



RELECO

**INDUSTRIAL RELAY
WITH TRANSPARENT COVER**

1, 2 AND 3 CHANGE-OVER CONTACTS

The **MR31** and **MR51** relays are plug-in models, with terminations for use with appropriate sockets. Compact and small in size, they are suitable for medium power industrial applications. The terminations can also be used for soldering or AMP Series 110 connectors.

They are also supplied with tags for printed circuit boards.

They comply with BS standards and UL recommendations.

**MR31
MR51**

SPECIFICATIONS

Contact material	Fine silver, gold flashed or silver/cadmium/oxide
Instantaneous overload	30 A. } 10 A. Contacts
Max. permanent load	10 A. }
Max. release current	5 and 10 A (note)
Max. switching capacity (cos φ = 1)	1,200 VA, 150 W, 240 W
Approximate sensitivity	2 VA ac; 1.2 W dc.
Operating time	10-20 ms.
Release time	5-8 ms.
Net weight	75 grs.

(Note) - 5 A. with silver contacts. 10 A. with silver/cadmium/oxide. See Table I.

STANDARD MODELS

RELAY MR31

AC. 50-60 Hz

Normal coils values at +20° C		
Vac	Ω ± 10%	mA
6	6	330
12	25	170
24	100	83
50	360	45
110	2.100	20
127	2.400	17
220	8.500	10
240	9.500	9

Change-over contacts		
1 C	2 C	3 C
Model No.	Model No.	Model No.
MR31.1.006	MR31.2.006	MR31.3.006
MR31.1.012	MR31.2.012	MR31.3.012
MR31.1.024	MR31.2.024	MR31.3.024
MR31.1.050	MR31.2.050	MR31.3.050
MR31.1.110	MR31.2.110	MR31.3.110
MR31.1.127	MR31.2.127	MR31.3.127
MR31.1.220	MR31.2.220	MR31.3.220
MR31.1.240	MR31.2.240	MR31.3.240

All the coils are continuously rated and will operate at 80% of the nominal voltage.

RELAY MR51

DC

Normal coils values at +20° C		
Vac	Ω ± 10%	mA
6	32	200
12	110	100
24	470	50
48	2.000	24
60	3.000	20
110	8.500	13
220	20.000	(*)8

Change-over contacts		
1 C	2 C	3 C
Model No.	Model No.	Model No.
MR51.1.006	MR51.2.006	MR51.3.006
MR51.1.012	MR51.2.012	MR51.3.012
MR51.1.024	MR51.2.024	MR51.3.024
MR51.1.048	MR51.2.048	MR51.3.048
MR51.1.060	MR51.2.060	MR51.3.060
MR51.1.110	MR51.2.110	MR51.3.110
MR51.1.220	MR51.2.220	MR51.3.220

For 220V (*), an 8,200 Ω/3W resistance must be connected in series with the coil.

All the coils are continuously rated and will operate at 75% of the nominal voltage.

(Note) - The models listed in the foregoing tables refer to 5 A. relays. For ordering a 10 A. relay, 10 should be added to the Model N.°

Cover Type N

4,5 m.m.
1,2 x 0,5 m.m.

With angle fixing bracket if required: Add A to the Model No.

With tags for printed circuit: Add PC to Model No.

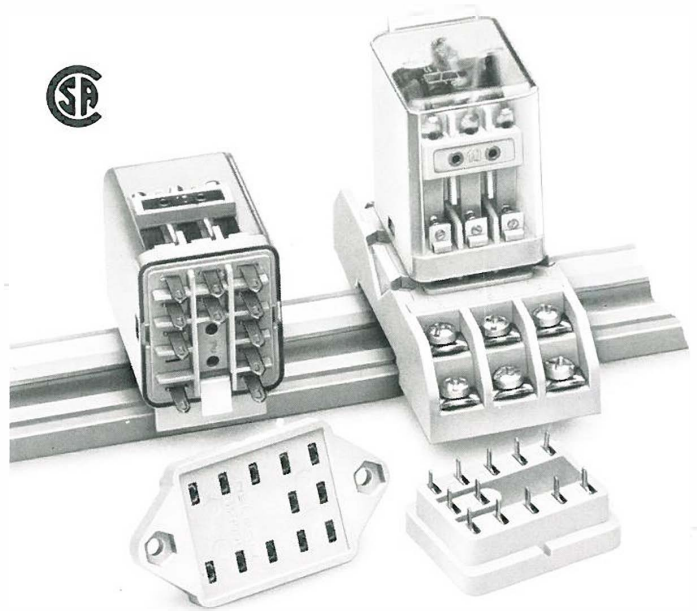


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Plug-in industrial relay MR 31 - MR 51

The **MR31** and **MR51** relays are plug-in models, with flat blades terminations for use with appropriate sockets. Compact and small in size, they are suitable for medium power industrial applications up to 10 amperes. The terminations can also be used for soldering or .110 inches FASTON. They are also supplied with tags for PCB. Appropriate sockets for surface or DIN 46277 mounting, with screw terminals, chassis mounting with rear connectors for soldering and PCB. Relay can also be mounted directly to DIN rail or panel through an adapting piece.

Special versions with magnetic latching, sensitive and current sensing coils are available. Other contact materials upon request.



Standard coils (All values at 20° C)							
Vac	Ω $\pm 10\%$	50 Hz mA	60 Hz mA	Vdc	No. of Turns	Ω $\pm 10\%$	mA
6	6	390	350	6	1.220	30	200
12	24	190	170	9	1.900	68	133
24	77	105	90	12	2.700	120	100
36	171	69	60	24	5.050	480	50
42	210	61	53	36	7.100	1.080	33
48	320	49	43	42	9.400	1.470	29
60	476	41	36	48	9.800	1.900	25
110	1.740	22	20	60	11.500	3.000	20
120	1.850	21	19	110	23.500	9.700	11
127	2.040	20	17	120	24.500	12.000	10
220	7.500	10	9	125	26.000	13.000	9,5
240	8.600	9	8	220*			
380	20.100	6	5,5				

For 220 Vdc use a 110 or 125 Vdc relay with an external resistor of 10K Ω /2W.

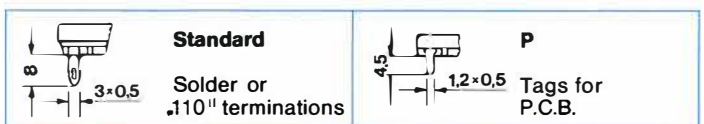
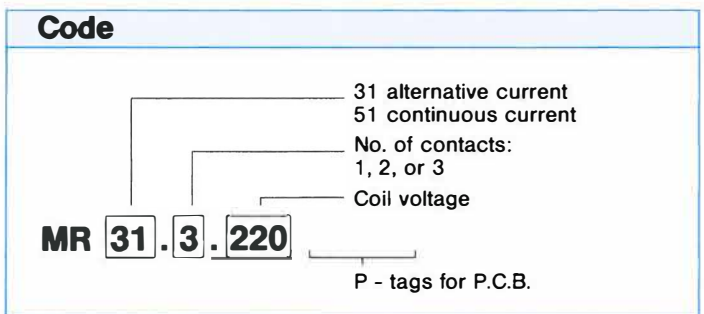
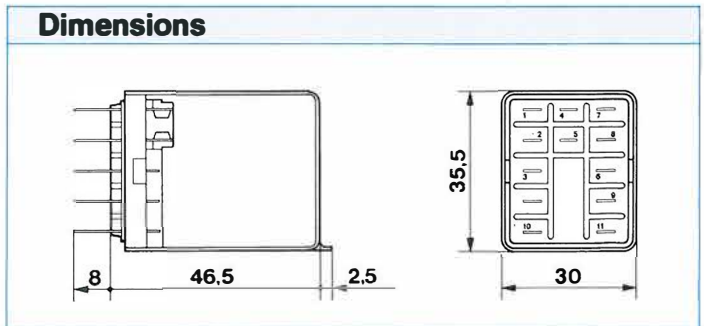
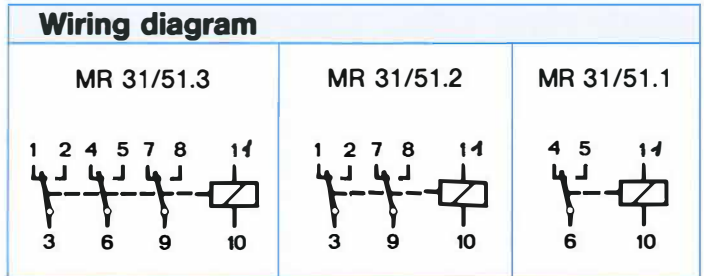
Other coil values upon demand.

Technical Data			
Contacts	Switching capacity		
Material	A	Veff	VA
AgCdO 90/10	10	250	1.500
Instantaneous overload, 30A -per change -over			
Contact pressure, 25-30 gr. GAP 0,5 mm.			

Coil	50 Hz	60 Hz	DC
Power	2,2 VA	2 VA	1,2 W
Min. pull-in voltage	0,8 Un.	0,85 Un.	0,75 Un.
Max. overvoltage	1,1 Un.	1,1 Un.	1,1 Un.
Min. hold voltage	0,6 Un.	0,65 Un.	0,35 Un.
Max. drop-out voltage	0,25 Un.	0,25 Un.	0,20 Un.
Max. pull-in time, 18 ms. Max. drop-out time, 10 ms.			
Max. bounce time, 3 ms. - All values at 20° C.			

General data			
Dielectric strength Veff.	2.500	Class, (VDE 110), AC1	C250
Mechanical life, op.	2 x 10 ⁷	Protection acc. to IEC	IP40
Insulation resist., M Ω	1.500	Average net weight	80 gr.

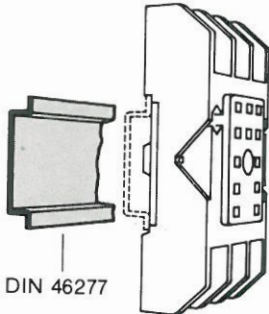
C.S.A. approved, report n.º LR38486, for 10A. 300VAC
Max. 1200 VA
Comply with VDE 0435/0110, Gr.C 250 AC 1.



SK 3002

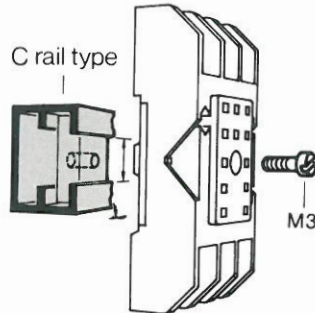
Mounting

DIN RAIL



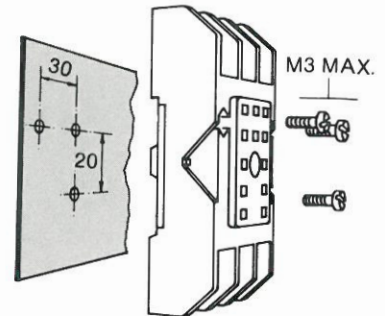
DIN 46277

"C" RAIL



M3

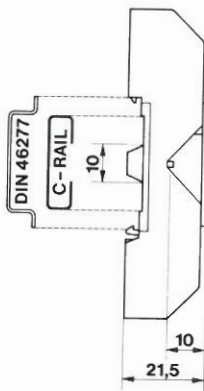
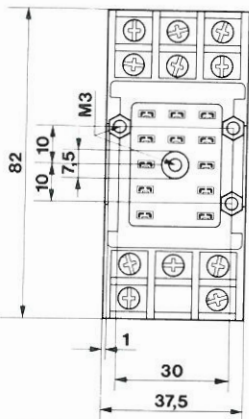
PANEL



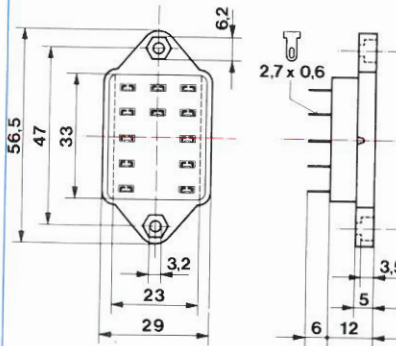
M3 MAX.

Plug-in sockets

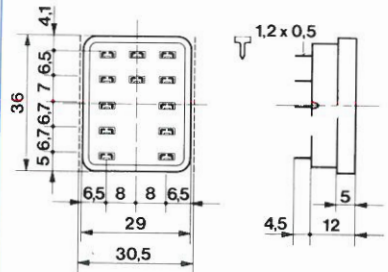
SK 3002



SK 3001

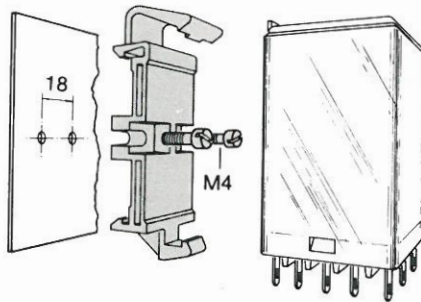
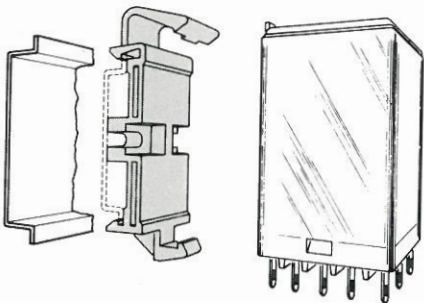


SK 3001 P



DIN rail or panel adapting piece

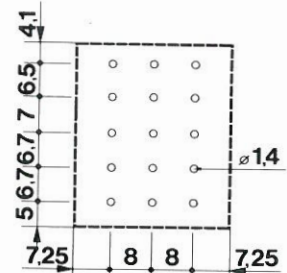
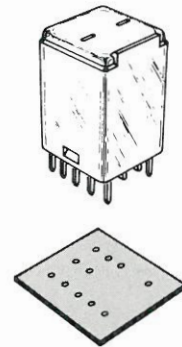
S4-R



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M4

P.C.B. mounting



RELECO



Kühn Controls AG

Notes:

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