



finder[®]
SWITCH TO THE FUTURE

7S
SERIES

Relay module with forcibly guided contacts 6 - 10 A



Disabled lift



Hoists and cranes



Wood-
processing
machines



Carousel
warehouses



Escalators



Elevators
and lifts



Industrial
robots



Automatic
car-washes



Relay module with forcibly guided contacts

Type 7S.12/32

- 2 pole 6 A (1 NO + 1 NC)

Type 7S.14/34

- 4 pole 6 A (2 NO + 2 NC and 3 NO + 1 NC)

Type 7S.16/36

- 6 pole 6 A (4 NO + 2 NC)

- For safety applications, with class A forcibly guided contact relays EN 61810-3 (previously EN 50205)
- For functional reliability in machinery and plant engineering according to EN 13849-1
- For railway applications; materials compliant with fire and smoke characteristics EN 45545; mechanical and climatic characteristics compliant with EN 61373 and EN 50155
- DC and AC supply versions
- 24 and 110 V DC versions with extended operating range $(0.7 \dots 1.25)U_N$
- Coil status visual indication with LED
- 35 mm rail (EN 60715) mount

Screwless terminal



Screw terminal



For outline drawing see page 10

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: 30/110/220 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 (5/10)	60 (5/10)
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	12 - 24	12 - 24 - 110	12 - 24 - 110
Rated power	VA (50 Hz)/W	2.3/1	2.3/1	2.3/1
Operating range	AC	$(0.85 \dots 1.1)U_N$	$(0.85 \dots 1.1)U_N$	$(0.85 \dots 1.1)U_N$
	DC	$(0.8 \dots 1.2)U_N$	$(0.8 \dots 1.2)U_N$	$(0.8 \dots 1.2)U_N$
	DC extended range (24 and 110 V only)	$(0.7 \dots 1.25)U_N$	$(0.7 \dots 1.25)U_N$	$(0.7 \dots 1.25)U_N$
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 μ s)	kV	6	6	6
Dielectric strength between open contacts	V AC	1500	1500	1500
Ambient temperature	$^{\circ}$ C	-40...+70	-40...+70	-40...+70
Protection category		IP 20	IP 20	IP 20

Approvals (according to type)



7S.12/32...5110 **NEW**



• 2 pole (1 NO + 1 NC)

7S.14/34...4xx0 **NEW**



• 4 pole :
(2 NO + 2 NC) type
7S.xxxxx.4220
(3 NO + 1 NC) type
7S.xxxxx.4310

7S.16/36...5420 **NEW**



• 6 pole (4 NO + 2 NC)

Relay module with forcibly guided contacts
Type 7S.23

- 3 pole (2 NO + 1 NC)

- For safety applications, with class A forcibly guided contact relays EN 61810-3 (previously EN 50205)
- For functional reliability in machinery and plant engineering according to EN 13849-1
- DC coil
- Cadmium free contacts
- 17.5 mm wide
- Coil status visual indication with LED
- 35 mm rail (EN 60715) mount

NEW 7S.23


- 3 pole (2 NO + 1 NC)

Screw terminal



For outline drawing see page 10

Contact specification

Contact configuration		2 NO + 1 NC
Rated current/Max. peak current	A	10/20
Rated switching voltage	V AC (50/60 Hz)	250
Rated load AC1	VA	2500
Rated load AC15 (230 V AC)	VA	500
Breaking capacity DC1: 30/110/220 V	A	6/0.6/0.2
Breaking capacity DC13: 24 V	A	1
Minimum switching load	mW (V/mA)	60 (5/5)
Standard contact material		AgNi + Au

Coil specification

Nominal voltage (U _N)	V DC	12 - 24 - 48 - 110
Rated power	VA (50 Hz)/W	2.3/1
Operating range	DC	(0.8...1.2)U _N
Holding voltage	DC	0.45 U _N
Must drop-out voltage	DC	0.1 U _N

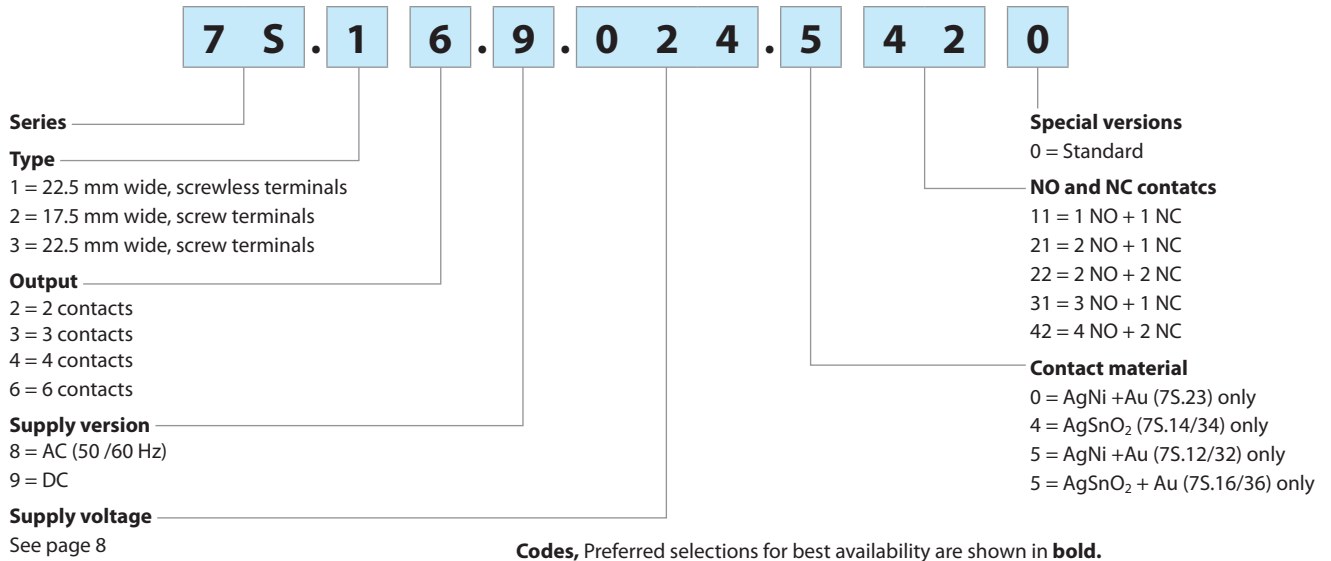
Technical data

Mechanical life	cycles	10 · 10 ⁶
Electrical life at rated load AC1	cycles	100 · 10 ³
Operate/release time	ms	7/11
Insulation between coil and contacts (1.2/50 μs)	kV	6
Dielectric strength between open contacts	V AC	1500
Ambient temperature	°C	-40...+70
Protection category		IP 20

Approvals (according to type)


Ordering information

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



Codes, Preferred selections for best availability are shown in **bold**.

7S.12.9.012.5110	7S.14.9.012.4220	7S.16.9.012.5420
7S.12.9.024.5110	7S.14.9.012.4310	7S.16.9.024.5420
7S.12.8.120.5110	7S.14.9.024.4220	7S.16.9.110.5420
7S.12.8.230.5110	7S.14.9.024.4310	7S.16.8.120.5420
	7S.14.9.110.4220	7S.16.8.230.5420
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7S.32.9.024.5110	7S.14.8.120.4220	7S.36.9.012.5420
7S.32.8.120.5110	7S.14.8.120.4310	7S.36.9.024.5420
7S.32.8.230.5110	7S.14.8.230.4220	7S.36.9.110.5420
	7S.14.8.230.4310	7S.36.8.120.5420
		7S.36.8.230.5420
	7S.34.9.012.4220	
	7S.34.9.012.4310	7S.23.9.012.0210
	7S.34.9.024.4220	7S.23.9.024.0210
	7S.34.9.024.4310	7S.23.9.048.0210
	7S.34.9.110.4220	7S.23.9.110.0210
	7S.34.9.110.4310	
	7S.34.8.120.4220	
	7S.34.8.120.4310	
	7S.34.8.230.4220	
	7S.34.8.230.4310	

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 μ s)	6
Dielectric strength	V AC	4000

Insulation between adjacent contacts

Type of Insulation		Basic
Overvoltage category		III
Rated impulse voltage	kV (1.2/50 μ s)	4
Dielectric strength	V AC	2500

Insulation between open contacts

Type of disconnection		Micro-disconnection
Dielectric strength	V AC/kV (1.2/50 μ s)	1500/2.5

Insulation between coil terminals

Rated impulse voltage (surge) differential mode (according to EN 61000-4-5)	kV(1.2/50 μ s)	1.5
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Terminals

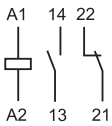
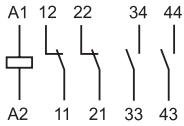
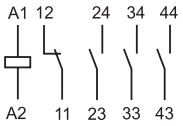
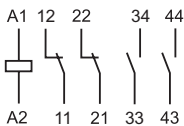
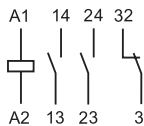
Min. wire size		Screw Terminal		Screwless Terminal	
		solid cable	stranded cable	solid cable	stranded cable
mm ²		0.5	0.5	0.5	0.5
	AWG	21	21	21	21
Max. wire size		Screw Terminal		Screwless Terminal	
		solid cable	stranded cable	solid cable	stranded cable
mm ²		1 x 6 / 2 x 2.5	1 x 4 / 2 x 2.5	1 x 1.5	1 x 1.5
	AWG	1 x 10 / 2 x 14	1 x 12 / 2 x 14	1 x 14	1 x 16
Wire strip length	mm	9			

Other data

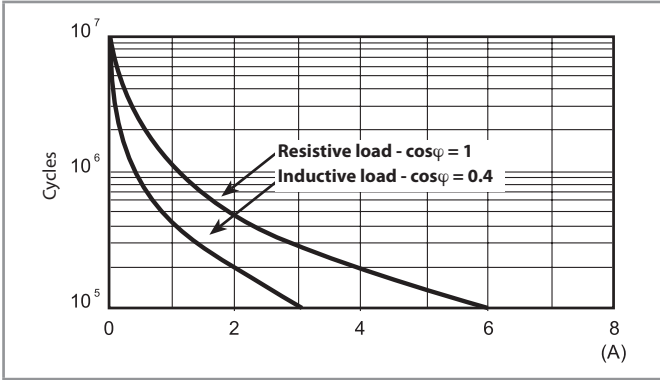
		7S.12/32	7S.14/34	7S.16/36	7S.23
Bounce time: NO/NC	ms	2/8	2/10	2/10	2/15
Vibration resistance (10...200)Hz: NO/NC	g	10/5	20/6	20/6	10/2
Shock resistance: NO/NC	g	20/6	20/5	20/5	20/6
Power lost to the environment	without contact current	W	0.8	0.8	0.8
	with rated current	W	1.4	2.3	1.4

Contact specifications

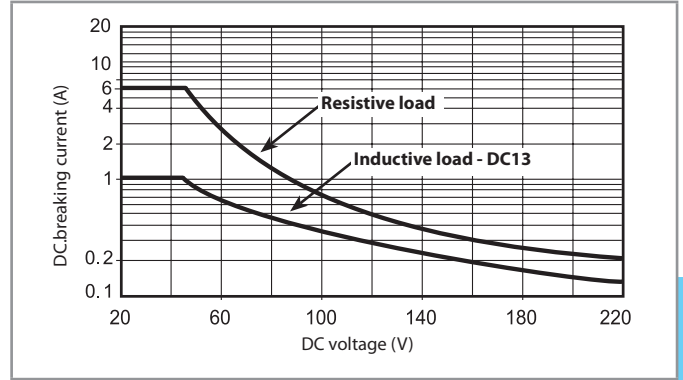
Contact diagrams

7S.12/7S.32	7S.14/34...4220	7S.14...4310	7S.16/36...5420	7S.23																																																																																																								
 <p>A1 14 22 A2 13 21</p>	 <p>A1 12 22 34 44 A2 11 21 33 43</p>	 <p>A1 12 24 34 44 A2 11 23 33 43</p>	 <p>A1 12 22 34 44 54 64 A2 11 21 33 43 53 63</p>	 <p>A1 14 24 32 A2 13 23 31</p>																																																																																																								
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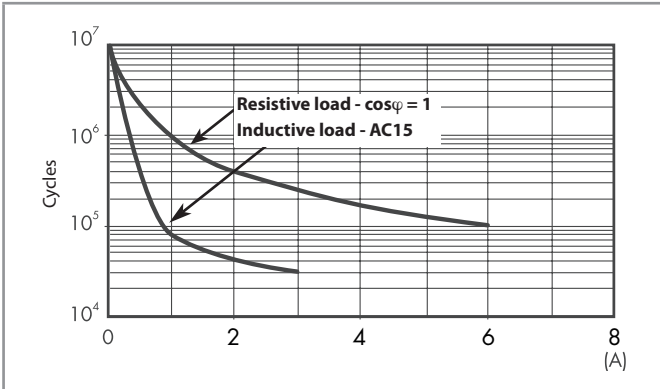
F 7S12 - Electrical life (AC) v contact current - 7S.12



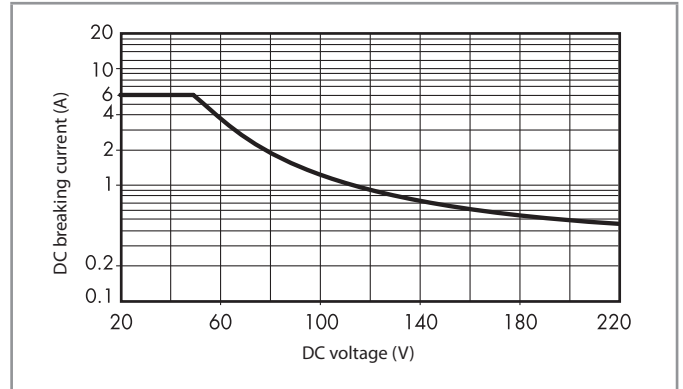
H 7S12* - Maximum DC breaking capacity - 7S.12



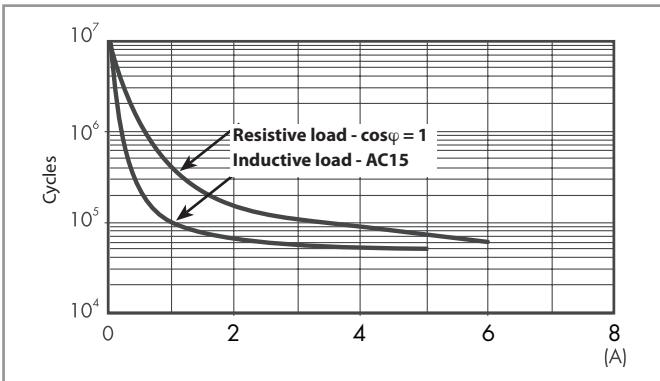
F 7S14 - Electrical life (AC) v contact current - 7S.14/34



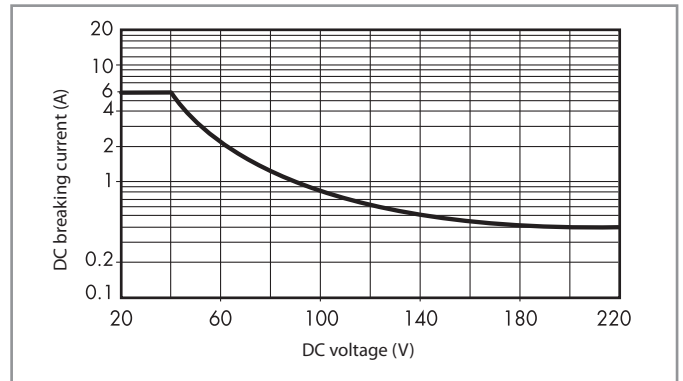
H 7S14* - Maximum DC breaking capacity - 7S.14/34



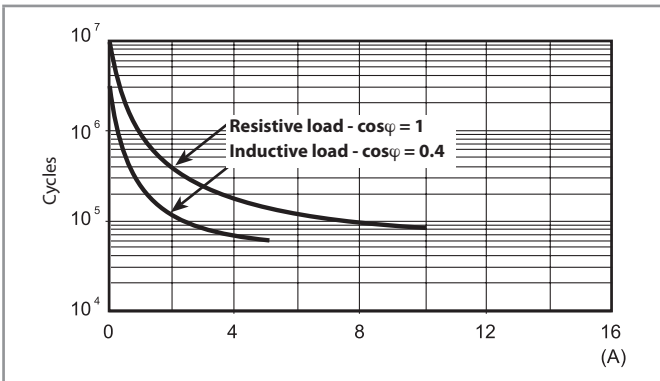
F 7S16 - Electrical life (AC) v contact current - 7S.16/36



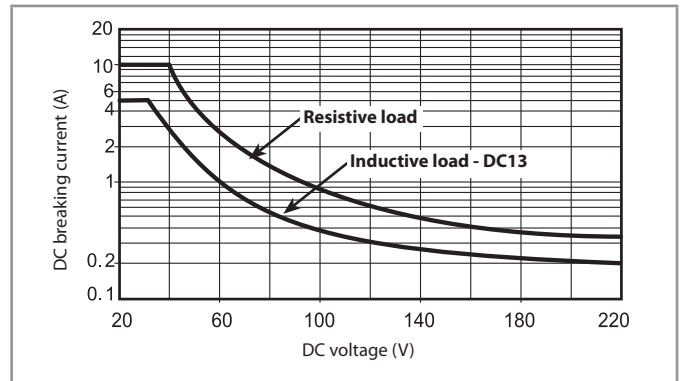
H 7S16* - Maximum DC breaking capacity - 7S.16/36



F 7S23 - Electrical life (AC) v contact current - 7S.23



H 7S23* - Maximum DC breaking capacity - 7S.23



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

Coil specifications

DC coil data - type 7S.12/32

Nominal voltage	Coil code	Operating range		Rated input current at U_N	Rated power at U_N
		U_{min}	U_{max}		
U_N		V	V	I_N	W
V		V	V	mA	W
12	9.012	9.6	14.4	55	0.7
24	9.024	16.8	30	38.2	0.9

AC coil data - type 7S.12/32

Nominal voltage	Coil code	Operating range		Rated input current at U_N	Rated power at U_N
		U_{min}	U_{max}		
U_N		V	V	I_N	VA/W
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	Coil code	Operating range		Rated input current at U_N	Rated power at U_N
		U_{min}	U_{max}		
U_N		V	V	I_N	W
V		V	V	mA	W
12	9.012	9.6	14.4	64.7	0.8
24	9.024	16.8	30	42.2	1
110	9.110	77	138	11.6	1.4

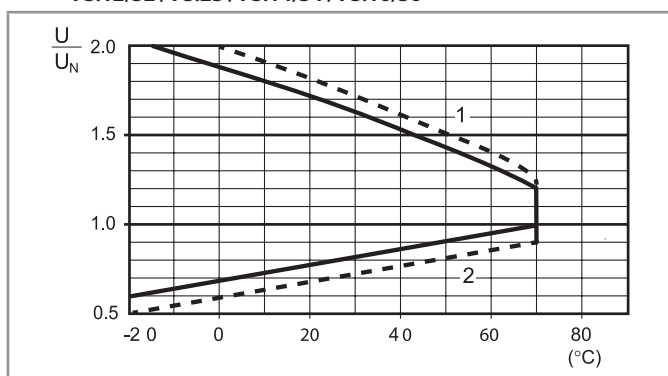
AC coil data - type 7S.14/34 / 7S.16/36

Nominal voltage	Coil code	Operating range		Rated input current at U_N	Rated power at U_N
		U_{min}	U_{max}		
U_N		V	V	I_N	VA/W
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

DC coil data - type 7S.23

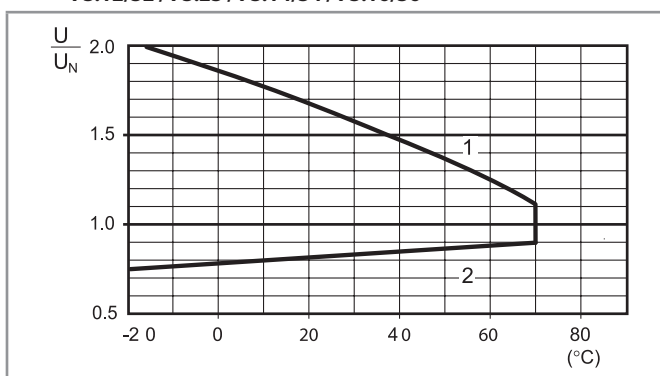
Nominal voltage	Coil code	Operating range		Rated input current at U_N	Rated power at U_N
		U_{min}	U_{max}		
U_N		V	V	I_N	W
V		V	V	mA	W
12	9.012	9.6	14.4	47.1	0.6
24	9.024	16.8	30	26.6	0.6
48	9.048	33.6	60	16.2	0.8
110	9.110	77	138	8.8	1

R 7S - DC coil operating range v ambient temperature - 7S.12/32 / 7S.23 / 7S.14/34 / 7S.16/36



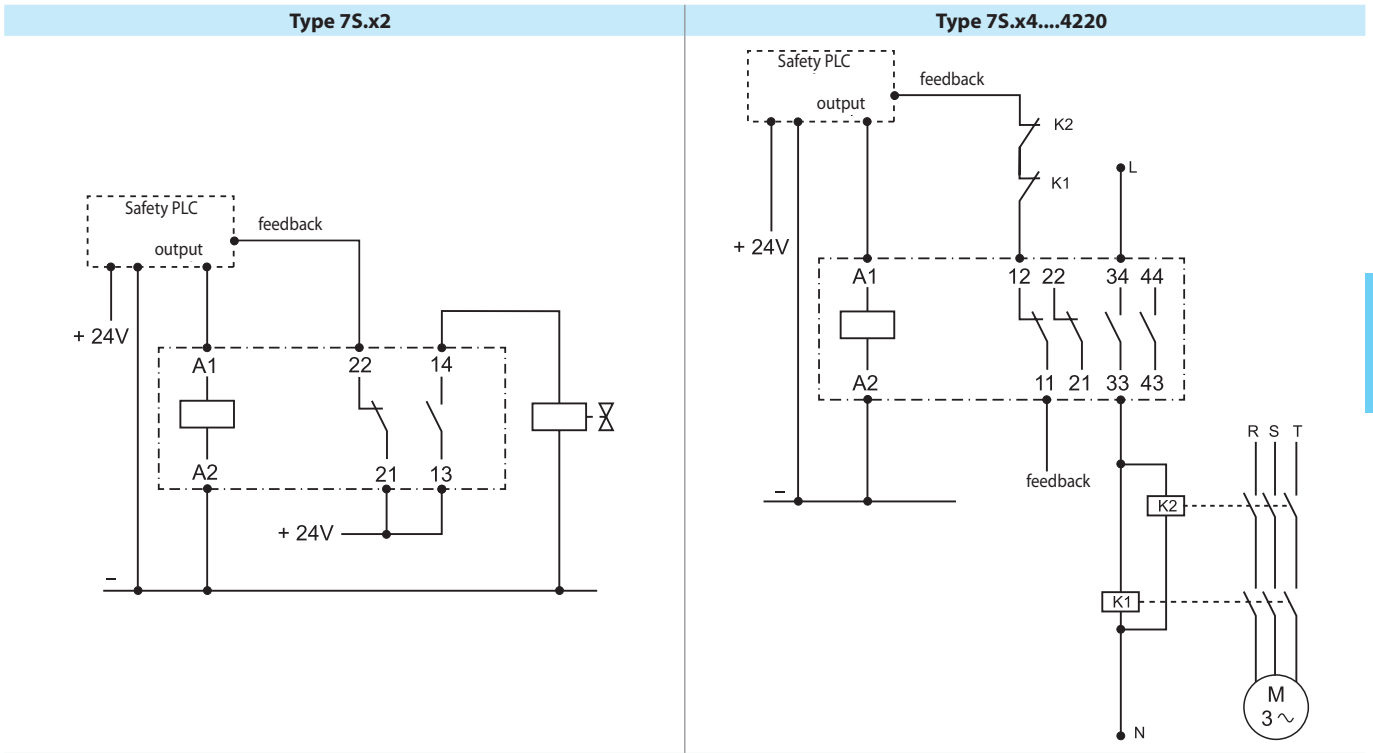
- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.
- 24 and 110 V DC coils only (extended range)

R 7S - AC coil operating range v ambient temperature - 7S.12/32 / 7S.23 / 7S.14/34 / 7S.16/36



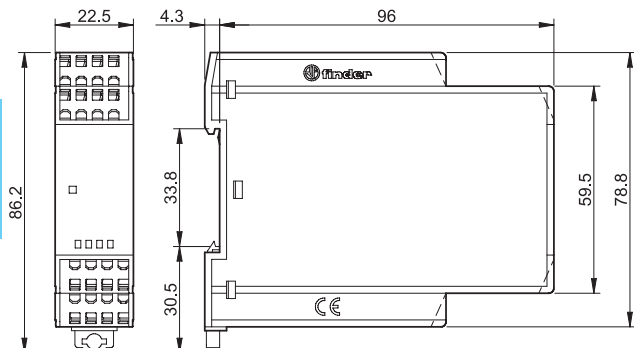
- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.

Example wiring diagrams

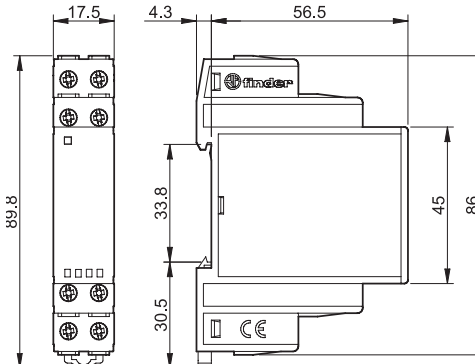


Outline drawings

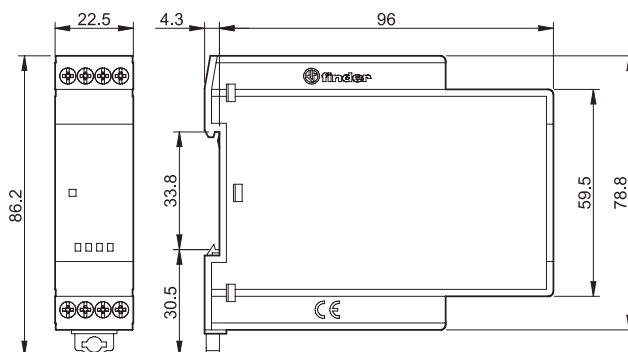
75.12/14/16
Screwless terminal



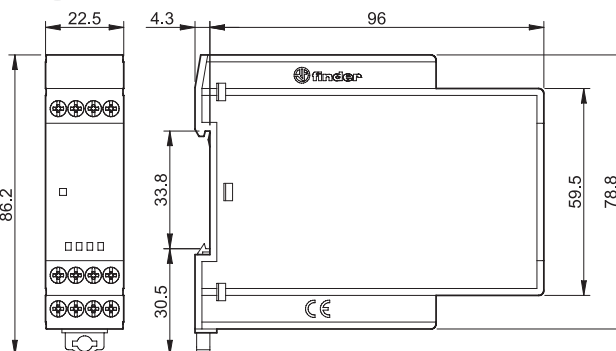
75.23
Screw terminal



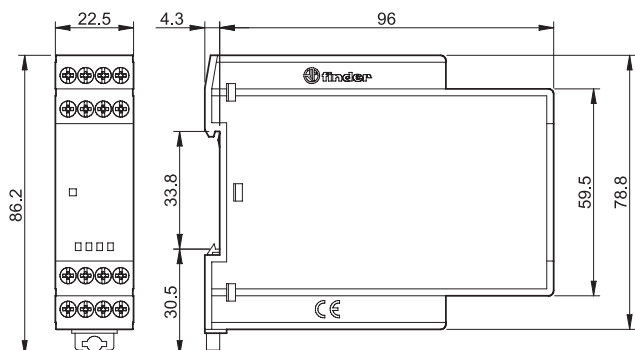
75.32
Screw terminal



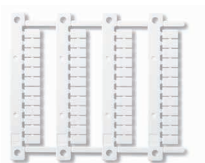
75.34
Screw terminal



75.36
Screw terminal



Accessories



060.48

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

060.48