



- Electromechanical and SSR (solid state relay) versions
- AC or DC coils
- Sockets with screw, spring or PIN for Printed Circuit Board terminals
- Relays with LED state indicator and mechanical actuator
- Parallel busbars and surge suppressor filters.

### General purpose relays

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**HR10**

- Slim electromechanical relay with
- Socket width 6.2mm
- 1 changeover contact
- lth rated current 6A
- Sockets with built-in LED
- Sockets with screw or spring terminals
- Control voltage from 12 to 230VAC/DC
- 20 poles parallel busbars
- Available version with relay factory assembled on the socket.



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**HR20**

- Slim solid state relay (SSR)
- Socket width 6.2mm
- 1 solid-state (SSR) output
- Output current 2A in AC and 4A in DC
- Sockets with built-in LED
- Sockets with screw or spring terminals
- Control voltage 24VDC
- 20 poles parallel busbars
- High switching speed
- Theoretically infinite electrical life.
- Zero crossing.



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**HR30**

- Miniature relay
- Socket width 15.8mm
- 1 or 2 changeover contacts
- lth rated current:
  - 1 contact: 10A (16A on PCB)
  - 2 contacts: 8A
- AC or DC control voltage
- Sockets with screw, spring or pins for PCB terminals
- 8 poles parallel busbars
- Small dimensions
- Can be used for direct mounting on PCB
- Snap-on surge suppressor filters.



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**HR40**

- Miniature relay in clear enclosure
- Socket width 15.8mm
- 1 or 2 changeover contacts
- lth rated current:
  - 1 contact: 10A (16A on PCB)
  - 2 contacts: 10A
- AC or DC control voltage
- Sockets with screw, spring or pins for PCB terminals
- 8 poles parallel busbars
- Clear enclosure for contacts visibility
- Can be used for direct mounting on PCB
- Snap-on surge suppressor filters.



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**HR50**

- Miniature relay with LED status indicator and mechanical actuator
- Socket width 15.8mm
- 1 or 2 changeover contacts
- lth rated current:
  - 1 contact: 10A (16A on PCB)
  - 2 contacts: 8A
- LED and mechanical status indicator
- Mechanical test actuator with latch option
- AC or DC control voltage
- Sockets with screw, spring or pins for PCB terminals
- 8 poles parallel busbars
- Can be used for direct mounting on PCB
- Snap-on surge suppressor filters.



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**HR60**

- Industrial relay with LED status indicator and mechanical actuator
- Socket width 27mm
- 2 or 4 changeover contacts
- lth rated current:
  - 2 contacts: 7A
  - 4 contacts: 5A
- LED and mechanical status indicator
- Mechanical test actuator with latch option
- AC or DC control voltage
- Sockets with screw or spring terminals
- Snap-on surge suppressor filters.



























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**HR70**

- Industrial relay with LED status indicator and mechanical actuator
- Socket width 38mm
- 8-pin and 11-pin industrial relay
- 2 or 3 changeover contacts
- lth rated current: 10A
- LED and mechanical state indicator
- Mechanical test actuator with latch option
- Versions with AC or DC control.

## 20 General purpose relays

Relays	Code	Contacts	Rated current	Control voltage	Sockets
SLIM RELAYS		HRA10 1C E024	1 C/O	6A	24VAC/DC
		HRA10 1C E024S	1 C/O	6A	24VAC/DC
		HR10 1C E012	1 C/O	6A	12VAC/DC
		HR10 1C E024	1 C/O	6A	24VAC/DC
		HR10 1C E060	1 C/O	6A	110...125VAC/DC 220...240VAC/DC
		HR20 1A S024	1 SSR	2A (AC)	24VDC
		HR20 1D S024	1 SSR	4A (DC)	24VDC
MINIATURE RELAYS		HR30 1C D012	1 C/O	16A	12VDC
		HR30 1C D024	1 C/O	16A	24VDC
		HR30 1C D048	1 C/O	16A	48VAC
		HR30 1C A024	1 C/O	16A	24VAC
		HR30 1C A110	1 C/O	16A	110...120VAC
		HR30 1C A230	1 C/O	16A	230VAC
		HR30 2C D012	2 C/O	8A	12VDC
		HR30 2C D024	2 C/O	8A	24VDC
		HR30 2C D048	2 C/O	8A	48VDC
		HR30 2C A024	2 C/O	8A	24VAC
		HR30 2C A110	2 C/O	8A	110...120VAC
		HR30 2C A230	2 C/O	8A	230VAC
MINIATURE RELAYS CLEAR ENCLOSURE		HR40 1C D012	1 C/O	16A	12VDC
		HR40 1C D024	1 C/O	16A	24VDC
		HR40 2C D012	2 C/O	10A	12VDC
		HR40 2C D024	2 C/O	10A	24VDC
MINIATURE RELAYS WITH LED STATE INDICATOR AND MECHANICAL ACTUATOR		HR50 1C D012	1 C/O	16A	12VDC
		HR50 1C D024	1 C/O	16A	24VDC
		HR50 1C D048	1 C/O	16A	48VDC
		HR50 1C D110	1 C/O	16A	110VDC
		HR50 1C A024	1 C/O	16A	24VAC
		HR50 1C A110	1 C/O	16A	110...120VAC
		HR50 1C A230	1 C/O	16A	230VAC
		HR50 2C D012	2 C/O	8A	12VDC
		HR50 2C D024	2 C/O	8A	24VDC
		HR50 2C D048	2 C/O	8A	48VDC
		HR50 2C D110	2 C/O	8A	110VDC
		HR50 2C A024	2 C/O	8A	24VAC
INDUSTRIAL RELAYS WITH LED STATE INDICATOR AND MECHANICAL ACTUATOR		HR60 2C D012	2 C/O	7A	12VDC
		HR60 2C D024	2 C/O	7A	24VDC
		HR60 2C D048	2 C/O	7A	48VDC
		HR60 2C A012	2 C/O	7A	12VAC
		HR60 2C A024	2 C/O	7A	24VAC
		HR60 2C A110	2 C/O	7A	110...120VAC
		HR60 2C A230	2 C/O	7A	230VAC
		HR60 4C D012	4 C/O	5A	12VDC
		HR60 4C D024	4 C/O	5A	24VDC
		HR60 4C D048	4 C/O	5A	48VDC
		HR60 4C A012	4 C/O	5A	12VAC
		HR60 4C A024	4 C/O	5A	24VAC
8-PIN AND 11-PIN INDUSTRIAL RELAYS WITH LED STATE INDICATOR AND MECHANICAL ACTUATOR		HR70 2C D024	2 C/O	10A	24VDC
		HR70 2C D048	2 C/O	10A	48VDC
		HR70 2C D110	2 C/O	10A	110VDC
		HR70 2C A024	2 C/O	10A	24VAC
		HR70 2C A110	2 C/O	10A	110...120VAC
		HR70 2C A230	2 C/O	10A	230VAC
		HR70 3C D024	3 C/O	10A	24VDC
		HR70 3C D048	3 C/O	10A	48VDC
		HR70 3C D110	3 C/O	10A	110VDC
		HR70 3C A024	3 C/O	10A	24VAC
		HR70 3C A110	3 C/O	10A	110...120VAC
		HR70 3C A230	3 C/O	10A	230VAC
		HR70 3C D024	3 C/O	10A	24VDC
		HR70 3C D048	3 C/O	10A	48VDC
		HR70 3C D110	3 C/O	10A	110VDC
		HR70 3C A024	3 C/O	10A	24VAC
		HR70 3C A110	3 C/O	10A	110...120VAC
		HR70 3C A230	3 C/O	10A	230VAC

	Code	Retaining clips	Code	Marker tags	Code	Parallel busbars	Code	Surge suppressor filters
		Included in the socket	HR1X 30		HR1X 9020 (black)	20 poles 		
			HR1X 3016 (strip with 16 plates)		HR1X 9120 (red)			
	HR3X 88⑥							
	HR3X 86⑥							
	HR5X 88⑥		HR5X 30⑥		HR5X 9008 (black) ④	8 poles 	Resistor - Capacitor HR6X 77024 6...24VAC/DC HR6X 77230 110...230VAC/DC	
	HR5X 86⑥						Diode + LED HR6X 78024 6...24VDC	
	HR5X 87⑥							
	HR6X 88		HR6X 30					
			HR5X 30 (only for sockets with spring terminals)					
	HR7X 87							

- ① Final S in code indicates spring terminals.  
 ② Voltage dependent on selected relay socket; rated insulation voltage only for relay 60VDC.  
 ③ Rated current if the relay is soldered directly onto the board; with socket the maximum current is 10A.  
 ④ For sockets with screw terminals.  
 ⑤ Only mounting on socket HR5X S21P.  
 ⑥ Not suitable for HR5X S21P socket.

## 20 General purpose relays

### Slim relays



HRA10...



HR10...



HR20...

Order code	Control voltage	Contacts	Rated current	Description	Qty per pkg
			[A]		no.
Slim electromechanical relays assembled on the socket.					
<b>HRA10 1C E024</b>	24VAC/DC	1 C/O	6	Screw terminals	10
<b>HRA10 1C E024S</b>	24VAC/DC	1 C/O	6	Spring terminals	10
Slim electromechanical relays.					
<b>HR10 1C E012</b>	12VDC	1 C/O	6	12VAC/DC control when on HR1XS024 or HR1XS024S socket	20
<b>HR10 1C E024</b>	24VDC	1 C/O	6	24VAC/DC control when on HR1XS024 or HR1XS024S socket	20
<b>HR10 1C E060</b>	60VDC	1 C/O	6	110...125VAC/DC control when on HR1XS110 or HR1XS110S socket. 220...240VAC/DC control when on HR1XS230 or HR1XS230S socket	20
Slim SSR (solid state relay) relays.					
<b>HR20 1A S024</b>	24VDC	1 SSR	2	Output 24...280VAC	10
<b>HR20 1D S024</b>	24VDC	1 SSR	4	Output 3...28VDC	10

#### General characteristics

Slim-type relays have a reduced width that permits considerable optimisation of space. All sockets are equipped with supply indicator LED and retain/release clips. The availability of electromechanical and solid-state (SSR) versions permits the installation of the most technically suitable solution in accordance with system requirements. The socket terminals can be screw or spring type.

The parallel busbars make for quick wiring.

#### Operational characteristics

- Rated insulation voltage: 250V
- Rated impulse withstand voltage: 4kV
- Relay control voltage: 12, 24, 60VDC
- Relay control voltage + socket: 12, 24, 110...125, 220...240VAC/DC
- Max controllable power in AC-1: 1500W
- Max controllable power in AC-15: 360VA.

#### Certifications and compliance

Certifications obtained: cURus, CSA, EAC, VDE for electromechanical relays HR10..., cURus, TÜV for SSR relay HR20....

Compliant with standards: IEC/EN 61810 for electromechanical relays, IEC/EN 62314 for SSR.

### Sockets



HR1X S... HR1X S...S

Order code	Control voltage	Terminals	Description	Qty per pkg
	AC/DC			no.
Sockets for relays.				
<b>HR1X S024</b>	12...24V	Screw	Use with relay HR101CE012, HR101CE024 and HR20...	10
<b>HR1X S110</b>	110...125V	Screw	Use with relay HR101CE060	10
<b>HR1X S230</b>	220...240V	Screw	Use with relay HR101CE060	10
<b>HR1X S024S</b>	12...24V	Spring	Use with relay HR101CE012, HR101CE024 and HR20...	10
<b>HR1X S110S</b>	110...125V	Spring	Use with relay HR101CE060	10
<b>HR1X S230S</b>	220...240V	Spring	Use with relay HR101CE060	10

#### General characteristics

HR1X.. sockets are equipped with supply indicator LED and retain/release clips. The socket terminals can be screw or spring type. Parallel busbars can be fitted to the sockets, for quick wiring. These busbars plug in, on both the screw and spring sockets, leaving the cable entry terminals free.

#### Operational characteristics

- Rated insulation voltage: 250V
- Rated impulse withstand voltage: 4kV
- Relay control voltage: 12, 24, 60VDC
- Relay control voltage + socket: 12, 24, 110...125, 220...240VAC/DC
- Green indication LED
- Fitting on DIN rail.

#### Certifications and compliance

Certifications obtained: cURus, CSA, EAC, VDE for electromechanical relay HR10..., cURus, TÜV for SSR relay HR20....

Compliant with standards: IEC/EN 61810 for electromechanical relays, IEC/EN 62314 for SSR.

### Accessories



HR1X 30...



HR1X 9020



HR1X 9120

Order code	Description	Qty per pkg
		no.
<b>HR1X 30</b>	Marker tags	100
<b>HR1X 3016</b>	Marker tags - strip with 16 plates	20
<b>HR1X 9020</b>	20-pole parallel busbar - black	10
<b>HR1X 9120</b>	20-pole parallel busbar - red	10

## Miniature relays



HR30...

new

new

Order code	Control voltage	Contacts	Rated current	Description	Qty per pkg
			[A]		no.
Miniature relays.					
HR30 1C D012	12VDC	1 C/O	16	Fitting on socket HR5XS2... (max 10A)	20
HR30 1C D024	24VDC	1 C/O	16	Fitting on socket HR5XS2... (max 10A)	20
HR30 1C D048	48VDC	1 C/O	16	Fitting on socket HR5XS2... (max 10A)	20
HR30 1C A024	24VAC	1 C/O	16	Fitting on socket HR5XS2... (max 10A)	20
HR30 1C A110	110/120VAC	1 C/O	16	Fitting on socket HR5XS2... (max 10A)	20
HR30 1C A230	230VAC	1 C/O	16	Fitting on socket HR5XS2... (max 10A)	20
HR30 2C D012	12VDC	2 C/O	8	Fitting on socket HR5XS2...	20
HR30 2C D024	24VDC	2 C/O	8	Fitting on socket HR5XS2...	20
HR30 2C D048	48VDC	2 C/O	8	Fitting on socket HR5XS2...	20
HR30 2C A024	24VAC	2 C/O	8	Fitting on socket HR5XS2...	20
HR30 2C A110	110/120VAC	2 C/O	8	Fitting on socket HR5XS2...	20
HR30 2C A230	230VAC	2 C/O	8	Fitting on socket HR5XS2...	20

### General characteristics

Miniature relays have compact dimensions but high functional performance. It's the ideal device for those looking for a cost-effective solution without compromising performance.

### Operational characteristics

- Rated insulation voltage: 250V
- Rated impulse withstand voltage: 4kV
- Relay control voltage: 12, 24 and 48VDC - 24, 110/120 and 230VAC, 50/60Hz
- Max controllable power in AC-1 (1C/2C): 4000/2000W
- Max controllable power in AC-15 (1C/2C): 300/150VA
- Maximum current (1C/2C): 16A/10A.

### Certifications and compliance

Certifications obtained: cURus, CSA, EAC, VDE (VDE except for HR30 1C A...).

Compliant with standards: IEC/EN 61810.

## Sockets



HR5X S21



HR5X S22



HR5X S21S



HR5X S21P

Order code	Description	Qty per pkg
		no.
Sockets for relays (supplied without retain/release clip). Terminal layout see page 20-10.		
HR5X S21	Screw terminals, contact terminals all on upper side	10
HR5X S22	Screw terminals. Fitting on DIN rail or with screws	10
HR5X S21S	Spring terminals. Fitting on DIN rail or with screws	10
HR5X S21P	PIN terminals for Printed Circuit Board	40

### General characteristics

HR5X... series sockets can have screw terminals or spring terminals for quick wiring. Screw terminals are available in 2 versions: with contact terminals separated from the coil terminals or with NC contact terminals near the coil terminals. Surge suppressor filters, parallel busbars and plates for wiring can be snap-fitted to the sockets.

### Operational characteristics

- Rated insulation voltage: 250V
- Rated impulse withstand voltage: 4kV
- Maximum current: 10A
- Terminal layout see page 20-10.

### Certifications and compliance

Certifications obtained: cURus, CSA, EAC (cURus only for PCB socket).

Compliant with standards: IEC/EN 61810.

## Accessories



HR3X 88



HR3X 86



HR5X 30



HR6X 78 024



HR5X 9008

Order code	Description	Qty per pkg
		no.
HR3X 88	Retain/release clip. Not suitable for HR5XS21P socket	20
HR3X 86	Retaining clip. Only mounting on socket HR5XS21P	10
HR5X 30	Marker tags	100
HR6X 78 024	Plug-in surge suppressor filters. 6...24VDC with LED	10
HR6X 77 024	Plug-in surge suppressor filters. 6...24VAC/DC (RC)	10
HR6X 77 230	Plug-in surge suppressor filters. 110...230VAC/DC (RC)	10
HR5X 9008	8-pole parallel busbar - black - for sockets with screw terminals	10



## 20 General purpose relays

## Miniature relays clear enclosure



HR40...

## Miniature relays with LED state indicator and mechanical actuator



HR50...

Order code	Control voltage	Contacts	Rated current	Description	Qty per pkg
			[A]		no.

Miniature relays clear enclosure.

<b>HR40 1C D012</b>	12VDC	1 C/O	16	Mounting on HR5XS2... socket (max 10A)	10
<b>HR40 1C D024</b>	24VDC	1 C/O	16		10
<b>HR40 2C D012</b>	12VDC	2 C/O	10	Mounting on HR5XS2... socket	10
<b>HR40 2C D024</b>	24VDC	2 C/O	10		10

new

Order code	Control voltage	Contacts	Rated current	Description	Qty per pkg
			[A]		no.

Miniature relays with LED state indicator and mechanical actuator.

<b>HR50 1C D012</b>	12VDC	1 C/O	16	Mounting on HR5XS2... socket (max 10A)	10
<b>HR50 1C D024</b>	24VDC	1 C/O	16		10
<b>HR50 1C D048</b>	48VDC	1 C/O	16		10
<b>HR50 1C D110</b>	110VDC	1 C/O	16		10
<b>HR50 1C A024</b>	24VAC	1 C/O	16		10
<b>HR50 1C A110</b>	110/120VAC	1 C/O	16	Mounting on HR5XS2... socket	10
<b>HR50 1C A230</b>	230VAC	1 C/O	16		10
<b>HR50 2C D012</b>	12VDC	2 C/O	8		10
<b>HR50 2C D024</b>	24VDC	2 C/O	8		10
<b>HR50 2C D048</b>	48VDC	2 C/O	8		10
<b>HR50 2C D0110</b>	110VDC	2 C/O	8		10
<b>HR50 2C A024</b>	24VAC	2 C/O	8		10
<b>HR50 2C A110</b>	110/120VAC	2 C/O	8		10
<b>HR50 2C A230</b>	230VAC	2 C/O	8		10

## General characteristics

HR40... and HR50... miniature relays have reduced dimensions and, in addition to the high electrical performance. HR40... has a clear enclosure that allow contacts visibility for wear and tear check. HR50... is equipped with the following functions: LED to indicate voltage on the coil, mechanical contact state indicator and mechanical test actuator. The mechanical actuator is particularly useful for performing functional tests; it can also keep the relay closed continuously.

## Operational characteristics

- Rated insulation voltage: 250V (400V with pollution degree 2)
- Relay control voltage:
  - HR40... and HR50...: 12 and 24VDC (48VDC for HR50... only)
  - HR50...: 24, 110/120 and 230VAC 50/60Hz
- Max AC-1 controllible power (1C/2C):
  - HR40...: 3840/2500W
  - HR50...: 4000/2000W
- Max AC-15controllable power: 150VA
- Maximum current (1C/2C):
  - HR40...: 16/10A
  - HR50...: 16A/8A.

## Certifications and compliance

Certifications obtained: HR40 1C... cURus, VDE; HR40 2C... cURus; HR50 1C... and HR50 2C... cURus, CSA, EAC, VDE.

Compliant with standards: IEC/EN 61810.

## Sockets



HR5X S21



HR5X S22



HR5X S21S



HR5X S21P

Order code	Description	Qty per pkg
		no.

Sockets for relays (supplied without retain/release clip).  
Terminal layout see page 20-10.

<b>HR5X S21</b>	Screw terminals, contact terminals all on upper side. Fitting on DIN rail or with screws	10
<b>HR5X S22</b>	Screw terminals. Fitting on DIN rail or with screws	10
<b>HR5X S21S</b>	Spring terminals. Fitting on DIN rail or with screws	10
<b>HR5X S21P</b>	PIN terminals for Printed Circuit Board	40

## General characteristics

HR5X... series sockets can have screw terminals or spring terminals for quick wiring. A socket with pins for PCB is also available. Screw terminals are available in 2 versions: with contact terminals separated from the coil terminals or with NC contact terminals near the coil terminals. Surge suppressor filters, parallel busbars and plates for wiring can be snap-fitted to the sockets intended for Din rail mounting.

## Operational characteristics

- Rated insulation voltage: 250V
- Rated impulse withstand voltage: 4kV
- Maximum current: 10A
- Terminal layout see page 20-10.

## Certifications and compliance

Certifications obtained: cURus, CSA, EAC (cURus only for PCB socket).

Compliant with standards: IEC/EN 61810.

## Accessories



HR5X 86



HR5X 87

new



HR5X 88



HR5X 30

new



HR6X 78 024



HR5X 9008

Order code	Description	Qty per pkg
		no.
<b>HR5X 86</b>	Metal retaining clip. Only mounting on HR5XS21P socket	10
<b>HR5X 87</b>	Metal retaining clip. Not suitable for HR5XS21P socket	20
<b>HR5X 88</b>	Plastic retaining clip. Not suitable for HR5XS21P socket	10
<b>HR5X 30</b>	Marker tags	100
<b>HR6X 78 024</b>	Plug-in surge suppressor filters. 6...24VDC with LED	10
<b>HR6X 77 024</b>	Plug-in surge suppressor filters. 6...24VAC/DC (RC)	10
<b>HR6X 77 230</b>	Plug-in surge suppressor filters. 110...230VAC/DC (RC)	10
<b>HR5X 9008</b>	8-pole parallel busbar - black	10

### Industrial relays with LED state indicator and mechanical actuator



HR60...

new

new

Order code	Control voltage	Contacts	Rated current	Description	Qty per pkg
			[A]		no.
Industrial relays with LED state indicator and mechanical actuator.					
HR60 2C D012	12VDC	2 C/O	7	Fitting on socket HR6XS2...	10
HR60 2C D024	24VDC	2 C/O	7	Fitting on socket HR6XS2...	10
HR60 2C D048	48VDC	2 C/O	7	Fitting on socket HR6XS2...	10
HR60 2C A012	12VAC	2 C/O	7	Fitting on socket HR6XS2...	10
HR60 2C A024	24VAC	2 C/O	7	Fitting on socket HR6XS2...	10
HR60 2C A110	110/120VAC	2 C/O	7	Fitting on socket HR6XS2...	10
HR60 2C A230	230VAC	2 C/O	7	Fitting on socket HR6XS2...	10
HR60 4C D012	12VDC	4 C/O	5	Fitting on socket HR6XS4...	10
HR60 4C D024	24VDC	4 C/O	5	Fitting on socket HR6XS4...	10
HR60 4C D048	48VDC	4 C/O	5	Fitting on socket HR6XS4...	10
HR60 4C A012	12VAC	4 C/O	5	Fitting on socket HR6XS4...	10
HR60 4C A024	24VAC	4 C/O	5	Fitting on socket HR6XS4...	10
HR60 4C A110	110/120VAC	4 C/O	5	Fitting on socket HR6XS4...	10
HR60 4C A230	230VAC	4 C/O	5	Fitting on socket HR6XS4...	10

#### General characteristics

HR60... type industrial relays are available in 2/4-changeover-contact versions. They are equipped with LEDs that indicate control voltage, a mechanical contact state indicator and a mechanical actuator. The actuator is particularly useful for performing functional tests; it can also keep the relay closed continuously.

#### Operational characteristics

- Rated insulation voltage: 250V
- Rated impulse withstand voltage: 4kV
- Relay control voltage: 12, 24 or 48VDC - 12, 24, 110/120 and 230VAC, 50/60Hz
- Max controllable current in AC-1 (2C/4C): 7/5A
- Maximum current (2C/4C): 7A/5A.

#### Certifications and compliance

Certifications obtained: cURus, CSA, EAC, VDE.  
Compliant with standards: IEC/EN 61810.

### Sockets



HR6X S21

HR6X S41



HR6X S42

HR6X S41S

Order code	Description	Qty per pkg
		no.
Sockets for relays (supplied without retain/release clip) for fitting on DIN rail or with screws. Terminal layout see page 20-10 and 11. For relays with 2 changeover contacts.		
HR6X S21	Screw terminals, contact terminals all on upper side	10
HR6X S22	Screw terminals	10
HR6X S21S	Spring terminals	10
For relays with 4 changeover contacts.		
HR6X S41	Screw terminals, contact terminals all on upper side	10
HR6X S42	Screw terminals	10
HR6X S41S	Spring terminals	10

#### General characteristics

HR6X... series sockets have screw terminals and are supplied in two versions for relays with 2 or 4 contacts. Surge suppressor filters and plates for wiring can be plugged in to the sockets.  
They can be fixed on DIN rails or with screws.

#### Operational characteristics

- Rated insulation voltage: 250V
- Rated impulse withstand voltage: 4kV
- Maximum current: 10A
- Terminal layout see page 20-10 and 11.

#### Certifications and compliance

Certifications obtained: cURus, CSA, EAC.  
Compliant with standards: IEC/EN61810.

### Accessories



HR6X 88



HR5X 30



HR6X 78 024

Order code	Description	Qty per pkg
		no.
HR6X 88	Retain/release clip	20
HR6X 30	Marker tag for sockets with screw terminals	100
HR5X 30	Marker tag for sockets with spring terminals	100
HR6X 78 024	Plug-in surge suppressor filters. 6...24VDC with LED	10
HR6X 77 024	Plug-in surge suppressor filters. 6...24VAC/DC (RC)	10
HR6X 77 230	Plug-in surge suppressor filters. 110...230VAC/DC (RC)	10



## 20 General purpose relays

## 8-pin and 11-pin industrial relays with LED state indicator and mechanical actuator



HR70...

new

Order code	Control voltage	Contacts	Rated current	Description	Qty per pkg
			[A]		no.

Industrial relays with LED state indicator and mechanical actuator.  
8-pin type.

HR70 2C D024	24VDC	2 C/O	10	Fitting on socket HR7XS1	10
HR70 2C D048	48VDC	2 C/O	10	Fitting on socket HR7XS1	10
HR70 2C D110	110VDC	2 C/O	10	Fitting on socket HR7XS1	10
HR70 2C A024	24VAC	2 C/O	10	Fitting on socket HR7XS1	10
HR70 2C A110	110/120VAC	2 C/O	10	Fitting on socket HR7XS1	10
HR70 2C A230	230VAC	2 C/O	10	Fitting on socket HR7XS1	10

Industrial relays with LED state indicator and mechanical actuator.  
11-pin type.

HR70 3C D024	24VDC	3 C/O	10	Fitting on socket HR7XS2	10
HR70 3C D048	48VDC	3 C/O	10	Fitting on socket HR7XS2	10
HR70 3C D110	110VDC	3 C/O	10	Fitting on socket HR7XS2	10
HR70 3C A024	24VAC	3 C/O	10	Fitting on socket HR7XS2	10
HR70 3C A110	110/120VAC	3 C/O	10	Fitting on socket HR7XS2	10
HR70 3C A230	230VAC	3 C/O	10	Fitting on socket HR7XS2	10

new

## General characteristics

HR70... type industrial relays are available in 2/3-changeover-contact versions. They are equipped with LEDs that indicate control voltage, mechanical contact state indicator and mechanical actuator. The actuator is particularly useful for performing functional tests; it can also keep the relay closed continuously.

HR70... has high electrical endurance performance and lends itself to the most heavy-duty applications.

## Operational characteristics

- Rated insulation voltage: 250V
- Rated impulse withstand voltage: 4kV
- Relay control voltage: 24 and 48VDC- 24, 110/120 and 230VAC, 50/60Hz
- Maximum current: 10A.

## Certifications and compliance

Certifications obtained: cURus, CSA, EAC.  
Compliant with standards: IEC/EN 61810.

## Sockets



HR7X S1



HR7X S2

Order code	Description	Qty per pkg
		no.

Sockets for relays (supplied without retaining clip), for fitting on DIN rail or with screws.

Terminal layout see page 20-11.

HR7X S1	8-pin for HR70 2C... Screw terminals	10
HR7X S2	11-pin for HR70 3C... Screw terminals	10

## General characteristics

HR7X... series sockets have screw terminals and are supplied in two versions for relays with 2 or 3 contacts (8-pin – 11-pin).

They can be fixed on DIN rails or with screws.

## Operational characteristics

- Rated insulation voltage: 250V
- Rated impulse withstand voltage: 4kV
- Maximum current: 10A.

## Certifications and compliance

Certifications obtained: cURus, CSA, EAC.  
Compliant with standards: IEC/EN 61810.

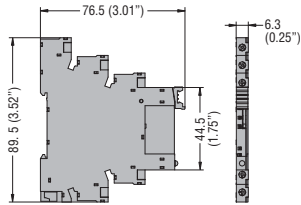
## Accessories



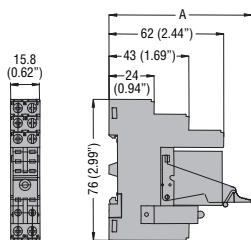
HR7X 87

Order code	Description	Qty per pkg
		no.
HR7X 87	Metal retaining clip	20

## HR10... - HR10... - HR20 with socket HR1XS...

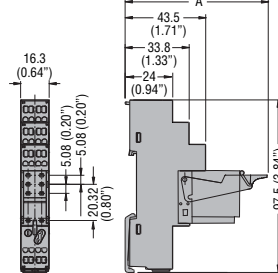


## HR30... - HR40... - HR50... with socket HR5XS21



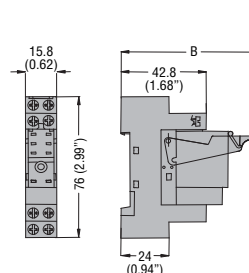
A: 64mm (2.52") with HR3X88  
75mm (2.95") with XR5X88

## HR30... - HR40... - HR50... with socket HR5XS21S



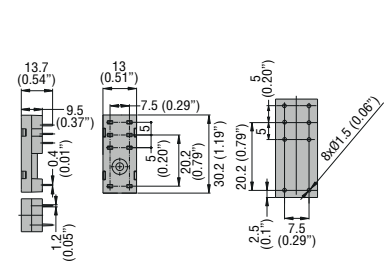
A: 64mm (2.52") with HR3X88  
75mm (2.95") with XR5X88

## HR30... - HR40... - HR50... with socket HR5XS22

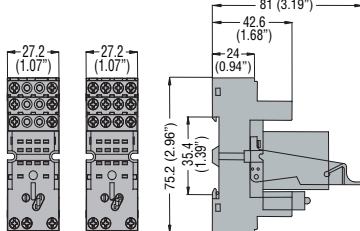


B: 57.5mm (2.26") with HR3X88  
68mm (2.68") with XR5X88

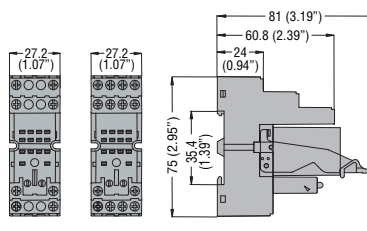
## HR5X S21P



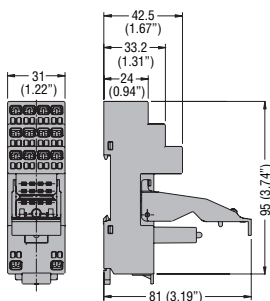
## HR60... with socket HR6XS21 - HR6XS41



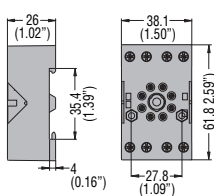
## HR60... with socket HR6XS22 - HR6XS42



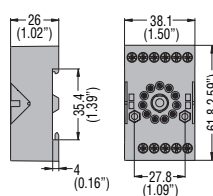
## HR60 2C... - HR60 4C... with socket HR6XS21S - HR6XS41S



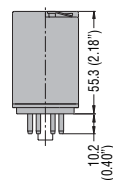
## HR7XS1



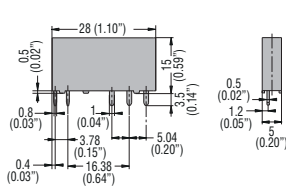
## HR7XS2



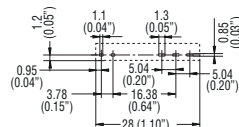
## HR70 2C... - HX70 3C...



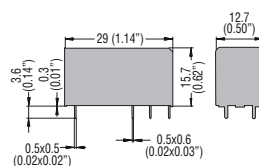
## HR10 - HR20



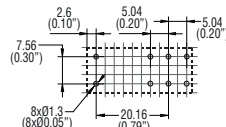
PCB layout



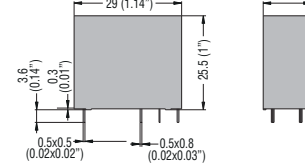
## HR30



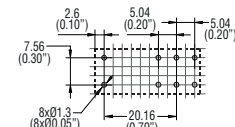
PCB layout



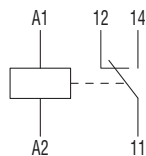
## HR40 - HR50



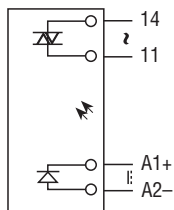
PCB layout



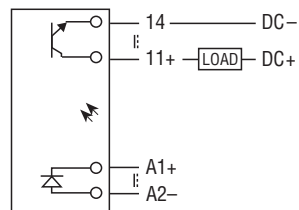
### HR101C..., HRA101C...



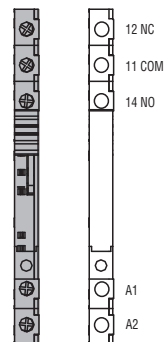
### HRA201A...



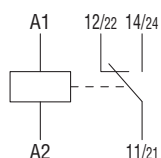
### HRA201D...



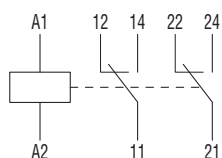
### HR1XS...



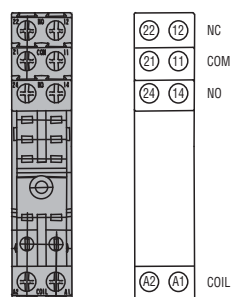
### HR301C...



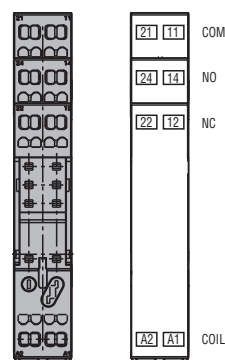
### HR302C...



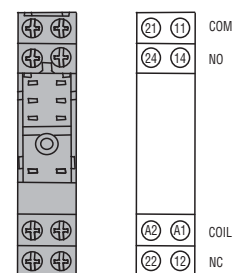
### HR5XS21



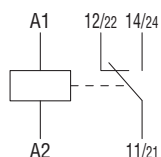
### HR5XS21S



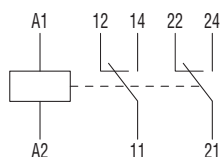
### HR5XS22



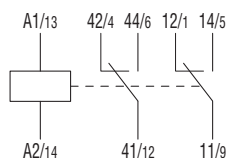
### HR401C... - HR501C...



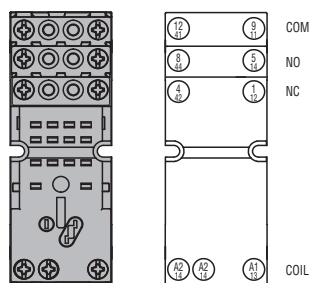
### HR402C... - HR502C...



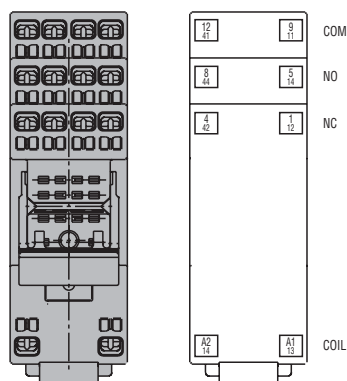
### HR602C...



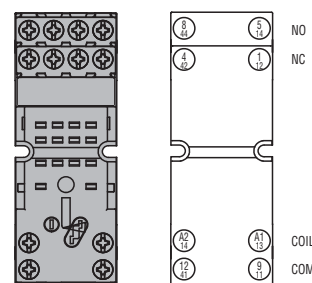
### HR6XS21



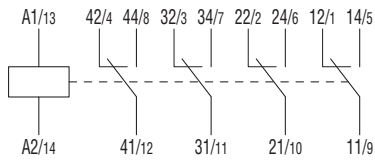
### HR6XS21S



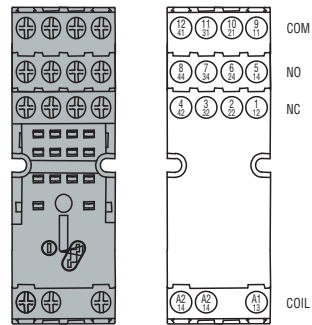
### HR6XS22



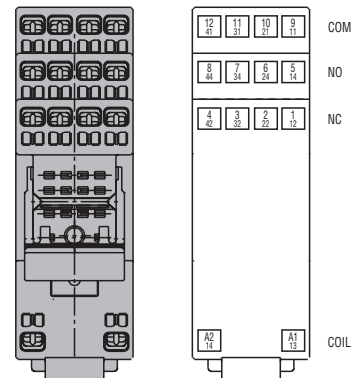
**HR604C...**



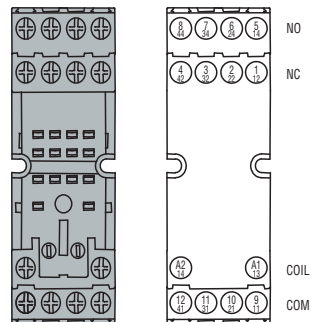
**HR6XS41**



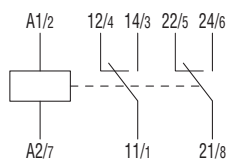
**HR6XS41S**



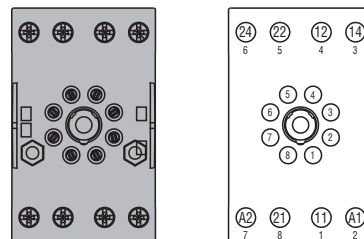
**HR6XS42**



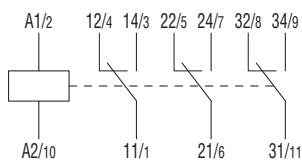
**HR702C...**



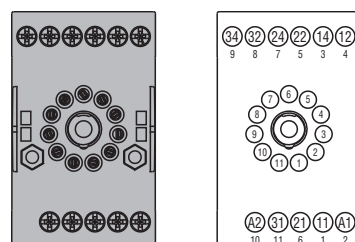
**HR7XS1**



**HR703C...**



**HR7XS2**





Type		HRA10... HR10...	HR20 1AS024	HR20 1DS024	HR30 1C..	HR30 2C..	
CHARACTERISTICS OF THE CONTACTS							
Contact configuration		1 C/O	1 static	1 static	1 C/O	2 C/O	
Rated insulation voltage Ui	VAC/DC	250	2500 (input/output)	2500 (input/output)	250	250	
Rated impulse withstand voltage Uimp	kV	4	–	–	6	6	
Conventional free air thermal current Ith	A	6	2	4	16 <sup>②</sup>	8	
Maximum instantaneous current	A	20 (500ms)	80 (10ms)	48 (10ms)	60 <sup>①</sup>	20 <sup>①</sup>	
Rated operating voltage AC1	VA	1500	④	⑤	4000	2000	
Rated operating voltage AC15 (230VAC)	VA	360	④	⑤	300 <sup>①</sup>	150 <sup>①</sup>	
Single-phase motor control (230VAC)	kW	0.186	④	⑤	0.4	0.2	
Rated operating voltage DC1: 30/110/220V	A	6 / 0.2 / 0.12	④	⑤	12 / 0.3 / 0.1	8 / 0.3 / 0.1	
Minimum switching load	V / mA	5 / 100	24 / 0.1	3 / 0.02	5 / 100		
Contact impedance	mΩ	100	-	-	100		
Contact material		Ag/Ni	-	-	AgSnO2		
Max socket terminal tightening torque	Nm	0.5			0.6		
Socket screw tightening tool (cross / flat blade)		Phillips 0 / 3.5mm			Phillips 1 / 4.5mm <sup>③</sup>		
Wire section on sockets with screw terminals (min...max)	mm²	0.5...1.5			0.5...2.5		
	AWG	20...16			20...14		
OPERATING TIMES							
Closing	ms	≤8	10	0.3	10		
Opening	ms	≤4	10	0.3	5		
ENDURANCE							
Mechanical	Cycles	10,000,000	Theoretically infinite		10,000,000		
Electrical with load AC1	Cycles	30,000 <sup>①</sup>	Theoretically infinite		50,000 <sup>①</sup>		
COIL CHARACTERISTICS							
Average coil consumption AC (50/60Hz) at 20°C	VA	–	–	–	0.9		
Average coil consumption DC at 20°C	W	0.2	–	–	0.45		
Operating range	closing	(% Un)	≥75	80...120	70...110 AC/ 75...110 DC		
	opening	(% Un)	≥5		20...55 AC/ 10...30 DC		
Maximum cycle frequency	cycles/h	10,000	>100,000	>100,000	3,600		
AMBIENT CONDITIONS							
Operating temperature	°C	-40...+70	-30...+80		-40...+85		
Storage temperature	°C	-40...+80	-30...+100		-40...+85		
Fitting position		Any					
OTHER CHARACTERISTICS							
Indicator LED		Yes (on the socket)			No		
Mechanical contact position indicator		No			No		
Mechanical test actuator		No			No		
Socket fixing		On 35mm DIN rail			On 35mm DIN rail and with screws		

- ① NO contact.
- ② Maximum socket current of 10A.
- ③ 2.5mm flat blade for versions with spring terminals.
- ④ 2A output 24...280VAC.
- ⑤ 4A output 3...28VDC.



	HR40 1C..	HR40 2C..	HR50 1C..	HR50 2C..	HR60 2C..	HR60 4C..	HR70 2C..	HR70 3C..
	1 C/O	2 C/O	1 C/O	2 C/O	2 C/O	4 C/O	2 C/O	3 C/O
	250		250		500		250	
	4	5	6		4		6	
	16 <sup>②</sup>	10	16 <sup>②</sup>	8	7	5	10	10
	60	26	20 <sup>①</sup>	10 <sup>①</sup>	–	–	–	–
	4000	2500	4000	2000	1750	1250	2500	2500
	500	400	150 <sup>①</sup>	150 <sup>①</sup>	150 <sup>①</sup>	150 <sup>①</sup>	500	500
	0.37	0.3	0.1	–	0.37	0.37	1.2	1.2
	10 / 0.3 / 0.12	8 / 0.3 / 0.12	12 / 0.3 / 0.1	8 / 0.3 / 0.1	12 / 0.3 / 0.1	8 / 0.3 / 0.1	10 / - / -	10 / - / -
	5 / 100		5 / 100		5 / 100		5 / 100	
	100		100		100		100	
	AgSnO2		Ag/Ni		Ag/Ni		Ag/Ni	
	0.6		0.6		0.6		0.6	
	Phillips 1 / 4.5mm <sup>③</sup>		Phillips 1 / 4.5mm <sup>③</sup>		Phillips 1 / 4.5mm		Phillips 1 / 4.5mm	
	0.5...2.5		0.5...2.5		0.5...2.5		0.5...2.5	
	20...14		20...14		20...14		20...14	
	< 15		< 15		< 25		< 30	
	< 5		< 15		< 25		< 30	
	10,000,000		10,000,000		20,000,000		5,000,000	
	100,000 <sup>①</sup>		50,000 <sup>①</sup>	20,000 <sup>①</sup>	100,000		100,000	
	–	–	1		1.7		3	
	0.7	0.5	0.4		1.1		1.5	
	75...110	75...110	70...110 AC / 75...110 DC		70...110 AC / 75...110 DC		70...110 AC / 75...110 DC	
	10...30	10...30	20...55 AC / 10...30 DC		20...55 AC / 10...30 DC		20...55 AC / 10...30 DC	
	3,600	3,600	3,600		3,600		3,600	
	-40...+85		-40...+85		-40...+70		-40...+55	
	-40...+85		-40...+85		-40...+80		-40...+70	
	Any							
	No		Yes		Yes		Yes	
	No		Yes		Yes		Yes	
	No		Yes		Yes		Yes	
	On 35mm DIN rail and with screws		On 35mm DIN rail and with screws		On 35mm DIN rail and with screws		On 35mm DIN rail and with screws	