

GENERAL PURPOSE RELAYS

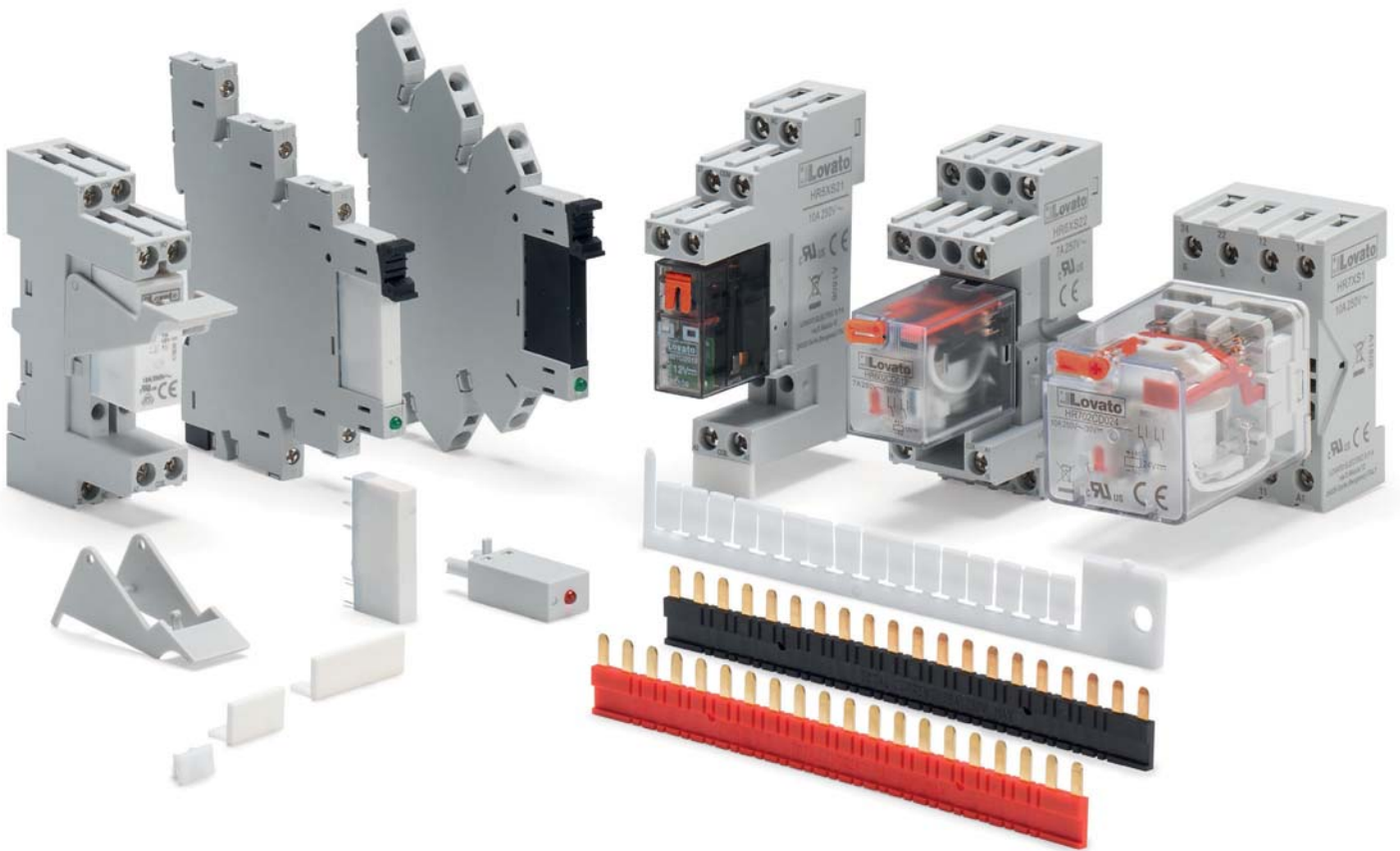


HR SERIES

 **Lovato**
electric

ENERGY AND AUTOMATION

HR series



General purpose relays

General purpose relays are designed to control various types of loads inside machines, simple or very complex systems and plants.

They can command contactors, electrovalves, electric actuators, resistors, indicator lights, etc.

General purpose relays are controlled by PLC or by the electronic control devices of machines and plants. These have contacts with reduced power; the relays have the purpose to increase power and multiply the command.

Another advantage of general purpose relays is PLCs and electronic control devices protection from damage due to possible short circuits on controlled loads. In fact, an industrial relay damaged by short circuit can be replaced in a few seconds at a minimum cost compared to a long machine shutdown at high cost in the case of damage to the internal contacts of a PLC.

HR10

Electromechanical slim relays

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



HR20

SSR (solid state relay) slim relays

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



HR30

Miniature relays

- Socket width 15.8mm
- 1 or 2 changeover contacts
- Rated current Ith 10A (16A on PCB) or 8A
- Control voltage in AC or DC
- Socket with screw or spring terminals
- 8 poles parallel busbars
- Small dimensions
- Can be used on PCB.



HR50

Miniature relays

with LED state indicator and mechanical actuator

- Socket width 15.8mm
- 1 or 2 changeover contacts
- Rated current Ith 8A or 16A
- LED and mechanical state indicator
- Mechanical test actuator with latch option
- Control voltage in AC or DC
- Socket with screw or spring terminals
- 8 poles parallel busbars
- Plug-in noise filter.



HR60

Industrial relays with LED state indicator and mechanical actuator

- Socket width 27mm
- 2 or 4 changeover contacts
- Rated current Ith 7A or 5A
- LED and mechanical state indicator
- Mechanical test actuator with latch option
- Control voltage in AC or DC
- Socket with screw or spring terminals
- Plug-in noise filter.



HR70

Industrial relays with LED state indicator and mechanical actuator

- Socket width 38mm
- 8-pin or 11-pin industrial relay
- 2 or 3 changeover contacts
- Rated current Ith 10A
- Control voltage in AC or DC
- LED and mechanical state indicator
- Mechanical test actuator with latch option.





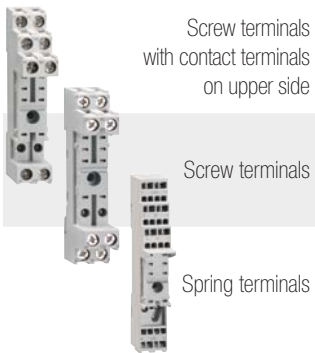
MINIATURE RELAYS

Relays



Contacts	1 changeover	2 changeover
Rated current	16A	8A
Control voltage		
12VDC	HR30 1C D012	HR30 2C D012
24VDC	HR30 1C D024	HR30 2C D024
24VAC	HR30 1C A024	HR30 2C A024
110VAC	HR30 1C A110	HR30 2C A110
230VAC	HR30 1C A230	HR30 2C A230

Sockets



Screw terminals with contact terminals on upper side

HR5X S21

HR5X S21

Screw terminals

HR5X S22

HR5X S22

Spring terminals

HR5X S21S

HR5X S21S

Retaining clips



HR3X 88

HR3X 88

Marker tags



Single

HR5X 30

HR5X 30

Parallel busbars



8 poles black

HR5X 9008

HR5X 9008

Surge suppressor filters



RC - 6...24VAC/DC

HR6X 77024

HR6X 77024

RC - 110...230VAC/DC

HR6X 77230

HR6X 77230

Diode + LED - 6...24VDC

HR6X 78024

HR6X 78024



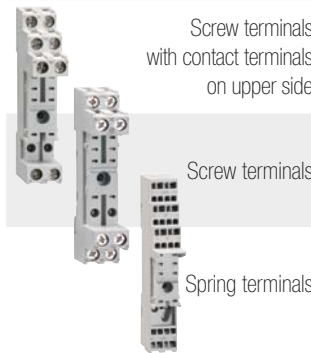
MINIATURE RELAYS WITH LED STATE INDICATOR AND MECHANICAL ACTUATOR

Relays



Contacts	1 changeover	2 changeover
Rated current	16A	8A
Control voltage		
12VDC	HR50 1C D012	HR50 2C D012
24VDC	HR50 1C D024	HR50 2C D024
48VDC	HR50 1C D048	HR50 2C D048
110VDC	HR50 1C D110	HR50 2C D110
24VAC	HR50 1C A024	HR50 2C A024
110VAC	HR50 1C A110	HR50 2C A110
230VAC	HR50 1C A230	HR50 2C A230

Sockets



Screw terminals with contact terminals on upper side

HR5X S21

HR5X S21

Screw terminals

HR5X S22

HR5X S22

Spring terminals

HR5X S21S

HR5X S21S

Retaining clips



HR5X 87

HR5X 87

Marker tags



Single

HR5X 30

HR5X 30

Parallel busbars



8 poles black

HR5X 9008

HR5X 9008

Surge suppressor filters



RC - 6...24VAC/DC

HR6X 77024

HR6X 77024

RC - 110...230VAC/DC

HR6X 77230

HR6X 77230


Diode + LED - 6...24VDC

HR6X 78024


HR6X 78024





INDUSTRIAL RELAYS WITH LED STATE INDICATOR AND MECHANICAL ACTUATOR

Relays			
	Contacts	2 changeover	4 changeover
	Rated current	7A	5A
	Control voltage		
	12VDC	HR60 2C D012	HR60 4C D012
	24VDC	HR60 2C D024	HR60 4C D024
	24VAC	HR60 2C A024	HR60 4C A024
	110VAC	HR60 2C A110	HR60 4C A110
	230VAC	HR60 2C A230	HR60 4C A230


8-PIN AND 11-PIN INDUSTRIAL RELAYS WITH LED STATE INDICATOR AND MECHANICAL ACTUATOR

Relays			
	Contacts	2 changeover	3 changeover
	Rated current	10A	10A
	Pin	8-pin	11-pin
	Control voltage		
	24VDC	HR70 2C D024	HR70 3C D024
	110VDC	HR70 2C D110	HR70 3C D110
	24VAC	HR70 2C A024	HR70 3C A024
	110VAC	HR70 2C A110	HR70 3C A110
	230VAC	HR70 2C A230	HR70 3C A230

Sockets			
	Screw terminals with contact terminals on upper side	HR6X S21	HR6X S41
	Screw terminals	HR6X S22	HR6X S42
	Spring terminals	HR6X S21S[Ⓢ]	HR6X S41S[Ⓢ]

Sockets			
	8-pin Screw terminals	HR7X S1	
	11-pin Screw terminals		HR7X S2

Retaining clips			
		HR6X 88	HR6X 88

Retaining clips			
		HR7X 87	HR7X 87

Marker tags			
	Single	HR6X 30	HR6X 30
	Single	HR5X 30 Only for sockets with spring terminals	HR5X 30 Only for sockets with spring terminals

Surge suppressor filters			
	RC - 6...24VAC/DC	HR6X 77024	HR6X 77024
	RC - 110...230VAC/DC	HR6X 77230	HR6X 77230
	Diode + LED - 6...24VDC	HR6X 78024	HR6X 78024

- Final S in code indicates spring terminals.
- Voltage dependent on selected relay socket. Rated voltage for relay only: 60VDC.
- AC voltage only if linked to socket.
- Rated current if the relay is soldered directly onto PCB; with socket the maximum current is 10A.