

1C/O - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

Main Features

- Relay module with 16/8/4/2/1 miniature relays.
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- 1 change over.
- Freewheeling diode across relay coil for protection.
- Jumpers are provided for selection between positive looping/negative looping.
- Mounting DIN 35 carrier rail.
- Available in green and black profile.



Technical Specification

COIL DATA

	24V DC	12V DC	48V DC	110V DC
Voltage				
Input current	16.7 mA	33.3 mA	8.96 mA	5.3 mA
Coil resistance	1440 Ω	360 Ω	5358 Ω	18860 Ω

CONTACT DATA

No. of contact	1 PDT
Rated load (Resistive)	12A at 250V AC 12A at 24V DC
Contact resistance	100 mΩ max
Relay	Omron, IDEC, OEN, Tyco, Fujitsu or equivalent
Module height (H)	75 mm
Module depth (D)	90 mm
Housing Color	Black/Green
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C
Relative humidity	5 to 95% RH
Indication	Green LED for input status
Protection	Freewheeling diode across relay coil
Looping on coil side	Common, remove all jumpers to make relay independent

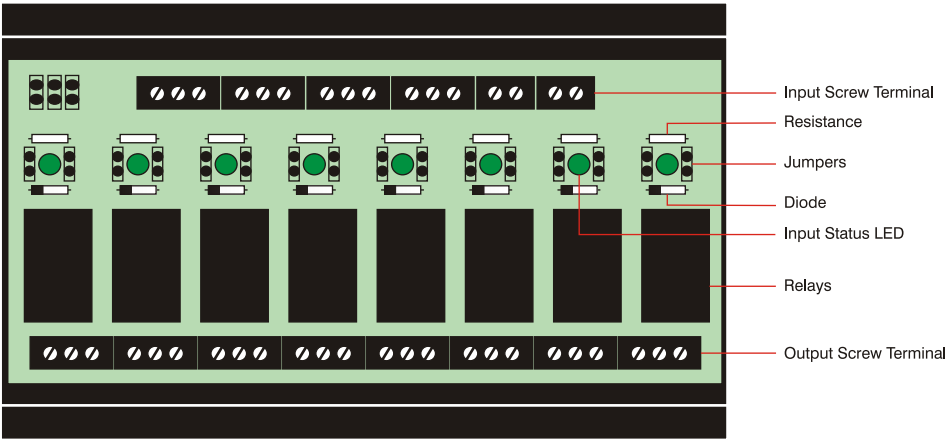
CONNECTION DATA

Type of connection	Screw connection (PCB terminals block)
Make	Phoenix Contact
Nominal current carrying capacity	24A for single level & 22A for double level
Rated voltage capacity	250V
Conductor cross section solid	Min./Max. 0.2/4.0 mm ²
Conductor cross section stranded	Min./Max. 0.2/2.5 mm ²

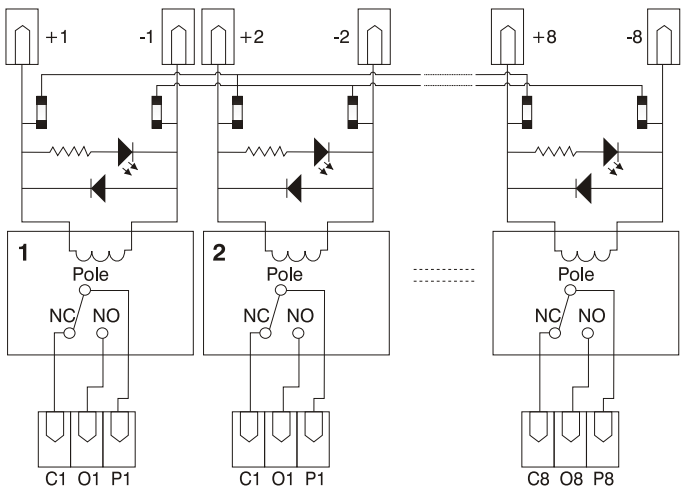
RELAY MODULE - ELECTROMECHANICAL TYPE

1C/O - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

Layout of TT-IMRB-08024D1S-C



Connection diagram of TT-IMRB-08024D1S-C



MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-16024D1S-C	01 17 02665	16	253 mm	01
TT-IMRB-08024D1S-C-RL	01 17 06014	08	128 mm	01
TT-IMRB-08024D1-C-RL(G)	01 17 06015	08	128 mm	01
TT-IMRB-08024D1S-C(sealed)	01 17 03009	08	128 mm	01
TT-IMRB-08012D1S-C	01 17 03634	08	128 mm	01
TT-IMRB-04024D1S-C-RL	01 17 06016	04	66 mm	01
TT-IMRB-04024D1-C-RL(G)	01 17 06017	04	66 mm	01
TT-IMRB-04012D1S-C	01 17 03635	04	66 mm	01
TT-IMRB-02024D1S-C	01 17 02664	02	37 mm	02
TT-IMRB-01024D1S	01 17 02733	01	24 mm	04
TT-IMRB-01024D1 (Relays directly soldered)	01 17 02917	01	24 mm	04

2C/O - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

Main Features

- Relay module with 16/8/4/2/1 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- 2 change over.
- Freewheeling diode across relay coil for protection.
- Jumpers are provided for selection between positive looping/negative looping.
- Mounting DIN 35 carrier rail.
- Available in green and black profile.



Technical Specification

COIL DATA

	24V DC	12V DC	48V DC	110V DC
Voltage				
Input current	16.7 mA	33.3 mA	8.96 mA	5.3 mA
Coil resistance	1440 Ω	360 Ω	5358 Ω	18860 Ω

CONTACT DATA

No.of contact	2 PDT
Rated load (Resistive)	8A at 250V AC 8A at 30V DC
Contact resistance	100 mΩ max
Relay	Omron, IDEC, OEN, Tyco, Fujitsu or equivalent
Module height (H)	75 mm
Module depth (D)	90 mm
Housing Color	Black/Green
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C
Relative humidity	5 to 95% RH
Indication	Green LED for input status
Protection	Freewheeling diode across relay coil
Looping on coil side	Common, remove all jumpers to make relay independent

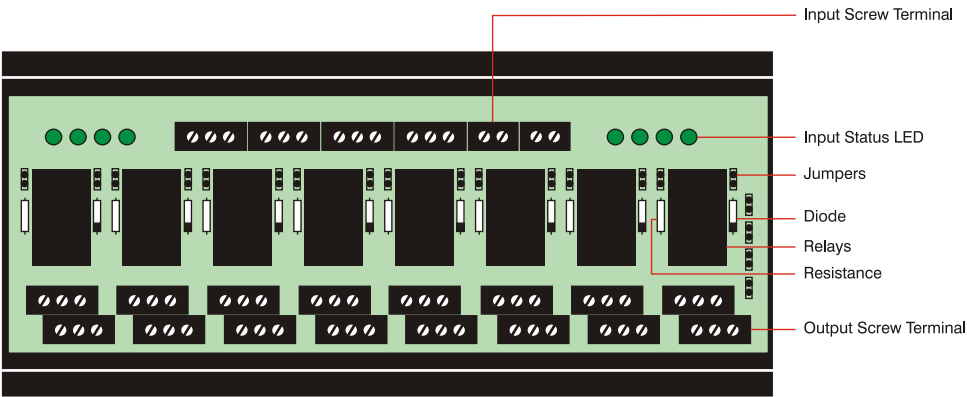
CONNECTION DATA

Type of connection	Screw connection (PCB terminals block)
Make	Phoenix Contact
Nominal current carrying capacity	24A for single level & 22A for double level
Rated voltage capacity	250V
Conductor cross section solid	Min./Max. 0.2/4.0 mm ²
Conductor cross section stranded	Min./Max. 0.2/2.5 mm ²

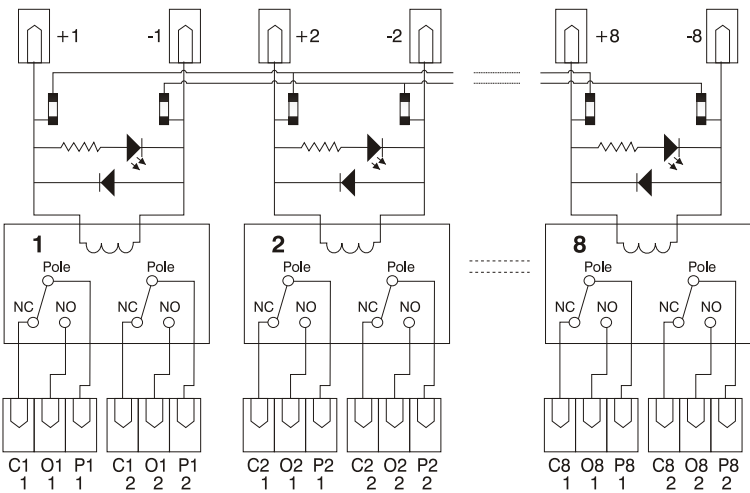
RELAY MODULE - ELECTROMECHANICAL TYPE

2C/O - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

Layout of TT-IMRB-08024D2S-C



Connection Diagram of TT-IMRB-08024D2S-C

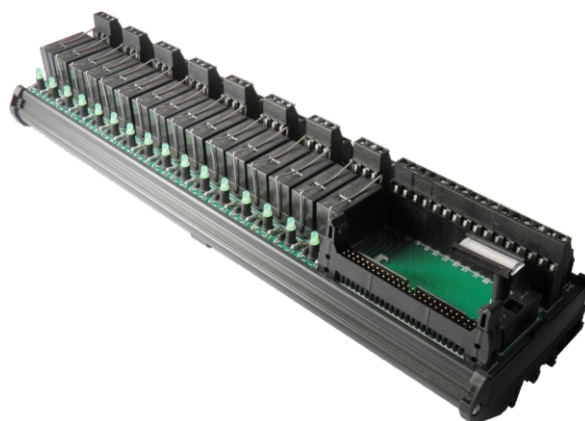


MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-16024D2S-C	01 17 02742	16	368 mm	01
TT-IMRB-08024D2S-C-RL	01 17 06018	08	182 mm	01
TT-IMRB-08024D2S-C-RL(G)	01 17 06019	08	182 mm	01
TT-IMRB-08024D2S-C(sealed)	01 17 03070	08	182 mm	01
TT-IMRB-08012D2S-C	01 17 03258	08	182 mm	01
TT-IMRB-04024D2S-C-RL	01 17 06020	04	105 mm	01
TT-IMRB-04024D2S-C-RL(G)	01 17 06021	04	105 mm	01
TT-IMRB-04012D2S-C	01 17 03636	04	105 mm	01
TT-IMRB-02024D2S-C	01 17 02666	02	54 mm	01
TT-IMRB-02012D2S-C	01 17 03429	02	54 mm	02
TT-IMRB-01024D2S	01 17 01046	01	27 mm	02
TT-IMRB-01024D2	01 17 04007	01	27 mm	04

CNC INTERFACE MODULE WITH 24 INPUTS & 16 OUTPUTS

Main Features

- 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.
- With base (Relay-pluggable).
- Coil voltage 24V DC.
- 1 changeover.
- 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.
- Available in green and black profile.



Technical Specification

COIL DATA

	24V DC	12V DC	48V DC	110V DC
Voltage				
Input current	16.7 mA	20.8 mA	8.96 mA	5.3 mA
Coil resistance	1440 Ω	576 Ω	5358 Ω	18860 Ω

CONTACT DATA

No. of contact	1 PDT
Rated load (Resistive)	8A at 250V AC 12A at 24V DC
Contact resistance	100 mΩ max

GENERAL DATA

Relay	Omron, IDEC, OEN, Tyco, Fujitsu or equivalent
Module height (H)	75 mm
Module depth (D)	90 mm
Housing Color	Black/Green
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C
Relative humidity	5 to 95% RH
Indication	Green LED for input status
Protection	Freewheeling diode across relay coil
Looping on coil side	Common, remove all jumpers to make relay independent

CONNECTION DATA

Input connection type	FRC connector having 50 pins male
Make	FCI, Omron, Essen Deinki or equivalent
Output connection type	Screw connection (PCB terminal block)
Make	Phoenix Contact
Specification	22A, 250V
Conductor cross section solid	Min/Max. 0.2/4.0 mm ²
Conductor cross section stranded	Min/Max. 0.2/2.5 mm ²

MODEL

TT-IMRB-16024D1S-CNC
TT-IMRB-16024D1S-CNC (F)

Article No.

01 17 02933
01 17 04601

No. of relays

16
16

Module length

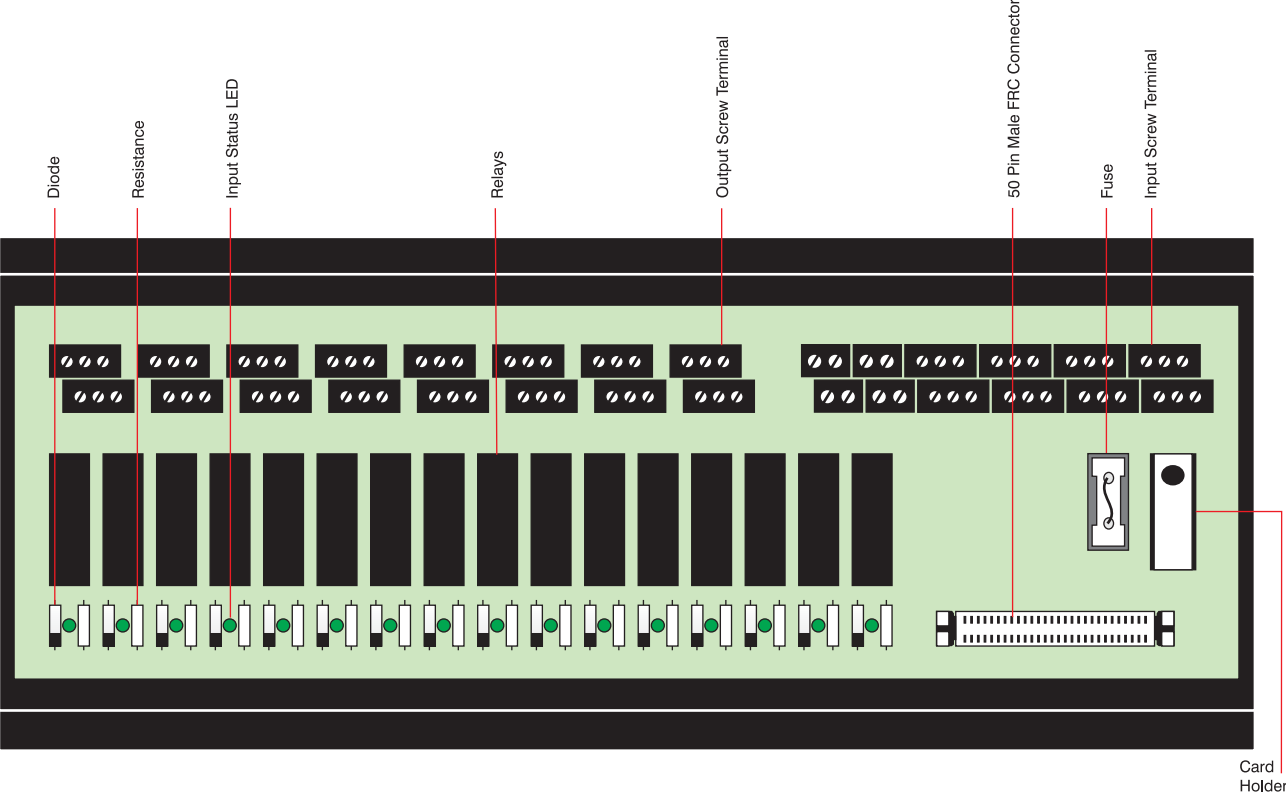
312 mm
312 mm

Pcs./Pkt.

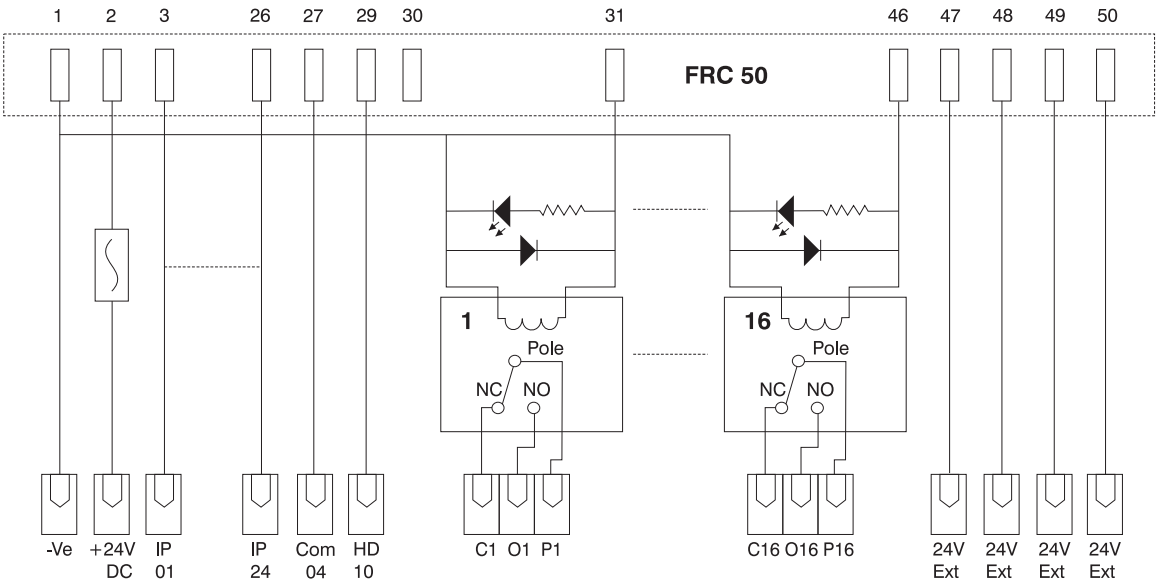
01
01

CNC INTERFACE MODULE WITH 24 INPUTS & 16 OUTPUTS

Layout of TT-IMRB-16024D1S-CNC



Schematic of TT-IMRB-16024D1S-CNC



DIODE O-RING MODULE

Main Features

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

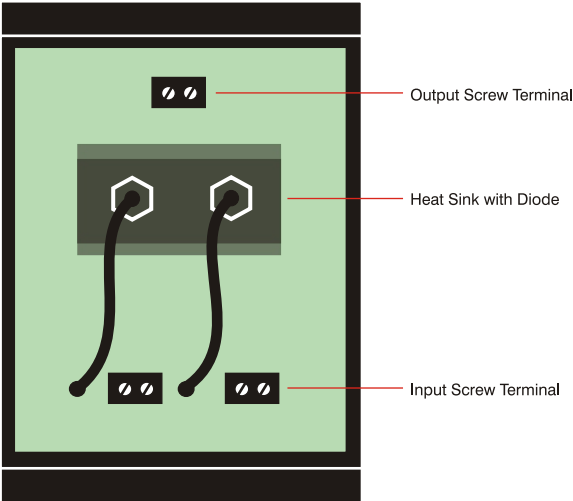


Technical Specification

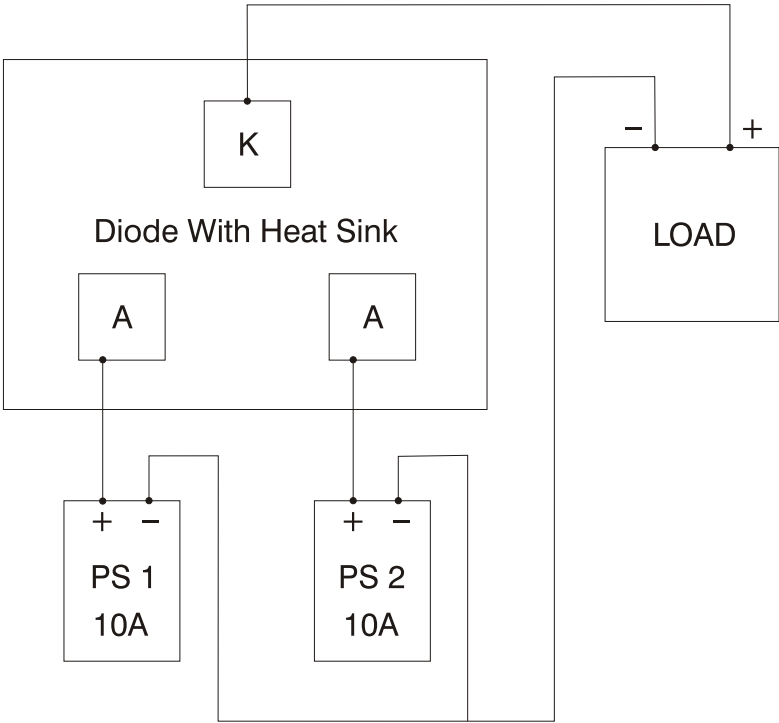
DIODE DATA				
Part No.		Diode 12FM 160	Diode 25FM 160	Diode 25HM 120
Make		Ruttonsha	Ruttonsha	Ruttonsha
$I_{F(AV)}$		12A	25A	40A
I_{FSM} for 10 sec		265A	356A	500A
I^2t		351A ² sec	636 A ² sec	1250 A ² sec
V_{RRM}		1600V	1600V	1200V
R.M.S. working voltage (V)		640V	640V	480V
Max. peak reverse leakage current		1mA	4mA	9mA
Diode type		Stud type with metric threading		
GENERAL DATA				
No. of channels		01	01	01
Signal mode		Redundant	Redundant	Redundant
Module height (H)		100 mm	100 mm	160 mm
Module depth (D)		90 mm	90 mm	126 mm
Color		Black	Black	Green
Operating temperature		0°C to 50°C	0°C to 50°C	0°C to 50°C
Storage temperature		-10°C to 60°C	-10°C to 60°C	-10°C to 60°C
Relative humidity		5 to 95% RH	5 to 95% RH	5 to 95% RH
CONNECTION DATA				
Type of connection		Screw connection (PCB terminal block)		Screw connection (PCB terminal block)
Make		Phoenix Contact		Phoenix Contact
Color		Black		Green
Nominal current		24A for 1 change over		76A
Rated voltage		250 V		1000 V
Conductor cross section solid		Min/Max. 0.2/4.0 mm ²		Min/Max. 0.5/16 mm ²
Conductor cross section stranded		Min/Max. 0.2/2.5 mm ²		Min/Max. 0.5/16 mm ²
Tightening torque		(0.5-0.6) Nm		(1.2-1.5) Nm
MODEL		Article No.	Module length	Pcs./Pkt.
TT-IMPB-Diode Module (10A)		01 17 03862	68 mm	01
TT-IMPB-Diode Module (20A)		01 17 03965	68 mm	01
TT-IMPB-Diode Module (40A)		01 17 04181	74 mm	01

DIODE O-RING MODULE

Layout of TT-IMPB-Diode Module (20A)



Connection Diagram of TT-IMPB-Diode Module (20A)

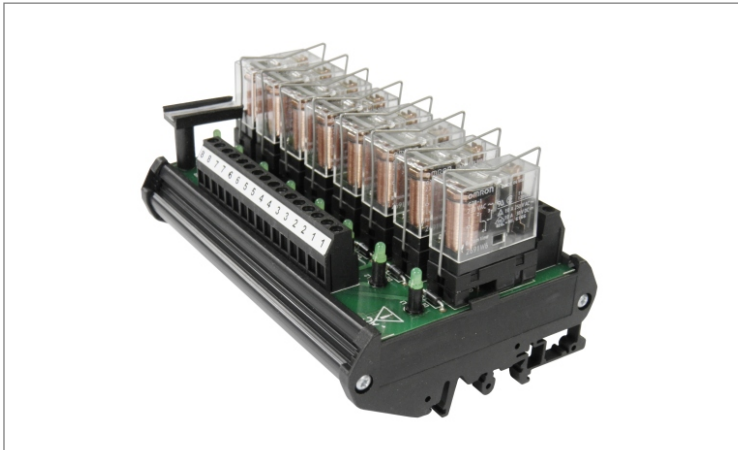


RELAY MODULE - ELECTROMECHANICAL TYPE

SINGLE CHANGE OVER - COIL VOLTAGE 230V AC / 110V AC / 24V AC

Main Features

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



TECHNICAL SPECIFICATION	
COIL DATA	
Coil voltage	230V AC110V AC24V AC
Input current (50 Hz)	4.7 mA11 mA46.5 mA
Power consumption	0.9 VA-50Hz0.9 VA-50Hz0.9 VA-50Hz
Coil resistance	26,850 Ω4600 Ω260 Ω
CONTACT DATA	
No.of contact	1PDT
Rated load (Resistive)	10A, 250V AC / 30V DC
(Inductive)	5A 30V DC / 7.5A, 250V AC
Contact resistance	30 m Ω max
GENERAL DATA	
Relay	Omron, IDEC, Tyco, Honeywell or equivalent
Module height (H)	75 mm
Module depth (D)	90 mm
Color	Black
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C
Relative humidity	5 to 95% RH
Indication	Green LED for input status
Protection	Free wheeling diode across relay coil
CONNECTION DATA	
Type of connection	Screw connection (PCB terminals block)
Make	Phoenix Contact
Nominal current carrying capacity	24A for 1 change over
Rated voltage capacity	250 V
Conductor cross section solid	Min/Max .02/4.0 mm²
Conductor cross section stranded	Min/Max .02/2.50 mm²

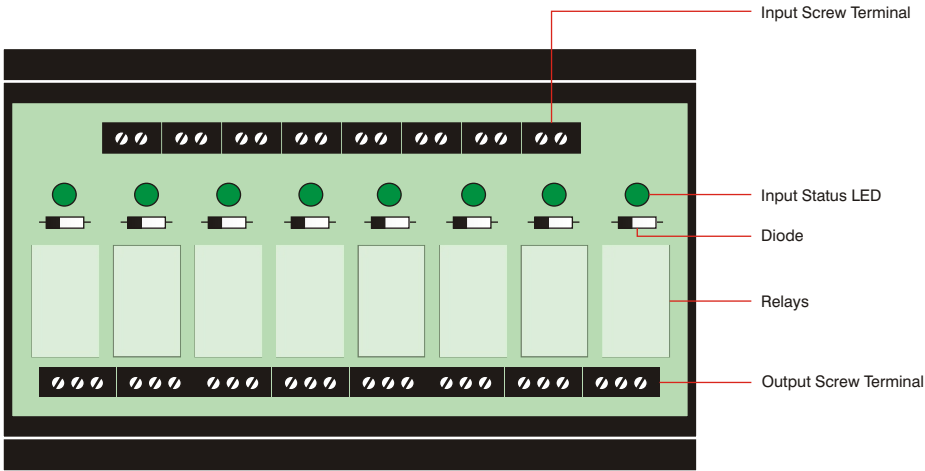
RELAY MODULE - ELECTROMECHANICAL TYPE



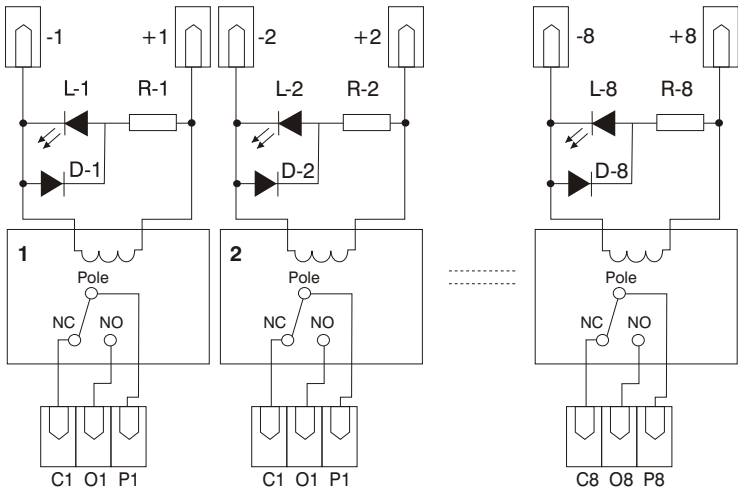
LAYOUT & CONNECTION DIAGRAM

MODEL	No. of Relay	Module Length	Pcs./Pkt.
TT-IMRB-040230A1S	04	72 mm	01
TT-IMRB-040110A1S	04	72 mm	01
TT-IMRB-04024A1S	04	72 mm	01
TT-IMRB-080230A1S	08	136 mm	01
TT-IMRB-080110A1S	08	136 mm	01
TT-IMRB-08024A1S	08	136 mm	01
TT-IMRB-160230A1S	16	270 mm	01
TT-IMRB-160110A1S	16	270 mm	01
TT-IMRB-16024A1S	16	270 mm	01

Layout of TT-IMRB-080230A1S



Schematic of TT-IMRB-080230A1S

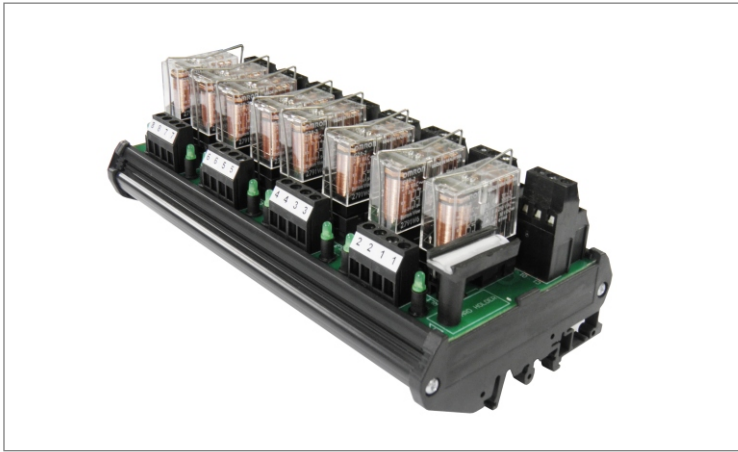


RELAY MODULE - ELECTROMECHANICAL TYPE

DOUBLE CHANGE OVER - COIL VOLTAGE 230V AC / 110V AC / 24V AC

Main Features

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



TECHNICAL SPECIFICATION	
COIL DATA	
Coil voltage	230V AC110V AC24V AC
Input current (50 Hz)	4.7 mA11 mA46.5 mA
Power consumption	0.9 VA-50Hz0.9 VA-50Hz0.9 VA-50Hz
Coil resistance	26,850 Ω4600 Ω260 Ω
CONTACT DATA	
No.of contact	2C0
Rated load (Resistive)	2PDT
(Inductive)	5A, 250V AC / 30V DC
Contact resistance	3A 30V DC / 2A, 250V AC
GENERAL DATA	
Relay	50 m Ω max
Module height (H)	Omron, IDEC, Tyco, Honeywell or equivalent
Module depth (D)	75 mm
Color	90 mm
Operating temperature	Black
Storage temperature	0°C to 50°C
Relative humidity	-10°C to 60°C
Indication	5 to 95% RH
Protection	Green LED for input status
CONNECTION DATA	
Type of connection	Free wheeling diode across relay coil
Make	Screw connection (PCB terminals block)
Nominal current carrying capacity	Phoenix Contact
Rated voltage capacity	22A for 2 change over
Conductor cross section solid	250 V
Conductor cross section stranded	Min/Max .02/4.0 mm²
	Min/Max .02/2.50 mm²

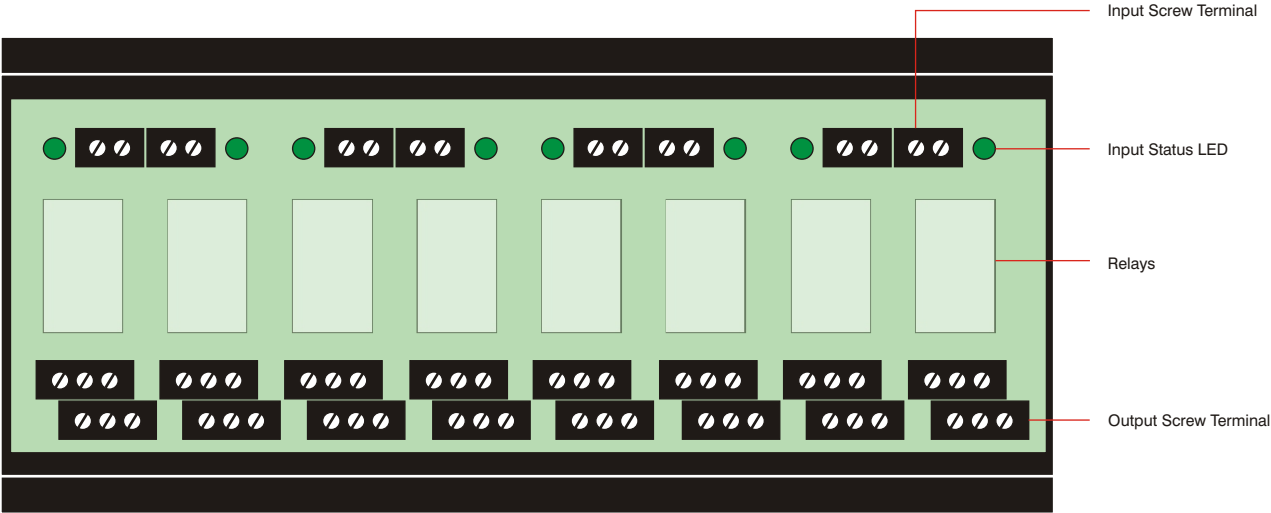
RELAY MODULE - ELECTROMECHANICAL TYPE



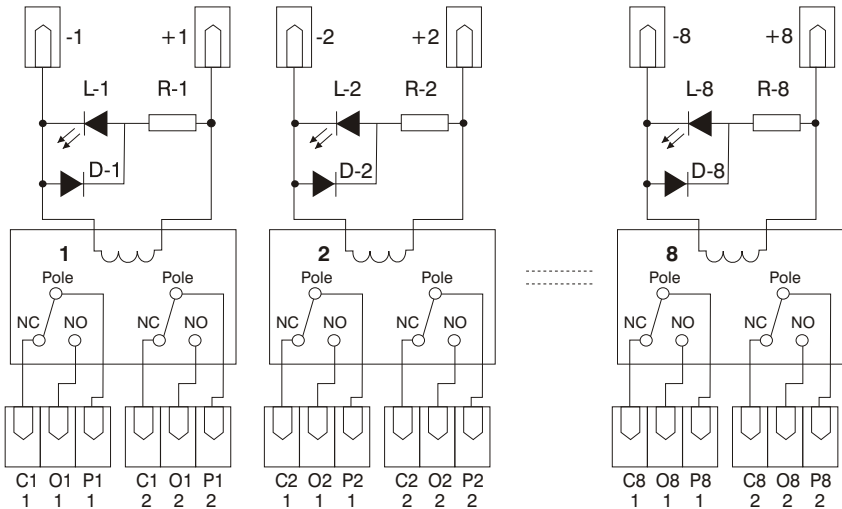
LAYOUT & CONNECTION DIAGRAM

MODEL	No. of Relay	Module Length	Pcs./Pkt.
TT-IMRB-040230A2S	04	105 mm	01
TT-IMRB-040110A2S	04	105 mm	01
TT-IMRB-04024A2S	04	105 mm	01
TT-IMRB-080230A2S	08	182 mm	01
TT-IMRB-080110A2S	08	182 mm	01
TT-IMRB-08024A2S	08	182 mm	01
TT-IMRB-160230A2S	16	355 mm	01
TT-IMRB-160110A2S	16	355 mm	01
TT-IMRB-16024A2S	16	355 mm	01

Layout of TT-IMRB-080230A2S



Schematic of TT-IMRB-080230A2S



RELAY MODULE - ELECTROMECHANICAL TYPE

FOUR CHANGE OVER - COIL VOLTAGE 24V DC

Main Features

- Relay module with 8/4 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC.
- 4 change over.
- Freewheeling diode across relay coil for protection.
- Jumpers are provided for selection between positive looping / negative looping.
- Mounting DIN 35 carrier rail.



TECHNICAL SPECIFICATION	
COIL DATA	
Voltage	24 V DC
Input current	37.7 mA
Coil resistance	636 Ω
CONTACT DATA	
No.of contact	4PDT
Rated load (Resistive)	3A, 250V AC / 30V DC
(Inductive)	1.5A 30V DC / 0.8A, 250V AC
Contact resistance	100 m Ω max
GENERAL DATA	
Relay	Omron, IDEC, Tyco, Honeywell or equivalent
Module height (H)	75 mm
Module depth (D)	90 mm
Color	Black
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C
Relative humidity	5 to 95% RH
Indication	Green LED for input status
Protection	Freewheeling diode across relay coil
Looping on coil side	Common, remove all jumpers to make relay independent
CONNECTION DATA	
Type of connection	Screw connection (PCB terminals block)
Make	Phoenix Contact
Nominal current carrying capacity	22A
Rated voltage capacity	250V
Conductor cross section solid	Min/Max .02/4.0 mm²
Conductor cross section stranded	Min/Max .02/2.50 mm²

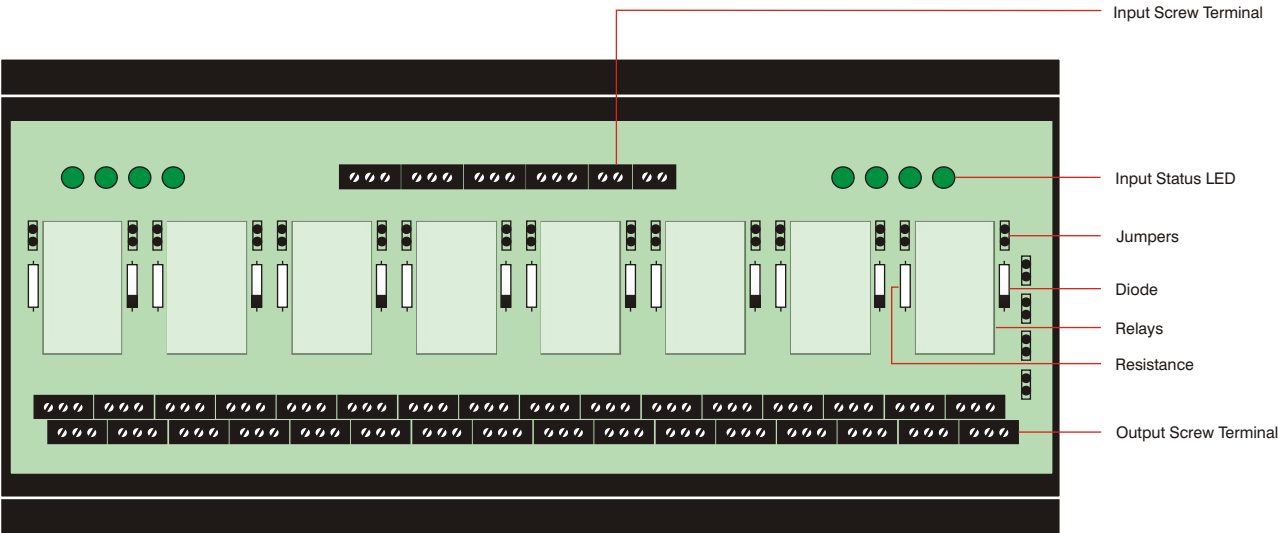
RELAY MODULE - ELECTROMECHANICAL TYPE



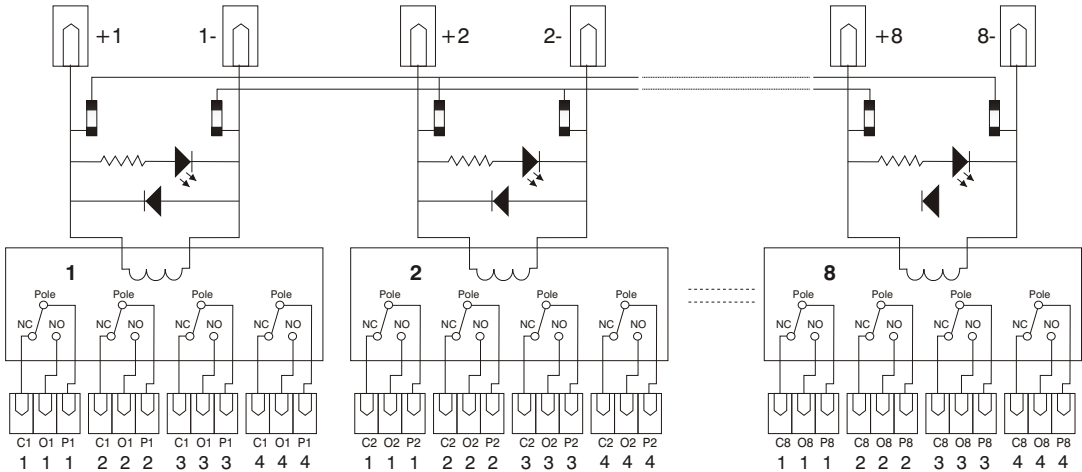
LAYOUT & CONNECTION DIAGRAM

MODEL	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D4S-C	08	255 mm	01
TT-IMRB-04024D4S-C	04	155 mm	01

Layout of TT-IMRB-08024D4S-C



Schematic of TT-IMRB-08024D4S-C



POWER DISTRIBUTION MODULE

Main Features

- 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.
- Available in green and black profile.



Technical Specification

INPUT DATA

Input voltage

250V AC/DC

Input current

20A

Connection

One power supply has to be connected between P1 & P2

CONTACT DATA

Current rating per branch

5A

Output voltage

Divided equally into two rows

GENERAL DATA

No. of channels

01

Module height (H)

65 mm

Module depth (D)

90 mm

Color

Black

Operating temperature

0°C to 50°C

Storage temperature

-10°C to 60°C

Relative humidity

5 to 95% RH

CONNECTION DATA

Type of connection

Screw connection (PCB terminal block)

Make

Phoenix Contact

Color

Black

Nominal current

24A for 1 single level & 22A for 2 double level

Rated voltage

250V

Conductor cross section solid

Min/Max. 0.2/4.0 mm²

Conductor cross section stranded

Min/Max. 0.2/2.5 mm²

MODEL

TT-IMPB-PDM

Article No.

01 17 03852

Module length

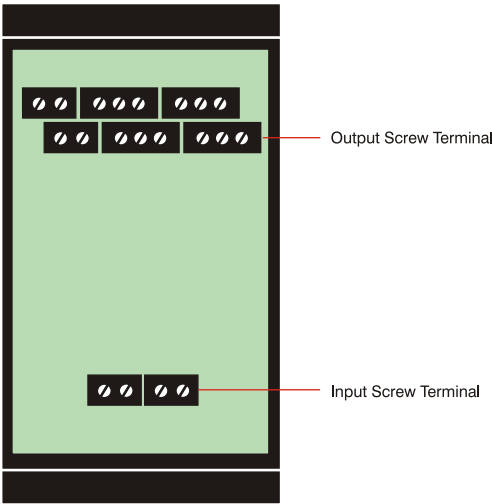
52 mm

Pcs./Pkt.

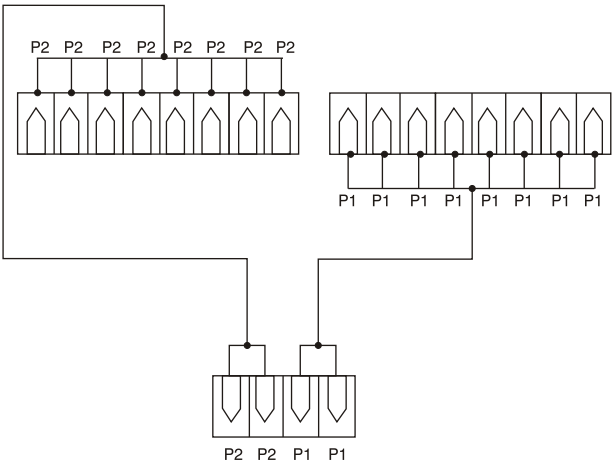
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POWER DISTRIBUTION MODULE

Layout of TT-IMPB-PDM



Connection Diagram of TT-IMPB-PDM



ACCESSORY MODULE

UTILITY MODULE

Main Features

- 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.



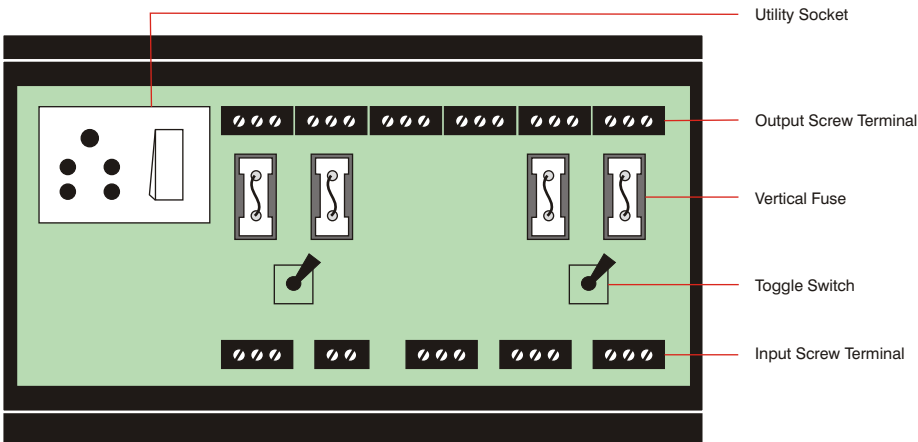
TECHNICAL SPECIFICATION		
INPUT DATA		
Power Input - 1	230V AC, with external wire jumpers between 230V AC and 110V AC	
Power Input - 2	110V AC, if wire jumpers are not being used.	
CONTACT DATA		
Output - 1	230V AC/110V AC for Two Fans, Two Lights	
Output - 2	230V AC on utility socket	
GENERAL DATA		
Operating temperature	0°C to 50°C	
Storage temperature	-10°C to 60°C	
Relative humidity	5 to 95% RH	
Protection	Fuse at output for each load	
Fuse type	1Amp, fast blow, Glass, 5x20 mm	
Output control	With the help of ON/OFF toggle switch	
CONNECTION DATA		
Input side	Screw connection (PCB terminals block)	
Output - 1	Screw connection (PCB terminals block)	
Make	Phoenix Contact	
Nominal current	24A	
Rated voltage	250V	
Conductor cross section solid	Min/Max 0.2/4.0 mm²	
Conductor cross section stranded	Min/Max 0.2/2.5.0 mm²	
Output - 2	Utility socket, Current rating 5 Amp	
MODEL	Module Length	Pcs./Pkt.
TT-IMPB-UTILITY	195 mm	01

ACCESSORY MODULE

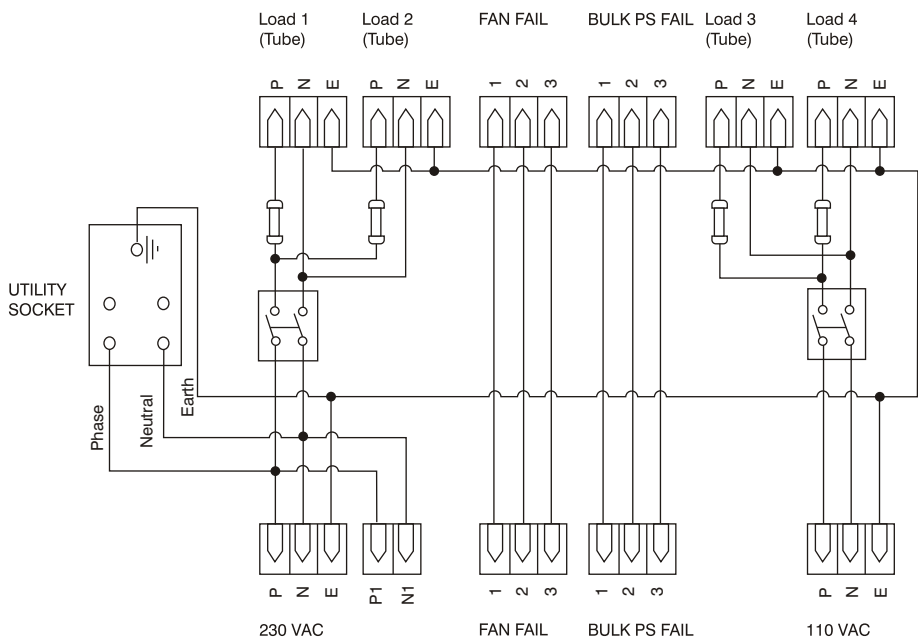


LAYOUT & CONNECTION DIAGRAM

Layout of TT-IMPB-UTILITY



Schematic of TT-IMPB-UTILITY

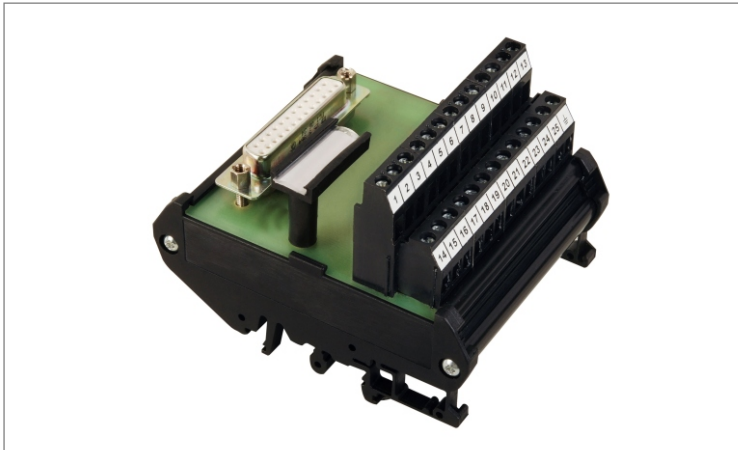


PASSIVE MODULE

WITH D-SUB CONNECTOR

Main Features

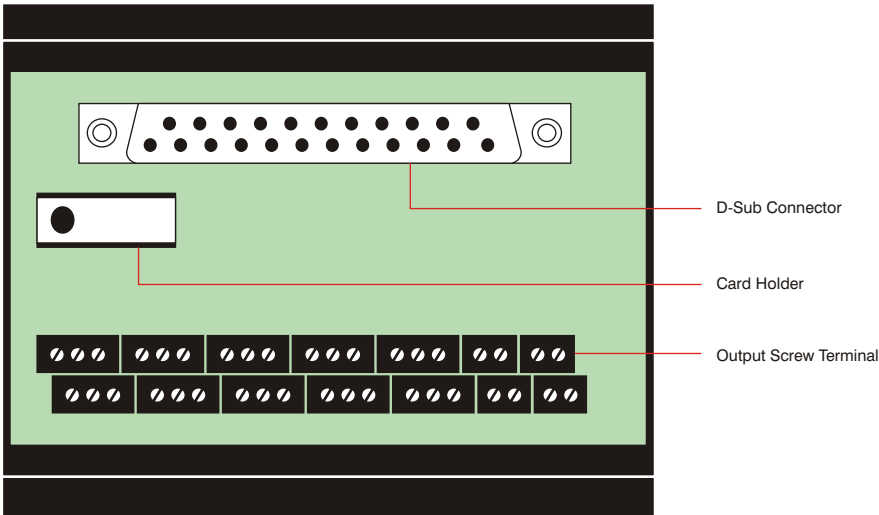
- Passive module having screw terminals connectors at one end and D-Sub male / female connector on another end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.



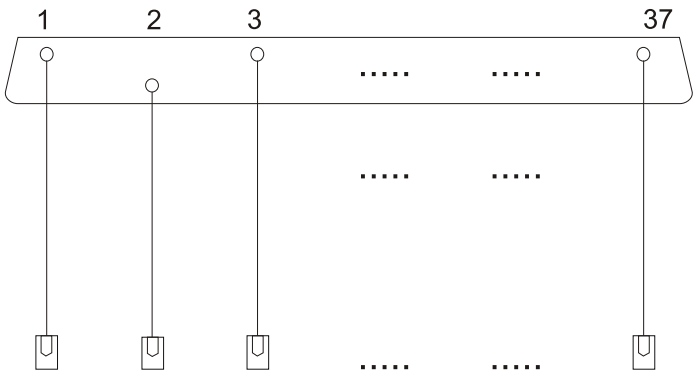
TECHNICAL SPECIFICATION	
INPUT DATA	
Input voltage	125 V AC/DC
Max. Current carrying capacity	1A (Per Pole)
GENERAL DATA	
Module height (H)	66 mm
Module depth (D)	90 mm
Color	Black
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C
Relative humidity	5 to 95% RH
CONNECTION DATA	
Connection 1	PCB Terminal Block
Type of connection	Screw Connection
Make	Phoenix Contact
Specification, current & voltage	24 A and 250 V
Conductor cross section solid	Min/Max0.2/4.0mm2
Conductor cross section stranded	Min/Max0.2/2.5.0mm2
Connection 2	D-Sub Connector
Make	EDAC or equivalent
MODEL	No. of poles Module length Pcs./Pkt.
TT-IMPB-D9F	09 43 mm 01
TT-IMPB-D9M	09 43 mm 01
TT-IMPB-D15F	15 55 mm 01
TT-IMPB-D15M	15 55 mm 01
TT-IMPB-D25F	25 81 mm 01
TT-IMPB-D25M	25 81 mm 01
TT-IMPB-D37F	37 112 mm 01
TT-IMPB-D37M	37 112 mm 01
TT-IMPB-D50F	50 148 mm 01
TT-IMPB-D50M	50 148 mm 01

LAYOUT & CONNECTION DIAGRAM

Layout of TT-IMPB-D37F



Schematic of TT-IMPB-D37F



PASSIVE MODULE

WITH ELCO CONNECTOR

Main Features

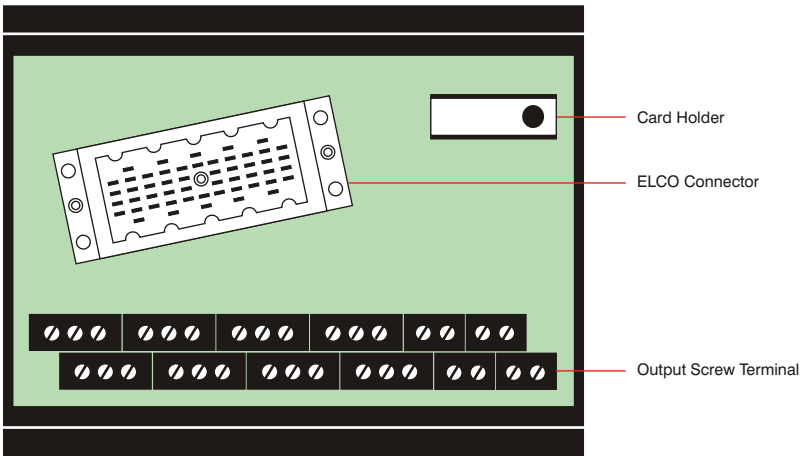
- Passive module having screw terminal connectors at one end and 38 / 58 pin male connector on another end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.



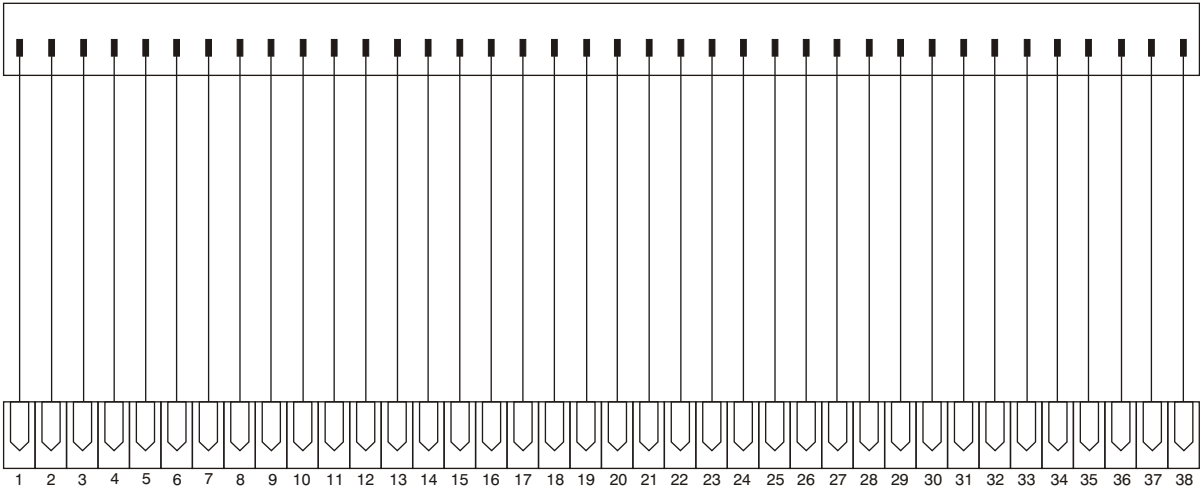
TECHNICAL SPECIFICATION	
INPUT DATA	
Input Voltage	125 V AC/DC
Max. Current carrying capacity	2A (Per Pole)
GENERAL DATA	
Module height (H)	66 mm
Module depth (D)	90 mm
Color	Black
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C
Relative humidity	5 to 95% RH
CONNECTION DATA	
Connection 1	PCB Terminal Block
Type of connection	Screw Connection
Make	Phoenix Contact
Specification, current & voltage	24 A and 250 V
Conductor cross section solid	Min/Max0.2/4.0mm2
Conductor cross section stranded	Min/Max0.2/2.5.0mm2
Connection 2	High Density Connector, 38 / 56 pin male type
Make	ELCO or EDAC
MODEL	No. of poles Module length Pcs./Pkt.
TT-IMPB-ELCO38(L)	38 100 mm 01
TT-IMPB-ELCO38(R)	38 100 mm 01
TT-IMPB-ELCO56(L)	56 150 mm 01
TT-IMPB-ELCO56(R)	56 150 mm 01

LAYOUT & CONNECTION DIAGRAM

Layout of TT-IMPB-ELCO38(L)



Schematic of TT-IMPB-ELCO38(L)

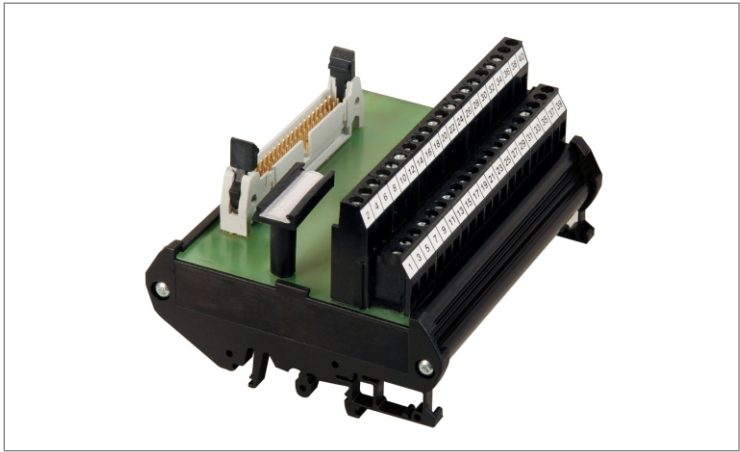


PASSIVE MODULE

WITH FRC CONNECTOR

Main Features

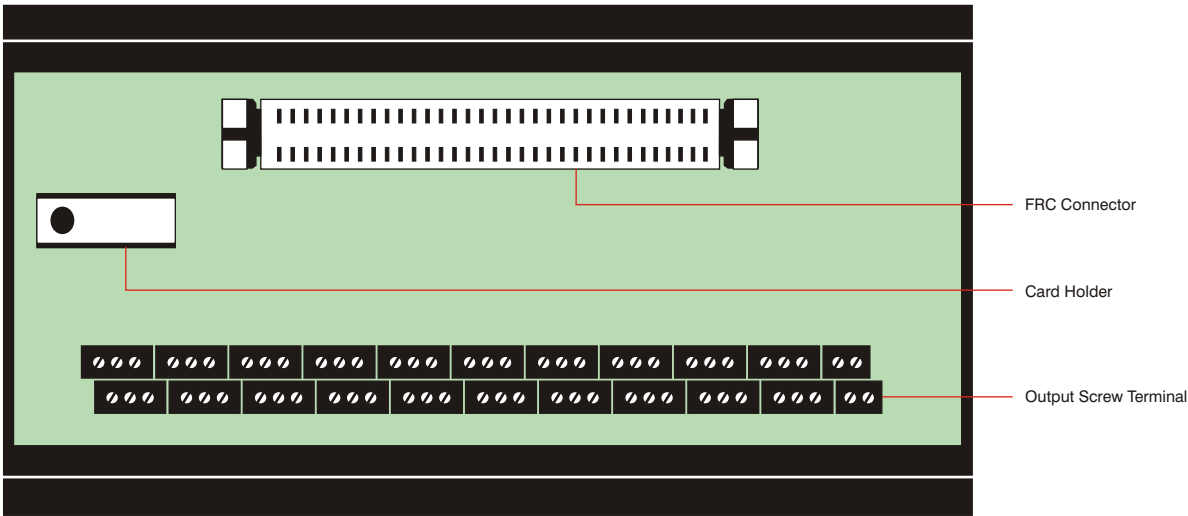
- Passive module having screw terminal connectors at one end and flat ribbon connector on another end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.



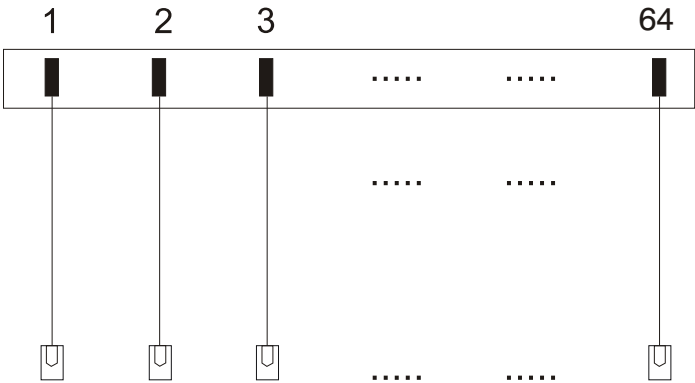
TECHNICAL SPECIFICATION	
INPUT DATA	
Input voltage	60V AC/DC
Max. Current carrying capacity	1A (Per Pole)
GENERAL DATA	
Module height (H)	66 mm
Module depth (D)	90 mm
Color	Black
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C
Relative humidity	5 to 95% RH
CONNECTION DATA	
Connection 1	PCB Terminal Block
Type of connection	Screw Connection
Make	Phoenix Contact
Specification, current & voltage	24 A and 250 V
Conductor cross section solid	Min/Max0.2/4.0mm2
Conductor cross section stranded	Min/Max0.2/2.50mm2
Connection 2	Flat Ribbon connection
Make	EDAC, Tyco or equivalent
MODEL	No. of poles Module length Pcs./Pkt.
TT-IMPB-F10	10 41 mm 01
TT-IMPB-F14	14 47 mm 01
TT-IMPB-F16	16 52 mm 01
TT-IMPB-F20	20 62 mm 01
TT-IMPB-F26	26 77 mm 01
TT-IMPB-F34	34 97 mm 01
TT-IMPB-F40	40 113 mm 01
TT-IMPB-F50	50 137 mm 01
TT-IMPB-F60	60 163 mm 01
TT-IMPB-F64	64 173 mm 01

LAYOUT & CONNECTION DIAGRAM

Layout of TT-IMPB-F64



Schematic of TT-IMPB-F64



RELAY MODULE - SOLID STATE TYPE

INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 240V AC WITH GREEN LED AT INPUT

Main Features

- SSR Relay module with Solid State relays.
- Directly Soldered.
- 8/4 Channels.
- Input Voltage 24V DC and Output Voltage 240V AC.
- Jumpers are provided for selection between positive / negative looping.
- Green LED for input status.
- Free wheeling diodes are provided for polarity protection.
- Rated Load Current 3A.
- Mounting DIN 35 carrier rail.



TECHNICAL SPECIFICATION	
INPUT DATA	
Nominal input voltage	24 V DC
Maximum input current	13 mAdc
Maximum turn-on time	8.33 ms
Maximum turn-off time	8.33 ms
Nominal input resistance	2000 Ω
OUTPUT DATA	
Nominal operating voltage	240V AC
Operating voltage range	24-280V AC
Maximum load current	3A
RELAY DATA	
Relay	M-OAC24A
Relay type	SSR AC Relay
Make	Crydom
Isolation	4000 Vrms
Capacitance, input / output	8pF
GENERAL DATA	
Housing color	Black
Module height (H)	65 mm
Module depth (D)	126 mm
Operating temperature	0°C to 80°C
Storage temperature	-10°C to 100°C
Bussing	Jumpers are provided for selection between positive/negative looping
Indication	Green LED for Input Status
CONNECTION DATA	
Type of connection	Screw connection (PCB terminals block)
Make	Phoenix Contact
Nominal current carrying capacity	24A
Rated voltage capacity	250V
Conductor cross section solid	Min/Max .02/4.0 mm²
Conductor cross section stranded	Min/Max .02/2.50 mm²

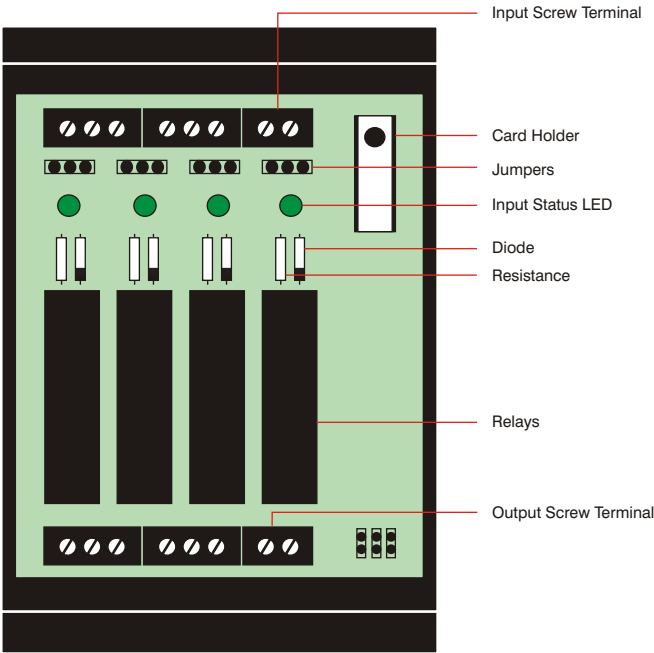
RELAY MODULE - SOLID STATE TYPE



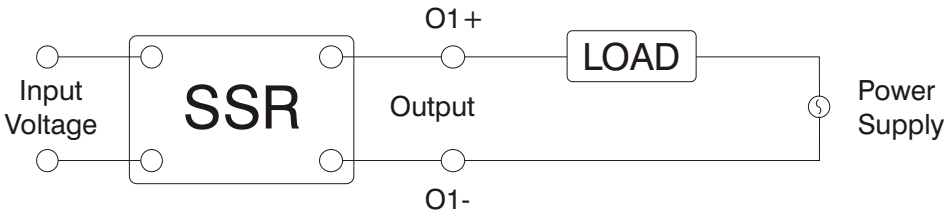
LAYOUT & CONNECTION DIAGRAM

MODEL	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1-240A(SSR-II)	08	105 mm	01
TT-IMRB-04024D1-240A(SSR-II)	04	55 mm	01

Layout of TT-IMRB-04024D1-240A(SSR-II)



SSR Module without fuse

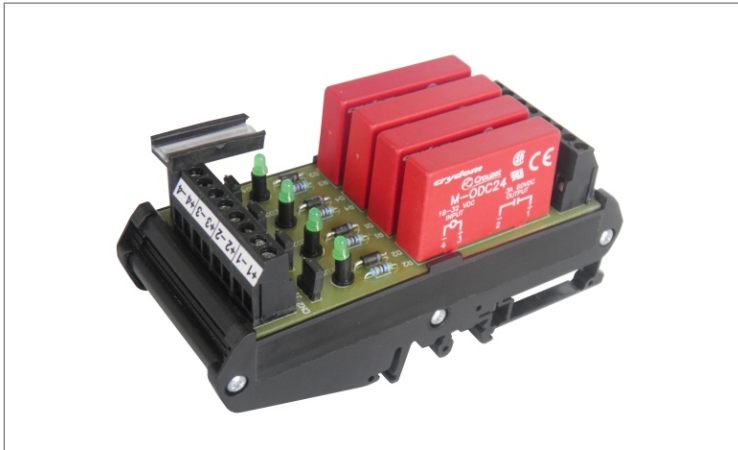


RELAY MODULE - SOLID STATE TYPE

INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 24V DC WITH GREEN LED AT INPUT

Main Features

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



TECHNICAL SPECIFICATION	
INPUT DATA	
Nominal input voltage	24 V DC
Maximum input current	15 mAdc
Maximum turn-on time	50 μ s
Nominal turn-on time	10 μ s
Maximum turn-off time	100 μ s
Nominal input resistance	2.2 K Ω
OUTPUT DATA	
Nominal operating voltage	24V DC
Operating voltage range	3-60V DC
Maximum load current	3A
RELAY DATA	
Relay	M-ODC24
Relay type	SSR DC Relay
Make	Crydom
Isolation	4000 Vrms
Capacitance, input / output	8pF
GENERAL DATA	
Housing color	Black
Module height (H)	65 mm
Module depth (D)	126 mm
Operating temperature	0°C to 80°C
Storage temperature	-10°C to 100°C
Indication	Green LED for input status
Bussing	Jumpers are provided for selection between positive/negative looping
CONNECTION DATA	
Type of connection	Screw connection (PCB terminals block)
Make	Phoenix Contact
Nominal current carrying capacity	24A
Rated voltage capacity	250V
Conductor cross section solid	Min/Max .02/4.0 mm ²
Conductor cross section stranded	Min/Max .02/2.50 mm ²

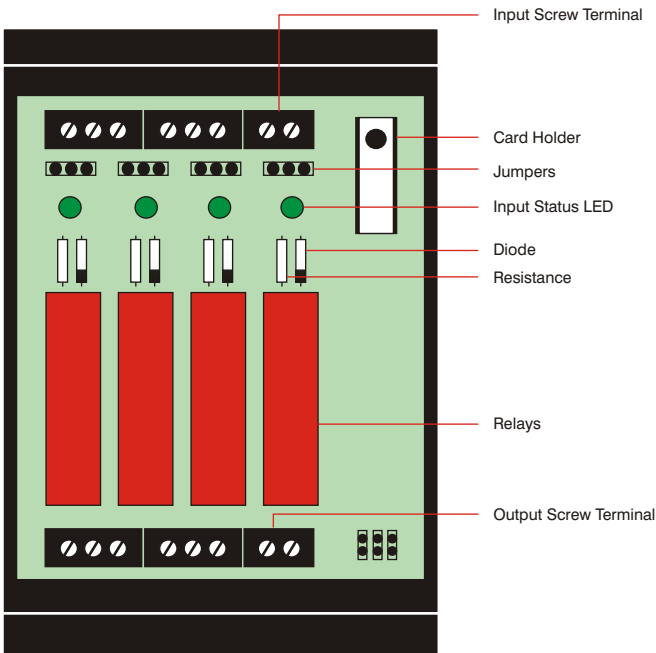
RELAY MODULE - SOLID STATE TYPE



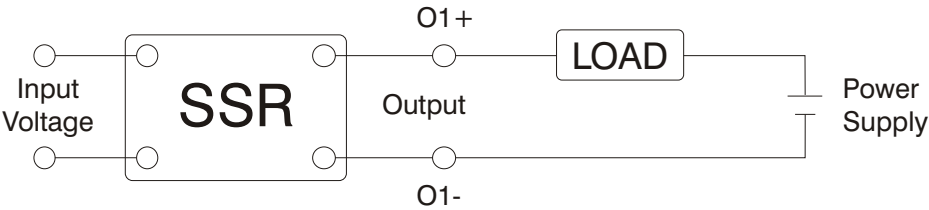
LAYOUT & CONNECTION DIAGRAM

MODEL	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1-SSR(II)	08	105 mm	01
TT-IMRB-04024D1-SSR(II)	04	55 mm	01

Layout of TT-IMRB-04024D1-SSR(II)



SSR Module without fuse



INPUT VOLTAGE 24 VDC, OUTPUT VOLTAGE 5-200 VDC WITH GREEN LED AT RELAY INPUT

Main Features

- SSR relay module with solid state relays.
- Relays directly soldered.
- 8/4 channels.
- Input voltage 3-32V DC.
- Output Voltage 5-200V DC.
- Jumpers are provided for selection between positive/negative looping.
- Free wheeling diodes are provided for polarity protection.
- Rated load current 3A.
- Mounting DIN 35 carrier rail.
- Available in green and black profile.



Technical Specification

INPUT DATA

Nominal input voltage	3-32V DC
Maximum input current	16mA
Input LED Indication	Green
Turn-on time	2.5 ms
Turn-off time	40 μ s

OUTPUT DATA

Operating voltage range	5-200V DC
Load current	3A at 55°C

RELAY DATA

Relay	704-A PMDD 200 05 00
Relay type	SSR DC Relay
Make	Unison
I/P to O/P isolation	2.5kV for 1 min

GENERAL DATA

Housing color	Black/Green
Module height (H)	65 mm
Module depth (D)	126 mm
Operating temperature	0°C to 80°C
Storage temperature	-10°C to 100°C
Bussing	Jumpers are provided for selection between positive/negative looping
Indication	Green LED for input status

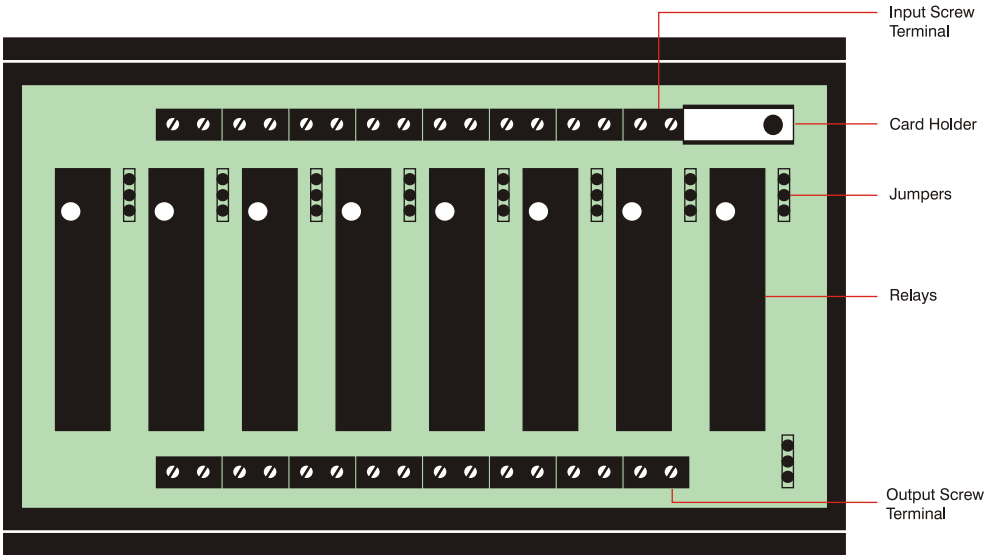
CONNECTION DATA

Type of connection	Screw connection (PCB terminals block)
Make	Phoenix Contact
Nominal current carrying capacity	24A for single level & 22A for double level
Rated voltage capacity	250V
Conductor cross section solid	Min./Max. 0.2/4.0 mm ²
Conductor cross section stranded	Min./Max. 0.2/2.5 mm ²

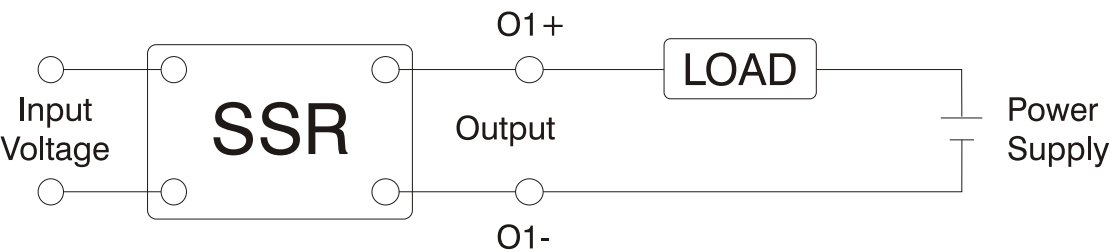
RELAY MODULE - SOLID STATE TYPE

INPUT VOLTAGE 24 VDC, OUTPUT VOLTAGE 5-200 VDC WITH GREEN LED AT RELAY INPUT

Layout of TT-IMRB-08024D1-SSR-U



Connection Diagram of TT-IMRB-08024D1-SSR-U



MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1-SSR-U	01 17 06334	08	142 mm	01
TT-IMRB-04024D1-SSR-U	01 17 06333	04	72 mm	01

PASSIVE MODULE

WITH RJ45 CONNECTOR

Main Features

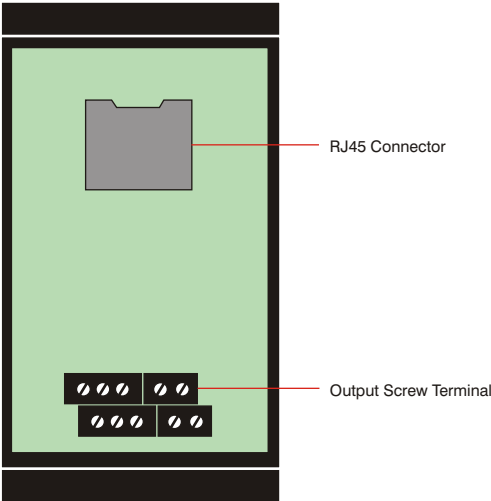
- Passive module having screw terminal connectors at one end and RJ45 connector on another end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.



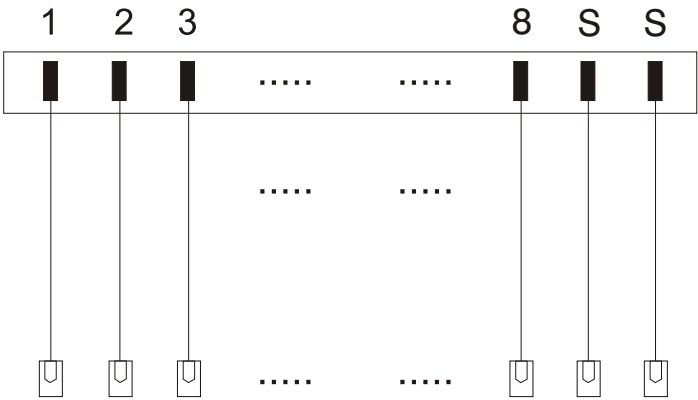
TECHNICAL SPECIFICATION	
INPUT DATA	
Input Voltage	125 V AC RMS
Max. Current carrying capacity	1.5 A (Per Pole)
GENERAL DATA	
Module height (H)	66 mm
Module depth (D)	90 mm
Color	Black
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C
Relative humidity	5 to 95% RH
CONNECTION DATA	
Connection 1	PCB Terminal Block
Type of connection	Screw Connection
Make	Phoenix Contact
Specification, current & voltage	24 A and 250 V
Conductor cross section solid	Min/Max0.2/4.0mm2
Conductor cross section stranded	Min/Max0.2/2.5.0mm2
Connection 2	RJ45 connector
Make	EDAC or equivalent
MODEL	
TT-IMPB-RJ45(V)	No. of poles Module length Pcs./Pkt.
	08 32 mm 01
TT-IMPB-RJ45(H)	08 32 mm 01

LAYOUT & CONNECTION DIAGRAM

Layout of TT-IMPB-RJ45(H)



Schematic of TT-IMPB-RJ45(H)



RELAY MODULE - SOLID STATE TYPE

INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 240V AC

Main Features

- SSR Relay module with Solid State relays.
- Directly Soldered.
- 8/4 Channels.
- Input Voltage 24V DC and Output Voltage 240V AC.
- Jumpers are provided for selection between positive / negative looping.
- Free wheeling diodes are provided for polarity protection.
- Rated Load Current 3A.
- Mounting DIN 35 carrier rail.



TECHNICAL SPECIFICATION	
INPUT DATA	
Nominal input voltage	24 V DC
Maximum input current	13 mAdc
Maximum turn-on time	8.33 ms
Maximum turn-off time	8.33 ms
Nominal input resistance	2000 Ω
OUTPUT DATA	
Nominal operating voltage	240V AC
Operating voltage range	24-280V AC
Maximum load current	3A
RELAY DATA	
Relay	M-OAC24A
Relay type	SSR AC Relay
Make	Crydom
Isolation	4000 Vrms
Capacitance, input / output	8pF
GENERAL DATA	
Housing color	Black
Module height (H)	65 mm
Module depth (D)	90 mm
Operating temperature	0°C to 80°C
Storage temperature	-10°C to 100°C
Bussing	Jumpers are provided for selection between positive/negative looping
CONNECTION DATA	
Type of connection	Screw connection (PCB terminals block)
Make	Phoenix Contact
Nominal current carrying capacity	24A
Rated voltage capacity	250V
Conductor cross section solid	Min/Max .02/4.0 mm²
Conductor cross section stranded	Min/Max .02/2.50 mm²

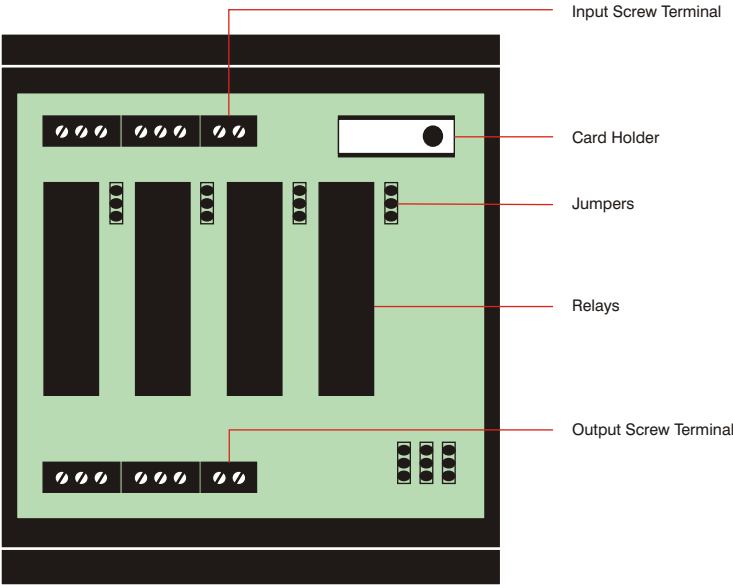
RELAY MODULE - SOLID STATE TYPE



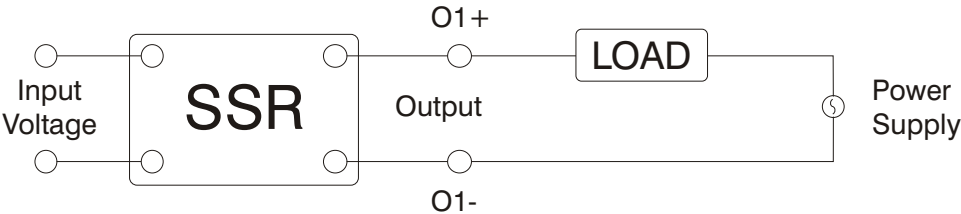
LAYOUT & CONNECTION DIAGRAM

MODEL	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1-240A(SSR)	08	142 mm	01
TT-IMRB-04024D1-240A(SSR)	04	72 mm	01

Layout of TT-IMRB-04024D1-240A(SSR)



SSR Module without fuse



RELAY MODULE - SOLID STATE TYPE

INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 24V DC

Main Features

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



TECHNICAL SPECIFICATION	
INPUT DATA	
Nominal input voltage	24 V DC
Maximum input current	15 mAdc
Maximum turn-on time	50 μ s
Nominal turn-on time	10 μ s
Maximum turn-off time	100 μ s
Nominal input resistance	2.2 K Ω
OUTPUT DATA	
Nominal operating voltage	24V DC
Operating voltage range	3-60V DC
Maximum load current	3A
RELAY DATA	
Relay	M-ODC24
Relay type	SSR DC Relay
Make	Crydom
Isolation	4000 Vrms
Capacitance, input / output	8pF
GENERAL DATA	
Housing color	Black
Module height (H)	65 mm
Module depth (D)	90 mm
Operating temperature	0°C to 80°C
Storage temperature	-10°C to 100°C
Bussing	Jumpers are provided for selection between positive/negative looping
CONNECTION DATA	
Type of connection	Screw connection (PCB terminals block)
Make	Phoenix Contact
Nominal current carrying capacity	24A
Rated voltage capacity	250V
Conductor cross section solid	Min/Max .02/4.0 mm ²
Conductor cross section stranded	Min/Max .02/2.50 mm ²

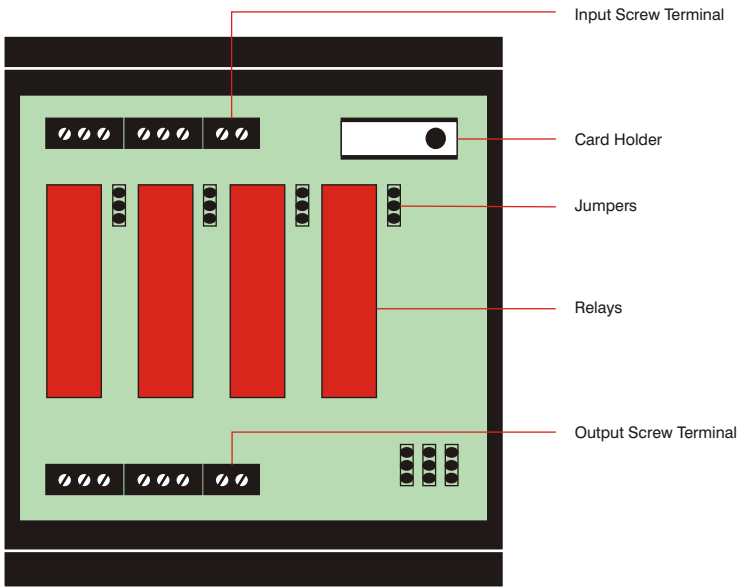
RELAY MODULE - SOLID STATE TYPE



LAYOUT & CONNECTION DIAGRAM

MODEL	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1-SSR	08	142 mm	01
TT-IMRB-04024D1-SSR	04	72 mm	01

Layout of TT-IMRB-04024D1-SSR



SSR Module without fuse

