finder
SWITCH TO THE FUTURE

Relay modules with forcibly guided contacts 6 A

7S
SERIES

Door control

Signalling

Doors opening/closing

Relay module with forcibly guided contacts

Type 7S.12/32T
- 2 pole 6 A (1 NO + 1 NC)

Type 7S.14/34T
- 4 pole 6 A (2 NO + 2 NC and 3 NO + 1 NC)

Type 7S.16/36T
- 6 pole 6 A (4 NO + 2 NC)

- For railway application; materials compliant with EN 45545-2:2020 (protection against fire of materials), EN 61373 (resistance against random vibrations and shock, Category 1, Class B), EN 50155 (resistance to temperature and humidity, OT4/ST1 class)
- For safety applications, with class A forcibly guided contact relays EN 61810-3 (ex EN 50205)
- For functional reliability in machinery and plant engineering according to EN 13849-1
- DC and AC supply versions
- 24 and 110 V DC versions with extended operating range (0.7…1.25)U_N
- Coil status visual indication with LED
- 35 mm rail (EN 60715) mount

7S.xx
Screwless terminal

* Short term (10 min) +85°C

For outline drawing see page 8

	7S.12/32…5110T	7S.14/34…4220/4310T	7S.16/36…5420T
			
	• 2 pole (1 NO + 1 NC)	• 4 pole (2 NO + 2 NC and 3 NO + 1 NC)	• 6 pole (4 NO + 2 NC)
Contact specification			
Contact configuration	1 NO + 1 NC	2 NO + 2 NC, 3 NO + 1 NC	4 NO + 2 NC
Rated current/Max. peak current A	6/15	6/15	6/15
Rated switching voltage V AC (50/60 Hz)	250	250	250
Rated load AC1 VA	1500	1500	1500
Rated load AC15 (230 V AC) VA	700	700	700
Breaking capacity DC1: 24/110/220 V A	6/0.6/0.2	6/0.9/0.3	6/0.9/0.3
Breaking capacity DC13: 24 V A	1	3	5
Minimum switching load mW (V/mA)	60 (5/5)	60 (5/5)	60 (5/5)
Standard contact material	AgNi + Au	$AgSnO_2$	$AgSnO_2$+Au
Coil specification			
Nominal voltage (U_N) V AC (50/60 Hz)	110…125 - 230…240	110…125 - 230…240	110…125 - 230…240
V DC	24	24 - 110	24 - 110
Rated power VA (50 Hz)/W	2.3/1	2.3/1	2.3/1
Operating range AC	(0.85…1.1)U_N	(0.85…1.1)U_N	(0.85…1.1)U_N
DC	—	—	—
DC extended range (24 and 110 V only)	(0.7…1.25)U_N	(0.7…1.25)U_N	(0.7…1.25)U_N
Holding voltage AC/DC	0.45 U_N / 0.45 U_N	0.55 U_N / 0.55 U_N	0.55 U_N / 0.55 U_N
Must drop-out voltage AC/DC	0.1 U_N / 0.1 U_N	0.1 U_N / 0.1 U_N	0.1 U_N / 0.1 U_N
Technical data			
Mechanical life cycles	$10 \cdot 10^6$	$10 \cdot 10^6$	$10 \cdot 10^6$
Electrical life at rated load AC1 cycles	$100 \cdot 10^3$	$100 \cdot 10^3$	$100 \cdot 10^3$
Operate/release time ms	7/11	12/10	12/10
Insulation between coil and contacts (1.2/50 µs) kV	6	6	6
Dielectric strength between open contacts V AC	1500	1500	1500
Ambient temperature °C	–40…+70*	–40…+70*	–40…+70*
Protection category	IP 20	IP 20	IP 20
Approvals (according to type)	CE UKCA cULus EAC		

7S SERIES
Relay module with forcibly guided contacts 6 A

Ordering information

Example: 7S series Relay module with forcibly guided contacts, 6 contact (4 NO + 2 NC) 6 A, supply voltage 24 V DC.

7	S	.	1	6	.	9	.	0	2	4	.	5	4	2	0	T

Series

Type
1 = 22.5 mm wide, cage-clamp terminals

Output
2 = 2 contacts
4 = 4 contacts
6 = 6 contacts

Supply version
8 = AC (50 /60 Hz)
9 = DC

Supply voltage
See page 7

Special versions
0 = Standard

NO and NC contatcs
11 = 1 NO + 1 NC
22 = 2 NO + 2 NC
31 = 3 NO + 1 NC
42 = 4 NO + 2 NC

Contact material
4 = $AgSnO_2$ (7S.14 only)
5 = AgNi + Au (7S.12 only)
5 = $AgSnO_2$ + Au (7S.16 only)

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Technical data

Insulation according to EN 61810-1		
Nominal voltage of supply system	V AC	230/400
Rated insulation voltage	V AC	250
Pollution degree		2
Insulation between coil and contact set		
Type of Insulation		Reinforced
Overvoltage category		III
Rated impulse voltage	kV (1.2/50 µs)	6
Dielectric strength	V AC	4000
Insulation between adjacent contacts		
Type of Insulation		Basic
Overvoltage category		III
Rated impulse voltage	kV (1.2/50 µs)	4
Dielectric strength	V AC	2500
Insulation between open contacts		
Type of disconnection		Micro-disconnection
Dielectric strength	V AC/kV (1.2/50 µs)	1500/2.5

Insulation between coil terminals					
Rated impulse voltage (surge) differential mode (according to EN 50121)		kV (1.2/50 µs)	1.5		
Terminals			**solid cable**		**stranded cable**
Max. wire size		mm^2	1 x 1.5		1 x 1.5
		AWG	1 x 14		1 x 16
Wire strip length		mm	9		
Other data			**7S.12**	**7S.14**	**7S.16**
Bounce time: NO/NC		ms	2/8	1/20	1/20
Vibration resistance: NO/NC			According to EN 61373		
Shock resistance			According to EN 61373		
Power lost to the environment	without contact current	W	0.8	0.8	0.8
	with rated current	W	1.4	2.3	2.8

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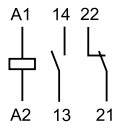
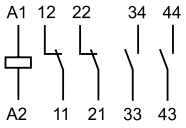
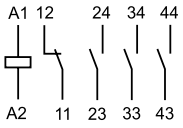
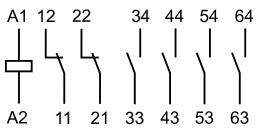
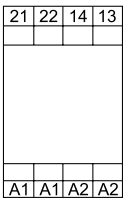
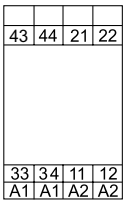
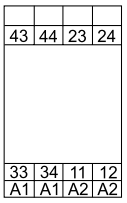
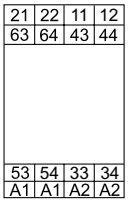
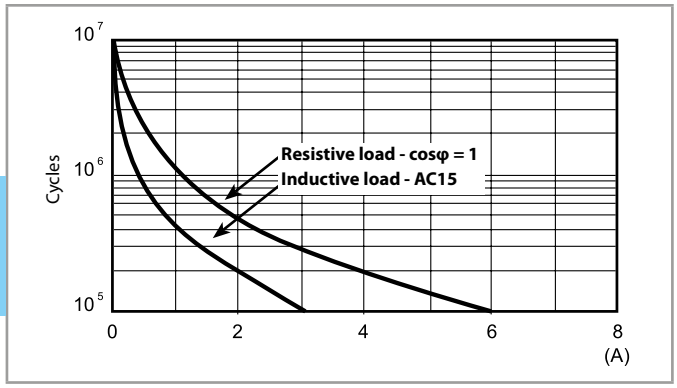
Contact specifications

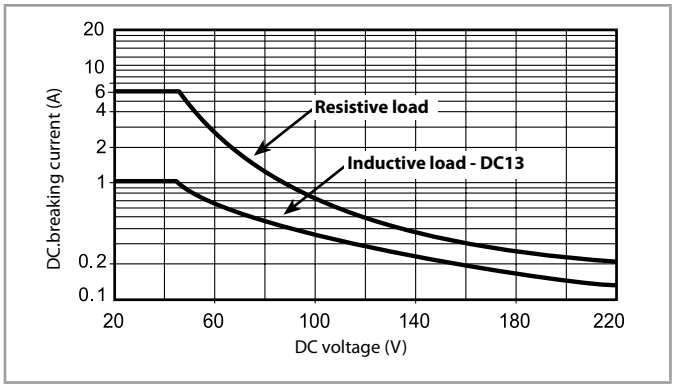
Contact diagrams

7S.12/32	7S.14/34...4220	7S.14/34...4310	7S.16/36
			
			

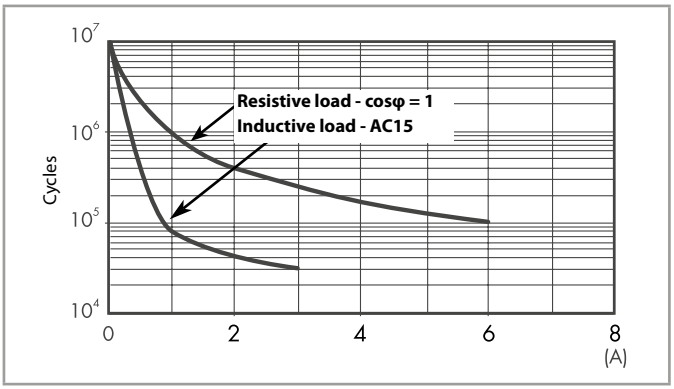
F 7S12 - Electrical life (AC) v contact current - 7S.12



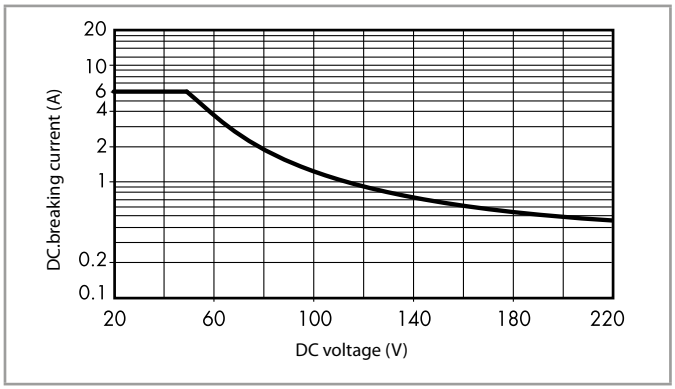
H 7S12* - Maximum DC breaking capacity - 7S.12



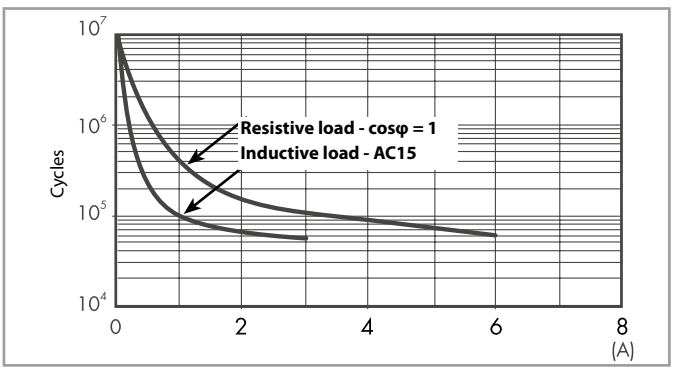
F 7S14 - Electrical life (AC) v contact current - 7S.14/34



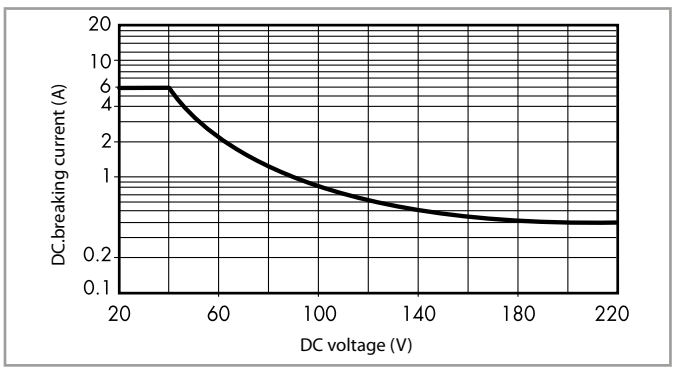
H 7S14* - Maximum DC breaking capacity - 7S.14/34



F 7S16 - Electrical life (AC) v contact current - 7S.16/36



H 7S16* - Maximum DC breaking capacity - 7S.16/36



* When switching a load having voltage and current values under the curve, an electrical life of ≥ 100 · 10^3 can be expected.

Coil specifications

DC coil data - type 7S.12/32

Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Rated input current at U_N I_N	Rated power at U_N
V		V	V	mA	W
24	**9**.024	16.8	30	38.2	0.9

AC coil data - type 7S.12/32

Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Rated input current at U_N I_N	Rated power at U_N
V		V	V	mA	VA/W
110…125	**8**.120	93	138	9.8	1.2/1.1
230…240	**8**.230	195	264	11.8	2.8/1.2

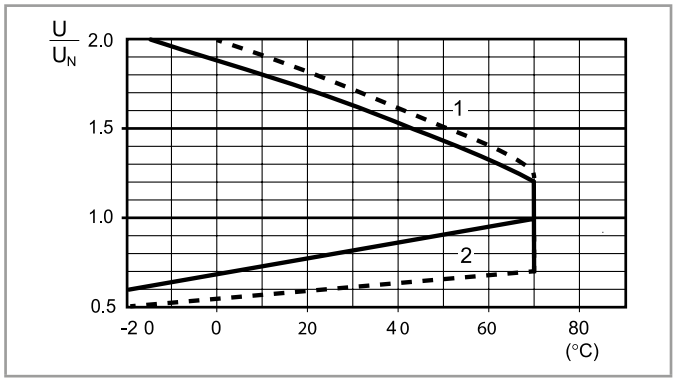
DC coil data - type 7S.14/34 / 7S.16/36

Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Rated input current at U_N I_N	Rated power at U_N
V		V	V	mA	W
24	**9**.024	16.8	30	42.2	1
110	**9**.110	77	138	11.6	1.4

AC coil data - type 7S.14/34 / 7S.16/36

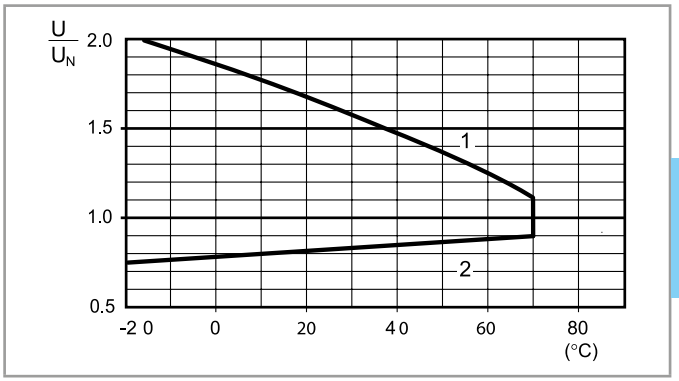
Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Rated input current at U_N I_N	Rated power at U_N
V		V	V	mA	VA/W
110…125	**8**.120	93	138	10.2	1.3/1.1
230…240	**8**.230	195	264	11.8	2.9/1.2

R 7S - DC coil operating range v ambient temperature - 7S.12/32 / 7S.14/34 / 7S.16/36



1 - Max. permitted coil voltage.
2 - Min. pick-up voltage with coil at ambient temperature.
- - - - - 24 and 110 V DC coils only (extended range)

R 7S - AC coil operating range v ambient temperature - 7S.12/32 / 7S.14/34 / 7S.16/36



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

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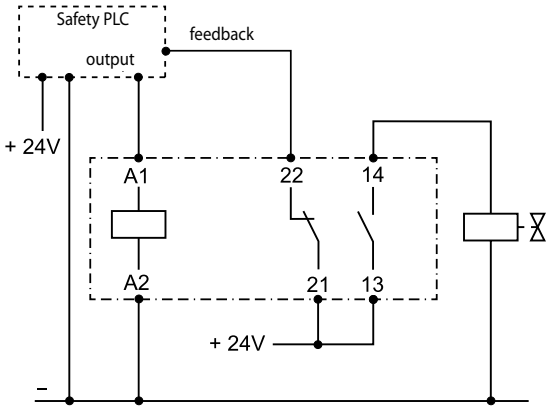
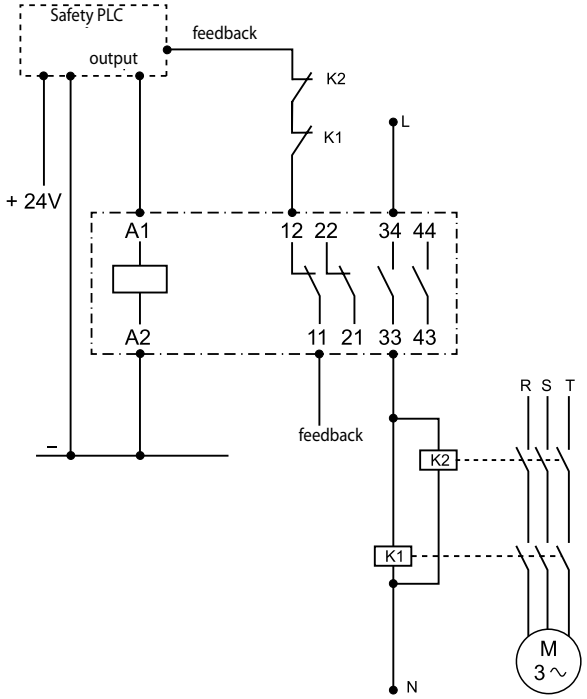
Wiring diagrams

Type 7S.x2

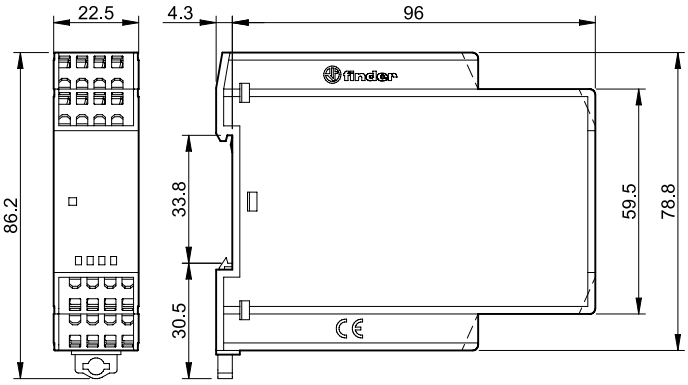


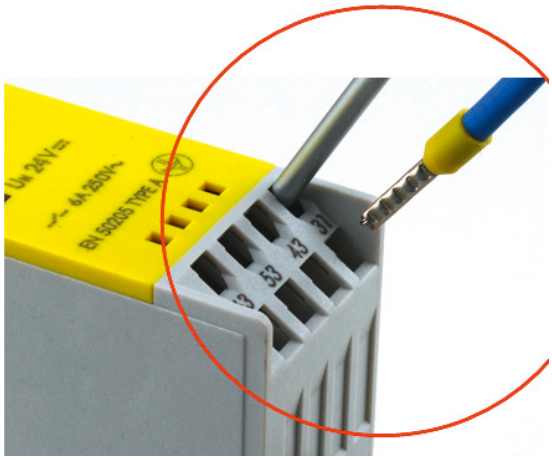
Type 7S.x4...4220



Outline drawings

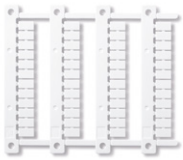
Type 7S.xx
Screwless terminal





Accessories

Sheet of marker tags, plastic, 48 tags, 6 x 12 mm, for CEMBRE thermal transfer printers	060.48



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VI-2024, www.findernet.com