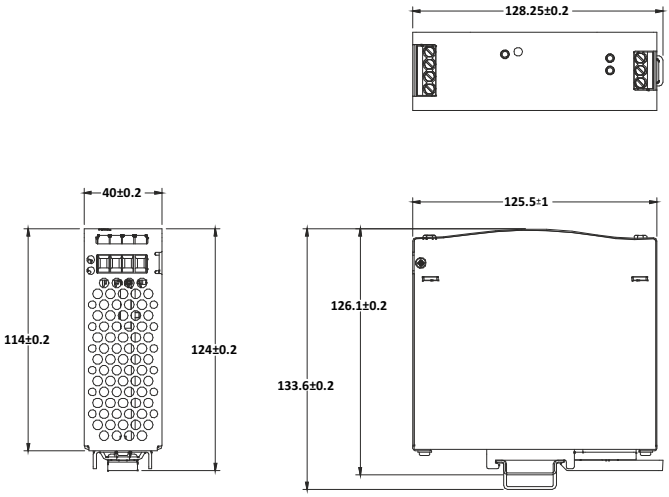
BLOCK DIAGRAM



TEMPERATURE AND POWER DERATING CURVE



MECHANICAL DIMENSIONS



Note :

1. Installation clearances: 40mm on top and bottom, 10mm on the left and right side are recommended when loaded with full power.

REDUNDANCY MODULE

40 A

- 100% decoupling of power supply units connected in parallel
- Dual Input with Single Output
- Reverse polarity Protection
- Built-in 2 channels DC OK signal and alarm relay contact
- LED indicator for input line
- 40mm Slim width
- 3 years warranty

CE RoHS

ORDERING INFORMATION

Cat. No.	CDR40
Output Voltage	12/24 VDC
Output Current	40 A
Output Wattage	960 W
Input Voltage Range	10.2 - 30 VDC
Standard Packing Qty.	1

INPUT

Rated Voltage	12-24 VDC
Nominal input voltage range	10.2V - 30 VDC
No. of inputs	2
Input Current (max.)	40 A per Input
Transient surge protection	Varistor

FUNCTIONS

Both Inputs Voltage Alarm	Contact closed when IN1 & IN2 > 10.2 V
Relay Contact Rating	30V DC, 1A
LED Status Display	Green LED OK

SAFETY

Withstand Voltage	I/P-FG: 0.5KVAC O/P-FG:0.5KVAC
Isolation Resistance	Terminal – chassis >100Mohm /500 VDC/25°C/70°C
Degree of Protection	IP20

PHYSICAL SPECIFICATION

Dimensions	40 x 125.5 x 129 (W x H x D)
Case Material	Metal
Base	Aluminium
Cover	Metal
Net Weight	360 g
Gross Weight	400 g
Packing	Corrugated Box

OUTPUT

DC voltage	12-24 VDC
Output Current (max.)	40 A
Voltage Drop	370 mV

ENVIRONMENTAL

Operating Temperature	-25°C ... +70°C (Derating)
Storage Temperature	-40°C ... +75°C
Humidity	≤ 95 % (at 25°C, no condensation)
Vibration	< 15 Hz, amplitude ±2.5 mm
Pollution Degree	2

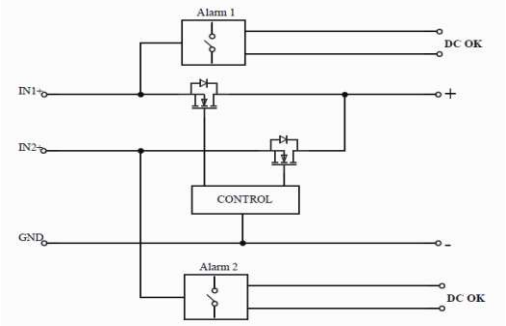
MATERIAL

Base	Aluminium
Cover	SS
Dimensions	63X125.2X113.5(W*H*D)
Weight	395 g

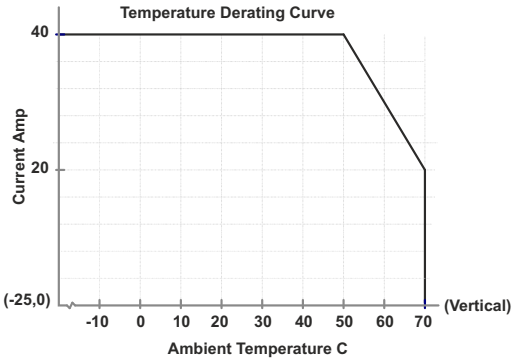
APPLICABLE STANDARDS

Parameter	Standards	Test Level
Safety Standards	EN62368-1	
Electrostatic Discharge	IEC 61000-4-2	Level 4, Criteria A Level 3, Criteria A
Radiated Susceptibility	IEC 61000-4-3	Level 3, Criteria B
Electrical Fast Transient / Burst	IEC 61000-4-4	Level 3, Criteria A
Surge	IEC 61000-4-5	Level 3, Criteria A
Conducted Susceptibility	IEC 61000-4-6	Level 3, Criteria B
Power Frequency Magnetic Field	IEC 61000-4-8	Level 4, Criteria A
Voltage Dips & Interruption	IEC 61000-4-11	Criteria A & B
EMC Emission	CISPR32, IEC 61000-3-2	

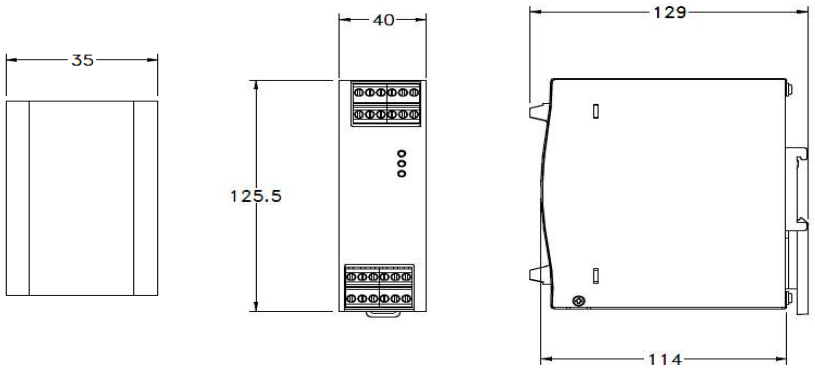
BLOCK DIAGRAM



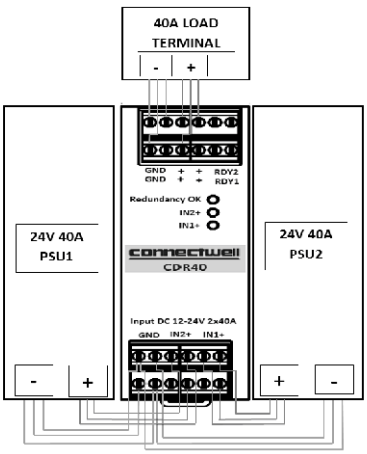
TEMPERATURE AND POWER DERATING CURVE



MECHANICAL DIMENSIONS



WIRING DIAGRAM



Note :

1. Installation clearances: 40mm on top and bottom, 10mm on the left and right side are recommended when loaded with full power.

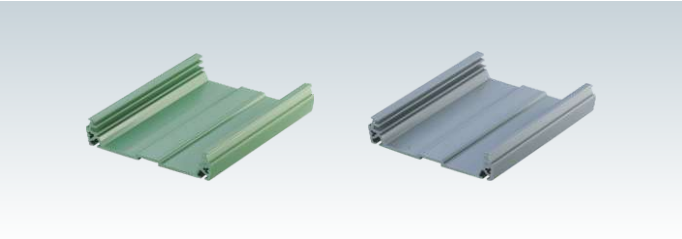
ACCESSORIES

Interface Module Accessories for Housing 73 mm & 108 mm width PCB Circuits

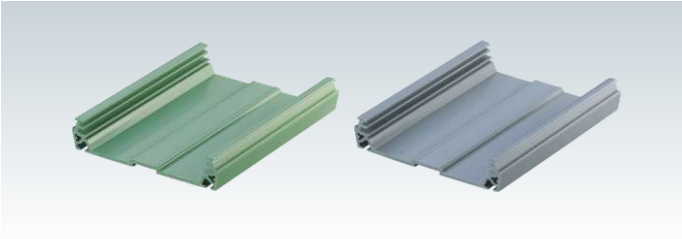
Connectwell uses V0 grade PVC Mounting Tracks for housing its Interface Modules. These tracks are used with a combination of Mounting Feet & End Sections to achieve DIN Rail mounting and panel mounting. The Mounting Tracks are available in standard lengths of 1 or 2 meters and can be precisely cut to required lengths. Alternately Connectwell can provide kits with pre-cut track lengths, End Sections, Mounting Feet & Screws.

MOUNTING TRACK

Mounting Track for 73 mm PCB Circuits

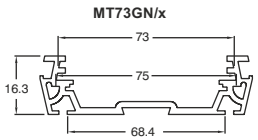


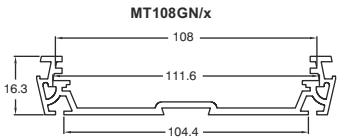
Mounting Track for 108 mm PCB Circuits



Technical Information

Standard Length	1 m or 2 m
	(Precut Lengths of Mounting Track available on request)
Mounting Track Material	PVC
Short Term Temperature	80°C
Continuous Temperature	70°C





Ordering Information

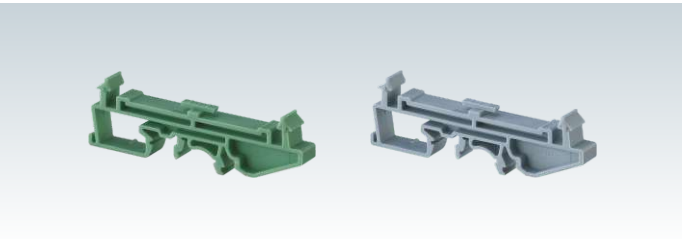
73 mm Mounting Track	GREEN	GREY
1 mtr Length	MT73GN/1	MT73G/1
2 mtr Length	MT73GN/2	MT73G/2

108 mm Mounting Track	GREEN	GREY
1 mtr Length	MT108GN/1	MT108G/1
2 mtr Length	MT108GN/2	MT108G/2

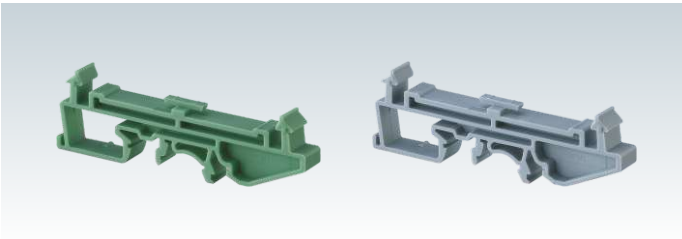
Note: Tracks accept Standard 'K' Marking Tags for identification.

MOUNTING FEET

Mounting Feet for 73 mm Mounting Track



Mounting Feet for 108 mm Mounting Track



Technical Information

Mounting Track Material	Polyamide 66

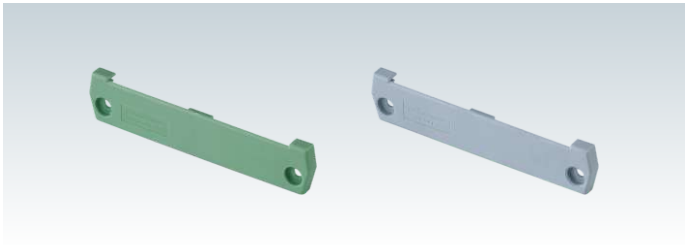
Ordering Information

73 mm Mounting Feet	GREEN	GREY
Cat. No.	MFMT73GN	MFMT73G

108 mm Mounting Feet	GREEN	GREY
Cat. No.	MFMT108GN	MFMT108G

END SECTION (RAIL MOUNTING)

End Section (Rail Mounting) for 73 mm Mounting Track



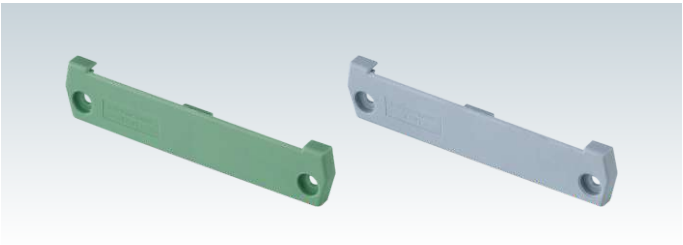
Technical Information

Mounting Track Material
Polyamide 66

Ordering Information

Rail End Section 73 mm	GREEN	GREY
Cat. No.	ESMT73GN	ESMT73G

End Section (Rail Mounting) for 108 mm Mounting Track



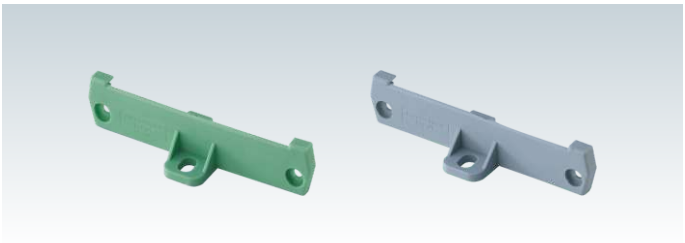
Mounting Track Material
Polyamide 66

Rail End Section 108 mm	GREEN	GREY
Cat. No.	ESMT108GN	ESMT108G

Note: ESMT are supplied with a set of screws used to fix them on to the Mounting Track.

END SECTION (PANEL MOUNTING)

End Section (Panel Mounting) for 73 mm Mounting Track



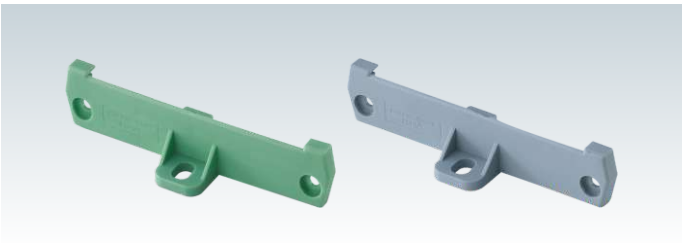
Technical Information

Mounting Track Material
Polyamide 66

Ordering Information

Panel End Section 73 mm	GREEN	GREY
Cat. No.	ESPMT73GN	ESPMT73G

End Section (Panel Mounting) for 108 mm Mounting Track



Panel End Section 108 mm	GREEN	GREY
Cat. No.	ESPMT108GN	ESPMT108G

Note: ESPMT are supplied with a set of screws used to fix them on to the Mounting Track.

MOUNTING TRACK ASSEMBLIES

Channel Mounting Track Assembly

Panel Mounting Track Assembly

Ready to use, cut-length assemblies of Mounting Track along with ESMTs / ESPMTs and MFMTs are available on request.

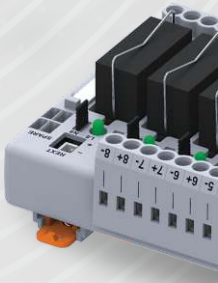
Note: The product information is carefully compiled and is accurate for most of the application. New findings in materials and process technology necessitate modification of the products. We reserve the right to change / modify the product without intimation. However the changes that take place without notice in no way reduce function or performance of the product.

MKT/8.2/03 FEBRUARY 2025 x 800

Notes

connectwell

INNOVATING FOR A
CONNECTED FUTURE



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