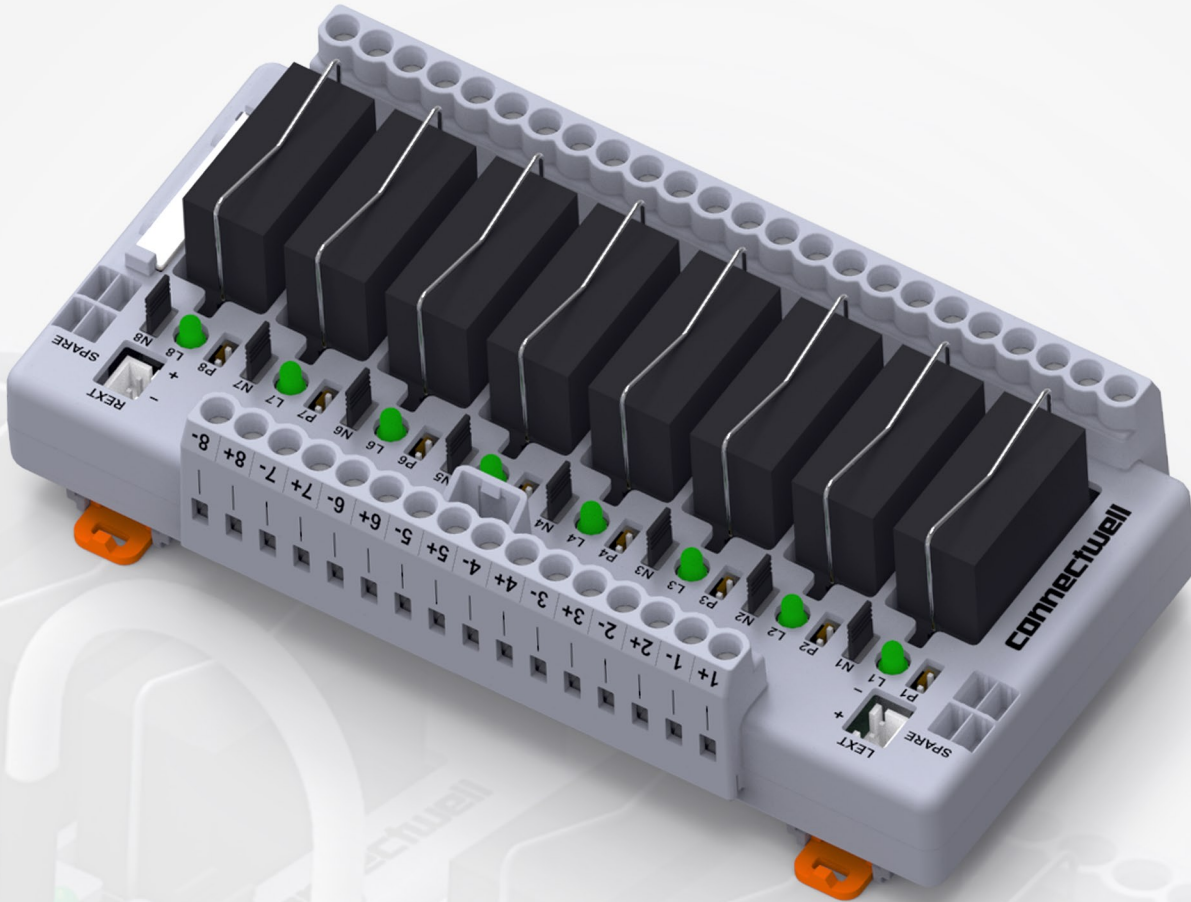


connectwell
THE RIGHT CONNECTION

CIMRE SERIES
INTERFACE RELAY MODULES



NEXT GENERATION - COMPACT - FULLY ENCLOSED



Future-ready advantages



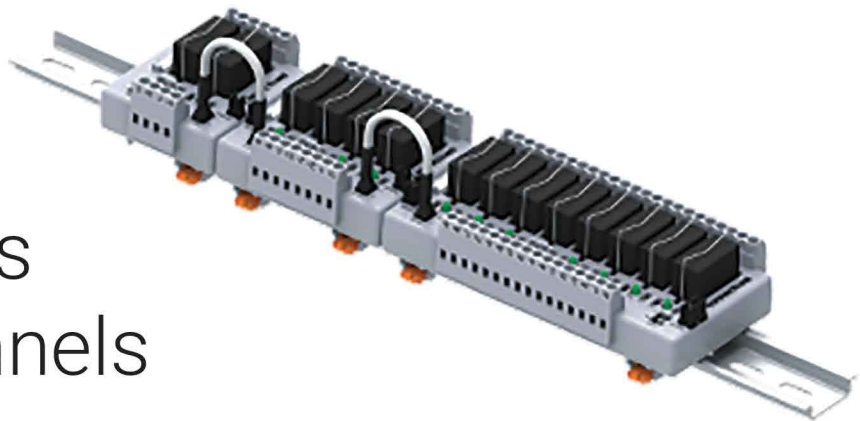
Assures no-shock, IP20 rated performance

Completely enclosed design assures no-shock hazards with an IP20 protection.

Ensures that critical components are not exposed to heat or dust deterioration, which can reduce the life of the module or cause untimely component failure.

Aesthetically enhanced look of the product is an ideal fit in modern control cabinets.

Custom configurations up to 32 channels



Accommodate last minute changes or circuit extensions without replacing the existing module.

Achieve multiple configurations ($2 + 4 = 6$ or $8 + 4 + 2 = 14$) for up to 32 channels, with the unique 'extension cable' accessory.

True 10 Amperes performance



No more compromises. Unleash the complete potential of relays with 70micron PCB track and screw connection technology. Proven over a billion times, CIMRE modules are the only solution which can guarantee a load current of 10 amperes.

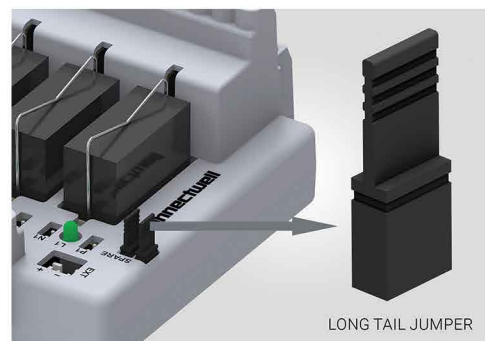
Highly ergonomic wire entry and status indicators



Large guided wire entry points ensure quick, easy and error-free wire insertion, with or without ferrules/lugs.

Individually assigned LEDs for relay status indication with clear, laser-marked channel identification.

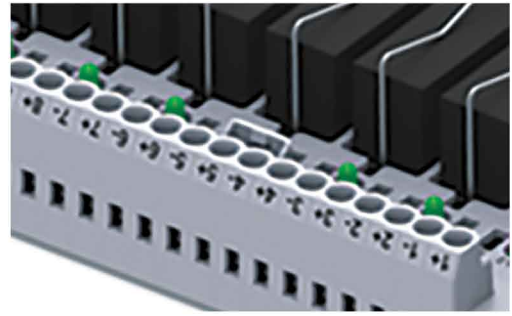
Pre-installed long tail jumpers



Easy-to-use, long tail jumpers enable quick and easy creation of common negative circuits.

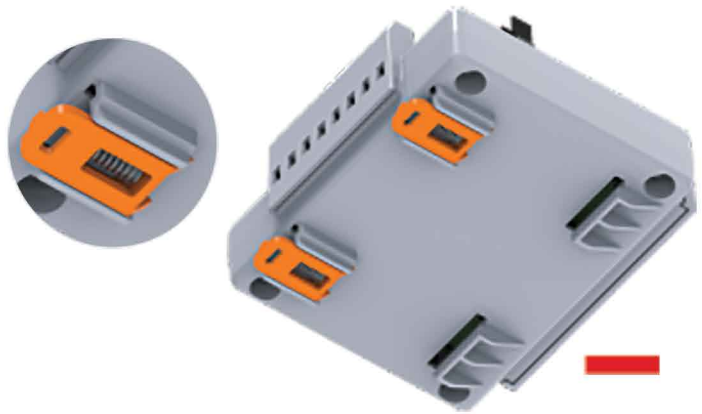
Safe IP20 socket design to connect jumpers and easily accessible pockets for parking the jumpers, when not in use.

Industry first long-life laser marking for circuit identification



A small but important design detail is the use of high-visibility and long-lasting laser markings on the module. This replaces sticker marking, which often fades, peels or wears-off.

Compact and secure mounting



Compact enclosure gives 35% volumetric saving with a robust, spring-loaded latching mechanism that secures mounting on the DIN rail.

Additional all-axis marking provision



A large vertical, flush-mounted area for marking is built into the CIMRE module. With the GMH8 accessory, raised horizontal markings can also be achieved, providing for all round visibility.

High quality standards and approvals



The CIMRE Module complies with the IEC 60664 standards for insulation coordination and these Relay Module are assembled with UL approved components.

Industrial applications

Protection

Galvanic isolation between the input and output of relays, avoids the transfer of any surges from field devices to the PLC/DCS, thereby, protecting highly valuable assets from damage.

Efficient Switching

Facilitates switching of high power load output on PLC/DCS for equipment like contactors or motors.

Isolation

In some application areas, the field voltage and controlling voltages differ. In such cases, it is necessary to isolate the PLC/DCS from field voltages derived from devices such as solenoids and actuators.

Industrial uses by sector



Power



Continuous Process Automation



Oil & Gas



Machinery and Factory Automation



Transportation



Building Infrastructure

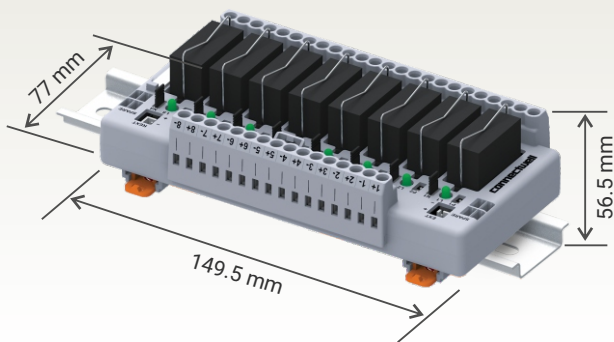
1 CHANGEOVER (SPDT) CIMRE SERIES RELAY MODULES - With OMRON Relay

FEATURES

- 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
- High quality standards and approvals
- Easy to replace pluggable relays
- Freewheeling diode protection for DC coil
- IP 20 protection Class
- Variety of operating voltage

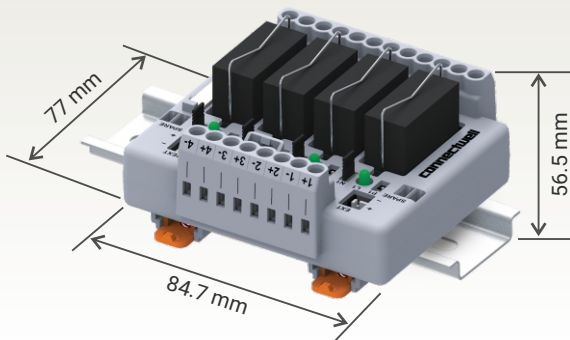
CE RoHS

8 Channel, 1 Changeover (SPDT)



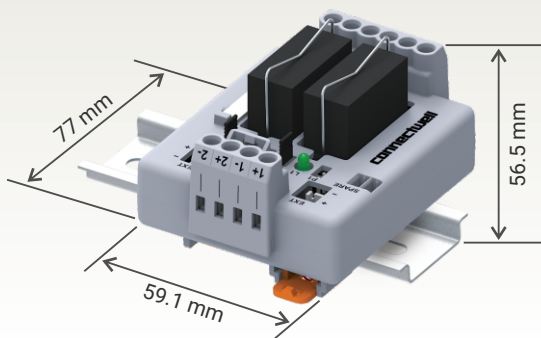
| Operating Voltage | Part Number with Pluggable Relay | Part Number with Soldered Relay | Std. Pack |
|-------------------|----------------------------------|---------------------------------|-----------|
| 12 VDC | CIMRE1SS8/12/OM | CIMRE1S8/12/OM | 1 |
| 24 VDC | CIMRE1SS8/24/OM | CIMRE1S8/24/OM | 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)



| 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)



| 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

ACCESSORY

| Description | 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 |

RELAYS

| Operating Voltage | Part Number | Standard Pack |
|-------------------|------------------|---------------|
| 12 VDC / OMRON | IMACC/G2R1/12DC | 50 |
| 24 VDC / OMRON | IMACC/G2RL1/24DC | 50 |
| 24 VAC / OMRON | IMACC/G2R1/24AC | 50 |
| 110 VAC / OMRON | IMACC/G2R1/110AC | 50 |
| 230 VAC / OMRON | IMACC/G2R1/230AC | 50 |

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 Possibility | 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 |

RELAY DATA

RELAY COIL DATA

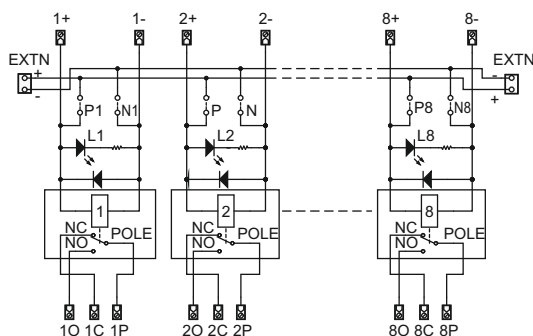
| Rated Coil Voltage (V) | 12 VDC | 24 VDC | 24 VAC | 110 VAC | 220 VAC |
|---|-----------|------------|------------|---------|----------|
| Coil Resistance (ohms) | 275 | 1440 | 260 | 4600 | 20,200 |
| Rated Coil Current (mA) | 43.6 | 16.7 | 46.5 | 11 | 5.5 |
| Must Operate / Must Release Voltage (V) | 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

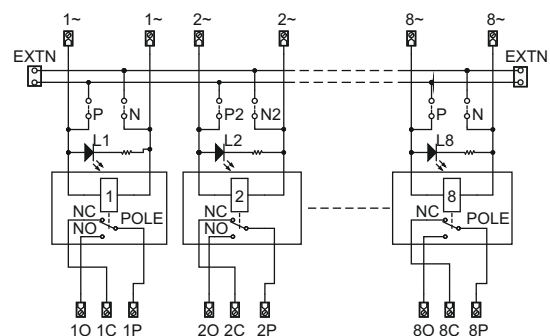
| Contact Type | 1CO (SPDT) | 1CO (SPDT) | 1CO (SPDT) | 1CO (SPDT) | 1CO (SPDT) |
|--|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|
| Contact Material | Ag-alloy (Cd free) | Ag-alloy (Cd free) | Ag-alloy (Cd free) | Ag-alloy (Cd 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/G2R-1 | OMRON/G2RL-1 | OMRON/G2R-1 | OMRON/G2R-1 | OMRON/G2R-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 |
| Relay Approvals | | | | | |



Circuit Diagram - For DC operating voltage Relay Modules



Circuit Diagram - For AC operating voltage Relay Modules

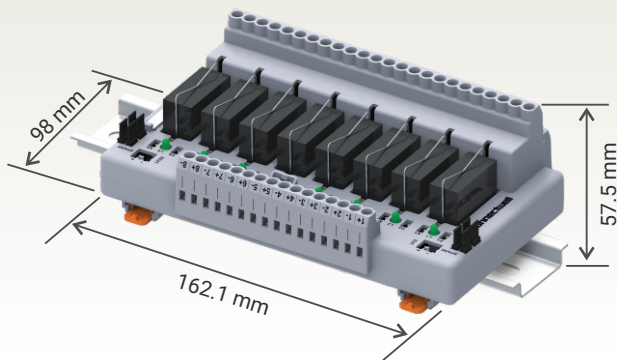
2 CHANGEOVER (DPDT) CIMRE SERIES RELAY MODULES - With OMRON Relay

FEATURES

- 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
- High quality standards and approvals
- Easy to replace pluggable relays
- Freewheeling diode protection for DC coil
- IP 20 protection Class
- Variety of operating voltage

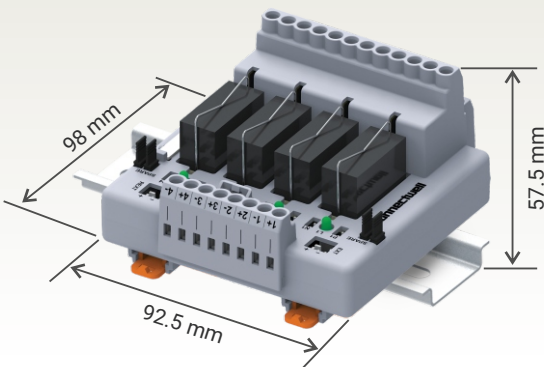
CE RoHS

8 Channel, 2 Changeover (DPDT)



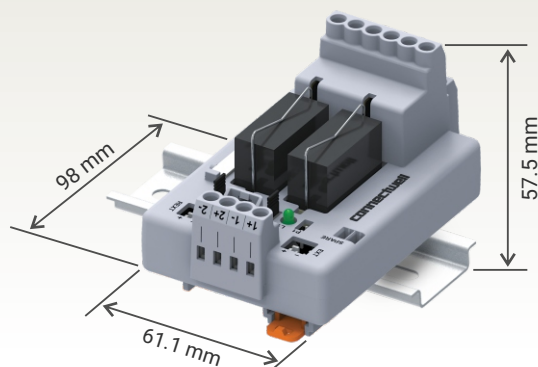
| Operating Voltage | Part Number with Pluggable Relay | Part Number with Soldered Relay | Std. Pack |
|-------------------|----------------------------------|---------------------------------|-----------|
| 12VDC | CIMRE2SS8/12/OM | CIMRE2S8/12/OM | 1 |
| 24VDC | CIMRE2SS8/24/OM | CIMRE2S8/24/OM | 1 |
| 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)



| 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)



| 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

ACCESSORY

| Description | 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 |

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 Possibility | Yes, With long tail jumpers |
| Standard | IEC 60664 |

RELAYS

| Operating Voltage | Part Number | Standard Pack |
|-------------------|------------------|---------------|
| 12 VDC / OMRON | IMACC/G2R2/12DC | 50 |
| 24 VDC / OMRON | IMACC/G2RL2/24DC | 50 |
| 24 VAC / OMRON | IMACC/G2R2/24AC | 50 |
| 110 VAC / OMRON | IMACC/G2R2/110AC | 50 |
| 230 VAC / OMRON | IMACC/G2R2/230AC | 50 |

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 |

RELAY DATA

RELAY COIL DATA

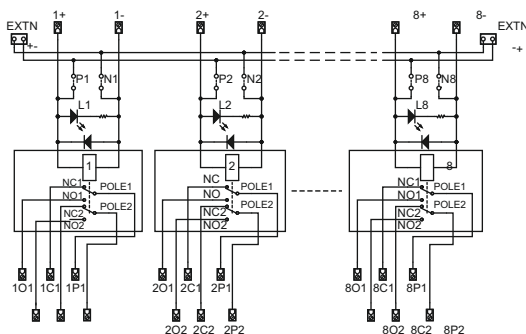
| Rated Coil Voltage (V) | 12 VDC | 24 VDC | 24 VAC | 110 VAC | 220 VAC |
|---|-----------|------------|------------|---------|----------|
| Coil Resistance (ohms) | 275 | 1440 | 260 | 4600 | 20,200 |
| Rated Coil Current (mA) | 43.6 | 16.7 | 46.5 | 11 | 5.5 |
| Must Operate / Must Release Voltage (V) | 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

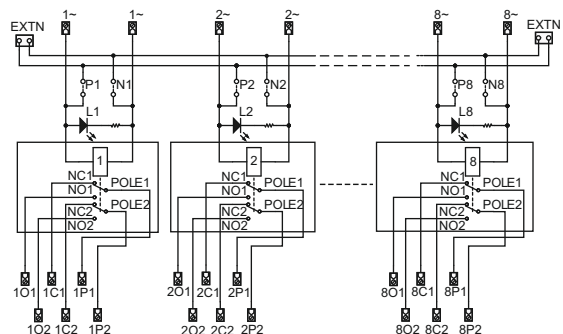
| | | | | | |
|--|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|
| Contact Type | 2CO (DPDT) | 2CO (DPDT) | 2CO (DPDT) | 2CO (DPDT) | 2CO (DPDT) |
| Contact Material | Ag-alloy (Cd free) | Ag-alloy (Cd free) | Ag-alloy (Cd free) | 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/G2R-2 | OMRON/G2RL-2 | OMRON/G2R-2 | OMRON/G2R-2 | OMRON/G2R-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 |
| Relay Approvals | | | | | |



Circuit Diagram - For DC operating voltage Relay Modules



Circuit Diagram - For AC operating voltage Relay Modules