

# Relays for railway applications 7 A



Exterior light control



Air conditioning



Ancillary equipment



Doors opening/  
closing



Internal light management



Message panels  
infotainment



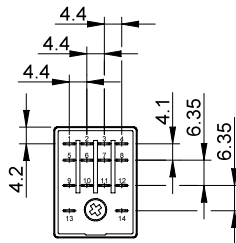
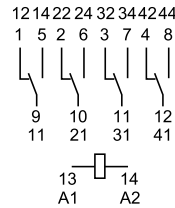
**Plug-in mount, general purpose  
4 Pole relays, 7 A**

- Complies 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)
- DC coils with extended range
- Cadmium Free contacts (standard version)
- 94 series sockets
- Coil EMC suppression modules
- Accessories (Sockets and Timer modules)

**55.34T**



- 4 pole, 7 A
- Plug-in 94 series sockets



\* Short term (10 min) +85°C

For outline drawing see page 5

**Contact specification**

Contact configuration		4 CO (4PDT)
Rated current/Maximum peak current	A	7/15
Rated voltage/Maximum switching voltage	V AC	250/250
Rated load AC1	VA	1750
Rated load AC15 (230 V AC)	VA	350
Single phase motor rating (230 V AC)	kW	0.24
Breaking capacity DC1: 24/110/220 V	A	7/0.25/0.12
Minimum switching load	mW (V/mA)	300 (5/5)
Standard contact material		AgNi

**Coil specification**

Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	—
	V DC	24 - 72 - 110
Rated power DC	W	1
Operating range	AC	—
	DC	(0.70...1.25)U <sub>N</sub>
Holding voltage	DC	0.5 U <sub>N</sub>
Must drop-out voltage	DC	0.1 U <sub>N</sub>

**Technical data**

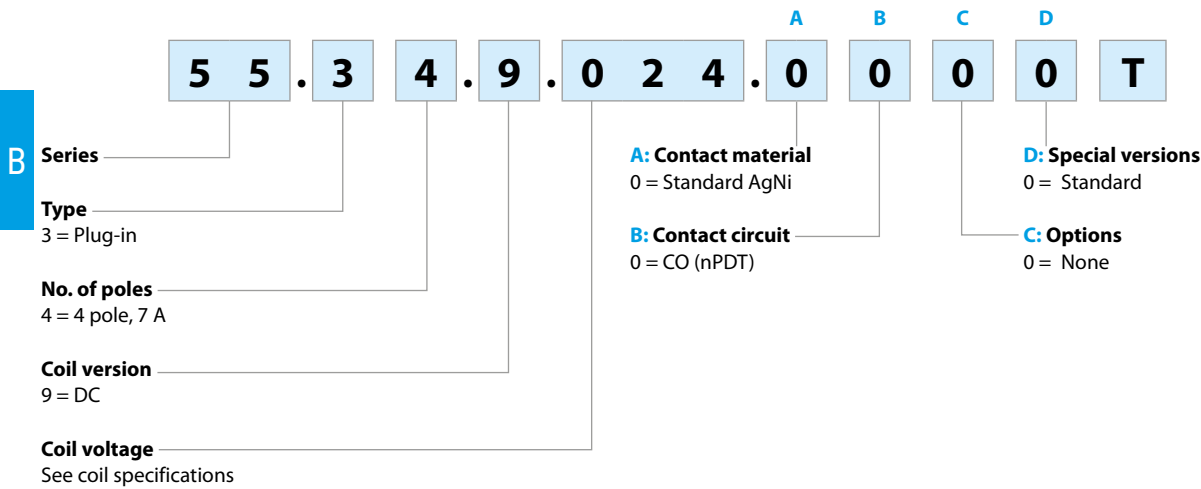
Mechanical life AC/DC	cycles	50 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	150 · 10 <sup>3</sup>
Operate/release time	ms	11/3
Insulation between coil and contacts (1.2/50 μs)	kV	4
Dielectric strength between open contacts	V AC	1000
Ambient temperature range	°C	-40...+70*
Environmental protection		RT I

**Approvals** (according to type)



## Ordering information

Example: 55 series plug-in relay, 4 CO (4PDT), 24 V DC coil.

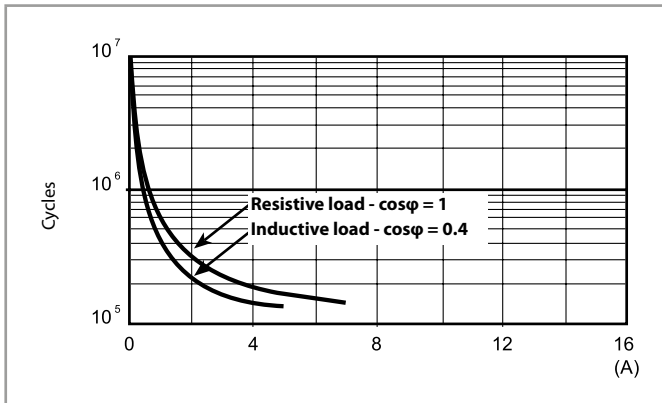


## Technical data

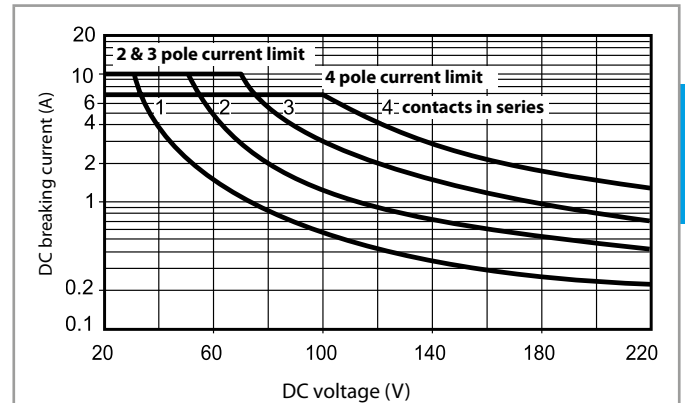
Insulation according to EN 61810-1			
Nominal voltage of supply system	V AC	230	
Rated insulation voltage	V AC	250	
Pollution degree		2	
Insulation between coil and contact set			
Type of Insulation		Basic	
Overvoltage category		III	
Rated impulse voltage	kV (1.2/50 μs)	4	
Dielectric strength	V AC	2000	
Insulation between adjacent contacts			
Type of insulation		Basic	
Overvoltage category		II	
Rated impulse voltage	kV (1.2/50 μs)	2.5	
Dielectric strength	V AC	2000	
Insulation between open contacts			
Type of disconnection		Micro-disconnection	
Dielectric strength	V AC/kV (1.2/50 μs)	1000/1.5	
Insulation between coil terminals			
Rated impulse voltage (surge) differential mode (according to EN 50121)	kV (1.2/50 μs)	4	
Other data			
Bounce time: NO/NC	ms	1/3	
Vibration resistance: NO/NC		According to EN 61373	
Shock resistance		According to EN 61373	
Power lost to the environment	without contact current	W	1
	with rated current	W	3
Recommended distance between relays mounted on PCB	mm	≥ 5	

### Contact specification

F 55 - Electrical life (AC) v contact current



H 55 - Maximum DC1 breaking capacity



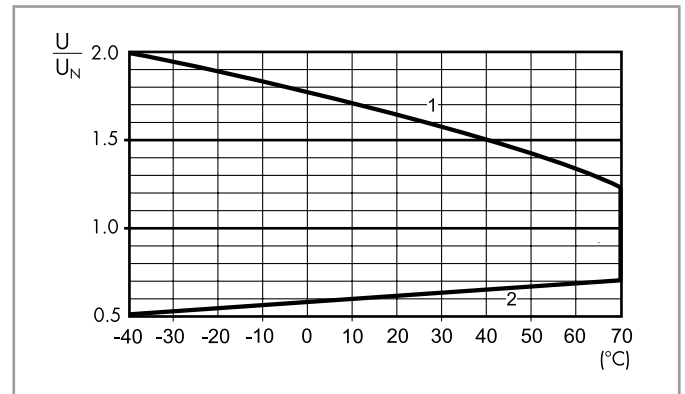
- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of  $\geq 100 \cdot 10^3$  can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load.  
Note: the release time of the load will be increased.

### Coil specifications

DC coil data

Nominal voltage $U_N$ V	Coil code	Operating range		Resistance R $\Omega$	Rated coil consumption I at $U_N$ mA
		$U_{min}$ V	$U_{max}$ V		
24	9.024	16.8	30	600	40
72	9.072	50.4	90	4000	15
110	9.110	77	137.5	12500	8.8

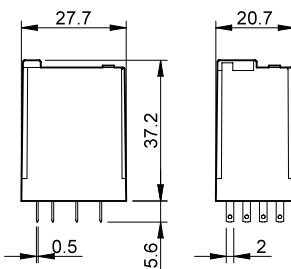
R 55 - DC coil operating range v ambient temperature



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

### Outline drawing

Type 55.34T





94.04.7

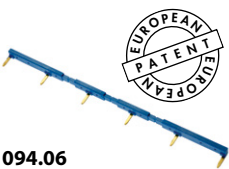
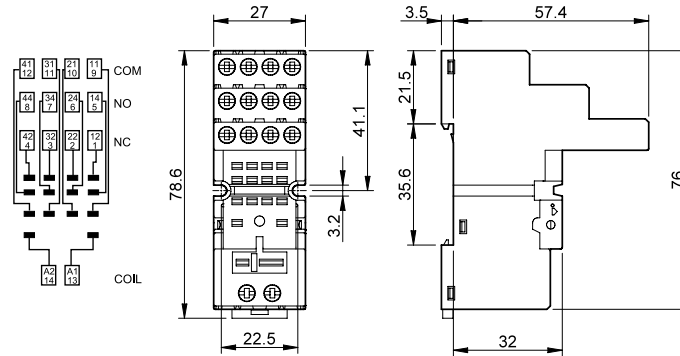
B

Approvals  
(according to type):



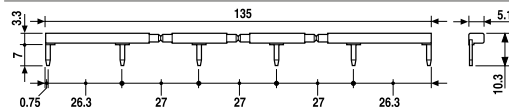
<b>Screw terminal (Box clamp) socket panel or 35 mm (EN 60715) rail mount</b>	<b>94.04.7 SMA*</b>		
For relay type	55.34T		
<b>Accessories</b>			
Metal retaining clip	094.71		
6-way jumper link	094.06		
Identification tag	094.00.4		
Modules (see table below)	99.02		
Timer modules (see table below)	86.30T		
<b>Technical data</b>			
Rated values	10 A - 250 V		
Dielectric strength	2 kV AC		
Protection category	IP 20		
Ambient temperature	°C	-40...+70	
Screw torque	Nm	0.5	
Wire strip length	mm	8	
Max. wire size for 94.04.7 sockets	solid wire	stranded wire	
	mm <sup>2</sup>	1 x 6 / 2 x 2.5	1 x 4 / 2 x 2.5
	AWG	1 x 10 / 2 x 14	1 x 12 / 2 x 14

\* Complies 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)



094.06

<b>6-way jumper link for 94.04.7 socket</b>	<b>094.06</b>
Rated values	10 A - 250 V



86.30

<b>86 series timer modules</b>	
(12...24)V AC/DC; Bi-function: AI, DI; (0.05 s...100 h)	86.30.0.024.0000T

Approvals (according to type):

AI: ON-delay  
DI: Interval



99.02

<b>99.02 coil indication and EMC suppression modules for 94.04.7 socket</b>		
Diode (+A1, standard polarity)	(6...220)V DC	99.02.3.000.00
LED + Diode (+A1, standard polarity)	(6...24)V DC	99.02.9.024.99
LED + Diode (+A1, standard polarity)	(28...72)V DC	99.02.9.060.99
LED + Diode (+A1, standard polarity)	(110...220)V DC	99.02.9.220.99
LED + Varistor	(6...24)V DC/AC	99.02.0.024.98
LED + Varistor	(28...72)V DC/AC	99.02.0.060.98
LED + Varistor	(110...240)V DC/AC	99.02.0.230.98

Approvals (according to type):

DC Modules with non-standard polarity (+A2) on request.



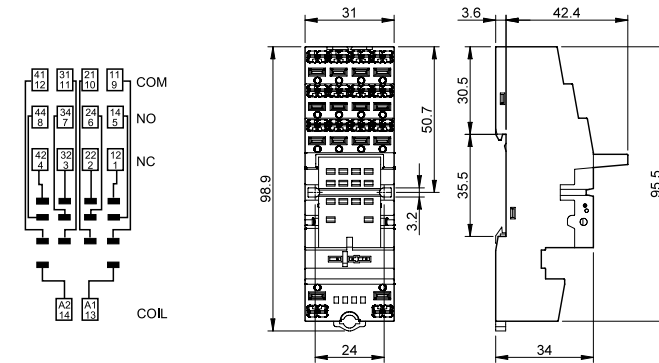
94.P4.7

Approvals  
(according to type):



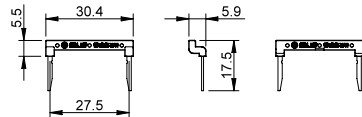
<b>Push-in terminal socket</b> 35 mm rail (EN 60715) mount		<b>94.P4.7 SMA*</b>	
For relay type		55.34T	
<b>Accessories</b>			
Metal retaining clip		094.71	
2-way jumper link		094.52.1	
2-way jumper link		097.52	
Modules (see table below)		99.02, 86.30T	
<b>Technical data</b>			
Rated values		10 A - 250 V	
Dielectric strength		2 kV AC	
Protection category		IP 20	
Ambient temperature		°C -40...+70	
Wire strip length		mm 10	
Min. wire size for 94.P4.7 sockets		solid wire	
		mm <sup>2</sup> 0.5	stranded wire 0.5
		AWG 21	21
Max. wire size for 94.P4.7 sockets		solid wire	
		mm <sup>2</sup> 2 x 1.5 / 1 x 2.5	stranded wire 2 x 1.5 / 1 x 2.5
		AWG 2 x 18 / 1 x 14	2 x 18 / 1 x 14

\* Complies 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)



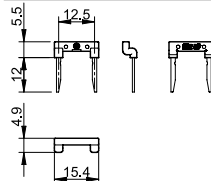
094.52.1

<b>2-way jumper link</b> for 94.P4.7 sockets	094.52.1
Rated values	10 A - 250 V



097.52

<b>2-way jumper link</b> for 94.P4.7 sockets	097.52
Rated values	10 A - 250 V



86.30

<b>86 series timer modules</b>	
(12...24)V AC/DC; Bi-function: AI, DI; (0.05 s...100 h)	86.30.0.024.0000T

Approvals (according to type):

AI: ON-delay  
DI: Interval



99.02

<b>99.02 coil indication and EMC suppression modules</b> for 94.P4.7 socket		
Diode (+A1, standard polarity)	(6...220)V DC	99.02.3.000.00
LED + Diode (+A1, standard polarity)	(6...24)V DC	99.02.9.024.99
LED + Diode (+A1, standard polarity)	(28...72)V DC	99.02.9.060.99
LED + Diode (+A1, standard polarity)	(110...220)V DC	99.02.9.220.99
LED + Varistor	(6...24)V DC/AC	99.02.0.024.98
LED + Varistor	(28...72)V DC/AC	99.02.0.060.98
LED + Varistor	(110...240)V DC/AC	99.02.0.230.98

Approvals (according to type):

DC Modules with non-standard polarity (+A2) on request.