Interface Modules & Accessories

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TRINITY TOUCH®

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Interface Modules & Accessories

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.

CONTENTS

TRINITY TOUCH®

1 Section

Relay Module - Electromechanical Type 4-25

- 1C/O - Coil Voltage 24V DC/12V DC/48V DC/110V DC 4-5
- 2C/O - Coil Voltage 24V DC/12V DC/48V DC/110V DC 6-7
- 4C/O - Coil Voltage 24V DC/12V DC/48V DC/110V DC/220V DC 8-9
- 1C/O - Coil Voltage 230V AC/110V AC/24V AC 10-11
- 2C/O - Coil Voltage 230V AC/110V AC/24V AC 12-13
- 1C/O with Fuse at Output - Coil Voltage 24V DC/12V DC/48V DC/110V DC 14-15
- 2C/O with Fuse at Output - Coil Voltage 24V DC/12V DC/48V DC/110V DC 16-17
- 1C/O with Fuse & Fuse Fail Indication at Output- Coil Voltage 24V DC/12V DC/48V DC/110V DC 18-19
- 2C/O with Fuse and Fuse Fail Indication at Output- Coil Voltage 24V DC/12V DC/48V DC/110V DC 20-21
- Compact Electromechanical Relay Module 22-23
- Customised Modules 24-25

2 Section

Relay Module - Solid State Type 28-41

- Input Voltage 24V DC, Output Voltage 24V DC with Green LED at Input 28-29
- Input Voltage 24V DC, Output Voltage 24V DC with Fuse & Fuse Fail Indication at Output 30-31
- Input Voltage 24V DC, Output Voltage 24V DC with Fuse & Fuse Fail Indication at Output with SSR pluggable 32-33
- Input Voltage 24V DC, Output Voltage 240V AC with Green LED at Input 34-35
- Input Voltage 24V DC, Output Voltage 240V AC with Fuse & Fuse Fail Indication at Output 36-37
- Compact Solid State Relay Module with SSR pluggable 38-39
- Customised Modules 40-41

3 Section

Passive Module & Accessory Module 44-57

Passive Module **44-51**

- Passive Module with FRC Connector 44-45
- Passive Module with D-Sub Connector 46-47
- Passive Module with ELCO Connector 48-49
- Passive Module with RJ45 Connector 50-51

Accessory Module **52-57**

- Utility Module 52-53
- Potential Distribution Module 54-55
- Diode O-ring Module 56-57

4 Section

DO/DI Module & CNC Module 60-67

DO/DI Module **60-65**

- 16 Channel Digital Output Module with FRC connector 60-61
- 16 Channel Digital Output Module with D-Sub connector 62-63
- 16 Channel Digital Input Module with D-Sub connector 64-65

CNC Module **66-67**

- CNC Module with 24 Inputs and 16 Outputs 66-67

5 Section

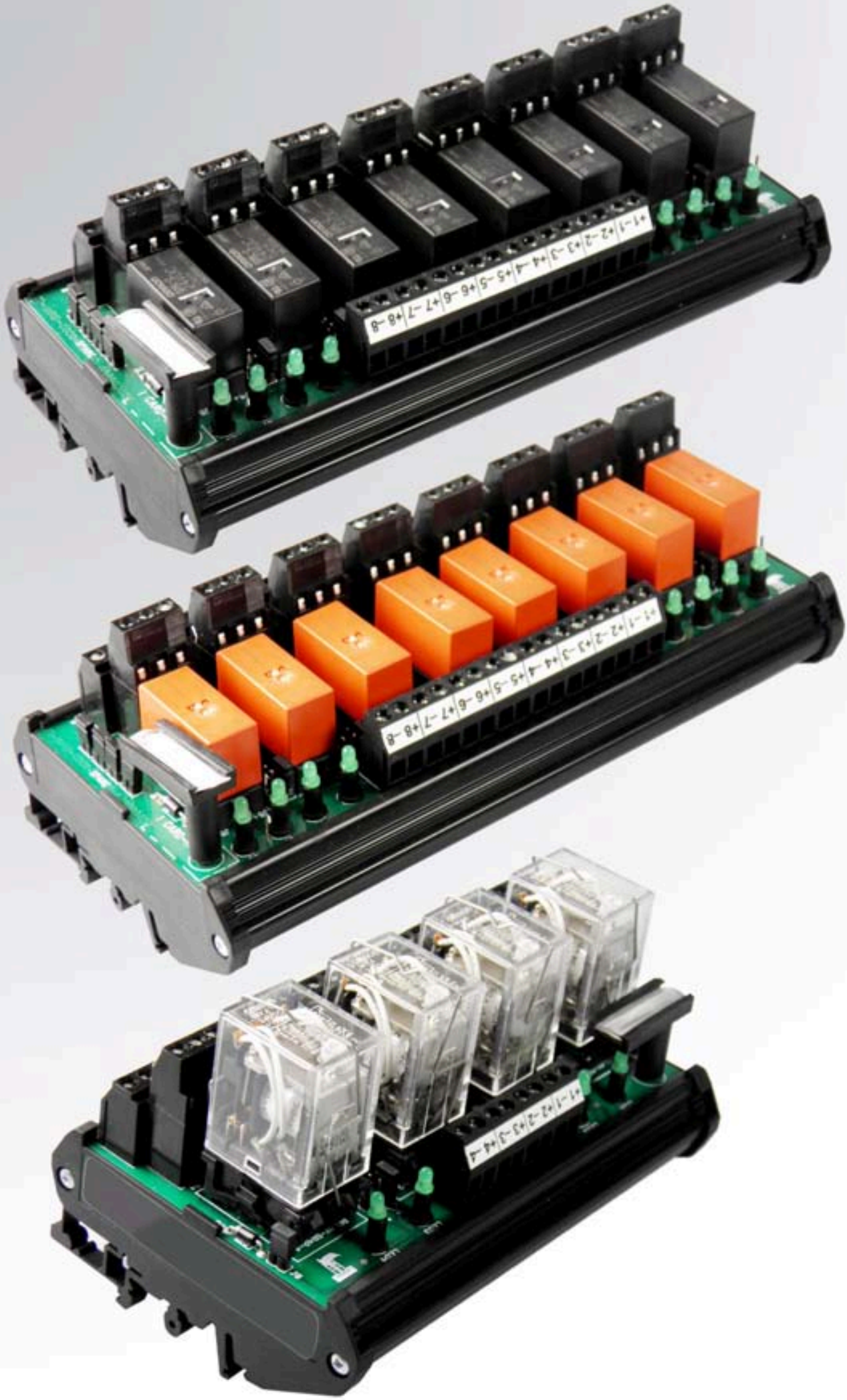
Cable Assembly & Components for Interface Modules 70-78

Cable Assembly **70-71**

With FRC, D-Sub and EDAC Connectors 70-71

Components for Interface Modules **72-78**

DIN Rail Mounted PCB Support, Fuse Holders, Connectors, Electromechanical Relays, Solid State Relays 72-78



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Section

Relay Module - Electromechanical Type 4-25

- 1C/O - Coil Voltage 24V DC/12V DC/48V DC/110V DC..... 4-5
- 2C/O - Coil Voltage 24V DC/12V DC/48V DC/110V DC..... 6-7
- 4C/O - Coil Voltage 24V DC/12V DC/48V DC/110V DC/220V DC..... 8-9
- 1C/O - Coil Voltage 230V AC/110V AC/24V AC.....10-11
- 2C/O - Coil Voltage 230V AC/110V AC/24V AC.....12-13
- 1C/O with Fuse at Output - Coil Voltage 24V DC/12V DC/48V DC/110V DC.....14-15
- 2C/O with Fuse at Output - Coil Voltage 24V DC/12V DC/48V DC/110V DC.....16-17
- 1C/O with Fuse & Fuse Fail Indication at Output- Coil Voltage 24V DC/12V DC/48V DC/110V DC.....18-19
- 2C/O with Fuse and Fuse Fail Indication at Output- Coil Voltage 24V DC/12V DC/48V DC/110V DC.....20-21
- Compact Electromechanical Relay Module.....22-23
- Customised Modules.....24-25

RELAY MODULE - ELECTROMECHANICAL TYPE

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

Main Features

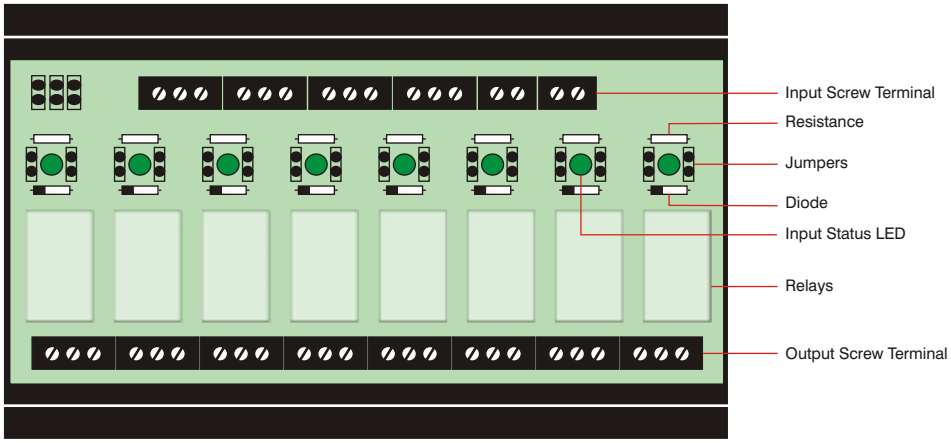
- Relay module with 16/8/4/2/1 miniature relays.
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- 1 change over.
- Freewheeling diode across relay coil for protection.
- Jumpers are provided for selection between positive looping/negative looping.
- Mounting DIN 35 carrier rail.

TECHNICAL SPECIFICATION				
COIL DATA				
Voltage	**24V DC**	**12V DC**	**48V DC**	**110V DC**
Input current	21.8 mA	43.6 mA	11.5 mA	5.3 mA
Coil resistance	1100 Ω	275 Ω	4170 Ω	18860 Ω
CONTACT DATA	**1CO**			
No.of contact	1 PDT			
Rated load (Resistive) (Inductive)	10A, 250V AC/30V DC 5A 30V DC/7.5A, 250V AC			
Contact resistance	30 mΩ max			
GENERAL DATA				
Relay	Omron, IDEC, Tyco 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	24A for single level & 22A for double level			
Rated voltage capacity	250V			
Conductor cross section solid	Min/Max 0.2/4.0 mm²			
Conductor cross section stranded	Min/Max 0.2/2.5 mm²			

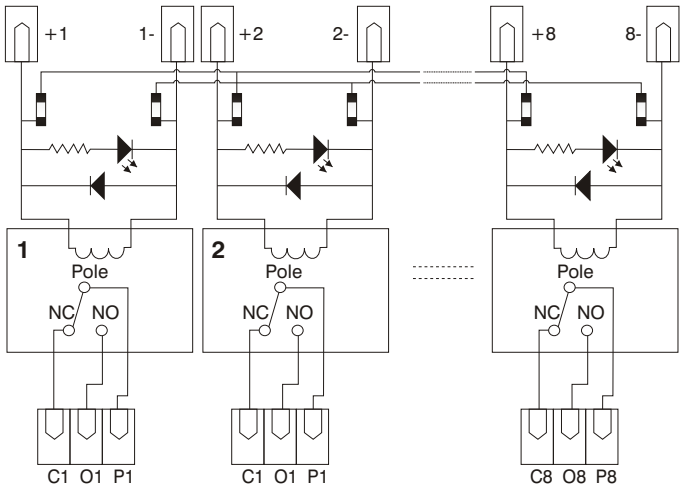
1C/O - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

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	01 17 02396	08	128 mm	01
TT-IMRB-08024D1-C (Relays directly soldered)	01 17 02397	08	128 mm	01
TT-IMRB-08024D1S-C(sealed)	01 17 03009	08	128 mm	01
TT-IMRB-08024D1S-C(G2RL sealed)	01 17 03106	08	128 mm	01
TT-IMRB-08012D1S-C	01 17 03634	08	128 mm	01
TT-IMRB-04024D1S-C	01 17 02617	04	66 mm	01
TT-IMRB-04024D1-C (Relays directly soldered)	01 17 02852	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

Layout of TT-IMRB-08024D1S-C



Connection Diagram of TT-IMRB-08024D1S-C



RELAY MODULE - ELECTROMECHANICAL TYPE

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

Main Features

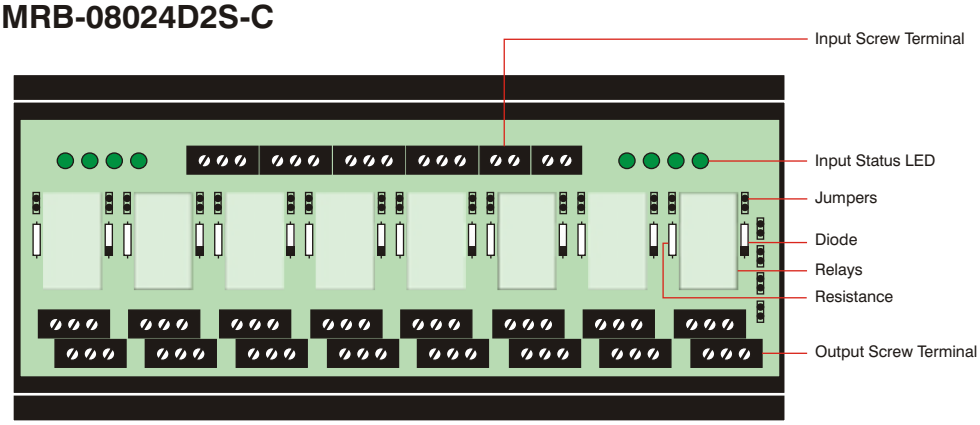
- Relay module with 16/8/4/2/1 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- 2 change over.
- Freewheeling diode across relay coil for protection.
- Jumpers are provided for selection between positive looping/negative looping.
- Mounting DIN 35 carrier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

TECHNICAL SPECIFICATION				
COIL DATA				
Voltage	**24V DC**	**12V DC**	**48V DC**	**110V DC**
Input current	21.8 mA	43.6 mA	11.5 mA	5.3 mA
Coil resistance	1100 Ω	275 Ω	4170 Ω	18860 Ω
CONTACT DATA	**2CO**			
No.of contact	2 PDT			
Rated load (Resistive) (Inductive)	5A, 250V AC/30V DC 3A 30V DC/2A, 250V AC			
Contact resistance	50 mΩ max			
GENERAL DATA				
Relay	Omron, IDEC, Tyco 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	24A for single level & 22A for double level			
Rated voltage capacity	250V			
Conductor cross section solid	Min/Max 0.2/4.0 mm²			
Conductor cross section stranded	Min/Max 0.2/2.5 mm²			

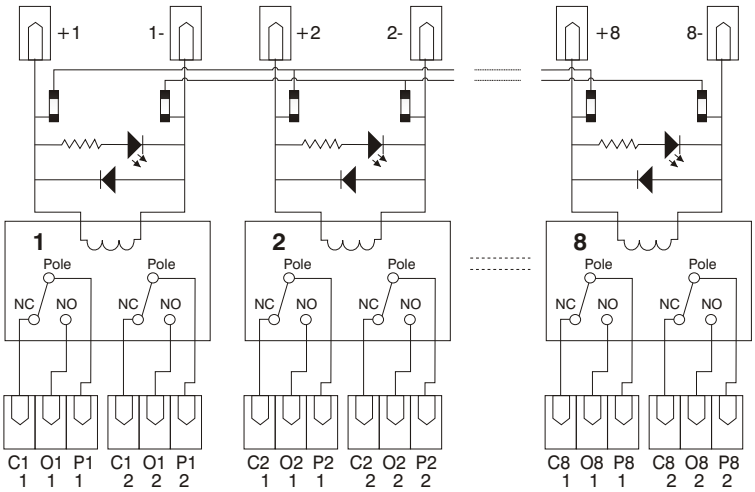
2C/O - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

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	01 17 02638	08	182 mm	01
TT-IMRB-08024D2-C	01 17 02851	08	182 mm	01
TT-IMRB-08024D2S-C(sealed)	01 17 03070	08	182 mm	01
TT-IMRB-08024D2S-C(G2RL sealed)	01 17 03098	08	182 mm	01
TT-IMRB-08024D2S-C(RT sealed)	01 17 03097	08	182 mm	01
TT-IMRB-08012D2S-C	01 17 03258	08	182 mm	01
TT-IMRB-04024D2S-C	01 17 02637	04	105 mm	01
TT-IMRB-04024D2-C	01 17 02853	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	02
TT-IMRB-02012D2S-C	01 17 03429	02	54 mm	02
TT-IMRB-01024D2S	01 17 01046	01	27 mm	04
TT-IMRB-01024D2	01 17 04007	01	27 mm	04

Layout of TT-IMRB-08024D2S-C



Connection Diagram of TT-IMRB-08024D2S-C



RELAY MODULE - ELECTROMECHANICAL TYPE

4C/O - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC/220V DC

Main Features

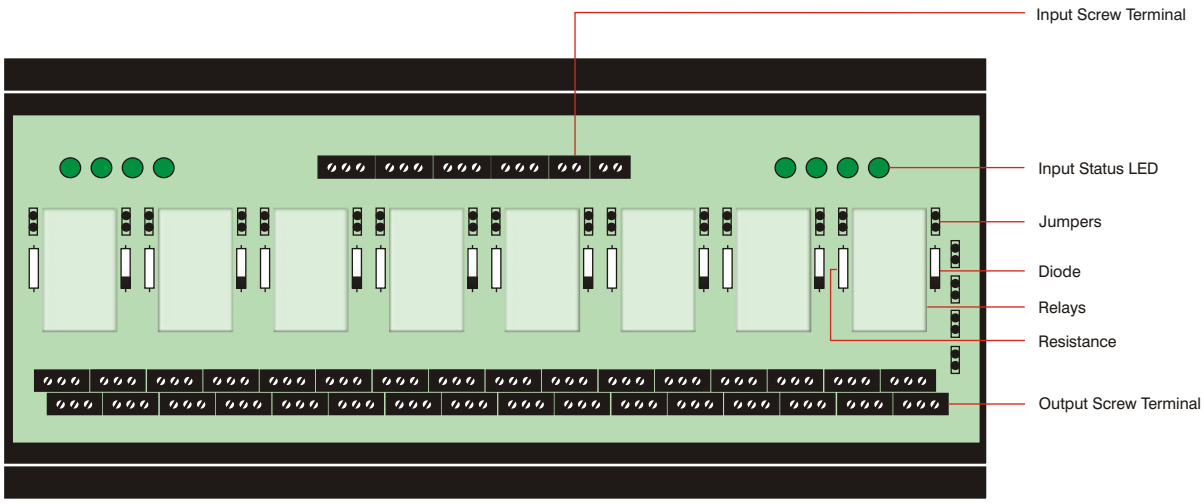
- Relay module with 8/4/2 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC/12V DC/48V DC/110V DC/220V DC.
- 4 change over.
- Freewheeling diode across relay coil for protection.
- Jumpers are provided for selection between positive looping/negative looping.
- Mounting DIN 35 carrier rail.

TECHNICAL SPECIFICATION					
COIL DATA					
Voltage	**24V DC**	**12V DC**	**48V DC**	**110V DC**	**220V DC**
Input current	37.7 mA	75 mA	18.8 mA	9.9 mA	3.6 mA
Coil resistance	636 Ω	160 Ω	2560 Ω	11100 Ω	60394 Ω
CONTACT DATA	**4CO**				
No.of contact	4 PDT				
Rated load (Resistive) (Inductive)	3A, 250V AC/30V DC 1.5A 30V DC/0.8A, 250V AC				
Contact resistance	100 mΩ max				
GENERAL DATA					
Relay	Omron, IDEC, Tyco 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	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				

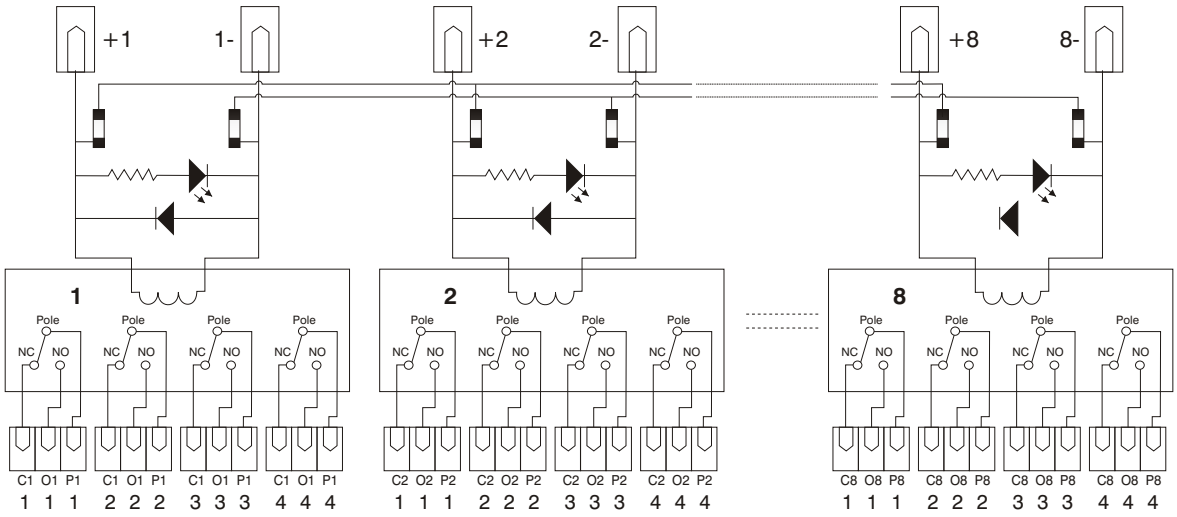
4C/O - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC/220V DC

MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D4S-C	01 17 03089	08	259 mm	01
TT-IMRB-04024D4S-C	01 17 03090	04	131 mm	01
TT-IMRB-02024D4S-C	01 17 03091	02	68 mm	01

Layout of TT-IMRB-08024D4S-C



Connection Diagram of TT-IMRB-08024D4S-C



RELAY MODULE - ELECTROMECHANICAL TYPE

1C/O - COIL VOLTAGE 230V AC/110V AC/24V AC

Main Features

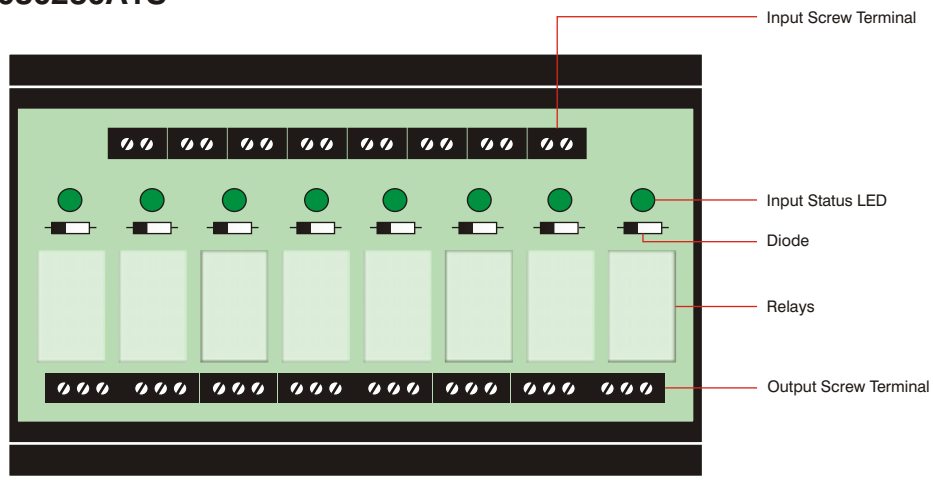
- Relay module with 16/8/4/2/1 electromechanical relays.
- With base (Relay-pluggable).
- 1 change over.
- Freewheeling diode across relay coil for protection.
- Mounting DIN 35 carrier rail.

TECHNICAL SPECIFICATION			
COIL DATA			
Coil voltage	**230V AC**	**110V AC**	**24V AC**
Input current (50 Hz)	4.7 mA	11 mA	46.5 mA
Power consumption	0.9 VA-50Hz	0.9 VA-50Hz	0.9 VA-50Hz
Coil resistance	26,850 Ω	4600 Ω	260 Ω
CONTACT DATA	**1CO**		
No.of contact	1 PDT		
Rated load (Resistive) (Inductive)	10A, 250V AC/30V DC 5A 30V DC/7.5A, 250V AC		
Contact resistance	30 mΩ max		
GENERAL DATA			
Relay	Omron, IDEC, Tyco 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 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		

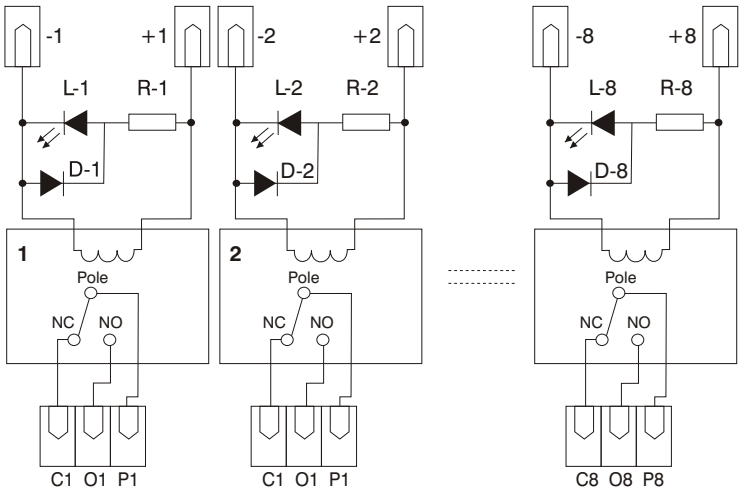
1C/O - COIL VOLTAGE 230V AC/110V AC/24V AC

MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-160230A1S	01 17 02848	16	250 mm	01
TT-IMRB-160110A1S	01 17 02849	16	250 mm	01
TT-IMRB-16024A1S	01 17 02850	16	250 mm	01
TT-IMRB-080230A1S	01 17 02625	08	128 mm	01
TT-IMRB-080110A1S	01 17 02662	08	128 mm	01
TT-IMRB-08024A1S	01 17 02753	08	128 mm	01
TT-IMRB-040230A1S	01 17 02641	04	67 mm	01
TT-IMRB-040110A1S	01 17 02660	04	67 mm	01
TT-IMRB-04024A1S	01 17 02752	04	67 mm	01
TT-IMRB-020230A1S	01 17 02995	02	35 mm	01
TT-IMRB-010230A1S	01 17 03068	01	26 mm	02

Layout of TT-IMRB-080230A1S



Connection Diagram of TT-IMRB-080230A1S



RELAY MODULE - ELECTROMECHANICAL TYPE

2C/O - COIL VOLTAGE 230V AC/110V AC/24V AC

Main Features

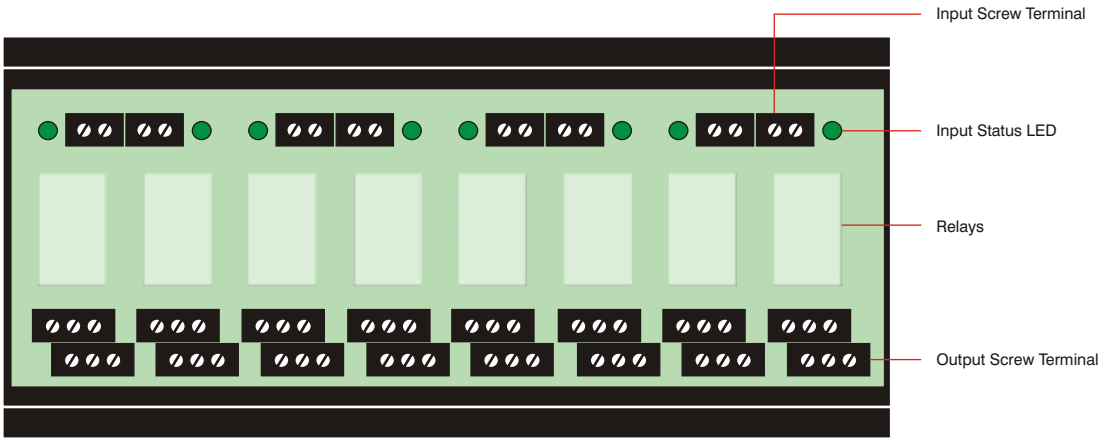
- Relay module with 16/8/4/2/1 electromechanical relays.
- With base (Relay-pluggable).
- 2 change over.
- Freewheeling diode across relay coil for protection.
- Mounting DIN 35 carrier rail.

TECHNICAL SPECIFICATION			
COIL DATA			
Coil voltage	**230V AC**	**110V AC**	**24V AC**
Input current (50 Hz)	4.7 mA	11 mA	46.5 mA
Power consumption	0.9 VA-50Hz	0.9 VA-50Hz	0.9 VA-50Hz
Coil resistance	26,850 Ω	4600 Ω	260 Ω
CONTACT DATA	**2CO**		
No.of contact	2 PDT		
Rated load (Resistive)	5A, 250V AC/30V DC		
(Inductive)	3A 30V DC/2A, 250V AC		
Contact resistance	50 mΩ max		
GENERAL DATA			
Relay	Omron, IDEC, Tyco 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 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		

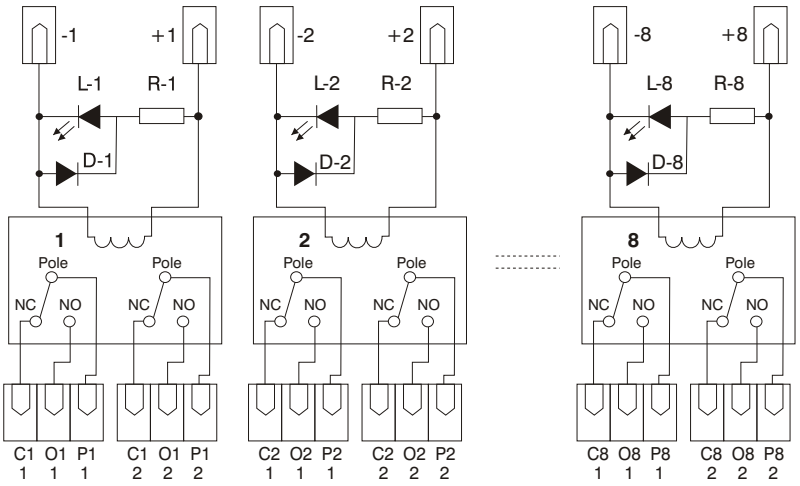
2C/O - COIL VOLTAGE 230V AC/110V AC/24V AC

MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-160230A2S	01 17 02747	16	321 mm	01
TT-IMRB-160110A2S	01 17 02749	16	321 mm	01
TT-IMRB-16024A2S	01 17 02748	16	321 mm	01
TT-IMRB-080230A2S	01 17 02615	08	161 mm	01
TT-IMRB-080110A2S	01 17 02663	08	161 mm	01
TT-IMRB-08024A2S	01 17 02751	08	161 mm	01
TT-IMRB-040230A2S	01 17 02632	04	82 mm	01
TT-IMRB-040110A2S	01 17 02661	04	82 mm	01
TT-IMRB-04024A2S	01 17 02750	04	82 mm	01
TT-IMRB-020230A2S	01 17 02966	02	51 mm	01
TT-IMRB-010230A2S	01 17 03069	01	25 mm	02

Layout of TT-IMRB-080230A2S



Schematic of TT-IMRB-080230A2S



RELAY MODULE - ELECTROMECHANICAL TYPE

1C/O WITH FUSE AT OUTPUT - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

Main Features

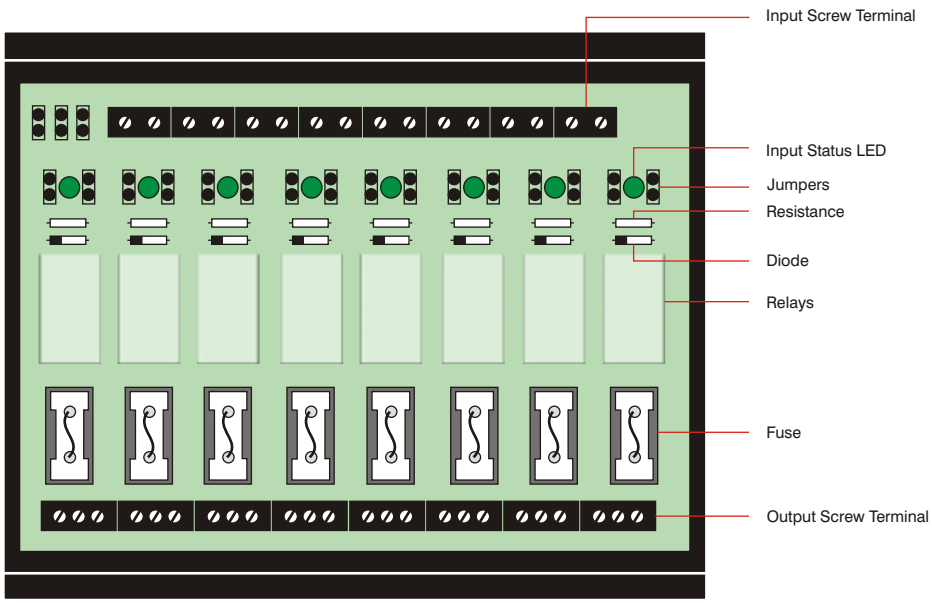
- Relay module with 4/8/16 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- 1 change over.
- Freewheeling diode across relay coil for protection.
- Fuse are provided in contact path.
- Jumpers are provided for selection between positive looping/negative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

TECHNICAL SPECIFICATION				
COIL DATA				
Voltage	**24V DC**	**12V DC**	**48V DC**	**110V DC**
Input current	21.8 mA	43.6 mA	11.5 mA	5.3 mA
Coil resistance	1100 Ω	275 Ω	4170 Ω	18860 Ω
CONTACT DATA	**1CO**			
No.of contact	1 PDT			
Rated load (Resistive)	10A, 250V AC/30V DC			
(Inductive)	5A 30V DC/7.5A, 250V AC			
Contact resistance	30 mΩ max			
GENERAL DATA				
Relay	Omron, IDEC, Tyco or equivalent			
Module height (H)	75 mm			
Module depth (D)	126 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			
Fuses	In common path of contact of each relay			
Rating	2A (default, to be replaced with suitable fuse as per need			
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			

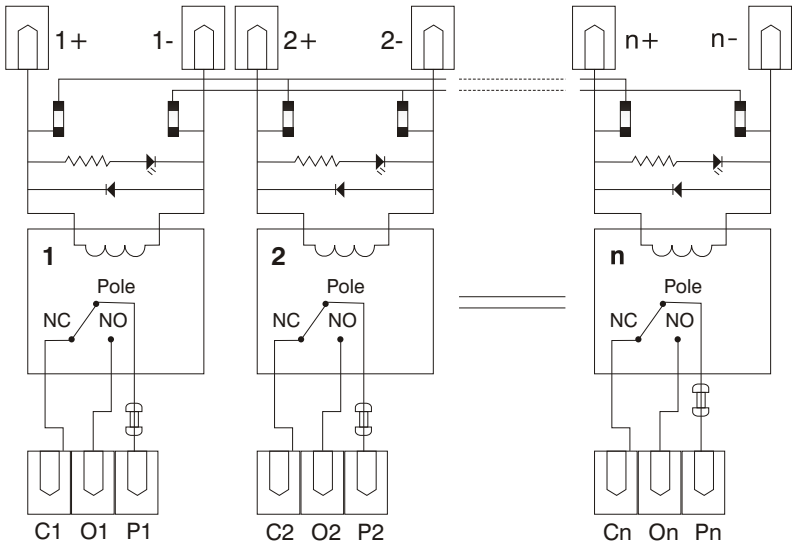
1C/O WITH FUSE AT OUTPUT - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-16024D1S-C(F)	01 17 02973	16	252 mm	01
TT-IMRB-08024D1S-C(F)	01 17 02746	08	128 mm	01
TT-IMRB-04024D1S-C(F)	01 17 02745	04	67 mm	01

Layout of TT-IMRB-08024D1S-C(F)



Connection Diagram of TT-IMRB-08024D1S-C(F)



RELAY MODULE - ELECTROMECHANICAL TYPE

2C/O WITH FUSE AT OUTPUT - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

Main Features

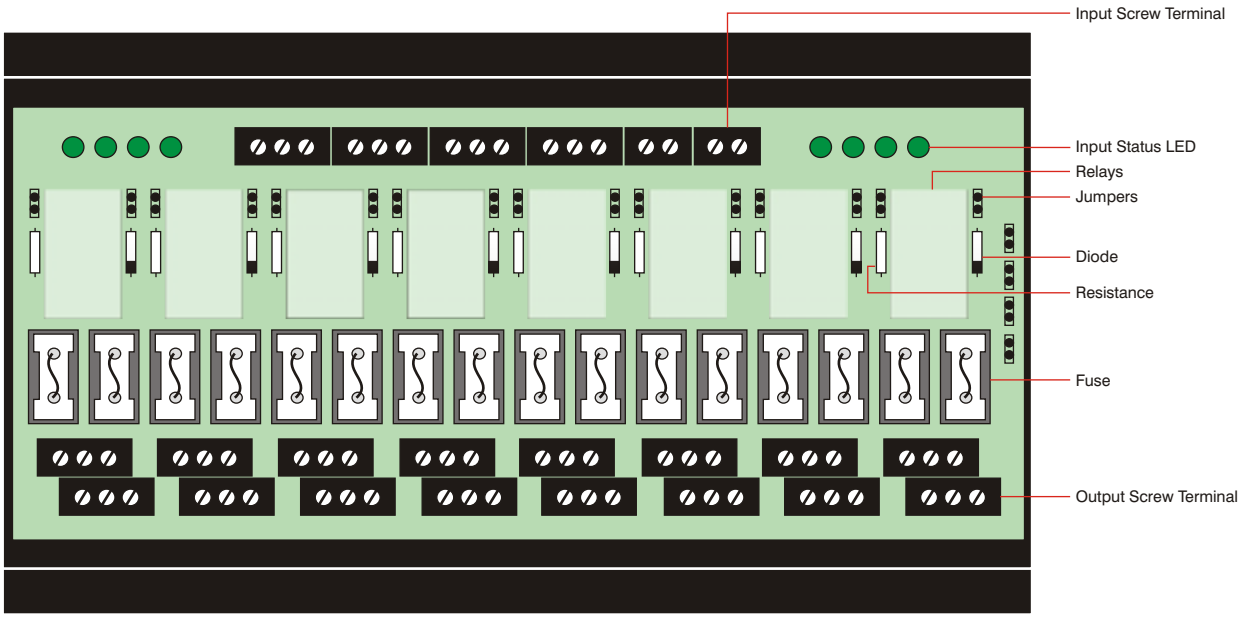
- Relay module with 4/8/16 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- 2 change over.
- Freewheeling diode across relay coil for protection.
- Fuse are provided in contact path.
- Jumpers are provided for selection between positive looping/negative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

TECHNICAL SPECIFICATION				
COIL DATA				
Voltage	**24V DC**	**12V DC**	**48V DC**	**110V DC**
Input current	21.8 mA	43.6 mA	11.5 mA	5.3 mA
Coil resistance	1100 Ω	275 Ω	4170 Ω	18860 Ω
CONTACT DATA	**2CO**			
No.of contact	2 PDT			
Rated load (Resistive) (Inductive)	5A, 250V AC/30V DC 3A 30V DC/2A, 250V AC			
Contact resistance	50 mΩ max			
GENERAL DATA				
Relay	Omron, IDEC, Tyco or equivalent			
Module height (H)	75 mm			
Module depth (D)	126 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			
Fuses	In common path of each contact of each relay			
Rating	2A (default, to be replaced with suitable fuse as per need)			
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			

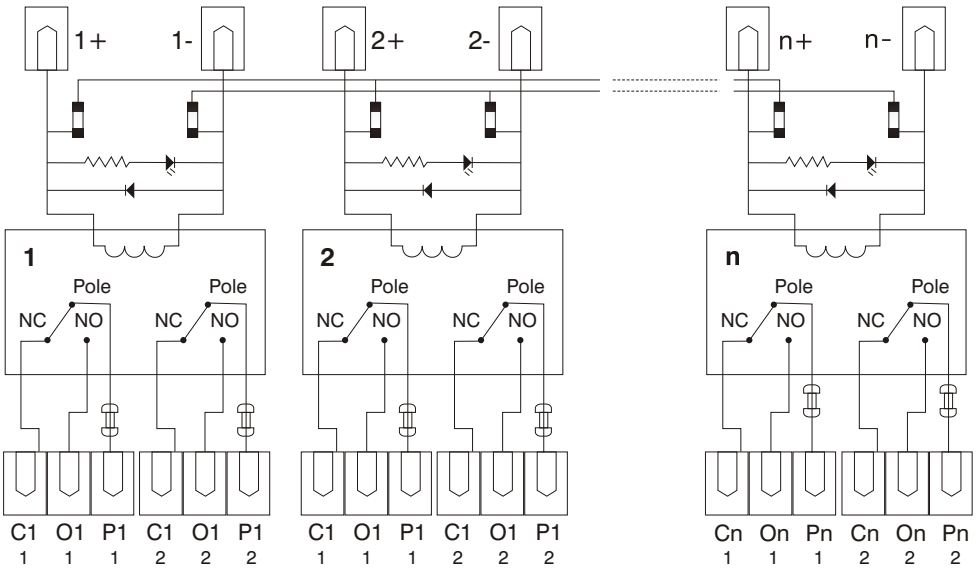
2C/O WITH FUSE AT OUTPUT - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-16024D2S-C(F)	01 17 02994	16	369 mm	01
TT-IMRB-08024D2S-C(F)	01 17 02922	08	187 mm	01
TT-IMRB-04024D2S-C(F)	01 17 02921	04	96 mm	01

Layout of TT-IMRB-08024D2S-C(F)



Connection Diagram of TT-IMRB-08024D2S-C(F)



RELAY MODULE - ELECTROMECHANICAL TYPE

1C/O WITH FUSE & FUSE FAIL INDICATION AT OUTPUT - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

Main Features

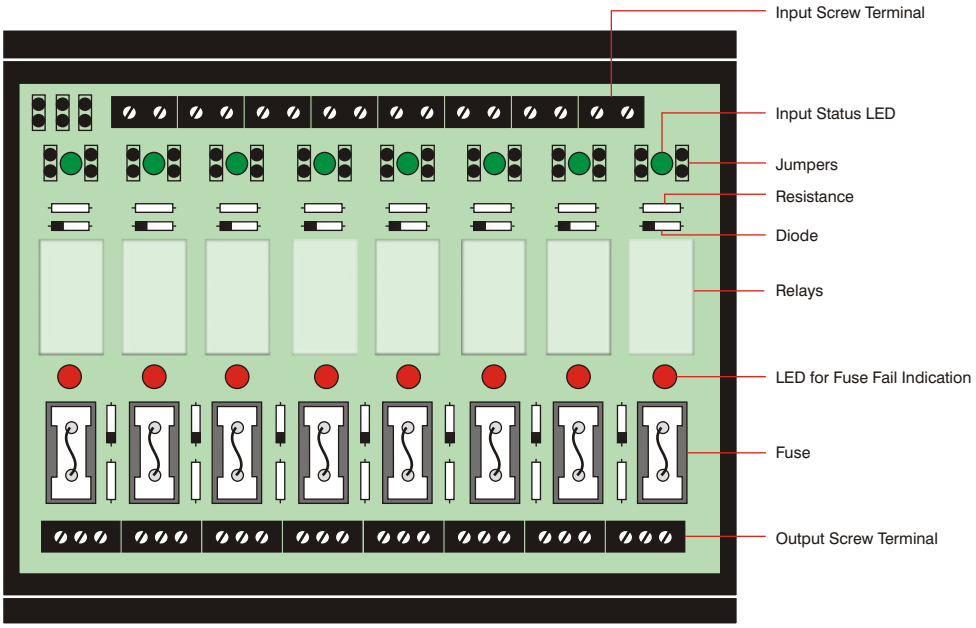
- Relay module with 4/8/16 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- 1 change over.
- Freewheeling diode across relay coil for protection.
- Fuse with fuse blown indication in contact path.
- Jumpers are provided for selection between positive looping/negative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

TECHNICAL SPECIFICATION				
COIL DATA				
Voltage	**24V DC**	**12V DC**	**48V DC**	**110V DC**
Input current	21.8 mA	43.6 mA	11.5 mA	5.3 mA
Coil resistance	1100 Ω	275 Ω	4170 Ω	18860 Ω
CONTACT DATA	**1CO**			
No.of contact	1 PDT			
Rated load (Resistive) (Inductive)	10A, 250V AC/30V DC 5A 30V DC/7.5A, 250V AC			
Contact resistance	30 mΩ max			
GENERAL DATA				
Relay	Omron, IDEC, Tyco or equivalent			
Module height (H)	75 mm			
Module depth (D)	126 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, Red LED for fuse fail indication			
Fuses	In common path of contact of each relay			
Rating	2A (default, to be replaced with suitable fuse as per need)			
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			

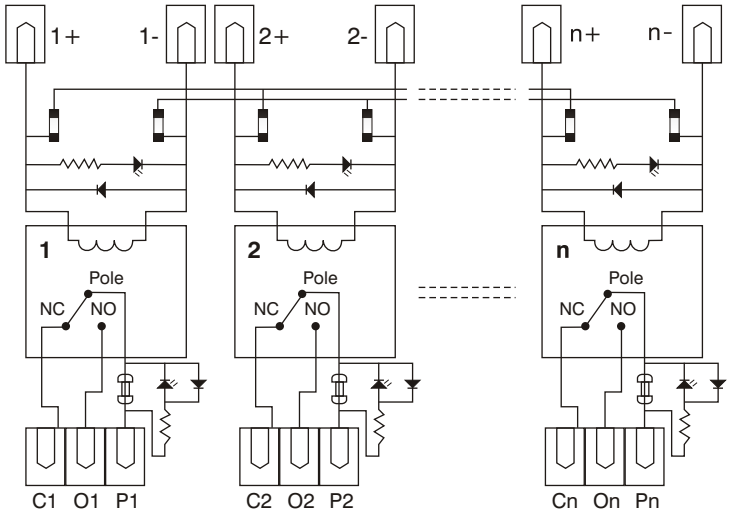
1C/O WITH FUSE & FUSE FAIL INDICATION AT OUTPUT - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-16024D1S-C(FFI)	01 17 02926	16	269 mm	01
TT-IMRB-16024D1S-C230(FFI)	-	16	-	01
TT-IMRB-08024D1S-C(FFI)	01 17 02856	08	138 mm	01
TT-IMRB-08024D1S-C230(FFI)	-	08	-	01
TT-IMRB-04024D1S-C(FFI)	01 17 02857	04	73 mm	01
TT-IMRB-04024D1S-C230(FFI)	-	04	-	01

Layout of TT-IMRB-08024D1S-C(FFI)



Connection Diagram of TT-IMRB-08024D1S-C(FFI)



RELAY MODULE - ELECTROMECHANICAL TYPE

2C/O WITH FUSE AND FUSE FAIL INDICATION AT OUTPUT - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

Main Features

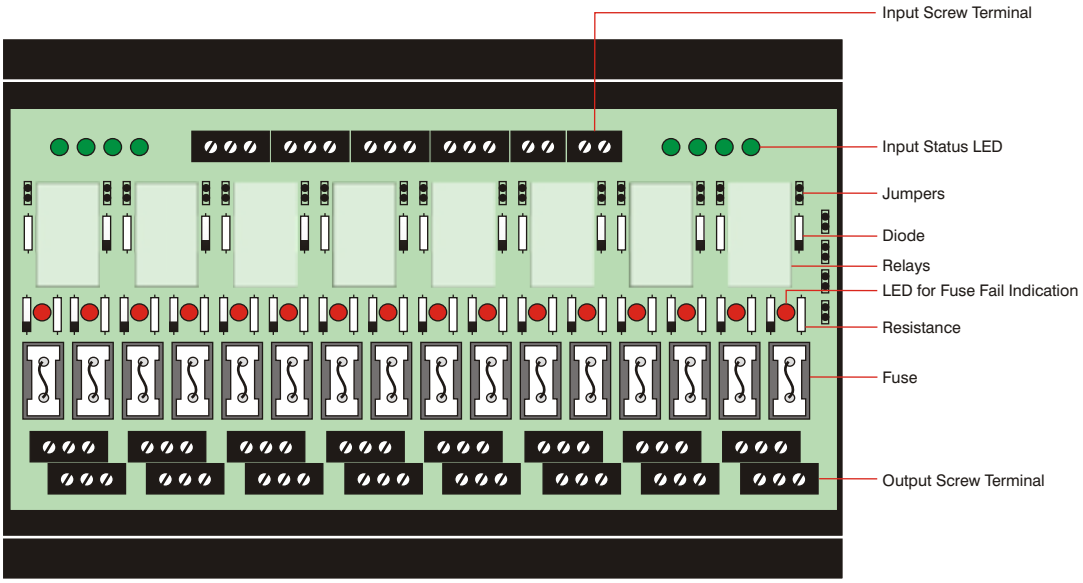
- Relay module with 4/8/16 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC/12V DC/48V DC/110V DC.
- 2 change over.
- Freewheeling diode across relay coil for protection.
- Fuse with fuse blown indication in contact path.
- Jumpers are provided for selection between positive looping/negative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

TECHNICAL SPECIFICATION				
COIL DATA				
Voltage	**24V DC**	**12V DC**	**48V DC**	**110V DC**
Input current	21.8 mA	43.6 mA	11.5 mA	5.3 mA
Coil resistance	1100 Ω	275 Ω	4170 Ω	18860 Ω
CONTACT DATA	**2CO**			
No.of contact	2 PDT			
Rated load (Resistive) (Inductive)	5A, 250V AC/30V DC 3A 30V DC/2A, 250V AC			
Contact resistance	50 mΩ max			
GENERAL DATA				
Relay	Omron, IDEC, Tyco or equivalent			
Module height (H)	75 mm			
Module depth (D)	126 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, Red LED for fuse fail indication			
Fuses	In common path of each contact of each relay			
Rating	2A (default, to be replaced with suitable fuse as per need			
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			

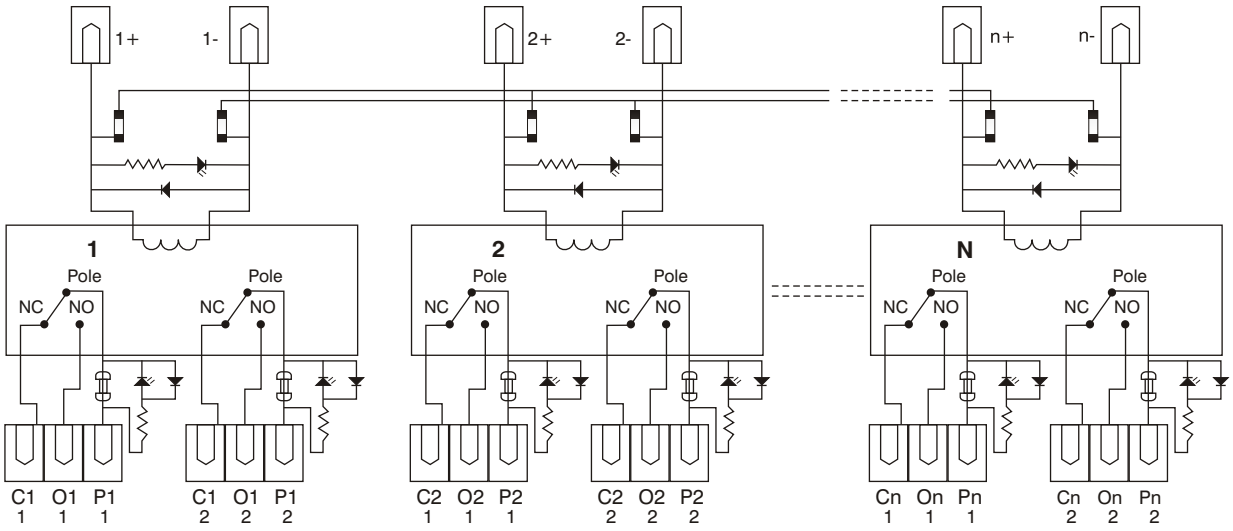
2C/O WITH FUSE AND FUSE FAIL INDICATION AT OUTPUT - COIL VOLTAGE 24V DC/12V DC/48V DC/110V DC

MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-16024D2S-C(FFI)	01 17 02925	16	456 mm	01
TT-IMRB-16024D2S-C230(FFI)	-	16	-	01
TT-IMRB-08024D2S-C(FFI)	01 17 02924	08	232 mm	01
TT-IMRB-08024D2S-C230(FFI)	-	08	-	01
TT-IMRB-04024D2S-C(FFI)	01 17 02923	04	122 mm	01
TT-IMRB-04024D2S-C230(FFI)	-	04	-	01

Layout of TT-IMRB-08024D2S-C(FFI)



Connection Diagram of TT-IMRB-08024D2S-C(FFI)



RELAY MODULE - ELECTROMECHANICAL TYPE

COMPACT ELECTROMECHANICAL RELAY MODULE

Main Features

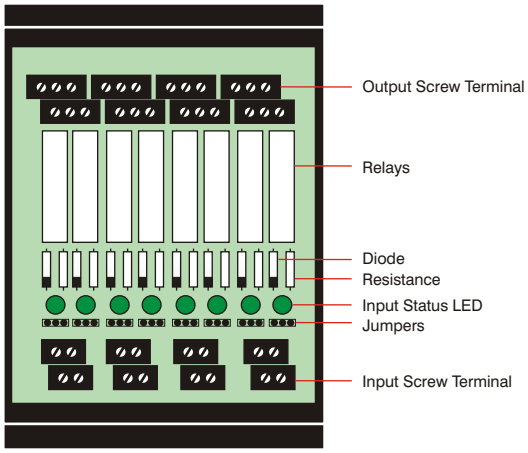
- Compact relay module with slim electromechanical relays.
- With base (Relay-pluggable).
- 16/8/4 channels.
- Input voltage 24V DC/5V DC/12V DC/48V DC/60V DC.
- Output voltage 24V DC.
- Maximum load current 6A.
- Jumpers are provided for selection between positive looping/negative looping.
- Mounting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

TECHNICAL SPECIFICATION					
COIL DATA					
Control voltage	**24V DC**	**5V DC**	**12V DC**	**48V DC**	**60V DC**
Coil resistance	3390 Ω	147 Ω	848 Ω	10600 Ω	20500 Ω
Rated coil power	170 mW	170 mW	170 mW	217 mW	176 mW
OUTPUT DATA	**1CO**				
Rated voltage	250V AC				
Maximum switching voltage	400V AC				
Maximum load current	6A				
Maximum operate time	12 ms				
Maximum release time	5 ms				
RELAY DATA					
Relay	V23092-A1024-A301				
Relay type	Slim Electromechanical Relay				
Make	Tyco-Schrack				
GENERAL DATA					
Housing color	Black				
Module height (H)	65 mm				
Module depth (D)	126 mm				
Operating temperature	0°C to 60°C				
Storage temperature	-10°C to 80°C				
Indication	Green LED for input status				
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				

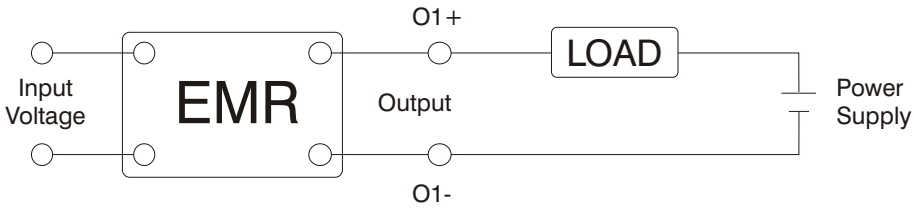
COMPACT ELECTROMECHANICAL RELAY MODULE

MODEL	Article No.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1S-C(S-108)	01 17 02964	08	81 mm	01
TT-IMRB-08012D1S-C(S-108)	01 17 03664	08	81 mm	01
TT-IMRB-04024D1S-C(S-108)	01 17 02965	04	43 mm	01
TT-IMRB-04012D1S-C(S-108)	01 17 03663	04	43 mm	01

Layout of TT-IMRB-08024D1S-C(S-108)



Compact EMR Module



RELAY MODULE - ELECTROMECHANICAL TYPE

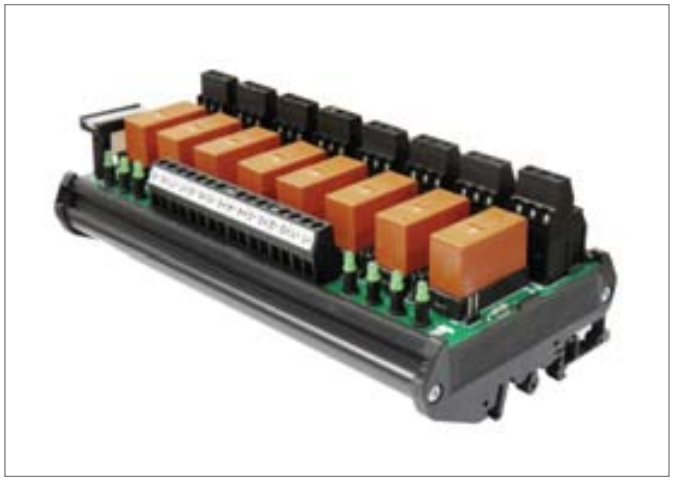
CUSTOMISED MODULES

TT-IMRB-08024D1S-C(Sealed)

- 8 channel electromechanical relay module.
- With 1 change over G2R-14 sealed relays.
- Input voltage 24V DC.
- Max. switching current 10A.
- Relay pluggable on socket.

TT-IMRB-080230A1S-IDEC

- 8 channel electromechanical relay module.
- With 1 change over IDEC make RJ1V relays.
- Input voltage 230V AC.
- Max. switching current 12A.
- Relay pluggable on socket.



TT-IMRB-08024D2S-C(RT)

- 8 channel electromechanical relay module.
- With 2 change over Tyco make sealed relays.
- Input voltage 24V DC.
- Max. switching current 8A.
- Relay pluggable on socket.

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.

CUSTOMISED MODULES

TT-IMRB-02024D4S-C(RU)

- 2 channel electromechanical relay module.
- With 4 change over IDEC make RU4S relays.
- Input voltage 24V DC.
- Max. switching current 6A.
- Relay pluggable on socket.

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

- 8 channel electromechanical relay module.
- With 1 change over having fuse protection at input side.
- Input voltage 230V AC.
- Max. switching current 10A.
- Relay pluggable on socket.

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

- 16 channel electromechanical relay module.
- With 1 change over having fuse & fuse fail indication at input (coil) side.
- Input voltage 24V DC.
- Max. switching current 10A.
- Relay pluggable on socket.

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

- 16 channel electromechanical relay module.
- With 1 change over having fuse & fuse fail indication at input (coil) side.
- Input voltage 230V AC.
- Max. switching current 10A.
- Relay pluggable on socket.

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Section

Relay Module - Solid State Type 28-41

- Input Voltage 24V DC, Output Voltage 24V DC with Green LED at Input.....28-29
- Input Voltage 24V DC, Output Voltage 24V DC with Fuse & Fuse Fail Indication at Output..... 30-31
- Input Voltage 24V DC, Output Voltage 24V DC with Fuse & Fuse Fail Indication at Output with SSR pluggable..... 32-33
- Input Voltage 24V DC, Output Voltage 240V AC with Green LED at Input..... 34-35
- Input Voltage 24V DC, Output Voltage 240V AC with Fuse & Fuse Fail Indication at Output..... 36-37
- Compact Solid State Relay Module with SSR pluggable..... 38-39
- Customised Modules.....40-41

RELAY MODULE - SOLID STATE TYPE

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

Main Features

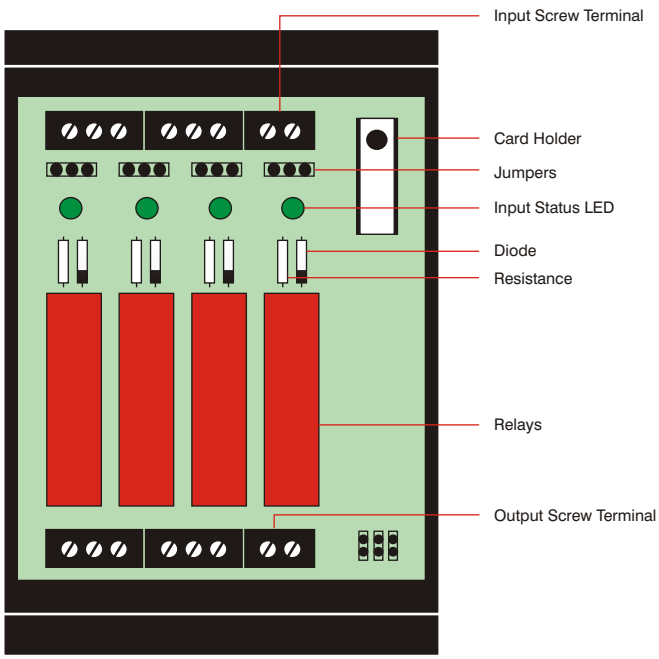
- SSR relay module with solid state relays.
- Relays directly soldered.
- 8/4 channels.
- Input voltage 24V DC.
- Output voltage 24V DC.
- Green LED for input status.
- Jumpers are provided for selection between positive/ negative looping.
- Free wheeling diodes are provided for polarity protection.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

TECHNICAL SPECIFICATION	
INPUT DATA	
Nominal input voltage	24V DC
Maximum input current	15 mAdc
Maximum turn-on time	50 μs
Nominal turn-on time	10 μs
Maximum turn-off time	100 μs
Nominal input resistance	2.2 KΩ
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 terminal 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

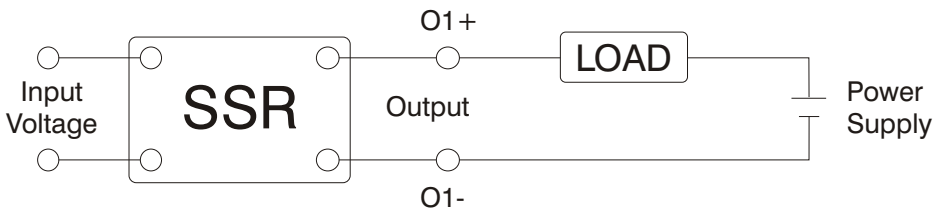
INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 24V DC WITH GREEN LED AT INPUT

MODEL	Article no.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1-SSR(II)	01 17 02904	08	105 mm	01
TT-IMRB-04024D1-SSR(II)	01 17 02903	04	55 mm	01

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



Connection Diagram of TT-IMRB-04024D1-SSR(II)



RELAY MODULE - SOLID STATE TYPE

INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 24V DC WITH FUSE & FUSE FAIL INDICATION AT OUTPUT

Main Features

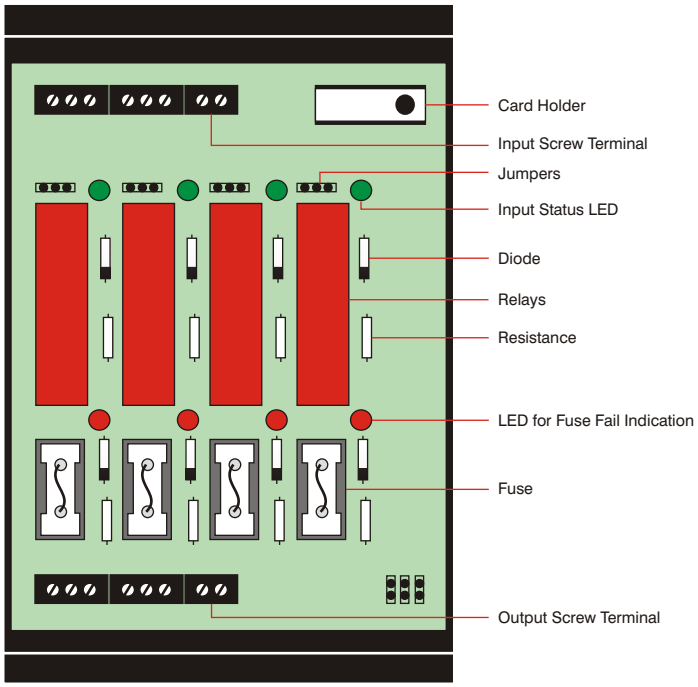
- SSR relay module with solid state relays.
- Relays directly soldered.
- 8/4 channels.
- Input voltage 24V DC.
- Output Voltage 24V DC.
- Rated load current 3A.
- Fuse protection at output.
- Green LED for input status and Red LED for fuse fail indication.
- Jumpers are provided for selection between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

TECHNICAL SPECIFICATION	
INPUT DATA	
Nominal input voltage	24V DC
Maximum input current	15 mAdc
Maximum turn-on time	50 μs
Nominal turn-on time	10 μs
Maximum turn-off time	100 μs
Nominal input resistance	2.2 KΩ
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
Protection at output	Fuse of 2A
Bussing	Jumpers are provided for selection between positive/negative looping
Indication	Green LED for Input Status and Red LED for Fuse Fail Indication
CONNECTION DATA	
Type of connection	Screw connection (PCB terminal 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

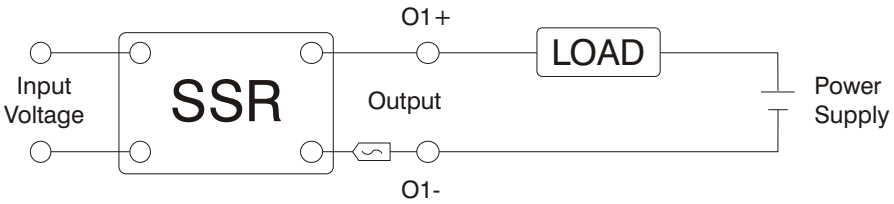
INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 24V DC WITH FUSE & FUSE FAIL INDICATION AT OUTPUT

MODEL	Article no.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1-SSR(FFI)	01 17 02906	08	154 mm	01
TT-IMRB-08024D1-SSR(FFI-VF)	01 17 02967	08	142 mm	01
TT-IMRB-04024D1-SSR(FFI)	01 17 02905	04	72 mm	01
TT-IMRB-04024D1-SSR(FFI-VF)	01 17 02968	04	72 mm	01

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



Connection Diagram of TT-IMRB-04024D1-SSR(FFI)



RELAY MODULE - SOLID STATE TYPE

FUSE AND FUSE BLOWN INDICATION AT OUTPUT WITH RELAYS PLUGGABLE

Main Features

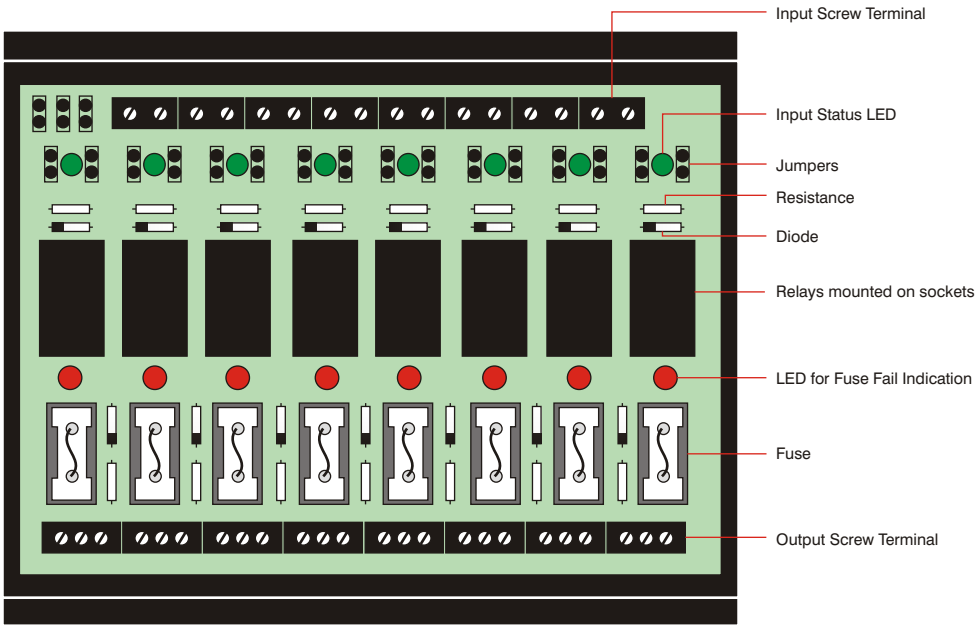
- Relays mounted on sockets (Relay-pluggable).
- Foot prints same as single changeover electromechanical type PCB relays.
- SSR have standard pitch spacing of 3.5 mm.
- No. of channels: 8 & 4.
- Input voltage: 24V DC.
- Output voltage: options available for both 24V DC & 230V AC.
- Fuse protection is provided at output.
- Green LED for input status and red LED for fuse fail indication.
- Freewheeling diodes are provided at input of each channel for polarity protection.
- Jumpers are provided for selection of positive looping/negative looping.
- Mounting DIN 35 carrier rail.

TECHNICAL SPECIFICATION		
INPUT DATA	**SSR 20**	**SSR 21**
Nominal input voltage	24V DC	24V DC
Maximum input current	13mA	13mA
Maximum turn-on time	50 μs	Maximum closing delay for zero crossing commutation-1/2 Cycle
Maximum turn-off time	250 μs	Maximum opening delay for zero crossing commutation-1/2 Cycle
Isolation Voltage	2500V	2500V
OUTPUT DATA		
Nominal operating voltage	24V DC	240V AC
Maximum output current	5A	3A
Contact Resistance	30 mΩ max	50 mΩ max
Output type	MOSFET	TRIAC
GENERAL DATA		
Relay	SSR20/SSR21, Italy make	
Module height (H)	60 mm	
Module depth (D)	126 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, Red LED for fuse fail indication	
Fuses	In common path of each contact of each relay	
Rating	2A (default, to be replaced with suitable fuse as per need	
Looping on coil side	Common, remove all jumpers to make relays independent	
CONNECTION DATA		
Type of connection	Screw connection (PCB terminal block)	
Make	Phoenix Contact	
Nominal current	24A for single level & 22A for double level	
Rated voltage	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	

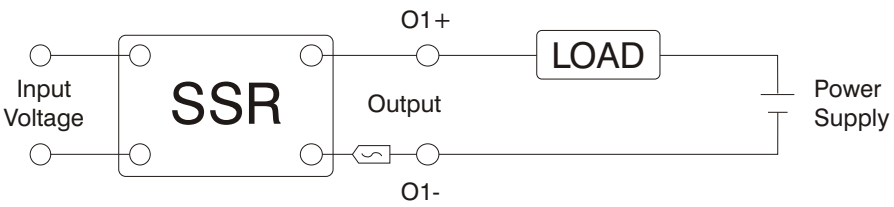
FUSE AND FUSE BLOWN INDICATION AT OUTPUT WITH RELAYS PLUGGABLE

MODEL	Article no.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1S-CSSRFFI(EL-5A)	01 17 03969	08	138 mm	01
TT-IMRB-08024D1S-C240ASSRFFI(EL-3A)	01 17 03980	08	138 mm	01
TT-IMRB-04024D1S-CSSRFFI(EL-5A)	01 17 03898	04	73 mm	01
TT-IMRB-04024D1S-C240ASSRFFI(EL-3A)	01 17 03979	04	73 mm	01

Layout of TT-IMRB-08024D1S-CSSRFFI(EL-5A)



Connection Diagram of TT-IMRB-08024D1S-CSSRFFI(EL-5A)



RELAY MODULE - SOLID STATE TYPE

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

Main Features

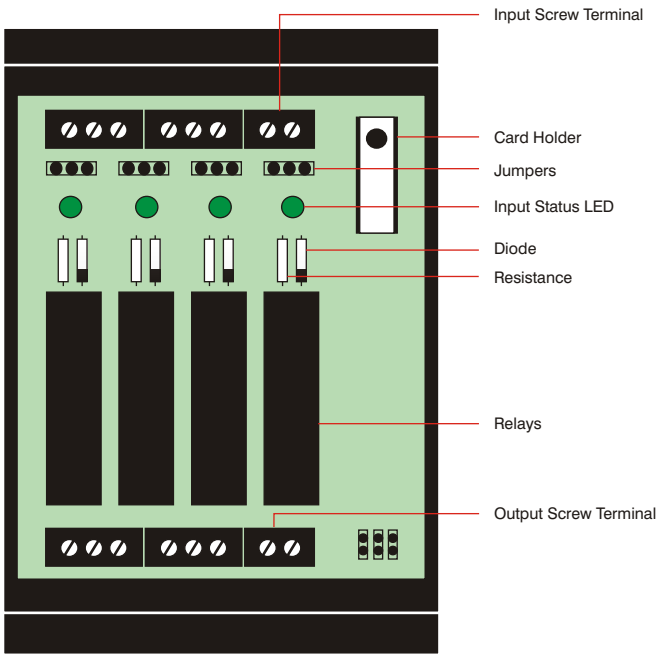
- SSR relay module with solid state relays.
- Relays directly soldered.
- 8/4 channels.
- Input voltage 24V DC and output voltage 240V AC.
- Jumpers are provided for selection between positive/ negative looping.
- Green LED for input status.
- Free wheeling diodes are provided for polarity protection.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

TECHNICAL SPECIFICATION	
INPUT DATA	
Nominal input voltage	24V 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 terminal 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

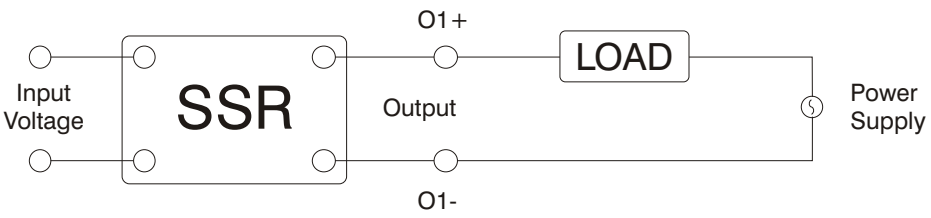
INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 240V AC WITH GREEN LED AT INPUT

MODEL	Article no.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1-240A(SSR-II)	01 17 02983	08	105 mm	01
TT-IMRB-04024D1-240A(SSR-II)	01 17 02982	04	55 mm	01

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



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



RELAY MODULE - SOLID STATE TYPE

INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 240V AC WITH FUSE & FUSE FAIL INDICATION AT OUTPUT

Main Features

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

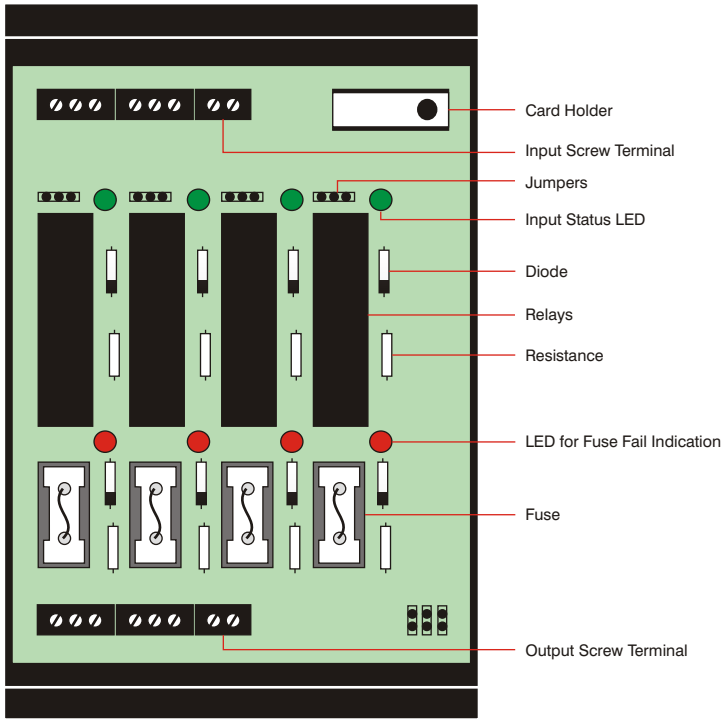
TECHNICAL SPECIFICATION	
INPUT DATA	
Nominal input voltage	24V DC
Maximum input current	13 mAdc
Maximum turn-on time	8.33 ms
Maximum turn-off time	8.33 ms
Nominal input resistance	2000 Ω
OUTPUT DATA	
Nominal operating voltage	240V AC
Operating voltage range	24-280V AC
Maximum load current	3A
RELAY DATA	
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
Protection	Fuse of 2A
Indication	Green LED for input status & red LED for fuse fail indication
CONNECTION DATA	
Type of connection	Screw connection (PCB terminal 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

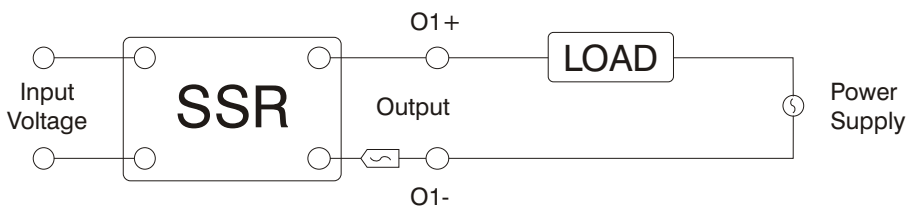
INPUT VOLTAGE 24V DC, OUTPUT VOLTAGE 240V AC WITH FUSE & FUSE FAIL INDICATION AT OUTPUT

MODEL	Article no.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1-240A(SSR-FFI)	-	08	-	01
TT-IMRB-04024D1-240A(SSR-FFI)	01 17 03978	04	72 mm	01

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



Connection Diagram of TT-IMRB-04024D1-240A(SSR-FFI)



RELAY MODULE - SOLID STATE TYPE

COMPACT SOLID STATE RELAY MODULE WITH RELAYS PLUGGABLE

Main Features

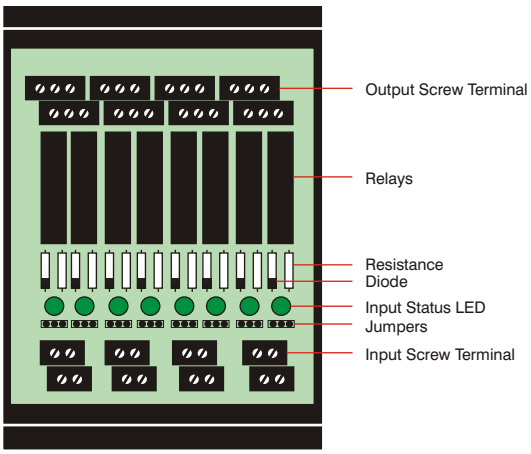
- SSR compact relay module with slim solid state relays.
- With base (Relay-pluggable).
- 8/4 channels.
- Input voltage 24V DC.
- Output voltage 24V DC.
- Rated load current 3.5A.
- Jumpers are provided for selection between positive looping/negative looping.
- Mounting DIN 35 carrier rail.

TECHNICAL SPECIFICATION	
INPUT DATA	
Control voltage range	15-30V DC
Typical turn-on time	350 μs
Typical turn-off time	80 μs
Nominal input impedance	2.76K Ω
OUTPUT DATA	
Operating voltage	0-24V DC
Maximum load current	3.5A
RELAY DATA	
Relay	CN024D24
Relay type	Slim SSR
Make	Crydom
Dielectric strength, input / output	2.5 KV
Maximum capacitance, input / output	1.5 pF
GENERAL DATA	
Housing color	Black
Module height (H)	65 mm
Module depth (D)	126 mm
Operating temperature	0°C to 60°C
Storage temperature	-10°C to 80°C
Indication	Green LED for input status
Bussing	Common, remove all jumpers to make relay independent
CONNECTION DATA	
Type of connection	Screw connection (PCB terminal 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

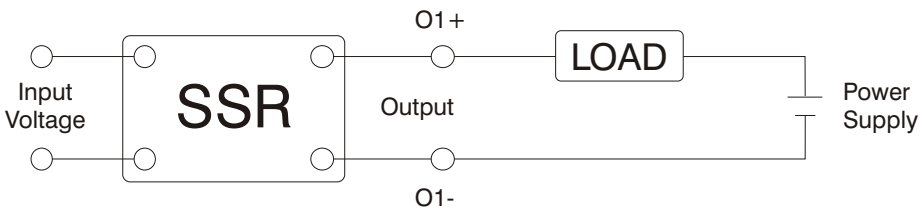
COMPACT SOLID STATE RELAY MODULE WITH RELAYS PLUGGABLE

MODEL	Article no.	No. of relay	Module length	Pcs./Pkt.
TT-IMRB-08024D1S-C(S-SSR)	01 17 02959	08	82 mm	01
TT-IMRB-04024D1S-C(S-SSR)	01 17 02953	04	43 mm	01

Layout of TT-IMRB-08024D1S-C(S-SSR)



Connection Diagram of TT-IMRB-08024D1S-C(S-SSR)



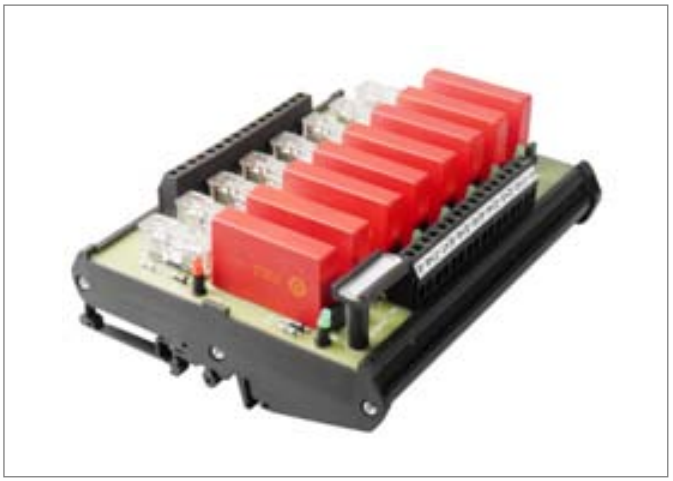
CUSTOMISED MODULES

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.

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

- 4 channel SSR module.
- Input voltage 24V DC.
- Output voltage 24V DC.
- Max. load current 5A.
- With vertical fuse & fuse fail indication at output.
- Relays pluggable on same socket of G2R relays.



TT-IMRB-08024D1-SSR(FFI)

- 8 channel SSR module.
- Input voltage 24V DC.
- Output voltage 24V DC.
- Max. load current 3A.
- With fuse & fuse fail indication at output.
- Relays directly soldered.

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.

3
Section

Passive Module & Accessory Module 44-57

Passive Module **44-51**
- Passive Module with FRC Connector..... 44-45
- Passive Module with D-Sub Connector..... 46-47
- Passive Module with ELCO Connector..... 48-49
- Passive Module with RJ45 Connector..... 50-51

Accessory Module **52-57**
- Utility Module..... 52-53
- Potential Distribution Module..... 54-55
- Diode O-ring Module..... 56-57

PASSIVE MODULE

PASSIVE MODULE WITH FRC CONNECTOR

Main Features

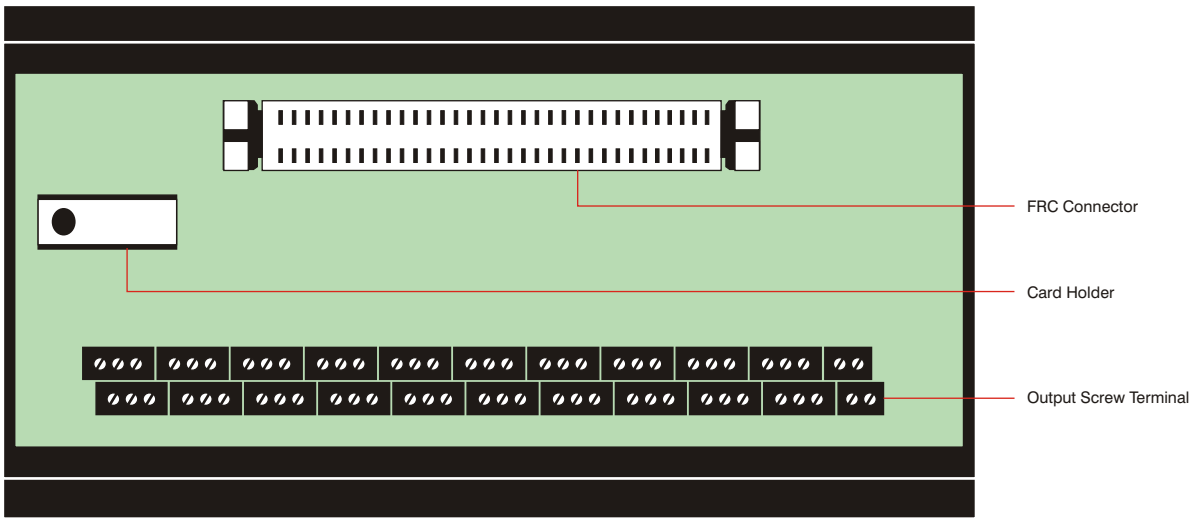
- Passive module having screw terminal connectors at one end and flat ribbon connector at other end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.

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	24A and 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
Connection 2	Flat ribbon connection
Make	FCI, Omron, Essen Deinki or equivalent

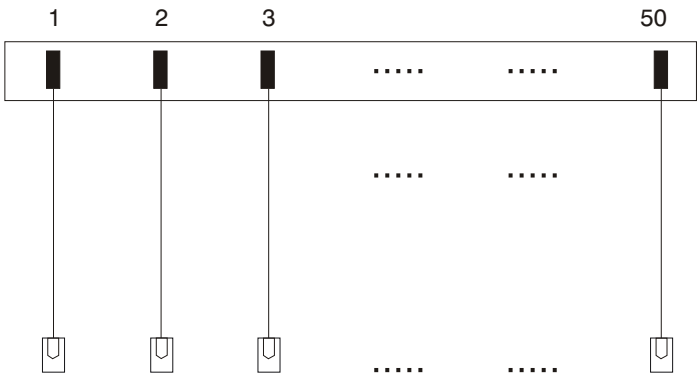
MODEL	Article No.	No. of poles	Module length	Pcs./Pkt.
TT-IMPB-F10	-	10	-	01
TT-IMPB-F14	01 17 03008	14	43 mm	01
TT-IMPB-F16	-	16	-	01
TT-IMPB-F20	01 17 02960	20	59 mm	01
TT-IMPB-F26	01 17 03556	26	76 mm	01
TT-IMPB-F34	01 17 00948	34	112 mm	01
TT-IMPB-F40	01 17 00947	40	110 mm	01
TT-IMPB-F50	01 17 00946	50	136 mm	01
TT-IMPB-F60	-	60	-	01
TT-IMPB-F64	-	64	-	01

PASSIVE MODULE WITH FRC CONNECTOR

Layout of TT-IMPB-F50



Connection Diagram of TT-IMPB-F50



PASSIVE MODULE

PASSIVE MODULE WITH D-SUB CONNECTOR

Main Features

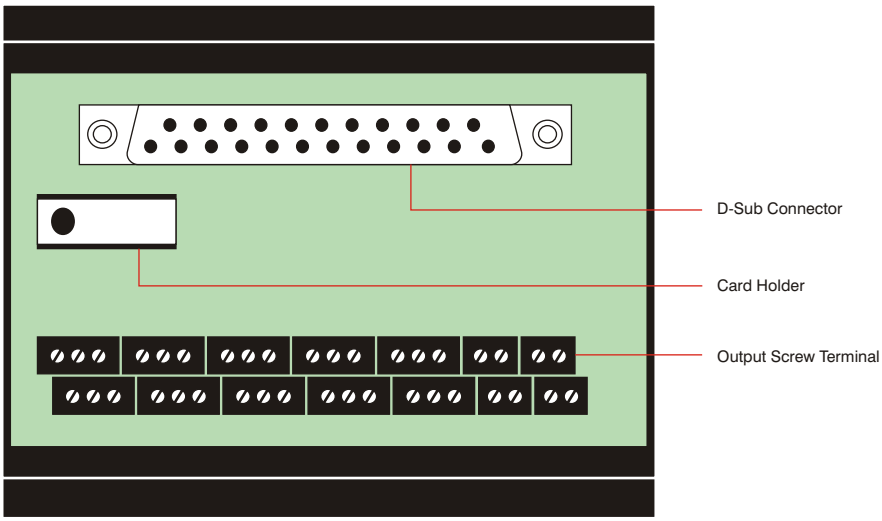
- Passive module having screw terminals connectors at one end and D-Sub male/female connector at other end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.

TECHNICAL SPECIFICATION	
INPUT DATA	
Input voltage	125V 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	24A and 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
Connection 2	D-Sub connector
Make	FCI, Omron, Essen Deinki or equivalent

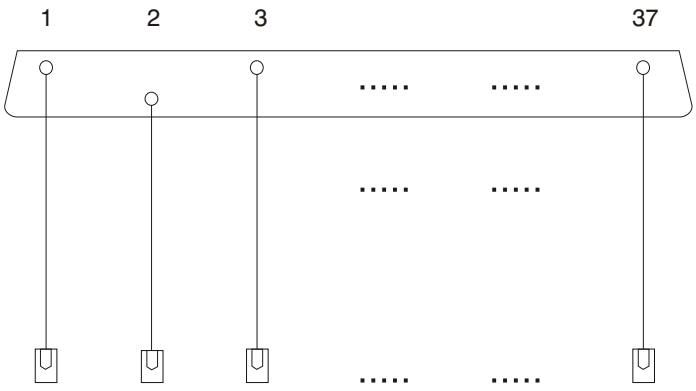
MODEL	Article No.	No. of poles	Module length	Pcs./Pkt.
TT-IMPB-D9F	01 17 03094	09	36 mm	01
TT-IMPB-D9M	01 17 03093	09	36 mm	01
TT-IMPB-D15F	01 17 03095	15	48 mm	01
TT-IMPB-D15M	01 17 03013	15	48 mm	01
TT-IMPB-D25F	01 17 00950	25	73 mm	01
TT-IMPB-D25M	01 17 00949	25	73 mm	01
TT-IMPB-D37F	01 17 00952	37	105 mm	01
TT-IMPB-D37M	01 17 00951	37	105 mm	01
TT-IMPB-D50F	01 17 03012	50	136 mm	01
TT-IMPB-D50M	01 17 03096	50	136 mm	01

PASSIVE MODULE WITH D-SUB CONNECTOR

Layout of TT-IMPB-D37F



Connection Diagram of TT-IMPB-D37F



PASSIVE MODULE

PASSIVE MODULE WITH ELCO CONNECTOR

Main Features

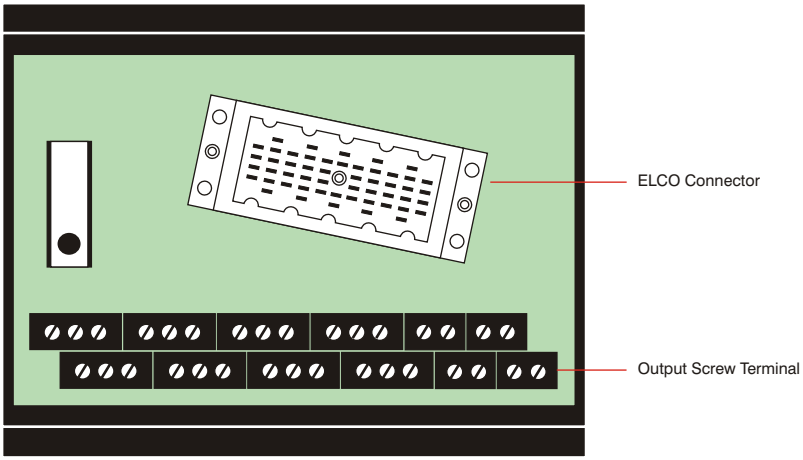
- Passive module having screw terminal connectors at one end and 38/58 pin male connector at other end.
- Input & output are electrically connected with each other in 1:1 connection.
- Mounting DIN 35 carrier rail.

TECHNICAL SPECIFICATION	
INPUT DATA	
Input Voltage	125V 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	24A and 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
Connection 2	High density connector, 20/38/56 pin male type
Make	EDAC or equivalent

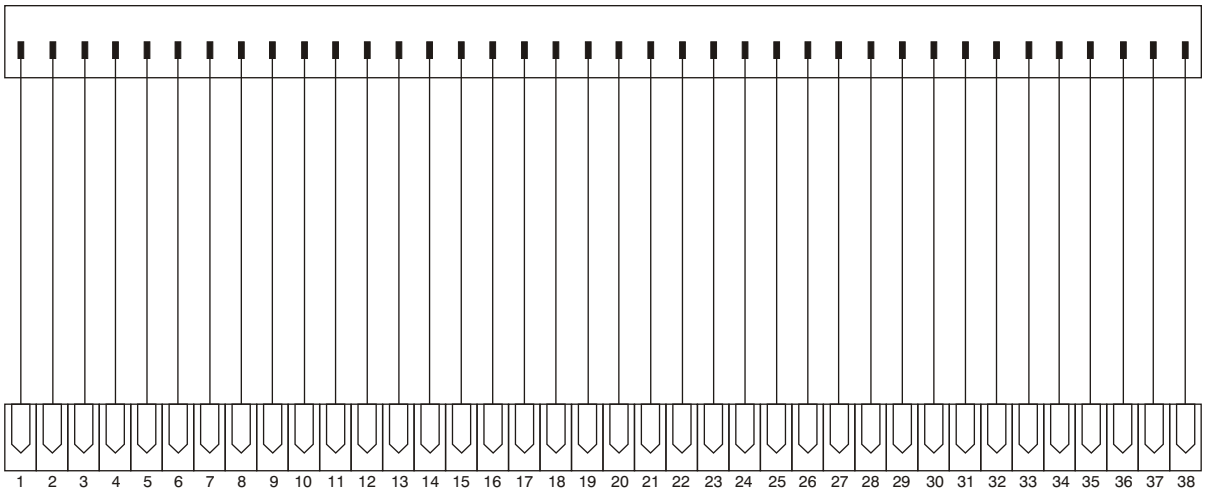
MODEL	Article No.	No. of poles	Module length	Pcs./Pkt.
TT-IMPB-ELCO20(L)	-	20	-	01
TT-IMPB-ELCO20(R)	01 17 03087	20	64 mm	01
TT-IMPB-ELCO38(L)	-	38	-	01
TT-IMPB-ELCO38(R)	01 17 02975	38	105 mm	01
TT-IMPB-ELCO56(L)	-	56	-	01
TT-IMPB-ELCO56(R)	01 17 03092	56	151 mm	01

PASSIVE MODULE WITH ELCO CONNECTOR

Layout of TT-IMPB-ELCO38(R)



Connection Diagram of TT-IMPB-ELCO38(R)



PASSIVE MODULE

PASSIVE MODULE WITH RJ45 CONNECTOR

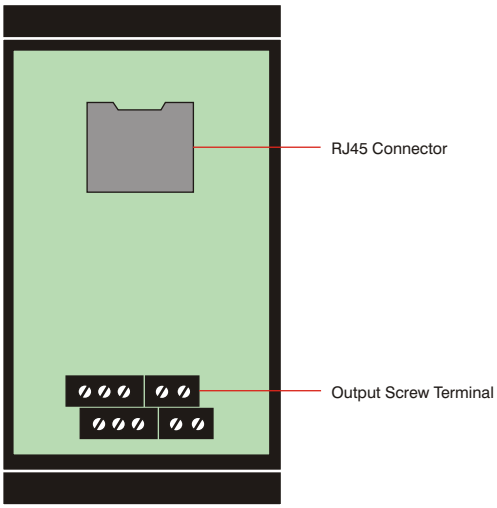
Main Features

- 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.

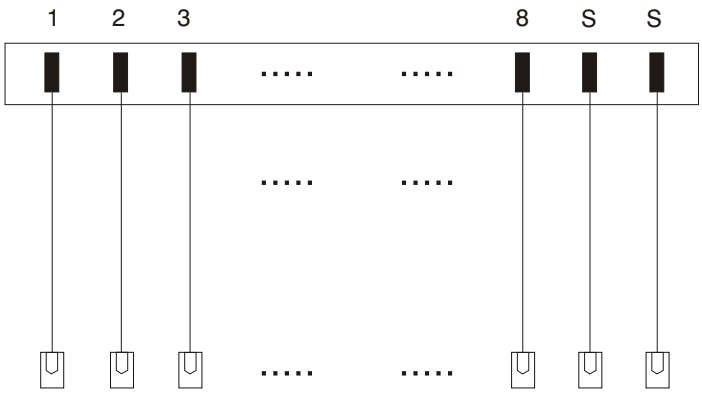
TECHNICAL SPECIFICATION				
INPUT DATA				
Input Voltage	125V AC RMS			
Max. Current carrying capacity	1.5A (Per pole)			
GENERAL DATA				
Module height (H)	66 mm			
Module depth (D)	90 mm			
Color	Black			
Operating temperature	0°C to 50°C			
Storage temperature	-10°C to 60°C			
Relative humidity	5 to 95% RH			
CONNECTION DATA				
Connection 1	PCB terminal block			
Type of connection	Screw connection			
Make	Phoenix Contact			
Specification, current & voltage	24A and 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			
Connection 2	RJ45 connector			
Make	EDAC or equivalent			
MODEL	**Article No.**	**No. of poles**	**Module length**	**Pcs./Pkt.**
TT-IMPB-RJ45(V)	-	08	-	01
TT-IMPB-RJ45(H)	01 17 02976	08	35 mm	01

PASSIVE MODULE WITH RJ45 CONNECTOR

Layout of TT-IMPB-RJ45(H)



Connection Diagram of TT-IMPB-RJ45(H)



ACCESSORY MODULE

UTILITY MODULE

Main Features

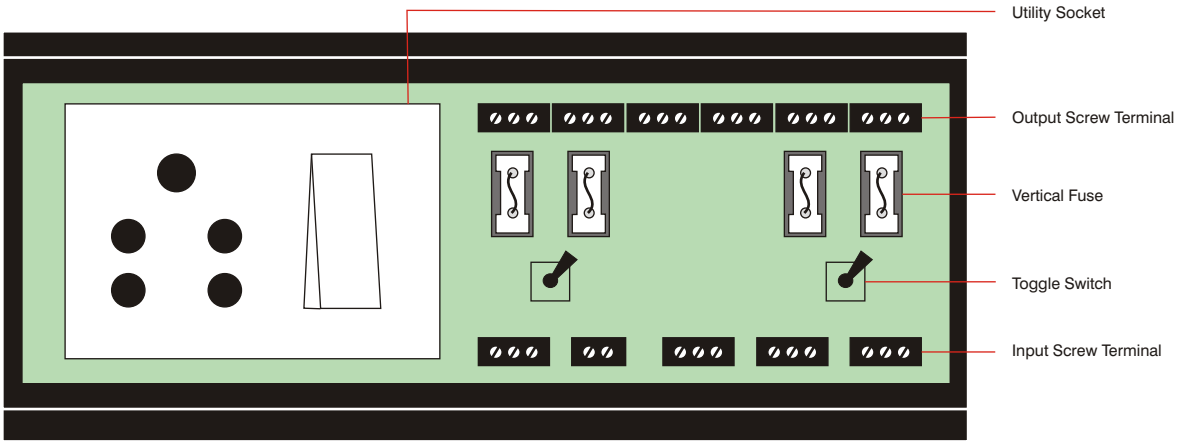
- Utility module is used as a junction box for panel lighting and fan load in control panels.
- It has on board 5-Amp utility socket with switch, which can be used for tapping 230V AC by simply plugging any 5 Amp power plug.
- By default some points are for 230V AC and others are for 110V AC but with 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 terminal block)
Output - 1	Screw connection (PCB terminal block)
Make	Phoenix Contact
Nominal current	24A
Rated voltage	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
Output - 2	Utility socket, current rating 5 Amp

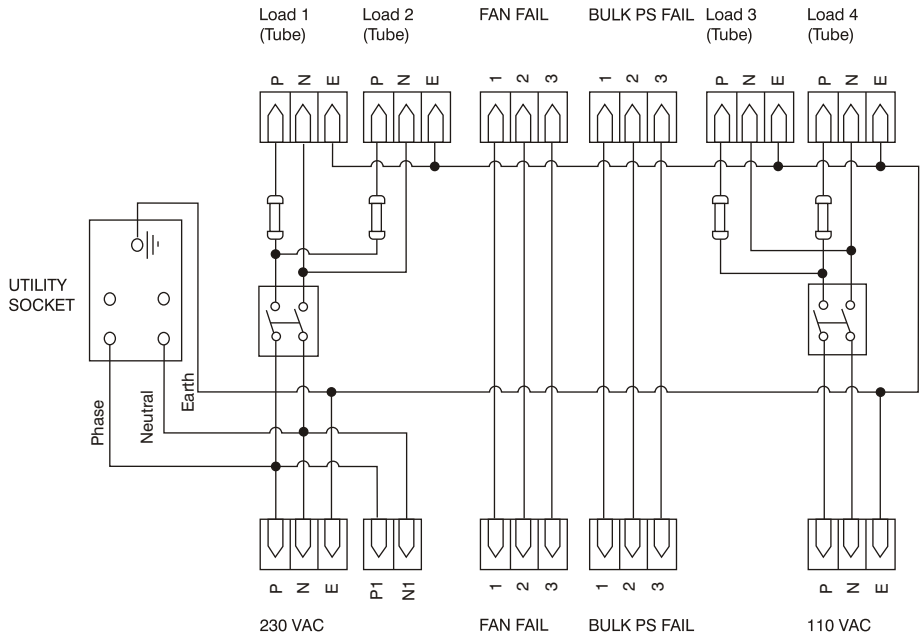
MODEL	Article No.	Module length	Pcs./Pkt.
TT-IMPB-UTILITY	01 17 02974	187 mm	01

UTILITY MODULE

Layout of TT-IMPB-UTILITY



Connection Diagram of TT-IMPB-UTILITY



ACCESSORY MODULE

POWER DISTRIBUTION MODULE

Main Features

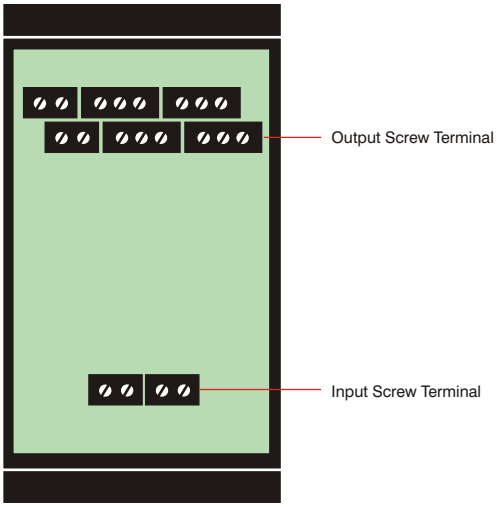
- Power distribution modules are used for distributing power to multiple field devices.
- Installation time is significantly reduced because we have eliminated the need for external bridges or daisy-chain wiring.
- Simple & inexpensive to implement.
- Two separate rows of terminal blocks are internally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

TECHNICAL SPECIFICATION	
INPUT DATA	
Input voltage	250V AC/DC
Input current	20A
Connection	One power supply has to be connected between P1 & P2
OUTPUT 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

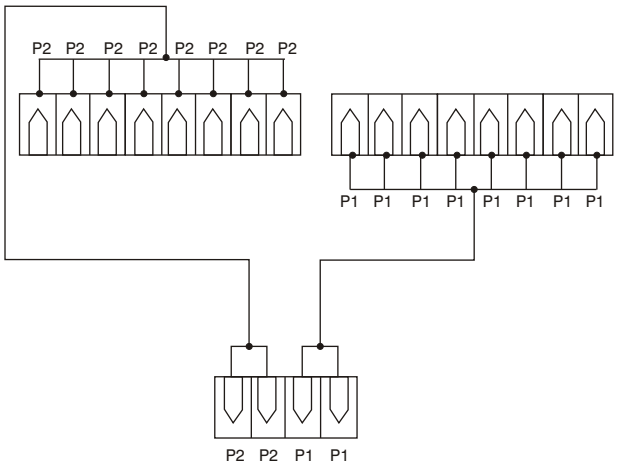
MODEL	Article No.	Module length	Pcs./Pkt.
TT-IMPB-PDM	01 17 03852	52 mm	01

POWER DISTRIBUTION MODULE

Layout of TT-IMPB-PDM



Connection Diagram of TT-IMPB-PDM



ACCESSORY MODULE

DIODE O-RING MODULE

Main Features

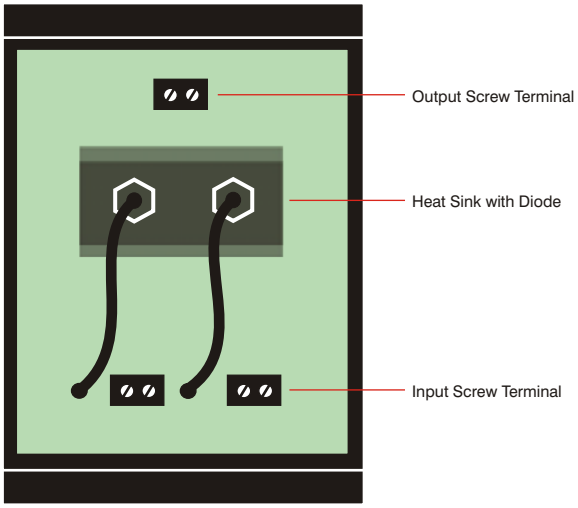
- 10A/20A diode o-ring modules are used when two SMPS are connected in parallel (Redundancy).
- 10A module is used to connect two power supplies of 5A each.
- 20A module is used to connect two power supplies of 10A each.
- Increases overall system efficiency.
- Improves system reliability.
- Simple &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

TECHNICAL SPECIFICATION		
DIODE DATA		
Part No.	**Diode 12FM 160**	**Diode 25FM 160**
Make	Ruttonsha	Ruttonsha
IFAV	12A	25A
IFSM for 10 sec	250A	356A
I^2t	312A^2sec	636 A^2sec
VRRM	1600V	1600V
R.M.S. working voltage	640V	640V
Max. avg. reverse leakage current	1mA	4mA
Diode type	Stud type with metric threading	
GENERAL DATA		
No. of channels	01	
Signal mode	Redundant	
Module height (H)	100 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 change over & 22A for 2 change over	
Rated voltage	250 V	
Conductor cross section solid	Min/Max. 0.2/4.0 mm^2	
Conductor cross section stranded	Min/Max. 0.2/2.5 mm^2	

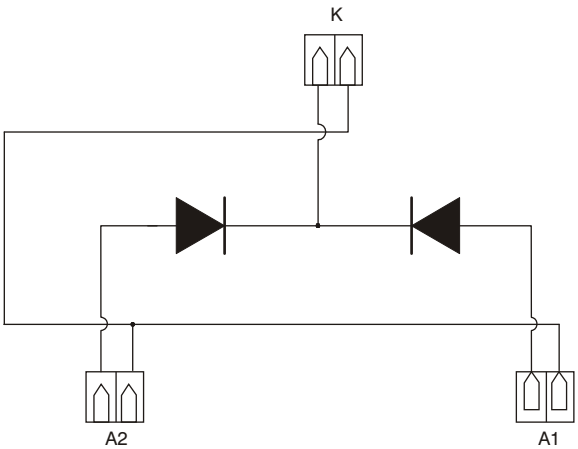
MODEL	Article No.	Module length	Pcs./Pkt.
TT-IMPB-Diode Module (10A)	01 17 03862	68 mm	01
TT-IMPB-Diode Module (20A)	-	-	01

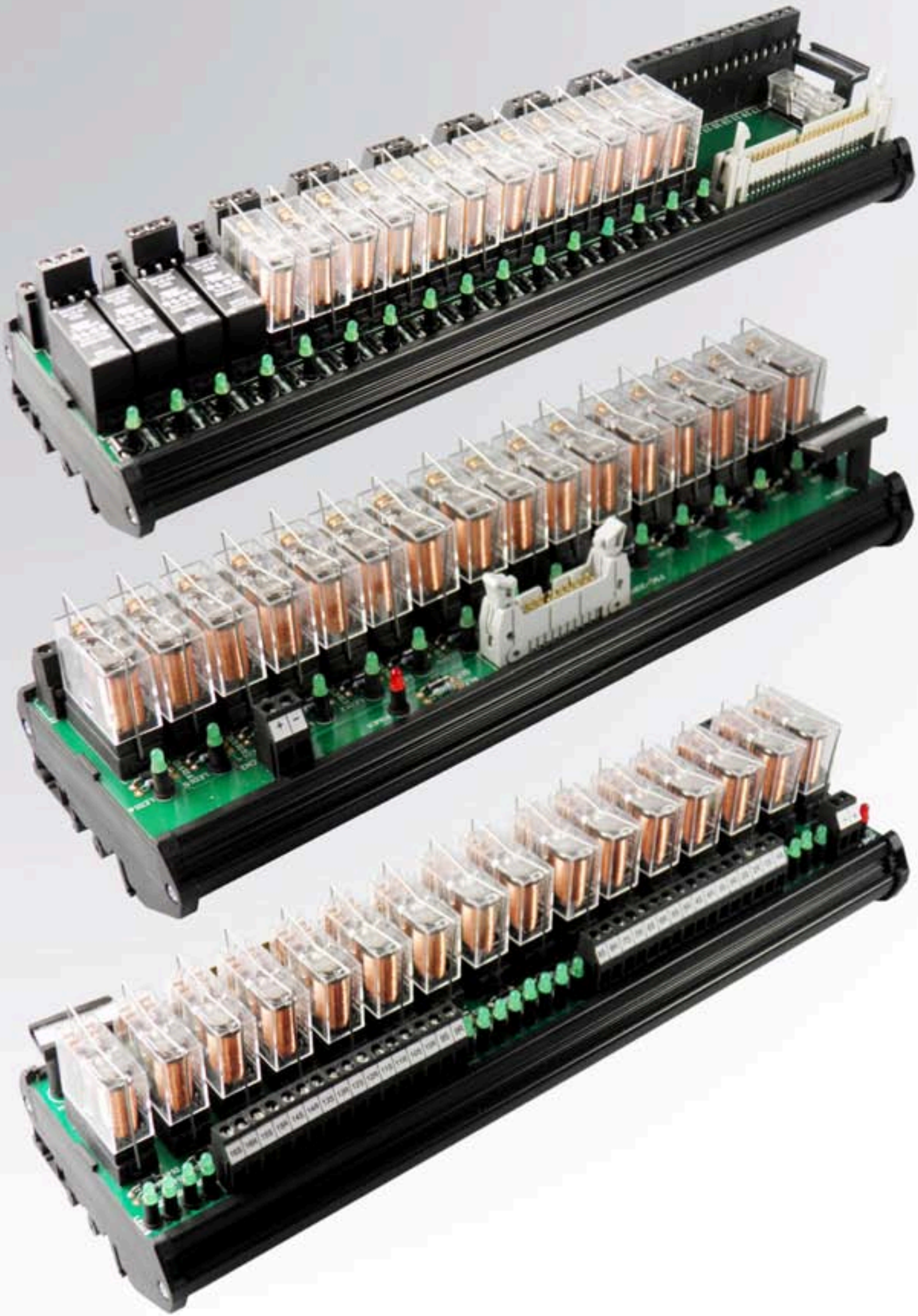
DIODE ORING MODULE

Layout of TT-IMPB-Diode Module (10A)



Connection Diagram of TT-IMPB-Diode Module (10A)





4

Section

DO/DI Module & CNC Module 60-67

DO/DI Module **60-65**
- 16 Channel Digital Output Module with FRC connector..... 60-61
- 16 Channel Digital Output Module with D-Sub connector..... 62-63
- 16 Channel Digital Input Module with D-Sub connector..... 64-65

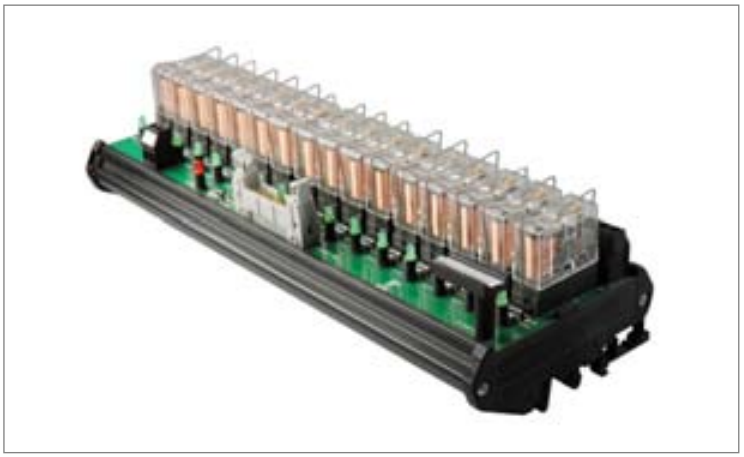
CNC Module **66-67**
- CNC Module with 24 Inputs and 16 Outputs..... 66-67

DI/DO MODULE

16 CHANNEL DIGITAL OUTPUT MODULE WITH FRC CONNECTOR

Main Features

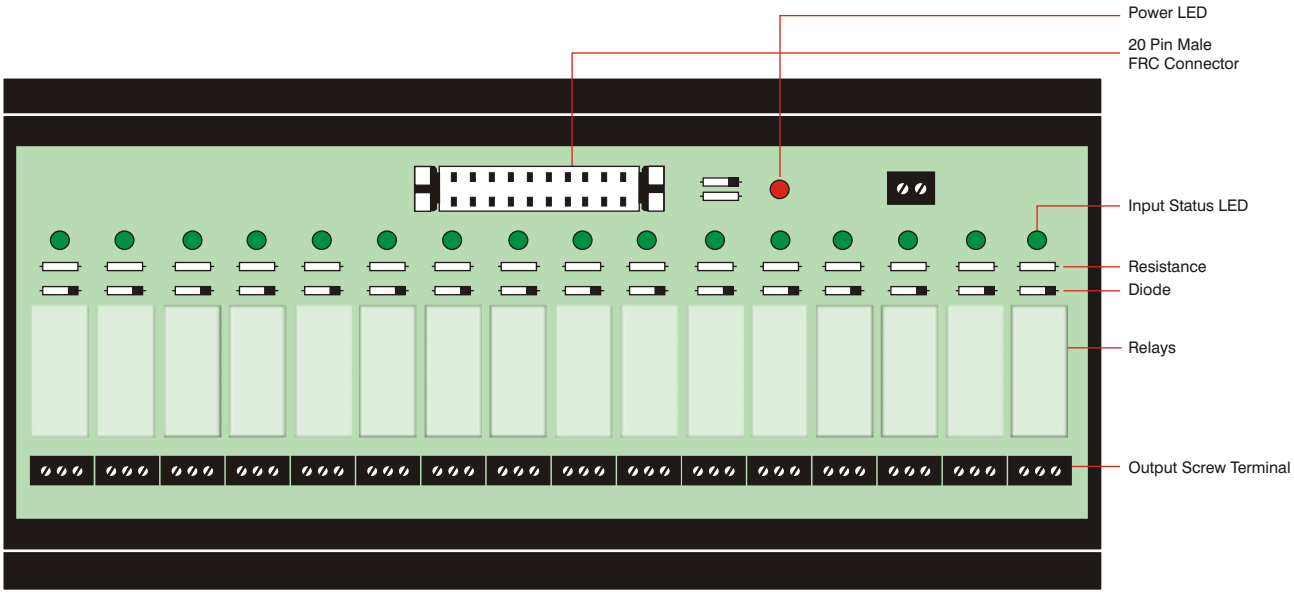
- Module with 16 interposing relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC.
- 1 change over.
- Green LED for input status.
- Freewheeling diode across relay coil for protection.
- FRC 20 connector is provided on input side.
- Mounting DIN 35 carrier rail.



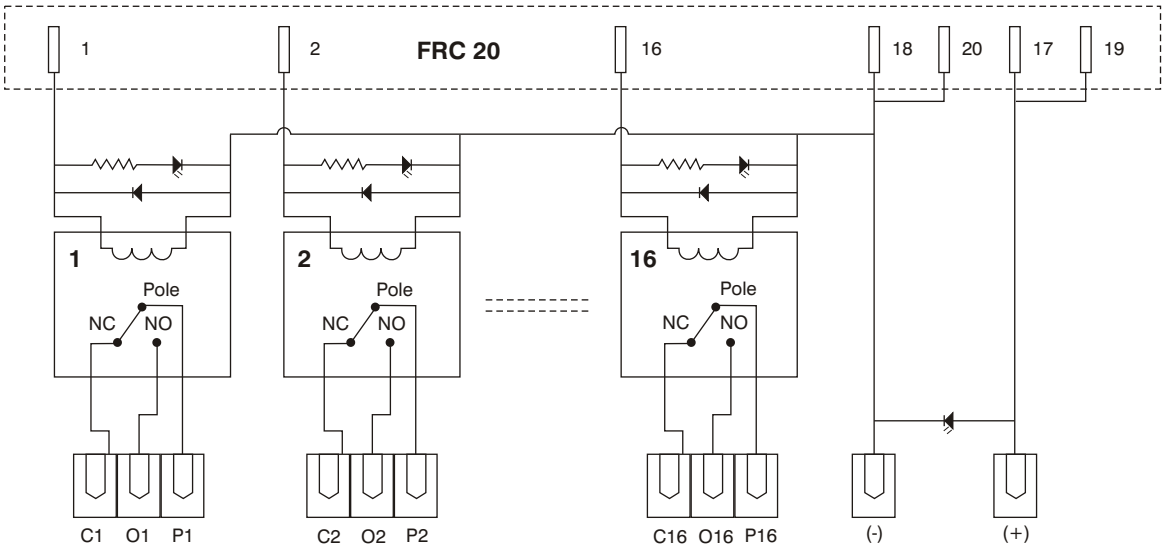
TECHNICAL SPECIFICATION					
INPUT DATA					
Input voltage	24V DC				
Input current	21.8 mA				
Coil resistance	1100 Ω				
CONTACT DATA	**1CO**				
No.of contact	1 PDT				
Rated load (Resistive)	10A, 250V AC/30V DC				
(Inductive)	5A, 30V DC/7.5A, 250V AC				
Contact resistance	30 mΩ max				
GENERAL DATA					
Relay	Omron, IDEC, Tyco 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, Red LED for fuse fail indication				
Protection	Freewheeling diode across relay coil				
CONNECTION DATA					
Input connection type	FRC connector having 20 pins male				
Make	FCI, Omron, Essen Deinki or equivalent				
Output Connection Type	Screw connection (PCB terminal block)				
Make	Phoenix Contact				
Specification	24A, 250V				
Conductor Cross Section Solid	Min/Max. 0.2/4.0 mm²				
Conductor Cross Section Stranded	Min/Max. 0.2/2.5 mm²				
MODEL	**Article No.**	**No. of relays**	**Module length**	**Pcs./Pkt.**	
TT-IMRB-16024D1S-DO(F20)	01 17 04036	16	252 mm	01	

16 CHANNEL DIGITAL OUTPUT MODULE WITH FRC CONNECTOR

Layout of TT-IMRB-16024D1S-DO(F20)



Connection Diagram of TT-IMRB-16024D1S-DO(F20)

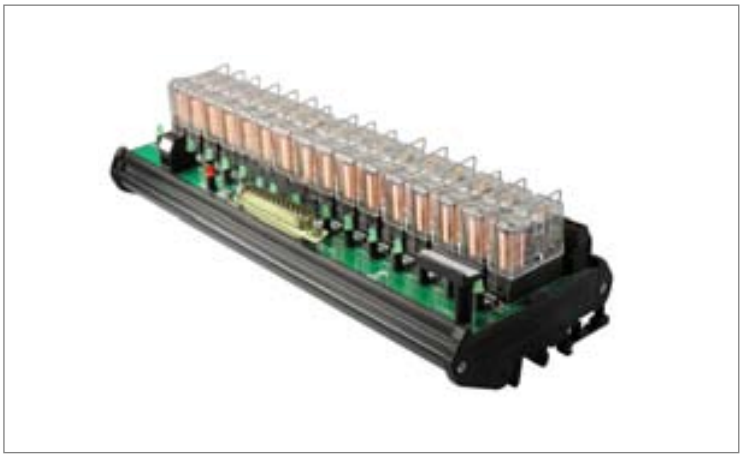


DI/DO MODULE

16 CHANNEL DIGITAL OUTPUT MODULE WITH D-SUB CONNECTOR

Main Features

- DO module with 16 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC.
- 2 change over.
- Used for interfacing PLC digital output to field devices.
- Freewheeling diode across relay coil for protection.
- Elimination of single core wiring, connection through a pre-fab plug in cable.
- Reduces the installation & commissioning time.
- Provides ease trouble-shooting & maintenance.
- Mounting DIN 35 carrier rail.

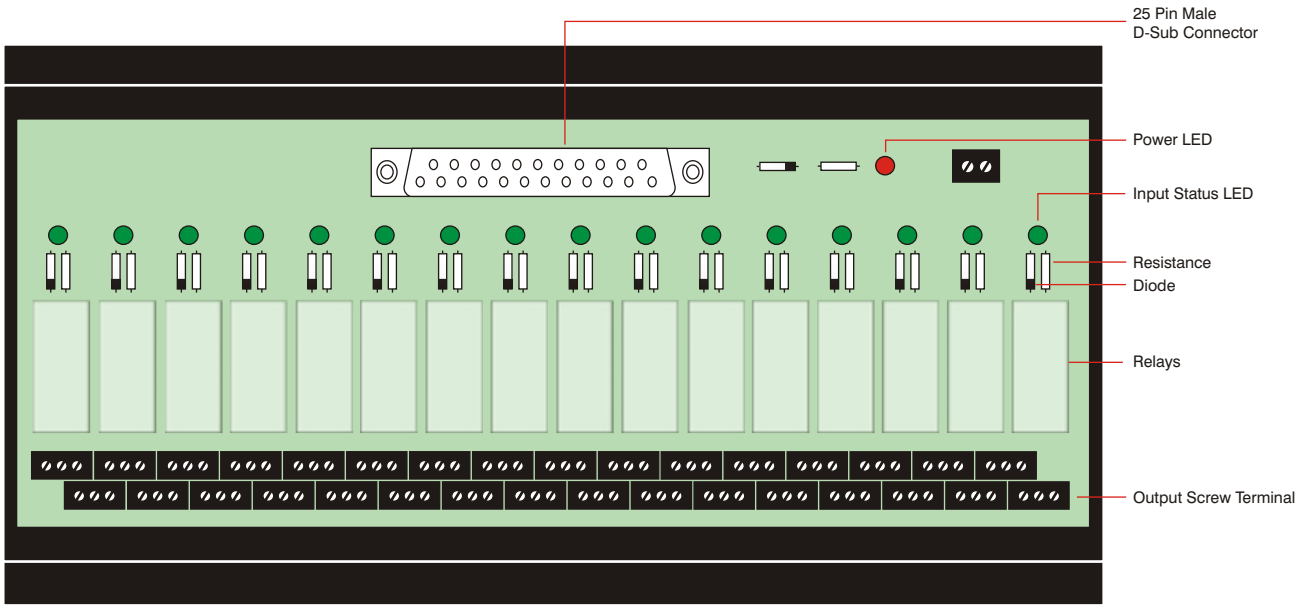


TECHNICAL SPECIFICATION	
INPUT DATA	
Input voltage	24V DC
Input current	21.8 mA
Coil resistance	1100 Ω
CONTACT DATA	**2CO**
No.of contact	2 PDT
Rated load (Resistive)	5A, 250V AC/30V DC
(Inductive)	2A, 30V DC/3A, 250V AC
Contact resistance	50 mΩ max
GENERAL DATA	
Relay	Omron, IDEC, Tyco or equivalent
Module height (H)	75 mm
Module depth (D)	126 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
Isolation	Galvanic
CONNECTION DATA	
Input connection type	D-Sub 25 pin male connector
Make	Essen, FCI, any imported
Output Connection Type	Screw connection (PCB terminal block)
Make	Phoenix Contact
Nominal current carrying capacity	22A
Rated voltage capacity	250V
Conductor cross section solid	Min/Max. 0.2/4.0 mm²
Conductor cross section stranded	Min/Max. 0.2/2.5 mm²

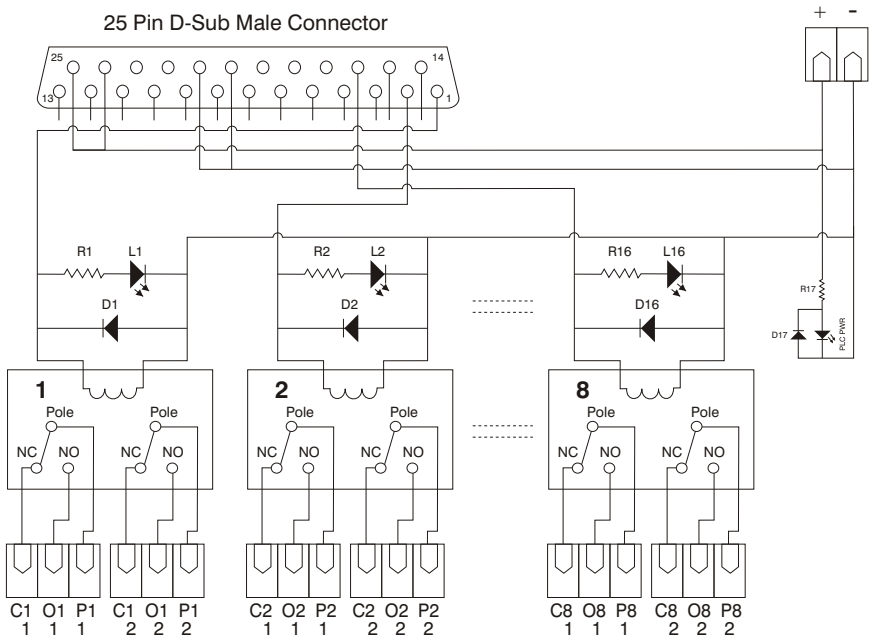
MODEL	Article No.	No. of relays	Module length	Pcs./Pkt.
TT-IMRB-16024D2S-DO(D25M)	01 17 04037	16	292 mm	01

16 CHANNEL DIGITAL OUTPUT MODULE WITH D-SUB CONNECTOR

Layout of TT-IMRB-16024D2S-DO(D25M)



Schematic of TT-IMRB-16024D2S-DO(D25M)



DI/DO MODULE

16 CHANNEL DIGITAL INPUT MODULE WITH D-SUB CONNECTOR

Main Features

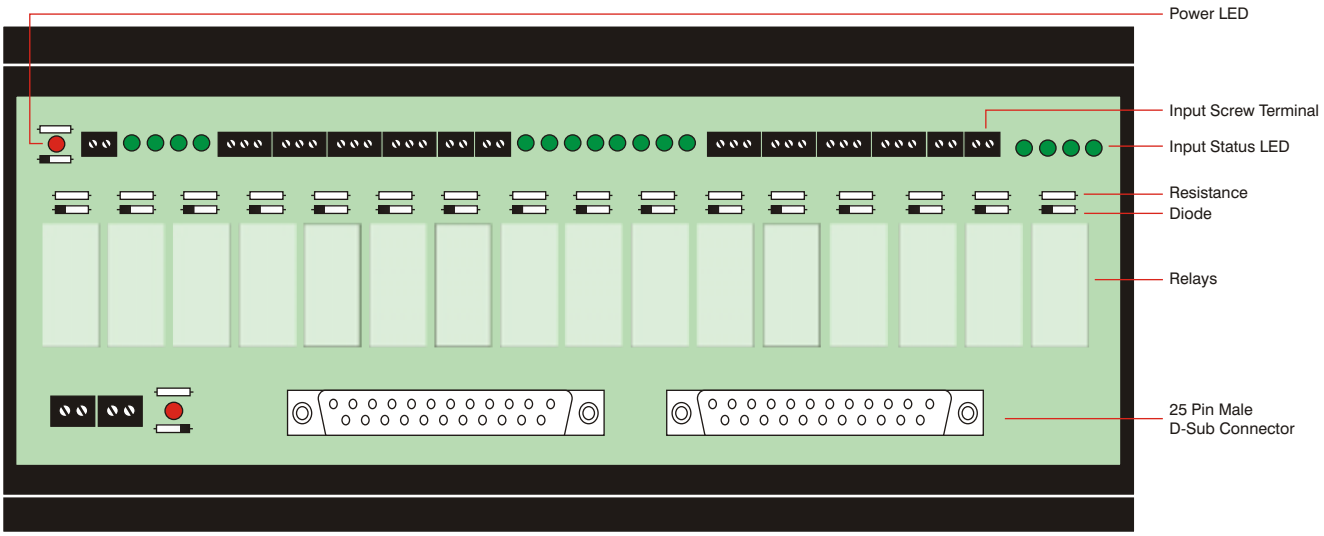
- DI module with 16 miniature relays.
- With base (Relay-pluggable).
- Coil voltage 24V DC.
- 2 change over.
- Used for interfacing PLC digital inputs to field devices.
- Freewheeling diode across relay coil for protection.
- Elimination of single core wiring, connection through a pre-fab plug in cable.
- Reduces the installation & commissioning time.
- Provides ease trouble-shooting & maintenance.
- Mounting DIN 35 carrier rail.

TECHNICAL SPECIFICATION	
INPUT DATA	
Input voltage	24V DC
Input current	21.8 mA
Coil resistance	1100 Ω
CONTACT DATA	**2CO**
No.of contact	2PDT
Rated load (Resistive)	5A, 250V AC/30V DC
(Inductive)	2A, 30V DC/3A, 250V AC
Contact resistance	50 mΩ max
GENERAL DATA	
Relay	Omron, IDEC, Tyco or equivalent
Module height (H)	75 mm
Module depth (D)	126 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
Isolation	Galvanic
CONNECTION DATA	
Output connection type	D-Sub 25 pin male connector for each individual change over
Make	Essen, FCI, any imported
Input Connection Type	Screw connection (PCB terminal block)
Make	Phoenix Contact
Nominal current carrying capacity	24A
Rated voltage capacity	250V
Conductor cross section solid	Min/Max. 0.2/4.0 mm²
Conductor cross section stranded	Min/Max. 0.2/2.5 mm²

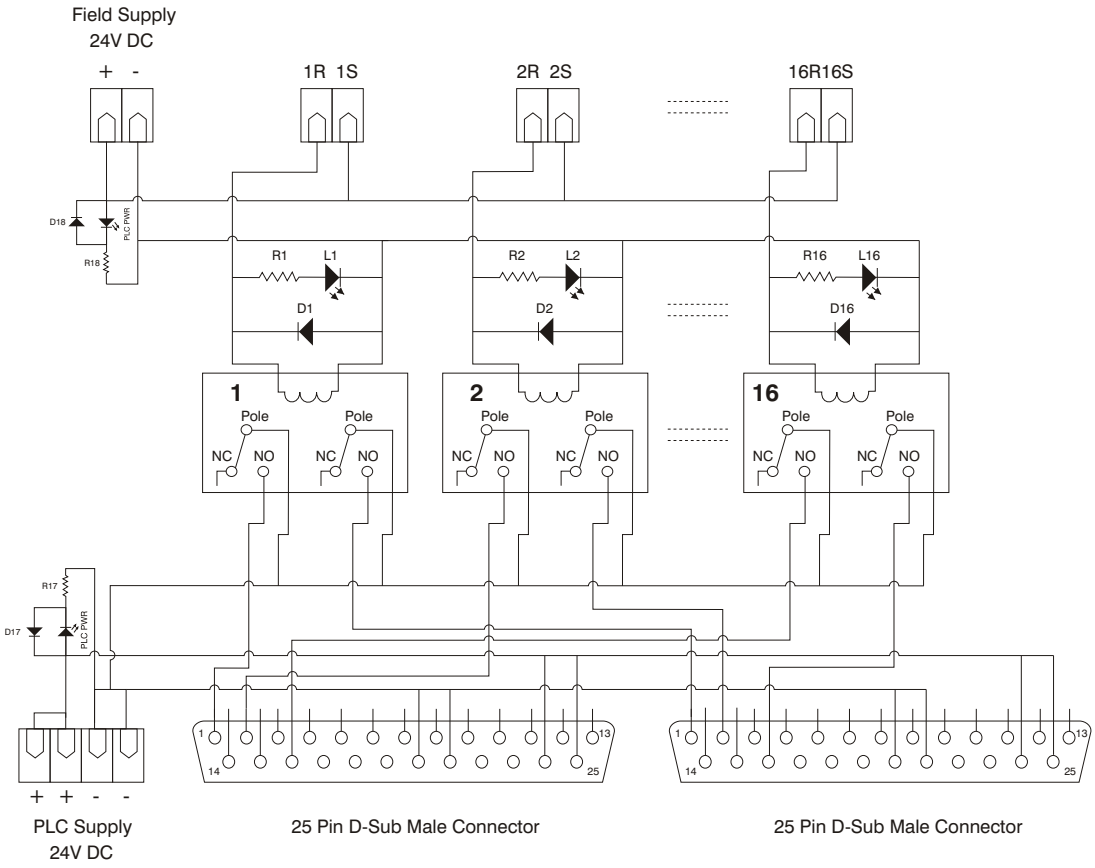
MODEL	Article No.	No. of relays	Module length	Pcs./Pkt.
TT-IMRB-16024D2S-DI2X25M	01 17 04032	16	290 mm	01

16 CHANNEL DIGITAL INPUT MODULE WITH D-SUB CONNECTOR

Layout of TT-IMRB-16024D2S-DI2X25M



Connection Diagram of TT-IMRB-16024D2S-DI2X25M

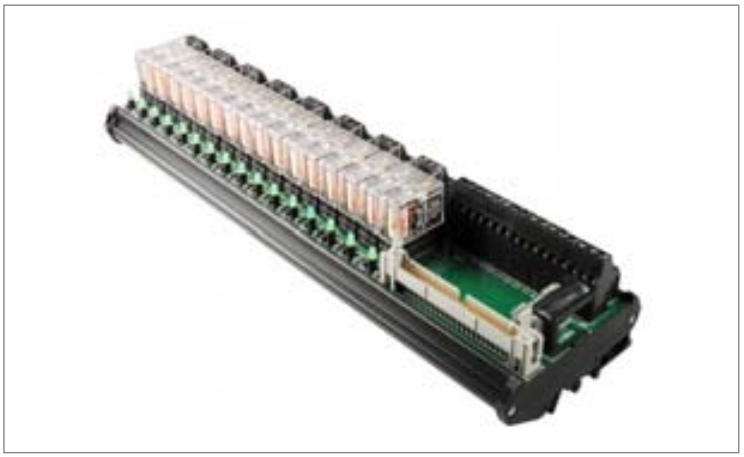


CNC MODULE

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.
- Freewheeling diode across relay coil for protection.
- 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.

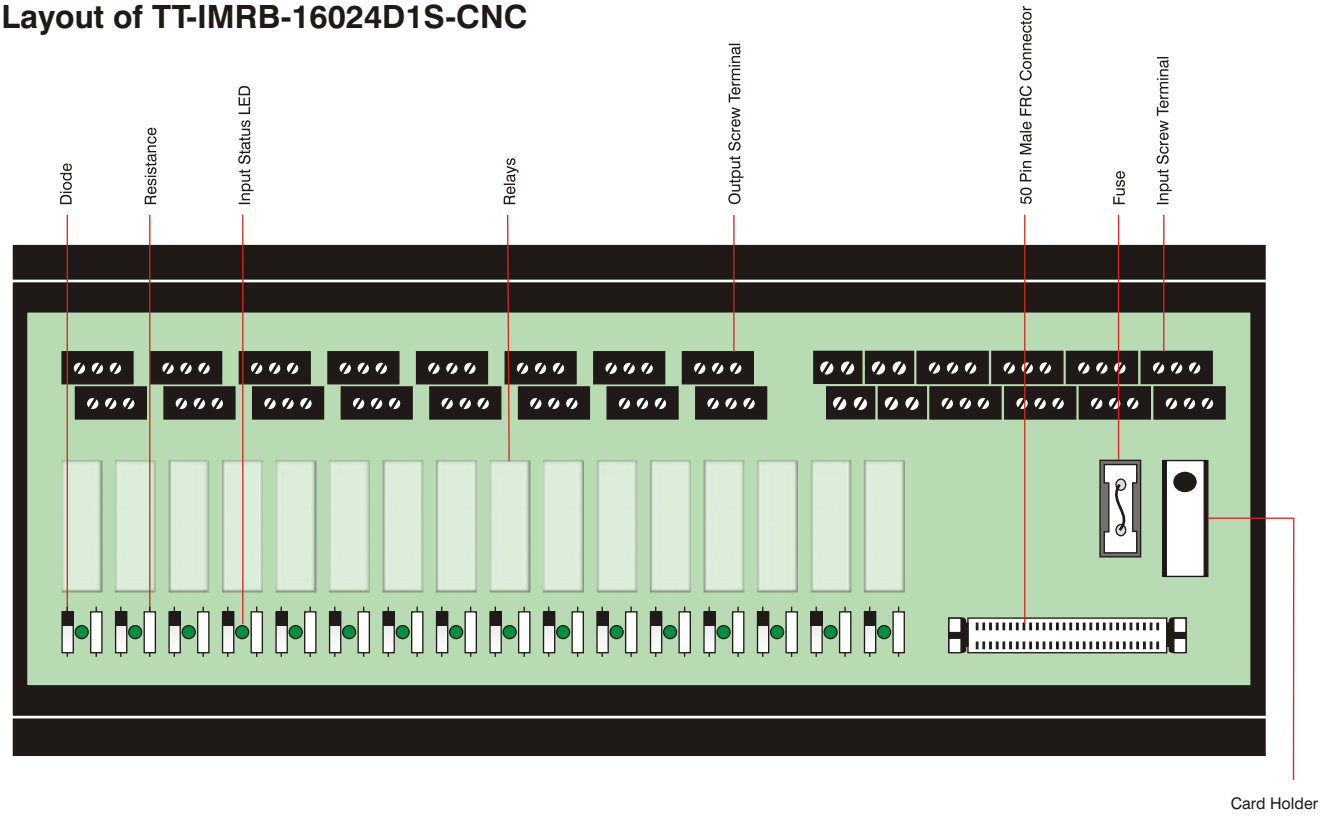


TECHNICAL SPECIFICATION	
INPUT DATA	
No. of direct / Input signal	24
Input voltage	24V DC
Input current	21.8 mA
Coil resistance	1100 Ω
CONTACT DATA	**1CO**
No. of output signals	16
No. of contacts	1 PDT
Rated load (Resistive)	10A, 250V AC/30V DC
(Inductive)	5A, 30V DC/7.5A, 250V AC
Contact resistance	30 mΩ max
GENERAL DATA	
Relay	Omron, IDEC, Tyco 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
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 mm²
Conductor cross section stranded	Min/Max. 0.2/2.5 mm²

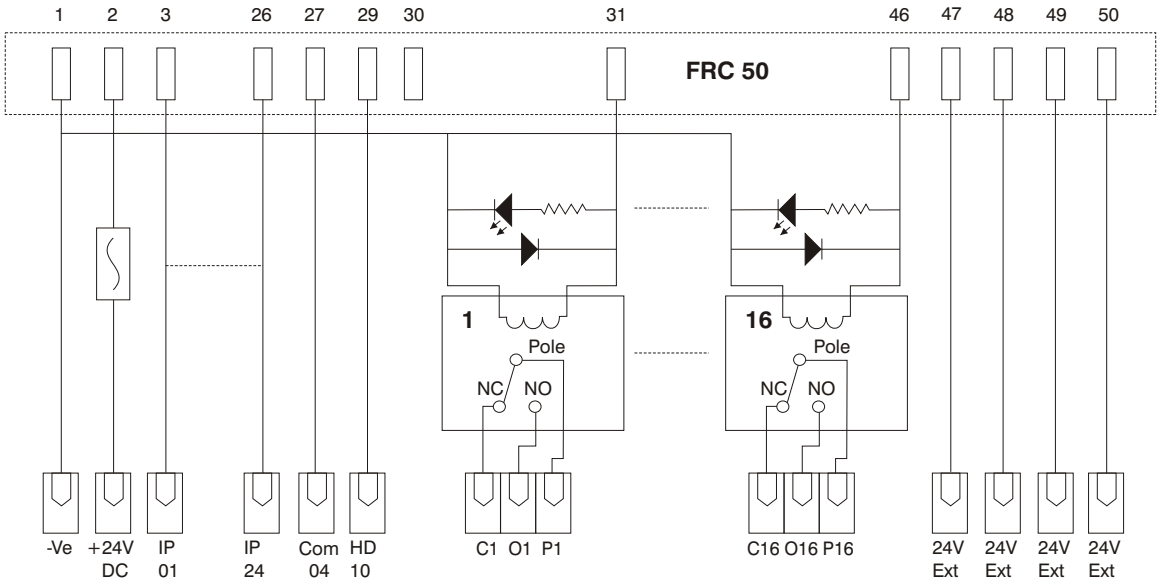
MODEL	Article No.	No. of relays	Module length	Pcs./Pkt.
TT-IMRB-16024D1S-CNC	01 17 02933	16	312 mm	01

CNC INTERFACE MODULE WITH 24 INPUTS & 16 OUTPUTS

Layout of TT-IMRB-16024D1S-CNC



Schematic of TT-IMRB-16024D1S-CNC



5
Section

Cable Assembly & Components for Interface Modules 70-78

Cable Assembly **70-71**
With FRC, D-Sub and EDAC Connectors....70-71

Components for Interface Modules **72-78**
DIN Rail Mounted PCB Support.... 72-73
Fuse Holders....74
Connectors....75
Electromechanical Relays....76-77
Solid State Relays....78

CABLE ASSEMBLY

CABLE ASSEMBLY WITH FRC, D-SUB AND EDAC CONNECTOR

Cable Assembly

Ready to use system cables assembled with different types of connectors (FRC, D-SUB etc) are commonly known as Cable Assembly. They are used to ensure a reliable connection between the automation equipments & the modules. These cables are connected into 1:1 Connection.

The cables are pre assembled round cables which are available in all customized length. These cables can withstand operational ambient temperature of -20°C to 50°C. The standard available cable brands are LAPP, HELUKABEL or any equivalent imported brand.

Round shielded / Non shielded cable assemblies with flat ribbon connectors (FRC).

Properties
- Cable conductor cross-section- AWG 26/0.14 mm².
- Max. permissible current capacity per path-1A.
- Operating Voltage- 50 VAC/ 60 VDC.

Non Shielded cable assembled with FRC connectors at both ends.
- Available in - 10, 14, 16, 20, 26, 34, 40, 50.

Non Shielded cable assembled with FRC connector at one end and other end open fitted with ferrules / lugs.
- Available in - 10, 14, 16, 20, 26, 34, 40, 50.

Non Shielded cable assembled with 50 pin FRC connector at one end and 40 pin FCN female connector at other end.

Shielded cable assembled with FRC connectors at both end.
- Available in - 10, 14, 16, 20, 26, 34, 40, 50.

Customized cables assembled with different-different connectors are also available on request.

Any customised lengths are available as per requirements.

Round shielded / Non shielded cable assemblies with D-Sub connectors

Properties
- Cable conductor cross-section- AWG 26/0.14 mm² / AWG 24/0.25 mm².
- Max. permissible current capacity per path-2A.
- Operating Voltage- 125 VAC/ VDC.
- Shield-Tinned Copper Braided Shield.

Round shielded / Non shielded cable with D-SUB Male connectors at both ends.
- Available in - 9, 15, 25, 37, 50.

Round shielded / Non shielded cable with D-SUB Female connector at both ends.
- Available in - 9, 15, 25, 37, 50.

Round shielded / Non shielded cable with D-SUB Male connector at one end & D-SUB Female connector at other end.
- Available in - 9, 15, 25, 37, 50.

Round shielded / Non shielded cable with D-SUB Male connector at one end & other end open fitted with ferrules / lugs.
- Available in - 9, 15, 25, 37, 50.

Round shielded / Non shielded cable with D-SUB Female connector at one end & other end open fitted with ferrules / lugs.
- Available in - 9, 15, 25, 37, 50.

Round shielded cable assemblies with ELCO/EDAC connectors.

Properties
- Crimp pins used are gold plated type.
- Cable conductor cross-section- AWG 22/0.5 mm².
- Max. permissible current capacity per path-1.5A.
- Operating Voltage- 25 VAC/ 60 VDC.
- Shield-Tinned Copper Braided Shield.

Round shielded cable with ELCO/EDAC connectors at both ends.
- Available in - 20, 38, 56.

Round shielded cable with ELCO / EDAC connector at one end & other end open fitted with ferrules / lugs.
- Available in - 20, 38, 56.

Any customised lengths are available as per requirements.

Vastly used in oil & gas industries where high class precision is required.

Customised cables assembled with combination of different ELCO / EDAC connectors are also available on request.

CABLE ASSEMBLY WITH FRC, D-SUB AND EDAC CONNECTOR

Round shielded cable assemblies with D-Sub 25 pin male connectors at both ends

Round shielded cable assemblies with D-Sub 37 pin male connectors at both ends

Round shielded cable assemblies with D-Sub 25 pin female connectors at both ends

Round shielded cable assemblies with D-Sub 15 pin male at one end and female at other end

Round shielded cable assemblies with 50 pin FRC connector at one end and other end open fitted with ferrule

Round shielded cable assemblies with 34 pin FRC connectors at both ends

DIN RAIL MOUNTED PCB SUPPORT

DIN Rail (EN 60715) Mounted PCB Support

The compact PCB mounting profile provides a multiple possibilities for the construction of electronics circuits. This enables the user to develop individual practical electronic modules. Depending on the required module size and the space available. The profile can be cut to length and combined with side and foot elements to form a module.

Further advantages

- Quick assembly.
- Labeling facilities in the mounting profile.
- Side element using SS-ZB marking material.

The PMP..72 and PMP..108 panel mounting bases have three levels for accommodating the printed circuit boards. This enables a flexible printed circuit board assembly, which is particularly space-saving, even for SMD technology. Two profiles for printed circuit board sizes of 72 mm or 107.5 mm are available for comprehensive electronics circuits and multi-position connection methods. The profiles are available in lengths up to 100 cm for this arrangement.

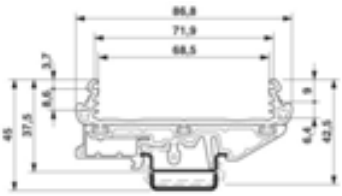
Further advantages

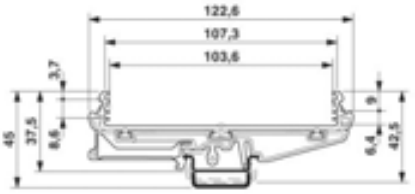
- Fast installation on conventional ⊓ or ⊔ DIN rails.
- The modules can be marked with Trinity Touch marking material in the label grooves.
- Side elements with foot elements to form the PCB module to be mounted on all the conventional DIN rail (EN 60715).

Material information concerning the housing

PVC profile inflammability class VO (UL 94) Polyamide PA side elements. Inflammability class VO (UL 94).

To define the profile length and width please observe the order key please indicate the desired length in (cm).





PM...72-PROFILE

PM...108-PROFILE

DESCRIPTION	Type	Article No.	Pcs. Pkt.	Type	Article No.	Pcs. Pkt.
Drawn section Found length 100cm Cut to length according to customer specifications	TT-PMP-MC72-GR TT-PMP-MC72-BL	01 17 00890 01 17 00899	1 1	TT-PMP-MC108-GR TT-PMP-MC108-BL	01 17 00894 01 17 00903	1 1
Side element with foot, 5mm wide, right hand side, for mounting on ⊓ or ⊔	TT-PMP-RSC72WF-GR TT-PMP-RSC72WF-BL	01 17 00891 01 17 00900	10 10	TT-PMP-RSC108WF-GR TT-PMP-RSC108WF-BL	01 17 00895 01 17 00904	10 10
Side element with foot, 5 mm wide, left hand side for mounting on ⊓ or ⊔	TT-PMP-LSC72WF-GR TT-PMP-LSC72WF-BL	01 17 00892 01 17 00901	10	TT-PMP-LSC108WF-GR TT-PMP-LSC108WF-BL	01 17 00896 01 17 00905	10
Side element, 5 mm wide	TT-PMP-SC72-GR TT-PMP-SC72-BL	01 17 00916 01 17 00917		TT-PMP-SC108-GR TT-PMP-SC108-BL	01 17 00897 01 17 00906	
Foot element, for mounting on ⊓ or ⊔, under the PMP..72 or PMP..108 profile housing	TT-PMP-FC72-GR TT-PMP-FC72-BL	01 17 00893 01 17 00902	10 10	TT-PMP-FC108-GR TT-PMP-FC108-BL	01 17 00898 01 17 00907	10 10
Markers, unprinted, 5-section, for snapping into devices and components with special marker groove, labeling with M PEN or CMS system, lettering field size: 20x8 mm, white for SAB boxes.	TT-PMP-ACC-MARKER	01 17 00908	1			

DIN RAIL MOUNTED PCB SUPPORT

Profile housing, in profile width: 72 mm, 108 mm available.

GENERAL DATA	
Housing type	Panel mounting base
Housing material	PVC
Colors	Green, Black
TECHNICAL DATA	
Inflammability class acc. to UL 94	V0
CONFIGURATION OPTIONS	
PMP profile PCB width	108 mm (PMP...108) 72 mm (PMP..72)
Number of positions	Pale green (...GR) Jet black (...BL)

Application:

Relay modules, Switch modules, Fuse modules, Diodes modules, Power supply modules, Over-voltage protection modules, Pats transmission & receiver modules, Analogue/ Digital convertor etc...

PM...72-PROFILE

PM...108-PROFILE

FUSE HOLDERS

Fuseholders

We have extensive range of PCB mount fuse holders, which are designed to give the degree of protection as per the demand in today's sophisticated electronic equipment.

FX 320

- PCB mount
- Protection category PC 1
- Fuse size 5X20 mm
- PC spills
- 6.3A, 250V

FX 456 & FX 457

- 2 pin PCB horizontal & vertical mount
- Protection category PC 2
- Fuse size 5X20 mm
- Bayonet cap/Screwdriver
- 10A, 250V

FH 4

- 4 pin PCB vertical mount
- Protection category PC 2
- Fuse size 5x20 mm
- Bayonet cap / Screwdriver
- PC Spills
- 10A,250 V

12760

- Insulation cover
- Provide Insulation from live parts on fuse holder
- Clear & transparent
- Polycarbonate

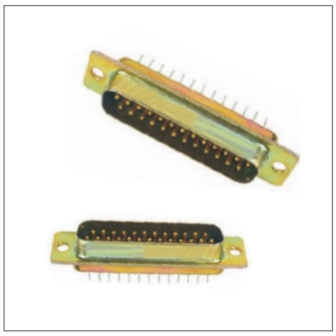
SPECIFICATIONS	FX 320	FX 456 & FX 457	FH 4	12760
Fuse size	5X20 mm	5X20 mm	5X20 mm	For use with FX 320
Fuse carrier		Bayonet cap/ Screwdriver	Bayonet cap/ Screwdriver	Max. working voltage : 250V AC
Terminations	PC spills	PC spills	PC spills	Flash tested to : 2kV AC
Max. rating	6.3A, 250V	10A, 250V	10A, 250V	
Max. power dissipation		2.5W (@23°C)	2.5W (@23°C)	
Insulation resistance	$>10^5$ MΩ @ 500V DC	$>10^2$ MΩ @ 500V DC	>10 MΩ @ 500V DC	
A.C. Breakdown	7kV @ 50Hz (clip to clip)	4kV @ 50Hz	>2kV	
Contact resistance	<10mΩ	<10mΩ	<10mΩ	
Operating temperature (ambient air temp.+fuse temp. rise)	-20°C to +85°C	-20°C to +85°C	-20°C to +85°C	
Body	Glass filled nylon UL 94 V-0 rated	Polyester UL 94V-0 rated	Glass filled nylon UL 94 V-0 rated	
Cap		Nylon UL 94V-0 rated	Nylon UL 94V-0 rated	
Contacts	Phospher bronze, Tin plated	Brass, Silver plated	Tin plated, Copper alloy	
Approval	RoHS compliant	RoHS compliant	RoHS compliant	

CONNECTORS

D-Sub Connector

The D-Sub miniature or D-Sub is a common type of electrical connector. They are named for their characteristic D-shaped metal shield. D-Sub connectors are designed to ensure the connection function in all applications where weight and dimension are very important. They are especially used as input/output connectors in interface functions.

Solder Type - Male



Solder Type - Female

Bucket Type - Male

Bucket Type - Female

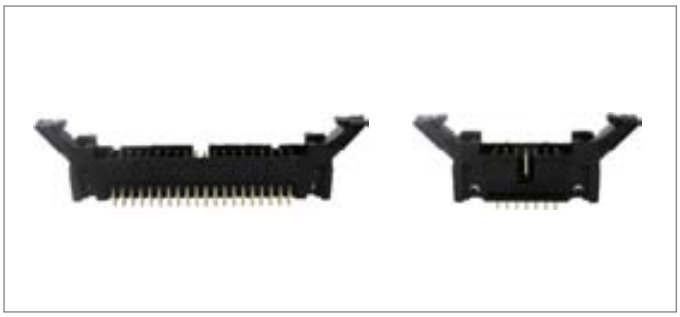
Plastic Hood

- A Miniature Relay with 1-pole 3A/5A Switching Capability and 10 kV Impulse Withstand Voltage.
- Highly efficient magnetic circuit for high sensitivity (200 mW).
- Small, yet provides 10-kV impulse withstand voltage (between coil and contacts).
- Standard model conforms to UL/CSA/VDE standards.
- Satisfies EN61010 reinforced insulation requirements.

FRC Connector

Flat ribbon cable connectors are commonly called wire to board connector and wire to wire connectors. They are mainly of two types i.e. PCB solder type and wire crimp type

Box Header 2.54 mm



IDC Socket 2.54 mm

COMPONENTS FOR INTERFACE MODULES

ELECTROMECHANICAL RELAYS

G2R-(S) Series

- Slim and space-saving power plug-in relay.
- Lockable test button models now available.
- Built-in mechanical operation indicator.
- AC type is equipped with a coil-disconnection self diagnostic function (LED type).
- High switching power (1-pole: 10 A).
- RoHS compliant.

G2R Series

- Conforms to VDE0435 (VDE approval: C250 insulation grade), Ul508, CSA22.2, SEV, SEMKO.
- High-sensitivity (360 mW) and high-capacity(16 A) types available.
- Double-winding latching type available.
- Plug-in with test button and quick-connect terminals available.

MY Series

- Versatile, multi-featured, miniature power relay for sequence control and power switching applications.
- Multiple features available, including operation indicators (mechanical and LED indicators), lockable test button, built-in diode and CR (surge suppression), bifurcated contacts, etc.
- Max. switching current : 2-pole: 10A, 4-pole: 5A.
- RoHS complaint.

G2RL Series

- High-sensitivity (250 mW) and High-capacity (16 A) versions.
- Designed for cooking and HVAC controls: blower motor, damper, active air purification, duct flow boost fans, etc.
- Conforms to VDE (EN61810-1). UL recognized/CSA certiified.
- Meets EN60335-1 requirements for household products.
- Coil insulation system: Class F.
- RoHS compliant.

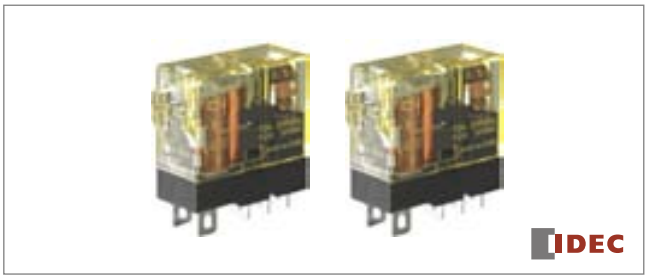
MY4H Series

- Hermetically sealed relay ideal for hazardous locations.
- Class 1 division 2 approved.
- Fully hermetically sealed for hazardous locations.
- Cadmium-free contacts for environment-friendly use.
- Models with bifurcated contact also available.
- UL recognized/CSA certified.

G5LE Series

- Cubic, single-pole 10A power relay.
- Ideal for a wide variety of applications such as home appliances, OA equipments, vending machines, etc.
- Ambient operating temperature 85°C.
- UL class-B coil insulation for standard model.
- UL, CSA, EN standards approved and conforms to electrical appliance and material safety law (300V max.).

ELECTROMECHANICAL RELAYS



RJ Series

- Compact housing only 12.7-mm wide.
- Large contact rating.
  RJ1S (1-pole): 12A.
  RJ2S (2-pole): 8A.
- Non-polarized LED indicator available.
- Electrical life: 200,000 operations (AC load).
  Mechanical life: 30 million operations (AC coil).
- UL recognized, CSA certi?ed, EN compliant.

RT Series

- Available in DPDT contact form.
- High contact rating of 8A.
- 5kV/10mm coil contact, reinforced insulation.
- Relays are flux proof type.
- Compact in design.

RJ Series - PCB type

- SPDT, SPST-NO, DPDT, DPST-NO SPDT, SPST-NO are available in high capacity type.
- Compact housing - only 12.7-mm wide.
- High contact rating.
  RJ1V (1-pole): 12A, 16A.
  RJ2V (2-pole): 8A.
- Electrical life: 200,000 operations (AC load).
  Mechanical life: 30 million operations (AC coil, SPDT, DPDT).
- Flux-tight structure.

Slim PCB Relays - V23092 Series

- Available in 1 pole SPDT contact form.
- Only 5 mm wide.
- Max. switching current of 6A.
- Sensitive coil 170mW.
- Reinforced insulation (Protection class II).
- Cadmium free contacts, AgNi 90/10 for AC load.
- Comes with wash tight version.
- Strong coil pins for DIN rail sockets.

RU Series

- Two terminal styles: plug-in and PCB mount.
- Non-polarized LED indicator available on plug-in relays.
- Mechanical flag indicator available on plug-in relays.
- Manual latching lever with color coding for AC or DC coil.
- Snap-on yellow marking plate; optional marking plates are available in four other colors.
- Maximum contact ratings: 10A (RU2), 6A (RU4), 3A (RU42).
- UL, CSA, c-UL, EN compliant.

OJ-SH Series

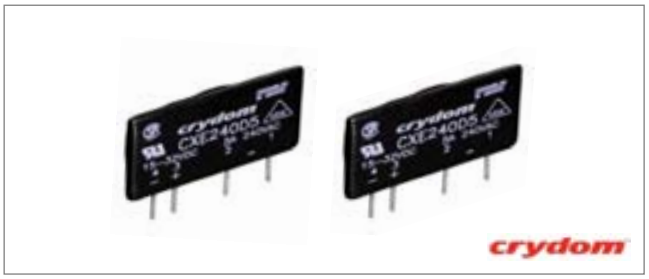
- Miniature size 18.2 X 10.2 X 14.7h.
- 1 form A (SPST-NO) contact arrangement.
- Designed to meet UL, CSA, VDE, TUV requirements.
- Design to meet 4kV dielectric between coil & contacts.
- Max. Switching rate : 300 ops/min (no load).
  30 ops/min (rated load).
- Expected mechanical life : 10 million operations (no load).
- Expected electrical life : 100,000 operations (rated load).

COMPONENTS FOR INTERFACE MODULES

SOLID STATE RELAYS

CN Series

- 5 mm mini SIP SSR.
- Ratings 24VDC @ 3.5A, 48VDC @ 100mA and 240VAC @ 2A.
- DC control, 5, 24 and 60V.
- UL & cUL recognized @ 40°C, 100K-Cycle endurance test.
- CE & RoHS compliant.



CX Series

- SIP SSR.
- Ratings of 5A @ 660V AC.
- SCR output for heavy industrial load.
- AC or DC control.
- Zero crossing (resistive loads) or random fire (Inductive loads) output.
- CE compliant to EN60950-1.

M-OAC & M-ODC Series

- AC modules have high current thyristors with 100 Amp surge capability.
- Plug into mounting boards for 0.6" modules.
- Zero or random turn-on available in AC modules.
- 4kV optical isolation (1500 VAC isolation for FET DC output modules).
- UL recognized, CSA certified, CE compliant.
- Industry standard packaging and color coding black (AC output) red (DC output).

G3R/G3RD Series

- Same shape as SSR type G2R power relay for PCB mounting.
- Direct mounting to PCB.
- Also standardized with input indicator.
- High dielectric strengths of 2500V AC for 2A models.
- High voltage DC version also available.
- Minimum input packing unit is 20 pcs.
- DC control.
- AC & DC outputs available with max. current rating of 2A.

CMX Series

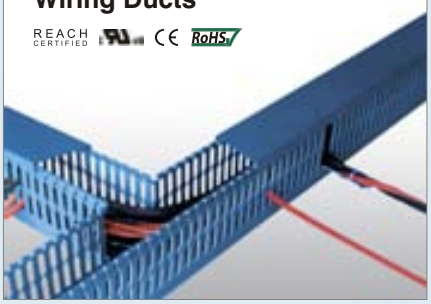
- SIP SSR.
- Ratings to 20A @ 60 VDC, 10A @ 100 VDC, 10A @ 60 VDC and 3A @ 200 VDC.
- MOSFET output.
- DC control.
- Low on-state impedance.
- CE compliant to EN60950-1.

SSR20/SSR21 Series

- Pin to pin compatible with G2R electromechanical relays.
- LED input voltage.
- Non-polarized input.
- Rated operational current upto 5A for DC load models & 3A for AC load models.
- Zero crossing commutation for models with AC voltage output or instantaneous for DC voltage output models.
- Output voltage from 12V AC to 275V AC or from 0V DC to 35V DC.
- 2500V input-output insulation.
- RC filter protection for AC models.

Other Product Programs

Wiring Ducts



Cable Glands

DIN Rails

Thermoplastic Enclosures

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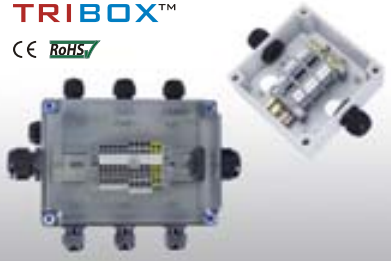

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INDIA
D-10, Defence Colony, New Delhi 110024 INDIA
Tel: +91.11.30895900 Fax: +91.11.30895998
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Works & Warehouse
Prithla- Dudhola road, Dudhola Distt. Palwal 121102,
Haryana INDIA
Tel: +91.11.30895900 E-mail: sales@trinitytouch.com

For further enquiry
Call us at: 1800 2000 140

Trinity Touch (EUROPE) Ltd.

www.trinitytouch.co.uk

UK
UNIT-I, Tyson Courtyard, Weldon South Industrial Estate, Corby,
Northants, NN18 8AZ, UK
Tel: +44 (0) 1536 400 641 Fax: +44 (0) 1536 268 043
E-mail: gbsales@trinitytouch.com

M/s. NEO TECH ENERGIES.
ADDRESS : FLAT NO : 102, BHAVANI HEIGHTS,
MYTHIRI ENCLAVE, YAPRAL, HYDERABAD - 500 087.
E-MAIL ID : neotechenergies@gmail.com
Contact No : +91 91217 95159.