



OptiRel G RP55 General-purpose relays



RP55 general-purpose relays offer the widest range of versions of all OptiRel G series and can be used for a variety of applications and automation systems, as well as can provide reliable galvanic isolation of electrical circuits.

The series range is represented by RP55 electromechanical relays, which are available in three versions, depending on the type of contact material — AgNi for general industrial applications; AgNi+Au for switching ultra-low currents and AgSnO₂ for inductive loads and loads with inrush currents.

For ease of operation and commissioning, the RP55 series relay range includes versions that have a built-in test button for manual contact closure to speed up and simplify commissioning, a mechanical indicator to show contact status, a LED to indicate operating mode, and a built-in bypass diode for protection against switching overvoltages.

RR95 receptacles for this series are available with screw terminals, spade lug terminals, spring terminals and plug-in terminals, as well as in PCB mount versions, which will allow to implement the exact solution according to the customer's needs. Additional plug-in modules can be installed to extend the relay functionality.

► Selection guide

Device type	RP55 general-purpose relays	RR94 receptacles for RP55 relays
Appearance		
Number of contacts	2 CO; 3 CO; 4 CO	–
Rated current of the main circuit at the rated voltage, A	7; 10; 12 A	6; 7; 10; 12 A
Rated voltage of the main circuit	250 V AC 30 V DC	250 V
Maximum switched voltage ¹⁾	250 V AC 30 V DC	250 V
Material of contacts	AgNi; AgNi + Au; AgSnO ₂	–
Rated voltage of the control circuit	6; 12; 24; 48; 110; 220 V DC 12; 24; 48; 110; 230 V AC	6-230 V AC/DC
Note:	¹⁾ The curves of dependence of the switching current on the voltage level and current type are given in the operating manual.	

OptiRel G RP55 General-purpose relays


► Designation

OptiRel G RP 55 - 3 3 - 12 D - 10 - CO - / T I L D

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①	Product range name	OptiRel G
②	Product type name	RP — Interposing relay
③	Series	55
④	Configuration	1 — electromechanical, PCB mount; 3 — electromechanical, receptacle mount
⑤	Number of groups of main circuit contacts	2; 3; 4
⑥	Rated supply voltage, V	6; 12; 24; 36; 48; 60; 110; 115; 120; 125; 220; 230; 240
⑦	Type of power supply circuit current	D — direct current (DC) (empty) — alternating current AC
⑧	Rated current of the main circuit, A	6; 10; 12
⑨	Type of main contacts	CO — changeover contact
⑩	Material of contacts	(empty) — AgNi; S — AgSnO ₂ ; G — AgNi + Au
⑪	Test button	T — available; (empty) — not available
⑫	Mechanical indicator	I — available; (empty) — not available
⑬	LED	L — available; (empty) — not available
⑭	Bypass diode	D — available; (empty) — not available

► Items

Appearance	Configuration of contacts	Control coil rated voltage	Material of contacts	Test button	Mechanical indicator	LED	Bypass diode	Product name	Code	
	2 CO	12 V DC	AgNi	-	-	-	-	OptiRel G RP55-32-12D-12-CO	281072	
		24 V AC	AgNi	-	-	-	-	OptiRel G RP55-32-24-12-CO	281063	
		24 V AC	AgNi	-	-	+	-	OptiRel G RP55-32-24-12-CO/L	281064	
		24 V DC	AgNi	-	-	-	-	OptiRel G RP55-32-24D-12-CO	281073	
		24 V DC	AgNi	-	-	+	+	OptiRel G RP55-32-24D-12-CO/LD	281074	
		24 V DC	AgNi	+	+	-	-	OptiRel G RP55-32-24D-12-CO/TI	329977	
		24 V DC	AgNi	+	+	+	-	OptiRel G RP55-32-24D-12-CO/TIL	329978	
		24 V DC	AgNi+Au	+	+	-	-	OptiRel G RP55-32-24D-12-CO-G/TI	281075	
		48 V AC	AgNi	+	+	-	-	OptiRel G RP55-32-48-12-CO/TI	281065	
		48 V DC	AgNi	+	+	-	-	OptiRel G RP55-32-48D-12-CO/TI	281076	
		60 V DC	AgNi	+	+	-	-	OptiRel G RP55-32-60D-12-CO/TI	281077	
		110 V AC	AgNi	-	-	-	-	OptiRel G RP55-32-110-12-CO	281066	
		110 V AC	AgNi	+	+	+	-	OptiRel G RP55-32-110-12-CO/TIL	281067	
		110 V DC	AgNi	-	-	-	-	OptiRel G RP55-32-110D-12-CO	281078	
		120 V AC	AgNi	+	+	-	-	OptiRel G RP55-32-120-12-CO/TI	281068	
		125 V AC	AgNi	-	-	+	-	OptiRel G RP55-32-125-12-CO	348368	
		125 V AC	AgNi	+	+	+	-	OptiRel G RP55-32-125-12-CO/TIL	348369	
		125 V DC	AgNi	-	-	-	-	OptiRel G RP55-32-125D-12-CO	348366	
		125 V DC	AgNi	+	+	+	-	OptiRel G RP55-32-125D-12-CO/TIL	348367	
		220 V DC	AgNi	-	-	-	-	OptiRel G RP55-32-220D-12-CO	281079	
		230 V AC	AgNi	+	+	-	-	OptiRel G RP55-32-230-12-CO/TI	329976	
		220-240 V AC	AgNi	-	-	-	-	OptiRel G RP55-32-240-12-CO	281089	
	220-240 V AC	AgNi	-	-	+	-	OptiRel G RP55-32-240-12-CO/L	281070		
	220-240 V AC	AgNi	+	+	-	-	OptiRel G RP55-32-240-12-CO/TI	324480		
	220-240 V AC	AgNi	+	+	+	-	OptiRel G RP55-32-240-12-CO/TIL	324479		
	220-240 V AC	AgNi+Au	+	+	-	-	OptiRel G RP55-32-240-12-CO-G/TI	281071		
	3 CO	3 CO	12 V AC	AgNi	-	-	+	-	OptiRel G RP55-33-12-10-CO/L	281082
			12 V AC	AgNi	+	+	-	-	OptiRel G RP55-33-12-10-CO/TI	281080
			12 V AC	AgNi+Au	-	-	-	-	OptiRel G RP55-33-12-10-CO-G	281083
			12 V DC	AgNi	-	-	-	-	OptiRel G RP55-33-12D-10-CO	281089
			12 V DC	AgNi	+	+	+	+	OptiRel G RP55-33-12D-10-CO/TILD	281090
			24 V AC	AgNi	-	-	-	-	OptiRel G RP55-33-24-10-CO	281081
24 V AC			AgNi	+	+	-	-	OptiRel G RP55-33-24-10-CO/TI	329983	
24 V AC			AgNi	+	+	+	-	OptiRel G RP55-33-24-10-CO/TIL	330056	
24 V DC			AgNi	-	-	-	-	OptiRel G RP55-33-24D-10-CO	281091	
24 V DC			AgNi	-	-	+	+	OptiRel G RP55-33-24D-10-CO/LD	281092	
24 V DC	AgNi	+	+	-	-	OptiRel G RP55-33-24D-10-CO/TI	330057			

Appearance	Configuration of contacts	Control coil rated voltage	Material of contacts	Test button	Mechanical indicator	LED	Bypass diode	Product name	Code
3 CO	24 V DC	AgNi	+	+	+	-	OptiRel C RP55-33-24D-10-CO/TIL	330058	
	24 V DC	AgSnO ₂	-	-	-	-	OptiRel C RP55-33-24D-10-CO-S	282951	
	24 V DC	AgSnO ₂	-	-	+	+	OptiRel C RP55-33-24D-10-CO-S/LD	282952	
	48 V AC	AgNi	-	-	-	-	OptiRel C RP55-33-48-10-CO	281084	
	48 V AC	AgNi	+	+	+	-	OptiRel C RP55-33-48-10-CO/TIL	330059	
	48 V DC	AgNi	-	-	-	-	OptiRel C RP55-33-48D-10-CO	281095	
	48 V DC	AgNi	+	+	-	-	OptiRel C RP55-33-48D-10-CO/TI	330061	
	48 V DC	AgNi	+	+	+	-	OptiRel C RP55-33-48D-10-CO/TIL	330063	
	110 V AC	AgNi	-	-	-	-	OptiRel C RP55-33-110-10-CO	281085	
	110 V DC	AgNi	-	-	-	-	OptiRel C RP55-33-110D-10-CO	281096	
	110 V DC	AgNi	-	-	+	+	OptiRel C RP55-33-110D-10-CO/LD	281097	
	120 V AC	AgNi	+	+	-	-	OptiRel C RP55-33-120-10-CO/TI	281086	
	120 V AC	AgNi	+	+	+	-	OptiRel C RP55-33-120-10-CO/TIL	329979	
	125 V AC	AgNi	-	-	-	-	OptiRel C RP55-33-125-10-CO	348372	
	125 V AC	AgNi	+	+	+	-	OptiRel C RP55-33-125-10-CO/TIL	348373	
	125 V DC	AgNi	-	-	-	-	OptiRel C RP55-33-125D-10-CO	348370	
	125 V DC	AgNi	+	+	-	-	OptiRel C RP55-33-125D-10-CO/TI	348381	
	125 V DC	AgNi	+	+	+	-	OptiRel C RP55-33-125D-10-CO/TIL	348371	
	220 V DC	AgNi	-	-	-	-	OptiRel C RP55-33-220D-10-CO	281098	
	230 V AC	AgNi	+	+	-	-	OptiRel C RP55-33-230-10-CO/TI	329980	
	220-240 V AC	AgNi	-	-	-	-	OptiRel C RP55-33-240-10-CO	281087	
	220-240 V AC	AgNi	-	-	+	-	OptiRel C RP55-33-240-10-CO/L	281088	
	220-240 V AC	AgNi	+	+	+	-	OptiRel C RP55-33-240-10-CO/TIL	329982	
	6 V DC	AgNi	+	+	+	+	OptiRel C RP55-34-6D-6-CO/TILD	281122	
	12 V AC	AgNi	+	+	-	-	OptiRel C RP55-34-12-6-CO/TI	281099	
	12 V DC	AgNi	-	-	-	-	OptiRel C RP55-34-12D-6-CO	281123	
	12 V DC	AgNi	+	+	-	-	OptiRel C RP55-34-12D-6-CO/TI	330070	
	12 V DC	AgNi	+	+	+	-	OptiRel C RP55-34-12D-6-CO/TIL	330071	
	12 V DC	AgNi	+	+	+	+	OptiRel C RP55-34-12D-6-CO/TILD	281124	
	24 V AC	AgNi	-	-	-	-	OptiRel C RP55-34-24-6-CO	281100	
	24 V AC	AgNi	-	+	-	-	OptiRel C RP55-34-24-6-CO/I	281101	
	24 V AC	AgNi	-	-	+	-	OptiRel C RP55-34-24-6-CO/L	330081	
	24 V AC	AgNi	+	+	-	-	OptiRel C RP55-34-24-6-CO/TI	330082	
24 V AC	AgNi	+	+	+	-	OptiRel C RP55-34-24-6-CO/TIL	281102		
24 V AC	AgNi+Au	+	+	-	-	OptiRel C RP55-34-24-6-CO-G/TI	281103		
24 V AC	AgNi+Au	+	+	+	-	OptiRel C RP55-34-24-6-CO-G/TIL	281104		
24 V DC	AgNi	-	-	-	-	OptiRel C RP55-34-24D-6-CO	281125		
24 V DC	AgNi	-	-	+	+	OptiRel C RP55-34-24D-6-CO/LD	281126		
24 V DC	AgNi	+	+	-	-	OptiRel C RP55-34-24D-6-CO/TI	324484		
24 V DC	AgNi	+	+	+	-	OptiRel C RP55-34-24D-6-CO/TIL	324483		
24 V DC	AgNi+Au	-	-	+	+	OptiRel C RP55-34-24D-6-CO-C/LD	281128		
24 V DC	AgSnO ₂	+	+	-	-	OptiRel C RP55-34-24D-6-CO-S/TI	282953		
36 V AC	AgNi	-	-	-	-	OptiRel C RP55-34-36-6-CO	281105		
36 V AC	AgNi	+	+	+	-	OptiRel C RP55-34-36-6-CO/TIL	281106		
48 V AC	AgNi	+	+	-	-	OptiRel C RP55-34-48-6-CO/TI	281107		
48 V AC	AgNi	+	+	+	-	OptiRel C RP55-34-48-6-CO/TIL	281108		
48 V DC	AgNi	-	-	-	-	OptiRel C RP55-34-48D-6-CO	281129		
48 V DC	AgNi	+	+	-	-	OptiRel C RP55-34-48D-6-CO/TI	330083		
48 V DC	AgNi	+	+	+	-	OptiRel C RP55-34-48D-6-CO/TIL	330084		
48 V DC	AgSnO ₂	+	+	-	-	OptiRel C RP55-34-48D-6-CO-S/TI	282954		
60 V AC	AgNi	+	+	-	-	OptiRel C RP55-34-60-6-CO/TI	281109		
60 V DC	AgNi	+	+	-	-	OptiRel C RP55-34-60D-6-CO/TI	281131		
60 V DC	AgNi	+	+	+	+	OptiRel C RP55-34-60D-6-CO/TILD	281132		
110 V AC	AgNi	+	+	-	-	OptiRel C RP55-34-110-6-CO/TI	281110		
110 V AC	AgNi	+	+	+	-	OptiRel C RP55-34-110-6-CO/TIL	281111		
110 V DC	AgNi	-	-	-	-	OptiRel C RP55-34-110D-6-CO	281133		
110 V DC	AgNi	-	+	-	-	OptiRel C RP55-34-110D-6-CO/I	281134		
110 V DC	AgNi	+	+	-	-	OptiRel C RP55-34-110D-6-CO/TI	330065		
110 V DC	AgNi	+	+	+	-	OptiRel C RP55-34-110D-6-CO/TIL	330067		
110 V DC	AgNi	+	+	+	+	OptiRel C RP55-34-110D-6-CO/TILD	281135		
110 V DC	AgNi+Au	+	+	+	+	OptiRel C RP55-34-110D-6-CO-G/TILD	281137		
110 V DC	AgSnO ₂	+	+	-	-	OptiRel C RP55-34-110D-6-CO-S/TI	282955		
120 V AC	AgNi	+	+	-	-	OptiRel C RP55-34-120-6-CO/TI	281112		
120 V AC	AgNi	+	+	+	-	OptiRel C RP55-34-120-6-CO/TIL	281113		
120 V AC	AgSnO ₂	+	+	+	-	OptiRel C RP55-34-120-6-CO-S/TIL	281114		
125 V AC	AgNi	-	-	-	-	OptiRel C RP55-34-125-6-CO	348375		
125 V AC	AgNi	+	+	+	-	OptiRel C RP55-34-125-6-CO/TIL	348376		
125 V DC	AgNi	-	-	-	-	OptiRel C RP55-34-125D-6-CO	348374		
125 V DC	AgNi	+	+	+	-	OptiRel C RP55-34-125D-6-CO/TIL	330068		
220 V DC	AgNi	-	-	-	-	OptiRel C RP55-34-220D-6-CO	281138		
220 V DC	AgNi	-	+	-	-	OptiRel C RP55-34-220D-6-CO/I	281139		
220 V DC	AgNi	+	+	-	-	OptiRel C RP55-34-220D-6-CO/TI	330072		
220-240 V AC	AgNi	-	-	-	-	OptiRel C RP55-34-240-6-CO	281115		
220-240 V AC	AgNi	-	+	-	-	OptiRel C RP55-34-240-6-CO/I	281116		
220-240 V AC	AgNi	+	+	-	-	OptiRel C RP55-34-240-6-CO/TI	324482		
220-240 V AC	AgNi	+	+	+	-	OptiRel C RP55-34-240-6-CO/TIL	281117		
220-240 V AC	AgNi+Au	-	-	-	-	OptiRel C RP55-34-240-6-CO-G	281120		
220-240 V AC	AgNi+Au	-	-	+	-	OptiRel C RP55-34-240-6-CO-G/L	281121		
220-240 V AC	AgSnO ₂	+	+	-	-	OptiRel C RP55-34-240-6-CO-S/TI	281118		
220-240 V AC	AgSnO ₂	+	+	+	-	OptiRel C RP55-34-240-6-CO-S/TIL	281119		
12 V DC	AgNi	-	-	-	-	OptiRel C RP55-14-12D-6-CO ³⁾	281059		
24 V DC	AgNi	-	-	-	-	OptiRel C RP55-14-24D-6-CO ³⁾	281060		
24 V DC	AgSnO ₂	-	-	-	-	OptiRel C RP55-14-24D-6-CO-S ³⁾	282950		
110 V DC	AgNi	-	-	-	-	OptiRel C RP55-14-110D-6-CO ³⁾	281062		
220-240 V AC	AgNi	-	-	-	-	OptiRel C RP55-14-240-6-CO ³⁾	281058		

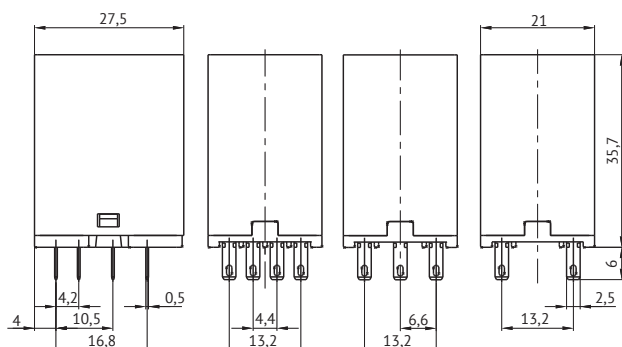
³⁾ Models for PCB mounting by soldering. Receptacle not required.

► Technical specification

Parameter		Values		
Contact specifications				
Number of contacts		2 CO	3 CO	4 CO
Rated current of the main circuit at the rated voltage, A:		12	10	6
Main circuit rated voltage, V	- for AC 50 Hz	250		
	- for DC	30		
Maximum switched voltage, B	- for AC 50 Hz	250 ¹⁾		
	- for DC	30 ¹⁾		
Maximum switching power, V·A/W		3000/360	2500/300	1500/180
Material of contacts		AgNi, AgSnO ₂ , AgNi+Au		
Trip type		Micro-trip		
Standard contacts		5 B DC/ 100 mA		
Cold-plated contacts		5 B DC/ 10 mA		
Coil characteristics				
Rated power, MW/B·A		0,8-1,1/0,9-1,5		
Operating voltage range		0,8-1,1 U _H		
AC/DC dropout voltage		0,3 U _H /0,1 U _H		
Technical parameters				
Mechanical durability, cycles		2x10 ⁷		
Electrical durability at rated load at a frequency of 600 switches per hour and 50% work factor		1x10 ⁵		
Relay life time, min, cycles		2x10 ⁷		
Closing/opening time, ms, maximum	- for DC control coil	20/15		
	- for AC control coil	20/25		
Electrical strength of insulation between main and control circuit contacts, kV		1,5		
Electrical strength of insulation between open contacts of the main circuits, kV		1		
Rated value of 1.2/50 μs withstand pulse voltage between main and control circuit contacts, kV	- for 2 CO, 3 CO contact group	4		
	- for 4 CO contact group	2,5		
Rated value of 1.2/50 μs withstand pulse voltage between open contacts of the main circuit, kV		1,5		
Rated value of 1.2/50 μs withstand pulse voltage between contact groups of the main circuit, kV	- for 2 CO, 3 CO contact group	4		
	- for 4 CO contact group	2,5		
Rated insulation voltage, V		250		
Degree of protection from environmental influences		RTI		
Protection class as per COST 14254	- on the shell side	IP51		
	- on the pins side	IP00		
Operating conditions				
Operating temperature range, °C		-40 to +85		
Installation height above sea level without reduction of electrical parameters, max, m		2000		
Relative humidity, %		5 to 85		
Operating position in space		Arbitrary		
Note:				
¹⁾ The curves of dependence of the switching current on the voltage level and current type are given in the operating manual.				

► Overall dimensions (mm)

OptiRel G RP55-3.. relay for mounting in RR94 receptacles



OptiRel G RP55-1.. relay for PCB mounting by soldering

