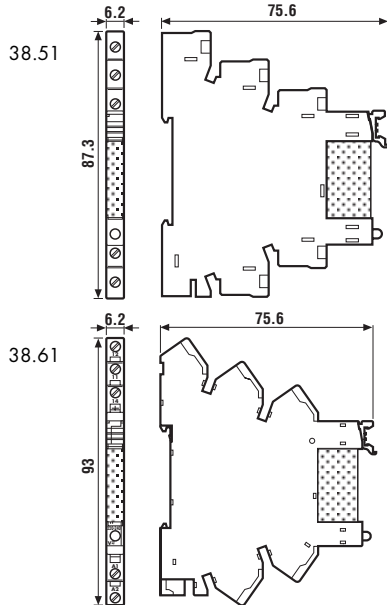


## Features

1 Pole - 6 A electromechanical relay interface modules, 6.2 mm wide.

Ideal interface for PLC and electronic systems

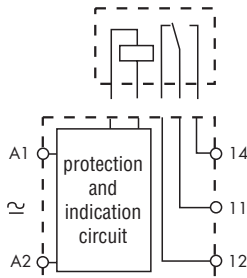
- Sensitive DC coil or AC/DC coil versions
- Integral coil indication and protection circuit
- Instant ejection of relay using plastic retaining clip
- UL Listed
- 35 mm rail (EN 50022) mounting



### 38.51



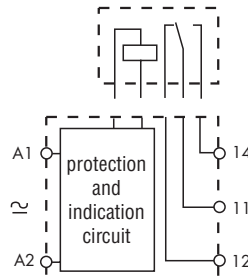
- Screw terminal
- 1 pole electromechanical relay
- 35 mm rail mounting



### 38.61



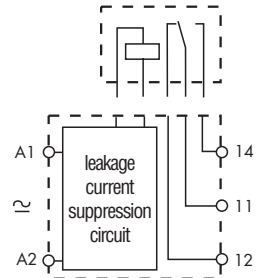
- Screwless terminal
- 1 pole electromechanical relay
- 35 mm rail mounting



### 38.51.3 / 38.61.3



- Leakage current suppression
- 1 pole electromechanical relay
- 35 mm rail mounting



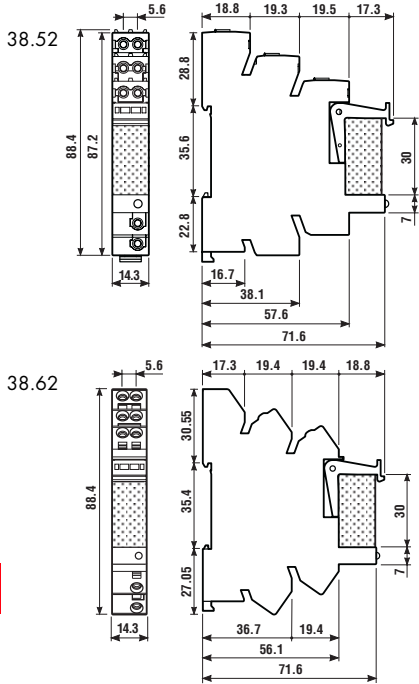
Contact specification				
Contact configuration		1 CO (SPDT)	1 CO (SPDT)	1 CO (SPDT)
Rated current/Maximum peak current	A	6/10	6/10	6/10
Rated voltage/Maximum switching voltage	V AC	250/400	250/400	250/400
Rated load AC1	VA	1,500	1,500	1,500
Rated load AC15 (230 V AC)	VA	300	300	300
Single phase motor rating (230 V AC)	kW	0.185	0.185	0.185
Breaking capacity DC1: 30/110/220 V	A	6/0.2/0.15	6/0.2/0.15	6/0.2/0.15
Minimum switching load	mW (V/mA)	500 (12/10)	500 (12/10)	500 (12/10)
Standard contact material		AgNi	AgNi	AgNi
Coil specification				
Nominal voltage (U <sub>N</sub> )	V AC/DC	12 - 24 - 48 - 60 - (110...125) - (220...240)	(110...125)	(230...240)AC only
	V DC	6 - 12 - 24 - 48 - 60 (non polarized)	—	
Rated power AC/DC	VA (50 Hz)/W	see page 121	see page 121	1/1   0.5/—
Operating range	AC/DC	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>	(94...138)U <sub>N</sub>   (184...264)U <sub>N</sub>
	DC	(0.8...1.2)U <sub>N</sub>	(0.8...1.2)U <sub>N</sub>	—
Holding voltage	AC/DC	0.6 U <sub>N</sub> / 0.6 U <sub>N</sub>	0.6 U <sub>N</sub> / 0.6 U <sub>N</sub>	0.6 U <sub>N</sub> / 0.6 U <sub>N</sub>
Must drop-out voltage	AC/DC	0.1 U <sub>N</sub> / 0.05 U <sub>N</sub>	0.1 U <sub>N</sub> / 0.05 U <sub>N</sub>	44 V   92 V
Technical data				
Mechanical life	cycles	10 · 10 <sup>6</sup>	10 · 10 <sup>6</sup>	10 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	60 · 10 <sup>3</sup>	60 · 10 <sup>3</sup>	60 · 10 <sup>3</sup>
Operate/release time	ms	5/6	5/6	5/6
Insulation between coil and contacts (1.2/50 μs)	kV	6 (8 mm)	6 (8 mm)	6 (8 mm)
Dielectric strength between open contacts	V AC	1,000	1,000	1,000
Ambient temperature range (≤ 60 V / > 60 V)	°C	-40...+70 / -40...+55	-40...+70 / -40...+55	— / -40...+55
Protection category		IP 20	IP 20	IP 20
Approvals relay (according to type)				

## Features

**2 Pole - 8 A electromechanical relay interface modules, 14 mm wide.**

**Ideal interface for PLC and electronic systems**

- Sensitive DC coil versions
- Integral coil indication and protection circuit
- Instant ejection of relay using plastic retaining clip
- 35 mm rail (EN 50022) mounting



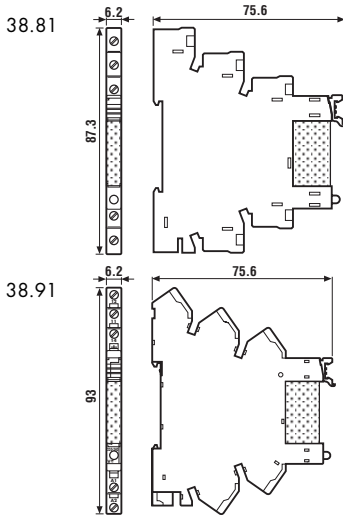
	38.52	38.62
	<ul style="list-style-type: none"> <li>• Screw terminal</li> <li>• 2 pole electromechanical relay</li> <li>• 35 mm rail mounting</li> </ul>	<ul style="list-style-type: none"> <li>• Screwless terminal</li> <li>• 2 pole electromechanical relay</li> <li>• 35 mm rail mounting</li> </ul>
<b>Contact specification</b>		
Contact configuration	2 CO (DPDT)	2 CO (DPDT)
Rated current/Maximum peak current	A 8/15	8/15
Rated voltage/Maximum switching voltage	V AC 250/400	250/400
Rated load AC1	VA 2,000	2,000
Rated load AC15 (230 V AC)	VA 400	400
Single phase motor rating (230 V AC)	kW 0.3	0.3
Breaking capacity DC1: 30/110/220 V	A 8/0.3/0.12	8/0.3/0.12
Minimum switching load	mW (V/mA) 300 (5/5)	300 (5/5)
Standard contact material	AgNi	AgNi
<b>Coil specification</b>		
Nominal voltage ( $U_N$ )	V AC/DC —	—
	V DC 12 - 24 - 60	12 - 24 - 60
Rated power AC/DC	VA (50 Hz)/W —/0.5	—/0.5
Operating range	AC/DC —	—
	DC (0.8...1.2) $U_N$	(0.8...1.2) $U_N$
Holding voltage	AC/DC — / 0.6 $U_N$	— / 0.6 $U_N$
Must drop-out voltage	AC/DC — / 0.05 $U_N$	— / 0.05 $U_N$
<b>Technical data</b>		
Mechanical life	cycles 30 · 10 <sup>6</sup>	30 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles 80 · 10 <sup>3</sup>	80 · 10 <sup>3</sup>
Operate/release time	ms —	—
Insulation between coil and contacts (1.2/50 $\mu$ s)	kV 6 (8 mm)	6 (8 mm)
Dielectric strength between open contacts	V AC 1,000	1,000
Ambient temperature range	°C -40...+70	-40...+70
Protection category	IP 20	IP 20
<b>Approvals relay</b> (according to type)		

## Features

Single output - solid state relay interface modules, 6.2 mm wide

Ideal interface for PLC and electronic systems

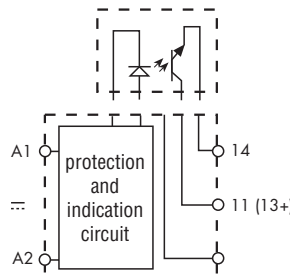
- DC, AC or AC/DC input versions
- Supplied with integral coil indication and protection circuit
- Silent, high switching speed and long electrical life
- Instant ejection of relay using plastic retaining clip
- UL listed
- 35 mm rail (EN 50022) mounting



### 38.81/38.91



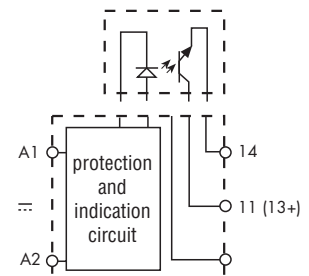
- AC or DC output switching
- SSR relay - DC input voltage
- 35 mm rail mounting



### 38.81.3/38.91.3



- AC or DC output - Leakage current suppression
- SSR relay - AC or AC/DC input voltage
- 35 mm rail mounting



#### Output circuit

Rated current/Maximum peak current (10 ms)	A	2/20	0.1/0.5	2/40	2/20	0.1/0.5	2/40
Rated voltage/Maximum blocking voltage	V	24/33 DC	48/60 DC	240/275 AC	24/33 DC	48/60 DC	240/275 AC
Switching voltage range	V	(1.5...24)DC	(1.5...48)DC	(12...240)AC	(1.5...24)DC	(1.5...48)DC	(12...240)AC
Minimum switching current	mA	1	0.05	22	1	0.05	22
Max. "OFF-state" leakage current	mA	0.001	0.001	1.5	0.001	0.001	1.5
Max. "ON-state" voltage drop	V	0.12	1	1.6	0.12	1	1.6

#### Input circuit

Nominal voltage (U <sub>N</sub> )	V AC	—		230...240	
	V DC	6 - 24 - 60		—	
	V AC/DC	(110...125) - (220...240)		110...125	
Operating range	V DC	See table page 122		See table page 122	
Control current	mA	See table page 122		See table page 122	
Release voltage	V DC	See table page 122		See table page 122	
Impedance	Ω	See table page 122		See table page 122	

#### Technical data

Operate/release time	μs	0.1/0.4	0.02/0.11	12/12	0.1/0.4	0.02/0.11	12/12
Dielectric strength between input/output	V	2,500		2,500			
Ambient temperature range	°C	-20...+55		-20...+55			
Environmental protection		IP20		IP20			

#### Approvals (according to type)

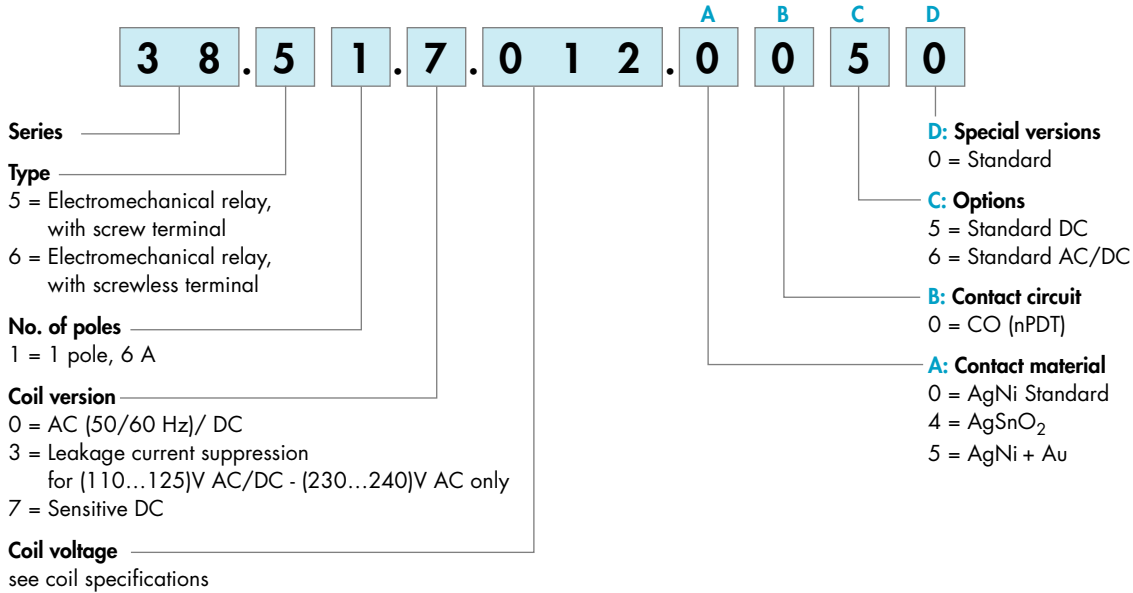


## Electromechanical Relay

### Ordering information

#### Electromechanical relay 1 Pole

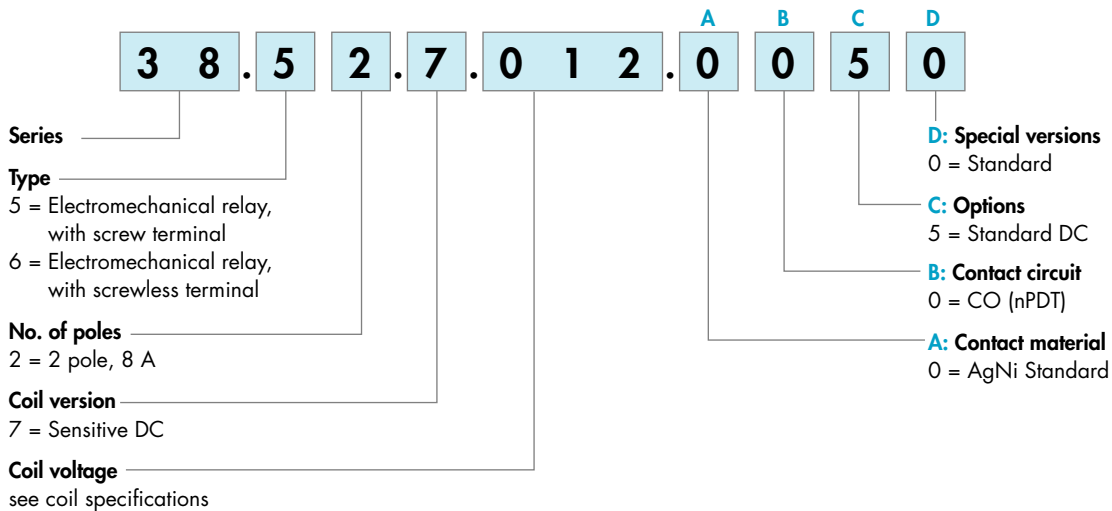
Example: 38 series relay interface module, 1 CO (SPDT), 12 V DC coil.



38

#### Electromechanical relay 2 Pole

Example: 38 series relay interface module, 2 CO (DPDT), 12 V DC coil.

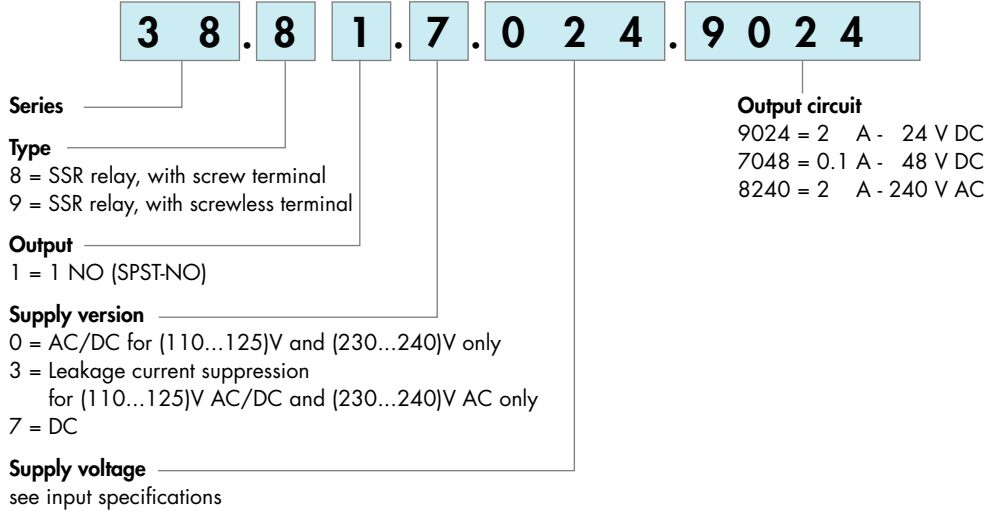


## Solid State Relay

### Ordering information

#### Solid state relay

Example: 38 series SSR relay interface module, 2 A, 24 V DC supply.



## Electromechanical Relay

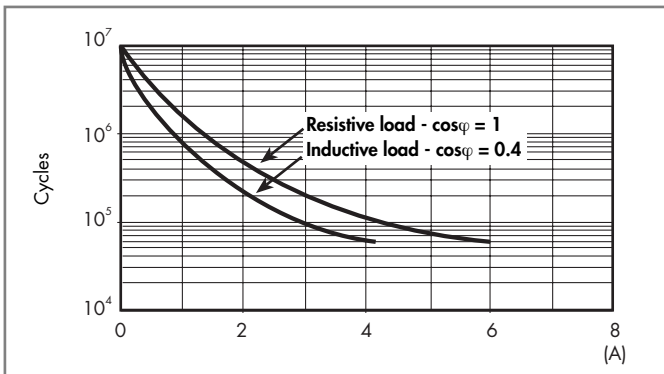
### Technical data

Insulation				
Insulation according to EN 61810-1 ed. 2	insulation rated voltage	V	250	400
	rated impulse withstand voltage	kV	4	4
	pollution degree		3	2
	overvoltage category		III	III
Insulation between coil and contacts (1.2/50 μs)		kV	6 (8 mm)	
Dielectric strength between open contacts		V AC	1,000	
Conducted disturbance immunity				
Burst (5...50)ns, 5 kHz, on A1 - A2			EN 61000-4-4	level 4 (4 kV)
Surge (1.2/50 μs) on A1 - A2 (differential mode)			EN 61000-4-5	level 3 (2 kV)
Other data				
			1 Pole	2 Pole
Bounce time: NO/NC	ms		1/6	2/5
Vibration resistance (10...55)Hz, max. ± 1 mm: NO/NC	g/g		10/5	15/2
Power lost to the environment	without contact current	W	0.2 (12 V) - 0.9 (240 V)	0.5
	with rated current	W	0.5 (12 V) - 1.5 (240 V)	1.3
			38.51/52	38.61/62
Wire strip length	mm		10	10
⊖ Screw torque	Nm		0.5	—
Max. wire size			solid cable	stranded cable
			solid cable	stranded cable
	mm <sup>2</sup>		1x2.5/2x1.5	1x2.5
	AWG		1x14/2x16	1x14

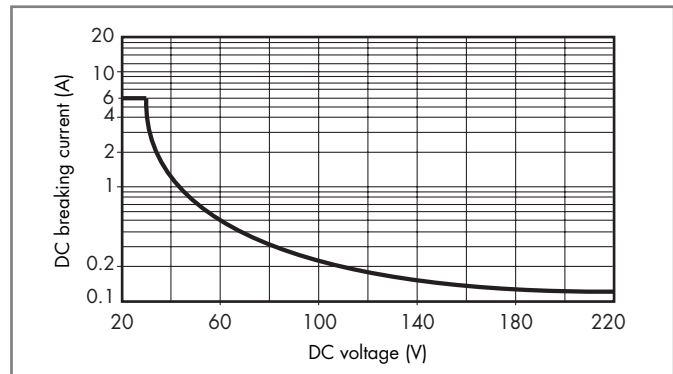
38

### Contact specification

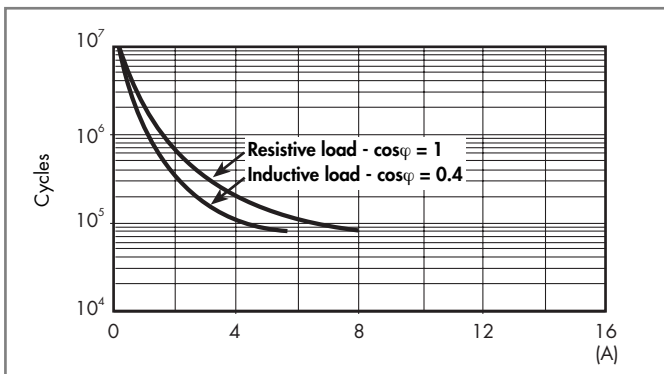
**F 38 - Electrical life (AC) v contact current, 1 Pole**



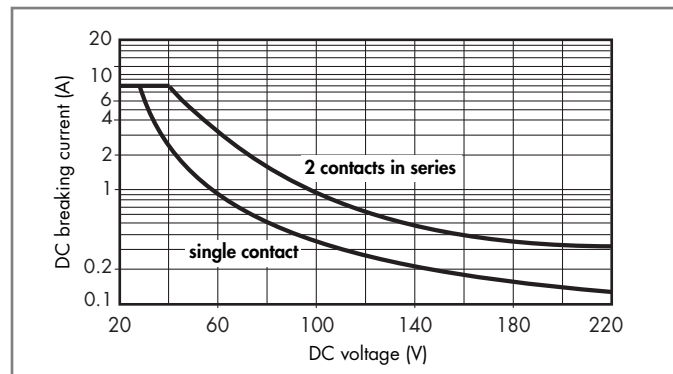
**H 38 - Maximum DC1 breaking capacity, 1 Pole**



**F 38 - Electrical life (AC) v contact current, 2 Pole**



**H 38 - Maximum DC1 breaking capacity, 2 Pole**



- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of  $\geq 60 \cdot 10^3$  (1 Pole) or  $\geq 80 \cdot 10^3$  (2 Pole) can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load. Note: the release time for the load will be increased.

## Electromechanical Relay 1 Pole

### Coil specifications

**Coil data AC/DC, 1 Pole**

Nominal voltage $U_N$	Coil code	Operating range		Rated coil consumption I at $U_N$	Power consumption P at $U_N$
		$U_{min}$	$U_{max}$		
V		V	V	mA	W
12	0.012	9.8	13.2	16	0.2
24	0.024	19.2	26.4	12	0.2
48	0.048	38.4	52.8	6.9	0.3
60	0.060	48	66	7	0.5
110...125	0.125	88	138	5(*)	0.6(*)
220...240	0.240	184	264	4(*)	0.9(*)

(\*) Rated coil consumption and power consumption values relate to  $U_N = 125$  and  $240$  V.

**Coil data sensitive DC, 1 Pole**

Nominal voltage $U_N$	Coil code	Operating range		Rated coil consumption I at $U_N$	Power consumption P at $U_N$
		$U_{min}$	$U_{max}$		
V		V	V	mA	W
6	7.006	5	7.2	35	0.2
12	7.012	9.8	14.4	15.2	0.2
24	7.024	18.2	28.8	10.4	0.3
48	7.048	35	57.6	6.3	0.3
60	7.060	43.5	72	7	0.4

**Coil data, leakage current suppression types, 1 Pole**

Nominal voltage $U_N$	Coil code	Operating range		Must drop out U	Rated coil consumption I at $U_N$	Power consumption P at $U_N$
		$U_{min}$	$U_{max}$			
V		V	V		mA	W
(110...125) AC/DC	3.125	94	138	44	8(*)	1(*)
(230...240) AC	3.240	184	264	92	7(*)	0.5(*)

(\*) Rated coil consumption and power consumption values relate to  $U_N = 125$  and  $240$  V.

The 38 Series interface modules (supply version 3) have built-in leakage current suppression to address industry concerns of the contacts not dropping-out when there is residual current in the circuit; at (110...125)V AC and (230...240)V AC.

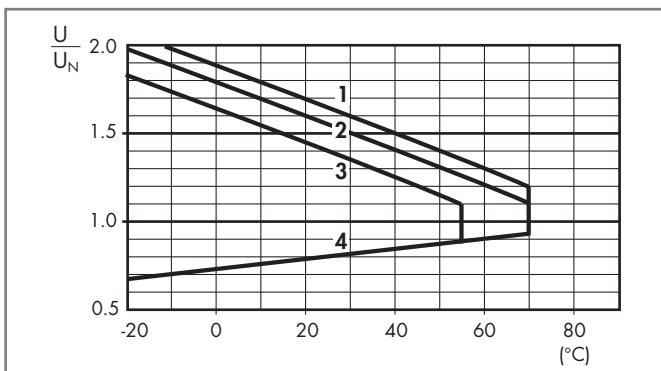
This problem can occur, for example, when connecting the interface modules to PLC,s with triac outputs or when connecting via relatively long cables.

## Electromechanical Relay 2 Pole

### Coil specifications

**Coil data sensitive DC, 2 Pole**

Nominal voltage $U_N$	Coil code	Operating range		Rated coil consumption I at $U_N$
		$U_{min}$	$U_{max}$	
V		V	V	mA
12	7.012	9.6	14.4	41
24	7.024	19.2	28.8	19.5
60	7.060	48	72	8

**R 38 - DC coil operating range v ambient temperature**  
1 Pole and 2 Pole


- 1 - Max. permitted coil voltage at nominal load (DC coil).
- 2 - Max. permitted coil voltage at nominal load (AC/DC coils  $\leq 60$  V).
- 3 - Max. permitted coil voltage at nominal load (AC/DC coils  $> 60$  V).
- 4 - Min pick-up voltage with coil at ambient temperature.

## Solid State Relay

### Technical data

Other data					
Power lost to the environment	without output current	W	0.17		
	with rated current	W	0.4		
			<b>38.81</b>	<b>38.91</b>	
Wire strip length	mm	10	10		
Screw torque	Nm	0.5	—		
Max. wire size		solid cable	stranded cable	solid cable	stranded cable
	mm <sup>2</sup>	1x2.5 / 2x1.5	1x2.5 / 2x1.5	1x2.5	1x2.5
	AWG	1x14 / 2x16	1x14 / 2x16	1x14	1x14

### Input specification

#### Input data - AC/DC

Nominal voltage $U_N$ V	Supply code	Operating range		Release voltage U V	Control current I at $U_N$ mA
		$U_{min}$ V	$U_{max}$ V		
110...125	0.125	88	138	45	5
230...240	0.240	184	264	90	4.5

#### Input data - DC

Nominal voltage $U_N$ V	Supply code	Operating range		Release voltage U V	Control current I at $U_N$ mA
		$U_{min}$ V	$U_{max}$ V		
6	7.006	5	7.2	2.4	7
24	7.024	16.8	30	10	10.5
60	7.060	35.6	72	20	6.5

#### Input data - Leakage current suppression types

Nominal voltage $U_N$ V	Supply code	Operating range		Release voltage U V	Rated coil consumption I at $U_N$ mA	Power consumption P at $U_N$ W
		$U_{min}$ V	$U_{max}$ V			
110...125 AC/DC	3.125	94	138	44	8(*)	1(*)
230...240 AC	3.240	184	264	72	5.6(*)	0.5(*)

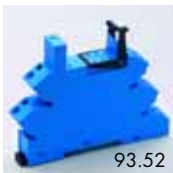
(\*) Rated coil consumption and power consumption values relate to  $U_N = 125$  and  $240$  V.

The 38 Series interface modules (supply version 3) have built-in leakage current suppression to address industry concerns of the contacts not dropping-out when there is residual current in the circuit; at (110...125)V AC and (230...240)V AC.

This problem can occur, for example, when connecting the interface modules to PLC,s with triac outputs or when connecting via relatively long cables.



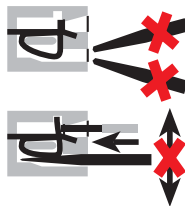
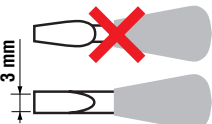
## Combination for Electromechanical Relay



Approvals  
(according to type):



US Listed: certain relay/  
socket combinations



### Screw terminal - 1 Pole relay

Code	Supply voltage	Type of relay	Type of socket
38.51.0.012.0060	12 V AC/DC	34.51.7.012.0010	93.01.0.024
38.51.0.024.0060	24 V AC/DC	34.51.7.024.0010	93.01.0.024
38.51.0.048.0060	48 V AC/DC	34.51.7.048.0010	93.01.0.060
38.51.0.060.0060	60 V AC/DC	34.51.7.060.0010	93.01.0.060
38.51.0.125.0060	(110...125)V AC/DC	34.51.7.060.0010	93.01.0.125
38.51.0.240.0060	(220...240)V AC/DC	34.51.7.060.0010	93.01.0.240
38.51.3.125.0060	(110...125)V AC/DC	34.51.7.060.0010	93.01.3.125
38.51.3.240.0060	(230...240)V AC	34.51.7.060.0010	93.01.3.240
38.51.7.006.0050	6 V DC	34.51.7.005.0010	93.01.7.024
38.51.7.012.0050	12 V DC	34.51.7.012.0010	93.01.7.024
38.51.7.024.0050	24 V DC	34.51.7.024.0010	93.01.7.024
38.51.7.048.0050	48 V DC	34.51.7.048.0010	93.01.7.060
38.51.7.060.0050	60 V DC	34.51.7.060.0010	93.01.7.060

### Screwless terminal - 1 Pole relay

Code	Supply voltage	Type of relay	Type of socket
38.61.0.012.0060	12 V AC/DC	34.51.7.012.0010	93.51.0.024
38.61.0.024.0060	24 V AC/DC	34.51.7.024.0010	93.51.0.024
38.61.0.125.0060	(110...125)V AC/DC	34.51.7.060.0010	93.51.0.125
38.61.0.240.0060	(220...240)V AC/DC	34.51.7.060.0010	93.51.0.240
38.61.3.125.0060	(110...125)V AC/DC	34.51.7.060.0010	93.51.3.125
38.61.3.240.0060	(230...240)V AC	34.51.7.060.0010	93.51.3.240
38.61.7.012.0050	12 V DC	34.51.7.012.0010	93.51.7.024
38.61.7.024.0050	24 V DC	34.51.7.024.0010	93.51.7.024

### Screw terminal - 2 Pole relay

Code	Supply voltage	Type of relay	Type of socket
38.52.7.012.0050	12 V DC	41.52.9.012.0010	93.02.7.024
38.52.7.024.0050	24 V DC	41.52.9.024.0010	93.02.7.024
38.52.7.060.0050	60 V DC	41.52.9.060.0010	93.02.7.060

### Screwless terminal - 2 Pole relay

Code	Supply voltage	Type of relay	Type of socket
38.62.7.012.0050	12 V DC	41.52.9.012.0010	93.52.7.024
38.62.7.024.0050	24 V DC	41.52.9.024.0010	93.52.7.024
38.62.7.060.0050	60 V DC	41.52.9.060.0010	93.52.7.060

## Combination for Solid State Relay

### Screw terminal

Code	Supply voltage	Type of relay	Type of socket
38.81.7.006.xxxx	6 V DC	34.81.7.005.xxxx	93.01.7.024
38.81.7.024.xxxx	24 V DC	34.81.7.024.xxxx	93.01.7.024
38.81.7.060.xxxx	60 V DC	34.81.7.060.xxxx	93.01.7.060
38.81.0.125.xxxx	(110...125)V AC/DC	34.81.7.060.xxxx	93.01.0.125
38.81.0.240.xxxx	(220...240)V AC/DC	34.81.7.060.xxxx	93.01.0.240
38.81.3.125.xxxx	(110...125)V AC/DC	34.81.7.060.xxxx	93.01.3.125
38.81.3.240.xxxx	(230...240)V AC	34.81.7.060.xxxx	93.01.3.240

### Screwless terminal

Code	Supply voltage	Type of relay	Type of socket
38.91.7.006.xxxx	6 V DC	34.81.7.005.xxxx	93.51.7.024
38.91.7.024.xxxx	24 V DC	34.81.7.024.xxxx	93.51.7.024
38.91.7.060.xxxx	60 V DC	34.81.7.060.xxxx	93.51.7.060
38.91.0.125.xxxx	(110...125)V AC/DC	34.81.7.060.xxxx	93.51.0.125
38.91.0.240.xxxx	(220...240)V AC/DC	34.81.7.060.xxxx	93.51.0.240
38.91.3.125.xxxx	(110...125)V AC/DC	34.81.7.060.xxxx	93.51.3.125
38.91.3.240.xxxx	(230...240)V AC	34.81.7.060.xxxx	93.51.3.240

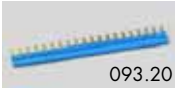
Example: .xxxx

.9024

.7048

.8240

## Accessories

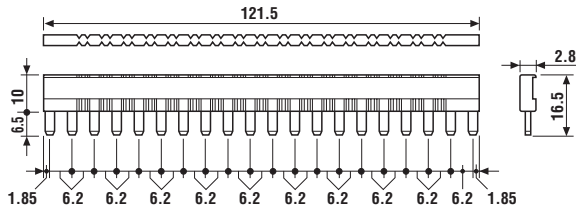


093.20

Approvals  
(according to type):

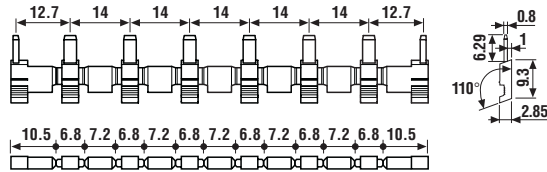


<b>20-way jumper link for 1 Pole</b>	093.20
Rated values	36 A - 250 V



093.08

<b>8-way jumper link for 2 Pole</b>	093.08
Rated values	10 A - 250 V



093.01

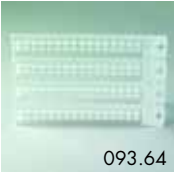
<b>Plastic separator</b>	093.01
--------------------------	--------

Thickness 2 mm, required at the start and the end of a group of interfaces.

Can be used for visual separation group, must be used for:

- protective separation of different voltages of neighbouring PLC interfaces according to VDE 0106-101
- protection of cut jumper links

<b>Sheet of marker tags for 38.x1, plastic, 64 tags, 6x10 mm</b>	093.64
--	--------



093.64

<b>Sheet of marker tags for 38.x2, plastic, 72 tags, 6x12 mm</b>	060.72
--	--------



060.72

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [General Purpose Relays](#) category:*

*Click to view products by [Finder](#) manufacturer:*

Other Similar products are found below :

[APF30318](#) [JVN1AF-4.5V-F](#) [PCN-105D3MHZ](#) [5JO-10000S-SIL](#) [5JO-1000CD-SIL](#) [5JO-400CD-SIL](#) [LY2S-AC220/240](#) [LYQ20DC12](#)  
[6031007G](#) [6131406HQ](#) [6-1393099-3](#) [6-1393099-8](#) [6-1393122-4](#) [6-1393123-2](#) [6-1393767-1](#) [6-1393843-7](#) [6-1415012-1](#) [6-1419102-2](#) [6-](#)  
[1423698-4](#) [6-1608051-6](#) [6-1608067-0](#) [6-1616170-6](#) [6-1616248-2](#) [6-1616282-3](#) [6-1616348-2](#) [6-1616350-1](#) [6-1616350-8](#) [6-1616358-7](#) [6-](#)  
[1616359-9](#) [6-1616360-9](#) [6-1616931-6](#) [6-1617039-1](#) [6-1617052-1](#) [6-1617090-2](#) [6-1617090-5](#) [6-1617347-5](#) [6-1617353-3](#) [6-1617801-8](#) [6-](#)  
[1617802-2](#) [6-1618107-9](#) [6-1618248-4](#) [M83536/1-027M](#) [CX-4014](#) [MAHC-5494](#) [MAVCD-5419-6](#) [703XCX-120A](#) [7-1393100-5](#) [7-1393111-7](#)  
[7-1393144-5](#) [7-1393767-8](#)