


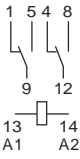
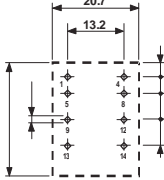
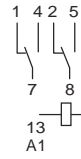
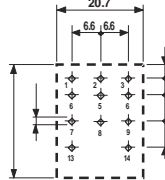
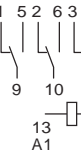
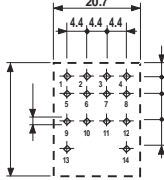
















- Plug-in or P.C.B. versions
- AC or DC coils
- Lockable test button and mechanical flag indicator as standard on 2 and 4 CO relays types
- Sockets and accessories: see 94, 99 and 86 series
- RT III (wash tight) version available

	55.12	55.13	55.14
			
	- 2 pole - P.C.B. mounting	- 3 pole - P.C.B. mounting	- 4 pole - P.C.B. mounting
	  Copper side view h = 35.8 mm	  Copper side view h = 35.8 mm	  Copper side view h = 35.8 mm
Contact specifications			
Contact configuration	2 CO	3 CO	4 CO
Rated current/Maximum peak current A	10/20	10/20	5/10
Rated voltage/Maximum switching voltage V AC	250/400	250/400	250/250
Rated load in AC1 VA	2,500	2,500	1,250
Rated load in AC15 (230 VAC) VA	500	500	250
Single phase motor rating (230 VAC) kW	0.37	0.37	0.125
Breaking capacity in DC1: 30/110/220V A	10/0.25/0.12	10/0.25/0.12	5/0.25/0.12
Minimum switching load mW (V/mA)	300 (5/5)	300 (5/5)	300 (5/5)
Standard contact material	AgNi	AgNi	AgNi
Coil specifications			
Nominal voltage (U _N) V AC (50/60 Hz)	6 - 12 - 24 - 48 - 60 - 110 - 120 - 230 - 240		
V DC	6 - 12 - 24 - 48 - 60 - 110		
Rated power AC/DC VA (50 Hz)/W	1.5/1	1.5/1	1.5/1
Operating range AC (50 Hz)	(0.8...1.1)U _N	(0.8...1.1)U _N	(0.8...1.1)U _N
DC	(0.8...1.1)U _N	(0.8...1.1)U _N	(0.8...1.1)U _N
Holding voltage AC/DC	0.8 U _N /0.5 U _N	0.8 U _N /0.5 U _N	0.8 U _N /0.5 U _N
Must drop-out voltage AC/DC	0.2 U _N /0.1 U _N	0.2 U _N /0.1 U _N	0.2 U _N /0.1 U _N
Technical data			
Mechanical life AC/DC cycles	20 · 10 ⁶ /50 · 10 ⁶	20 · 10 ⁶ /50 · 10 ⁶	20 · 10 ⁶ /50 · 10 ⁶
Electrical life at rated load AC1 cycles	200 · 10 ³	200 · 10 ³	150 · 10 ³
Operate/release time (bounce included) ms	10/15	10/15	10/15
Insulation according to EN 61810-5	3.6 kV/2	3.6 kV/2	3.6 kV/2
Insulation between coil and contacts (1.2/50μs) kV	3.6	3.6	3.6
Dielectric strength between open contacts V AC	1,000	1,000	1,000
Ambient temperature range °C	-40...+70	-40...+70	-40...+70
Environmental protection	RT I	RT I	RT I
Approvals: (according to type)	      GOST   RINA     US  		

TECHNICAL DATA

INSULATION

INSULATION according to EN 61810-5	insulation rated voltage	V	250
	rated impulse withstand voltage	kV	3.6
	pollution degree		2
	overvoltage category		III

IMMUNITY

CONDUCTED DISTURBANCE IMMUNITY	BURST (according to EN 61000-4-4) level 4 (4 kV)
	SURGE (according to EN 61000-4-5) level 4 (4 kV)

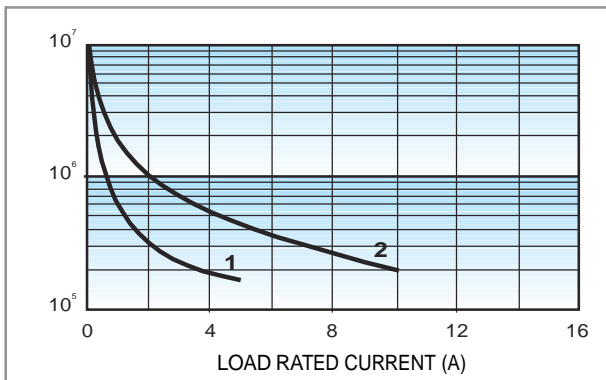
OTHER DATA

VIBRATION RESISTANCE (10...55Hz): NO/NC	g/g	6/6			
POWER LOST TO THE ENVIRONMENT		2 CO	3 CO	4 CO	
	without contact current	W	1	1	1
	with rated current	W	3	4	2.6
RECOMMENDED DISTANCE between RELAYS mounted on P.C.B.s	mm	ε5			

55

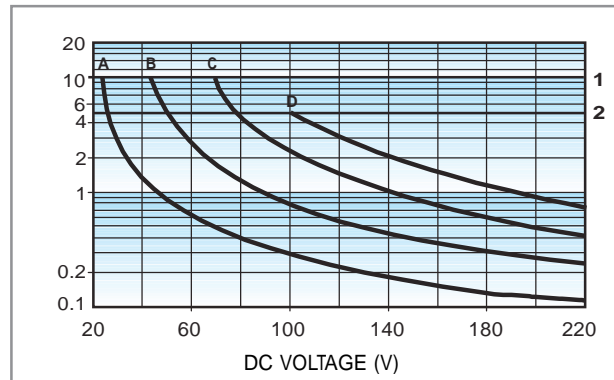
CONTACT SPECIFICATIONS

F 55



Electrical life vs AC1 load.
1 = 4 CO relay type (5 A).
2 = 2 - 3 CO relay type (10 A).

H 55



Breaking capacity for DC1 load.
1 = 2 - 3 CO type.
2 = 4 CO type.
A = Load applied to 1 contact
B = Load applied to 2 contacts in series
C = Load applied to 3 contacts in series
D = Load applied to 4 contacts in series

- When switching a resistive load (DC1) having voltage and current values under the curve the expected electrical life is $\epsilon 100 \cdot 10^3$ cycles.
 - In case of DC13 loads the connection of a diode in parallel with the load will permit the same electrical life as for a DC1 load.
- Note:** the release time of load will be increase.

COIL SPECIFICATIONS

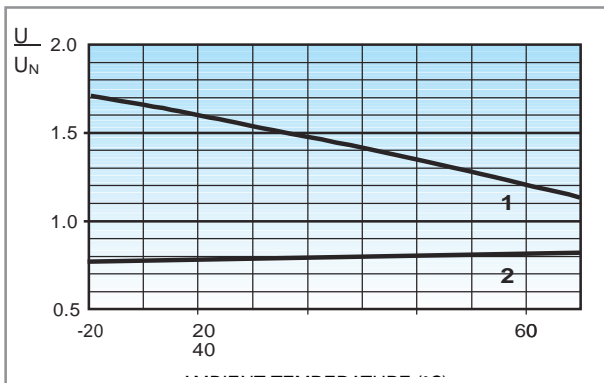
AC VERSION DATA

Nominal voltage consumption U_N	Coil code I at U_N (50Hz)	Operating range		Resistance		Rated coil R
		U_{min}	U_{max}	V	V	
6	8.006	4.8	6.6	12	200	
12	8.012	9.6	13.2	50	97	
24	8.024	19.2	26.4	190	53	
48	8.048	38.4	52.8	770	25	
60	8.060	48	66	1,200	21	
110	8.110	88	121	4,000	12.5	
120	8.120	96	132	4,700	12	
230	8.230	184	253	17,000	6	

DC VERSION DATA

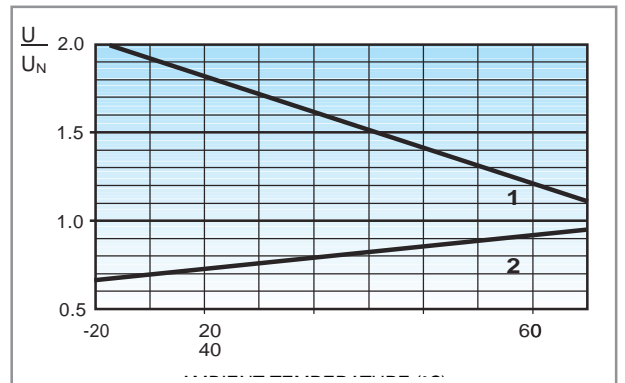
Nominal voltage U_N	Coil code	Operating range		Resistance R	Rated coil consumption I at U_N
		U_{min}	U_{max}		
6	9.006	4.8	6.6	40	150
12	9.012	9.6	13.2	140	86
24	9.024	19.2	26.4	600	40
48	9.048	38.4	52.8	2,400	20
60	9.060	48	66	4,000	15
110	9.110	88	121	12,500	8.8

R 55 AC



Operating range (AC type) vs ambient temperature.
1 - Max coil voltage permitted.
2 - Min pick-up voltage with coil at ambient temperature.

R 55 DC



Operating range (DC type) vs ambient temperature.
1 - Max coil voltage permitted.
2 - Min pick-up voltage with coil at ambient temperature.



94.04

Approvals
(according to type):

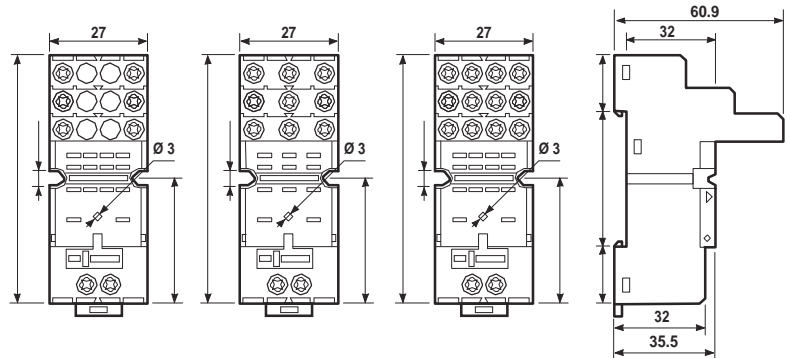


Relay type	55.32		55.33		55.32, 55.34	
	BLUE	BLACK	BLUE	BLACK	BLUE	BLACK
Colour	BLUE	BLACK	BLUE	BLACK	BLUE	BLACK
Clamp terminal socket: panel or 35 mm rail (EN 50022) mount retaining clip 094.71 supplied with socket packaging code SMA	94.02	94.02.0	94.03	94.03.0	94.04	94.04.0
Metal retaining clip	094.71					
Plastic retaining and release clip	094.01					
6-way jumper link for 94.02, 94.03 and 94.04 sockets	094.06	094.06.0	094.06	094.06.0	094.06	094.06.0
Identification tag	094.00.4					
Modules (see table below)	99.02					
Timer modules	86.10, 86.20					
Sheet of marker tags for retaining and release clip 094.01	060.72					

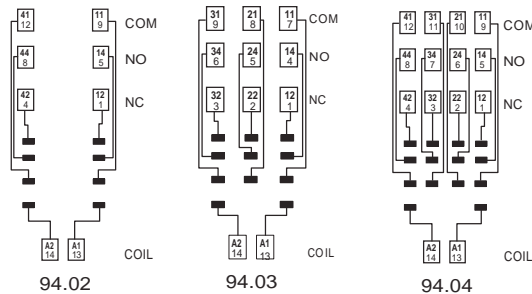
- RATED VALUES: 10 A - 250 V
- DIELECTRIC STRENGTH: ϵ 2 kV AC
- PROTECTION CATEGORY: IP 20
- AMBIENT TEMPERATURE: (-40...+70)°C
- SCREW TORQUE: 0.5 Nm
- WIRE STRIP LENGTH: 8 mm
- MAX WIRE SIZE:

55

	solid wire	stranded wire
mm ²	1x6 / 2x2.5	1x4 / 2x2.5
AWG	1x10 / 2x14	1x12 / 2x14

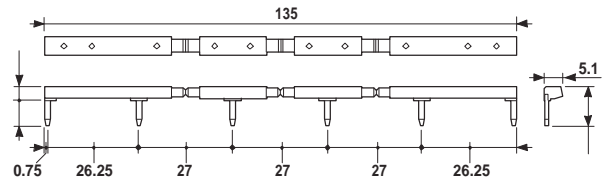


094.01



094.06

6-way jumper link for 94.02, 94.03 and 94.04 sockets	094.06
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- RATED VALUES: 10 A - 250 V



99.02

99.02 modules for 94.02, 94.03 and 94.04 sockets		BLUE
Diode** (+A1)	(6...220) V DC	99.02.3.000.00
Diode (inverted polarity)	(6...220) V DC	99.02.2.000.00
LED	(6...24) V DC/AC	99.02.0.024.59
LED	(28...60) V DC/AC	99.02.0.060.59
LED	(110...240) V DC/AC	99.02.0.230.59
LED + Diode** (+A1)	(6...24) V DC	99.02.9.024.99
LED + Diode** (+A1)	(28...60) V DC	99.02.9.060.99
LED + Diode** (+A1)	(110...220) V DC	99.02.9.220.99
LED + Diode (inverted polarity)	(6...24) V DC	99.02.9.024.79
LED + Diode (inverted polarity)	(28...60) V DC	99.02.9.060.79
LED + Diode (inverted polarity)	(110...220) V DC	99.02.9.220.79
LED + Varistor	(6...24) V DC/AC	99.02.0.024.98
LED + Varistor	(28...60) V DC/AC	99.02.0.060.98
LED + Varistor	(110...240) V DC/AC	99.02.0.230.98
RC circuit	(6...24) V DC/AC	99.02.0.024.09
RC circuit	(28...60) V DC/AC	99.02.0.060.09
RC circuit	(110...240) V DC/AC	99.02.0.230.09
No - remanence (62 k&/1W)	(110...240) V AC	99.02.8.230.07

**For DC supply, apply the positive to terminal A1. Modules in Black housing are available on request.



94.74

Approvals
(according to type):

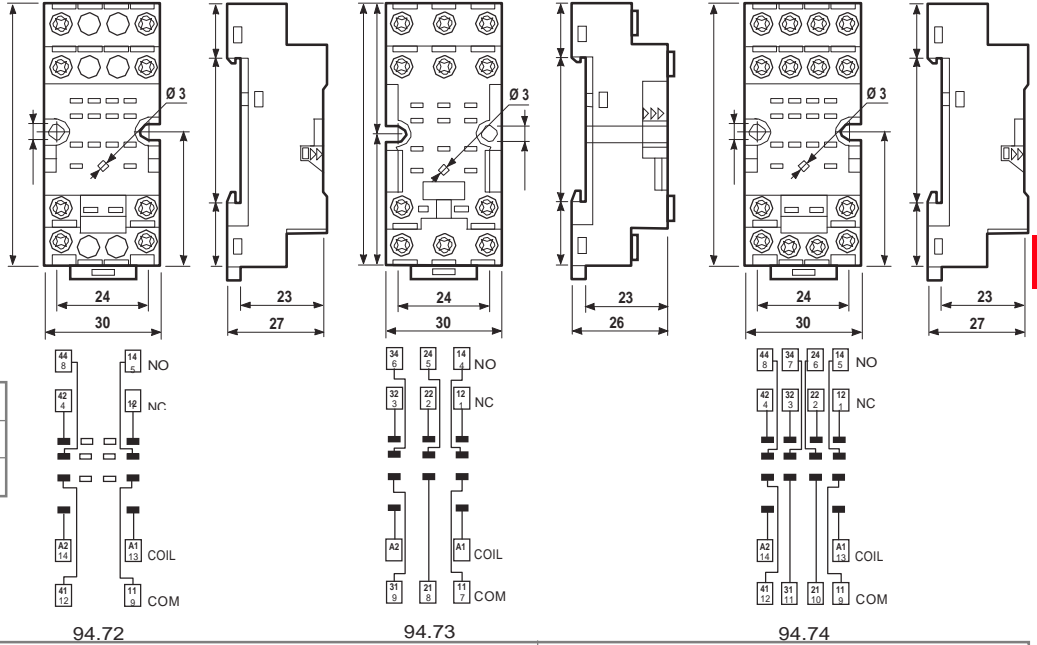


GOST

- RATED VALUES: 10 A - 250 V
- DIELECTRIC STRENGTH: ϵ 2 kV AC
- PROTECTION CATEGORY: IP 20
- AMBIENT TEMPERATURE: (-40...+70)°C
- SCREW TORQUE: 0.5 Nm
- WIRE STRIP LENGTH: 8 mm
- MAX WIRE SIZE:

	solid wire	stranded wire
mm ²	1x2.5 / 2x1.5	1x2.5 / 2x1.5
AWG	1x14 / 2x16	1x14 / 2x16

Relay type	55.32		55.33		55.32, 55.34	
	BLUE	BLACK	BLUE	BLACK	BLUE	BLACK
Colour	BLUE	BLACK	BLUE	BLACK	BLUE	BLACK
Screw terminal socket: panel or 35 mm rail (EN 50022) mount retaining clip 094.71 supplied with socket packaging code SMA	94.72	94.72.0	94.73	94.73.0	94.74	94.74.0
Retaining clip	094.71					
Modules (see table below)	99.01					



94.82

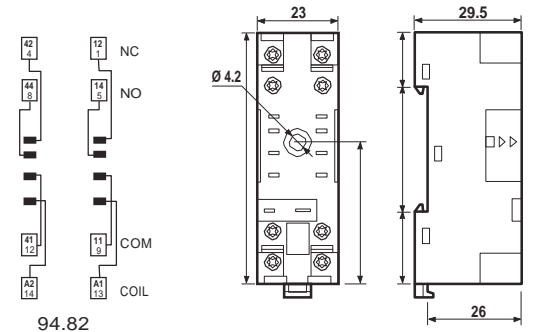
Approvals
(according to type):



- RATED VALUES: 10 A - 250 V
- DIELECTRIC STRENGTH: ϵ 2 kV AC
- PROTECTION CATEGORY: IP 20
- AMBIENT TEMPERATURE: (-40...+70)°C
- SCREW TORQUE: 0.5 Nm
- WIRE STRIP LENGTH: 9 mm
- MAX WIRE SIZE:

	solid wire	stranded wire
mm ²	1x2.5 / 2x1.5	1x2.5 / 2x1.5
AWG	1x14 / 2x16	1x14 / 2x16

Relay type	55.32	
Colour	BLUE	BLACK
Screw terminal socket: panel or 35 mm rail (EN 50022) mount retaining clip 094.71 supplied with socket packaging code SMA	94.82	94.82.0
Retaining clip	094.71	
Modules (see table below)	99.01	



99.01

99.01 modules for 94.72, 94.73, 94.74 and 94.82 sockets	BLUE
Diode** (+A1)	(6...220) V DC 99.01.3.000.00
Diode (inverted polarity)	(6...220) V DC 99.01.2.000.00
LED	(6...24) V DC/AC 99.01.0.024.59
LED	(28...60) V DC/AC 99.01.0.060.59
LED	(110...240) V DC/AC 99.01.0.230.59
LED + Diode** (+A1)	(6...24) V DC 99.01.9.024.99
LED + Diode** (+A1)	(28...60) V DC 99.01.9.060.99
LED + Diode** (+A1)	(110...220) V DC 99.01.9.220.99
LED + Diode (inverted polarity)	(6...24) V DC 99.01.9.024.79
LED + Diode (inverted polarity)	(28...60) V DC 99.01.9.060.79
LED + Diode (inverted polarity)	(110...220) V DC 99.01.9.220.79
LED + Varistor	(6...24) V DC/AC 99.01.0.024.98
LED + Varistor	(28...60) V DC/AC 99.01.0.060.98
LED + Varistor	(110...240) V DC/AC 99.01.0.230.98
RC circuit	(6...24) V DC/AC 99.01.0.024.09
RC circuit	(28...60) V DC/AC 99.01.0.060.09
RC circuit	(110...240) V DC/AC 99.01.0.230.09
No - remanence (62 k Ω /1W)	(110...240) V AC 99.01.8.230.07

**For DC supply, apply the positive to terminal A1. Modules in Black housing are available on request.
Green LED is standard. Red LED available on request.



94.84.1

Approvals
(according to type):

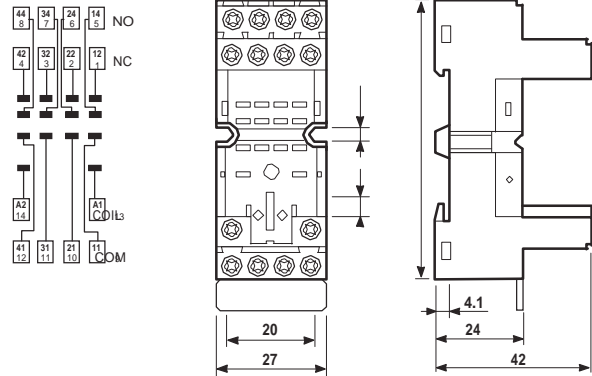


- RATED VALUES: 10 A - 250 V
- DIELECTRIC STRENGTH: ϵ 2 kV AC
- PROTECTION CATEGORY: IP 20
- AMBIENT TEMPERATURE: (-40...+70)°C
- SCREW TORQUE: 0.5 Nm
- WIRE STRIP LENGTH: 7 mm
- MAX WIRE SIZE:

55

	solid wire	stranded wire
mm ²	1x6 / 2x2.5	1x4 / 2x2.5
AWG	1x10 / 2x14	1x12 / 2x14

Relay type	55.32, 55.34	
Colour	BLUE	BLACK
Clamp terminal socket: panel or 35 mm rail (EN 50022) mount retaining clip 094.71 supplied with socket packaging code SMA	94.84.1	94.84.10
Retaining clip	094.71	
Identification tag	094.80.2	
Modules (see table below)	99.80	



99.80

99.80 modules for 94.84.1 sockets		BLUE
Diode** (+A1)	(6...220) V DC	99.80.3.000.00
LED	(6...24) V DC/AC	99.80.0.024.59
LED	(28...60) V DC/AC	99.80.0.060.59
LED	(110...240) V DC/AC	99.80.0.230.59
LED + Diode** (+A1)	(6...24) V DC	99.80.9.024.99
LED + Diode** (+A1)	(28...60) V DC	99.80.9.060.99
LED + Diode** (+A1)	(110...220) V DC	99.80.9.220.99
LED + Varistor	(6...24) V DC/AC	99.80.0.024.98
LED + Varistor	(28...60) V DC/AC	99.80.0.060.98
LED + Varistor	(110...240) V DC/AC	99.80.0.230.98
RC circuit	(6...24) V DC/AC	99.80.0.024.09
RC circuit	(28...60) V DC/AC	99.80.0.060.09
RC circuit	(110...240) V DC/AC	99.80.0.230.09
No - remanence (62 k&/1W)	(110...240) V AC	99.80.8.230.07

**For DC supply, apply the positive to terminal A1. Modules in Black housing are available on request.
Green LED is standard. Red LED available on request.



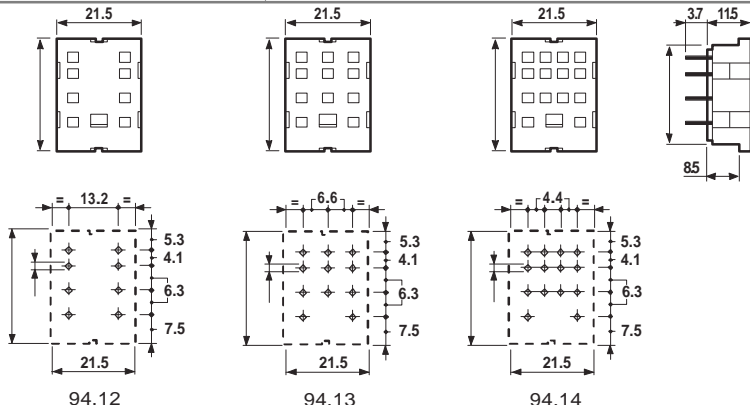
94.14

Approvals
(according to type):



- RATED VALUES: 10 A - 250 V
- DIELECTRIC STRENGTH: ϵ 2 kV AC
- AMBIENT TEMPERATURE: (-40...+70)°C

Relay type	55.32		55.33		55.32, 55.34	
Colour	BLUE	BLACK	BLUE	BLACK	BLUE	BLACK
P.C.B. socket	94.12	94.12.0	94.13	94.13.0	94.14	94.14.0
retaining clip 094.51 supplied with socket packaging code SMA						
Metal retaining clip	094.51					



Copper side view



Relay type	55.32		55.33		55.32, 55.34	
Colour	BLUE	BLACK	BLUE	BLACK	BLUE	BLACK
Panel mount solder socket: 1 mm thick panel retaining clip 094.51 supplied with socket packaging code SMA	94.22	94.22.0	94.23	94.23.0	94.24	94.24.0
Metal retaining clip	094.51					

Approvals
(according to type):



- RATED VALUES: 10 A - 250 V
- DIELECTRIC STRENGTH: ϵ 2 kV AC
- AMBIENT TEMPERATURE: (-40...+70)°C

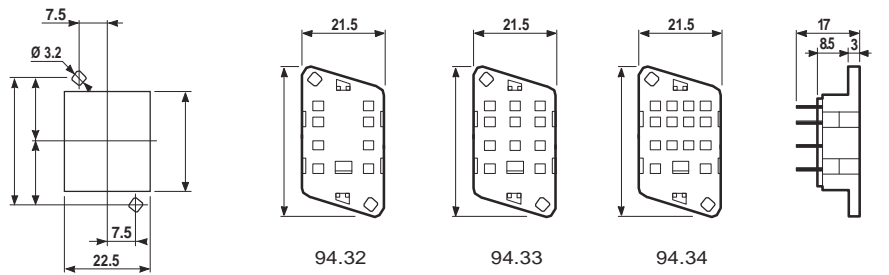


Relay type	55.32		55.33		55.32, 55.34	
Colour	BLUE	BLACK	BLUE	BLACK	BLUE	BLACK
Panel mount socket: M3 screw mount - solder connections retaining clip 094.51 supplied with socket packaging code SMA	94.32	94.32.0	94.33	94.33.0	94.34	94.34.0
Metal retaining clip	094.51					

Approvals
(according to type):



- RATED VALUES: 10 A - 250 V
- DIELECTRIC STRENGTH: ϵ 2 kV AC
- AMBIENT TEMPERATURE: (-40...+70)°C



Sheet of marker tags for retaining clip 094.01 (72 tags)	060.72
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PACKAGING CODES

How to code and identify retaining clip and packaging options for sockets.

Code options according to the last three letters:

9	4	0	4	S	M	A
						↓
						→
						→
						→

A Standard packaging

SM Metal retaining clip
SP Plastic retaining clip
SX No retaining clip