

## Features

1 & 2 Pole relay interface modules

5 μm Gold plate contacts for low level switching capability

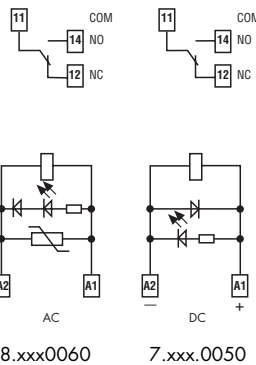
**49.31-50x0 - 1 Pole 10 A**  
**49.52-50x0 - 2 Pole 8 A**

- 15.5 mm wide
- Ideal interface for PLC and electronic systems
- AC coils & DC coils
- Instant ejection of relay using plastic retaining clip
- Supply status indication and coil suppression module
- Identification labels
- 35 mm rail (EN 50022) mounting

### 49.31-50x0



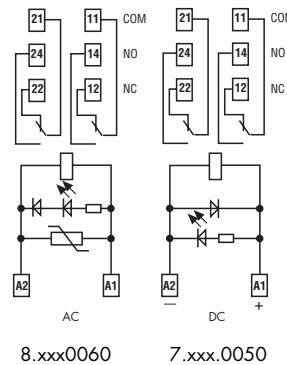
- 1 pole 10 A
- AgNi+Au (5 μm) contact material
- 35 mm rail mounting



### 49.52-50x0



- 2 pole 8 A
- AgNi+Au (5 μm) contact material
- 35 mm rail mounting



\*\* By external parallel connection of the contacts the values within [1 (0.1/1)] can be achieved.

For outline drawing see page 138.

Contact specification		49.31-50x0	49.52-50x0
Contact configuration		1 CO (SPDT)	2 CO (DPDT)
Rated current/Maximum peak current	A	10/20	8/15
Rated voltage/Maximum switching voltage	V AC	250/400	250/250
Rated load AC1	VA	2,500	2,000
Rated load AC15 (230 V AC)	VA	500	400
Single phase motor rating (230 V AC)	kW	0.37	0.3
Breaking capacity DC1: 30/110/220V	A	10/0.3/0.12	8/0.3/0.12
Minimum switching load	mW (V/mA)	50 (5/2)	50 (5/2) - [1 (0.1/1)]**
Standard contact material		AgNi + Au (5 μm)	AgNi + Au (5 μm)
Coil specification		49.31-50x0	49.52-50x0
Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	12 - 24 - 230	12 - 24 - 230
	V DC	12 - 24	12 - 24
Rated power AC/DC/sens.DC	VA (50 Hz)/W/W	1.2/0.65/0.5	1.2/0.65/0.5
Operating range	AC	(0.8... 1.1)U <sub>N</sub>	(0.8... 1.1)U <sub>N</sub>
	DC/sens. DC	(0.73... 1.5)U <sub>N</sub> /(0.73... 1.7)U <sub>N</sub>	(0.73... 1.5)U <sub>N</sub> /(0.73... 1.7)U <sub>N</sub>
Holding voltage	AC/DC	0.8 U <sub>N</sub> /0.4 U <sub>N</sub>	0.8 U <sub>N</sub> /0.4 U <sub>N</sub>
Must drop-out voltage	AC/DC	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>
Technical data		49.31-50x0	49.52-50x0
Mechanical life AC/DC	cycles	10 · 10 <sup>6</sup> /20 · 10 <sup>6</sup>	10 · 10 <sup>6</sup> /20 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	150 · 10 <sup>3</sup>	150 · 10 <sup>3</sup>
Operate/release time	ms	7/4 (AC) - 12/12 (DC)	7/4 (AC) - 12/12 (DC)
Insulation between coil and contacts (1.2/50 μs)	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

Approvals relay (according to type)



## Features

1 & 2 Pole relay interface modules

AgNi contacts for medium duty switching

49.31-00x0 - 1 Pole 10 A

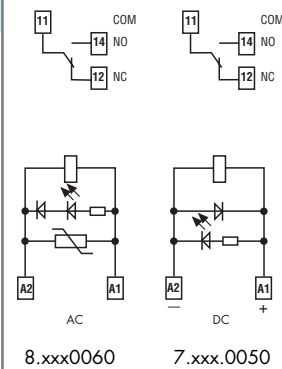
49.52-00x0 - 2 Pole 8 A

- 15.5 mm wide
- Ideal interface for PLC and electronic systems
- AC coils & DC coils
- Instant ejection of relay using plastic retaining clip
- Supply status indication and coil suppression module
- Identification labels
- 35 mm rail (EN 50022) mounting

### 49.31-00x0



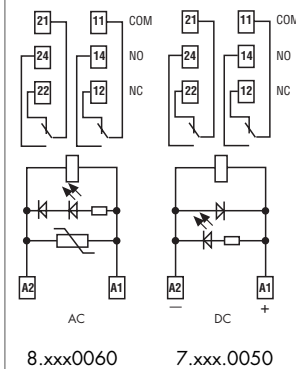
- 1 pole 10 A
- AgNi contact material
- 35 mm rail mounting



### 49.52-00x0



- 2 pole 8 A
- AgNi contact material
- 35 mm rail mounting



For outline drawing see page 138.

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#### Contact specification

Contact configuration		1 CO (SPDT)	2 CO (DPDT)
Rated current/Maximum peak current	A	10/20	8/15
Rated voltage/Maximum switching voltage	V AC	250/400	250/250
Rated load AC1	VA	2,500	2,000
Rated load AC15 (230 V AC)	VA	500	400
Single phase motor rating (230 V AC)	kW	0.37	0.3
Breaking capacity DC1: 30/110/220V	A	10/0.3/0.12	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 <sub>N</sub> )	V AC (50/60 Hz)	12 - 24 - 230	12 - 24 - 230
	V DC	12 - 24	12 - 24
Rated power AC/DC/sens.DC	VA (50 Hz)/W/W	1.2/0.65/0.5	1.2/0.65/0.5
Operating range	AC	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>
	sens. DC	(0.73...1.5)U <sub>N</sub> / (0.73...1.7)U <sub>N</sub>	(0.73...1.5)U <sub>N</sub> / (0.73...1.7)U <sub>N</sub>
Holding voltage	AC/DC	0.8 U <sub>N</sub> / 0.4 U <sub>N</sub>	0.8 U <sub>N</sub> / 0.4 U <sub>N</sub>
Must drop-out voltage	AC/DC	0.2 U <sub>N</sub> / 0.1 U <sub>N</sub>	0.2 U <sub>N</sub> / 0.1 U <sub>N</sub>
<b>Technical data</b>			
Mechanical life AC/DC	cycles	10 · 10 <sup>6</sup> / 20 · 10 <sup>6</sup>	10 · 10 <sup>6</sup> / 20 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	200 · 10 <sup>3</sup>	150 · 10 <sup>3</sup>
Operate/release time	ms	7/4 (AC) - 12/12 (DC)	7/4 (AC) - 12/12 (DC)
Insulation between coil and contacts (1.2/50 μs)	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

Approvals relay (according to type)



## Features

1 & 2 Pole relay interface modules

AgCdO contacts for heavy duty switching

49.31-20x0 - 1 Pole 10 A

49.52-20x0 - 2 Pole 8 A

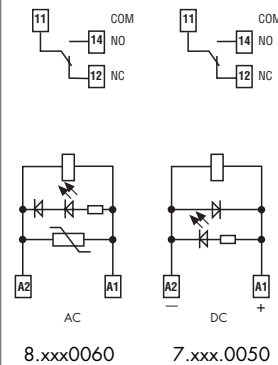
49.61-20x0 - 1 Pole 16 A

- 15.5 mm wide
- Ideal interface for PLC and electronic systems
- AC coils & DC coils
- Instant ejection of relay using plastic retaining clip
- Supply status indication and coil suppression module
- Identification labels
- 35 mm rail (EN 50022) mounting

### 49.31-20x0



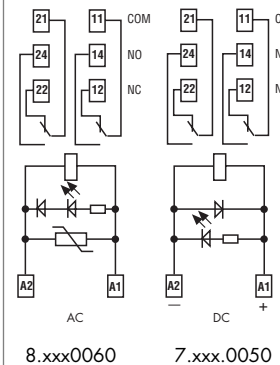
- 1 pole 10 A
- AgCdO contact material
- 35 mm rail mounting



### 49.52-20x0



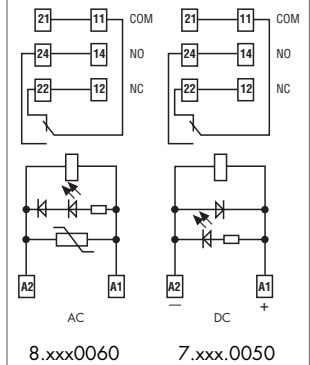
- 2 pole 8 A
- AgCdO contact material
- 35 mm rail mounting



### 49.61-20x0



- 1 pole 16 A
- AgCdO contact material
- 35 mm rail mounting



For outline drawing see page 138.

Contact specification				
Contact configuration		1 CO (SPDT)	2 CO (DPDT)	1 CO (SPDT)
Rated current/Maximum peak current	A	10/20	8/15	16/30
Rated voltage/Maximum switching voltage	V AC	250/400	250/250	250/400
Rated load AC1	VA	2,500	2,000	4,000
Rated load AC15 (230 V AC)	VA	500	400	750
Single phase motor rating (230 V AC)	kW	0.37	0.3	0.55
Breaking capacity DC1: 30/110/220V	A	10/0.3/0.12	8/0.3/0.12	16/0.3/0.12
Minimum switching load	mW (V/mA)	500 (10/5)	500 (10/5)	500 (5/5)
Standard contact material		AgCdO	AgCdO	AgCdO
Coil specification				
Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	12 - 24 - 230	12 - 24 - 230	12 - 24 - 230
	V DC	12 - 24	12 - 24	12 - 24
Rated power AC/DC/sens.DC	VA (50 Hz)/W/W	1.2/0.65/0.5	1.2/0.65/0.5	1.2/0.65/0.5
Operating range	AC	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>
	sens. DC	(0.73...1.5)U <sub>N</sub> /(0.73...1.7)U <sub>N</sub>	(0.73...1.5)U <sub>N</sub> /(0.73...1.7)U <sub>N</sub>	(0.73...1.5)U <sub>N</sub> /(0.8...1.7)U <sub>N</sub>
Holding voltage	AC/DC	0.8 U <sub>N</sub> /0.4 U <sub>N</sub>	0.8 U <sub>N</sub> /0.4 U <sub>N</sub>	0.8 U <sub>N</sub> /0.4 U <sub>N</sub>
Must drop-out voltage	AC/DC	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>
Technical data				
Mechanical life AC/DC	cycles	10 · 10 <sup>6</sup> /20 · 10 <sup>6</sup>	10 · 10 <sup>6</sup> /20 · 10 <sup>6</sup>	10 · 10 <sup>6</sup> /20 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	200 · 10 <sup>3</sup>	150 · 10 <sup>3</sup>	100 · 10 <sup>3</sup>
Operate/release time	ms	7/4 (AC) - 12/12 (DC)	7/4 (AC) - 12/12 (DC)	7/4 (AC) - 12/12 (DC)
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	°C	-40...+70	-40...+70	-40...+70
Protection category		IP 20	IP 20	IP 20

Approvals relay (according to type)



## Features

### 1 Pole relay interface module

**AgSnO<sub>2</sub> contacts for heavy duty, high current inrush switching**

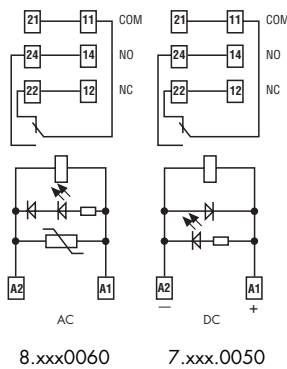
#### 49.61-40x0 - 1 Pole 16 A

- 15.5 mm wide
- Ideal interface for PLC and electronic systems
- AC coils & DC coils
- Instant ejection of relay using plastic retaining clip
- Supply status indication and coil suppression module
- Identification labels
- 35 mm rail (EN 50022) mounting

### 49.61-40x0



- 1 pole 16 A
- AgSnO<sub>2</sub> contact material
- 35 mm rail mounting



For outline drawing see page 138.

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#### Contact specification

Contact configuration		1 CO (SPDT)
Rated current/Maximum peak current	A	16/100 (5 ms)
Rated voltage/Maximum switching voltage	V AC	250/400
Rated load AC1	VA	4,000
Rated load AC15 (230 V AC)	VA	750
Single phase motor rating (230 V AC)	kW	0.55
Breaking capacity DC1: 30/110/220V	A	16/0.3/0.12
Minimum switching load	mW (V/mA)	1,000 (10/10)
Standard contact material		AgSnO <sub>2</sub>

#### Coil specification

Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	12 - 24 - 230
	V DC	12 - 24
Rated power AC/DC/sens.DC	VA (50 Hz)/W/W	1.2/0.65/0.5
Operating range	AC	(0.8...1.1)U <sub>N</sub>
	sens. DC	(0.73...1.5)U <sub>N</sub> / (0.8...1.7)U <sub>N</sub>
Holding voltage	AC/DC	0.8 U <sub>N</sub> / 0.4 U <sub>N</sub>
Must drop-out voltage	AC/DC	0.2 U <sub>N</sub> / 0.1 U <sub>N</sub>

#### Technical data

Mechanical life AC/DC	cycles	10 · 10 <sup>6</sup> / 20 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	100 · 10 <sup>3</sup>
Operate/release time	ms	7/4 (AC) - 12/12 (DC)
Insulation between coil and contacts (1.2/50 μs)	kV	6 (8 mm)
Dielectric strength between open contacts	V AC	1,000
Ambient temperature range	°C	-40...+70
Protection category		IP 20

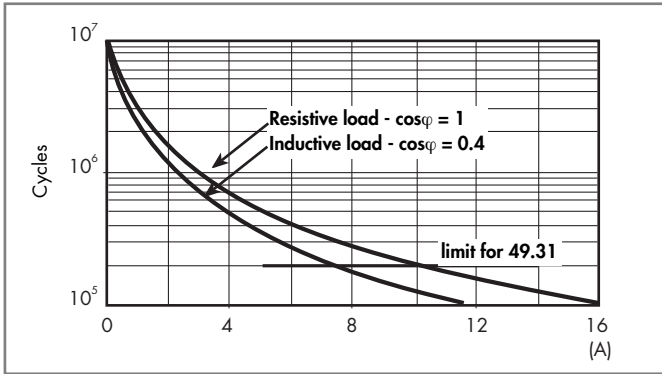
#### Approvals relay (according to type)



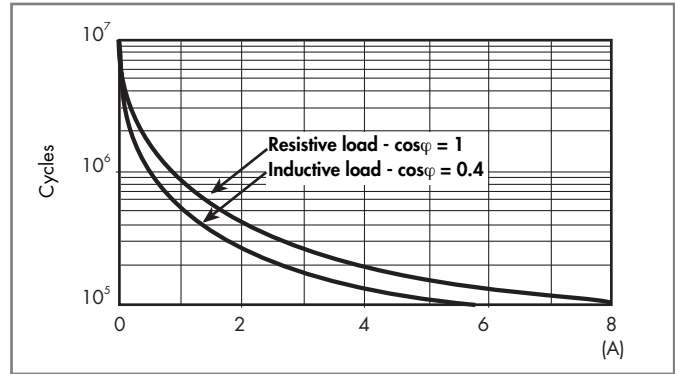


## Contact specification

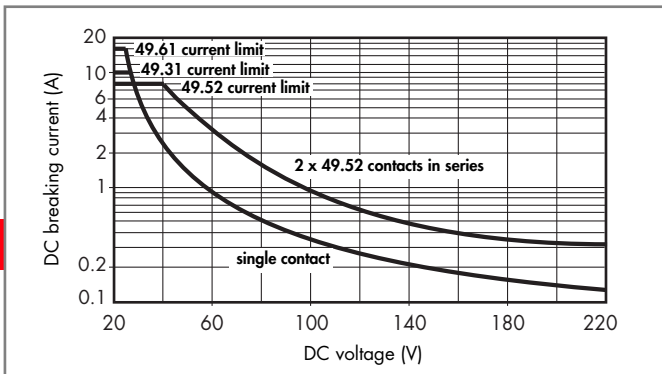
**F 49 - Electrical life (AC) v contact current**  
Types 49.31/61



**F 49 - Electrical life (AC) v contact current**  
Type 49.52



**H 49 - Maximum DC1 breaking capacity**  
Types 49.31/52/61



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- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of  $\geq 100 \cdot 10^3$  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.

## Coil specifications

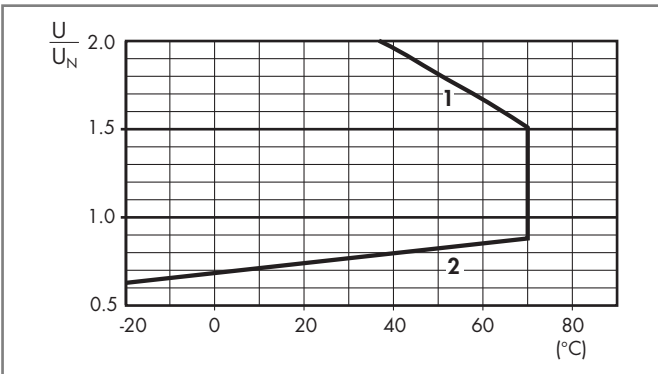
### DC coil data (0.5 W sensitive)

Nominal voltage $U_N$ V	Coil code	Operating range		Rated coil consumption I at $U_N$ mA
		$U_{min}$ V	$U_{max}$ V	
12	7.012	8.8	21	41
24	7.024	17.5	42	22.2
125	7.125	92	218	4

### AC coil data

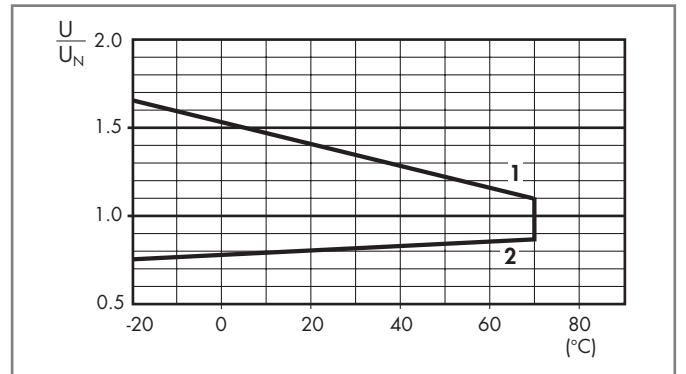
Nominal voltage $U_N$ V	Coil code	Operating range		Rated coil consumption I at $U_N$ (50Hz) mA
		$U_{min}$ V	$U_{max}$ V	
12	8.012	9.6	13.2	90.5
24	8.024	19.2	26.4	46
110	8.110	88	121	10.1
120	8.120	96	132	11.8
230	8.230	184	253	7.0

**R 49 - DC coil operating range v ambient temperature**  
Standard coil



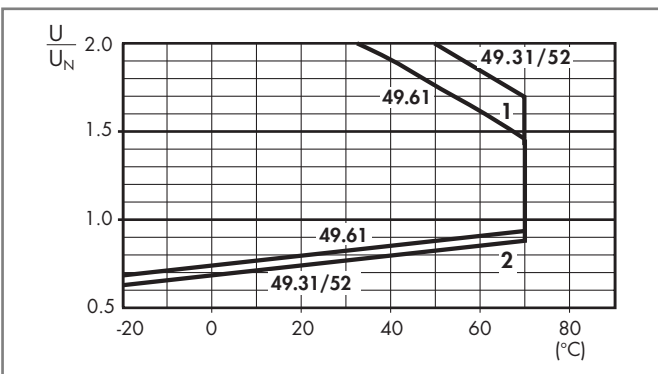
- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.

**R 49 - AC coil operating range v ambient temperature**



- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.

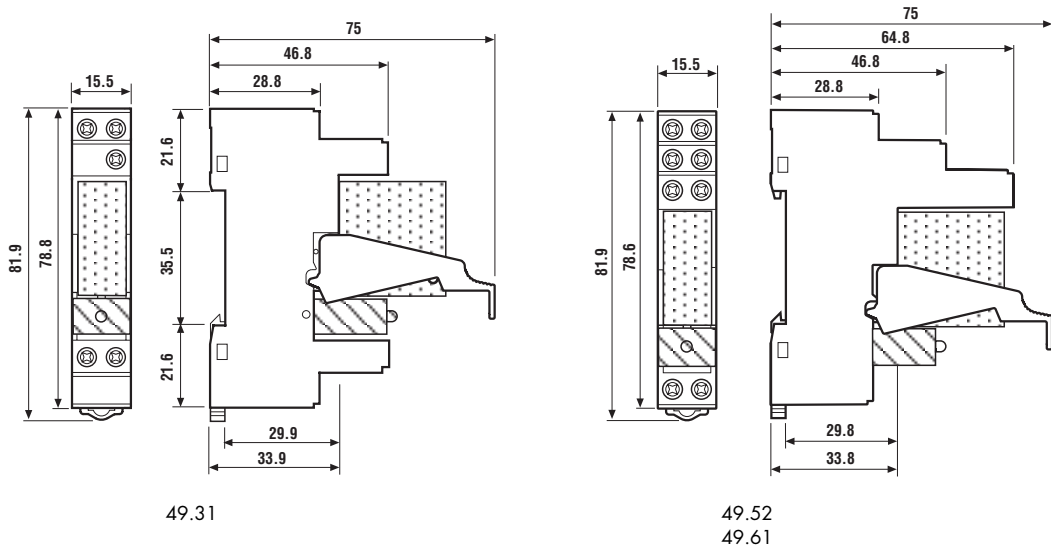
**R 49 - DC coil operating range v ambient temperature**  
Sensitive coil



- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.

## Combinations

Code	Type of socket	Type of relay	Module	Retaining clip
49.31	95.83.3	40.31	99.80	095.91.3
49.52	95.95.3	40.52	99.80	095.91.3
49.61	95.95.3	40.61	99.80	095.91.3



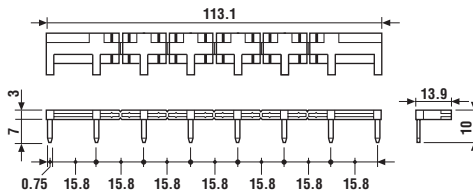
## Accessories

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095.08

<b>8-way jumper link</b> for 95.83.3 and 95.85.5 sockets	095.08
Rated values	10 A - 250 V



060.72

<b>Sheet of marker tags</b> , plastic, 72 tags, 6x12 mm	060.72
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## Packaging codes

How to code and identify retaining clip and packaging options for relay interface module.

Code options according to the last three letters:

**4 9 . 5 2 . 7 . 0 2 4 . 0 0 5 0 S P A**

