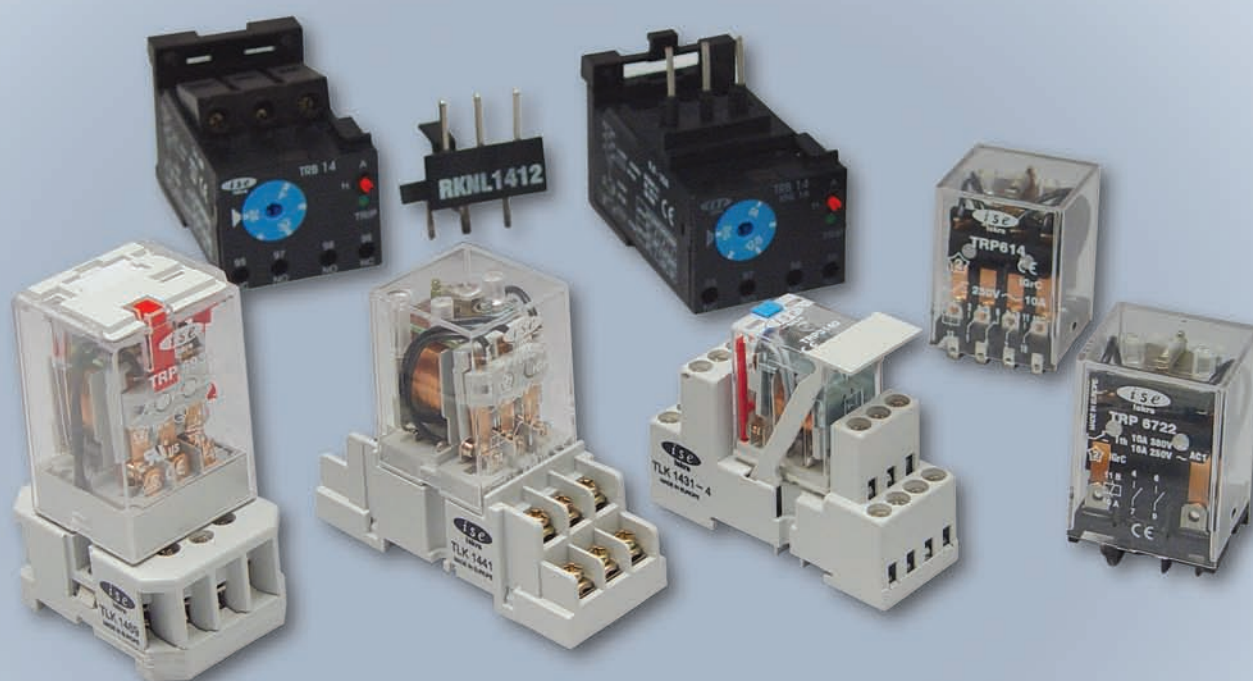


elma tt

Automation components
Elementi avtomatizacije

RELAYS AND ACCESSORIES RELEJI IN PRIBOR



ise
iskra stikalni elementi



RELAYS

RELEJI



ELMA TT tovarna transformatorjev
Ljubljana d.d.



ELMA TT d.d.,
Poslovna enota ISE, Dobrepolje
Proizvodni obrat / Production plant



Indication Podatki	unit enota	Industrial relays Industrijski releji PR 45, PR 46	Industrial relays Industrijski releji TRP 66, TRP 67
Dimensions size L x W x H: Dimenzija D x Š x V:	mm	31 x 34 x 44	34 x 34 x 51
Real type: Releji rednega programa:		neutral, monostable nevtralni, monostabilni	neutral, monostable nevtralni, monostabilni

COIL DATA / PODATKI O VZBUJANJU

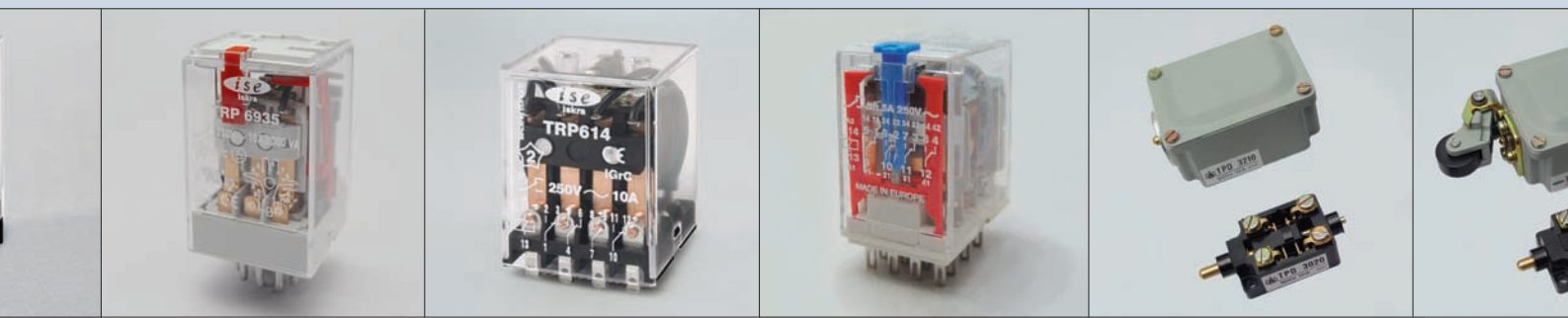
Rated voltage Vzbujalna napetost tuljave	V DC V AC	6-220 6-240	6-220 6-400
Rated power Moč vzbujanja	W VA	1,3 2	1,3 (1,7) 2 (2,5)
Ambient temperature range Temperatura okolice	°C	-25 to +50	-25 to +75
Operate / Release time Pritezni / Odpadni čas	ms	20/15	20/15
Max. operating frequency (mechanically) Max. pogostost preklpov (mehansko)	oper./sek.	10	10
Max. operating frequency (rated load) Max. pogostost preklpov (max. breme)	oper./h	1000	1000

CONTACT DATA / PODATKI O KONTAKTIH

Number and type of contacts Število in vrste kontaktov		1-3 change over 1-3 preklpni	1-3 change over 1-3 preklpni
Max. switching voltage Max. preklpna napetost	V DC V AC	250 250	250 400
Max. switch - on current (4 s max) Max. vklopni tok (4 s max)	A (AC)	20	20
Max. switching power (at resistive load) Max. vklopna moč (pri ohmskem bremenu)	VA	2500 VA	4000 VA
Rated current Nazivni tok	A (AC)	10	10
Test voltage: cont./cont. cont./coil	Testna napetosti: kontakt / kontakt kontakt / tuljava	V rms, 50 Hz	1000 2000

GENERAL DATA / SPLOŠNI PODATKI

Mechanical life Mehanska življenjska doba	Operations	10 ⁷	10 ⁷
Mode of connection Način priključitve		plug-in, soldering (PR 45) PC board (PR 46) za podnožje, za spajkanje (PR 45), za tiskano vezje (PR 46)	plug-in, soldering (TRP 66) PC board za podnožje, za spajkanje (TRP 66),
Type of protection Vrsta zaščite		dustproof prahotesno	dustproof prahotesno
According to: Skladno z:		VDE - Nr. 6399 UL-E 63582, JR	



	Industrial relays Industrijski releji TRP 68, TRP 69	Industrial relays Industrijski releji TRP 614, TRP 624, TRP 651, TRP 652	Miniature industrial relays Miniaturni industrijski releji TRP 31, TRP 32	Limit switches Končno stikalo s klecnim kontaktom TPD 3 x 10	Limit switches Končno stikalo s p... TPD 3 x 20
	35 x 35 x 54	34 x 34 x 44	28 x 21 x 35	69,5 x 30 x 22,5 (84 - 114) x 56 x 42	70,5 x 30 x 22,5 (84 - 114) x 56 x
	neutral, monostable nevtralni, monostabilni	neutral, monostable nevtralni, monostabilni	neutral, monostable nevtralni, monostabilni		

	6-220 6-240	6-220 6-240	6-220 6-240		
	1,3 2	1,3 2	1 1,2		
	-25 to +50	-25 to +50	-25 to +60		
	20/15	20/15	15/14		
	10	10	8		
	1000	3000 (TRP 614, 624) 1000 (TRP 651, 652)	1500	3000	3000

	1-3 change over 1-3 preklopni	4 change over (64)/4 preklopni 1 change over (651)/1 preklopni 2 change over (652)/2 preklopni	2,4 change over 2,4 preklopni	1 make contact (NO)/1 delovni 1 break contact (NC)/1 mimi	1 make contact (N... 1 break contact (N...
	250 250	250 250	250 250	500 500	500 500
	20	20 (TRP 614, 624) 50 (TRP 651) 32 (TRP 652)	20-2 cont/2 kontaktni rele 10-4 cont/4 kontaktni rele	30	30
	2500 VA	2500 VA (TRP 614, 624) 6000 VA (TRP 651) 4000 VA (TRP 652)	2500 VA-2 cont/2 kontaktni rele 1250 VA-4 cont/4 kontaktni rele	5000 VA	5000 VA
	10	10 (TRP 614, 624) 25 (TRP 651) 16 (TRP 652)	10-2 cont/2 kontaktni rele 5-4 cont/4 kontaktni rele	10	10
	1000 2000	1000 2000	1000 2000		

	10 ⁷	1 x 10 ⁷	2 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷
(PR 67)	plug-in za podnožje	plug-in, soldering TRP 614 za podnožje, za spajkanje TRP 614 PC board TRP 624 za tiskano vezje TRP 624 faston terminals TRP 651, TRP 652 faston TRP 651, TRP 652	plug-in, soldering (TRP 31) za podnožje, za spajkanje (TRP 31) PC board (TRP 32) za tiskano vezje (TRP 32)		
	dustproof prahotesno	dustproof prahotesno	dustproof prahotesno	dustproof prahotesno	dustproof prahotesno
	VDE - Nr. 6649 UL-E 63582	CRS - I0043607	VDE - Nr. 6056 UL-E 63582	testirne naprave	testirne naprave

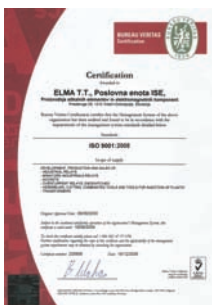


oničnim kontaktom

42

IO)/I delovni
IC)/I mirni

Overcurrent relays Pretokovni releji TRB 14	Overcurrent relays Pretokovni releji TRB 32	Overcurrent relays Pretokovni releji TRB 34	Overcurrent relays Pretokovni releji TRB 36	Overcurrent relays Pretokovni releji TRB 57
Current range (A) Tok, območje (A)	Current range (A) Tok, območje (A)	Current range (A) Tok, območje (A)	Current range (A) Tok, območje (A)	Current range (A)* Tok, območje (A)*
0,15 ... 0,25 0,24 ... 0,4 0,38 ... 0,63 0,6 ... 1 0,96 ... 1,6 1,5 ... 2,5 2,4 ... 4 3,8 ... 6,3 6 ... 10 9,6 ... 16 15 ... 25 24 ... 40	0,125 ... 0,25 0,25 ... 0,5 0,5 ... 1 1 ... 2 2 ... 4 4 ... 8 5 ... 10 10 ... 15	1 ... 2 2 ... 4 4 ... 8 6 ... 12 8 ... 16 12 ... 24 16 ... 32 20 ... 35 24 ... 45 40 ... 63	16 ... 25 20 ... 30 28 ... 45 40 ... 60 50 ... 80 60 ... 100 80 ... 120	45 ... 70 63 ... 100 90 ... 140 125 ... 200 180 ... 280 250 ... 400 335 ... 560 450 ... 630 * only for AC * samo za izmenični tok
Control circuit Krmilni tokokrog	Control circuit Krmilni tokokrog	Control circuit Krmilni tokokrog	Control circuit Krmilni tokokrog	Control circuit Krmilni tokokrog
Thermal current Maksimalni dopustni trajni tok	Thermal current Maksimalni dopustni trajni tok	Thermal current Maksimalni dopustni trajni tok	Thermal current Maksimalni dopustni trajni tok	Thermal current Maksimalni dopustni trajni tok
6A	2A	4A	4A	4A
Rated insulation voltage Dopustna napetost med stikalnim in pogonskim delom	Rated insulation voltage Dopustna napetost med stikalnim in pogonskim delom	Rated insulation voltage Dopustna napetost med stikalnim in pogonskim delom	Rated insulation voltage Dopustna napetost med stikalnim in pogonskim delom	Rated insulation voltage Dopustna napetost med stikalnim in pogonskim delom
500 V	500 V	500 V	500 V	500 V
Type of contact Izvedba kontaktov	Type of contact Izvedba kontaktov	Type of contact Izvedba kontaktov	Type of contact Izvedba kontaktov	Type of contact Izvedba kontaktov
Nor. open (NO) Nor. connect (NC) Vklonni kontakt Izklopni kontakt	Change over (CO) Preklopni kontakt	Change over (CO) Preklopni kontakt	Change over (CO) Preklopni kontakt	Change over (CO) Preklopni kontakt
Choice of reset Izbira ponovnega vklopa	Choice of reset Izbira ponovnega vklopa	Choice of reset Izbira ponovnega vklopa	Choice of reset Izbira ponovnega vklopa	Choice of reset Izbira ponovnega vklopa
Manual or autom. Ročni ali avtomatični	Automatic/Avtom. Manual/Ročni	Manual or automatic Ročni ali avtomatični	Manual or automatic Ročni ali avtomatični	Manual or automatic Ročni ali avtomatični
For detail information see our prospects. Podrobnejše informacije o relejih dobite v naših prospektih.	For detail information see our prospects. Podrobnejše informacije o relejih dobite v naših prospektih.	For detail information see our prospects. Podrobnejše informacije o relejih dobite v naših prospektih.	For detail information see our prospects. Podrobnejše informacije o relejih dobite v naših prospektih.	For detail information see our prospects. Podrobnejše informacije o relejih dobite v naših prospektih.

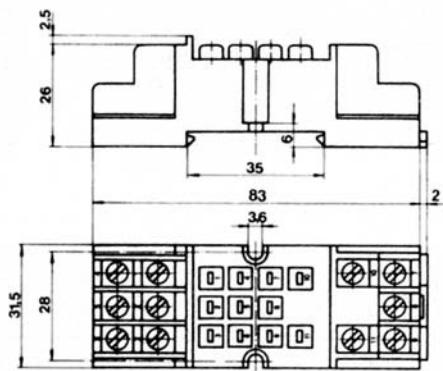


ACCESSORIES

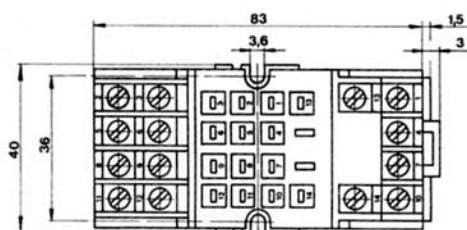
PRIBOR

Sockets with screw terminals

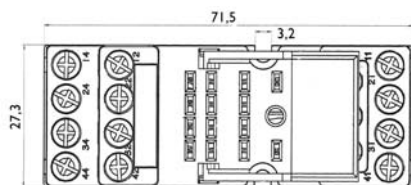
TLK I44I for/za PR 45



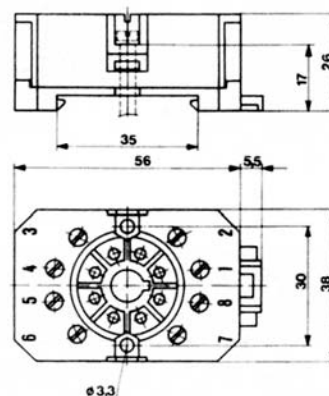
TLK I46I for/za TRP 614



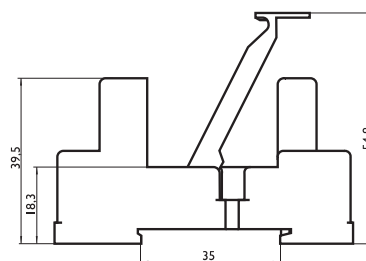
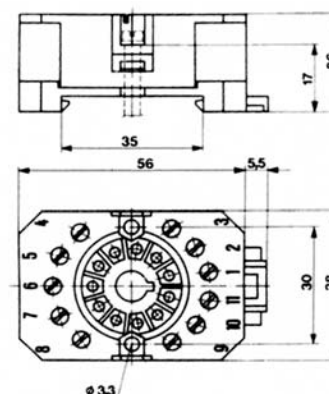
TLK I43I-4 for/za TRP 314
TLK I43I-2 for/za TRP 312



TLK I468 for/za TRP 68

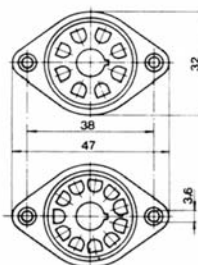
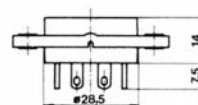
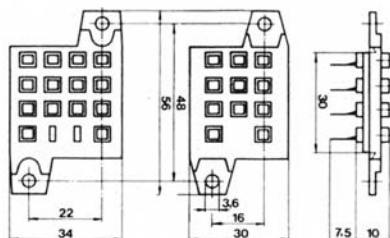


TLK I469 for/za TRP 69



Sockets with solder tab

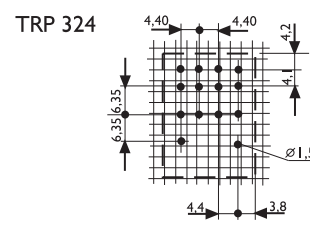
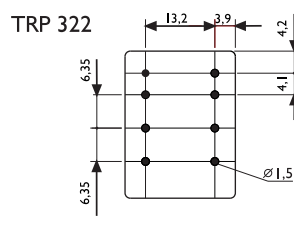
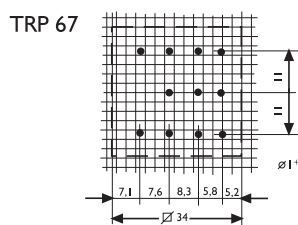
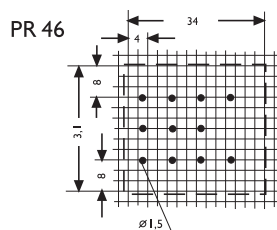
TLK II6I for/za TRP 614
TLK II4I for/za PR 45



TLK II58 for/za TRP 68

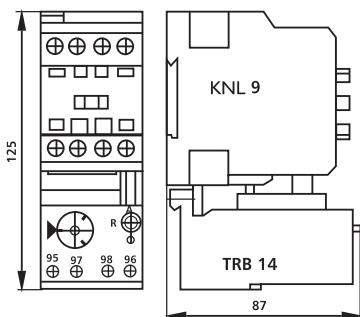
TLK II59 for/za TRP 69

PC board pattern (Terminal side view)



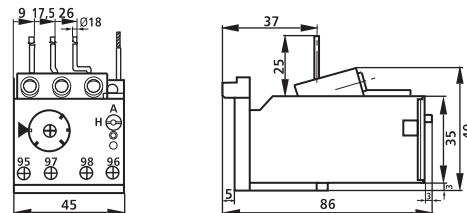
Dimenzije / Dimensions

Pretokovni rele TRB I4/KNL I6 s kontaktorjem KNL 9
Overcurrent relay TRB I4/KNL I6 with contactor KNL 9



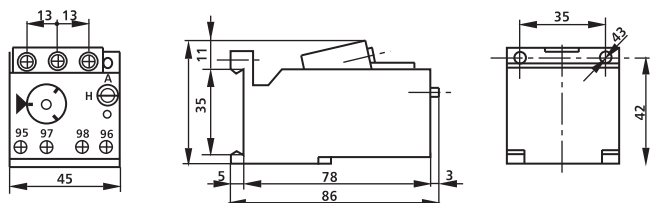
Pretokovni rele TRB I4/KNL 07
Overcurrent relay TRB I4/KNL 07

- za montažo na KNL 07
- for mounting on KNL 07



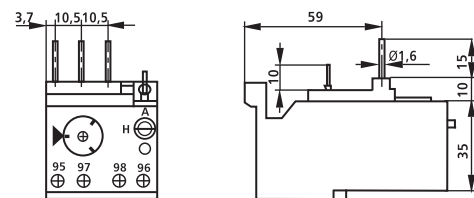
Pretokovni rele TRB I4
Overcurrent relay TRB I4

- Samostojna pritrditev
- Montaža na kontaktor s pomočjo veznega modula
- Direct mounting
- Mounting to the contactor through the linking module



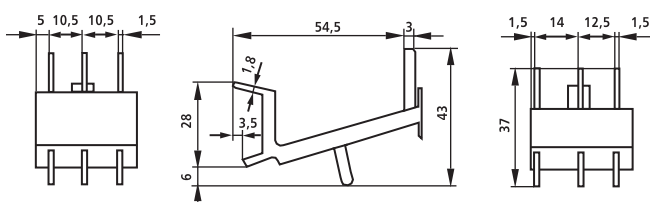
Pretokovni rele TRB I4/KNL I6
Overcurrent relay TRB I4/KNL I6

- za montažo na KNL I6
- for mounting on KNL I6



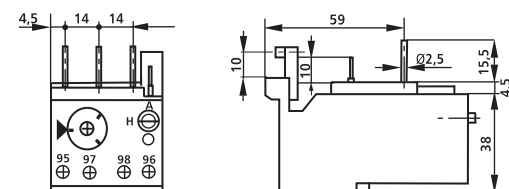
Povezovalni modul
Linking module

- RKN I412
- (za/for KNL 9, KNL 12, KNL 16)
- RKN I422
- (za/for KNL 22, KNL 30)



Pretokovni rele TRB I4/KNL 30
Overcurrent relay TRB I4/KNL 30

- za montažo na KNL 30
- for mounting on KNL 30



Ordering data

Ordering data for TRP 68, TRP 69

Basic designation	TRP 6	X	X	X	XXX; XXXX
8 - 8 terminal pins					
9 - 11 terminal pins					
Number of change over contacts: 1 or 2 for TRP 68 or 3 for TRP 69					
1 - relay with test key					
2 - relay with test key and 1 flag					
3 - relay with test key and 2 flag					
4 - relay with test key and LED					
5 - relay with test key, LD and flag Relays with DC coil					
6 - relay with test key and protection diode					
7 - relay with test key, 1 flag and protection diode					
8 - relay with test key, 2 flags and protection diode					
9 - relay with test key, LED and protection diode					
0 - relay with test key, 1 flag, LED and protection diode					
Rated voltage of coil; type of voltage: DC, 50 Hz, 60 Hz					

Ordering data

Basic designation	TRP 3	X	X	X	XXX DC/AC
1 - plug-in, soldering terminals					
2 - PCB terminals					
Number of change over contacts: 2 or 4 CO					
Relay version:					
1 - relay with test key					
2 - relay with test key and flag					
4 - relay with test key and LED					
5 - relay with flag, test key and LED					
Relay for DC voltage					
6 - relay with test key and protection diode					
7 - relay with test key, flag and protection diode					
9 - relay with test key, LED and protection diode					
0 - relay with test flag, test key, LED and protection diode					
Rated voltage of coil					