

## Order codes

- B.2 Series PRC - Plug-in relays
- B.8 Series M - Auxiliary contactors
- B.14 Series RL - Auxiliary contactors

## Series PRC - Plug-in relays

- B.17 Technical data
- B.24 Dimensions

## Series M - Auxiliary contactors

- B.26 Technical data
- B.31 Terminal numbering
- B.34 Dimensions

## Series RL - Auxiliary contactors

- B.36 Technical data
- B.39 Terminal numbering
- B.42 Dimensions

## POWER DEVICES

Contactors and overload relays

**Auxiliary relays and contactors**

Motor protection devices

Applications

Main switches

## AUXILIARY DEVICES

Control and signalling units

Electronic relays and limit switches

## POWER ELECTRONICS

Speed drive units

Soft starters

Lighting dimmer-stabilizer/Numerical index

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## Plug-in auxiliary relays

- AC or DC coils
- Lockable test button with mechanical flag indicator.
- Sockets with rear 35 mm rail (EN 50022) mounting.
- With LED indicator incorporated.

### Miniature relays

Types	Poles	AC ratings	Sockets
PRC4M2...	2 CO	12A/250V	PRCG-ES15/2N
PRC4M3...	3 CO	10A/250V	PRCG-ES15/3N
PRC4M4...	4 CO	6A/250V	PRCG-ES15/4N

### Standard 8-11 pin relays

Types	Poles	AC ratings	Sockets
PRC2P2...	2 CO	10A/250V	PRZ8
PRC3P3...	3 CO	10A/250V	PRZ11

### Interface relay module

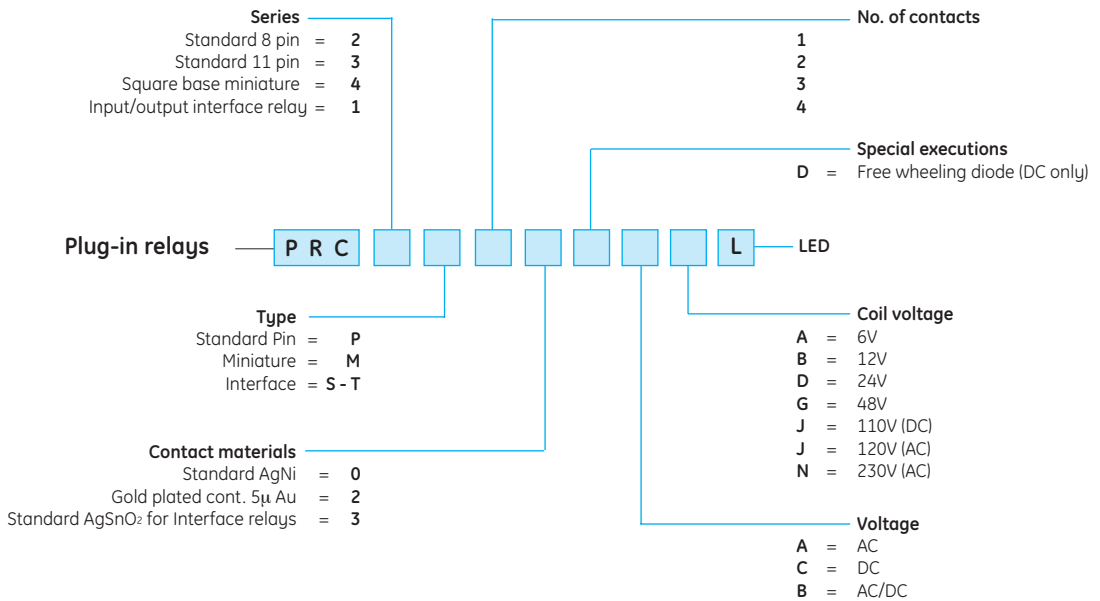
Types	Poles	AC ratings	Sockets
PRC1S1...	1 CO	6A/250V	-
<b>For use with PLC systems</b>			
PRC1T1...	1 CO	16A/250V	PRCGZT80
PRC1T2...	2 CO	8A/250V	PRCGZT80

## Approvals

According to types:

Plug-in relays	Sockets
CE	CE
cUL	cUL
VDE	

## Catalogue number structure



- Order codes ● pg. B.3
- Modules for sockets ● pg. B.6
- Technical characteristics ● pg. B.17
- Dimensions ● pg. B.24



Miniature plug-in relays



2 changeover contacts

Ratings	Contacts Standard material	Voltage		With LED		Pack	
				Cat. no.	Ref. no.		
AC 12A/250V	0 AgNi		AC 50/60 Hz	12V	PRC4M20ABL	220710	10
				24V	PRC4M20ADL	220711	10
				48V	PRC4M20AGL	220712	10
				120V	PRC4M20AJL	220715	10
				230V	PRC4M20ANL	220717	10
			DC	12V	PRC4M20CBL	220713	10
				24V	PRC4M20CDL	220714	10
				48V	PRC4M20CGL	220716	10
				110V	PRC4M20CJL	220718	10
				DC Diode	12V	PRC4M20DCBL	220754
			24V		PRC4M20DCDL	220755	10
			48V		PRC4M20DCGL	220756	10
			110V		PRC4M20DCJL	220757	10

3 changeover contacts

AC 10A/250V	0 AgNi		AC 50/60 Hz	12V	PRC4M30ABL	221051	10
				24V	PRC4M30ADL	221052	10
				48V	PRC4M30AGL	221053	10
				120V	PRC4M30AJL	221056	10
				230V	PRC4M30ANL	221058	10
			DC	12V	PRC4M30CBL	221054	10
				24V	PRC4M30CDL	221055	10
				48V	PRC4M30CGL	221057	10
				110V	PRC4M30CJL	221059	10
				DC Diode	12V	PRC4M30DCBL	221074
			24V		PRC4M30DCDL	221075	10
			48V		PRC4M30DCGL	221076	10
			110V		PRC4M30DCJL	221077	10

4 changeover contacts

AC 6A/250V	0 AgNi		AC 50/60 Hz	12V	PRC4M40ABL	221809	10
				24V	PRC4M40ADL	221810	10
				48V	PRC4M40AGL	221811	10
				120V	PRC4M40AJL	221814	10
				230V	PRC4M40ANL	221816	10
			DC	12V	PRC4M40CBL	221812	10
				24V	PRC4M40CDL	221813	10
				48V	PRC4M40CGL	221815	10
				110V	PRC4M40CJL	221817	10
				DC Diode	12V	PRC4M40DCBL	221851
			24V		PRC4M40DCDL	221852	10
			48V		PRC4M40DCGL	221853	10
			110V		PRC4M40DCJL	221854	10

Sockets



For PRC4M2...  
2 changeover contacts

			Cat. no.	Ref. no.	Pack
Screw terminals Two levels	Socket		PRCG-ES15/2N	220912	10
	Fixing clip	Metal	PRCG1052	220914	10
	Retainer/Extractor	White plastic	PRCMS35	220915	10
	Identification plate		PRCTR1	220916	10

For PRC4M3...  
3 changeover contacts

Screw terminals Two levels	Socket		PRCG-ES15/3N	221442	10
	Fixing clip	Metal	PRCG1052	220914	10
	Retainer/Extractor	White plastic	PRCMS35	220915	10
	Identification plate		PRCTR1	220916	10

For PRC4M4...  
4 changeover contacts

Screw terminals Two levels	Socket		PRCG-ES15/4N	221934	10
	Fixing clip	Metal	PRCG1052	220914	10
	Retainer/Extractor	White plastic	PRCMS35	220915	10
	Identification plate		PRCTR1	220916	10

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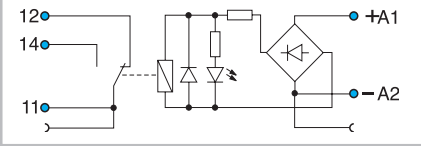
## Standard 8-11 pin plug-in relays

	Ratings	Contacts Standard material	Voltage		With LED		
					Cat. no.	Ref. no.	Pack
	<b>Standard 8 pin</b> 2 changeover contacts 10A/250V	0 AgNi	AC 50/60 Hz	12V	PRC2P20ABL	220019	10
				24V	PRC2P20ADL	220020	10
				48V	PRC2P20AGL	220021	10
				120V	PRC2P20AJL	220024	10
				230V	PRC2P20ANL	220026	10
				DC	12V	PRC2P20CBL	220022
			24V		PRC2P20CDL	220023	10
			48V		PRC2P20CGL	220025	10
			DC diode	110V	PRC2P20CJL	220027	10
				12V	PRC2P20CDL	220041	10
				24V	PRC2P20CDL	220042	10
				48V	PRC2P20DCGL	220043	10
						110V	PRC2P20DCJL
	<b>Standard 11 pin</b> 3 changeover contacts 10A/250V	0 AgNi	AC 50/60 Hz	12V	PRC3P30ABL	220310	10
				24V	PRC3P30ADL	220311	10
				48V	PRC3P30AGL	220312	10
				120V	PRC3P30AJL	220315	10
				230V	PRC3P30ANL	220317	10
				DC	12V	PRC3P30CBL	220313
			24V		PRC3P30CDL	220314	10
			48V		PRC3P30CGL	220316	10
			DC diode	110V	PRC3P30CJL	220318	10
				12V	PRC3P30DCBL	220335	10
				24V	PRC3P30DCDL	220336	10
				48V	PRC3P30DCGL	220337	10
						110V	PRC3P30DCJL


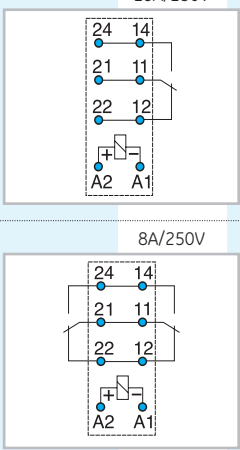
## Sockets

				Cat. no.	Ref. no.	Pack
	<b>For PRC2P20...</b> Standard 8 pin	Screw terminals One level	Socket	PRCZ8	220216	10
			Fixing clip	PRCPZ11	220218	10
	Solder terminal	Socket	PRCG8	220217	10	
		Fixing clip	PRCR159	220219	10	
	<b>For PRC3P30...</b> Standard 11 pin	Screw terminals One level	Socket	PRCZ11	220647	10
			Fixing clip	PRCPZ11	220218	10
	Solder terminal	Socket	PRCG11	220648	10	
		Fixing clip	PRCR159	220219	10	

**Interface relay**



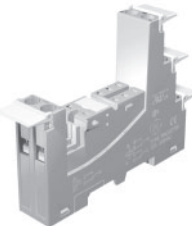
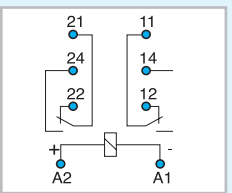
	Ratings AC1	Ratings DC1	Contacts material	Voltage		With LED			
						Cat. no.	Ref. no.	Pack	
 <p><b>1 single pole</b></p> <p><b>1 changeover contact</b></p>	6A/250V	-	3 AgSnO <sub>2</sub>	AC/DC	230V	PRC1S13BNL	222013	10	
					DC	12V	PRC1S13CBL	222007	10
						24V	PRC1S13CDL	222008	10
					AC/DC	24V	PRC1S13BDL	222004	10
									

**Interface relay for PLC systems**

	Ratings AC1	Ratings DC1	Contacts material	Voltage		With LED			
						Cat. no.	Ref. no.	Pack	
 <p><b>1 changeover contact</b></p>	16A/250V	16A/24V	0 AgNi	AC	24V	PRC1T10ADL	221868	10	
					120V	PRC1T10AJL	221869	10	
					230V	PRC1T10ANL	221870	10	
					DC	12V	PRC1T10CBL	221860	10
						24V	PRC1T10CDL	221861	10
						110V	PRC1T10CJL	221862	10
<p><b>2 changeover contacts</b></p>	8A/250V	8A/24V	0 AgNi	AC	24V	PRC1T20ADL	221883	10	
					120V	PRC1T20AJL	221884	10	
					230V	PRC1T20ANL	221885	10	
					DC	12V	PRC1T20CBL	221875	10
						24V	PRC1T20CDL	221876	10
						110V	PRC1T20CJL	221877	10
									

Complete set of relay, socket, module (diode+Led for DC-Varistor + Led for AC) and retaining clip + marking plate. 16mm width

**Spare parts**

				Voltage		Cat. no.	Ref. no.	Pack
<p><b>Miniature P.C.B. relays. 16A</b> 1 changeover contact</p> 	50/60 Hz	AC	24V	PRCT1AD	221896	20		
			120V	PRCT1AJ	221897	20		
			230V	PRCT1AN	221898	20		
			DC	12V	PRCT1CB	221890	20	
				24V	PRCT1CD	221891	20	
				110V	PRCT1CJ	221892	20	
<p><b>Miniature P.C.B. relays. 8A</b> 2 changeover contacts</p> 	50/60 Hz	AC	24V	PRCT2AD	221913	20		
			120V	PRCT2AJ	221914	20		
			230V	PRCT2AN	221915	20		
			DC	12V	PRCT2CB	221905	20	
				24V	PRCT2CD	221906	20	
				110V	PRCT2CJ	221907	20	
<p><b>Socket for miniature P.C.B. relays</b></p> 	Three level screws			PRCGZT80	221918	10		
	Retainer/Retractor			PRCMS16	221920	10		
	Plate			PRCTR	221921	10		
								

NOTE: If more than 12A are applied to the relay contact, twin wiring is required. See the connection diagram of the relay



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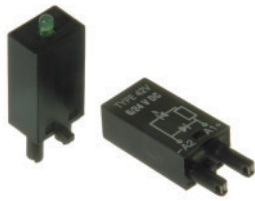
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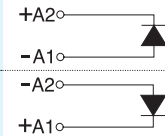
## Modules for sockets



### Diode

Protection against polarity inversion

For use with sockets:  
PRCG-ES15/2N  
PRCG-ES15/3N  
PRCG-ES15/4N



6 / 230V DC

6 / 230V DC

Color  
Led

Cat. no.

Ref. no.

Pack

PRCM21P

222100

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PRCM21N

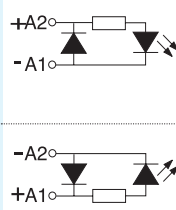
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### Diode and Led

Protection against polarity inversion  
Coil energizing indication

For use with sockets:  
PRCG-ES15/2N  
PRCG-ES15/3N  
PRCG-ES15/4N  
PRCGZT80



6 / 24V DC

24 / 60V DC

110 / 230V DC

6 / 24V DC

24 / 60V DC

110 / 230V DC

Red

Green

Red

Green

Red

Green

Red

Green

PRCM31R

PRCM31G

PRCM32R

PRCM32G

PRCM33R

PRCM33G

PRCM41R

PRCM41G

PRCM42R

PRCM42G

PRCM43R

PRCM43G

222102

222104

222103

222105

222109

222106

222110

222107

222111

222124

222112

222125

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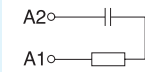
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### RC group

Arc suppression circuit

For use with sockets:  
PRCG-ES15/2N  
PRCG-ES15/3N  
PRCG-ES15/4N



6 / 24V AC

24 / 60V AC

110 / 240V AC

PRCM51

PRCM52

PRCM53

222113

222114

222115

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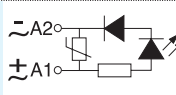
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### Led and varistor

No protection against polarity inversion  
Coil energizing indication  
AC/DC voltage allowed

For use with sockets:  
PRCG-ES15/2N  
PRCG-ES15/3N  
PRCG-ES15/4N  
PRCGZT80



6 / 24V AC

110 / 230V AC

Red

Green

Green

PRCM91R

PRCM91G

PRCM93G

222116

222126

222120

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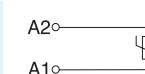
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### Varistor group

No indication  
Protection against overvoltage

For use with sockets:  
PRCG-ES15/2N  
PRCG-ES15/3N  
PRCG-ES15/4N



24V AC

230V AC

PRCM71

PRCM73

222121

222122

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Notes

A large grid of dotted lines for taking notes, consisting of approximately 30 columns and 40 rows of small dots.

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## Technical data

### Sockets for miniature plug-in relays

		PRCG-ES15/2N	PRCG-ES15/3N	PRCG-ES15/4N
		Screw terminals two levels	Screw terminals two levels	Screw terminals two levels
<i>Specifications</i>				
Nominal load	(A)	12 (300V)	10 (300V)	10 (300V)
Dielectric strength				
Adjacent screws	(kV)	3	3	3
Screws - rail	(kV)	3	3	3
Terminals Type				
		Screw M4, Pozidriv	Screw M4, Pozidriv	Screw M3, Pozidriv
Max. torque	(Nm)	0,7	0,7	0,7
Protection category		IP20	IP20	IP20
Capacity Solid wire	(mm <sup>2</sup> )	2x2.5	2x2.5	2x2.5
Flexible wire		22-14 AWG	22-14 AWG	22-14 AWG
Ambient temperature	(°C)	-40 ... +70	-40 ... +70	-40 ... +70

### Sockets for 8-11 pin standard plug-in relays

		PRCZ8	PRCG08	PRCZ11	PRCG11
		Screw terminals One level	8 pin Solder terminal socket	Screw terminals One level	11 pin Solder terminal socket
<i>Specifications</i>					
Nominal load	(A)	10 (250V)	10 (250V)	10 (250V)	10 (250V)
Dielectric strength					
Adjacent screws	(kV)	2.5	2.5	2.5	2.5
Screws - rail	(kV)	3		3	
Terminals Type					
		Screw M3, Pozidriv	Hard brass tin-plated terminals	Screw M3, Pozidriv	Hard brass tin-plated terminals
Max. torque	(Nm)	0,7		0,7	
Protection category		IP20		IP20	
Capacity Solid wire	(mm <sup>2</sup> )	2x2.5		2x2.5	
Flexible wire		22-14 AWG		22-14 AWG	
Ambient temperature	(°C)	-40 ... +70		-40 ... +70	

### Sockets for miniature P.C.B. relays

		PRCGZ80
		Screw terminals Two levels
<i>Specifications</i>		
Nominal load	(A)	12 (300V)
Dielectric strength		
Adjacent screws	(kV)	3
Screws - rail	(kV)	3
Terminals Type		
		Screw M4, Pozidriv
Max. torque	(Nm)	0,7
Protection category		IP20
Capacity Solid wire	(mm <sup>2</sup> )	2x2.5
Flexible wire		22-14 AWG
Ambient temperature	(°C)	-40 ... +70



## Miniature plug-in relays

		PRC4M20...	PRC4M30...	PRC4M40...
		2 pole	3 pole	4 pole
<b>Contacts</b>				
Number of contacts		2 changeover	3 changeover	4 changeover
Standard material		AgNi	AgNi	AgNi
Optional material		AgNi/Au 5μ	AgNi/Au 5μ	AgNi/Au 5μ
<b>Voltage</b>				
Max. switching AC/DC (poll. 3) voltage		250V	250V	250V
AC (poll. 2)		400V	400V	400V
Min. switching voltage AC/DC		5V	5V	5V
<b>Current</b>				
Rated load				
AC1	(A)	12 (250V AC)	10 (250V AC)	6 (250V AC)
AC15	(A)	4 (250V AC)	4 (250V AC)	2,5 (250V AC)
DC1	(A)	12 (24V DC)	10 (24V DC)	6 (24V DC)
Min. switching current	(mA)	5	5	5
Max. inrush current	(A)	24	20	12
Rated current	(A)	12	10	6
Max. breaking capacity	(VA)	3000	2500	1500
Resistance	(mΩ)	≤100 (100mA, 24V)	≤100 (100mA, 24V)	≤100 (100mA, 24V)
<b>Max. operating frequency</b>				
At rated load	cycles/hour	1200	1200	1200
No load	cycles/hour	18000	18000	18000
<b>Coil</b>				
Rated voltage				
AC 50/60Hz	(V)	6 ... 240	6 ... 240	6 ... 240
DC	(V)	5 ... 220	5 ... 220	5 ... 220
Must release				
AC		≥0.2 Un	≥0.2 Un	≥0.2 Un
time voltage				
DC		≥0.1 Un	≥0.1 Un	≥0.1 Un
Operating range of supply voltage		Table 1, 2	Table 1, 2	Table 1, 2
Rated power				
AC 50Hz	(VA)	1.5	1.6	1.6
consumption				
60Hz	(VA)	1.3	1.3	1.3
DC	(W)	0.9	0.9	0.9
AC/DC	(W)	-	-	-
<b>Insulation</b>				
Insulation category		C250	C250	B250
Insulation rated voltage	(VAC)	250	250	250
Dielectric strength				
Coil-Contact (VAC)		2500	2500	2500
Contact-Contact(VAC)		1500	1500	1500
Pole-Pole (VAC)		2500	2500	2000
Contact coil distance				
Clearance	mm	≥ 2.5	≥ 2.5	≥ 1.6
Creepage	mm	≥ 4	≥ 4	≥ 3.2
<b>General data</b>				
Operating time				
AC	(ms)	10	10	10
(typical value) DC	(ms)	13	13	13
Release time				
AC	(ms)	8	8	8
(typical value) DC	(ms)	3	3	3
Electrical life				
Resistive		≥ 10 <sup>5</sup>	≥ 10 <sup>5</sup>	≥ 10 <sup>5</sup>
		(12A, 250V AC)	(10A, 250V AC)	(6A, 250V AC)
Cos φ		See curves	See curves	See curves
Mechanical life (cycles)		≥ 10 <sup>7</sup>	≥ 10 <sup>7</sup>	≥ x10 <sup>7</sup>
Ambient temperature				
Storage	(°C)	-40 ... +85	-40 ... +85	-40 ... +85
Operating				
AC	(°C)	-40 ... +55	-40 ... +55	-40 ... +55
DC	(°C)	-40 ... +70	-40 ... +70	-40 ... +70
Cover protection category		IP40	IP40	IP40
Shock resistance	(G)	10	10	10
Vibration resistance				
	(G)	5	5	5
		(for 10..150Hz)	(for 10..150Hz)	(for 10..150Hz)

Table 1. Coil data DC version

Rated voltage V DC	Coil resistance Ω	Coil operating range V DC	
		Min. (at 20°C)	Max. (at 55°C)
12	160	9.6	13.2
24	640	19.2	26.4
48	2600	38.4	52.8
110	13600	88	121
220	54000	176	242

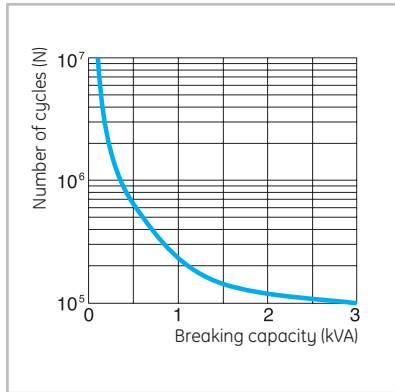
Table 2. Coil data AC 50/60Hz version

Rated voltage V AC	Coil resistance Ω	Coil operating range V AC	
		Min. (at 20°C)	Max. (at 55°C)
12	39	9.6	13.2
24	158	19.2	26.4
48	640	38.4	52.8
132	3770	96	120
230	16100	184	253

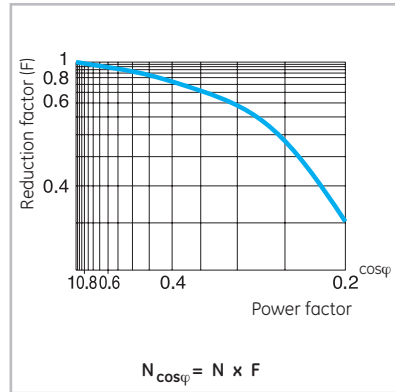


Miniature 2 pole plug-in relays

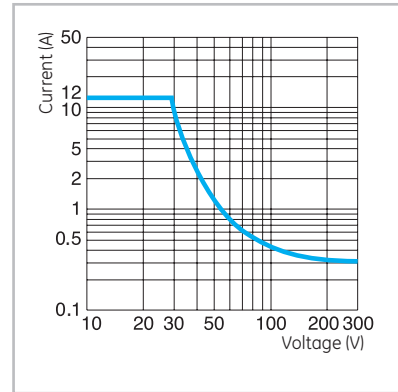
Electrical life at AC resistive load



Electrical life reduction factor at AC inductive load

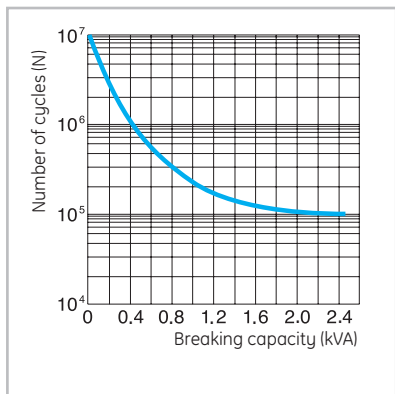


Max. DC resistive load breaking capacity

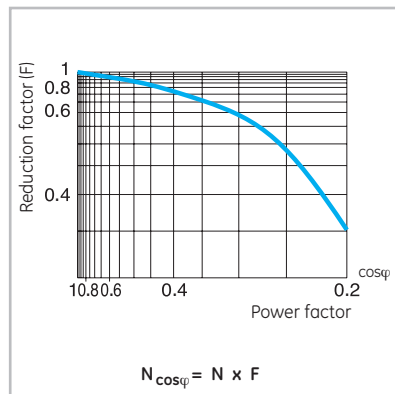


Miniature 3 pole plug-in relays

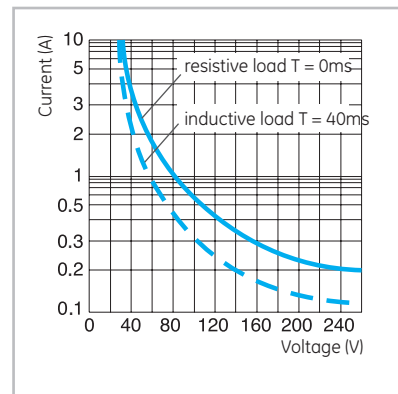
Electrical life at AC resistive load



Electrical life reduction factor at AC inductive load

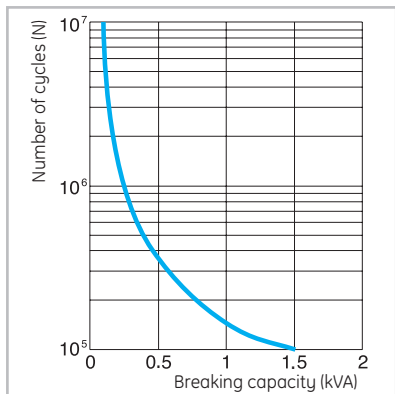


Max. DC load breaking capacity

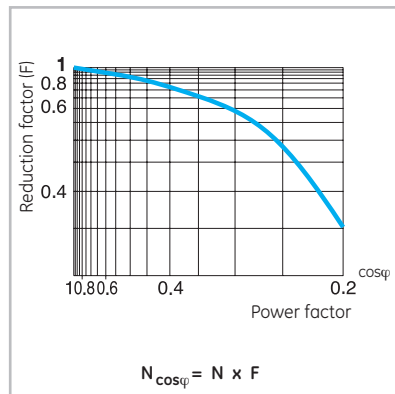


Miniature 4 pole plug-in relays

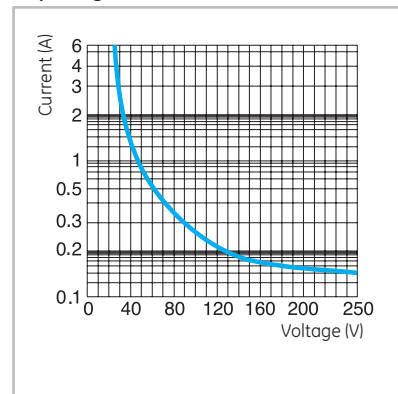
Electrical life at AC resistive load



Electrical life reduction factor at AC inductive load



Max. DC resistive load breaking capacity



Intro

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Standard 8-11 pin plug-in relays

		PRC2P20...	PRC3P30...
		Standard 8-pin	Standard 11-pin
<b>Contacts</b>			
Number of contacts		2 changeover	3 changeover
Standard material		AgNi	AgNi
Optional material		AgNi/Au 5μ	AgNi/Au 5μ
<b>Voltage</b>			
Max switching voltage	AC/DC (poll. 3)	250V	250V
	AC (poll. 2)	400V	400V
Min switching voltage	AC/DC	10V (AgNi) 5V (AgNi/Au 5μ)	10V (AgNi) 5V (AgNi/Au 5μ)
<b>Current</b>			
Rated load	AC1 (A)	10 (250V AC)	10 (250V AC)
	AC15 (A)	4 (250V AC)	4 (250V AC)
	DC1 (A)	10 (24V DC)	10 (24V DC)
Min. switching current	(mA)	5	5
Max. inrush current	(A)	30	30
Rated current	(A)	10	10
Max. breaking capacity	(VA)	2500	2500
Resistance	(mΩ)	H100 (100mA, 24V)	H100 (100mA, 24V)
<b>Max. operating frequency</b>			
At rated load	cycles/hour	1200	1200
No load	cycles/hour	12000	12000
<b>Coil</b>			
Rated voltage	AC 50/60Hz (V)	6 ... 240	6 ... 240
	DC (V)	6 ... 220	6 ... 220
Must release time	AC	≥0.15 Un	≥0.15 Un
	DC	≥0.1 Un	≥0.1 Un
Operating range of supply voltage		Table 1, 2	Table 1, 2
Rated power consumption	AC 50Hz (VA)	2,7	2,7
	60Hz (VA)	2,5	2,5
	DC (W)	1,5	1,5
	AC/DC (W)	-	-
<b>Insulation</b>			
Insulation category		C250	C250
Insulation rated voltage	(VAC)	250	250
Dielectric strength	Coil-Contact (VAC)	2500	2500
	Contact-Contact (VAC)	1500	1500
	Pole-Pole (VAC)	2000	2000
Distance	Clearance (mm)	≥ 3	≥ 3
	Creepage (mm)	≥ 4.2	≥ 4.2
<b>General</b>			
Operating time	AC (ms)	12	12
	DC (ms)	12	12
Release time	AC (ms)	10	10
	DC (ms)	7	7
Electrical life	Resistive	≥ 2x10 <sup>5</sup> (10A, 250V AC)	≥ 2x10 <sup>5</sup> (10A, 250V AC)
	Cos φ	See curves	See curves
Mechanical life (cycles)		≥ 2x10 <sup>7</sup>	≥ 2x10 <sup>7</sup>
Ambient temperature	Storage (°C)	-40 ... +85	-40 ... +85
	Operating AC (°C)	-40 ... +55	-40 ... +55
	DC (°C)	-40 ... +70	-40 ... +70
Cover protection category		IP40	IP40
Shock resistance	(G)	10	10
Vibration resistance	(G)	5	5

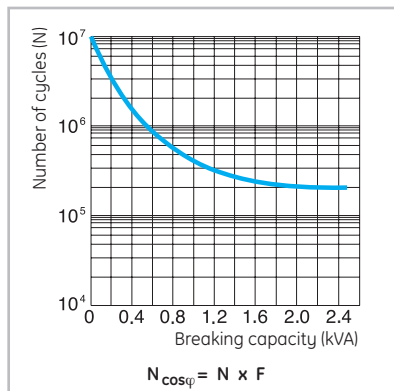
Table 1. Coil data DC version

Rated voltage V DC	Coil resistance Ω	Coil operating range V DC	
		Min. (at 20°C)	Max. (at 55°C)
12	110	9.6	13.2
24	430	19.2	26.4
48	1750	38.4	52.8
110	9200	88	121
220	37000	176	242

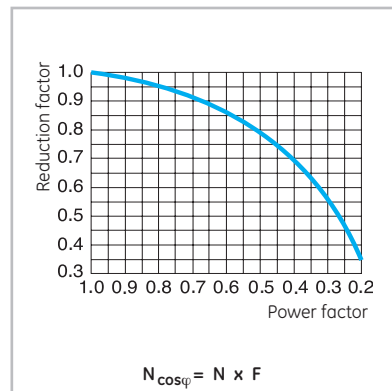
Table 2. Coil data AC 50/60Hz version

Rated voltage V AC	Coil resistance Ω	Coil operating range V AC	
		Min. (at 20°C)	Max. (at 55°C)
12	18.5	9.6	13.2
24	75	19.2	26.4
48	305	38.4	52.8
120	1910	96	132
230	7080	184	253

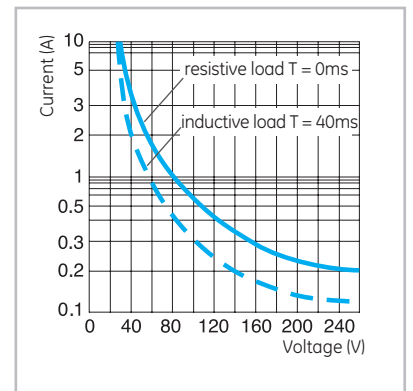
Electrical life at AC resistive load



Electrical life reduction factor at AC inductive load



Max. DC load breaking capacity



## Interface plug-in relays

		PRC1S13...	
<b>Contacts</b>			
Number of contacts		1 changeover	
Standard material		AgSnO <sub>2</sub>	
<b>Optional material</b>			
<b>Voltage</b>			
Max switching voltage	AC/DC (poll. 3)	AC 250V / DC 150V	
	AC (poll. 2)	AC 400V / DC 300V	
Min switching voltage	AC/DC	12V	
<b>Current</b>			
Rated load	AC1	(A)	6 (250V AC)
	AC15	(A)	
	DC1	(A)	6 (24V DC)
Min. switching current	(mA)	10	
Max. inrush current (A)		15	
Rated current	(A)	6	
Max. breaking capacity	(VA)	1500V	
Resistance	(mΩ)	≤100 (100mA, 24V)	
<b>Max. operating frequency</b>			
At rated load		360 cycles/hour	
No load		72000 cycles/hour	
<b>Coil</b>			
Rated voltage	AC/DC	(V)	24, 230
	AC 50/60Hz	(V)	230
	DC	(V)	12, 24
Must release time voltage	AC		≥0,2 Un
	DC		≥0,1 Un
Operating range of supply voltage		See Table 1	
Rated power consumption	AC 50Hz	(VA)	0.6...1.9
	60Hz	(VA)	-
	DC	(W)	0.33
	AC/DC	(W)	0.48 (at 24V), 1.8 (at 230V)
<b>Insulation</b>			
Insulation category		C250	
Insulation rated voltage	(VAC)	400	
Dielectric strength	Coil-Contact	(VAC)	4000
	Contact-Contact	(VAC)	1000
	Pole-Pole	(VAC)	-
Distance contact coil	Clearance	mm	≥ 8
	Creepage	mm	≥ 8
<b>General</b>			
Operating time (typical value)	AC	(ms)	8
	DC	(ms)	6
Release time (typical value)	AC	(ms)	15
	DC	(ms)	8
Electrical life	Resistive		
	Cos φ		
Mechanical life (cycles)		20x10 <sup>6</sup>	
Ambient temperature	Storage	(°C)	-40 ... +70
	Operating	AC	(°C) -20 ... +55
		DC	(°C) -20 ... +55
Cover protection category		IP20	
Shock resistance	(G)	10	
Vibration resistance	(G)	0.062" DA (10 ... 55Hz)	

Table 1. Interface relay

Rated voltage V		Coil operating range V DC	
		Min.	Max.
12	DC	9	17
24	DC	17	30
24	AC/DC	18	30
230	AC	80	250
230	AC/DC	185	250

## Interface relay for PLC systems

PRC1T10...			
<b>Contacts</b>			
Number of contacts		1 changeover	
Standard material		AgNi	
Optional material			
<b>Voltage</b>			
Max. switching voltage	AC/DC	AC 400V / DC 300V	
Min. switching voltage	AC/DC	5V	
<b>Current</b>			
Rated load	AC1	(A)	16 (250V AC)
	DC1	(A)	16 (24V DC)
Min. switching current	(mA)	5	
Max. inrush current	(A)	30	
Rated current	(A)	16	
Max. breaking capacity	(VA)	4000	
Min. breaking capacity	(W)	0,3	
Resistance	(mΩ)	≤100 (at 1A, 24V)	
<b>Max. operating frequency</b>			
At rated load		600 cycles/hour	
No load		72000 cycles/hour	
<b>Coil</b>			
Rated voltage	AC 50/60Hz	(V)	24, 120, 230
	DC	(V)	12, 24, 110
Must release time	AC	≥0.15 Un	
	DC	≥0.1 Un	
Operating range of supply voltage See Table 1, 2			
Rated power consumption	AC	(VA)	0.75
	DC	(W)	0.4
<b>Insulation</b>			
Insulation category		C250	
Insulation rated voltage		(VAC)	400
Dielectric strength	Coil-Contact	(VAC)	5000
	Contact-Contact	(VAC)	1000
	Pole-Pole	(VAC)	-
Distance	Clearance	mm	≥ 10
	Creepage	mm	≥ 10
<b>General</b>			
Operating time (typical value)	AC	(ms)	7
	DC	(ms)	7
Release time (typical value)	AC	(ms)	5
	DC	(ms)	3
Electrical life	Resistive	(s)	≥ 0.7 × 10 <sup>5</sup> (at 16A, 250VAC)
	Cos φ		See curves
	L/R = 40ms		≥ 10 <sup>5</sup> (at 0.12A, 220VDC)
Mechanical life (cycles)		3 × 10 <sup>7</sup>	
Ambient temperature	Storage	(°C)	-40 ... +70
	Operating	(°C)	-40 ... +70
Cover protection category		IP40	
Shock resistance		(G)	30
Vibration resistance		(G)	10 (for 10 ... 150Hz)

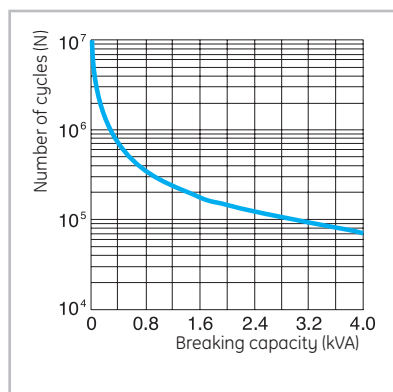
Table 1. Coil data DC version

Rated voltage V DC	Coil resistance Ω (±10% at 20°C)	Coil operating range V DC	
		U Min.	U Max.
12	360	8.4	30.6
24	1440	16.8	61.2
110/25200	77	280	

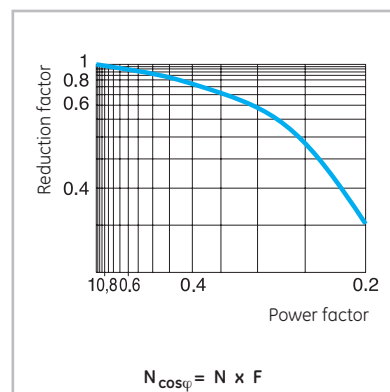
Table 2. Coil data AC 50/60Hz version

Rated voltage V AC	Coil resistance Ω (±10% at 20°C)	Coil operating range V AC	
		U Min.	U Max.
24	400	19.2	28.8
120	10200	96	144
230	38500	184	276

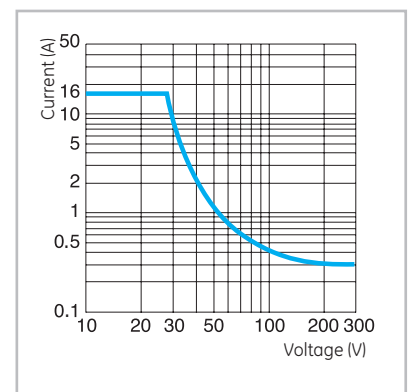
Electrical life at AC resistive load



Electrical life reduction factor at AC inductive load



Max. DC load breaking capacity



Interface relay for PLC systems

PRC1T20...

Contacts

Number of contacts	2 changeover
Standard material	AgNi

Optional material

Voltage

Max. switching voltage	AC/DC	AC 400V / DC 300V
Min. switching voltage	AC/DC	5V

Current

Rated load	AC1	(A)	8 (250V AC)
	DC1	(A)	8 (24V DC)
Min. switching current	(mA)	5	
Max. inrush current	(A)	15	
Rated current	(A)	8	
Max. breaking capacity	(VA)	2000	
Min. breaking capacity	(W)	0,3	
Resistance	(mΩ)	≤100 (at 1A, 24V)	

Max. operating frequency

At rated load	600 cycles/hour
No load	72000 cycles/hour

Coil

Rated voltage	AC 50/60Hz	(V)	24, 230
	DC	(V)	12, 24
Must release time voltage	AC	≥0.15 Un	
	DC	≥0.1 Un	
Operating range of supply voltage	See Table 1, 2		
Rated power consumption	AC	(VA)	0.75
	DC	(W)	0.4

Insulation

Insulation category	C250		
Insulation rated voltage	(VAC)	400	
Dielectric strength	Coil-Contact	(VAC)	5000
	Contact-Contact	(VAC)	1000
	Pole-Pole	(VAC)	-
Distance contact coil	Clearance	mm	≥ 10
	Creepage	mm	≥ 10

General

Operating time (typical value)	AC	(ms)	7
	DC	(ms)	7
Release time (typical value)	AC	(ms)	5
	DC	(ms)	3
Electrical life	Resistive	(s)	≥ 0.7 × 10 <sup>5</sup> (at 8A, 250VAC)
	Cos φ	See curves	
	L/R = 40ms	≥ 10 <sup>5</sup> (at 0,12A, 220VDC)	

Mechanical life (cycles)	3×10 <sup>7</sup>		
Ambient temperature	Storage	(°C)	-40 ... +70
	Operating	(°C)	-40 ... +70
Cover protection category	IP40		
Shock resistance	(G)	20	
Vibration resistance	(G)	10 (for 10 ... 150Hz)	

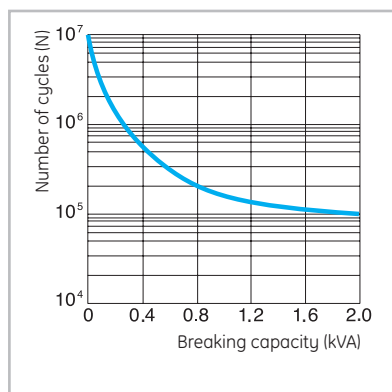
Table 1. Coil data DC version

Rated voltage V DC	Coil resistance (±10%) at 20°C Ω	Coil operating range V DC	
		U Min.	U Max.
12	360	8.4	30.6
24	1440	16.8	61.2
110	25200	77	280

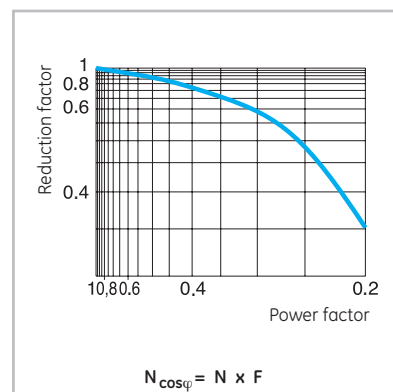
Table 2. Coil data AC 50/60 Hz version

Rated voltage V AC	Coil resistance (±10%) at 20°C Ω	Coil operating range V AC	
		U Min.	U Max.
24	400	19.2	28.8
120	10200	96	144
230	38500	184	276

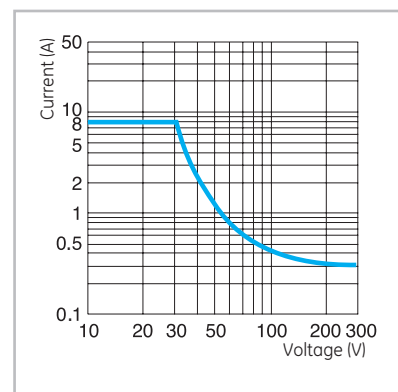
Electrical life at AC resistive load



Electrical life reduction factor at AC inductive load

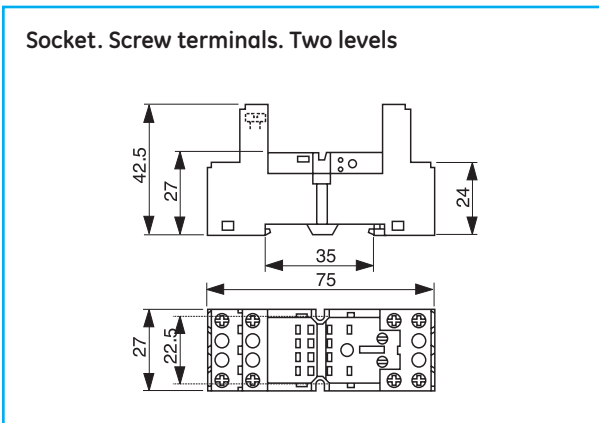
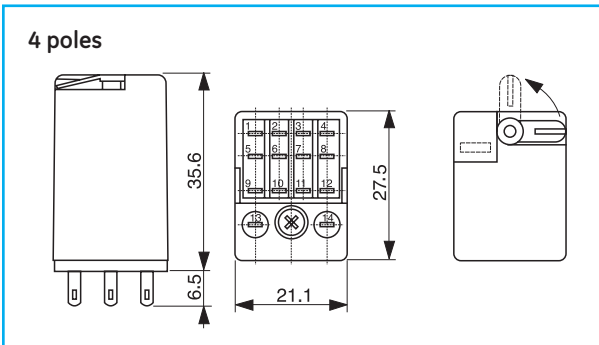
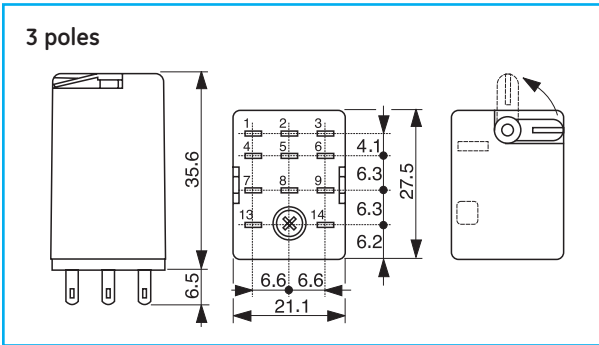
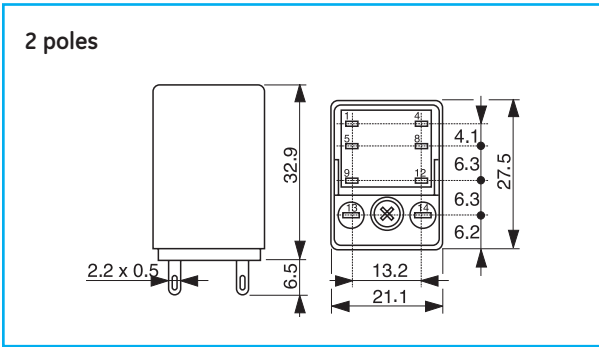


Max. DC load breaking capacity

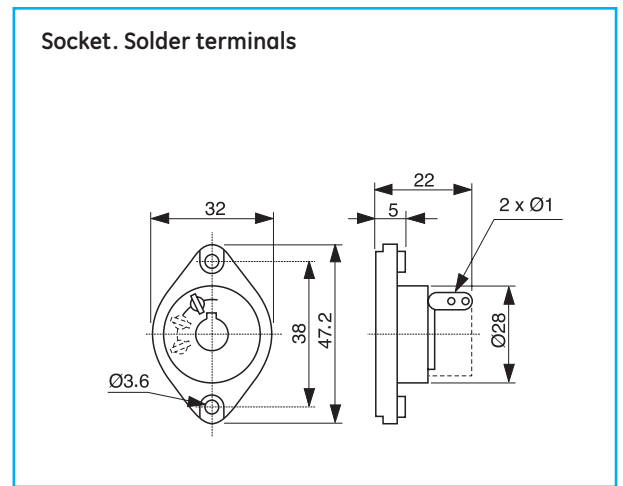
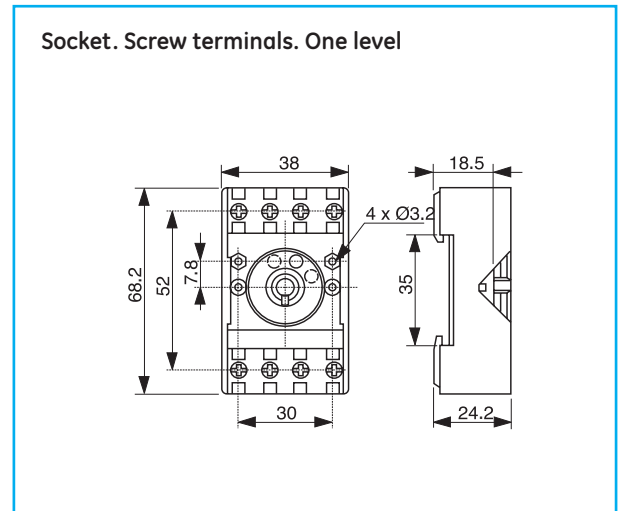
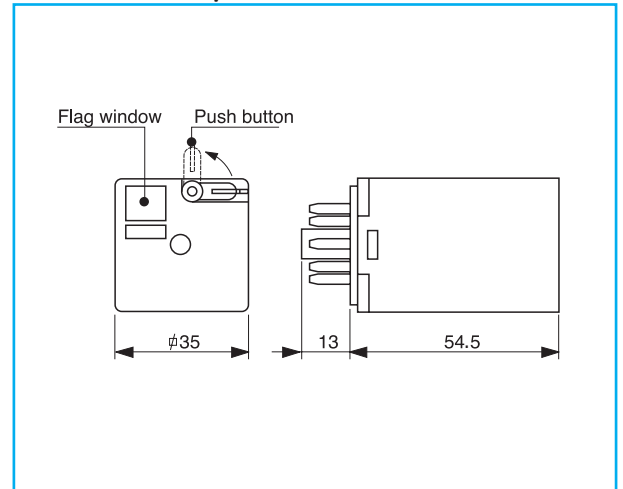


Dimensional drawings

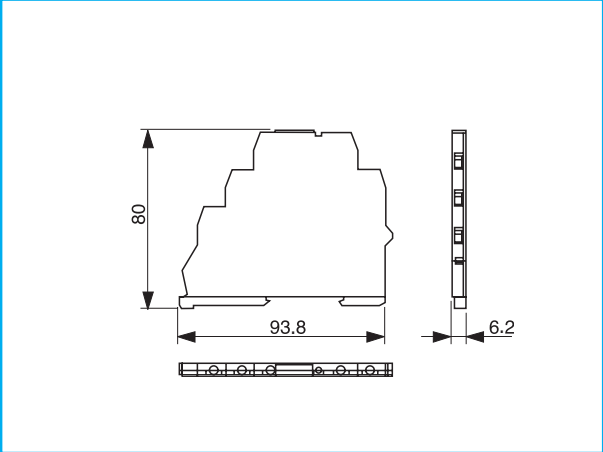
Miniature



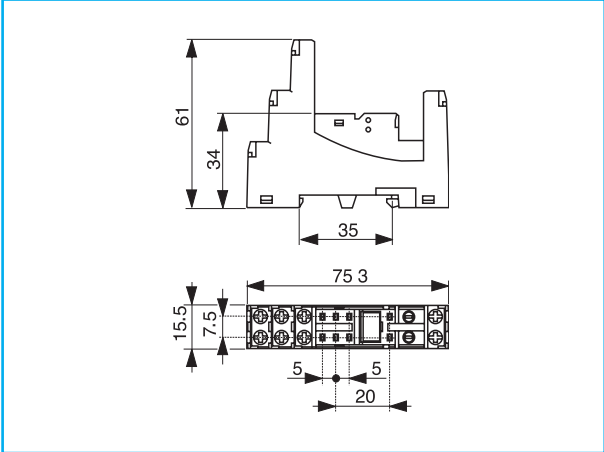
Standard 8-11 pin



Interface relay



Socket for miniature P.C.B. relays



Dimensions

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