

Miniature Relay PT

2 pole 12 A, 3 pole 10 A or 4 pole 6 A
DC- or AC-coil



F0191-A

Features

- 2, 3 or 4 C/O contacts
- Switching performance up to 3000 VA
- Relay height 29 mm
- Cadmium-free contact material
- Mechanical and electrical indicator
- Manual test tab, optionally lockable.
- White marking tabs

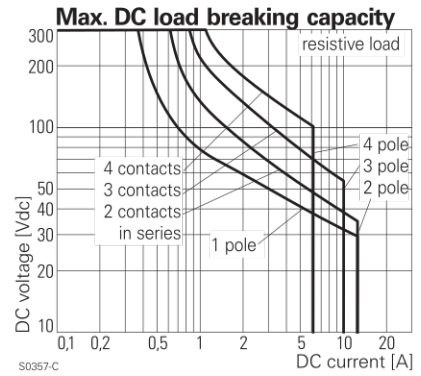
Applications

Universal use in control and automation



Technical data of approved types on request

Contact data	PT2	PT3	PT5
Configuration	2 C/O	3 C/O	4 C/O
Type of contact	single contacts		
Rated current	12 A	10 A	6 A
Rated voltage / max. breaking voltage AC	250 Vac	250 Vac	250 Vac
Maximum switching voltage	440 Vac	440 Vac	250 Vac
Maximum breaking capacity AC	3000 VA	2500 VA	1500 VA
Make current	24 A	20 A	12 A
Contact material	AgNi 90/10, AgNi 90/10 gold plated		
Minimum contact load	24 V, 10 mA / 20 mV, 1 mA gold plated		

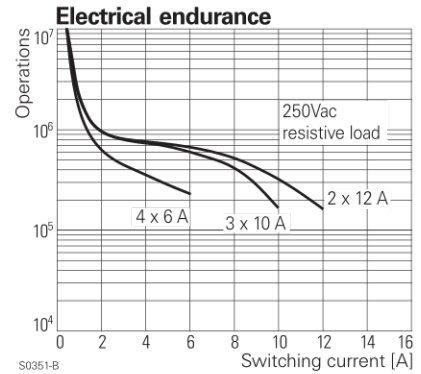


Contact ratings

Type	Load	Operations	Standard
PT570	6 A, 250 Vac, on the C/O contact	1x10 ⁵	VDE 0435

Coil data

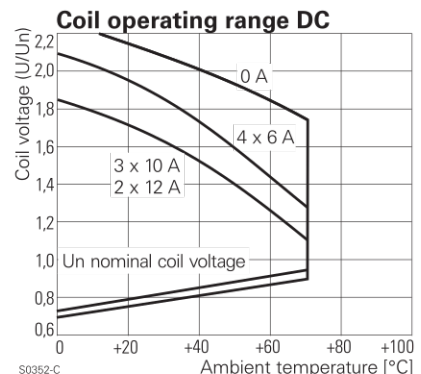
Nominal voltage	DC coil	6...220 Vdc
	AC coil	6...230 Vac
Nominal coil power	DC coil	typ. 0.75 W
	AC coil	typ. 1.0 VA
Operate category	2 / b	
Operating range for AC coil 60Hz at 70°C	90...110% U _{nom}	



Coil versions, DC-coil

Coil code	Standard	LED bipolar	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Coil resistance Ω	Coil current mA
006	L06		6	4.5	0.6	48±10%	125.0
012	L12		12	9.0	1.2	192±10%	62.5
024	L24		24	18.0	2.4	777±10%	31.3
048	L48		48	36.0	4.8	3072±10%	15.6
060	L60		60	45.0	6.0	4845±12%	12.5
110	M10		110	82.5	11.0	16133±15%	6.8
220	N20		220	165.0	22.0	64533±15%	3.4

All figures are given for coil without preenergization, at ambient temperature +20°C



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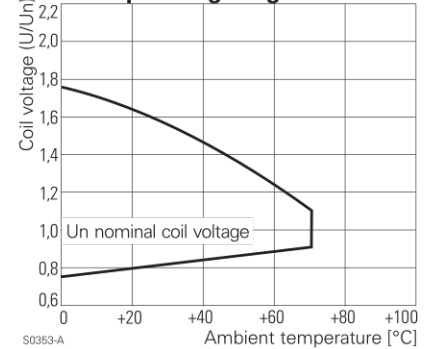
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Coil versions, AC-coil

Coil code		Nominal voltage	Pull-in voltage	Release voltage	Coil resistance	Coil current
Standard	LED	Vac	Vac	Vac	Ω	mA
506	R06	6	4.8	1.8	$11 \pm 10\%$	166.5
512	R12	12	9.6	3.6	$48 \pm 10\%$	83.3
524	R24	24	19.2	7.2	$192 \pm 10\%$	41.6
548	R48	48	38.4	14.4	$777 \pm 10\%$	21.3
560	R60	60	48.0	18.0	$1306 \pm 10\%$	16.7
615	S15	115	92.0	34.5	$4845 \pm 12\%$	8.8
730	T30	230	184.0	69.0	$19465 \pm 15\%$	4.3

All figures are given for coil without preenergization, at ambient temperature +20°C

Coil operating range AC



Insulation	PT2	PT3	PT5
Dielectric strength coil-contacts	2500 V _{rms}	2500 V _{rms}	2500 V _{rms}
open contact circuit in unenergized position typ. adjacent contacts	1500 V _{rms}	1500 V _{rms}	1500 V _{rms}
	2500 V _{rms}	2500 V _{rms}	2000 V _{rms}
Clearance / creepage	3 / 4 mm	2.6 / 4 mm	1.8 / 3 mm
Insulation to IEC 60664			
Voltage rating	240 V	240 V	240 V
Pollution degree	3	3	2
Overvoltage category	III	III	III
Insulation to VDE 0110b (2/79)			
Insulation category / ref. voltage	C / 250	C / 250	B / 250
Tracking resistance of relay base		CTI 175	

Other data

Flammability class according to UL 94	V-0
Ambient temperature	DC-coil -40...+70 °C AC-coil -40...+70 °C
Mechanical life	DC-coil >30x10 ⁶ ops. AC-coil >20x10 ⁶ ops.
Max. switching rate at rated- / minimum load	6 min ⁻¹ / 600 min ⁻¹
Operate- / release time	15 / 10 ms
Bounce time	5 ms
Vibration resistance N/O contact/N/C contact	>7 / 4 g
Shock resistance (function) N/O contact/N/C contact	>20 / 5 g
Category of protection (IEC 61810)	RT II
Relay weight	30 g
Packaging unit	10 pcs.
Accessories	see accessories PT

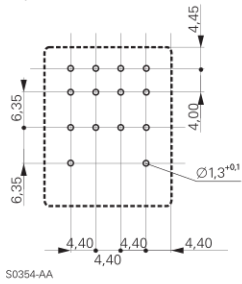
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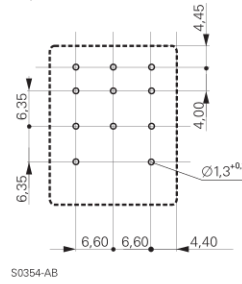
PCB layout / terminal assignment

View on solder pins
Dimensions in mm

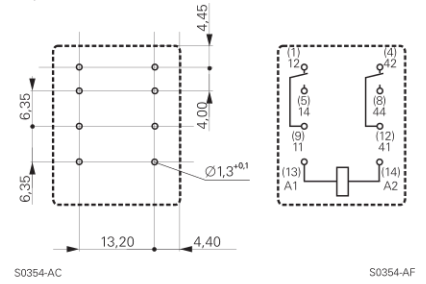
4-pole



3-pole



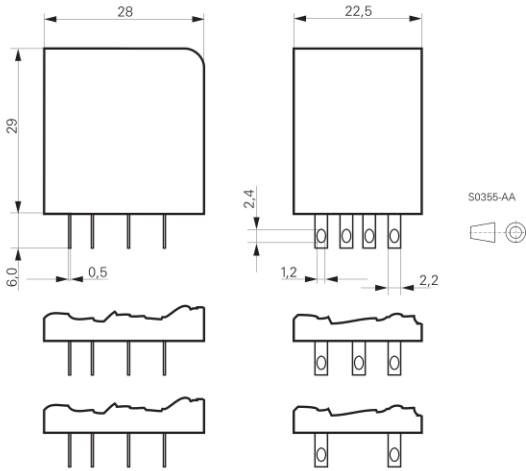
2-pole



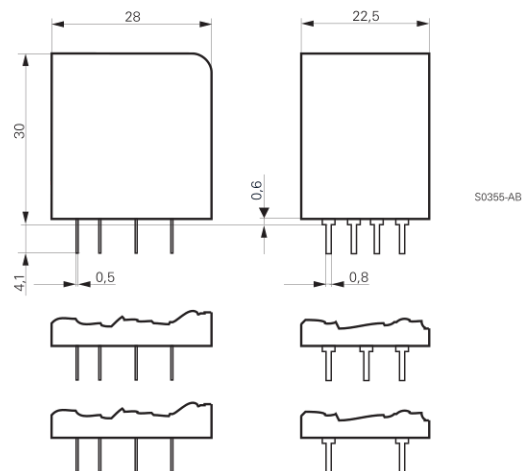
Dimensions

Dimensions in mm

Solder- and plug-in terminals (standard version)



PCB version



Product key

Type

Contact configuration

- 2** 2 C/O contacts
- 3** 3 C/O contacts
- 5** 4 C/O contacts

Contact material

- 7** AgNi 90/10, with test button*)
- 8** AgNi 90/10, gold plated, with test button*)

Version

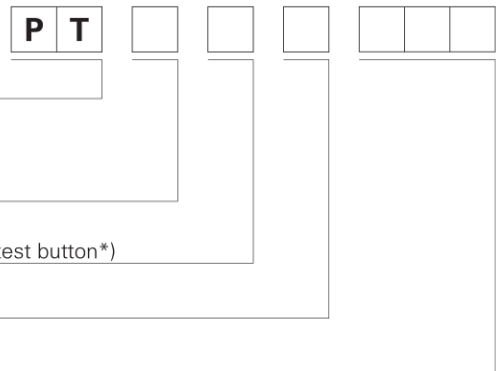
- 0** standard, AMP 2.8
- 1** PCB terminals

Coil

Coil code: please refer to coil versions table, preferred types in bold print

*) Version with closed cap without test button available on request.

Other types on request.



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Product key	Cont. config.	Cont. material	Version	Coil	Coil	Part number			
PT270024	2 C/O contacts	AgNi 90/10 test button	AMP 2.8 connectors	DC coil	24 Vdc	4-1419111-2			
PT270524				AC-coil	24 Vac	4-1419111-8			
PT270615				115 Vac	5-1419111-0				
PT270730				230 Vac	5-1419111-1				
PT270L24				DC coil+LED	24 Vdc	9-1415001-1			
PT270R24				AC-coil+LED	24 Vac	0-1415002-1			
PT270S15				115 Vac	2-1415039-1				
PT270T30				230 Vac	3-1415002-1				
PT271024				3 C/O contacts	AgNi 90/10 test button	AMP 2.8 connectors	DC coil	24 Vdc	5-1419111-3
PT271524							AC-coil	24 Vac	5-1419111-6
PT271615	115 Vac	4-1419135-0							
PT271730	230 Vac	5-1419111-8							
PT370024	4 C/O contacts	AgNi 90/10 test button	AMP 2.8 connectors				DC coil	24 Vdc	6-1419111-1
PT370524							AC-coil	24 Vac	6-1419111-6
PT370615							115 Vac	6-1419111-8	
PT370730							230 Vac	6-1419111-9	
PT370L24							DC coil+LED	24 Vdc	5-1415002-1
PT370R24							AC-coil+LED	24 Vac	7-1415002-1
PT370S15				115 Vac	9-1415039-1				
PT370T30				230 Vac	9-1415002-1				
PT371024				PCB terminals			DC coil	24 Vdc	7-1419111-1
PT371524							AC-coil	24 Vac	7-1419111-3
PT371615	115 Vac	0-1393154-8							
PT371730	230 Vac	7-1419111-5							
PT570024	AgNi 90/10 gold plated test button	AMP 2.8 connectors					DC coil	24 Vdc	1-1393154-2
PT570524							AC-coil	24 Vac	8-1419111-7
PT570615							115 Vac	9-1419111-0	
PT570730							230 Vac	9-1419111-1	
PT570L24							DC coil+LED	24 Vdc	6-1415001-1
PT570R24							AC-coil+LED	24 Vac	7-1415001-1
PT570S15				115 Vac	7-1415003-1				
PT570T30				230 Vac	8-1415001-1				
PT571024				PCB terminals			DC coil	24 Vdc	9-1419111-3
PT571524							AC-coil	24 Vac	9-1419111-6
PT571615	115 Vac	1-1393154-5							
PT571730	230 Vac	9-1419111-8							
PT580024							DC coil	24 Vdc	1-1393154-7
PT580524							AC-coil	24 Vac	2-1393154-1
PT580730							230 Vac	2-1393154-2	
PT580L24							DC coil+LED	24 Vdc	5-1415026-1
PT580R24							AC-coil+LED	24 Vac	6-1415026-1
PT580T30							230 Vac	7-1415026-1	
PT581024				PCB terminals			DC coil	24 Vdc	7-1419135-2
PT581730							AC-coil	230 Vac	2-1393154-3