

# RELAY MODULES

## RELAY MODULES



Our Interface Module range consists of standard 1,2,4,8 & 16 channel relay modules, CNC module, Digital output module, Accessory module & Passive module. It includes DC as well as AC coil relay cards available with options like fuse and indicators. Interface Module range also includes the SSR modules and economy modules.

Relay module with ultra slim relay have been introduced to compact the size of module. Passive module range consists of modules with FRC connectors, D-Sub connectors, Rack & Panel connectors & RJ45 connectors.

We also provide customised solutions of controller boards and system cables to meet special requirements.



### Relay Modules with Electromechanical Relay

- DIN 35 mounted.
- Pluggable relay module with electro mechanical relays are available with 16,8,4,2,1 channels.
- 1,2 & 4 C/O relays have AC as well as DC input.
- Jumpers are provided to select between positive looping / negative looping.
- Green LED is used to know the input status.
- Fuse & fuse blown indication option is available in contact path.
- Relay coil is protected by free wheeling diode across the relay coil.

### Applications

- Industrial Control System.
- All PLC Control System.
- Panel Manufactures.

Interface Modules are CE and RoHS approved



## RELAY MODULES



### Relay Modules with Solid State Relay

- DIN 35 mounted.
- Relay module with 8/4 solid state relays are directly soldered and are available with DC & AC output type SSR.
- The input voltage is 24V DC & rated load current 3A.
- Jumpers are provided to select between positive looping / negative looping.
- Polarity protection is given by free wheeling diodes.
- Fuse & fuse blown indication option is available in contact path.

### Applications

- Cement industries.
- Petrochemical Industries.
- Machine Tool Manufactures.

#### Advantages of Relay Modules Over Relay

Easy Mounting, Space Saving, Cost Effective, Easy Trouble Shooting, Easy Wiring.



### Passive Modules

- DIN 35 mounted.
- Passive module have Screw Terminal connectors at one end and Flat Ribbon Connector, D-Sub Male & Female connector, ELCO connector and RJ45 connector at the other end.
- Input & Output are electrically connected with each other in 1:1 connection.

### Applications

- Automotive Industries.
- SPM Manufacturers.
- Waste Water Plant.



### Accessory Modules

- Utility module is used as a junction box for panel lighting and fan load in control panels.
- It has on board 5A utility socket with switch, which can be used for tapping 230V AC by simply plugging any 5A power plug.
- Power distribution modules are used for distributing power to multiple field devices.
- Two separate rows of terminal blocks are internally bridged for powering multiple field devices by one power supply.
- 10A / 20A / 40A diode o-ring modules are used when two SMPS are connected in parallel (Redundancy).

### Applications

- Industrial Control System.
- Panel Manufactures.
- Machine Tool Manufactures.



### DI/DO Module & CNC Modules

- DIN 35 mounted.
- Relay module with 16 relays for interfacing with PLC & field devices.
- Fuse & fuse blown indication option is available in contact path.
- In DI/DO modules different types of connectors can be provided at Input/Output side for direct connection of relay module with PLC.
- CNC module is having 24 inputs and 16 outputs.
- It serve the purpose of one passive module (for CNC inputs) and one 16 channel relay module (for CNC outputs) on single module.

### Applications

- Industrial Control System.
- All PLC Control System.
- Panel Manufactures.
- Cement industries.
- Petrochemical Industries.
- Machine Tool Manufactures.

## CUSTOMISED RELAY MODULES



### TT-IMRB-08024D1S-C

- 1C/O relay module with 16/8/4/2/1 miniature relays.
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- Freewheeling diode across relay coil for protection.
- Jumpers are provided for selection between positive looping / negative looping.
- Mounting DIN 35 carrier rail.



### TT-IMRB-08024D1S-C(Sealed)

- 8 channel electromechanical relay module.
- With 1C/O G2R-14 sealed relays.
- Input voltage 24V DC.
- Max. switching current 10A.
- Relay pluggable on socket.
- Mounting DIN 35 carrier rail.



### TT-IMRB-06024D1

- 1C/O relay module with 6 miniature relays.
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- Relays pluggable / directly soldered.
- Freewheeling diode across relay coil for protection.
- Relays negatively looped (negative common) at coil side.
- Mounting DIN 35 carrier rail.



### TT-IMRB-04024D1S-C(S-108)

- Compact relay module with slim electromechanical relays.
- 16/8/4 channels relay module with base (Relay-pluggable).
- Input voltage 24V DC/5V DC/12V DC/48V DC/60V DC.
- Maximum load current 6A.
- Jumpers are provided for selection between positive looping / negative looping.
- Mounting DIN 35 carrier rail.



### TT-IMRB-08024D1S-C(FFI)

- 1C/O & 2C/O relay module with 4/8/16 miniature relays.
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- Freewheeling diode across relay coil for protection.
- Fuse with fuse blown indication in contact path.
- Jumpers are provided for selection between positive looping / negative looping.
- Mounting DIN 35 carrier rail.



### TT-IMRB-16024D1S-C(I/P-FFI)

- 16 channel electromechanical relay module.
- 1C/O having fuse & fuse fail indication at input (coil) side.
- Input voltage 24V DC.
- Max. switching current 10A.
- Relay pluggable on socket.
- Mounting DIN 35 carrier rail.

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## CUSTOMISED RELAY MODULES



### TT-IMRB-08024D1S-C(F)

- 1C/O & 2C/O relay module with 4/8/16 miniature relays.
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- Freewheeling diode across relay coil for protection.
- Fuse are provided in contact path.
- Jumpers are provided for selection between positive looping / negative looping.
- Mounting DIN 35 carrier rail.



### TT-IMRB-080230A1S-IDEDEC

- 8 channel electromechanical relay module.
- With 1C/O IDEC make RJ14V relays.
- Input voltage 230V AC.
- Max. switching current 12A.
- Relay pluggable on socket.
- Mounting DIN 35 carrier rail.



### TT-IMRB-160230A1S-C(I/P-FFI)

- 16 channel electromechanical relay module.
- 1C/O having fuse & fuse fail indication at input (coil) side.
- Input voltage 230V AC.
- Max. switching current 10A.
- Relay pluggable on socket.
- Mounting DIN 35 carrier rail.



### TT-IMRB-06024D1-G5LA

- 6 channel electromechanical sugar cube relay module.
- With 1C/O Omron make G5LA sugar cube relays.
- Input voltage 24V DC.
- Max. switching current 10A.
- Relays directly soldered.
- Mounting DIN 35 carrier rail.



### TT-IMRB-080230A1S

- 1C/O relay module with 16/8/4/2/1 electromechanical relays.
- With base (Relay-pluggable).
- Freewheeling diode across relay coil for protection.
- Mounting DIN 35 carrier rail.



### TT-IMRB-08024D1-C(1NO-OJ)

- 8 channel electromechanical relay module.
- With 1 NO contact, Tyco make OJ-SH relays.
- Input voltage 24V DC.
- Max. switching current 8A.
- Relays directly soldered.
- Mounting DIN 35 carrier rail.



## CUSTOMISED RELAY MODULES



### TT-IMRB-080230A1S-C(I/P-F)

- 8 channel electromechanical relay module.
- With 1C/O having fuse protection at input side.
- Input voltage 230V AC.
- Max. switching current 10A.
- Relay pluggable on socket.
- Mounting DIN 35 carrier rail.



### TT-IMRB-08024D2S-C(RT)

- 8 channel electromechanical relay module.
- With 2C/O Tyco make sealed relays.
- Input voltage 24V DC.
- Max. switching current 8A.
- Relay pluggable on socket.
- Mounting DIN 35 carrier rail.



### TT-IMRB-08024D2S-C

- 2C/O relay module with 16/8/4/2/1 miniature relays.
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- Freewheeling diode across relay coil for protection.
- Jumpers are provided for selection between positive looping / negative looping.
- Mounting DIN 35 carrier rail.



### TT-IMRB-08024D2S-C(G2RL sealed)

- 8 channel electromechanical relay module.
- With 2C/O Omron make sealed relays.
- Input voltage 24V DC.
- Max. switching current 8A.
- Relay pluggable on socket.
- Mounting DIN 35 carrier rail.



### TT-IMRB-080230A2S

- 2C/O relay module with 16/8/4/2/1 electromechanical relays.
- With base (Relay-pluggable).
- Freewheeling diode across relay coil for protection.
- Mounting DIN 35 carrier rail.



### TT-IMRB-04024D4S-C

- 4C/O relay module with 8/4/2 miniature relays.
- Coil voltage 24V DC/12V DC/48V DC/110V DC/220V DC.
- Freewheeling diode across relay coil for protection.
- Jumpers are provided for selection between positive looping / negative looping.
- Mounting DIN 35 carrier rail.

# RELAY MODULES

## CUSTOMISED RELAY MODULES



### TT-IMRB-02024D4S-C(RU)

- 2 channel electromechanical relay module.
- With 4C/O IDEC make RU4S relays.
- Input voltage 24V DC.
- Max. switching current 6A.
- Relay pluggable on socket.
- Mounting DIN 35 carrier rail.



### TT-IMRB-16024D2S-DO(D25M)

- 2C/O DO module with 16 miniature relays.
- Coil voltage 24V DC.
- Used for interfacing PLC digital output to field devices.
- Elimination of single core wiring, connection through a pre-fab plug in cable.
- Mounting DIN 35 carrier rail.



### TT-IMRB-16024D1S-CNC

- CNC module having 24 inputs and 16 outputs.
- Serve the purpose of one passive module (for CNC inputs) and one 16 channel relay module (for CNC outputs) on single module.
- Module with 16 interposing relays.
- Coil voltage 24V DC.
- FRC 50 connector is provided on input side of the CNC module for the termination of CNC inputs and outputs.
- Mounting DIN 35 carrier rail.



### TT-IMRB-16024D2S-DI2X25M

- 2C/O DI module with 16 miniature relays.
- Coil voltage 24V DC.
- Used for interfacing PLC digital inputs to field devices.
- Freewheeling diode across relay coil for protection.
- Elimination of single core wiring, connection through a pre-fab plug in cable.
- Mounting DIN 35 carrier rail.



### TT-IMRB-16024D1S-DO(F20)

- Module with 16 interposing relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC.
- 1 change over.
- Green LED for input status.
- Freewheeling diode across relay coil for protection.
- FRC 20 connector is provided on input side.
- Mounting DIN 35 carrier rail.



### TT-IMPB-Diode Module (10A)

- 10A/20A/40A diode o-ring modules are used when two SMPS are connected in parallel (Redundancy).
- 10A module is used to connect 2 power supplies of 5A each.
- 20A module is used to connect 2 power supplies of 10A each.
- 40A module is used to connect 2 power supplies of 20A each.
- Increases overall system efficiency.
- Improves system reliability.
- Simple & inexpensive to implement.
- Mounting DIN 35 carrier rail.

## CUSTOMISED RELAY MODULES



### TT-IMPB-F40

- Passive module having screw terminal connectors at one end and flat ribbon connector at other end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.



### TT-IMPB-D25F

- Passive module having screw terminal connectors at one end and D-Sub male/female connector at other end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.



### TT-IMPB-ELCO38 (R)

- Passive module having screw terminal connectors at one end and 38/58 pin male connector at other end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.



### TT-IMPB-RJ45 (H)

- Passive module having screw terminal connectors at one end and RJ45 connector at other end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.



### TT-IMPB-Utility

- Utility module is used as a junction box for panel lighting and fan load in control panels.
- It has on board 5-Amp utility socket with switch, which can be used for tapping 230V AC by simply plugging any 5 Amp power plug.
- By default some points are for 230V AC and others are for 110V AC but with the help of external wire jumpers, complete module can be used at single potential.
- Mounting DIN 35 carrier rail.



### TT-IMPB-PDM

- Power distribution modules are used for distributing power to multiple field devices.
- Installation time is significantly reduced because we have eliminated the need for external bridges or daisy-chain wiring.
- Simple & inexpensive to implement.
- Two separate rows of terminal blocks are internally bridged for powering multiple field devices by one power supply.
- Mounting DIN 35 carrier rail.



# RELAY MODULES

## CUSTOMISED RELAY MODULES



### TT-IMRB-04024D1-SSR

- 4 channel SSR module.
- Input voltage 24V DC.
- Output voltage 24V DC.
- Max. load current 3A.
- Relay directly soldered.
- Mounting DIN 35 carrier rail.



### TT-IMRB-04024D1-240A(SSR-II)

- 8/4 channels SSR relay module with solid state relays.
- Relays directly soldered.
- Input voltage 24V DC and output voltage 240V AC.
- Jumpers are provided for selection between positive/negative looping.
- Green LED for input status.
- Rated load current 3A.
- Mounting DIN 35 carrier rail.



### TT-IMRB-04024D1-240A(SSR)

- 4 channel SSR module.
- Input voltage 24V DC.
- Output voltage 240V AC.
- Max. load current 3A.
- Relay directly soldered.
- Mounting DIN 35 carrier rail.



### TT-IMRB-08024D1-SSR(II)

- 8 channel SSR module.
- Input voltage 24V DC.
- Output voltage 24V DC.
- Max. load current 3A.
- With green status LED at input.
- Relays directly soldered.
- Mounting DIN 35 carrier rail.



### TT-IMRB-04024D1-SSR(II)

- 8/4 channels SSR relay module with solid state relays.
- Relays directly soldered.
- Input/Output voltage 24V DC & rated load current 3A.
- Green LED for input status.
- Jumpers are provided for selection between positive/negative looping.
- Free wheeling diodes are provided for polarity protection.



### TT-IMRB-04024D1-SSR(FFI)

- 8/4 channels SSR relay module with solid state relays.
- Relays directly soldered.
- Input/Output voltage 24V DC & rated load current 3A.
- Green LED for input status & red LED for fuse fail indication.
- Jumpers are provided for selection between positive/negative looping.
- Free wheeling diodes are provided for polarity protection.
- Mounting DIN 35 carrier rail.

## CUSTOMISED RELAY MODULES



### TT-IMRB-04024D1-SSR(VF-FFI)

- 4 channel SSR module.
- Input voltage 24V DC.
- Output voltage 24V DC.
- Max. load current 3A.
- With vertical fuse & fuse fail indication at output.
- Relay directly soldered.
- Mounting DIN 35 carrier rail.



### TT-IMRB-04024D1S-C240ASSRFFI (CX-5A)

- 8 channel SSR module.
- Input voltage 24V DC.
- Output voltage 240V AC.
- Max. load current 5A.
- With fuse & fuse fail indication at output.
- Relays pluggable on socket.
- Mounting DIN 35 carrier rail.



### TT-IMRB-04024D1S-CSSRFFI(EL-5A)

- Relays mounted on sockets, foot prints same as 1C/O electromechanical type PCB relays.
- Input voltage: 24V DC.
- Output voltage: options available for both 24V DC & 230V AC.
- Green LED for input status and red LED for fuse fail indication.
- Jumpers are provided for selection of positive looping/negative looping.
- Mounting DIN 35 carrier rail.



### TT-IMRB-04024D1S-C(S-SSR)

- 8/4 channels compact relay module with slim solid state relays.
- With base (Relay-pluggable).
- Input/Output voltage 24V DC & rated load current 3.5A.
- Jumpers are provided for selection between positive looping/negative looping.
- Mounting DIN 35 carrier rail.



### TT-IMRB-04024D1-240A(SSR-FFI)

- 8/4 channels SSR relay module with solid state relays.
- Relays directly soldered.
- Input voltage 24V DC and output voltage 240V AC.
- Fuses are provided at output.
- Green LED for input status and red LED at output for fuse fail indication.
- Rated load current 3A.
- Mounting DIN 35 carrier rail.



### TT-IMRB-08024D1S-C(S-SSR)

- 8 channel compact SSR module.
- Input voltage 24V DC.
- Output voltage 24V DC.
- Max. load current 3.5A.
- Jumpers are provided for looping selection.
- 6 mm relays pluggable on socket.
- Mounting DIN 35 carrier rail.