

Type	C9-A4x/ ... V Standard relays 4 change-over contacts			
Maximum contact load	5 A/250 V AC 1	5 A/30 V DC1		
Recommended minimum contact load	10 mA/10 V Code 1			
	5 mA/5 V Code 2			

Contacts				
Material	Standard	Code 1	AgNi + 0,2 μ Au	
	Optional	Code 2	AgNi + 10 μ Au	
Rated current	5 A			
Switch-on current max. (20 ms)	15 A			
Switching voltage max (same polarity)	250 V			
AC load (Fig 1)	1,250 kVA			
DC load	see Fig. 2			

Coil				
Coil resistance	see table; tolerance ± 10 %			
Pick-up voltage	≤ 0,8 × U _N			
Release voltage	≥ 0,1 × U _N			
Nominal power	1,2 VA (AC)/1 W (DC)			

Coil table					
VAC	Ω	mA	VDC	Ω	mA
24	174	50	12	148	81
48	686	25	24	594	40
115	4K3	10,4	48	2K3	21
230	18K6	5,2	110	11K4	11

Insulation		Volt rms, 1 min
Contact open		1000 V
Contact/contact		2 kV
Contact/coil		2,5 kV
Insulation resistance at 500 V		≥ 1 GΩ
Insulation, IEC 61810-1		2,5 kV/3

Specifications	
Ambient temperature operation/storage	-40 (no ice)...60 °C / -40 ... 80 °C
Pick-up time/bounce time	10 ms/≤ 3 ms
Release time/bounce time	6 ms/≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥ 100000 switching cycles
Switching frequency at rated load	≤ 1200/h
Protection class	IP40
Weight	43 g

Standard types		
VAC 50 Hz/60 Hz: 24, 48, 115, 230 (240) LED	C9-A41/AC ... V C9-A41X/AC ... V	C9-A42/AC ... V C9-A42X/AC ... V
VDC 12, 24, 48, 110 LED	C9-A41/DC ... V C9-A41X/DC ... V	C9-A42/DC ... V C9-A42X/DC ... V
Free wheeling diode	C9-A41DX/DC ... V	C9-A42DX/DC ... V
Polarity and free wheeling diode	C9-A41FX/DC ... V	C9-A42FX/DC ... V
AC/DC bridge rectifier 24 V, 48 V, 60 V	C9-A41BX/UC ... V	C9-A42BX/UC ... V

"..." Enter the voltage for full type designation

Accessories	
Socket:	S9-M, S9-L, S9-P, S9-P0
Optional accessories (blanking plug):	S9-NP, S9-OP



Connection diagram

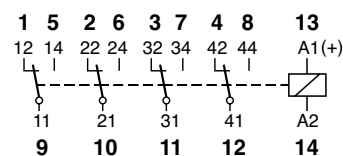


Fig. 1 AC voltage endurance

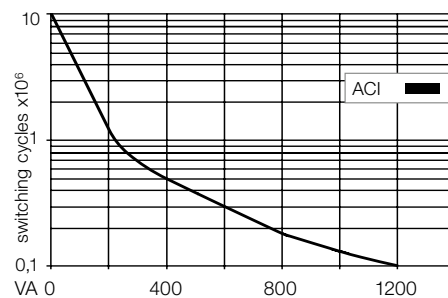
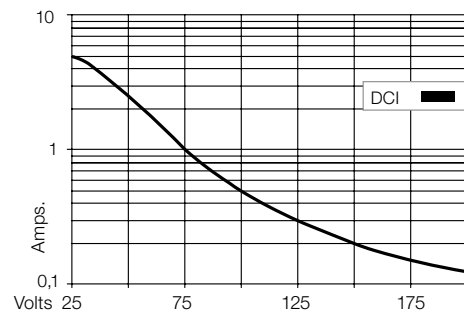
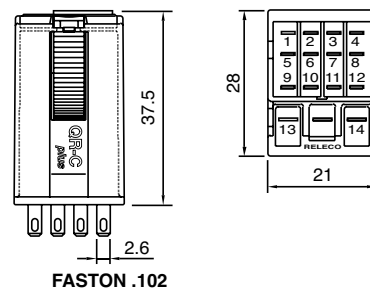


Fig. 2 DC load limit curve



Dimensions [mm]



Technical approvals, conformities



IEC 61810; EN 60947

C9-E2x

8-pin, miniature relay, 2-pole, plug-in, faston

Type	C9-E2x/ ... V Sensitive relay, 500 mW 2 change-over contacts		
DC operating range	0,8 ... 1,7 x U _N		
Maximum contact load	5 A/250 V AC1	5 A/30 V	DC1
Recommended minimum contact load	10 mA/10 V Code 1	5 mA/5 V Code 2	

Contacts			
Material	Standard	Code 1	AgNi + 0,2 μ Au
	Optional,	Code 2	AgNi + 10 μ Au
Rated current	5 A		
Switch-on current max. (20 ms)	15 A		
Switching voltage max.	250 V		
AC load (Fig 1)	1200 VA		
DC load	see fig. 2		

Coil	
Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0,8 x U _N
Release voltage	≥ 0,1 x U _N
Nominal power	0,8 VA (AC)/0,5 W (DC)

Coil table					
VAC	Ω	mA	VDC	Ω	mA
24	238	33	12	288	42
48	1K	17	24	1K1	21
115	5K9	7	48	4K6	10
230	23K9	3,5	110	24K2	4,5

Insulation	Volt rms, 1 min
Contact open	1000 V
Contact/contact	2,5 kV
Contact/coil	2,5 kV
Insulation resistance at 500 V	≥ 1 GΩ
Insulation, IEC 61810-1	2,5 kV/3

Specifications	
Ambient temperature operation/storage	-40 (no ice)...60 °C / -40 ... 80 °C
Pick-up time/bounce time	10 ms/≤ 3 ms
Release time/bounce time	6 ms/≤ 1 ms
Mechanical life	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥ 100000 switching cycles
Switching frequency at rated load	≤ 1200/h
Protection class	IP40
Weight	40 g

Standard types		
VAC 50 Hz/60 Hz: 24, 48, 115, 230 (240) LED	C9-E21/AC ... V C9-E21X/AC ... V	C9-E22/AC ... V C9-E22X/AC ... V
VDC 12, 24, 48, 110, 220 LED	C9-E21/DC ... V C9-E21X/DC ... V	C9-E22/DC ... V C9-E22X/DC ... V
Free wheeling diode	C9-E21DX/DC ... V	C9-E22DX/DC ... V
Polarity and free wheeling diode	C9-E21FX/DC ... V	C9-E22FX/DC ... V
AC/DC bridge rectifier 24 V, 48 V, 60 V	C9-E21BX/UC ... V	C9-E22BX/UC ... V

"..." Enter the voltage for full type designation

Accessories	
Socket:	S9-M, S9-L, S9-P, S9-P0
Optional accessories (blanking plug):	S9-NP, S9-OP



Connection diagram

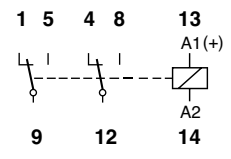


Fig. 1 AC voltage endurance

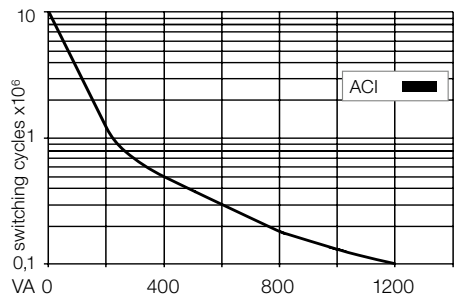
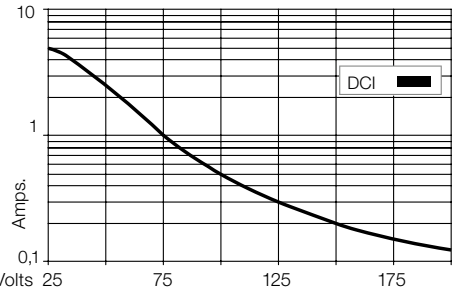
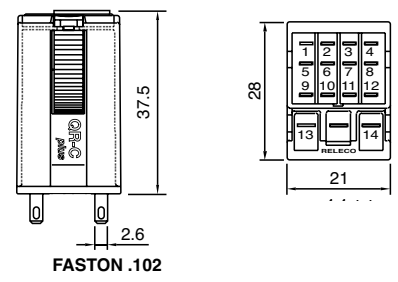


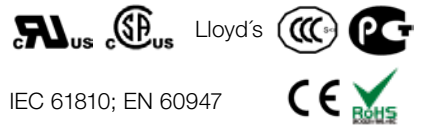
Fig. 2 DC load limit curve



Dimensions [mm]



Technical approvals, conformities



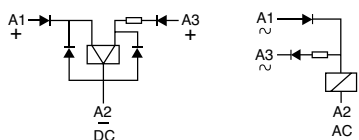
Type	C9-R2x/ ... V Magnetic latching relay 2 change-over contacts
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Maximum contact load	5 A/120V AC1 5 A/30 V DC1
Recommended minimum contact load	10 mA/10 V

Contacts			
Material	Standard	Code 1	AgNi + 0,2 μ Au
Rated current			5 A
Switch-on current max. (20 ms)			15 A
Switching voltage max.			120V
AC load			600 VA
DC load			see Fig. 2

Coil	
Coil resistance	see table; tolerance ± 10 %
ON pulse power	1,2 VA/W
OFF pulse power	0,3 VA/W
1 winding for AC, 2 winding for DC	

Internal Diagram:



Coil table

VAC	mA ON	mA OFF	VDC	mA ON	mA OFF
24	50	8	12	100	25
48	25	4	24	50	12
115	10	2	48	25	6
230	5	1	60	20	5

Insulation	Volt rms, 1 min
Contact open	1000 V
Contact/contact	2 kV
Contact/coil	2 kV
Insulation resistance at 500 V	≥1 GΩ
Insulation, IEC 61810-1	2,5 kV/2

Specifications	
Ambient temperature operation/storage	-40 (no ice)...60 °C / -40 ... 80 °C
Minimum pulse ON/OFF	50 ms
Mechanical life	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥100000 switching cycles
Switching frequency at rated load	≤ 1200/h
Protection class	IP40
Weight	43 g

Standard types	C9-R21/AC ... V
AC 50 Hz/60 Hz: 24, 48, 115, (120), 230	C9-R21/DC ... V
DC 12, 24, 48, 60	

"..." Enter the voltage for full type designation

Accessories	
Socket:	S9-M, S9-L, S9-P, S9-P0
Optional accessories (blanking plug):	S9-NP, S9-OP



Connection diagram

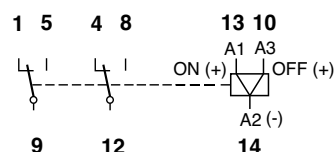


Fig. 1 AC voltage endurance

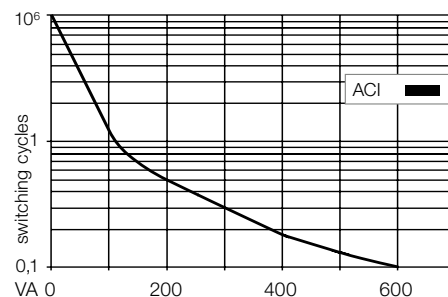
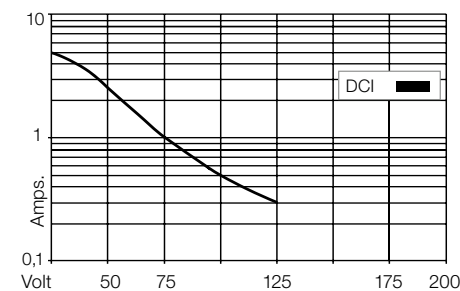
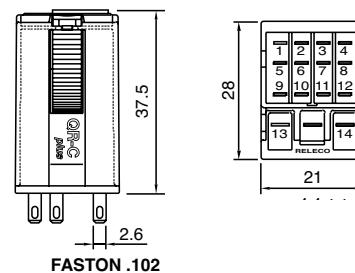


Fig. 2 DC load limit curve



Dimensions [mm]



Technical approvals, conformities

