



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

**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 <sub>N</sub>
Release voltage	≥ 0,1 × U <sub>N</sub>
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**  
**Polarity and free wheeling diode**

**C9-A41DX/DC ... V**  
**C9-A41FX/DC ... V**

**C9-A42DX/DC ... V**  
**C9-A42FX/DC ... V**

**AC/DC bridge rectifier 24 V, 48 V, 60 V**

**C9-A41BX/UC ... V**

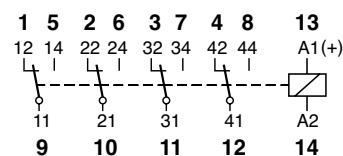
**C9-A42BX/UC ... V**

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

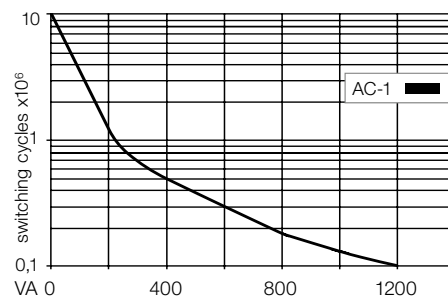
**Accessories**

Socket:	<b>S9-M, S9-L, S9-P, S9-P0</b>
Optional accessories (blanking plug):	<b>S9-NP, S9-OP</b>

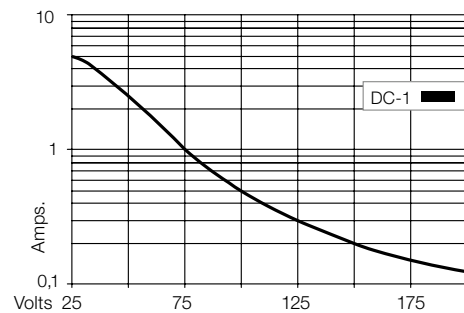
**Connection diagram**



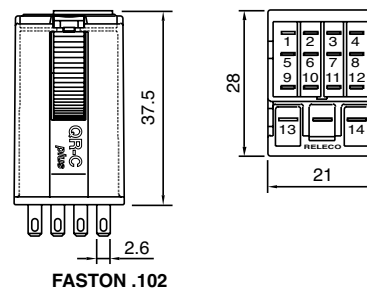
**Fig. 1 AC voltage endurance**



**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

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

<b>Contacts</b>			
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		

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

<b>Coil table</b>					
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

<b>Insulation</b>	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

<b>Specifications</b>	
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

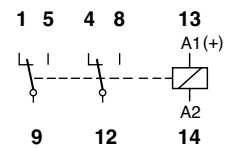
<b>Standard types</b>		
<b>VAC 50 Hz/60 Hz: 24, 48, 115, 230 (240) LED</b>	<b>C9-E21/AC ... V</b> <b>C9-E21X/AC ... V</b>	<b>C9-E22/AC ... V</b> <b>C9-E22X/AC ... V</b>
<b>VDC 12, 24, 48, 110, 220 LED</b>	<b>C9-E21/DC ... V</b> <b>C9-E21X/DC ... V</b>	<b>C9-E22/DC ... V</b> <b>C9-E22X/DC ... V</b>
<b>Free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

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

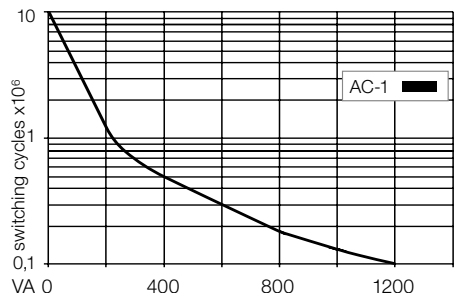
<b>Accessories</b>	
Socket:	<b>S9-M, S9-L, S9-P, S9-P0</b>
Optional accessories (blanking plug):	<b>S9-NP, S9-OP</b>



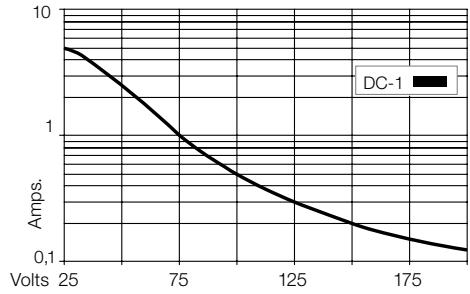
### Connection diagram



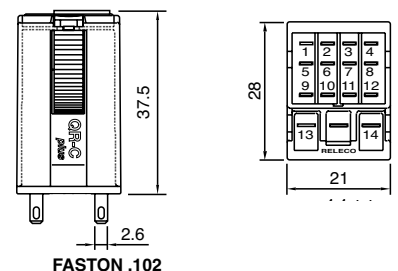
**Fig. 1 AC voltage endurance**



**Fig. 2 DC load limit curve**



### Dimensions [mm]



### Technical approvals, conformities





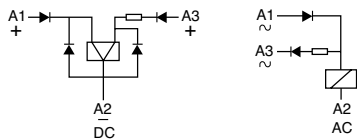
<b>Type</b>	<b>C9-R2x/ ... V</b> Magnetic latching relay 2 change-over contacts		
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<b>Maximum contact load</b>	<b>5 A/120V AC-1</b>	<b>5 A/30 V DC-1</b>
<b>Recommended minimum contact load</b>	<b>10 mA/10 V</b>	

<b>Contacts</b>			
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		

<b>Coil</b>	
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

<b>Insulation</b>	Volt rms, 1 min
Contact open	1000 V
Contact/contact	2 kV
Contact/coil	2 kV
Insulation resistance at 500 V	≥1 G.Ω
Insulation, IEC 61810-1	2,5 kV/2

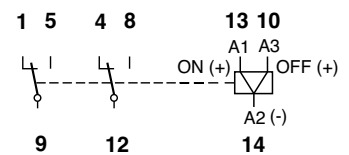
<b>Specifications</b>	
Ambient temperature operation/storage	-40 (no ice)...60 °C / -40 ... 80 °C
Minimum pulse ON/OFF	50 ms
Mechanical life	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥100000 switching cycles
Switching frequency at rated load	≤ 1200/h
Protection class	IP40
Weight	43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

<b>Standard types</b>	<b>C9-R21/AC ... V</b>
<b>AC 50 Hz/60 Hz: 24, 48, 115, 230</b>	
<b>DC 12, 24, 48, 60</b>	<b>C9-R21/DC ... V</b>

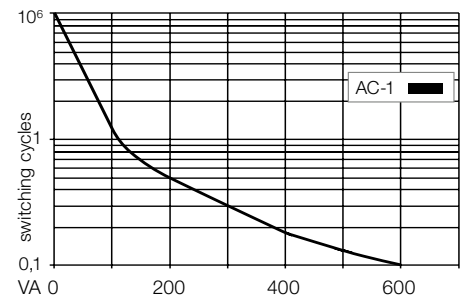
"..." Enter the voltage for full type designation

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

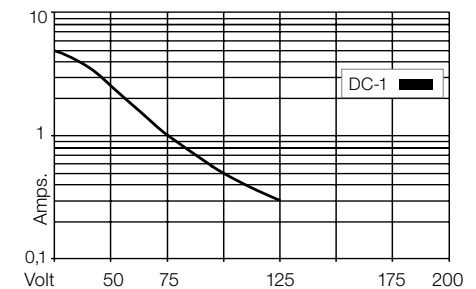
**Connection diagram**



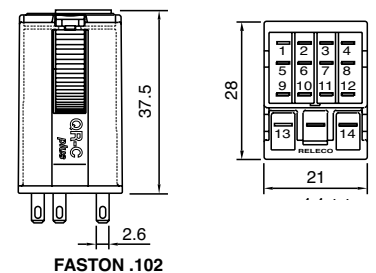
**Fig. 1 AC voltage endurance**



**Fig. 2 DC load limit curve**



**Dimensions [mm]**



**Technical approvals, conformities**

