

This is a low-current, electromagnetic, polarized, bistable, hermetically sealed, two-position relay with two change-over contacts; designed to switch DC & AC electrical circuits with frequency to 10000Hz; manufactured according to GOST 16121-86 and ЯЛ0.452.080 ТУ.

Environmental ratings: temperate, cold and tropical (humid) climate.

Bonding versions: without angles - RPS 32A; with angles - RPS 32Б.



Ordering data: **Relay RPS 32 PC4.520.201-01 ЯЛ0.452.080 ТУ**

Technical Parameters

Type	Model	Rated Voltage, V	Coil Resistance I и II, Ohm	Operate Voltage, V	Operate Time not more than 5 ms when U, V	Contact Circuit Resistance when U(6±1)V, Ohm, not more than
1	2	3	4	5	6	7
RPS 32A	PC4.520.201	2,4 ^{+0,5} _{-0,2}	5±0,5	0,6-1,2	2,2	1,5 when I=(100±10)mA
	PC4.520.202	4 ^{+0,8} _{-0,4}	15±1,5	1-2,2	3,6	
	PC4.520.203	6 ^{+1,2} _{-0,6}	25±2,5	1,6-3,2	5,4	
	PC4.520.204	10 ⁺² ₋₁	75±11,25	2-5	9	
	PC4.520.205	12 ⁺² _{-1,2}	110±16,5	3,2-6,4	10,8	
	PC4.520.206	15 ⁺³ _{-1,5}	175±26,25	3,7-7,5	13,5	
	PC4.520.207	20 ⁺⁴ ₋₂	310±46,5	6-12	18	
	PC4.520.208	27 ⁺⁵ ₋₃	500±75	8-16	24	
	PC4.520.209	2,4 ^{+0,5} _{-0,2}	5±0,5	0,6-1,2	2,2	
	PC4.520.210	4 ^{+0,8} _{-0,4}	15±1,5	1-2,2	3,6	
	PC4.520.211	6 ^{+1,2} _{-0,6}	25±2,5	1,6-3,2	5,4	
	PC4.520.212	10 ⁺² ₋₁	75±11,25	2-5	9,0	
	PC4.520.213	12 ⁺² _{-1,2}	110±16,5	3,2-6,4	10,8	
	PC4.520.214	15 ⁺³ _{-1,5}	175±26,25	3,7-7,5	13,5	
	PC4.520.215	20 ⁺⁴ ₋₂	310±46,5	6-12	18	
	PC4.520.216	27 ⁺⁵ ₋₃	500±75	8-16	24	
	PC4.520.217	2,4 ^{+0,5} _{-0,2}	5±0,5	0,6-1,2	2,2	1 when I=(100±10)mA
	PC4.520.218	4 ^{+0,8} _{-0,4}	15±1,5	1-2,2	3,6	
		PC4.520.219	6 ^{+1,2} _{-0,6}	25±2,5	1,6-3,2	5,4
	PC4.520.220	10 ⁺² ₋₁	75±11,25	2-5	9	

1	2	3	4	5	6	7
RPS 32A	PC4.520.221	$12^{+2}_{-1,2}$	110±16,5	3,2 - 6,4	10,8	1 when I=(100±10)m A
	PC4.520.222	$15^{+3}_{-1,5}$	175±26,25	3,7 - 7,5	13,5	
	PC4.520.223	20^{+4}_{-2}	310±46,5	6 - 12	18	
	PC4.520.224	27^{+5}_{-3}	500 ±75	8 - 16	24	
RPS 32Б	PC4.520.201-01	$2,4^{+0,5}_{-0,2}$	5±0,5	0,6 - 1,2	2,2	1,5 when I= (100 ±10)mA
	PC4.520.202-01	$4^{+0,8}_{-0,4}$	15±1,5	1-2,2	3,6	
	PC4.520.203-01	$6^{+1,2}_{-0,6}$	25±2,5	1,6-3,2	5,4	
	PC4.520.204-01	10^{+2}_{-1}	75±11,25	2 - 5	9	
	PC4.520.205-01	$12^{+2}_{-1,2}$	110±16,5	3,2 - 6,4	10,8	
	PC4.520.206-01	$15^{+3}_{-1,5}$	175±26,25	3,7-7,5	13,5	
	PC4.520.207-01	20^{+4}_{-2}	310±46,5	6 - 12	18	
	PC4.520.208-01	27^{+5}_{-3}	500±75	8 - 16	24	
	PC4.520.209-01	$2,4^{+0,5}_{-0,2}$	5±0,5	0,6 - 1,2	2,2	0,25 when I=(10±1)mA
	PC4.520.210-01	$4^{+0,8}_{-0,4}$	15±1,5	1-2,2	3,6	
	PC4.520.211-01	$6^{+1,2}_{-0,6}$	25±2,5	1,6-3,2	5,4	
	PC4.520.212-01	10^{+2}_{-1}	75±11,25	2 - 5	9,0	
	PC4.520.213-01	$12^{+2}_{-1,2}$	110±16,5	3,2-6,4	10,8	
	PC4.520.214-01	$15^{+3}_{-1,5}$	175 ± 26,25	3,7-7,5	13,5	
	PC4.520.215-01	20^{+4}_{-2}	310±46,5	6 - 12	18	
	PC4.520.216-01	27^{+5}_{-3}	500±75	8 - 16	24	
	PC4.520.217-01	$2,4^{+0,5}_{-0,2}$	5±0,5	0,6 - 1,2	2,2	1 when I=(100±10)m A
	PC4.520.218-01	$4^{+0,8}_{-0,4}$	15±1,5	1-2,2	3,6	
	PC4.520.219-01	$6^{+1,2}_{-0,6}$	25±2,5	1,6-3,2	5,4	
	PC4.520.220-01	10^{+2}_{-1}	75±11,25	2 - 5	9	
	PC4.520.221-01	$12^{+2}_{-1,2}$	110±16,5	3,2 - 6,4	10,8	
	PC4.520.222-01	$15^{+3}_{-1,5}$	175±26,25	3,7 - 7,5	13,5	
	PC4.520.223-01	20^{+4}_{-2}	310±46,5	6 - 12	18	
	PC4.520.224-01	27^{+5}_{-3}	500 ±75	8 - 16	24	
RPS 32A-T	PC4.520.201-05	$2,4^{+0,5}_{-0,2}$	5±0,5	0,6 - 1,2	2,2	1,5 when I= (100 ±10)mA
	PC4.520.202-05	$4^{+0,8}_{-0,4}$	15±1,5	1-2,2	3,6	
	PC4.520.203-05	$6^{+1,2}_{-0,6}$	25±2,5	1,6-3,2	5,4	
	PC4.520.204-05	10^{+2}_{-1}	75±11,25	2 - 5	9	
	PC4.520.205-05	$12^{+2}_{-1,2}$	110±16,5	3,2 - 6,4	10,8	
	PC4.520.206-05	$15^{+3}_{-1,5}$	175±26,25	3,7-7,5	13,5	
	PC4.520.207-05	20^{+4}_{-2}	310±46,5	6 - 12	18	
	PC4.520.208-05	27^{+5}_{-3}	500±75	8 - 16	24	
	PC4.520.209-05	$2,4^{+0,5}_{-0,2}$	5±0,5	0,6 - 1,2	2,2	0,25 when I=(10±1)mA
	PC4.520.210-05	$4^{+0,8}_{-0,4}$	15±1,5	1-2,2	3,6	
PC4.520.211-05	$6^{+1,2}_{-0,6}$	25±2,5	1,6-3,2	5,4		

1	2	3	4	5	6	7	
RPS 32A-T	PC4.520.212-05	10^{+2}_{-1}	75±11,25	2 - 5	9,0	0,25 when I=(10±1)m A	
	PC4.520.213-05	$12^{+2}_{-1,2}$	110±16,5	3,2-6,4	10,8		
	PC4.520.214-05	$15^{+3}_{-1,5}$	175 ± 26,25	3,7-7,5	13,5		
	PC4.520.215-05	20^{+4}_{-2}	310±46,5	6 - 12	18		
	PC4.520.216-05	27^{+5}_{-3}	500±75	8 - 16	24		
	PC4.520.217-05	$2,4^{+0,5}_{-0,2}$	5±0,5	0,6 - 1,2	2,2		
	RPS 32B-T	PC4.520.218-05	$4^{+0,8}_{-0,4}$	15±1,5	1-2,2	3,6	1 when I=(100±10) mA
		PC4.520.219-05	$6^{+1,2}_{-0,6}$	25±2,5	1,6-3,2	5,4	
		PC4.520.220-05	10^{+2}_{-1}	75±11,25	2 - 5	9	
		PC4.520.221-05	$12^{+2}_{-1,2}$	110±16,5	3,2 - 6,4	10,8	
		PC4.520.222-05	$15^{+3}_{-1,5}$	175±26,25	3,7 - 7,5	13,5	
		PC4.520.223-05	20^{+4}_{-2}	310±46,5	6 - 12	18	
PC4.520.224-05		27^{+5}_{-3}	500 ±75	8 - 16	24		
RPS 32B-T		PC4.520.201-06	$2,4^{+0,5}_{-0,2}$	5±0,5	0,6 -1,2	2,2	
	PC4.520.202-06	$4^{+0,8}_{-0,4}$	15±1,5	1-2,2	3,6		
	PC4.520.203-06	$6^{+1,2}_{-0,6}$	25±2,5	1,6-3,2	5,4		
	PC4.520.204-06	10^{+2}_{-1}	75±11,25	2 - 5	9		
	PC4.520.205-06	$12^{+2}_{-1,2}$	110±16,5	3,2 - 6,4	10,8		
	PC4.520.206-06	$15^{+3}_{-1,5}$	175±26,25	3,7-7,5	13,5		
	PC4.520.207-06	20^{+4}_{-2}	310±46,5	6 - 12	18		
	PC4.520.208-06	27^{+5}_{-3}	500±75	8 - 16	24		
	PC4.520.209-06	$2,4^{+0,5}_{-0,2}$	5±0,5	0,6 - 1,2	2,2	0,25 when I=(10±1)m A	
	PC4.520.210-06	$4^{+0,8}_{-0,4}$	15±1,5	1-2,2	3,6		
	PC4.520.211-06	$6^{+1,2}_{-0,6}$	25±2,5	1,6-3,2	5,4		
	PC4.520.212-06	10^{+2}_{-1}	75±11,25	2 - 5	9,0		
	PC4.520.213-06	$12^{+2}_{-1,2}$	110±16,5	3,2-6,4	10,8		
	PC4.520.214-06	$15^{+3}_{-1,5}$	175 ± 26,25	3,7-7,5	13,5		
	PC4.520.215-06	20^{+4}_{-2}	310±46,5	6 - 12	18		
	PC4.520.216-06	27^{+5}_{-3}	500±75	8 - 16	24		
	PC4.520.217-06	$2,4^{+0,5}_{-0,2}$	5±0,5	0,6 - 1,2	2,2	1 when I=(100±10) mA	
	PC4.520.218-06	$4^{+0,8}_{-0,4}$	15±1,5	1-2,2	3,6		
	PC4.520.219-06	$6^{+1,2}_{-0,6}$	25±2,5	1,6-3,2	5,4		
	PC4.520.220-06	10^{+2}_{-1}	75±11,25	2 - 5	9		
	PC4.520.221-06	$12^{+2}_{-1,2}$	110±16,5	3,2 - 6,4	10,8		
	PC4.520.222-06	$15^{+3}_{-1,5}$	175±26,25	3,7 - 7,5	13,5		
	PC4.520.223-06	20^{+4}_{-2}	310±46,5	6 - 12	18		
	PC4.520.224-06	27^{+5}_{-3}	500 ±75	8 - 16	24		

Technical Specifications

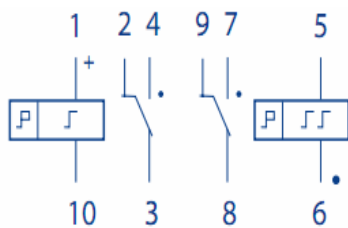
Operate Time, ms, not more than	5
Insulation Resistance between Current Carrying Elements and between Current Carrying Elements and Package, mOhm :	
at normal climatic conditions	200
in conditions of high humidity	10
at maximal temperature	20
after attack of static dust, mold fungi, salt fog (only for RPS 32A-T and RPS32B-T)	5
Test Voltage (effective value) between Current Carrying Elements, between Current Carrying Elements and Package, V	
at normal climatic conditions	500
in conditions of high humidity	300
at low air pressure	180
after attack of static dust, mold & fungi, salt fog (only for RPS 32A-T and RPS32B-T)	150
Weight, g, not more than:	
RPS 32A	19,5
RPS 32B	20

Switching Modes

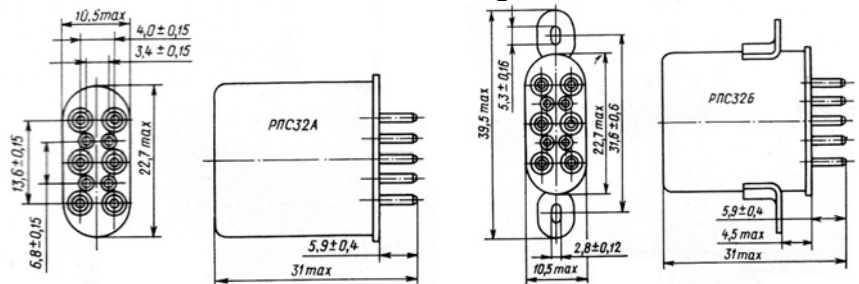
Switching Range		Type of Load	Current type	Switching Frequency, Hz, not more than	Number of Switching Cycles		
I, A	U, V				Σ	t=100oC	
PC4.520.201 – PC4.520.208							
0,2-0,5	6-34	active	const	5	10^6	$0,5 \cdot 10^6$	
0,5-2	6-34			5	10^5	$0,5 \cdot 10^5$	
2-3	6-34			5	10^4	$0,5 \cdot 10^4$	
$5 \cdot 10^{-3}$ -0,01	100-220			5	10^6	$0,5 \cdot 10^5$	
0,1-1	12-127			Var 50- 10^4	5	10^4	$0,5 \cdot 10^4$
0,1-0,5	12-220				5	10^4	$0,5 \cdot 10^4$
0,04-0,15	6-34	inductive t < 15 ms	const	5	$2,5 \cdot 10^5$	$1,25 \cdot 10^5$	
0,15-1	6-34			1	$2,5 \cdot 10^4$	$1,25 \cdot 10^4$	
0,1-0,25	12-220	inductive Cosφ > 0,3	Var 50- 10^4	1	$0,5 \cdot 10^4$	$0,25 \cdot 10^4$	
0,15-1	6-36	inductive t < 5 ms	const	1	10^5	$0,5 \cdot 10^5$	
PC4.520.209 – PC4.520.216							
$5 \cdot 10^{-6}$ -0,01	0,05-10	active	Const&var 50-Hz 10^4 Hz	5	10^6	$0,5 \cdot 10^6$	
0,001-0,01	3-34			const	5	10^6	$0,5 \cdot 10^6$
0,01-0,1	5-115			Var50- 10^4 Hz	5	10^5	$0,5 \cdot 10^5$
0,001-0,01	10-34			const	5	10^5	$0,5 \cdot 10^5$
0,005-0,06	3-34	inductive t < 15 ms	3		$0,5 \cdot 10^5$	$0,25 \cdot 10^5$	
0,06-0,15	10-34		1		$0,6 \cdot 10^4$	$0,3 \cdot 10^4$	
0,01-0,05	5-115	inductive Cosφ > 0,3	Var 50- 10^4 Hz	1	$0,4 \cdot 10^4$	$0,2 \cdot 10^4$	

1	2	3	4	5	6	7
0,005-0,06	3-34	inductive $t < 5$ ms	const	5	$0,5 \cdot 10^5$	$0,5 \cdot 10^5$
PC4.520.217 – PC4.520.224						
0,08-0,25	6-34	active	const	5	10^6	$0,5 \cdot 10^6$
0,25-2	6-34			5	10^5	$0,5 \cdot 10^6$
2-3	6-34			5	10^4	$0,5 \cdot 10^5$
$5 \cdot 10^{-3}$ -0,01	100-220			5	10^6	$0,5 \cdot 10^5$
0,1-1	12-127			5	10^4	$0,25 \cdot 10^5$
0,1-0,5	12-220			5	10^4	$0,3 \cdot 10^4$
0,04-0,15	6-34	inductive $t < 15$ ms	const	5	$2,5 \cdot 10^5$	$0,2 \cdot 10^4$
0,15-1	6-34			1	$2,5 \cdot 10^4$	$0,5 \cdot 10^5$
0,1-0,25	12-220	inductive $\text{Cos}\varphi > 0,3$	Var $50 \cdot 10^4$ Hz	1	$0,5 \cdot 10^4$	$0,5 \cdot 10^5$
0,15-1	6-36	inductive $t < 5$ ms	const	1	10^5	$0,5 \cdot 10^5$
0,2-0,5	6-34	active		5	$2 \cdot 10^6$	$0,5 \cdot 10^5$

Schematic Circuit Diagram



External – and Mounting Dimensions



Operating Conditions

Ambient Temperature, °C	from minus 60 to plus 100
Air Pressure, kPa, (mm of Mercury)	$1,3 \cdot 10^{-9} \dots 3,06 \cdot 10^2$ ($10^{-8} \dots 2,3 \cdot 10^2$)
Relative Humidity at 35 °C, %	to 98
Vibration Loads: from 5 to 50Hz over 50 to 1500Hz over 1500 to 3000Hz	with amplitude of 1,5mm with acceleration to 196 m/sec^2 (20g) with acceleration to 147 m/sec^2 (15g)
Shock Loads: single shocks multiple shocks	9 shocks with acceleration of 1470 m/sec^2 4000 shocks with acceleration to 980 m/sec^2 or 10000 with acceleration to 343 m/sec^2
Shock Resistance	with acceleration to 980 m/sec^2 (100g)
Linear Loads	to 980 m/sec^2 (100g)