connectwell

THE RIGHT CONNECTION

INTERFACE MODULES

PRODUCT CATALOGUE 2018-19

Since its inception in 1978, Connectwell has undergone constant evolution... be it infrastructure, systems or its qualified personnel. An unrelenting dedication to offer the best has been the impetus behind making Connectwell an established manufacturer of superior Terminal Blocks. Today, Connectwell takes immense pride in bringing you the finest range of Interface Modules.

These Interface Modules find their application in the fields of industrial controls for automation, machine building etc. These Modules act as the input and output interfaces / adapters for control systems which involve PLCs, SCADAs etc. They enable these control devices to connect to field input devices like sensors, switches, timers etc. and provide output to loads like contactors, motors, pumps, etc.

Interface Modules vary in the levels of there complexity, ranging from modules which interface discrete wires with connectors like IDC and DSUB... to more complicated modules which use solid state technology for intricate switching functions.

In addition to the above, Connectwell also provides application specific modules to customers who require integration of various control system components. Connectwell's new found strength of electronics along with superior understanding of electro mechanical components ensures the right solution for your needs.

With components which carry international approvals and an excellent quality program, you can be assured of the reliability you have come to expect of Connectwell.

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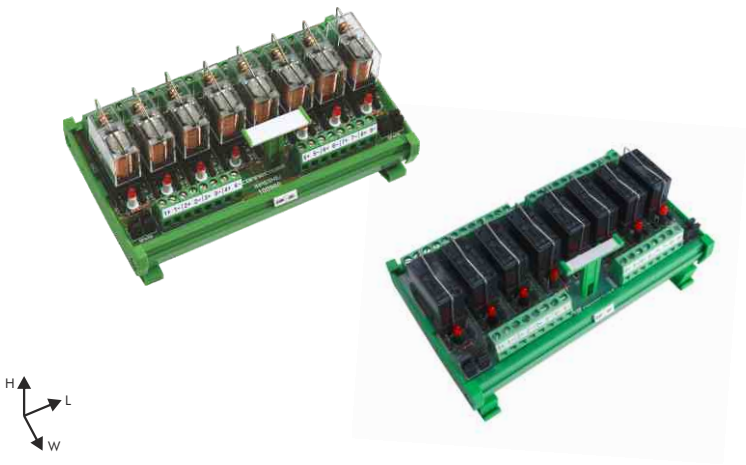
INDEX

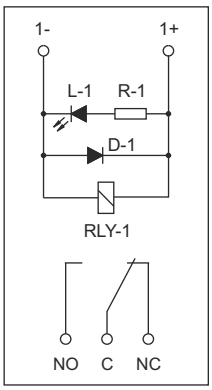
1 CO RELAY MODULES (SPDT)

FEATURES

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



Circuit Diagram



Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuator / sensor. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays.

TECHNICAL INFORMATION

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

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

RELAY COIL DATA				
Relay Make Series	FUJITSU		OMRON	
Contact Type	1 CO (SPDT)		1 CO (SPDT)	
Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
Coil Resistance (ohms)	270	1100	4600	26850
Rated Coil Current (mA)	44.5	21.8	11.0	4.7
Must Operate Voltage	8.4	16.8	80% max. of rated voltage	
Must Release Voltage	1.2	2.4	30% max. of rated voltage	
Max. Voltage	20.4	39.6	110% max. of rated voltage	

RELAY CONTACT DATA		
Contact Material	$AgSnO_2$	AgCdO
Rated Current	10A @230 VAC / 30 VDC	10A @230 VAC / 30 VDC
Max. Switching Voltage	400 VAC, 300 VDC	380 VAC, 125 VDC
Timing Data	Max. 10ms (Operate) Max. 5ms (Release)	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100x10^3 operations	Min. 100x10^3 operations
Relay Approvals		
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.	

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

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

ORDERING INFORMATION

12 VDC - 1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/12	IMRE1S1/12
2	IMRE1SS2/12	IMRE1S2/12
4	IMRE1SS4/12	IMRE1S4/12
8	IMRE1SS8/12	IMRE1S8/12
16	IMRE1SS16/12	IMRE1S16/12

24 VDC - 1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/24	IMRE1S1/24
2	IMRE1SS2/24	IMRE1S2/24
4	IMRE1SS4/24	IMRE1S4/24
8	IMRE1SS8/24	IMRE1S8/24
16	IMRE1SS16/24	IMRE1S16/24

110 VAC - 1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/110A/OM	IMRE1S1/110A/OM
2	IMRE1SS2/110A/OM	IMRE1S2/110A/OM
4	IMRE1SS4/110A/OM	IMRE1S4/110A/OM
8	IMRE1SS8/110A/OM	IMRE1S8/110A/OM
16	IMRE1SS16/110A/OM	IMRE1S16/110A/OM

230 VAC - 1 CO (SPDT) Relay modules

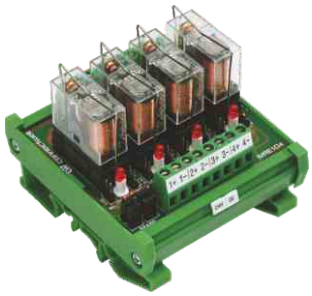
# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/230A/OM	IMRE1S1/230A/OM
2	IMRE1SS2/230A/OM	IMRE1S2/230A/OM
4	IMRE1SS4/230A/OM	IMRE1S4/230A/OM
8	IMRE1SS8/230A/OM	IMRE1S8/230A/OM
16	IMRE1SS16/230A/OM	IMRE1S16/230A/OM

Note : For Spring Cage terminals please add /SC after each part code.

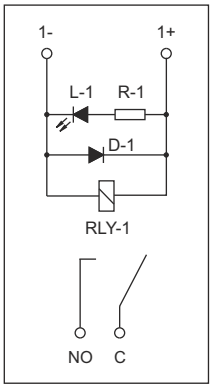
1 NO RELAY MODULES (SPST)

Relay Modules with only 1 NO (SPST) contacts are available on request.

GENERAL DATA	
Relay Make / Series	G2R-A1
Contact Type	1 NO
Output Current	10 A
Output Voltage	230 VAC, 30 VDC



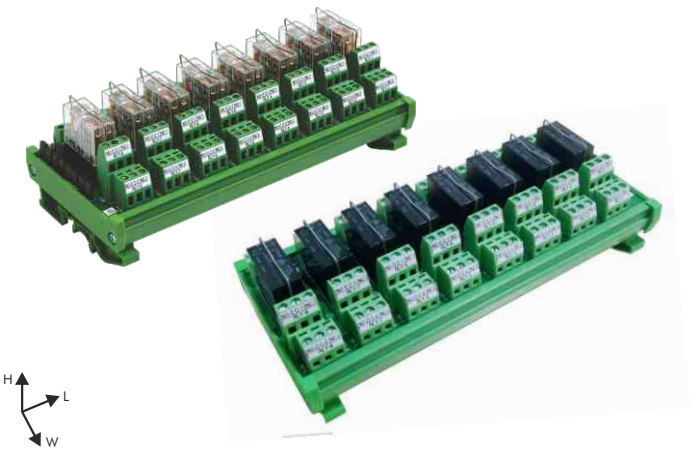
Circuit Diagram



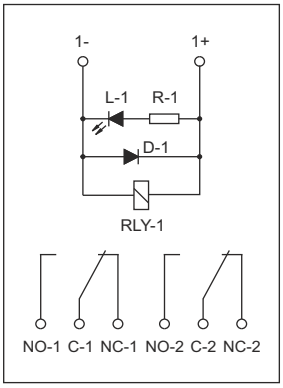
2 CO RELAY MODULES (DPDT)

FEATURES

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



Circuit Diagram



Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuator / sensor. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays.

TECHNICAL INFORMATION

GENERAL DATA					
Number of Channels	1	2	4	8	16
Width (mm)	88	88	88	88	88
Height (mm)	74	74	74	74	74
Length (mm)*	29	55	99	193	377
	Channels other than specified are available on request				
Positive Bussing Possibility	By using spare jumpers.				
Negative Bussing Possibility	By using spare jumpers.				
Power ON Indication	3 mm Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20° C ... 50° C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

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

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

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

RELAY COIL DATA				
Relay Make Series	FUJITSU		OMRON	
Contact Type	2 CO (DPDT)		2 CO (DPDT)	
Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
Coil Resistance (ohms)	270	1100	4600	26850
Rated Coil Current (mA)	44.5	21.8	11.0	4.7
Must Operate Voltage	8.4	16.8	80% max. of rated voltage	
Must Release Voltage	1.2	2.4	30% max. of rated voltage	
Max. Voltage	20.4	39.6	110% max. of rated voltage	

RELAY CONTACT DATA		
Contact Material	$AgSnO_2$	AgCdO
Rated Current	5A @230 VAC / 24 VDC	5A @230 VAC / 30 VDC
Max. Switching Voltage	400 VAC, 300 VDC	380 VAC, 125 VDC
Timing Data	Max. 10ms (Operate) Max. 5ms (Release)	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100x10^3 operations	Min. 100x10^3 operations
Relay Approvals		
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.	

ORDERING INFORMATION

12 VDC - 2 CO (DPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/12	IMRE2S1/12
2	IMRE2SS2/12	IMRE2S2/12
4	IMRE2SS4/12	IMRE2S4/12
8	IMRE2SS8/12	IMRE2S8/12
16	IMRE2SS16/12	IMRE2S16/12

24 VDC - 2 CO (DPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/24	IMRE2S1/24
2	IMRE2SS2/24	IMRE2S2/24
4	IMRE2SS4/24	IMRE2S4/24
8	IMRE2SS8/24	IMRE2S8/24
16	IMRE2SS16/24	IMRE2S16/24

110 VAC - 2 CO (DPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/110A/OM	IMRE2S1/110A/OM
2	IMRE2SS2/110A/OM	IMRE2S2/110A/OM
4	IMRE2SS4/110A/OM	IMRE2S4/110A/OM
8	IMRE2SS8/110A/OM	IMRE2S8/110A/OM
16	IMRE2SS16/110A/OM	IMRE2S16/110A/OM

230 VAC - 2 CO (DPDT) Relay modules

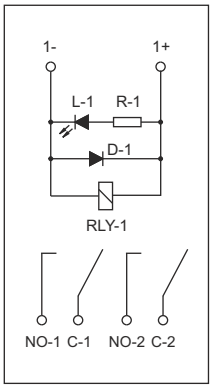
# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/230A/OM	IMRE2S1/230A/OM
2	IMRE2SS2/230A/OM	IMRE2S2/230A/OM
4	IMRE2SS4/230A/OM	IMRE2S4/230A/OM
8	IMRE2SS8/230A/OM	IMRE2S8/230A/OM
16	IMRE2SS16/230A/OM	IMRE2S16/230A/OM

2 NO RELAY MODULES (DPST)

Relay Modules with only 2 NO (DPST) contacts are available on request.

GENERAL DATA	
Relay Make / Series	G2R-A2
Contact Type	2 NO
Output Current	5 A
Output Voltage	230 VAC, 30 VDC

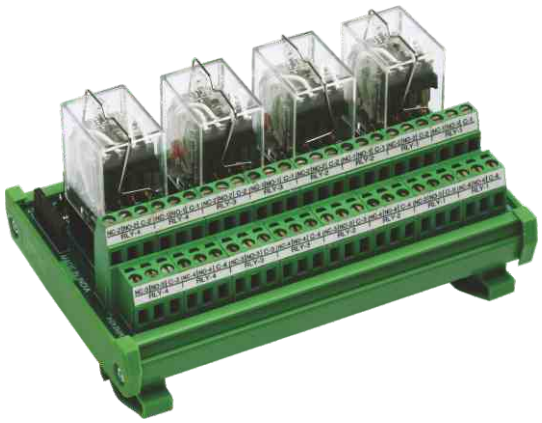
Circuit Diagram



4 CO RELAY MODULES

FEATURES

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



Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuator / sensor. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays.

TECHNICAL INFORMATION

GENERAL DATA				
Number of Channels	1	2	4	8
Width (mm)	88	88	88	88
Height (mm)	74	74	74	74
Length (mm)*	40	71	137	257
	Channels other than specified are available on request			
Positive Bussing Possibility	By using spare jumpers.			
Negative Bussing Possibility	By using spare jumpers.			
Power ON Indication	3 mm Red LED			
Relay Protection	Using 1N4007 Freewheeling Diode.			
Ambient Temperature (Operation)	-20° C ... 50° C			
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**			
Housing Insulation Material	PVC / V0 Grade			
Housing Colour	Green			
CONNECTION DATA				
Type of Connection	Screw Connection			
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG			
Stripping Length	8.3 mm			
Torque	4.5 lb-in / 0.5 Nm			

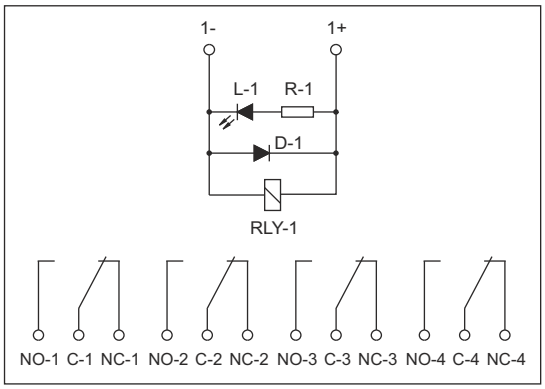
RELAY DATA			
Relay Make / Series	OMRON/MY4 (Relays other than OMRON make are available on request.)		
Contact Type	4CO (4 Poles - Double Throw)		
Relay Approvals			
RELAY COIL DATA			
Rated Coil Voltage	24 VDC	110 VAC	230 VAC
Coil Resistance (ohms)	275	4600	26850
Rated Coil Current (mA)	43.6	11.0	4.7
Must Operate Voltage	80% max. of rated voltage	80% max. of rated voltage	
Must Release Voltage	10% max. of rated voltage	30% max. of rated voltage	
Max. Voltage	110% max. of rated voltage		

RELAY CONTACT DATA	
Contact Material	AgCdO
Rated Current	3A @230 VAC; 3A @30 VDC
Max. Switching Voltage	250 VAC, 125 VDC
Max. Mechanical Operating Frequency	18,000 operations/hr
Max. Electrical Operating Frequency	1,800 operations/hr (under rated load)
Mechanical Life Expectancy	100,000,000 operations min. for DC coil & 50,000,000 operations min. for AC coil
Electrical Life Expectancy	200,000 operations min. (at max. operation frequency and max. load current)

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

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

Circuit Diagram



ORDERING INFORMATION

24 VDC - 4 CO Relay modules

# of Channels	With Pluggable Relays
1	IMRE4SS1/24/OM
2	IMRE4SS2/24/OM
4	IMRE4SS4/24/OM
8	IMRE4SS8/24/OM

110 VAC - 4 CO Relay modules

# of Channels	With Pluggable Relays
1	IMRE4SS1/110A/OM
2	IMRE4SS2/110A/OM
4	IMRE4SS4/110A/OM
8	IMRE4SS8/110A/OM

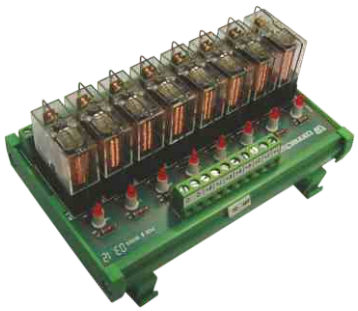
230 VAC - 4 CO Relay modules

# of Channels	With Pluggable Relays
1	IMRE4SS1/230A/OM
2	IMRE4SS2/230A/OM
4	IMRE4SS4/230A/OM
8	IMRE4SS8/230A/OM

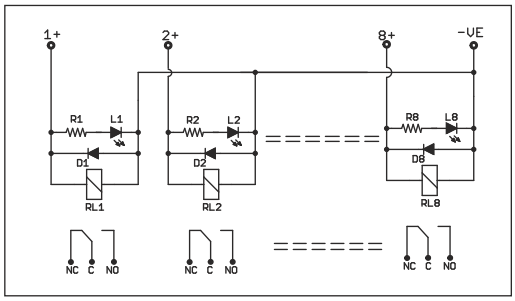
1 CO COMMON NEGATIVE RELAY MODULES (SPDT)

FEATURES

- Negative common with the help of single terminal.
- Variety of Operating Voltages.
- Switching Current upto 10 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays.
- LED Indication to denote relay actuation.
- Relay Coil Protection by means of a Freewheeling Diode.
- Mounting Options available: DIN Rail mounting & Panel mounting.



Circuit Diagram



Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuator / sensor. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays.

TECHNICAL INFORMATION

GENERAL DATA				
Number of Channels	2	4	8	16
Width (mm)	88	88	88	88
Height (mm)	74	74	74	74
Length (mm)*	38	69	130	253
	Channels other than specified are available on request			
Positive Bussing Possibility	-			
Negative Bussing Possibility	Internal			
Power ON Indication	3 mm Red LED			
Relay Protection	Using 1N4007 Freewheeling Diode.			
Ambient Temperature (Operation)	-20° C ... 50° C			
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**			
Housing Insulation Material	PVC / V0 Grade			
Housing Colour	Green			

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

RELAY COIL DATA				
Relay Make Series	FUJITSU		OMRON	
Contact Type	1 CO (SPDT)		1 CO (SPDT)	
Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
Coil Resistance (ohms)	270	1100	4600	26850
Rated Coil Current (mA)	44.5	21.8	11.0	4.7
Must Operate Voltage	8.4	16.8	80% max. of rated voltage	
Must Release Voltage	1.2	2.4	30% max. of rated voltage	
Max. Voltage	20.4	39.6	110% max. of rated voltage	

RELAY CONTACT DATA		
Contact Material	$AgSnO_2$	AgCdO
Rated Current	10A @230 VAC / 30 VDC	10A @230 VAC / 30 VDC
Max. Switching Voltage	400 VAC, 300 VDC	380 VAC, 125 VDC
Timing Data	Max. 10ms (Operate) Max. 5ms (Release)	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100x10^3 operations	Min. 100x10^3 operations
Relay Approvals		
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.	

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

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

ORDERING INFORMATION

12 VDC - 1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/12/N	IMRE1S1/12/N
2	IMRE1SS2/12/N	IMRE1S2/12/N
4	IMRE1SS4/12/N	IMRE1S4/12/N
8	IMRE1SS8/12/N	IMRE1S8/12/N
16	IMRE1SS16/12/N	IMRE1S16/12/N

24 VDC - 1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/24/N	IMRE1S1/24/N
2	IMRE1SS2/24/N	IMRE1S2/24N
4	IMRE1SS4/24/N	IMRE1S4/24/N
8	IMRE1SS8/24N	IMRE1S8/24/N
16	IMRE1SS16/24/N	IMRE1S16/24/N

110 VAC - 1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/110A/OM/N	IMRE1S1/110A/OM/N
2	IMRE1SS2/110A/OM/N	IMRE1S2/110A/OM/N
4	IMRE1SS4/110A/OM/N	IMRE1S4/110A/OM/N
8	IMRE1SS8/110A/OM/N	IMRE1S8/110A/OM/N
16	IMRE1SS16/110A/OM/N	IMRE1S16/110A/OM/N

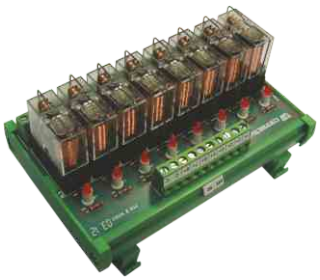
230 VAC - 1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/230A/OM/N	IMRE1S1/230A/OM/N
2	IMRE1SS2/230A/OM/N	IMRE1S2/230A/OM/N
4	IMRE1SS4/230A/OM/N	IMRE1S4/230A/OM/N
8	IMRE1SS8/230A/OM/N	IMRE1S8/230A/OM/N
16	IMRE1SS16/230A/OM/N	IMRE1S16/230A/OM/N

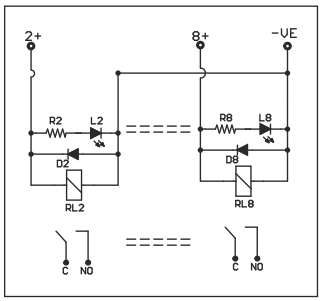
1 NO COMMON NEGATIVE RELAY MODULES (SPST)

Relay Modules with only 1 NO (SPST) contacts are available on request.

GENERAL DATA	
Relay Make / Series	G2R-A1
Contact Type	1 NO
Output Current	10 A
Output Voltage	230 VAC, 30 VDC



Circuit Diagram

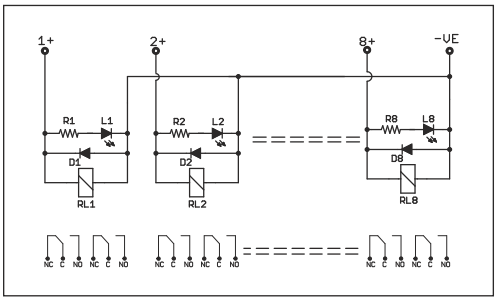


2 CO COMMON NEGATIVE RELAY MODULES (DPDT)

FEATURES

- Negative common with the help of single terminal.
- Variety of Operating Voltages.
- Switching Current upto 5 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays.
- LED Indication to denote relay actuation.
- Relay Coil Protection by means of a Freewheeling Diode.
- Mounting Options available: DIN Rail mounting & Panel mounting.

Circuit Diagram



Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuator / sensor. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays.

TECHNICAL INFORMATION

GENERAL DATA				
Number of Channels	2	4	8	16
Width (mm)	88	88	88	88
Height (mm)	74	74	74	74
Length (mm)*	41	75	130	253
	Channels other than specified are available on request			
Positive Bussing Possibility	By using spare jumpers.			
Negative Bussing Possibility	By using spare jumpers.			
Power ON Indication	3 mm Red LED			
Relay Protection	Using 1N4007 Freewheeling Diode.			
Ambient Temperature (Operation)	-20° C ... 50° C			
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**			
Housing Insulation Material	PVC / V0 Grade			
Housing Colour	Green			

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

RELAY COIL DATA				
Relay Make Series	FUJITSU		OMRON	
Contact Type	2 CO (DPDT)		2 CO (DPDT)	
Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
Coil Resistance (ohms)	270	1100	4600	26850
Rated Coil Current (mA)	44.5	21.8	11.0	4.7
Must Operate Voltage	8.4	16.8	80% max. of rated voltage	
Must Release Voltage	1.2	2.4	30% max. of rated voltage	
Max. Voltage	20.4	39.6	110% max. of rated voltage	

RELAY CONTACT DATA		
Contact Material	$AgSnO_2$	AgCdO
Rated Current	5A @230 VAC / 24 VDC	5A @230 VAC / 30 VDC
Max. Switching Voltage	400 VAC, 300 VDC	380 VAC, 125 VDC
Timing Data	Max. 10ms (Operate) Max. 5ms (Release)	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100x10^3 operations	Min. 100x10^3 operations
Relay Approvals		
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.	

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

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

ORDERING INFORMATION

12 VDC - 2 CO (DPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/12/N	IMRE2S1/12/N
2	IMRE2SS2/12/N	IMRE2S2/12/N
4	IMRE2SS4/12/N	IMRE2S4/12/N
8	IMRE2SS8/12/N	IMRE2S8/12/N
16	IMRE2SS16/12/N	IMRE2S16/12/N

24 VDC - 2 CO (DPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/24/N	IMRE2S1/24/N
2	IMRE2SS2/24/N	IMRE2S2/24/N
4	IMRE2SS4/24/N	IMRE2S4/24/N
8	IMRE2SS8/24/N	IMRE2S8/24N
16	IMRE2SS16/24//N	IMRE2S16/24/N

110 VAC - 2 CO (DPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/110A/OM/N	IMRE2S1/110A/OM/N
2	IMRE2SS2/110A/OM/N	IMRE2S2/110A/OM/N
4	IMRE2SS4/110A/OM/N	IMRE2S4/110A/OM/N
8	IMRE2SS8/110A/OM/N	IMRE2S8/110A/OM/N
16	IMRE2SS16/110A/OM/N	IMRE2S16/110A/OM/N

230 VAC - 2 CO (DPDT) Relay modules

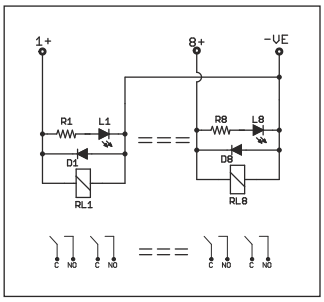
# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/230A/OM/N	IMRE2S1/230A/OM/N
2	IMRE2SS2/230A/OM/N	IMRE2S2/230A/OM/N
4	IMRE2SS4/230A/OM/N	IMRE2S4/230A/OM/N
8	IMRE2SS8/230A/OM/N	IMRE2S8/230A/OM/N
16	IMRE2SS16/230A/OM/N	IMRE2S16/230A/OM/N

2 NO COMMON NEGATIVE RELAY MODULES (DPST)

Relay Modules with only 2 NO (DPST) contacts are available on request.

GENERAL DATA	
Relay Make / Series	G2R-A2
Contact Type	2 NO
Output Current	5 A
Output Voltage	230 VAC, 30 VDC

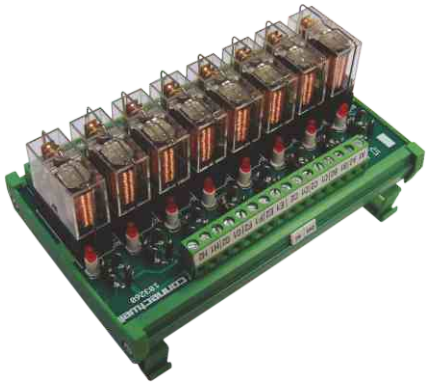
Circuit Diagram



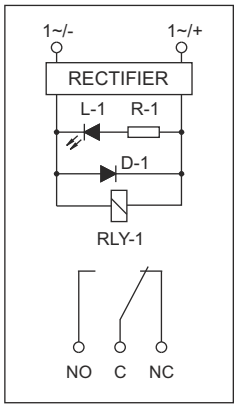
1 CO RELAY MODULES 24V AC/DC (SPDT)

FEATURES

- Works on both 24 VAC as well as 24 VDC
- Switching Current upto 10 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays.
- LED Indication to denote relay actuation.
- Relay Coil Protection by means of a Freewheeling Diode.
- Mounting Options available: DIN Rail mounting & Panel mounting.



Circuit Diagram



Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuator / sensor. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays.

TECHNICAL INFORMATION

GENERAL DATA					
Number of Channels	1	2	4	8	16
Width (mm)	88	88	88	88	88
Height (mm)	74	74	74	74	74
Length (mm)*	23	36	72	138	270
	Channels other than specified are available on request				
Positive Bussing Possibility	-				
Negative Bussing Possibility	-				
Power ON Indication	3 mm Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20° C ... 50° C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

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

RELAY COIL DATA	
Relay Make Series	**FUJITSU**
Contact Type	1 CO (SPDT)
Rated Coil Voltage	24 VDC
Coil Resistance (ohms)	1100
Rated Coil Current (mA)	21.8
Must Operate Voltage	16.8
Must Release Voltage	2.4
Max. Voltage	39.6

RELAY CONTACT DATA	
Contact Material	$AgSnO_2$
Rated Current	10A @230 VAC / 30 VDC
Max. Switching Voltage	400 VAC, 300 VDC
Timing Data	Max. 10ms (Operate) Max. 5ms (Release)
Mechanical Life expectancy	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100x10^3 operations
Relay Approvals	
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.

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

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

ORDERING INFORMATION

24 VDC - 1 CO (SPDT) Relay modules

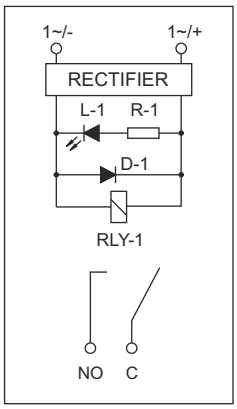
# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/24A/RECT	IMRE1S1/24A/RECT
2	IMRE1SS2/24A/RECT	IMRE1S2/24A/RECT
4	IMRE1SS4/24A/RECT	IMRE1S4/24A/RECT
8	IMRE1SS8/24A/RECT	IMRE1S8/24A/RECT
16	IMRE1SS16/24A/RECT	IMRE1S16/24A/RECT

1 NO RELAY MODULES 24V AC/DC

Relay Modules with only 1 NO (SPST) contacts are available on request.

GENERAL DATA	
Relay Make / Series	G2R-A1
Contact Type	1 NO
Output Current	10 A
Output Voltage	230 VAC, 30 VDC

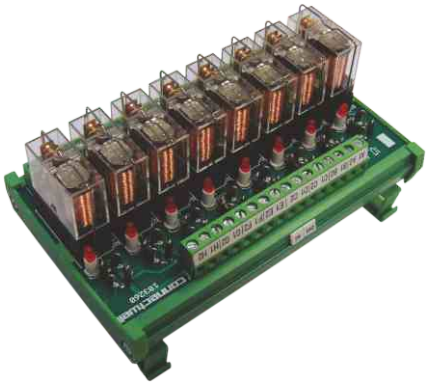
Circuit Diagram



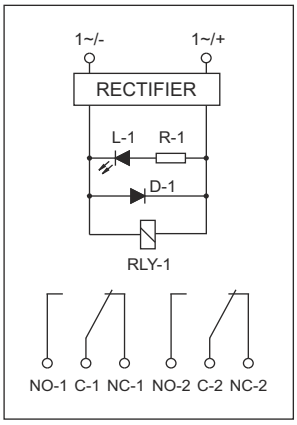
2 CO RELAY MODULES 24V AC/DC (DPDT)

FEATURES

- Works on both 24 VAC as well as 24 VDC
- Switching Current upto 5 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays.
- LED Indication to denote relay actuation.
- Relay Coil Protection by means of a Freewheeling Diode.
- Mounting Options available: DIN Rail mounting & Panel mounting.



Circuit Diagram



Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuator / sensor. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays.

TECHNICAL INFORMATION

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

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

RELAY COIL DATA	
Relay Make Series	**FUJITSU**
Contact Type	2 CO (DPDT)
Rated Coil Voltage	24 VDC
Coil Resistance (ohms)	1100
Rated Coil Current (mA)	21.8
Must Operate Voltage	16.8
Must Release Voltage	2.4
Max. Voltage	39.6

RELAY CONTACT DATA	
Contact Material	$AgSnO_2$
Rated Current	5A @230 VAC / 24 VDC
Max. Switching Voltage	400 VAC, 300 VDC
Timing Data	Max. 10ms (Operate) Max. 5ms (Release)
Mechanical Life expectancy	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100x10^3 operations
Relay Approvals	
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.

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

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

ORDERING INFORMATION

24 VDC - 2 CO (DPDT) Relay modules

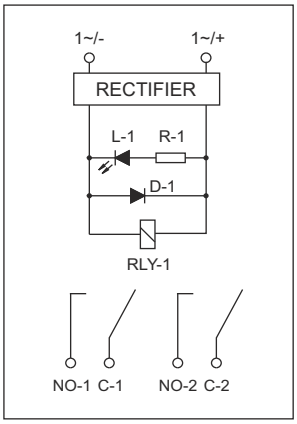
# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/24A/RECT	IMRE2S1/24A/RECT
2	IMRE2SS2/24A/RECT	IMRE2S2/24A/RECT
4	IMRE2SS4/24A/RECT	IMRE2S4/24A/RECT
8	IMRE2SS8/24A/RECT	IMRE2S8/24A/RECT
16	IMRE2SS16/24A/RECT	IMRE2S16/24A/RECT

2 NO RELAY MODULES 24V AC/DC (DPDT)

Relay Modules with only 2 NO (DPST) contacts are available on request.

GENERAL DATA	
Relay Make / Series	G2R-A2
Contact Type	2 NO
Output Current	5 A
Output Voltage	230 VAC, 30 VDC

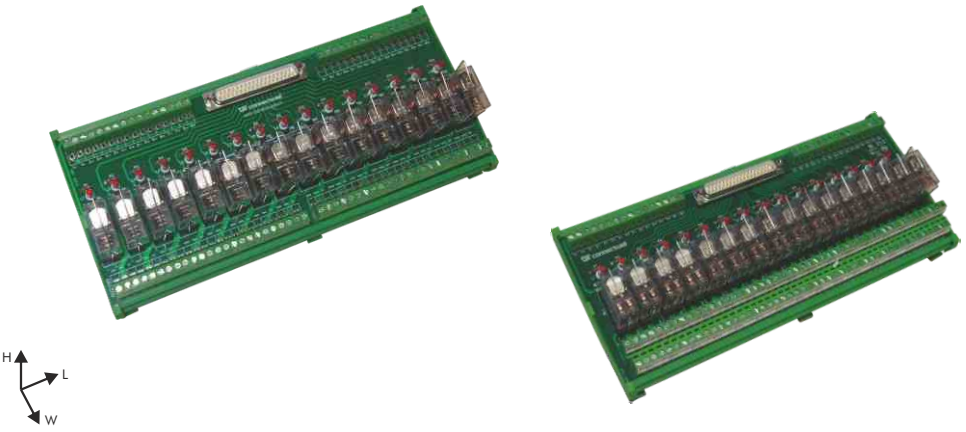
Circuit Diagram



1 CO & 2 CO RELAY MODULES WITH DSUB INPUT

FEATURES

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



These modules offer the convenience of triggering / actuating the relays by connecting a DSUB Connector harness from the PLC / Controller to the input of the module. In these modules the DSUB Connector pins are so configured that all the relay inputs are positively bussed. As an alternate PCB Terminal Blocks are also provided to utilize discrete wiring methods where such DSUB Connector harnesses are not available.

TECHNICAL INFORMATION

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

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

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

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

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

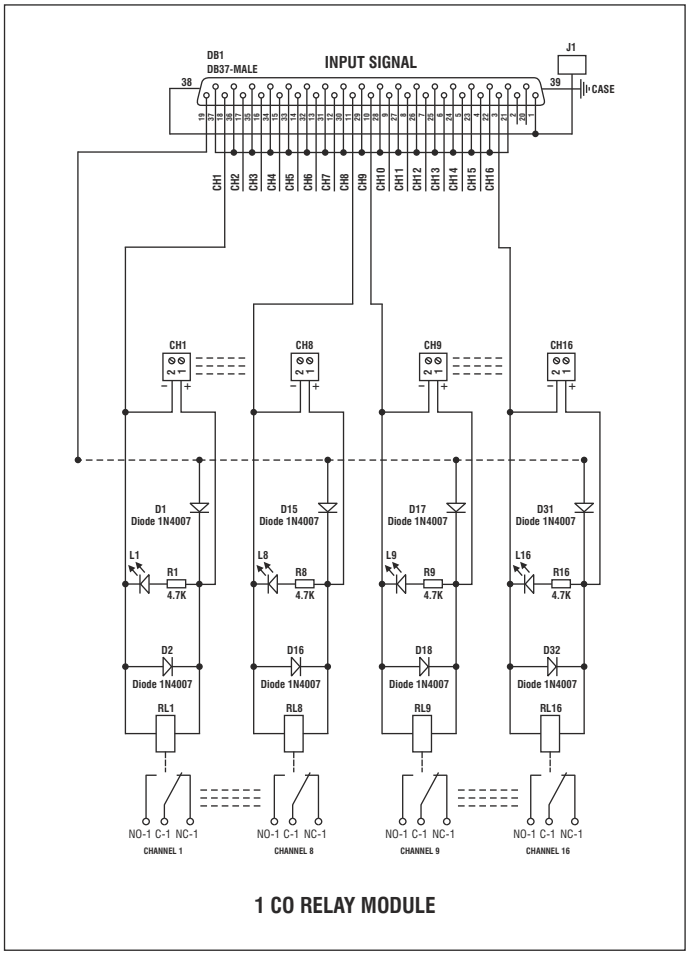
RELAY DATA		
Relay Make / Series	**FUJITSU**	**FUJITSU**
Contact Type	1CO (SPDT)	2CO (DPDT)
Rated Current	10A @250 VAC; 10A @30 VDC	5A @250 VAC; 5A @24 VDC
Relay Approvals		

RELAY COIL DATA	
Rated Coil Voltage	24 VDC
Coil Resistance (ohms)	1100
Rated Coil Current (mA)	21.8
Must Operate Voltage	16.8 V
Must Release Voltage	2.4 V
Max. Voltage	39.6 V

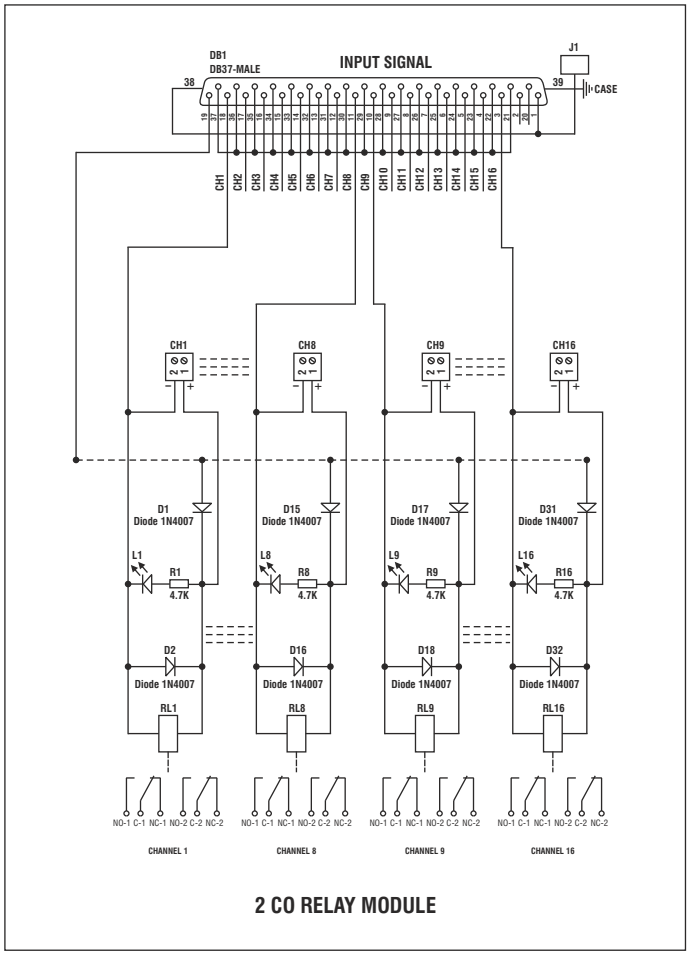
RELAY CONTACT DATA	
Contact Material	AgSnO2 (Gold plate silver tin oxide)
Rated Current	5A @250 VAC; 5A @24 VDC
Max. Switching Voltage	400VAC, 300VDC
Timing Data	Max. 10ms (Operate at nominal voltage) Max. 5ms (Release at nominal voltage)
Mechanical Life expectancy	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100 x 10^3 operations

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

Circuit Diagrams



1 CO RELAY MODULE



2 CO RELAY MODULE

ORDERING INFORMATION

1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays
16	IMRE1SS16/24/DM37

2 CO (DPDT) Relay modules

# of Channels	With Pluggable Relays
16	IMRE2SS16/24/DM37

D-SUB PIN ASSIGNMENT

CHANNEL	DB1	1 CO FIELD TERMINAL (SPDT RELAY)	2 CO FIELD TERMINAL (DPDT RELAY)		
CH1	18	1NO 1NC 1C	1NO-1 1NC-1 1C-1	1NO-2 1NC-2 1C-2	
CH2	17	2NO 2NC 2C	2NO-1 2NC-1 2C-1	2NO-2 2NC-2 2C-2	
CH3	16	3NO 3NC 3C	3NO-1 3NC-1 3C-1	3NO-2 3NC-2 3C-2	
CH4	15	4NO 4NC 4C	4NO-1 4NC-1 4C-1	4NO-2 4NC-2 4C-2	
CH5	14	5NO 5NC 5C	5NO-1 5NC-1 5C-1	5NO-2 5NC-2 5C-2	
CH6	13	6NO 6NC 6C	6NO-1 6NC-1 6C-1	6NO-2 6NC-2 6C-2	
CH7	12	7NO 7NC 7C	7NO-1 7NC-1 7C-1	7NO-2 7NC-2 7C-2	
CH8	11	8NO 8NC 8C	8NO-1 8NC-1 8C-1	8NO-2 8NC-2 8C-2	

D-SUB PIN ASSIGNMENT

CHANNEL	DB1	1 CO FIELD TERMINAL (SPDT RELAY)	2 CO FIELD TERMINAL (DPDT RELAY)		
CH9	10	9NO 9NC 9C	9NO-1 9NC-1 9C-1	9NO-2 9NC-2 9C-2	
CH10	9	10NO 10NC 10C	10NO-1 10NC-1 10C-1	10NO-2 10NC-2 10C-2	
CH11	8	11NO 11NC 11C	11NO-1 11NC-1 11C-1	11NO-2 11NC-2 11C-2	
CH12	7	12NO 12NC 12C	12NO-1 12NC-1 12C-1	12NO-2 12NC-2 12C-2	
CH13	6	13NO 13NC 13C	13NO-1 13NC-1 13C-1	13NO-2 13NC-2 13C-2	
CH14	5	14NO 14NC 14C	14NO-1 14NC-1 14C-1	14NO-2 14NC-2 14C-2	
CH15	4	15NO 15NC 15C	15NO-1 15NC-1 15C-1	15NO-2 15NC-2 15C-2	
CH16	3	16NO 16NC 16C	16NO-1 16NC-1 16C-1	16NO-2 16NC-2 16C-2	

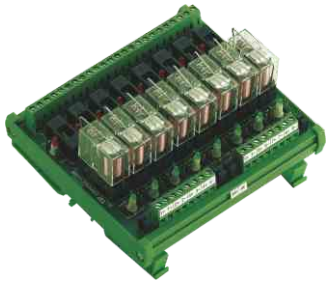
DB1_21~37 SHORT, DB1_19:24 VOLT DB1_2 & 20: BLANK, DB1_1, 38 & 39: SHIELD

1 CO & 2 CO RELAY MODULES WITH FUSE

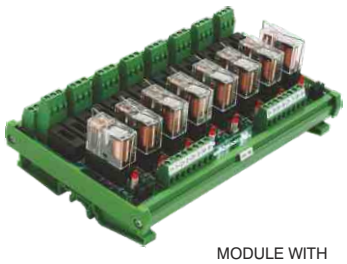
FUSE AT OUTPUT | FUSE AT INPUT | FUSE FAIL INDICATION

FEATURES

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



MODULE WITH FUSE FAIL INDICATION



MODULE WITH FUSE AT OUTPUT

Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuator / sensor. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays. This module additionally protects the device from short circuit / over current with the help of fuse. It further provides the fuse fail indication.

TECHNICAL INFORMATION

GENERAL DATA					
Number of Channels	1	2	4	8	16
Width (mm)	120	120	120	120	120
Height (mm)	74	74	74	74	74
Length L(mm)*					
1 C/O Fuse at Output	23	39	69	130	252
2 C/O Fuse at Output	32	52	102	192	373
1 C/O Fuse at Input	23	39	69	130	252
2 C/O Fuse at Input	26	39	69	130	254
Positive Bussing Possibility	By using spare jumpers.				
Negative Bussing Possibility	By using spare jumpers.				
Power ON Indication	3 mm Red LED				
Fuse Fail Indication Relay Module	Green LED for Input, Red LED for Output				
Fuse Fail Indication Voltage	24 VAC/DC, 110 VAC/DC, 230 VAC/DC				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20° C ... 50° C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

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

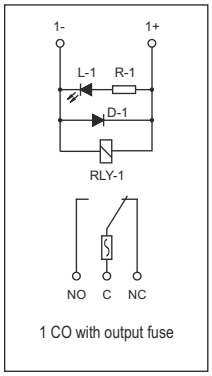
RELAY COIL DATA				
Relay Make Series	FUJITSU		OMRON	
Contact Type	1 CO / 2 CO(SPDT)		1 CO / 2 CO (SPDT)	
Rated Coil Voltage	12 VDC	24 VDC	110 VAC	230 VAC
Coil Resistance (ohms)	270	1100	4600	26850
Rated Coil Current (mA)	44.5	21.8	11.0	4.7
Must Operate Voltage	8.4	16.8	80% max. of rated voltage	
Must Release Voltage	1.2	2.4	30% max. of rated voltage	
Max. Voltage	20.4	39.6	110% max. of rated voltage	

RELAY CONTACT DATA		
Contact Material	$AgSnO_2$	AgCdO
Rated Current 1 CO	10A @230 VAC / 30 VDC	10A @230 VAC / 30 VDC
Rated Current 2 CO	5A @230 VAC / 24 VDC	5A @230 VAC / 30 VDC
Max. Switching Voltage	400 VAC, 300 VDC	380 VAC, 125 VDC
Timing Data	Max. 10ms (Operate) Max. 5ms (Release)	18,000 operations/hr
Mechanical Life expectancy	Min. 20 x 10^6 operations	Min. 10 x 10^6 operations
Electrical Life expectancy	Min. 100x10^3 operations	Min. 100x10^3 operations
Relay Approvals		
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.	

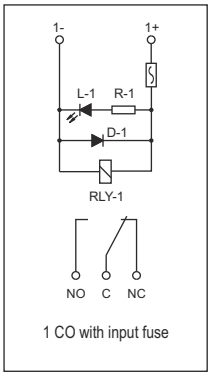
* Module Lengths mentioned are for RAIL Mounting option only.
The lengths may vary for PANEL Mounting

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

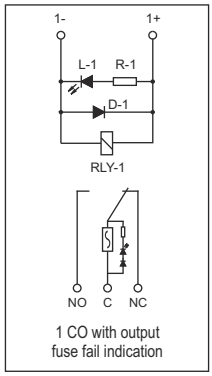
1 CO Circuit Diagrams



1 CO with output fuse

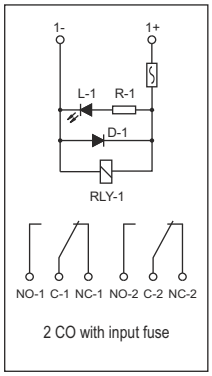


1 CO with input fuse

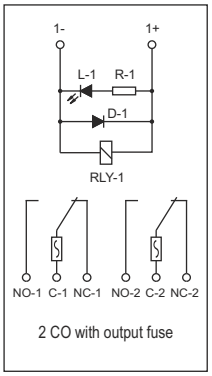


1 CO with output fuse fail indication

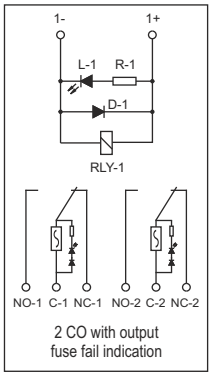
2 CO Circuit Diagrams



2 CO with input fuse



2 CO with output fuse



2 CO with output fuse fail indication

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

FUSE DATA		
	Fuse Size	5 x 20 mm
	Fuse Type	Fast Blow/Slow Blow
	Fuse Ratings (A)	0.1, 0.5, 0.63,
		1, 2, 3, 4, 5, 6, 6.3

ORDERING INFORMATION

1 CO FUSED RELAY MODULES

12 VDC COIL VOLTAGE

	# of Channels	With Pluggable Relays	With Soldered Relays
With Fuse at Output	1	IMRE1SSF1/12	IMRE1SF1/12
	2	IMRE1SSF2/12	IMRE1SF2/12
	4	IMRE1SSF4/12	IMRE1SF4/12
	8	IMRE1SSF8/12	IMRE1SF8/12
	16	IMRE1SSF16/12	IMRE1SF16/12
With Fuse at Input	1	IMREF1SS1/12	IMREF1S1/12
	2	IMREF1SS2/12	IMREF1S2/12
	4	IMREF1SS4/12	IMREF1S4/12
	8	IMREF1SS8/12	IMREF1S8/12
	16	IMREF1SS16/12	IMREF1S16/12
With Fuse Fail Indication for 24 V AC/DC Output	1	IMRE1SSFI1/12/1	IMRE1SFI1/12/1
	2	IMRE1SSFI2/12/1	IMRE1SFI2/12/1
	4	IMRE1SSFI4/12/1	IMRE1SFI4/12/1
	8	IMRE1SSFI8/12/1	IMRE1SFI8/12/1
	16	IMRE1SSFI16/12/1	IMRE1SFI16/12/1
With Fuse Fail Indication for 110 V AC/DC Output	1	IMRE1SSFI1/12/2	IMRE1SFI1/12/2
	2	IMRE1SSFI2/12/2	IMRE1SFI2/12/2
	4	IMRE1SSFI4/12/2	IMRE1SFI4/12/2
	8	IMRE1SSFI8/12/2	IMRE1SFI8/12/2
	16	IMRE1SSFI16/12/2	IMRE1SFI16/12/2
With Fuse Fail Indication for 230 V AC/DC Output	1	IMRE1SSFI1/12/3	IMRE1SFI1/12/3
	2	IMRE1SSFI2/12/3	IMRE1SFI2/12/3
	4	IMRE1SSFI4/12/3	IMRE1SFI4/12/3
	8	IMRE1SSFI8/12/3	IMRE1SFI8/12/3
	16	IMRE1SSFI16/12/3	IMRE1SFI16/12/3

24 VDC COIL VOLTAGE

	# of Channels	With Pluggable Relays	With Soldered Relays
With Fuse at Output	1	IMRE1SSF1/24	IMRE1SF1/24
	2	IMRE1SSF2/24	IMRE1SF2/24
	4	IMRE1SSF4/24	IMRE1SF4/24
	8	IMRE1SSF8/24	IMRE1SF8/24
	16	IMRE1SSF16/24	IMRE1SF16/24
With Fuse at Input	1	IMREF1SS1/24	IMREF1S1/24
	2	IMREF1SS2/24	IMREF1S2/24
	4	IMREF1SS4/24	IMREF1S4/24
	8	IMREF1SS8/24	IMREF1S8/24
	16	IMREF1SS16/24	IMREF1S16/24
With Fuse Fail Indication for 24 V AC/DC Output	1	IMRE1SSFI1/24/1	IMRE1SFI1/24/1
	2	IMRE1SSFI2/24/1	IMRE1SFI2/24/1
	4	IMRE1SSFI4/24/1	IMRE1SFI4/24/1
	8	IMRE1SSFI8/24/1	IMRE1SFI8/24/1
	16	IMRE1SFI16/24/1	IMRE1SFI16/24/1
With Fuse Fail Indication for 110 V AC/DC Output	1	IMRE1SSFI1/24/2	IMRE1SFI1/24/2
	2	IMRE1SSFI2/24/2	IMRE1SFI2/24/2
	4	IMRE1SSFI4/24/2	IMRE1SFI4/24/2
	8	IMRE1SSFI8/24/2	IMRE1SFI8/24/2
	16	IMRE1SSFI16/24/2	IMRE1SFI16/24/2
With Fuse Fail Indication for 230 V AC/DC Output	1	IMRE1SSFI1/24/3	IMRE1SFI1/24/3
	2	IMRE1SSFI2/24/3	IMRE1SFI2/24/3
	4	IMRE1SSFI4/24/3	IMRE1SFI4/24/3
	8	IMRE1SSFI8/24/3	IMRE1SFI8/24/3
	16	IMRE1SSFI16/24/3	IMRE1SFI16/24/3

1 CO & 2 CO RELAY MODULES WITH FUSE

FUSE AT OUTPUT | FUSE AT INPUT | FUSE FAIL INDICATION

ORDERING INFORMATION

1 CO FUSED RELAY MODULES

110 VAC COIL VOLTAGE

	# of Channels	With Pluggable Relays	With Soldered Relays
With Fuse at Output	1	IMRE1SSF1/110A/OM	IMRE1SF1/110A/OM
	2	IMRE1SSF2/110A/OM	IMRE1SF2/110A/OM
	4	IMRE1SSF4/110A/OM	IMRE1SF4/110A/OM
	8	IMRE1SSF8/110A/OM	IMRE1SF8/110A/OM
	16	IMRE1SSF16/110A/OM	IMRE1SF16/110A/OM
With Fuse at Input	1	IMREF1SS1/110A/OM	IMREF1S1/110A/OM
	2	IMREF1SS2/110A/OM	IMREF1S2/110A/OM
	4	IMREF1SS4/110A/OM	IMREF1S4/110A/OM
	8	IMREF1SS8/110A/OM	IMREF1S8/110A/OM
	16	IMREF1SS16/110A/OM	IMREF1S16/110A/OM
With Fuse Fail Indication for 24 V AC/DC Output	1	IMRE1SSFI1/110A/1	IMRE1SFI1/110A/1
	2	IMRE1SSFI2/110A/1	IMRE1SFI2/110A/1
	4	IMRE1SSFI4/110A/1	IMRE1SFI4/110A/1
	8	IMRE1SSFI8/110A/1	IMRE1SFI8/110A/1
	16	IMRE1SSFI16/110A/1	IMRE1SFI16/110A/1
With Fuse Fail Indication for 110 V AC/DC Output	1	IMRE1SSFI1/110A/2	IMRE1SFI1/110A/2
	2	IMRE1SSFI2/110A/2	IMRE1SFI2/110A/2
	4	IMRE1SSFI4/110A/2	IMRE1SFI4/110A/2
	8	IMRE1SSFI8/110A/2	IMRE1SFI8/110A/2
	16	IMRE1SSFI16/110A/2	IMRE1SFI16/110A/2
With Fuse Fail Indication for 230 V AC/DC Output	1	IMRE1SSFI1/110A/3	IMRE1SFI1/110A/3
	2	IMRE1SSFI2/110A/3	IMRE1SFI2/110A/3
	4	IMRE1SSFI4/110A/3	IMRE1SFI4/110A/3
	8	IMRE1SSFI8/110A/3	IMRE1SFI8/110A/3
	16	IMRE1SSFI16/110A/3	IMRE1SFI16/110A/3

230 VAC COIL VOLTAGE

	# of Channels	With Pluggable Relays	With Soldered Relays
With Fuse at Output	1	IMRE1SSF1/230A/OM	IMRE1SF1/230A/OM
	2	IMRE1SSF2/230A/OM	IMRE1SF2/230A/OM
	4	IMRE1SSF4/230A/OM	IMRE1SF4/230A/OM
	8	IMRE1SSF8/230A/OM	IMRE1SF8/230A/OM
	16	IMRE1SSF16/230A/OM	IMRE1SF16/230A/OM
With Fuse at Input	1	IMREF1SS1/230A/OM	IMREF1S1/230A/OM
	2	IMREF1SS2/230A/OM	IMREF1S2/230A/OM
	4	IMREF1SS4/230A/OM	IMREF1S4/230A/OM
	8	IMREF1SS8/230A/OM	IMREF1S8/230A/OM
	16	IMREF1SS16/230A/OM	IMREF1S16/230A/OM
With Fuse Fail Indication for 24 V AC/DC Output	1	IMRE1SSFI1/230A/1	IMRE1SFI1/230A/1
	2	IMRE1SSFI2/230A/1	IMRE1SFI2/230A/1
	4	IMRE1SSFI4/230A/1	IMRE1SFI4/230A/1
	8	IMRE1SSFI8/230A/1	IMRE1SFI8/230A/1
	16	IMRE1SSFI16/230A/1	IMRE1SFI16/230A/1
With Fuse Fail Indication for 110 V AC/DC Output	1	IMRE1SSFI1/230A/2	IMRE1SFI1/230A/2
	2	IMRE1SSFI2/230A/2	IMRE1SFI2/230A/2
	4	IMRE1SSFI4/230A/2	IMRE1SFI4/230A/2
	8	IMRE1SSFI8/230A/2	IMRE1SFI8/230A/2
	16	IMRE1SSFI16/230A/2	IMRE1SFI16/230A/2
With Fuse Fail Indication for 230 V AC/DC Output	1	IMRE1SSFI1/230A/3	IMRE1SFI1/230A/3
	2	IMRE1SSFI2/230A/3	IMRE1SFI2/230A/3
	4	IMRE1SSFI4/230A/3	IMRE1SFI4/230A/3
	8	IMRE1SSFI8/230A/3	IMRE1SFI8/230A/3
	16	IMRE1SSFI16/230A/3	IMRE1SFI16/230A/3

ORDERING INFORMATION

2 CO FUSED RELAY MODULES

12 VDC COIL VOLTAGE

	# of Channels	With Pluggable Relays	With Soldered Relays
With Fuse at Output	1	IMRE2SSF1/12	IMRE2SF1/12
	2	IMRE2SSF2/12	IMRE2SF2/12
	4	IMRE2SSF4/12	IMRE2SF4/12
	8	IMRE2SSF8/12	IMRE2SF8/12
	16	IMRE2SSF16/12	IMRE2SF16/12
With Fuse at Input	1	IMREF2SS1/12	IMREF2S1/12
	2	IMREF2SS2/12	IMREF2S2/12
	4	IMREF2SS4/12	IMREF2S4/12
	8	IMREF2SS8/12	IMREF2S8/12
	16	IMREF2SS16/12	IMREF2S16/12
With Fuse Fail Indication for 24 V AC/DC Output	1	IMRE2SSFI1/12/1	IMRE2SFI1/12/1
	2	IMRE2SSFI2/12/1	IMRE2SFI2/12/1
	4	IMRE2SSFI4/12/1	IMRE2SFI4/12/1
	8	IMRE2SSFI8/12/1	IMRE2SFI8/12/1
	16	IMRE2SSFI16/12/1	IMRE2SFI16/12/1
With Fuse Fail Indication for 110 V AC/DC Output	1	IMRE2SSFI1/12/2	IMRE2SFI1/12/2
	2	IMRE2SSFI2/12/2	IMRE2SFI2/12/2
	4	IMRE2SSFI4/12/2	IMRE2SFI4/12/2
	8	IMRE2SSFI8/12/2	IMRE2SFI8/12/2
	16	IMRE2SSFI16/12/2	IMRE2SFI16/12/2
With Fuse Fail Indication for 230 V AC/DC Output	1	IMRE2SSFI1/12/3	IMRE2SFI1/12/3
	2	IMRE2SSFI2/12/3	IMRE2SFI2/12/3
	4	IMRE2SSFI4/12/3	IMRE2SFI4/12/3
	8	IMRE2SSFI8/12/3	IMRE2SFI8/12/3
	16	IMRE2SSFI16/12/3	IMRE2SFI16/12/3

24 VDC COIL VOLTAGE

	# of Channels	With Pluggable Relays	With Soldered Relays
With Fuse at Output	1	IMRE2SSF1/24	IMRE2SF1/24
	2	IMRE2SSF2/24	IMRE2SF2/24
	4	IMRE2SSF4/24	IMRE2SF4/24
	8	IMRE2SSF8/24	IMRE2SF8/24
	16	IMRE2SSF16/24	IMRE2SF16/24
With Fuse at Input	1	IMREF2SS1/24	IMREF2S1/24
	2	IMREF2SS2/24	IMREF2S2/24
	4	IMREF2SS4/24	IMREF2S4/24
	8	IMREF2SS8/24	IMREF2S8/24
	16	IMREF2SS16/24	IMREF2S16/24
With Fuse Fail Indication for 24 V AC/DC Output	1	IMRE2SSFI1/24/1	IMRE2SFI1/24/1
	2	IMRE2SSFI2/24/1	IMRE2SFI2/24/1
	4	IMRE2SSFI4/24/1	IMRE2SFI4/24/1
	8	IMRE2SSFI8/24/1	IMRE2SFI8/24/1
	16	IMRE2SSFI16/24/1	IMRE2SFI16/24/1
With Fuse Fail Indication for 110 V AC/DC Output	1	IMRE2SSFI1/24/2	IMRE2SFI1/24/2
	2	IMRE2SSFI2/24/2	IMRE2SFI2/24/2
	4	IMRE2SSFI4/24/2	IMRE2SFI4/24/2
	8	IMRE2SSFI8/24/2	IMRE2SFI8/24/2
	16	IMRE2SSFI16/24/2	IMRE2SFI16/24/2
With Fuse Fail Indication for 230 V AC/DC Output	1	IMRE2SSFI1/24/3	IMRE2SFI1/24/3
	2	IMRE2SSFI2/24/3	IMRE2SFI2/24/3
	4	IMRE2SSFI4/24/3	IMRE2SFI4/24/3
	8	IMRE2SSFI8/24/3	IMRE2SFI8/24/3
	16	IMRE2SSFI16/24/3	IMRE2SFI16/24/3

1 CO & 2 CO RELAY MODULES WITH FUSE

FUSE AT OUTPUT | FUSE AT INPUT | FUSE FAIL INDICATION

ORDERING INFORMATION

2 CO RELAY MODULES WITH FUSE FAIL INDICATION

110 VAC COIL VOLTAGE

	# of Channels	With Pluggable Relays	With Soldered Relays
With Fuse at Output	1	IMRE2SSF1/110A/OM	IMRE2SF1/110A/OM
	2	IMRE2SSF2/110A/OM	IMRE2SF2/110A/OM
	4	IMRE2SSF4/110A/OM	IMRE2SF4/110A/OM
	8	IMRE2SSF8/110A/OM	IMRE2SF8/110A/OM
	16	IMRE2SSF16/110A/OM	IMRE2SF16/110A/OM
With Fuse at Input	1	IMREF2SS1/110A/OM	IMREF2S1/110A/OM
	2	IMREF2SS2/110A/OM	IMREF2S2/110A/OM
	4	IMREF2SS4/110A/OM	IMREF2S4/110A/OM
	8	IMREF2SS8/110A/OM	IMREF2S8/110A/OM
	16	IMREF2SS16/110A/OM	IMREF2S16/110A/OM
With Fuse Fail Indication for 24 V AC/DC Output	1	IMRE2SSFI1/110A/1	IMRE2SFI1/110A/1
	2	IMRE2SSFI2/110A/1	IMRE2SFI2/110A/1
	4	IMRE2SSFI4/110A/1	IMRE2SFI4/110A/1
	8	IMRE2SSFI8/110A/1	IMRE2SFI8/110A/1
	16	IMRE2SSFI16/110A/1	IMRE2SFI16/110A/1
With Fuse Fail Indication for 110 V AC/DC Output	1	IMRE2SSFI1/110A/2	IMRE2SFI1/110A/2
	2	IMRE2SSFI2/110A/2	IMRE2SFI2/110A/2
	4	IMRE2SSFI4/110A/2	IMRE2SFI4/110A/2
	8	IMRE2SSFI8/110A/2	IMRE2SFI8/110A/2
	16	IMRE2SSFI16/110A/2	IMRE2SFI16/110A/2
With Fuse Fail Indication for 230 V AC/DC Output	1	IMRE2SSFI1/110A/3	IMRE2SFI1/110A/3
	2	IMRE2SSFI2/110A/3	IMRE2SFI2/110A/3
	4	IMRE2SSFI4/110A/3	IMRE2SFI4/110A/3
	8	IMRE2SSFI8/110A/3	IMRE2SFI8/110A/3
	16	IMRE2SSFI16/110A/3	IMRE2SFI16/110A/3

230 VAC COIL VOLTAGE

	# of Channels	With Pluggable Relays	With Soldered Relays
With Fuse at Output	1	IMRE2SSF1/230A/OM	IMRE2SF1/230A/OM
	2	IMRE2SSF2/230A/OM	IMRE2SF2/230A/OM
	4	IMRE2SSF4/230A/OM	IMRE2SF4/230A/OM
	8	IMRE2SSF8/230A/OM	IMRE2SF8/230A/OM
	16	IMRE2SSF16/230A/OM	IMRE2SF16/230A/OM
With Fuse at Input	1	IMREF2SS1/230A/OM	IMREF2S1/230A/OM
	2	IMREF2SS2/230A/OM	IMREF2S2/230A/OM
	4	IMREF2SS4/230A/OM	IMREF2S4/230A/OM
	8	IMREF2SS8/230A/OM	IMREF2S8/230A/OM
	16	IMREF2SS16/230A/OM	IMREF2S16/230A/OM
With Fuse Fail Indication for 24 V AC/DC Output	1	IMRE2SSFI1/230A/1	IMRE2SFI1/230A/1
	2	IMRE2SSFI2/230A/1	IMRE2SFI2/230A/1
	4	IMRE2SSFI4/230A/1	IMRE2SFI4/230A/1
	8	IMRE2SSFI8/230A/1	IMRE2SFI8/230A/1
	16	IMRE2SSFI16/230A/1	IMRE2SFI16/230A/1
With Fuse Fail Indication for 110 V AC/DC Output	1	IMRE2SSFI1/230A/2	IMRE2SFI1/230A/2
	2	IMRE2SSFI2/230A/2	IMRE2SFI2/230A/2
	4	IMRE2SSFI4/230A/2	IMRE2SFI4/230A/2
	8	IMRE2SSFI8/230A/2	IMRE2SFI8/230A/2
	16	IMRE2SSFI16/230A/2	IMRE2SFI16/230A/2
With Fuse Fail Indication for 230 V AC/DC Output	1	IMRE2SSFI1/230A/3	IMRE2SFI1/230A/3
	2	IMRE2SSFI2/230A/3	IMRE2SFI2/230A/3
	4	IMRE2SSFI4/230A/3	IMRE2SFI4/230A/3
	8	IMRE2SSFI8/230A/3	IMRE2SFI8/230A/3
	16	IMRE2SSFI16/230A/3	IMRE2SFI16/230A/3

TRANSISTOR INTERFACE MODULES

FEATURES

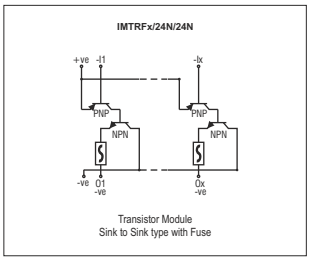
- Avoid the contact bouncing / chattering as there is no mechanical moving parts.
- Solid state switching technology allows switching speeds upto 20 MHZ
- No physical / mechanical switching operation hence an operation life which is 10^5 times more than electro mechanical relays.
- Solid state technology ensures 100% switching with absolutely no bounce or chatter.
- The transistors coupled with optical isolators ensure a higher isolation level between the input and output.
- Option of fuse protection at output side.

IMTRFx/24N/24N
(Transistor Module
Sink to Sink type with Fuse)

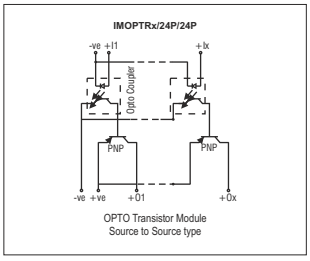
IMOPTRx/24P/24P
(OPTO Transistor Module
Source to Source type)

IMOPTRFx/24P/24P
(OPTO Transistor Module
Source to Source type with Fuse)

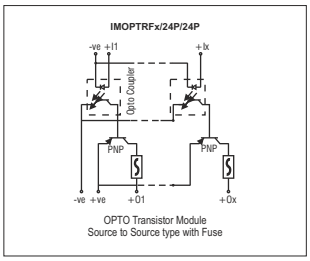
Circuit Diagrams



Transistor Module
Sink to Sink type with Fuse



OPTO Transistor Module
Source to Source type



OPTO Transistor Module
Source to Source type with Fuse

TECHNICAL INFORMATION

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

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

TRANSISTOR DATA	Source to Source	Sink to Sink
Transistor Series	BDX-54C	BDX-53C
Standard Input Voltage	+24 VDC	-24 VDC
Standard Output Switching Voltages	+24 VDC	-24 VDC

ORDERING INFORMATION

8 Channel Source to Source Type

Module Type	OPTO TRANSISTOR	OPTO TRANSISTOR WITH FUSE
+24 VDC Input	IMOPTR8/24P/24P	IMOPTRF8/24N/24N

8 Channel Sink to Sink Type

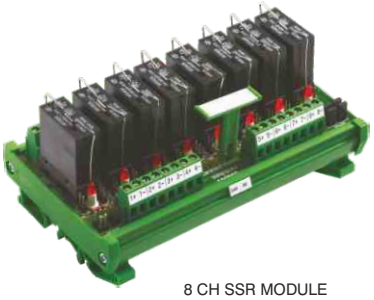
Module Type	TRANSISTOR	TRANSISTOR WITH FUSE
-24 VDC Input	IMTR8/24N/24N	IMTRF8/24N/24N

SSR MODULES & SSR MODULES WITH FUSE AT O/P

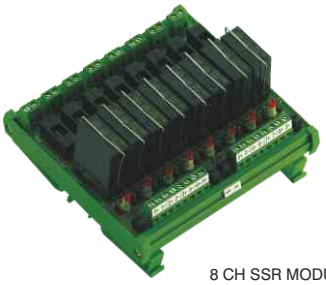
DC INPUT-DC OUTPUT & DC INPUT-AC OUTPUT

FEATURES

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



8 CH SSR MODULE



8 CH SSR MODULE
WITH FUSE AT OUTPUT

Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC Controllers and field actuators & devices. These modules provide optical isolation with the help of Solid State relays. These modules are used for high frequency switching applications. It avoids the contact bounce, chattering as there is no mechanical moving part.

TECHNICAL INFORMATION

GENERAL DATA					
Number of Channels	1	2	4	8	16
SSR Modules					
Width (mm)	88	88	88	88	88
Height (mm)	74	74	74	74	74
Length (mm)*	23	45	79	148	289
SSR Modules with Fuse					
Width (mm)	120	120	120	120	120
Height (mm)	74	74	74	74	74
Length (mm)*	23	39	69	130	219
	Channels other than specified are available on request				
Positive Bussing Possibility	By using spare jumpers.				
Negative Bussing Possibility	By using spare jumpers.				
Power ON Indication	3 mm Red LED				
SSR General Data					
Dielectric Stength	2500 VAC,50/60 Hz,1 min.				
Insulation Resistence	1000 M ohms (at 500 VDC)				
Maximum Capacitance (Input to Output)	8 pF				
Ambient Temperature (Operation)	-20° C ... 50° C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				
CONNECTION DATA					
Type of Connection	Screw Connection				
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG				
Stripping Length	8.3 mm				
Torque	4.5 lb-in / 0.5 Nm				

SSR INPUT DATA	(Voltages other than specified below are available on request)		
Control Voltage Range	5 VDC	12 VDC	24 VDC
Must Operate Voltage	4 VDC	9.6 VDC	19.2 VDC
Must Release Voltage	1 VDC	1 VDC	1 VDC
Max. Reverse Protection	-6 VDC	-14.4 VDC	-28.8 VDC
Max. Input Current	20 mA	20 mA	20 mA

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

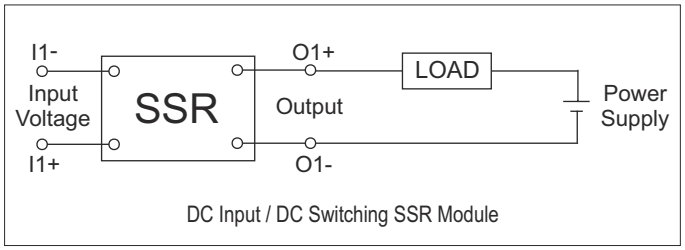
FUSE HOLDER DATA		
	Cap Design	Flat
	Fuse Link Size	5 x 20 mm
	Mounting Style	Horizontal
	Rated Current	6.3 A

FUSE DATA		
	Fuse Size	5 x 20 mm
	Fuse Type	Fast Blow/Slow Blow
	Fuse Ratings (A)	0.1, 0.5, 0.63, 1, 2, 3, 4, 5, 6, 6.3

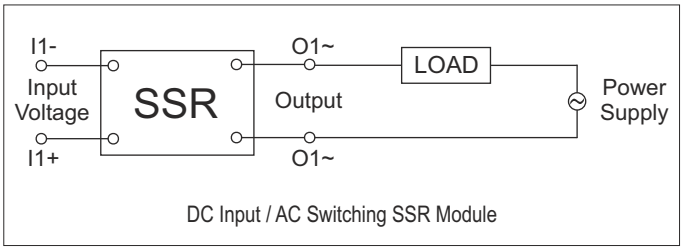
* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

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

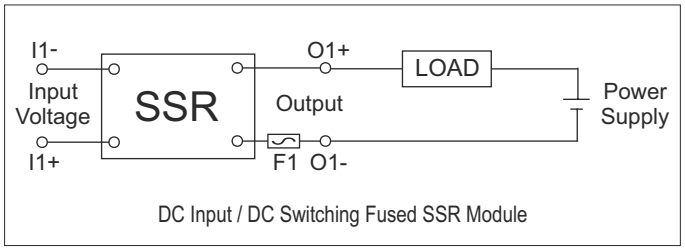
Connection Diagrams



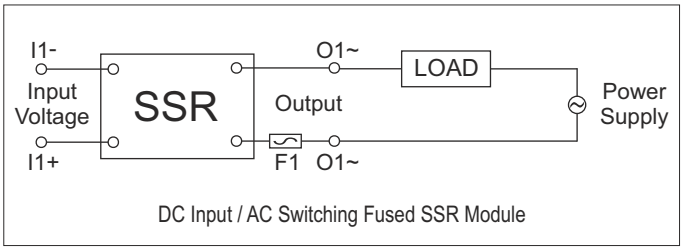
DC Input / DC Switching SSR Module



DC Input / AC Switching SSR Module



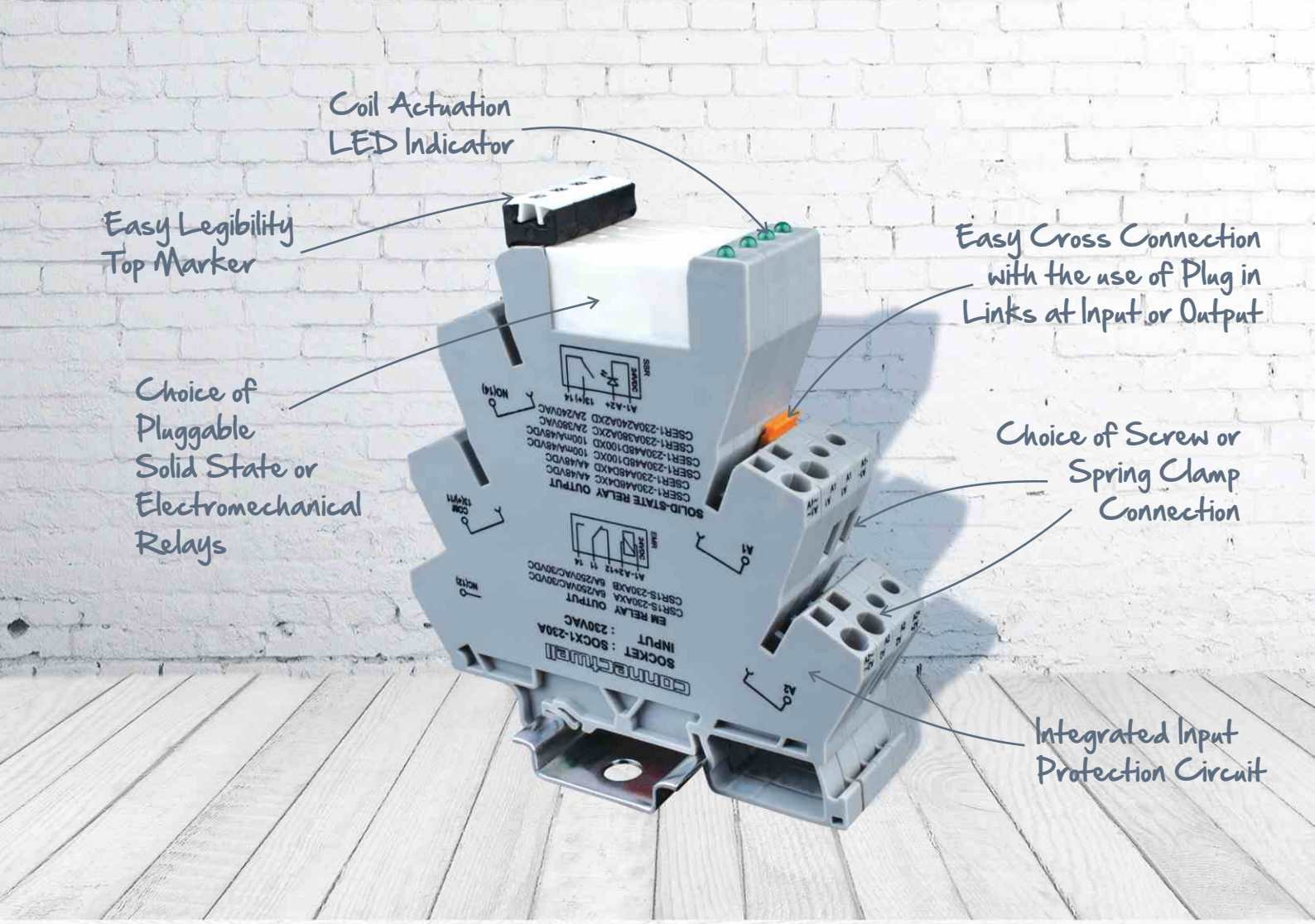
DC Input / DC Switching Fused SSR Module

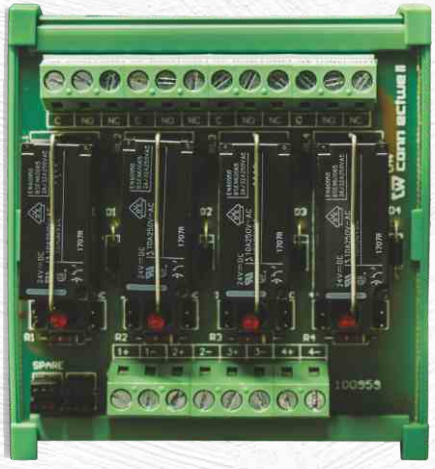


DC Input / AC Switching Fused SSR Module

ORDERING INFORMATION

		5 VDC Control Voltage		12 VDC Control Voltage		24 VDC Control Voltage	
	# of Chn.	With Pluggable Relays	With Soldered Relays	With Pluggable Relays	With Soldered Relays	With Pluggable Relays	With Soldered Relays
DC Input - DC Output 2 Amp	1	IMERS1/5D125D2	IMER1/5D125D2	IMERS1/12D125D2	IMER1/12D125D2	IMERS1/24D125D2	IMER1/24D125D2
	2	IMERS2/5D125D2	IMER2/5D125D2	IMERS2/12D125D2	IMER2/12D125D2	IMERS2/24D125D2	IMER2/24D125D2
	4	IMERS4/5D125D2	IMER4/5D125D2	IMERS4/12D125D2	IMER4/12D125D2	IMERS4/24D125D2	IMER4/24D125D2
	8	IMERS8/5D125D2	IMER8/5D125D2	IMERS8/12D125D2	IMER8/12D125D2	IMERS8/24D125D2	IMER8/24D125D2
	16	IMERS16/5D125D2	IMER16/5D125D2	IMERS16/12D125D2	IMER16/12D125D2	IMERS16/24D125D2	IMER16/24D125D2
DC Input - AC Output 3 Amp	1	IMERS1/5D400A3	IMER1/5D400A3	IMERS1/12D400A3	IMER1/12D400A3	IMERS1/24D400A3	IMER1/24D400A3
	2	IMERS2/5D400A3	IMER2/5D400A3	IMERS2/12D400A3	IMER2/12D400A3	IMERS2/24D400A3	IMER2/24D400A3
	4	IMERS4/5D400A3	IMER4/5D400A3	IMERS4/12D400A3	IMER4/12D400A3	IMERS4/24D400A3	IMER4/24D400A3
	8	IMERS8/5D400A3	IMER8/5D400A3	IMERS8/12D400A3	IMER8/12D400A3	IMERS8/24D400A3	IMER8/24D400A3
	16	IMERS16/5D400A3	IMER16/5D400A3	IMERS16/12D400A3	IMER16/12D400A3	IMERS16/24D400A3	IMER16/24D400A3
DC Input - DC Output 2 Amp with Fuse at Output	1	IMERSF1/5D125D2	IMERF1/5D125D2	IMERSF1/12D125D2	IMERF1/12D125D2	IMERSF1/24D125D2	IMERF1/24D125D2
	2	IMERSF2/5D125D2	IMERF2/5D125D2	IMERSF2/12D125D2	IMERF2/12D125D2	IMERSF2/24D125D2	IMERF2/24D125D2
	4	IMERSF4/5D125D2	IMERF4/5D125D2	IMERSF4/12D125D2	IMERF4/12D125D2	IMERSF4/24D125D2	IMERF4/24D125D2
	8	IMERSF8/5D125D2	IMERF8/5D125D2	IMERSF8/12D125D2	IMERF8/12D125D2	IMERSF8/24D125D2	IMERF8/24D125D2
	16	IMERSF16/5D125D2	IMERF16/5D125D2	IMERSF16/12D125D2	IMERF16/12D125D2	IMERSF16/24D125D2	IMERF16/24D125D2
DC Input - AC Output 3 Amp with Fuse at Output	1	IMERSF1/5D400A3	IMERF1/5D400A3	IMERSF1/12D400A3	IMERF1/12D400A3	IMERSF1/24D400A3	IMERF1/24D400A3
	2	IMERSF2/5D400A3	IMERF2/5D400A3	IMERSF2/12D400A3	IMERF2/12D400A3	IMERSF2/24D400A3	IMERF2/24D400A3
	4	IMERSF4/5D400A3	IMERF4/5D400A3	IMERSF4/12D400A3	IMERF4/12D400A3	IMERSF4/24D400A3	IMERF4/24D400A3
	8	IMERSF8/5D400A3	IMERF8/5D400A3	IMERSF8/12D400A3	IMERF8/12D400A3	IMERSF8/24D400A3	IMERF8/24D400A3
	16	IMERSF16/5D400A3	IMERF16/5D400A3	IMERSF16/12D400A3	IMERF16/12D400A3	IMERSF16/24D400A3	IMERF16/24D400A3





Space Saving

70%

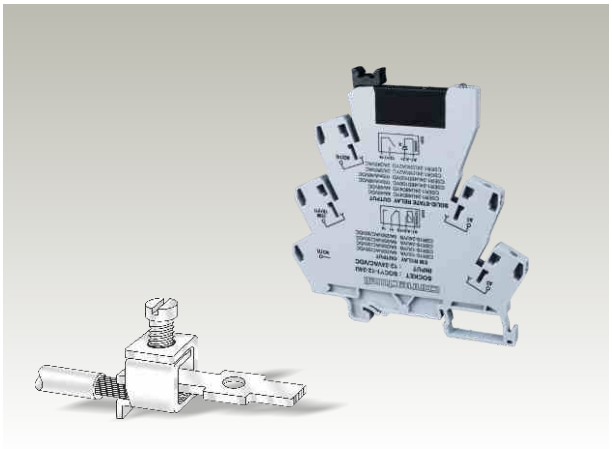
SLIM

SLIM RELAY MODULES

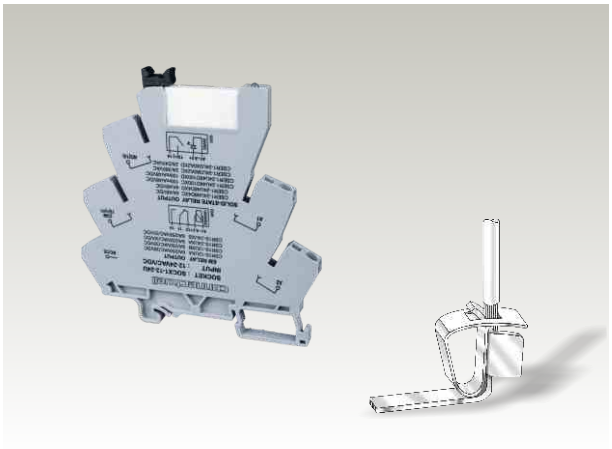
In today's high-tech world it has become inevitable that control panels will progressively reduce in size, forcing us to do a lot more in a lot less space.

Connectwell brings you the right solution to such problems in the form of Slim Relays for switching and control applications. Conventional Relay Modules occupy about 20 mm per channel but with Slim Relays the same can be achieved in just **6 mm**.

This is what we at Connectwell call Sensible Switching ...



Versatile Connection : Universal wiring possibility with the Screw Clamp Connection ensure safe termination of wire.



Versatile Connection : Universal wiring possibility with the Spring Clamp Connection ensure safe termination of wire.

Clear Marking: Distinct and legible marking with white marker, increases readability of wiring diagram.

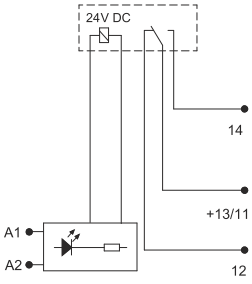
Easy Cross Connectivity : Cross connection possibility in four connection levels with Multi pole shorting links.

Easy exchange : Universal socket suitable for Simple exchange of Solid state relay and Electromechanical Relay.

Clearly visible Green LED to indicate relay coil actuation.

SLIM RELAY MODULE

CSR1S



CSR Series Relay Modules offer an extremely compact solution for interfacing relays. At 6 mm thickness, they are the most compact & versatile relay module system.

The system comprises of a Slim Relay socket and standard SPDT electro mechanical relays. Standard JX Series jumpers can be used for bussing at input and output of the relay sockets. A clear green LED indicates relay coil actuation. The compact relay modules are identified using standard K series marking tags.

General Data	
Dimension (Thickness x Length x Height)	6 x 94.5 x 96 mm
Insulating Material / Material Group	PA6,6 / 1
Mounting Possibility	DIN 35-15 ,DIN 35-7.5 Rail
Supply Voltage Indication	3 mm Green LED
Operating Voltage Range	5 V DC, 24 V DC, 12 V UC, 24 V UC, 48-60 V UC, 120 V UC, 230 V UC, 230 V AC
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)
Ambient Operating Temperature	-40°C to 55°C
Pollution Degree	2
Approvals	

Connection Data	Type of Connection	Screw Connection IEC	Screw Connection UL	Spring Connection IEC	Spring Connection UL
Connection Possibility as per					
With 1 Conductor per Clamp	Solid / Stranded / Flexible with Ferrule	0.2 - 2.5 mm² 0.2 - 2.5 mm²	24 - 12 AWG 24 - 14 AWG	0.2 - 2.5 mm² 0.2 - 2.5 mm²	24 - 12 AWG 24 - 14 AWG
With 2 same size Conductor per Clamp	with TWIN Ferrule	0.2 - 1.5 mm²	24 - 16 AWG	0.2 - 1.0 mm²	24 - 16 AWG
Torque		0.8 Nm	7 lb-in		
Wire Stripping Length		10 mm			

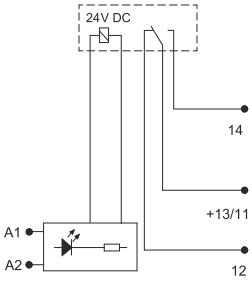
Relay General Specifications	
Relay Type	Electromechanical Relay
Insulation Test Voltage	4 KV AC (50 Hz,1min)
Insulation Resistance	1000 MΩ at 500 V DC
Contact Material	AgNi
Contact Rating	6 A 250 V AC/ 30 V DC
Contact Type	SPDT (1CO)

Ordering Information	Type / Cat. No.	Std. Pack	Type / Cat. No.	Std. Pack
Input Voltages	Screw Connection		Spring Connection	
5 V DC	CSR1S-5DYA	10	CSR1S-5DXA	10
24 V DC	CSR1S-24DYA	10	CSR1S-24DXA	10
12 V AC/DC	CSR1S-12UYA	10	CSR1S-12UXA	10
24 V AC/DC	CSR1S-24UYA	10	CSR1S-24UXA	10
48 - 60 V AC/DC	CSR1S-48-60UYA	10	CSR1S-48-60UXA	10
120 V AC/DC	CSR1S-120UYA	10	CSR1S-120UXA	10
230 V AC/DC	CSR1S-230UYA	10	CSR1S-230UXA	10
230 V AC	CSR1S-230AYA	10	CSR1S-230AXA	10

Accessories		Cat. No.	Std. Pack
Shorting Link	2 pole	JX4/2	100
	3 pole	JX4/3	50
	4 pole	JX4/4	50
	8 pole	JX4/8	50
	10 pole	JX4/10	10
	16 pole	JX4/16	10
Marking Tag		CA509/K6	

SLIM SSR MODULE

CSER1



CSER Series Relay Modules offer an extremely compact solution for interfacing relays with solid state technology. At 6 mm thickness they are the most compact & versatile relay module system.

The system comprises of a Slim Relay socket and standard solid state relays. Standard JX Series jumpers can be used for busing at input and output of the relay sockets. A clear green LED indicates input actuation. The compact relay modules are identified using standard K series marking tags.

CSER series comes with Zero Cross Turn on & Bipolar Transistor / MOSFET Output, This Series is compatible with TTL and CMOS Output.

General Data	
Dimension (Thickness x Length x Height)	6 x 94.5 x 96 mm
Insulating Material / Material Group	PA6,6 / 1
Mounting Possibility	DIN 35-15 ,DIN 35-7.5 Rail
Supply Voltage Indication	3 mm Green LED
Operating Voltage Range	24 V DC, 24 V UC, 48-60 V UC, 120 V UC, 230 V AC
Suitable wire / conductor	Copper wire (Temperature Range 60/75° C)
Ambient Operating Temperature	-40°C to 55°C
Pollution Degree	2
Approvals	

Connection Data	Type of Connection	Screw Connection		Spring Connection	
Connection Possibility as per		IEC	UL	IEC	UL
With 1 Conductor per Clamp	Solid / Stranded / Flexible with Ferrule	0.2 - 2.5 mm²	24 - 12 AWG	0.2 - 2.5 mm²	24 - 12 AWG
		0.2 - 2.5 mm²	24 - 14 AWG	0.2 - 2.5 mm²	24 - 14 AWG
With 2 same size Conductor per Clamp	with TWIN Ferrule	0.2 - 1.5 mm²	24 - 16 AWG	0.2 - 1.0 mm²	24 - 16 AWG
Torque		0.8 Nm	7 lb-in		
Wire Stripping Length		10 mm			

Relay General Specifications	
Relay Type	Solid State Relay
Breakdown Voltage (Input to output)	2.5 KV AC (50 Hz,1min)
Insulation Resistance	1000 MΩ at 500 V DC
Contact Rating	48 V DC/4 A , 48 V DC/100 mA , 240 V AC / 2A
Contact Type	SPST (1NO)

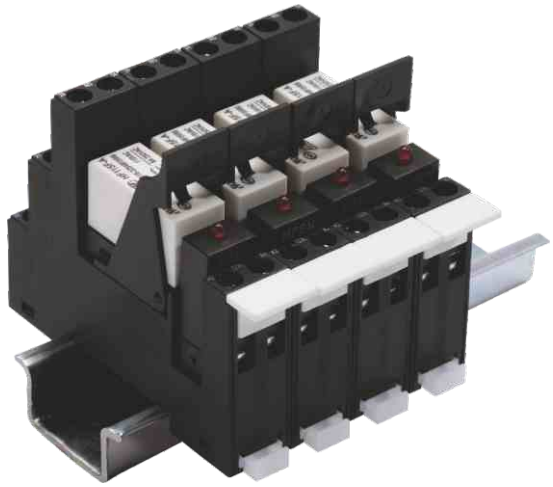
Ordering Information		Type / Cat. No.	Std. Pack	Type / Cat. No.	Std. Pack
Input Voltages	Output Voltage / Current	Screw Connection		Spring Connection	
24 V DC	48 V DC / 4 A	CSER1-24D48D4YD	10	CSER1-24D48D4XD	10
	48 V DC / 100 mA	CSER1-24D48D100YD	10	CSER1-24D48D100XD	10
	240 V AC / 2 A	CSER1-24D240A2YD	10	CSER1-24D240A2XD	10
24 V AC/DC	48 V DC / 4 A	CSER1-24U48D4YD	10	CSER1-24U48D4XD	10
	48 V DC / 100 mA	CSER1-24U48D100YD	10	CSER1-24U48D100XD	10
	240 V AC / 2 A	CSER1-24U240A2YD	10	CSER1-24U240A2XD	10
48 - 60 V AC/DC	48 V DC / 4 A	CSER1-4860U48D4YD	10	CSER1-4860U48D4XD	10
	48 V DC / 100 mA	CSER14860U48D100YD	10	CSER14860U48D100XD	10
	240 V AC / 2 A	CSER1-4860U240A2YD	10	CSER1-4860U240A2XD	10
120 V AC/DC	48 V DC / 4 A	CSER1-120U48D4YD	10	CSER1-120U48D4XD	10
	48 V DC / 100 mA	CSER1-120U48D100YD	10	CSER1-120U48D100XD	10
	240 V AC / 2 A	CSER1-120U240A2YD	10	CSER1-120U240A2XD	10
230 V AC	48 V DC / 4 A	CSER1-230A48D4YD	10	CSER1-230A48D4XD	10
	48 V DC / 100 mA	CSER1-230A48D100YD	10	CSER1-230A48D100XD	10
	240 V AC / 2 A	CSER1-230A240A2YD	10	CSER1-230A240A2XD	10

Accessories		Cat. No.	Std. Pack
Shorting Link	2 pole	JX4/2	100
	3 pole	JX4/3	50
	4 pole	JX4/4	50
	8 pole	JX4/8	50
	10 pole	JX4/10	10
	16 pole	JX4/16	10
Marking Tag		CA509/K6	

DIN RAIL MOUNTABLE 2 CO MODULAR RELAYS

FEATURES

- Pitch: 15.6 mm
- High Switching current: up to 8A at 250VAC
- Power consumption: 400 mW
- LED indication on coil activation.
- Free-wheeling diode protection for relay coil.
- Easy to replace pluggable relays.
- Available with 1 CO and 2 CO relays
- Available in both AC and DC coil voltages.



TECHNICAL INFORMATION

GENERAL DATA	
Power ON Indication	3 mm Red LED
Mounting Types	DIN35 / DIN35-15

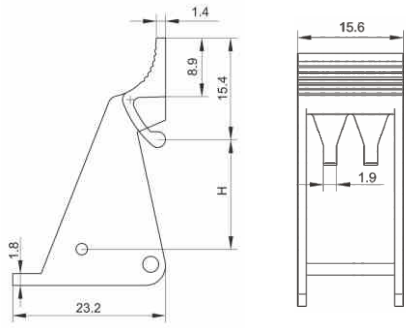
RELAY SOCKET DATA	
Housing Material	PA66+GF V0 (UL)
Contact Spring Material	QSn6.5-0.1
Ambient Temperature	-40^0 C to $+70^0$ C
Rated Voltage	300 VAC
Protection Degree DIN40050	IP20
Torque	0.6 Nm
Wire Stripping Length	7 mm
Maximum Wire Size	2.5 sq.mm

RELAY COIL DATA	DC COIL	AC COIL		
Normal Voltage	24 VDC	24 VAC	110 VAC	230 VAC
Pick-up Voltage	16.8 VDC	18 VAC	86.30 VAC	172.50 VAC
Drop-out Voltage	2.40 VDC	3.60 VAC	17.30 VAC	34.5 VAC
Max. Allowable Voltage	26.4 VDC	26.4 VAC	126.5 VAC	253 VAC
Coil Resistance	1440 Ω (1±10%)	350 Ω (1±10%)	8100 Ω (1±15%)	32500 Ω (1±15%)
Coil Power	400 mW	0.75 VA	0.75 VA	0.75 VA

Voltages other than specified are available on request

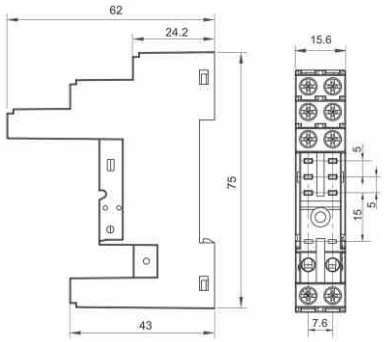
RELAY CONTACT DATA		
Contact Arrangement	2 CO	1 CO & 2 CO
Contact Resistance	50 mΩ (at 1A 24VDC)	100 mΩ (at 1A 6 VDC)
Contact Material	AgNi	AgNi
Contact Rating (Res. load)	8A 250 VAC / 24 VDC	12A / 16A / 250 VAC (1 CO)& 8A, 250 VAC (2 CO)
Max. Switching Voltage (at reduced load)	440 VAC / 125 VDC	440 VAC / 125 VDC
Max. Switching Power	3000 VA	3000 VA / 4000 VA (1 CO) & 2000 VA (2 CO)
Mechanical Endurance	1 x 10^7 OPS	1 x 10^6 OPS
Electrical Endurance	1 x 10^5 OPS	5 x 10^4 OPS

Retainer Dimensions



Side View Top View

Outline Dimensions



Side View Top View

ORDERING INFORMATION

Modular Relay Modules

2 CO Modular Relay Modules DC Input

Input Voltage	24VDC
2 CO	IMMR2SS1/24

1 CO & 2 CO Modular Relay Modules AC Input

Input Voltage	24VAC	110VAC	230VAC
1 CO	IMMR1SS1/24A	IMMR1SS1/110A	IMMR1SS1/230A
2 CO	IMMR2SS1/24A	IMMR2SS1/110A	IMMR2SS1/230A

Modular Relay Module Accessories

DC Input Relays

Input Voltage	24VDC
2 CO	IMACC/MR2S/24

AC Input Relays

Input Voltage	24VAC	110VAC	230VAC
1 CO	IMACC/MR1S/24A	IMACC/MR1S/110A	IMACC/MR1S/230A
2 CO	IMACC/MR2S/24A	IMACC/MR2S/110A	IMACC/MR2S/230A

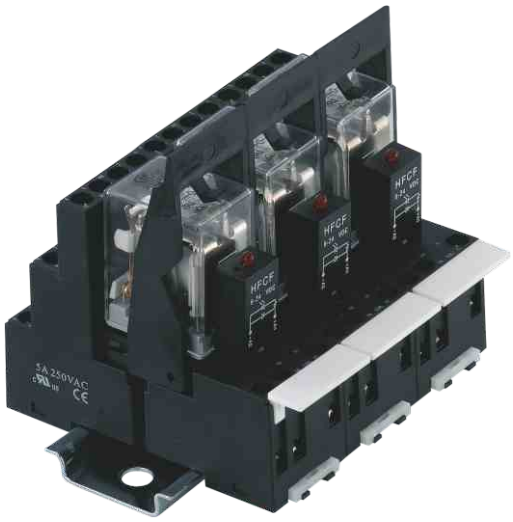
Mounting Rails

Mounting Rail	CA701 and CA701-15

DIN RAIL MOUNTABLE 4 CO MODULAR RELAYS

FEATURES

- Pitch: 27.2 mm
- High Switching current: up to 5A at 250VAC
- Dielectric Strength: 1.5 kV (Between Coil & Contacts)
- LED indication on coil activation.
- Free-wheeling diode protection for relay coil.
- Easy to replace pluggable relays.
- Available in both AC and DC coil voltages.



TECHNICAL INFORMATION

GENERAL DATA	
Power ON Indication	3 mm Red LED
Mounting Types	DIN35 / DIN35-15

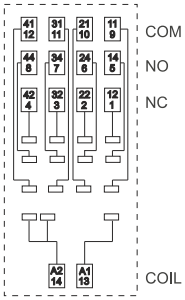
RELAY SOCKET DATA	
Housing Material	PA66+GF V0 (UL)
Contact Spring Material	QSn6.5-0.1
Ambient Temperature	-40^0 C to $+70^0$ C
Rated Voltage	250 VAC
Protection Degree DIN40050	IP20
Torque	0.6 Nm
Wire Stripping Length	7 mm
Maximum Wire Size	2.5 sq.mm

RELAY COIL DATA	DC COIL	AC COIL		
Normal Voltage	24 VDC	24 VAC	110 VAC	230 VAC
Pick-up Voltage	19.2 VDC	19.2 VAC	96 VAC	176 VAC
Drop-out Voltage	2.40 VDC	7.20 VAC	36 VAC	72 VAC
Max. Allowable Voltage	26.4 VDC	26.4 VAC	132 VAC	264 VAC
Coil Resistance	650 Ω (1±10%)	184 Ω (1±10%)	4550 Ω (1±15%)	14400 Ω (1±15%)
Coil Power	400 mW		1.8 VA	

Voltages other than specified are available on request

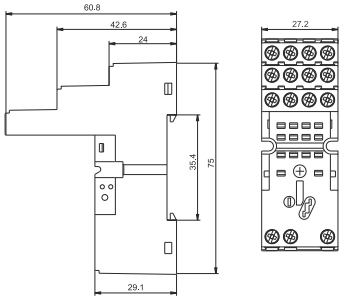
RELAY CONTACT DATA	
Contact Arrangement	4 CO
Contact Resistance	100 mΩ (at 1A 6 VDC)
Contact Material	Ag Alloy + Au plated
Contact Rating (Res. load)	5A 250 VA / 30 VDC
Max. Switching Voltage	250 VAC / 30 VDC
Max. Switching Current	5 A Per Contact
Max. Switching Power	150 W / 1250 VA
Mechanical Endurance	2 x 10^7 OPS
Electrical Endurance	1 x 10^5 OPS

Wiring Diagram



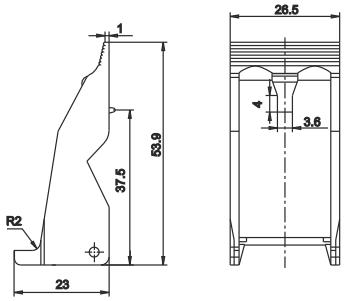
Top View

Outline Dimensions



Side View Top View

Retainer Dimensions



Side View Top View

ORDERING INFORMATION

Modular Relays

DC Input 4 CO Modular Relays

Input Voltage	24VDC
Cat. No.	IMMR4SS1/24

AC Input 4 CO Modular Relays

Input Voltage	24VAC	110VAC	230VAC
Cat. No.	IMMR4SS1/24A	IMMR4SS1/110A	IMMR4SS1/230A

Modular Relay Accessories

DC Input Relays

Input Voltage	24VDC
Cat. No.	IMACC/MR4S/24

AC Input Relays

Input Voltage	24VAC	110VAC	230VAC
Cat. No.	IMACC/MR4S/24A	IMACC/MR4S/110A	IMACC/MR4S/230A

Mounting Rails

Mounting Rail	CA701 and CA701-15

IDC / FRC MODULES

FEATURES

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

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

TECHNICAL INFORMATION

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

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

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

IDC / FRC CONNECTOR DATA**	
Insulation Material	PBT, glass reinforced
Contact Material	Brass
Rated Current	2A
Contact Resistance	30m ohms maximum
Insulation Resistance	3000M ohms minimum
Dielectric Withstanding Voltage	500VAC for 1 minute
Pin Configurations Available	10,14,16,20,26,34,40,50,60 & 64
Approvals	c UL us

CONFIGURATIONS **

IDC Modules with 1: 1 Screw Connections: IMIDC/xx/S/L

IDC Modules with 1: 1 Spring Connections: IMIDC/xx/SC/L

IDC Modules with Component Mounting Holes: IMIDC/xx/H/L

(with 5 component mounting holes / channel)

IDC Modules with LED Indication: IMIDC/xx/L1/L

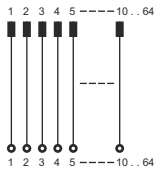
* PANEL mounting modules are available on request.
Please use the suffix -P with the above cat. no. for ordering.

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

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

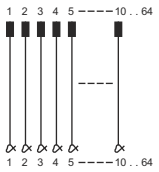
Circuit Diagrams

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



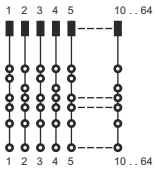
Standard IDC Modules, provide a 1:1 connection between the IDC header and the PCB Terminal Blocks.

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



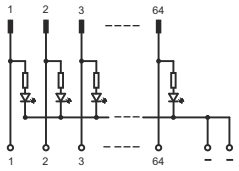
Standard IDC Modules, provide a 1:1 connection between the IDC header and the Spring Cage PCB Terminal Blocks.

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



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

IMIDC/x/L1
IDC Modules with LED Indication



These provide LED Indication on each Connected Line.

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

ORDERING INFORMATION

IDC / FRC Modules

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

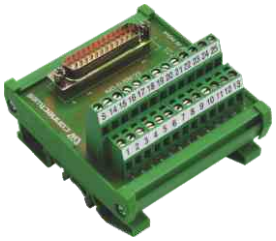
MALE & FEMALE DSUB MODULES

FEATURES

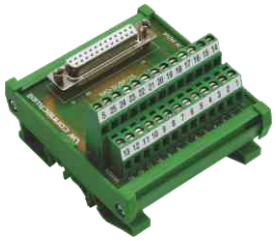
- Housed in V0 fire retardant grade PVC mounting track.
- Ease of connection with the use of standard screw connection PCB Terminal Blocks or Screwless Terminal Blocks
- Maximum current rating of 3 A per pin.
- Available with male or female DSUB connectors.
- Available with all standard pin configurations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

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

MALE DSUB MODULE WITH SPRING TERMINAL BLOCKS



MALE DSUB MODULE



FEMALE DSUB MODULE

TECHNICAL INFORMATION

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

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

DSUB CONNECTOR ELECTRICAL RATINGS	
Contact Resistance	15 m ohm maximum at 500 VDC
Current Rating	3A Max
Operation Voltage	250 VAC
Dielectric Withstainding Voltage	1000 VAC for one minute
Number of Contacts	9, 15, 25, 37, 50

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

CONFIGURATIONS

All DSUB Configurations available with Male or Female DSUB Connectors.

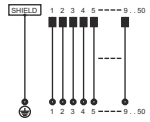
1) DSUB Modules with 1: 1 Connections between discrete screw terminals and DSUB pin. (Male: IMDSUBM/xx/S & Female: IMDSUBF/xx/S)
2) DSUB Modules with 1: 1 Connections between discrete spring terminals and DSUB pin. (Male: IMDSUBM/xx/S & Female: IMDSUBF/xx/S)
3) DSUB Modules with 5 Component Mounting Holes / Channel. (Male: IMDSUBM/xx/H & Female: IMDSUBF/xx/H)
4) DSUB Modules with LED Indication. (Male: IMDSUBM/xx/L1 & Female: IMDSUBF/xx/L1)

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

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

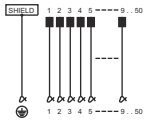
Circuit Diagrams

IMDSUBM/x/S



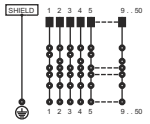
These are the Standard D-SUB Modules which provide 1:1 connection between Double Level Terminal Blocks and Male D-SUB Connectors.

IMDSUBM/x/SC



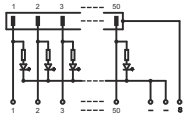
These are the Standard D-SUB Modules which provide 1:1 connection between Spring Cage PCB Terminal Blocks and Male D-SUB Connectors.

IMDSUBM/x/H



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

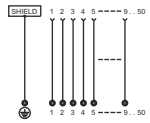
IMDSUBM/x/L1



These provide LED Indication on each Connected Line.

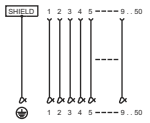
Alternate Circuits to suit the user's needs are available on request.

IMDSUBF/x/S



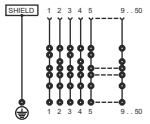
These are the Standard D-SUB Modules which provide 1:1 connection between Double level Terminal Blocks and Female D-SUB Connectors.

IMDSUBF/x/SC



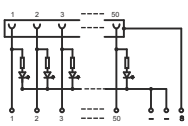
These are the Standard D-SUB Modules which provide 1:1 connection between Spring Cage PCB Terminal Blocks and Female D-SUB Connectors.

IMDSUBF/x/H



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

IMDSUBF/x/L1



These provide LED Indication on each Connected Line.

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

ORDERING INFORMATION

DSUB Male Modules : IMDSUBM

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

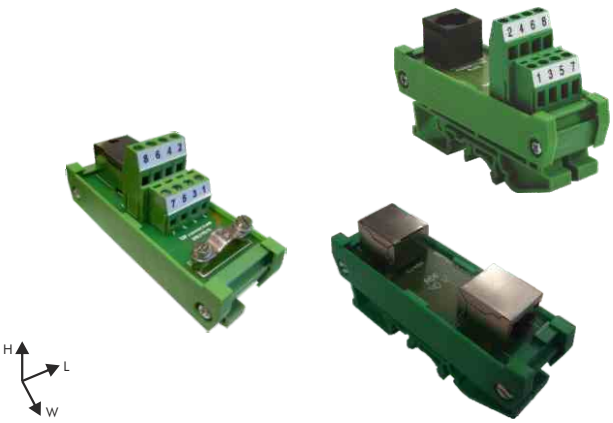
DSUB Female Modules: IMDSUBF

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

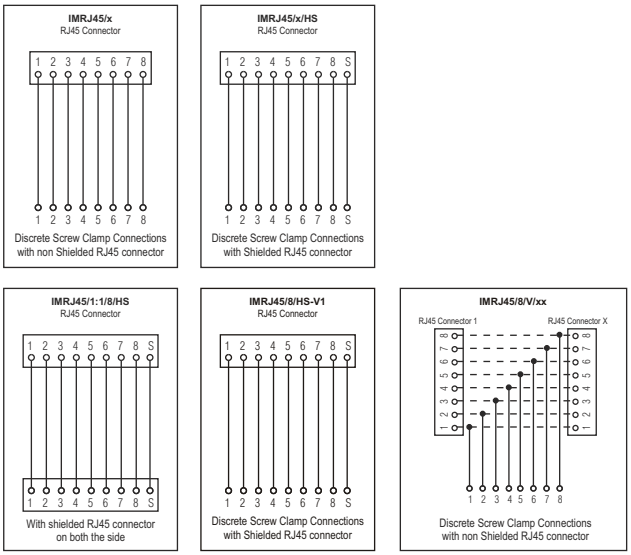
RJ45 INTERFACE MODULES

FEATURES

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



Circuit Diagrams



TECHNICAL INFORMATION

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

RJ45 CONNECTOR DATA	
Voltage Rating	125 VAC RMS.
Current Rating	1.5 AMP
Contact Resistance	30 milli ohms max.
Housing Material	Glass Filled Polyester UL94V-0
Housing Color	Black
Contact Material	Phosphor Bronze (Internal Dia. 0.46mm)
Contact Plating	Gold Flash Plating Over Nickel
Shield Material	0.23 Thickness Brass with Nickel Plating

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

ORDERING INFORMATION

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

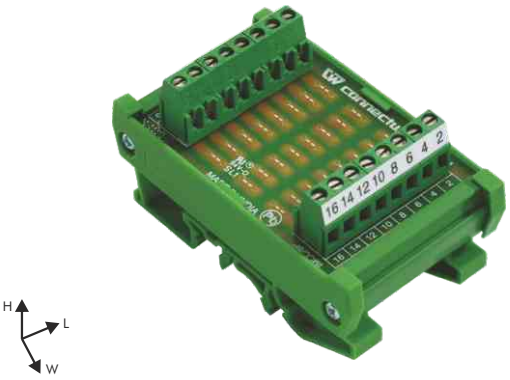
* Module Lengths mentioned are for RAIL Mounting option only. The lengths may vary for PANEL Mounting

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

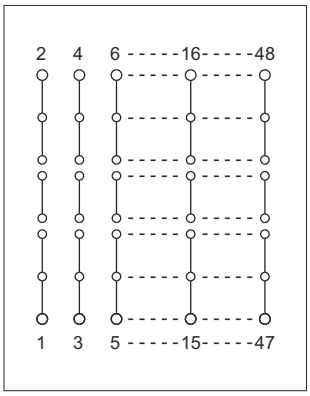
COMPONENT CARRIER MODULES

FEATURES

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



Circuit Diagram



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

TECHNICAL INFORMATION

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

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

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

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

ORDERING INFORMATION

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

DIODE & LAMP TEST MODULES

FEATURES

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

Connectwell DIN Rail & Panel mounting Diode & Lamp Test module is design to test AC / DC lamps of block diagram, control panel or display with single signal or each lamp can be tested with separate signals.

TECHNICAL INFORMATION

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

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

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

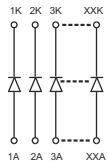
DIMENSIONAL DATA											
Number of Channels	4	5	6	8	10	12	14	16	20	22	24
Width W (mm)	88	88	88	88	88	88	88	88	88	88	88
Height H (mm)	51	51	51	51	51	51	51	51	51	51	51
Length L (mm) **											
Individual Diode Modules	32	-	-	53	63	73	-	95	113	-	133
Common Anode Diode Modules	-	-	32	-	-	-	53	58	73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

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

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

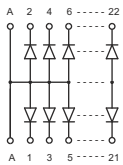
Circuit Diagrams

IMD/S/XX
Individual Diode Modules



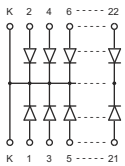
Individual Diodes connected between two PCB Terminal Blocks.

IMD/CA/XX
Common Anode Diode Modules



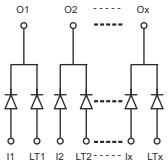
Diode Network with Common Anode and Individual Cathodes.

IMD/CK/XX
Common Cathode Diode Modules



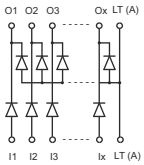
Diode Network with Common Cathode and Individual Anodes.

IMDLT/DC/S/XX
Individual Lamp Test Modules



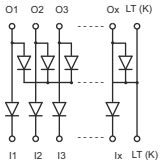
Each channel can be tested with individual test signals.

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



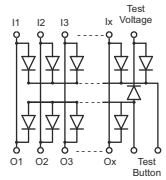
A single Positive signal can be used to check all the channels simultaneously.

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



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

IMDLT/AC/XX
AC Lamp Test Modules



This Module is utilized for AC Lamp Testing applications.

ORDERING INFORMATION

Diode Modules

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

DC Lamp Test Modules

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

AC Lamp Test Modules

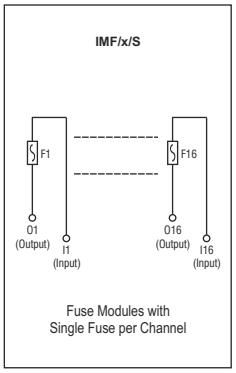
# of Channels	Cat. No.
5	IMDLT/AC/5
10	IMDLT/AC/10
22	IMDLT/AC/22

STANDARD FUSE MODULES & FUSE MODULES WITH FUSE FAIL INDICATION

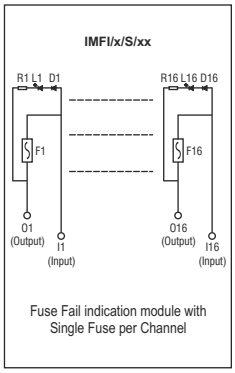
FEATURES

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

Circuit Diagrams



Fuse Modules with Single Fuse per Channel



Fuse Fail indication module with Single Fuse per Channel

Connectwell DIN Rail & Panel mounting Fuse module allow passage of normal current to the device and interrupts the over current caused by short circuit, over loading, miss match load or device failure so that further damage by overheating or fire is prevented.

TECHNICAL INFORMATION

GENERAL DATA				
Number of Channels	2	4	8	16
Width W (mm)	88	88	88	88
Height H (mm)	74	74	74	74
Length L (mm)*	26	48	93	183
Ambient Temperature (Operation)	-20° C ... 50° C			
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**			
Housing Insulation Material	PVC / V0 Grade			
Housing Colour	Green			

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

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

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

FUSE DATA	
Fuse Size	5 x 20 mm
Fuse Type	Fast Blow / Slow Blow
Fuse Rating Available (A)	0.1, 0.5, 0.63, 1, 2, 3, 4, 5, 6, 6.3
FUSE HOLDER DATA	
Cap Design	Screw-In With Coin Slot.
Contact Resistance	10 m ohms max.
Fuse Link Size	5 x 20 mm
Material: Current Carrying Parts	Brass Tin Plated
Material: Housing	Polyamide G.F.
Mounting Style	PCB-type Vertical
Permissible Temp. With / Without load	-20^{0}C to +85^{0}C
Rated Current	6.3 A
Terminals	Solder-type

CONFIGURATIONS

Fuse Modules with Single Fuse per Channel : IMF/x/S

Fuse Fail indication module with Single Fuse per Channel : IMFI/x/S/xx

ORDERING INFORMATION

Fuse Modules with Single Fuse per Channel : IMF/x/S

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

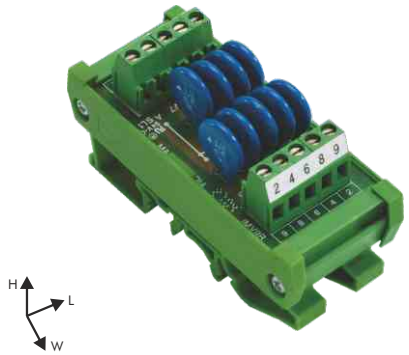
Fuse Fail indication module with Single Fuse per Channel : IMFI/x/S/xx

# of Channels	24 V AC/DC	110 V AC/DC	230 V AC/DC
2	IMFI/2/S/24	IMFI/2/S/110	IMFI/2/S/230
4	IMFI/4/S/24	IMFI/4/S/110	IMFI/4/S/230
8	IMFI/8/S/24	IMFI/8/S/110	IMFI/8/S/230
16	IMFI/16/S/24	IMFI/16/S/110	IMFI/16/S/230

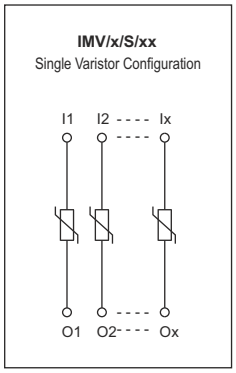
VARISTOR MODULES

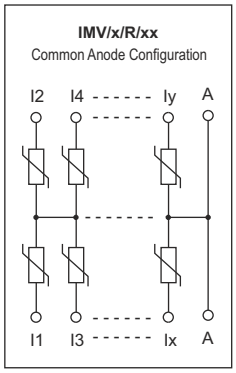
FEATURES

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



Circuit Diagrams





Connectwell DIN Rail & Panel mounting Varistor module provide reliable protection against high voltage transient and surges which may be produced by lightening, switching or electrical noise on AC or DC power lines, to protecting the sensitive circuit components.

TECHNICAL INFORMATION

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

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

VARISTOR DATA			
Varistor Type	14mm Diameter		
Varistor Rating ***	50V	130V	275V
Maximum Allowable Voltage AC	50	130	275
Maximum Allowable Voltage DC	65	170	350
Varistor Voltage	59~71	153~187	315~385
Clamping Voltage v	135	340	710
Rated Wattage (Max.) W	0.6		
Maximum Energy (2 μs) joule	15	34	71
Surge Current (8/20 μs) A	4500		
Response Time	< 25 ns		

CONFIGURATIONS

Varistor Modules with Single Varistor per Channel : IMV/x/S/xx

Varistor Modules with Common anode configuration : IMV/x/R/xx

ORDERING INFORMATION

Single Varistor Configuration

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

Common Anode Configuration

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

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

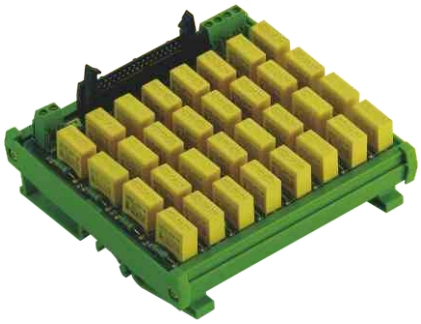
** PANEL mounting modules are available on request. Please use the suffix -P with the above cat. no. for ordering.

*** Varistor voltages are indicative of the range available. All other varistor voltages for 14 mm & 20 mm varistors are available on request.

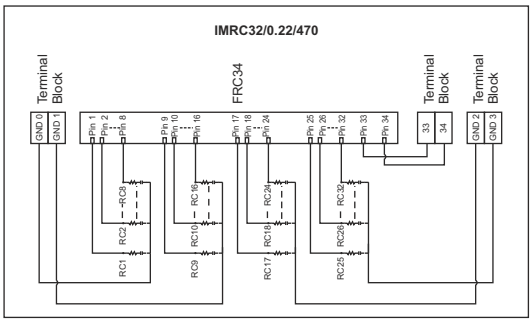
32 CHANNEL RC MODULE

FEATURES

- 16/ 32 Channel resistor - capacitor (RC) circuit built-in.
- Highly compact in size.
- Other capacitor values are also available on request.
- Din rail & Panel mounting option available.



Circuit Diagrams



TECHNICAL INFORMATION

GENERAL DATA	
Ambient Temperature (Operation)	-20° C ... 50° C
Mounting Types	DIN32 / DIN35 / DIN35-15 / PANEL
Housing Insulation Material	PVC / V0 Grade
CONNECTION DATA	
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Type of Connection	Screw connection
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

IDC / FRC CONNECTOR DATA	
No. of Contacts	34
Material Insulator	PBT, glass reinforced
Material Contact	Brass
Rated Current	2A
Contact Resistance	30m ohms maximum
Insulation Resistance	3000M ohms minimum
Dielectric withstanding Voltage	500 VAC for 1 minute
RC DATA	
Capacitor Type	MPX (Class-X2): Interference Suppression Capacitor
Temperature	-40° C to + 110° C
Capacitance Tolerance	± 20%
Capacitor Value	0.22 µF, 470 V

ORDERING INFORMATION

Module Specifications	RC Module Cat. No.
0.22 µF 275 VAC, 470Ω ½ W	IMRC16/0.22/470
0.22 µF 275 VAC, 470Ω 2 W	IMRC16/0.22/470/2W
0.22 µF 275 VAC, 1KΩ 2 W	IMRC16/0.22/1K/2W

Module Specifications	RC Module Cat. No.
0.22 µF 275 VAC, 470Ω ½ W	IMRC32/0.22/470
0.22 µF 275 VAC, 470Ω 2 W	IMRC32/0.22/470/2W
0.22 µF 275 VAC, 1KΩ 2 W	IMRC32/0.22/1K/2W
Other RC configuration values available on request	

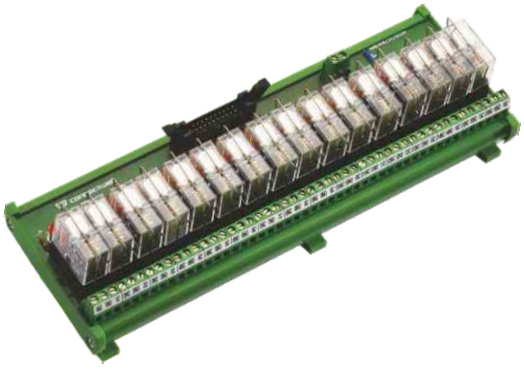
16 I/O INTERFACE MODULES for SCHNEIDER PLC

FEATURES

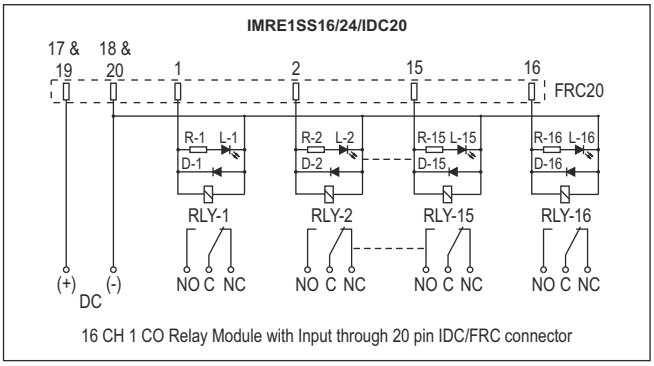
This module simplifies wiring by accommodating 16 channel signals through a Flat Ribbon Cable Connector. The module is best suited for interfacing Schneider PLC.

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

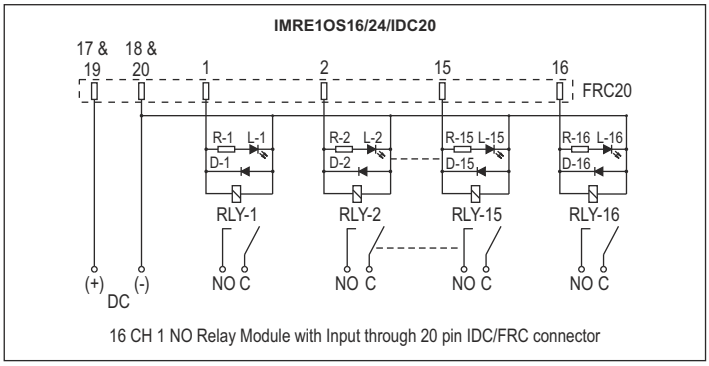
1 NO Relay Output is also available as standard product.



Circuit Diagrams



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



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

TECHNICAL INFORMATION

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

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

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

IDC / FRC CONNECTOR DATA	
Insulation Material	PBT, glass reinforced
Contact Material	Brass
Rated Current	2A
Contact Resistance	30m ohms maximum
Insulation Resistance	3000M ohms minimum
Dielectric withstanding Voltage	500VAC for 1 minute

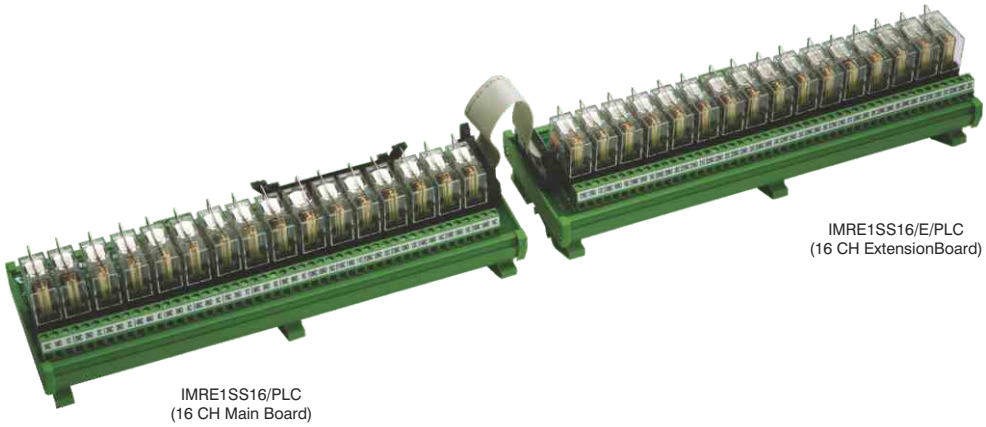
ORDERING INFORMATION

Module Type	16 CH 1 CO	16 CH 1 NO
With Pluggable Relays	IMRE1SS16/24/IDC20	IMRE1OS16/24/IDC20
With Soldered Relays	IMRE1S16/24/IDC20	IMRE1O16/24/IDC20

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

FEATURES

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

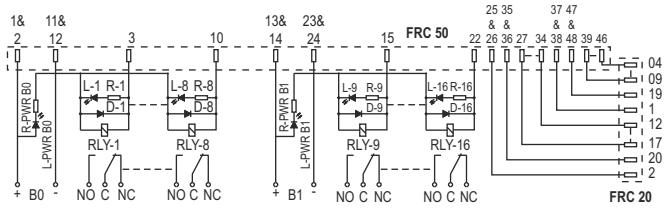


IMRE1SS16/E/PLC
(16 CH ExtensionBoard)

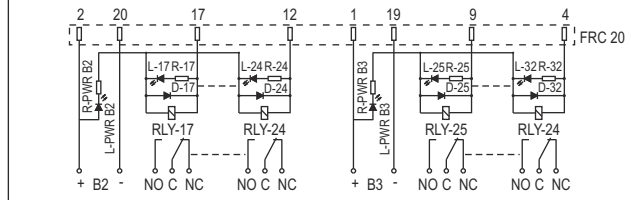
IMRE1SS16/PLC
(16 CH Main Board)

Circuit Diagrams

IMRE1SS16/PLC (16 CH Main Board)



IMRE1SS16/E/PLC (16 CH ExtensionBoard)



TECHNICAL INFORMATION

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

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

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

IDC / FRC CONNECTOR DATA	
Insulation Material	PBT, glass reinforced
Contact Material	Brass
Rated Current	2A
Contact Resistance	30m ohms maximum
Insulation Resistance	3000M ohms minimum
Dielectric withstanding Voltage	500 VAC for 1 minute

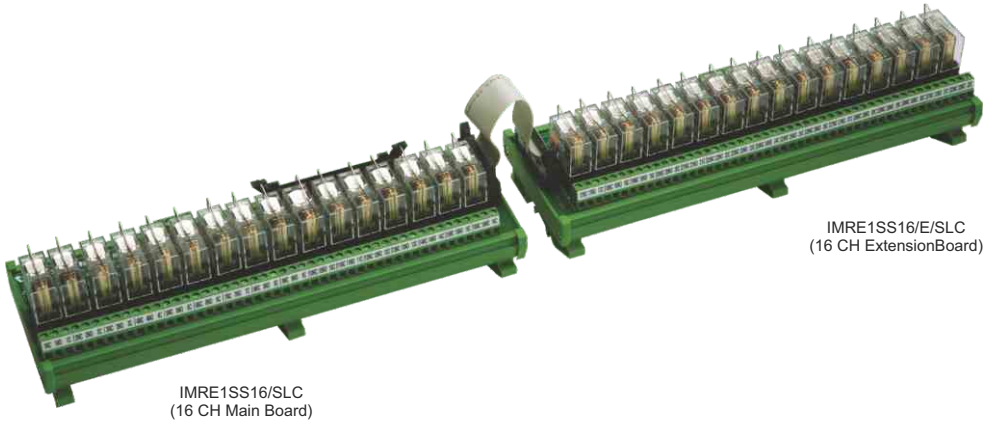
ORDERING INFORMATION

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

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

FEATURES

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

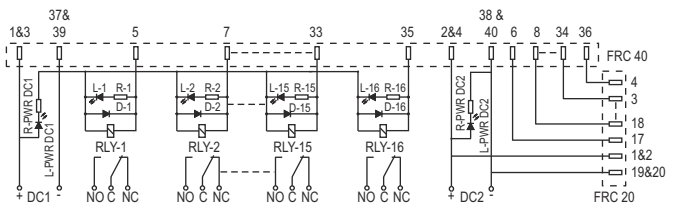


IMRE1SS16/E/SLC
(16 CH ExtensionBoard)

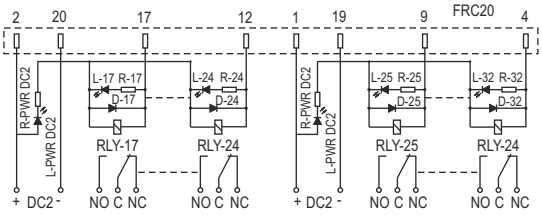
IMRE1SS16/SLC
(16 CH Main Board)

Circuit Diagrams

IMRE1SS16/SLC (16 CH Main Board)



IMRE1SS16/E/SLC (16 CH ExtensionBoard)



TECHNICAL INFORMATION

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

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

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

IDC / FRC CONNECTOR DATA	
Insulation Material	PBT, Glass Reinforced
Contact Material	Brass
Rated Current	2A
Contact Resistance	30m ohms maximum
Insulation Resistance	3000M ohms minimum
Dielectric withstanding Voltage	500VAC for 1 minute

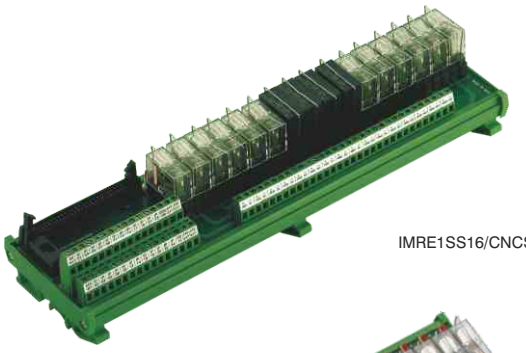
ORDERING INFORMATION

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

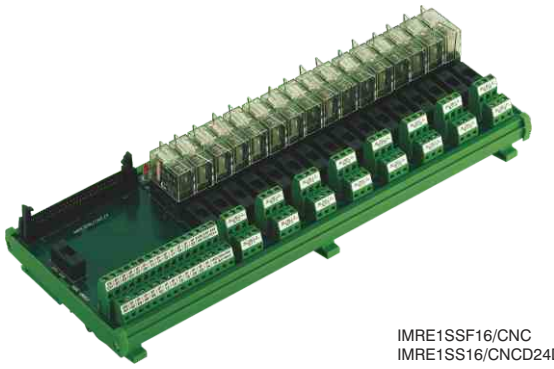
CNC INTERFACE MODULES

FEATURES

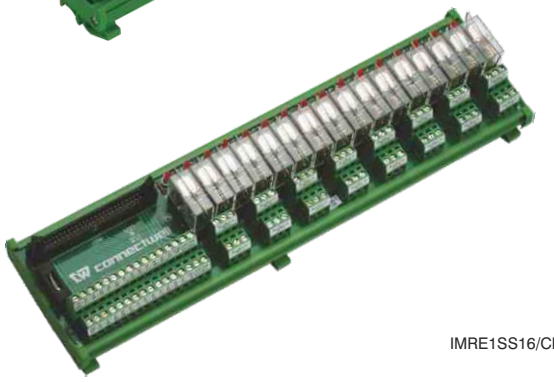
IMRE1SS16/CNC and IMRE1SS16/CNCSSRx Interface Modules from Connectwell ease PLC wiring in CNC machines. These modules provide connection possibility for both the input and output side of a PLC in a single module and are compatible with various PLCs from Fanuc, GE, Mitsubishi, Schneider & Siemens.



IMRE1SS16/CNCSSR4



IMRE1SSF16/CNC
IMRE1SS16/CNCD24D



IMRE1SS16/CNC

TECHNICAL INFORMATION

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

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

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

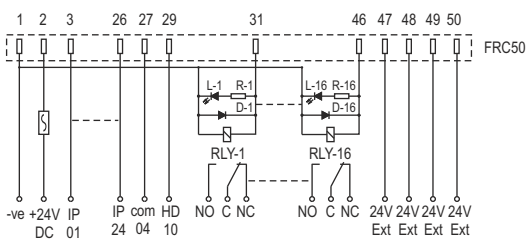
FUSE HOLDER DATA			FUSE DATA	
Cap Design	Flat		Fuse Size	5 x 20 mm
Fuse Link Size	5 x 20 mm		Fuse Type	Fast Blow/Slow Blow
Mounting Style	Horizontal		Fuse Ratings (A)	0.1, 0.5, 0.63,
Rated Current	6.3 A			1, 2, 3, 4, 5, 6, 6.3

SSR INPUT DATA	(Voltages other than specified below are available on request)		
Control Voltage Range	5 VDC	12 VDC	24 VDC
Must Operate Voltage	4 VDC	9.6 VDC	19.2 VDC
Must Release Voltage	1 VDC	1 VDC	1 VDC
Max. Reverse Protection	-6 VDC	-14.4 VDC	-28.8 VDC
Max. Input Current	20 mA	20 mA	20 mA

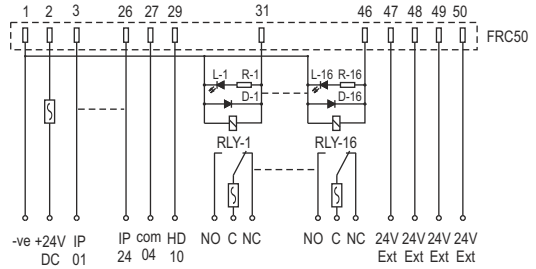
SSR OUTPUT DATA	DC Output	AC Output
Contact Type	1NO (SPST)	1NO (SPST)
Load Voltage Range	3 to 125 VDC	75 to 400 VAC
Load Current Range	0.1 to 2A	0.1 to 3A
Max. Surge Current	10 times of rated current	10 times of rated current
Max. Leakage Current	0.1 mA	1.5 mA
Max. On State Voltage Drop	1.5 VDC	1.5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

Circuit Diagrams

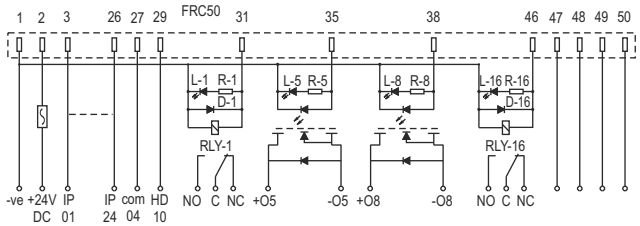
IMRE1SS16/CNC



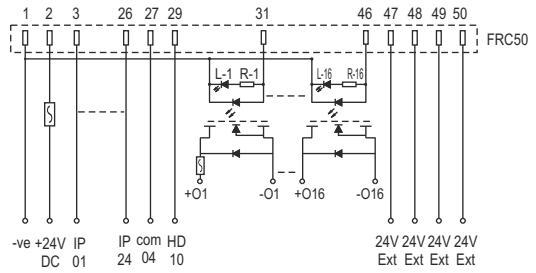
IMRE1SSF16/CNC



IMRE1SS16/CNCSSRx



IMRE1SSF16/CNCD24D



ORDERING INFORMATION

Module Type	CNC Module	CNC SSR Module	CNC with Fuse Module	CNC SSR with Fuse Module
With Pluggable Relays	IMRE1SS16/CNC	IMRE1SS16/CNCSSRx	IMRE1SSF16/CNC	IMRE1SSF16/CNCD24D
With Soldered Relays	IMRE1S16/CNC	IMRE1S16/CNCSSRx	IMRE1SF16/CNC	IMRE1SF16/CNCD24D

x - no. of SSR

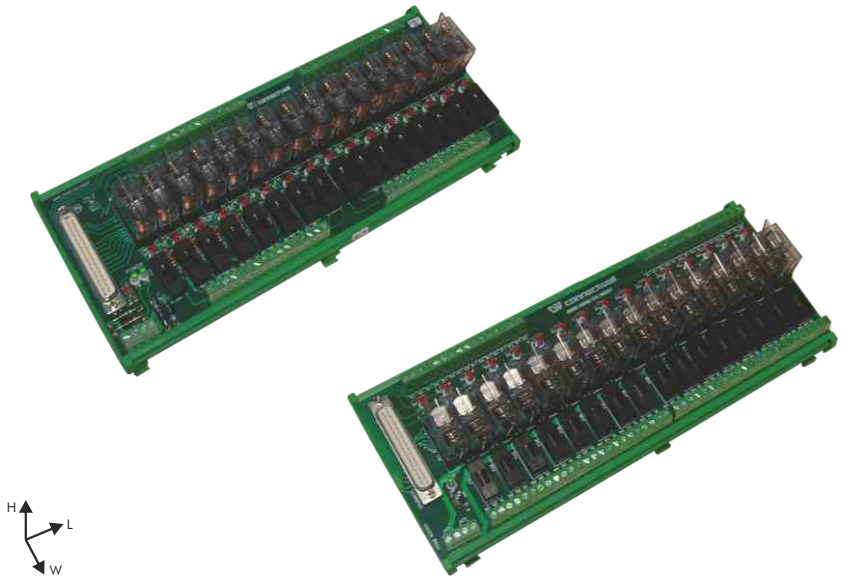
DIGITAL INPUT & DIGITAL OUTPUT RELAY MODULES

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

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

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

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



TECHNICAL INFORMATION

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

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

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

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

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

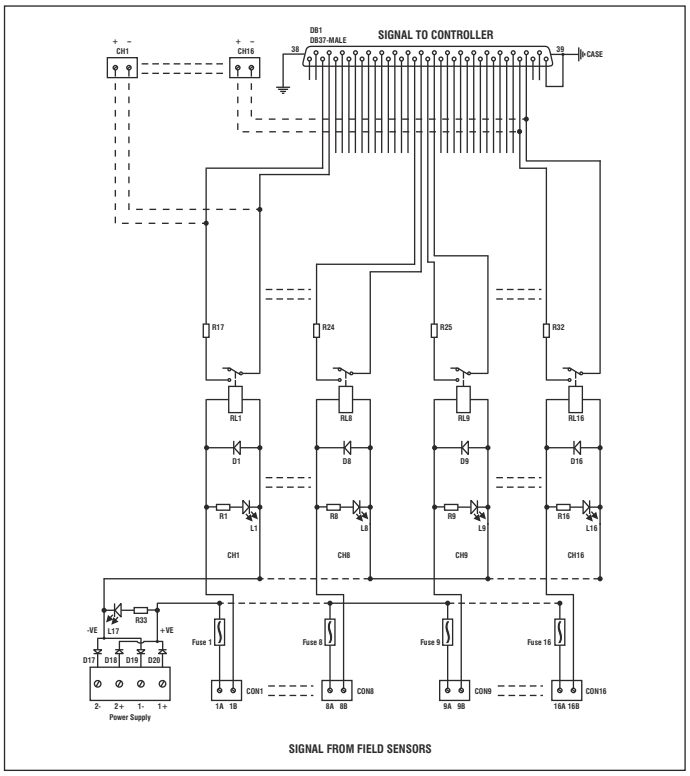
RELAY DATA		
Relay Make / Series	FUJITSU /FTRH1CA	FUJITSU /FTRF1CA
Contact Type	1CO (SPDT)	2CO (DPDT)
Rated Current	10A @250 VAC; 10A @30 VDC	5A @250 VAC; 5A @24 VDC
Relay Approvals		

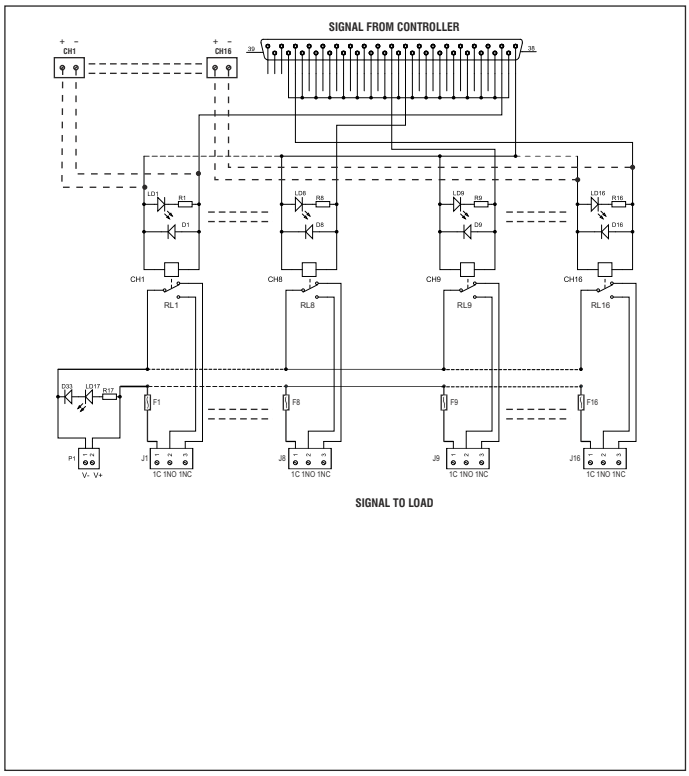
RELAY COIL DATA	
Rated Coil Voltage	24 VDC
Coil Resistance (ohms)	1100
Rated Coil Current (mA)	21.8
Must Operate Voltage	16.8 V
Must Release Voltage	2.4 V
Max. Voltage	39.6 V

RELAY CONTACT DATA		
Contact Material	$AgSnO_2$ (Gold plate silver tin oxide)	
Rated Current	10A @250 VAC; 10A @30 VDC	5A @250 VAC; 5A @24 VDC
Max. Switching Voltage	400VAC, 300VDC	
Timing Data	Max. 10ms (Operate at nominal voltage) Max. 5ms (Release at nominal voltage)	
Mechanical Life expectancy	Min. 20 x 10^6 operations	
Electrical Life expectancy	Min. 100 x 10^3 operations	

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

Circuit Diagram





D-SUB PIN ASSIGNMENT (DI MODULE)

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

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

D-SUB PIN ASSIGNMENT (DO MODULE)

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

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

ORDERING INFORMATION

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

32 CHANNEL DIGITAL INPUT MODULE

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

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

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

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

TECHNICAL INFORMATION

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

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

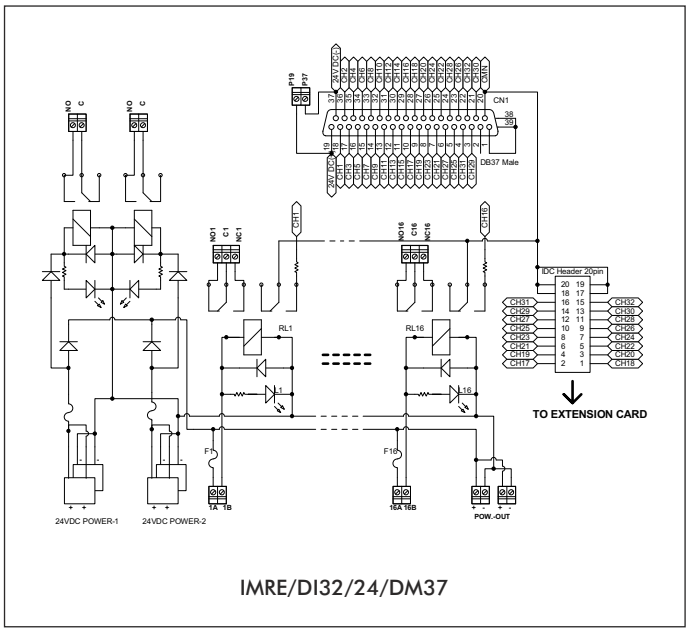
DSUB CONNECTOR DATA	
Contact Resistance	15 m ohm maximum at 500 VDC
Current Rating	3A Max
Dielectric Withstainding Voltage	1000 VRMS
Number of Contacts	37

IDC/FRC CONNECTOR DATA	
Contact Resistance	30 m ohm maximum at 500 VDC
Current Rating	1.5 A
Dielectric Withstainding Voltage	500 VRMS
Number of Contacts	20

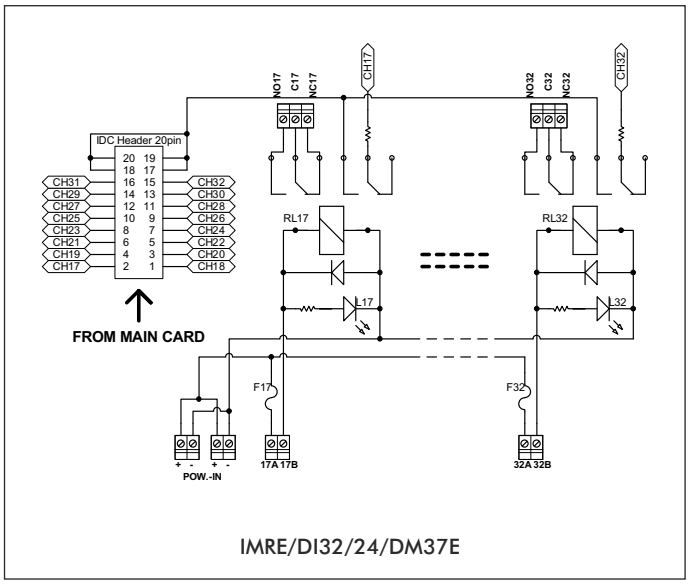
RELAY COIL DATA	
Relay Make Series	OMRON
Rated Coil Voltage (VDC)	24
Coil Resistance (ohms)	1100
Rated Coil Current (mA)	21.8
Must Operate Voltage (V)	16.8
Must Release Voltage (V)	2.4
Max. Voltage (V)	31.2

RELAY CONTACT DATA		
Contact Type/Contact Material	1CO (SPDT)/Ag Alloy	2CO (SPDT)/Ag Alloy
Rated Current	10A@230 VAC; 10A@30 VDC	5A@230 VAC; 5A@30 VDC
Max. Switching Voltage	380 VAC, 125 VDC	380 VAC, 125 VDC
Mechanical Life expectancy	Min. 20 x 10^6 operations	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 30 x 10^3 operations	Min. 30 x 10^3 operations

Circuit Diagram



IMRE/DI32/24/DM37



IMRE/DI32/24/DM37E

D-SUB PIN ASSIGNMENT (DO MODULE)

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

COMMON FOR CH1 to CH32	20
SHORTED TO SHIELD	1
NOT CONNECTED	2
TERMINATED ON PCB TB	19
TERMINATED ON PCB TB	37

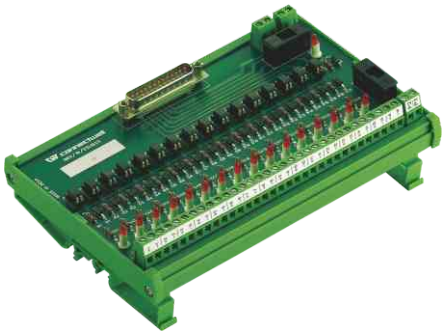
ORDERING INFORMATION

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

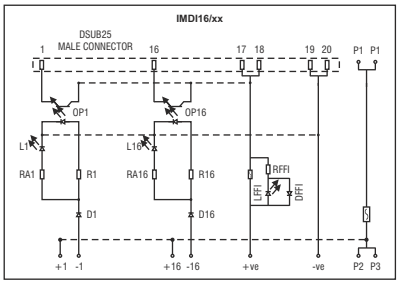
DIGITAL INPUT MODULE WITH OPTICAL ISOLATION

FEATURES

- Interface between PLC and Sensors
- 16 Channel input can be achieved
- Protection: Diode polarity protection
- Isolation: Opto isolation between PLC and Sensors.
- Easy to replace opto couplers (Pluggable).
- LED indication for signal input
- Fuse fail indication for main supply.



Circuit Diagrams



TECHNICAL INFORMATION

GENERAL DATA	
Signal on Indication	3 mm Red LED
Input Polarity Protection	Using 1N 4007 Diode
Isolation (Input to Output)	Using Pluggable Opto Coupler
Ambient Temperature (Operation)	-20° C ... 50° C
Mounting Types	DIN32 / DIN35 / DIN35-15 / PANEL
Housing Insulation Material	PVC / V0 Grade
Housing Colour	Green
CONNECTION DATA	
Type of Connection	Screw Sonnection
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	8.3 mm
Torque	4.5 lb-in / 0.5 Nm

DSUB CONNECTOR DATA	
Contact Resistance	15 m ohm maximum at 500VDC
Current Rating	3A Max
Operation Voltage	250VAC
Dielectric Withstanding Voltage	1000VAC for one minute
Number of Contacts	25
DSUB CONNECTOR MATERIALS	
Insulator	PBT, Rated UL94V-0
Contacts	Brass
Shell	Steel
Rivet, boardlock	Copper Alloy

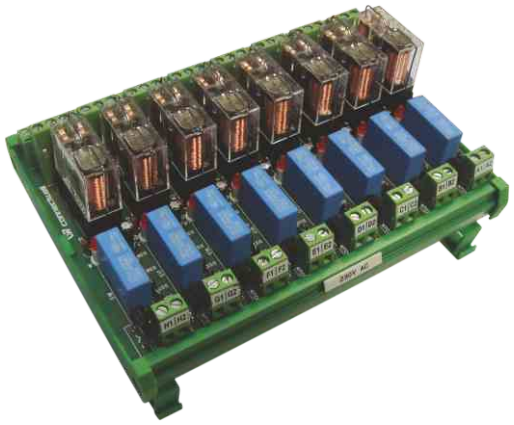
ORDERING INFORMATION

Module Type	Digital Input Module Cat. No.
24 VDC Input	IMDI16/24

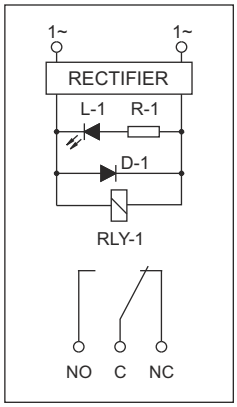
1 CO RELAY MODULE RECTIFIER VERSION (SPDT)

FEATURES

- Allows an input voltage of 110 VAC & 230 VAC.
- An economical option to standard 110 VAC & 230 VAC modules.
- Operating Voltages 110 & 230 VAC
- Switching Current upto 10 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays.
- LED Indication to denote relay actuation.
- Relay Coil Protection by means of a Freewheeling Diode.
- Mounting Options available: DIN Rail mounting & Panel mounting.



Circuit Diagram



Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuators / sensors. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays.

TECHNICAL INFORMATION

GENERAL DATA					
Number of Channels	1	2	4	8	16
Width (mm)	88	88	88	88	88
Height (mm)	74	74	74	74	74
Length (mm)*	23	37	70	130	270
	Channels other than specified are available on request				
Positive Bussing Possibility	-				
Negative Bussing Possibility	-				
Power ON Indication	3 mm Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20° C ... 50° C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

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

RELAY COIL DATA		
Relay Make Series	**FUJITSU**	
Contact Type	1 CO (SPDT)	
Rated Coil Voltage	110 VAC	230 VAC
Coil Resistance (ohms)	4600	26850
Rated Coil Current (mA)	11.0	4.7
Must Operate Voltage	80% max. of rated voltage	
Must Release Voltage	30% max. of rated voltage	
Max. Voltage	100% max. of rated voltage	

RELAY CONTACT DATA	
Contact Material	$AgSnO_2$
Rated Current	10A @230 VAC / 30 VDC
Max. Switching Voltage	400 VAC, 300 VDC
Timing Data	Max. 10ms (Operate) Max. 5ms (Release)
Mechanical Life expectancy	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100x10^3 operations
Relay Approvals	
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.

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

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

ORDERING INFORMATION

110 VAC - 1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/110A/RECT	IMRE1S1/110A/RECT
2	IMRE1SS2/110A/RECT	IMRE1S2/110A/RECT
4	IMRE1SS4/110A/RECT	IMRE1S4/110A/RECT
8	IMRE1SS8/110A/RECT	IMRE1S8/110A/RECT
16	IMRE1SS16/110A/RECT	IMRE1S16/110A/RECT

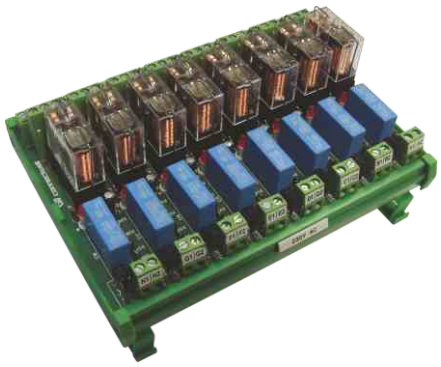
230 VAC - 1 CO (SPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE1SS1/230A/RECT	IMRE1S1/230A/RECT
2	IMRE1SS2/230A/RECT	IMRE1S2/230A/RECT
4	IMRE1SS4/230A/RECT	IMRE1S4/230A/RECT
8	IMRE1SS8/230A/RECT	IMRE1S8/230A/RECT
16	IMRE1SS16/230A/RECT	IMRE1S16/230A/RECT

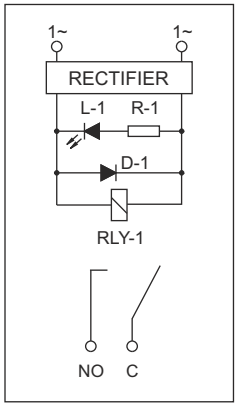
1 NO RELAY MODULE RECTIFIER VERSION (SPDT)

Relay Modules with only 1 NO (SPST) contacts are available on request.

GENERAL DATA	
Relay Make / Series	G2R-A1
Contact Type	1 NO
Output Current	10 A
Output Voltage	230 VAC, 30 VDC



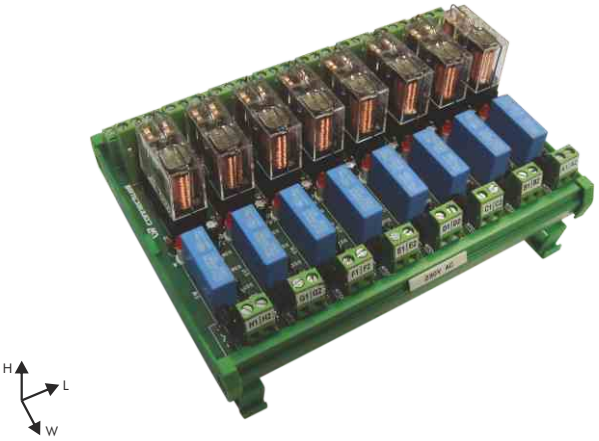
Circuit Diagram



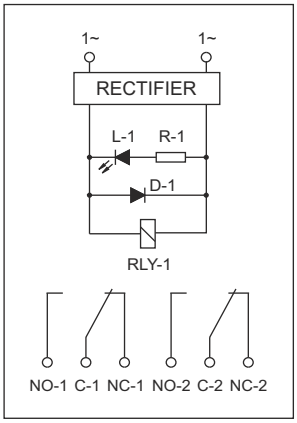
2 CO RELAY MODULE RECTIFIER VERSION (DPDT)

FEATURES

- Allows an input voltage of 110 VAC & 230 VAC.
- An economical option to standard 110 VAC & 230 VAC modules.
- Variety of Operating Voltages.
- Switching Current upto 5 A at 230 VAC (or 30 VDC)
- Low Coil Drive Current (4.7 mA to 100 mA)
- Easy to replace pluggable relays.
- LED Indication to denote relay actuation.
- Relay Coil Protection by means of a Freewheeling Diode.
- Mounting Options available: DIN Rail mounting & Panel mounting.



Circuit Diagram



Connectwell DIN Rail & Panel mounting relay modules are an excellent solution for transmission of electric signals between PLC / DCS system and field actuators / sensors. These modules provides electrical isolation between control and load circuits with the help of electro-mechanical relays.

TECHNICAL INFORMATION

GENERAL DATA					
Number of Channels	1	2	4	8	16
Width (mm)	88	88	88	88	88
Height (mm)	74	74	74	74	74
Length (mm)*	26	45	83	160	315
	Channels other than specified are available on request				
Positive Bussing Possibility	-				
Negative Bussing Possibility	-				
Power ON Indication	3 mm Red LED				
Relay Protection	Using 1N4007 Freewheeling Diode.				
Ambient Temperature (Operation)	-20° C ... 50° C				
Mounting Types **	DIN32 / DIN35 / DIN35-15 / PANEL**				
Housing Insulation Material	PVC / V0 Grade				
Housing Colour	Green				

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

RELAY COIL DATA		
Relay Make Series	**FUJITSU**	
Contact Type	2 CO (DPDT)	
Rated Coil Voltage	110 VAC	230 VAC
Coil Resistance (ohms)	4600	26850
Rated Coil Current (mA)	11.0	4.7
Must Operate Voltage	80% max. of rated voltage	
Must Release Voltage	30% max. of rated voltage	
Max. Voltage	100% max. of rated voltage	

RELAY CONTACT DATA	
Contact Material	$AgSnO_2$
Rated Current	5A @230 VAC / 24 VDC
Max. Switching Voltage	400 VAC, 300 VDC
Timing Data	Max. 10ms (Operate) Max. 5ms (Release)
Mechanical Life expectancy	Min. 20 x 10^6 operations
Electrical Life expectancy	Min. 100x10^3 operations
Relay Approvals	
Other Coil Voltages	Voltages like 6 VDC, 48 VDC, 24 VAC etc. are available on request.

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

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

ORDERING INFORMATION

110 VAC - 2 CO (DPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/110A/RECT	IMRE2S1/110A/RECT
2	IMRE2SS2/110A/RECT	IMRE2S2/110A/RECT
4	IMRE2SS4/110A/RECT	IMRE2S4/110A/RECT
8	IMRE2SS8/110A/RECT	IMRE2S8/110A/RECT
16	IMRE2SS16/110A/RECT	IMRE2S16/110A/RECT

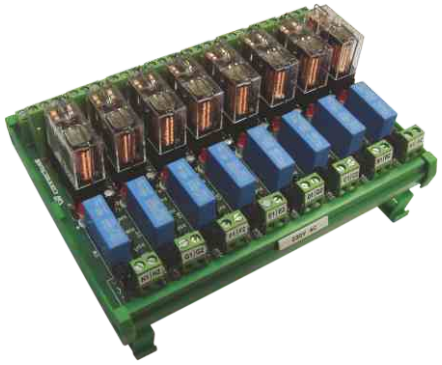
230 VAC - 2 CO (DPDT) Relay modules

# of Channels	With Pluggable Relays	With Soldered Relays
1	IMRE2SS1/230A/RECT	IMRE2S1/230A/RECT
2	IMRE2SS2/230A/RECT	IMRE2S2/230A/RECT
4	IMRE2SS4/230A/RECT	IMRE2S4/230A/RECT
8	IMRE2SS8/230A/RECT	IMRE2S8/230A/RECT
16	IMRE2SS16/230A/RECT	IMRE2S16/230A/RECT

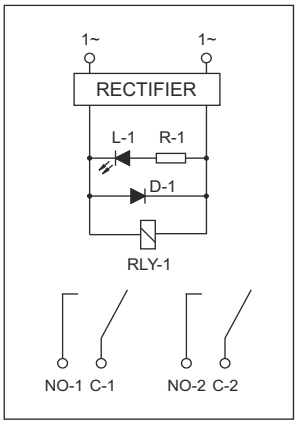
2 NO RELAY MODULE RECTIFIER VERSION (DPDT)

Relay Modules with only 1 NO (SPST) contacts are available on request.

GENERAL DATA	
Relay Make / Series	G2R-A1
Contact Type	1 NO
Output Current	5 A
Output Voltage	230 VAC, 30 VDC



Circuit Diagram



FAN FAILURE MODULE FOR 4 FANS (230 VAC) WITH TEMPERATURE MONITOR

FEATURES

- Compact & Standard DIN Rail mounting.
- Isolated fan monitor units
- Fan monitor for 4 fans
- Adjustable fan over current
- LED Indication for FAN OK, FAN FAIL, FUSE FAIL AND FAN TRIP SET.
- 2 Digit temperature display
- Temperature set point operation
- 4-20 mA current output (Sink Type)
- Fuse protection for each module

Detects failure of fan inside the panel and also generate an alarm signal. Its 4-20 mA analog output and 2 digit temperature display makes it versatile in Industry.

TECHNICAL INFORMATION

GENERAL DATA	
Width(mm)	106
Height(mm)	108
Length(mm)	101
power input	220-240VAC
Fan Monitor Units	2
No of fan can be connected	4
Fan Rating	230VAC/0.13A
Fan Failure Alarm contact	1
Temperature Monitor Units	1
Over Temperature Alarm contact	1
PT100 interface	1
4-20mA output	1
Power On Indication	3 mm Red LED
Ambient Temperature	- 20° to +50°C
Mounting Possibility	DIN 35
Housing Colour	Grey
Housing Material	ABS V-0 Grade
Temperature Display Readout	0 - 99°C, 2 Digit, (+/-1°C tol.)
Current Output	4-20 mA (+/-0.16 mA tol.)

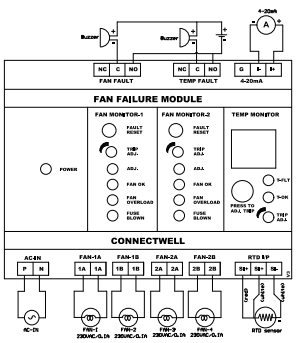
CONNECTION DATA	
Type of Connection	Screw Connection / Pluggable
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	7.5 mm
Rating	300 V / 12 A
Torque	4.5 lb-in / 0.5 Nm

RELAY CONTACT DATA	
Alarm Signal Relay	
Max. Switching Voltage	220 V DC / 250 V AC
Rated Current	1 A @ 125 V AC ; 2 A @ 30 V DC
Fan Power Cut Off Relay	
Max. Switching Voltage	300 V AC
Rated Current	7 A @ 300 V AC ; 10 A @ 28 V DC

SENSOR DATA	
Sensor Type	RTD
Configuration	3 Wire
Construction	RTD Element Enclosed in metallic rod
Wire Length	10 cm
Element	PT 100, Class B

ORDERING INFORMATION	
Type / Cat. No.	IMFFTD/2
Description	Fan Monitor For 4 Fans-230v With Temp Monitor
Standard Pack	1

Connection Diagram



FAN FAILURE MODULE FOR 2 FANS (230 VAC)

FEATURES

- Compact & Standard DIN Rail mounting.
- Isolated fan monitor units
- Fan monitor for 2 fans
- Adjustable fan over current
- LED Indication for FAN OK, FAN FAIL, FUSE FAIL AND FAN TRIP SET.
- Fuse protection for each module

Detects failure of fan inside the panel and also generate an alarm signal.

TECHNICAL INFORMATION

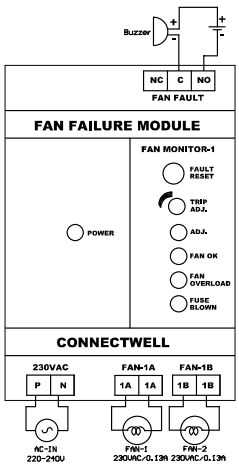
GENERAL DATA	
Width(mm)	106
Height(mm)	108
Length(mm)	55
power input	220-240VAC
Fan Monitor Units	1
No of fan can be connected	2
Fan Rating	230VAC/0.13A
Fan Failure Alarm contact	1
Power On Indication	3 mm Red LED
Ambient Temperature	- 20° to +50°C
Mounting Possibility	DIN 35
Housing Colour	Grey
Housing Material	ABS V-0 Grade

CONNECTION DATA	
Type of Connection	Screw Connection / Pluggable
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	7.5 mm
Rating	300 V / 12 A
Torque	4.5 lb-in / 0.5 Nm

RELAY CONTACT DATA	
Alarm Signal Relay	
Max. Switching Voltage	220 V DC / 250 V AC
Rated Current	1 A @ 125 V AC ; 2 A @ 30 V DC
Fan Power Cut Off Relay	
Max. Switching Voltage	300 V AC
Rated Current	7 A @ 300 V AC ; 10 A @ 28 V DC

ORDERING INFORMATION	
Type / Cat. No.	IMMF/1
Description	Fan Monitor For 2 Fans - 230VAC
Standard Pack	1

Connection Diagram

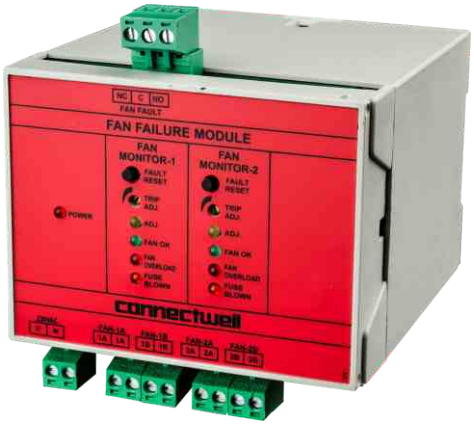


FAN FAILURE MODULE FOR 4 FANS (230 VAC)

FEATURES

- Compact & Standard DIN Rail mounting.
- Isolated fan monitor units
- Fan monitor for 4 fans
- Adjustable fan over current
- LED Indication for FAN OK, FAN FAIL, FUSE FAIL AND FAN TRIP SET.
- Fuse protection for each module

Detects failure of fan inside the panel and also generate an alarm signal.



TECHNICAL INFORMATION

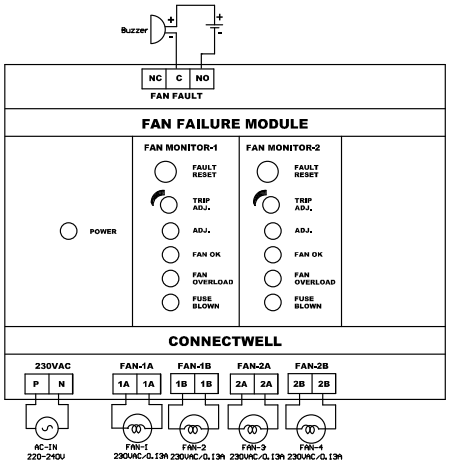
GENERAL DATA	
Width(mm)	106
Height(mm)	108
Length(mm)	101
power input	220-240VAC
Fan Monitor Units	2
No of fan can be connected	4
Fan Rating	230VAC/0.13A
Fan Failure Alarm contact	1
Power On Indication	3 mm Red LED
Ambient Temperature	- 20° to +50°C
Mounting Possibility	DIN 35
Housing Colour	Grey
Housing Material	ABS V-0 Grade

CONNECTION DATA	
Type of Connection	Screw Connection / Pluggable
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	7.5 mm
Rating	300 V / 12 A
Torque	4.5 lb-in / 0.5 Nm

RELAY CONTACT DATA	
Alarm Signal Relay	
Max. Switching Voltage	220 V DC / 250 V AC
Rated Current	1 A @ 125 V AC ; 2 A @ 30 V DC
Fan Power Cut Off Relay	
Max. Switching Voltage	300 V AC
Rated Current	7 A @ 300 V AC ; 10 A @ 28 V DC

ORDERING INFORMATION	
Type / Cat. No.	IMFF/2
Description	Fan Monitor For 4 Fans-230v
Standard Pack	1

Connection Diagram



FAN FAILURE MODULE FOR 4 FANS (110 VAC) WITH TEMPERATURE MONITOR

FEATURES

- Compact & Standard DIN Rail mounting.
- Isolated fan monitor units
- Fan monitor for 4 fans
- Adjustable fan over current
- LED Indication for FAN OK, FAN FAIL, FUSE FAIL AND FAN TRIP SET.
- 2 Digit temperature display
- Temperature set point operation
- 4-20 mA current output (Sink Type)
- Fuse protection for each module

Detects failure of fan inside the panel and also generate an alarm signal. Its 4-20 mA analog output and 2 digit temperature display makes it versatile in Industry.

TECHNICAL INFORMATION

GENERAL DATA	
Width(mm)	106
Height(mm)	108
Length(mm)	101
power input	110-120VAC
Fan Monitor Units	2
No of fan can be connected	4
Fan Rating	115VAC/0.23A
Fan Failure Alarm contact	1
Temperature Monitor Units	1
Over Temperature Alarm contact	1
PT100 interface	1
4-20mA output	1
Power On Indication	3 mm Red LED
Ambient Temperature	- 20° to +50°C
Mounting Possibility	DIN 35
Housing Colour	Grey
Housing Material	ABS V-0 Grade
Temperature Display Readout	0 - 99°C, 2 Digit, (+/-1°C tol.)
Current Output	4-20 mA (+/-0.16 mA tol.)

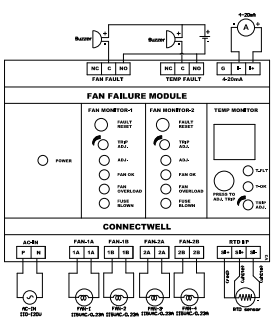
CONNECTION DATA	
Type of Connection	Screw Connection / Pluggable
Wire Connection Possibility	0.5 - 2.5 sq.mm / 30 -14 AWG
Stripping Length	7.5 mm
Rating	300 V / 12 A
Torque	4.5 lb-in / 0.5 Nm

RELAY CONTACT DATA	
Alarm Signal Relay	
Max. Switching Voltage	220 V DC / 250 V AC
Rated Current	1 A @ 125 V AC ; 2 A @ 30 V DC
Fan Power Cut Off Relay	
Max. Switching Voltage	300 V AC
Rated Current	7 A @ 300 V AC ; 10 A @ 28 V DC

SENSOR DATA	
Sensor Type	RTD
Configuration	3 Wire
Construction	RTD Element Enclosed in metallic rod
Wire Length	10 cm
Element	PT 100, Class B

ORDERING INFORMATION	
Type / Cat. No.	IMFFTD/2-110A
Description	Fan Monitor For 4 Fans-115v With Temp Monitor
Standard Pack	1

Connection Diagram

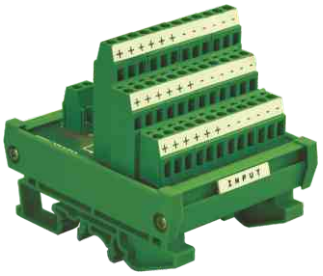


CUSTOMIZED INTERFACE MODULES

Standard Interface Modules can be customized with Spring type PCB Terminal Blocks for faster connection >

25 Pin Male D-Sub module with Spring Connections

Interface Modules can be built for specific applications like Control Signal distribution >

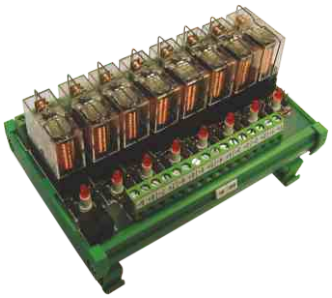


Triple level distribution module for powering-up sensors & actuators

Relay Modules can be made for specific contact types such as 1 NO & 2 NO >

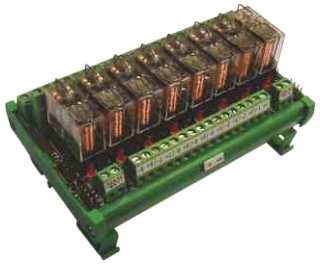
8 Channel 2 NO Electro Mechanical Relay Module

Economical relay module >



8 Channel 1 CO AC / DC Economical Relay Module

Economical relay module >



8 Channel 2 CO AC / DC Economical Relay Module

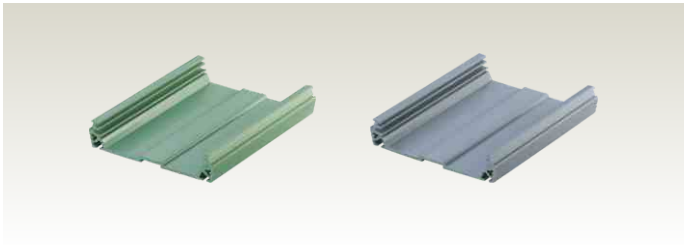
ACCESSORIES

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

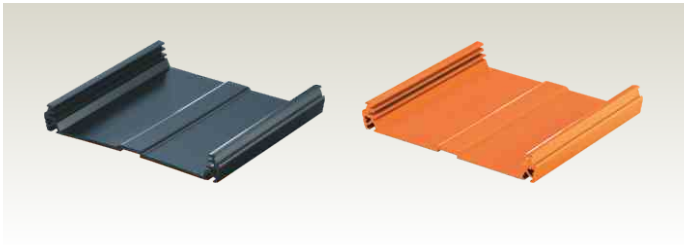
Connectwell uses V0 grade PVC Mounting Tracks for housing its Interface Modules. These tracks are used with a combination of Mounting Feet & End Sections to achieve DIN Rail mounting and panel mounting. The Mounting Tracks are available in standard lengths of 1 or 2 meters and can be precisely cut to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

MOUNTING TRACK

Mounting Track for 73 mm PCB Circuits



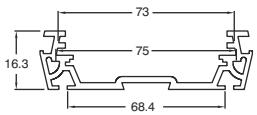
Mounting Track for 108 mm PCB Circuits



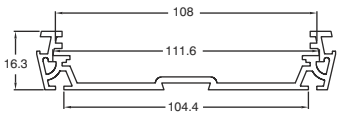
Technical Information

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

MT73GN/x



MT108GN/x



Ordering Information

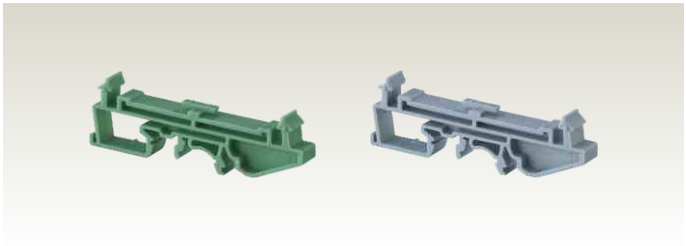
73 mm Mounting Track	GREEN	GREY	BLACK	ORANGE
1 mtr Length	MT73GN/1	MT73G/1	MT73BK/1	MT73O/1
2 mtr Length	MT73GN/2	MT73G/2	MT73BK/2	MT73O/2

108 mm Mounting Track	GREEN	GREY	BLACK	ORANGE
1 mtr Length	MT108GN/1	MT108G/1	MT108BK/1	MT108O/1
2 mtr Length	MT108GN/2	MT108G/2	MT108BK/2	MT108O/2

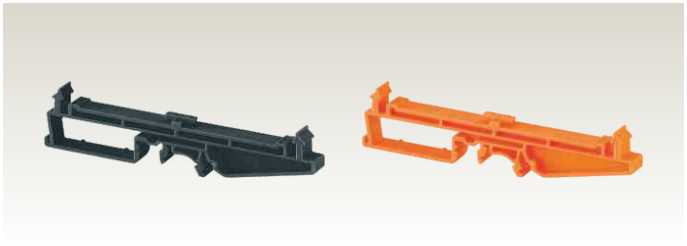
Note: Tracks accept Standard 'K' Marking Tags for identification.

MOUNTING FEET

Mounting Feet for 73 mm Mounting Track



Mounting Feet for 108 mm Mounting Track



Technical Information

Mounting Track Material	Polyamide 66

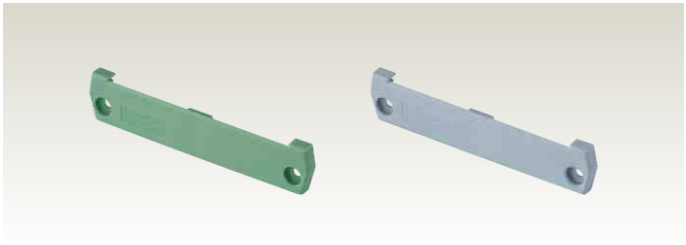
Ordering Information

73 mm Mounting Feet	GREEN	GREY	BLACK	ORANGE
Cat. No.	MFMT73GN	MFMT73G	MFMT73BK	MFMT73O

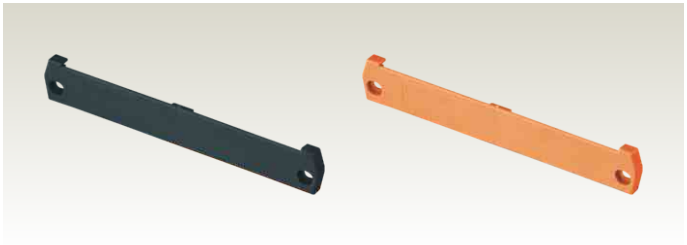
108 mm Mounting Feet	GREEN	GREY	BLACK	ORANGE
Cat. No.	MFMT108GN	MFMT108G	MFMT108BK	MFMT108O

END SECTION (RAIL MOUNTING)

End Section (Rail Mounting) for 73 mm Mounting Track



End Section (Rail Mounting) for 108 mm Mounting Track



Technical Information

Mounting Track Material	Polyamide 66

Ordering Information

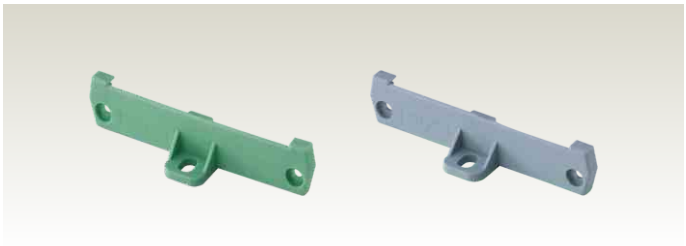
Rail End Section 73 mm	GREEN	GREY	BLACK	ORANGE
Cat. No.	ESMT73GN	ESMT73G	ESMT73BK	ESMT73O

Rail End Section 108 mm	GREEN	GREY	BLACK	ORANGE
Cat. No.	ESMT108GN	ESMT108G	ESMT108BK	ESMT108O

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

END SECTION (PANEL MOUNTING)

End Section (Panel Mounting) for 73 mm Mounting Track



End Section (Panel Mounting) for 108 mm Mounting Track

Technical Information

Mounting Track Material	Polyamide 66

Ordering Information

Panel End Section 73 mm	GREEN	GREY	BLACK	ORANGE
Cat. No.	ESPMT73GN	ESPMT73G	ESPMT73BK	ESPMT73O

Panel End Section 108 mm	GREEN	GREY	BLACK	ORANGE
Cat. No.	ESPMT108GN	ESPMT108G	ESPMT108BK	ESPMT108O

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

MOUNTING TRACK ASSEMBLIES

Channel Mounting Track Assembly

Panel Mounting Track Assembly

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

PCB TERMINAL BLOCKS PRODUCT OVERVIEW

Connectwell now offers an
exhaustive range of PCB Terminal Blocks
to suit all your Electronic Connection needs.

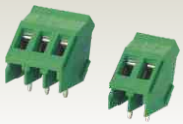
Single Level Vertical

3.5 / 3.81 / 5 / 5.08 /
7.5 / 9.52 / 10.16 / 15 mm
0.5 - 10 sq.mm, upto 125 A

Single Level Horizontal

3.5 / 3.81 / 5 /
5.08 / 7.5 mm
0.5 - 2.5 sq.mm, upto 20 A

Single Level Angular



5 / 5.08 mm
0.5 - 2.5 sq.mm,
45°,upto 16 A

Double Level

3.5 / 3.81 / 5 / 5.08 mm
0.5 - 2.5 sq.mm,
upto 16 A

TLM303

5.08 x 14.3 x 13 mm
0.5 - 2.5 sq.mm
15 A, 300 V

CPT(M)H / A / V

5.08 mm
Upto 2.5 sq.mm
16 A, 250 V, 0.4 Nm

CPT5 / CPT7.5

19 x 19 x 5 / 7.5 mm
0.5 - 2.5 sq.mm
18 A, 250 V, 0.4 Nm

DDPT

28 x 22 x 11 mm
0.5 - 2.5 sq.mm
24 A, 300 V, 1.2 Nm

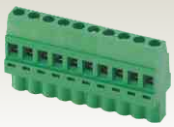
Triple Level

5.08 mm
0.5 - 2.5 sq.mm,
upto 16 A

SHxx

3.5 / 3.81 / 5 / 5.08 mm
0.5 - 2.5 sq.mm
upto 16 A, 0.5 Nm

SVxx-F/SVxx-P



5.08 mm
0.5 - 2.5 sq.mm
upto 16 A, 0.5 Nm

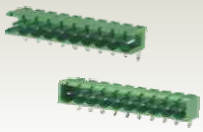
TL205T / TL205P

5 mm
0.5 - 1.5 sq.mm
upto 10 A, 0.4 Nm

PVxx / PVxx-P

3.5 / 3.81 / 5 / 5.08 mm
upto 16 A

PHxx / PHxx-P



3.5 / 3.81 / 5 / 5.08 mm
upto 16 A

PIxx / PIxx-P

5.08 mm
upto 16 A

SFxx

5.08 mm
upto 16 A

For detailed technical & ordering information please refer our PCB Terminal Blocks Catalogue 09-10

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The Index gives ready reference of Cat. No. / Type and cross reference of page number.

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

MKT/7.2/08 March 2018 x 2000

Notes

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TERMINAL BLOCKS

SWITCHING POWER SUPPLIES

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THE RIGHT CONNECTION