

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

VDC 12, 24, 48, 110

LED

Free wheeling diode

Polarity and free wheeling diode

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

C9-A41/AC ... V
C9-A41X/AC ... V

C9-A41/DC ... V
C9-A41X/DC ... V
C9-A41DX/DC ... V
C9-A41FX/DC ... V

C9-A41BX/UC ... V

C9-A42/AC ... V
C9-A42X/AC ... V

C9-A42/DC ... V
C9-A42X/DC ... V
C9-A42DX/DC ... V
C9-A42FX/DC ... V

C9-A42BX/UC ... V

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

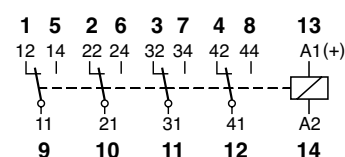
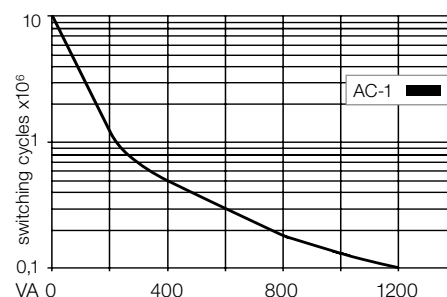
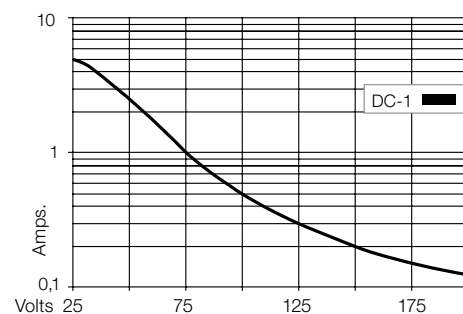
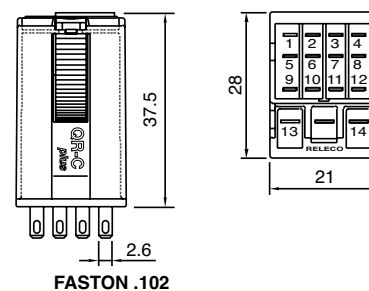
Accessories

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**

Lloyd's



IEC 61810; EN 60947

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	AC-1	5 A/30 V	DC-1
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

VDC 12, 24, 48, 110, 220

LED

Free wheeling diode

Polarity and free wheeling diode

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

C9-E21/AC ... V
C9-E21X/AC ... V

C9-E21/DC ... V
C9-E21X/DC ... V
C9-E21DX/DC ... V
C9-E21FX/DC ... V

C9-E21BX/UC ... V

C9-E22/AC ... V
C9-E22X/AC ... V

C9-E22/DC ... V
C9-E22X/DC ... V
C9-E22DX/DC ... V
C9-E22FX/DC ... V

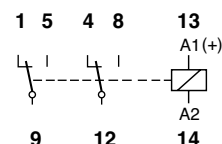
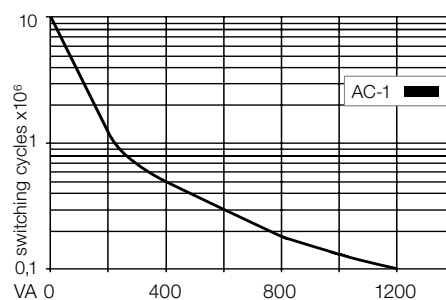
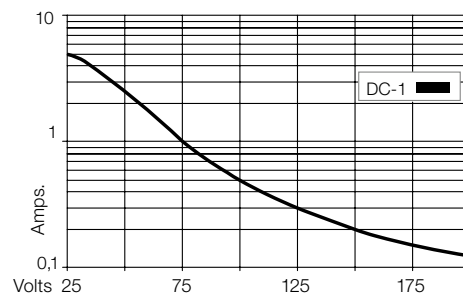
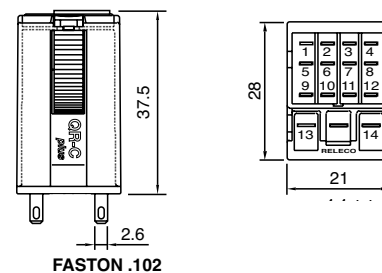
C9-E22BX/UC ... V

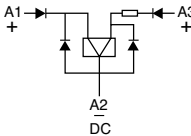
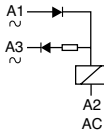
"..." Enter the voltage for full type designation

Accessories

Socket:
 Optional accessories (blanking plug):

S9-M, S9-L, S9-P, S9-P0
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																																	
Maximum contact load		5 A/120V	AC-1	5 A/30 V	DC-1																														
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																																	
																																			
		<table><tr><th>VAC</th><th>mA ON</th><th>mA OFF</th><th>VDC</th><th>mA ON</th><th>mA OFF</th></tr><tr><td>24</td><td>50</td><td>8</td><td>12</td><td>100</td><td>25</td></tr><tr><td>48</td><td>25</td><td>4</td><td>24</td><td>50</td><td>12</td></tr><tr><td>115</td><td>10</td><td>2</td><td>48</td><td>25</td><td>6</td></tr><tr><td>230</td><td>5</td><td>1</td><td>60</td><td>20</td><td>5</td></tr></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
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48	25	4	24	50	12																														
115	10	2	48	25	6																														
230	5	1	60	20	5																														
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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**AC 50 Hz/60 Hz: 24, 48, 115, 230****C9-R21/AC ... V****DC 12, 24, 48, 60****C9-R21/DC ... V**

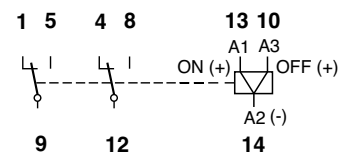
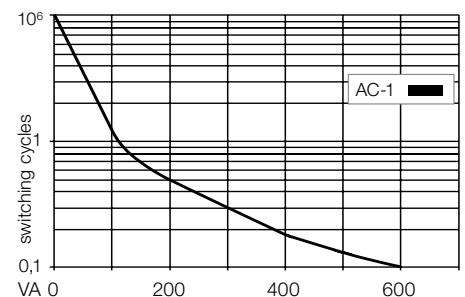
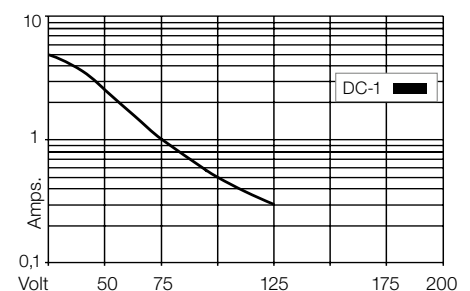
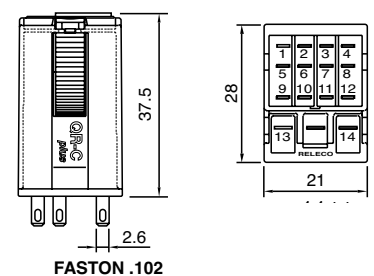
"..." Enter the voltage for full type designation

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**