

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

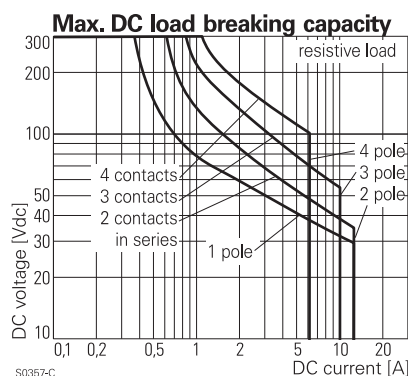
Applications

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		

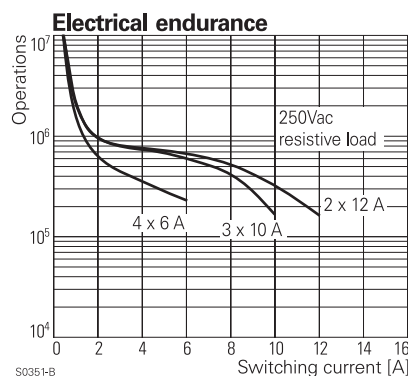


Contact ratings

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

Coil data

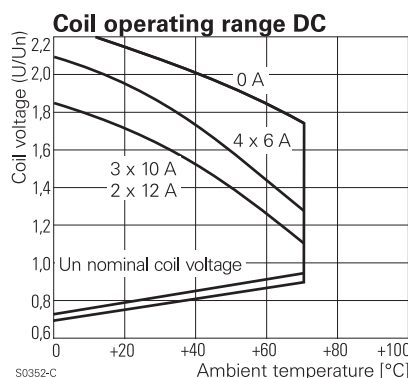
Nominal voltage	DC coil	6...220 Vdc
	AC coil	6...230 Vac
Nominal coil power	DC coil	typ. 0.75 W
	AC coil	typ. 1.0 VA
Operate category	2 / b	
Operating range for AC coil 60Hz at 70°C	90...110% U _{nom}	



Coil versions, DC-coil

Coil code		Nominal	Pull-in	Release	Coil	Coil
Standard	LED	voltage	voltage	voltage	resistance	current
	bipolar	Vdc	Vdc	Vdc	Ω	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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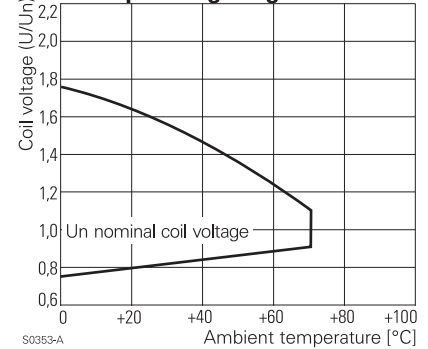
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Coil versions, AC-coil

Coil code	Standard	LED	Nominal voltage Vac	Pull-in voltage Vac	Release voltage Vac	Coil resistance Ω	Coil current 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

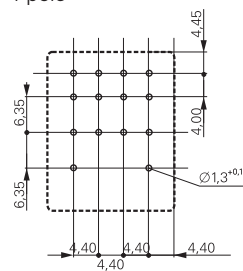
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PCB layout / terminal assignment

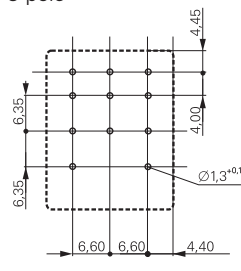
View on solder pins
Dimensions in mm

4-pole



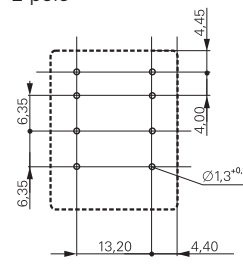
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3-pole

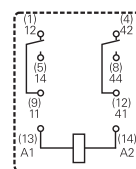


S0354-AB

2-pole



S0354-AC

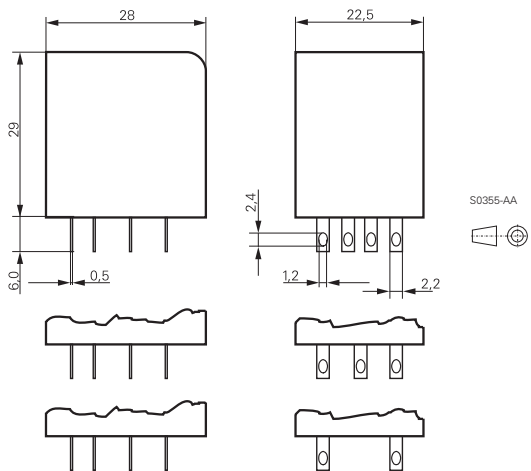


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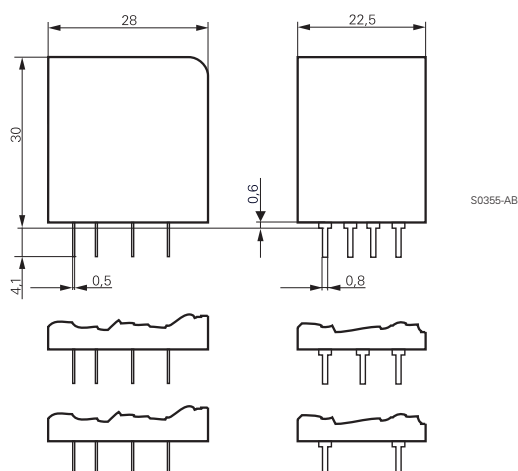
Dimensions

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.

P	T					

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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			PCB terminals	DC coil	24 Vdc	5-1419111-3
PT271524				AC-coil	24 Vac	5-1419111-6
PT271615	3 C/O contacts	AgNi 90/10 test button	AMP 2.8 connectors		115 Vac	4-1419135-0
PT271730					230 Vac	5-1419111-8
PT370024				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	4 C/O contacts	AgNi 90/10 test button	AMP 2.8 connectors	PCB terminals	DC coil	24 Vdc
PT371524					AC-coil	24 Vac
PT371615					115 Vac	0-1393154-8
PT371730					230 Vac	7-1419111-5
PT570024				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	4 C/O contacts	AgNi 90/10 test button	AMP 2.8 connectors		115 Vac	7-1415003-1
PT570T30					230 Vac	8-1415001-1
PT571024				PCB terminals	DC coil	24 Vdc
PT571524					AC-coil	24 Vac
PT571615					115 Vac	1-1393154-5
PT571730					230 Vac	9-1419111-8
PT580024		AgNi 90/10 gold plated test button	AMP 2.8 connectors	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