

Relay Interfaces

R900 relay modules

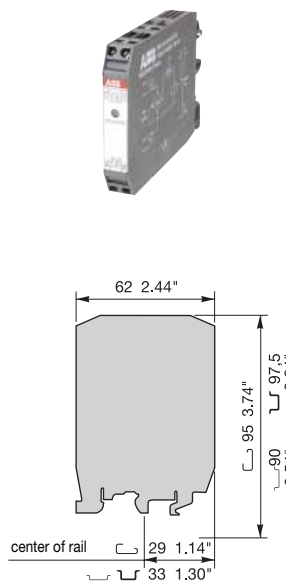


DIN 1-3

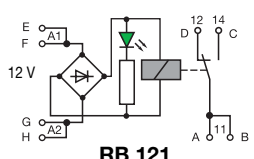
Relay : 1 SPDT low level contacts 1 mA to 6 A - 11.5 mm .453" spacing

Characteristics

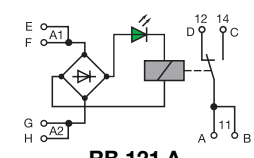
Relay characteristics	RB 121 - 12 V	RB 121 A - 24 V		RB 121 A - 48 V	
COIL					
Rated voltage +20%, -15% on DC, ±15% on AC	12 V DC	24 V AC	24 V DC	48 V AC	48 V DC
Frequency		50 / 60 Hz		50 / 60 Hz	
Power	0.5 W	0.52 VA	0.44 W	0.62 VA	0.48 W
Rated current	42 mA	22 mA	18 mA	13 mA	10 mA
Drop-out voltage at 20°C	2.8 V	4.6 V	4.6 V	5.8 V	5.8 V
Permissible leakage current	3.5 mA	2.2 mA	1.8 mA	1 mA	1 mA
Status device	green LED				
CONTACT					
Type	1 SPDT				
Voltage switching range min./max.	5 V / 150 V DC - 250 V AC				
Current switching range min./max.	1 mA / 6 A				
Load switching range					
AC1 min. / max.	5 mVA / 1500 VA				
DC1 min. / max.	5 mW / 192 W				
Number of on-load operations	1 x 10 ⁵				
Number of off-load operations	5 x 10 ⁶				
Operating speed	5 ms				
Bounce	1 ms				
Insulation coil / contact	3500 V RMS				
Resistance to shock coil / contact	4000 V RMS				
Insulation contact / contact	1000 V RMS				
Ambient temperature storage operating	-40°C to +80°C				
	See derating curve				
Other characteristics					
Body material	grey				
Wire	Solid wire				
size	Stranded wire				
Rated wire size	UL 94 V0				
Wire stripping length	0.5 - 4 mm ² / 20 - 12 AWG				
Recommended screwdriver	0.5 - 2.5 mm ² / 20 - 12 AWG				
Protection	2.5 mm ² / 12 AWG				
Recommended torque	7 mm .276"				
Approvals	3.5 mm .137"				
Reference standards	IP20 NEMA1				
	0.4 - 0.6 Nm 3.5 - 5.3 lb.in				
	us for RB 121A-24VAC/DC,				



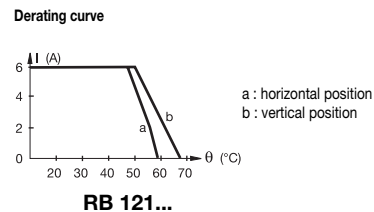
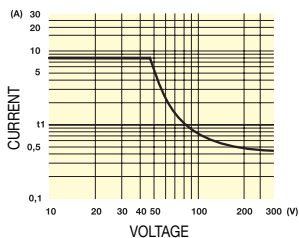
Relay blocks R900



RB 121



RB 121 A

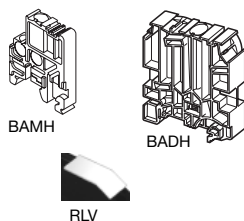


Order codes

Description	Type	Order P/N	Packaging Weight kg
Relay module 1 SPDT low level	RB 121-12VDC	1SNA 630 001 R0000	1 0.04
Relay module 1 SPDT low level	RB 121A-24VAC/DC	1SNA 630 002 R0100	1 0.04
Relay module 1 SPDT low level	RB 121A-48VAC/DC	1SNA 630 003 R0200	1 0.04

Accessories

High end section	BADH	1SNA 116 900 R2700	50
	BAMH	1SNA 114 836 R0000	50
	BAMH V0	1SNA 194 836 R0100	50
Lengthwise marker	RLV	1SNA 103 849 R0300	100
Marking method	RC55	see marking	

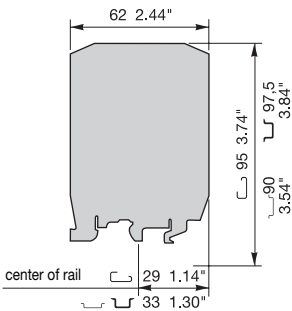


Relay Interfaces

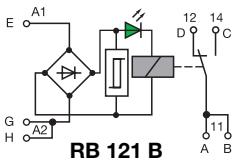
R900 relay modules



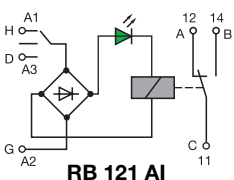
DIN 1-3



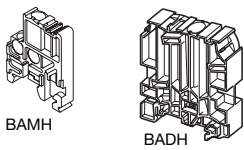
Relay blocks R900



RB 121 B



RB 121 AI

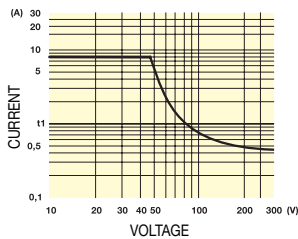


RLV

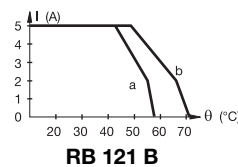
- Relay : 1 SPDT low level contacts 1 mA to 5 A - 11.5 mm .453" spacing
- Relay : 1 SPDT with switch low level contacts 1 mA to 5 A - 11.5 mm .453" spacing

Characteristics

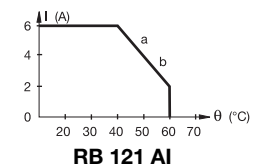
Relay characteristics	RB 121 B			RB 121 AI	
	COIL				
Rated voltage +20%, -15% on DC, ±15% on AC	110 V AC	115 V AC	230 V AC	24 V AC ±10%	24 V DC ±10%
Frequency	50 Hz	60 Hz	50 Hz	50 / 60 Hz	
Power	1.5 VA	1.6 VA	3.22 VA	0.53 VA	0.44 W
Rated current	14 mA	14 mA	14 mA	22 mA	18 mA
Drop-out voltage at 20°C	30 V AC	30 V AC	60 V AC	5.5 V	4.6 V
Permissible leakage current	2 mA max.	2 mA max.	3.6 mA max.	2.2 mA	1.8 mA
Status device	green LED				
CONTACT					
Type	1 SPDT				
Voltage switching range min./max.	5 V / 150 V DC - 250 V AC				
Current switching range min./max.	1 mA / 5 A		1 mA / 6 A		
Load switching range	5 mVA / 1250 VA		5 mVA / 1500 VA		
AC1 min. / max. DC1 min. / max.	5 mW / 192 W				
Number of on-load operations	1 x 10 ⁵				
Number of off-load operations	5 x 10 ⁶				
Operating speed	5 ms				
Bounce	10 ms				
Insulation coil / contact	3000 V RMS				
Resistance to shock coil / contact	4000 V RMS				
Insulation contact / contact	1000 V RMS				
Ambient temperature storage operating	-40°C to +80°C				
Other characteristics					
Body material	grey				
Wire	Solid wire				
size	0.5 - 4 mm ² / 20 - 12 AWG				
Stranded wire	0.5 - 2.5 mm ² / 20 - 12 AWG				
Rated wire size	2.5 mm ² / 12 AWG				
Wire stripping length	7 mm .276"				
Recommended screwdriver	3.5 mm .137"				
Protection	IP20 NEMA1				
Recommended torque	0.4 - 0.6 Nm 3.5 - 5.3 lb.in				
Approvals					
Reference standards	CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.				



Derating curves



RB 121 B



RB 121 AI

Order codes

Description	Type	Order P/N	Packaging	Weight
Relay module 1 SPDT low level	RB 121B-110VAC	1SNA 630 004 R0300	1	0.05
Relay module 1 SPDT low level	RB 121B-115VAC	1SNA 630 005 R0400	1	0.05
Relay module 1 SPDT low level	RB 121B-230VAC	1SNA 630 006 R0500	1	0.05
Relay module 1 SPDT with switch low level	RB 121AI-24VAC/DC	1SNA 630 007 R0600	1	0.05

Accessories

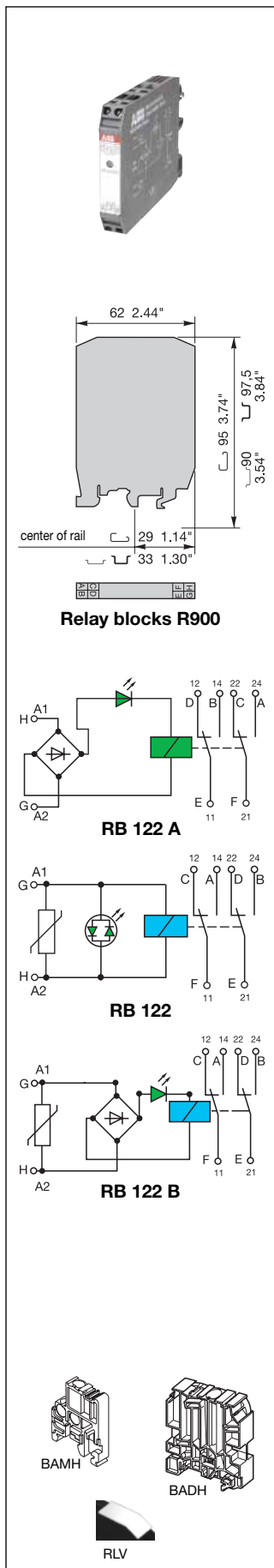
Accessories	Type	Order P/N	Packaging	Weight
High end section	BADH	1SNA 116 900 R2700	50	
	BAMH	1SNA 114 836 R0000	50	
	BAMH V0	1SNA 194 836 R0100	50	
Lengthwise marker	RLV	1SNA 103 849 R0300	100	
Marking method	RC55	see marking		

Relay Interfaces

R900 relay modules



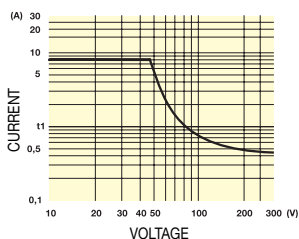
DIN 1-3



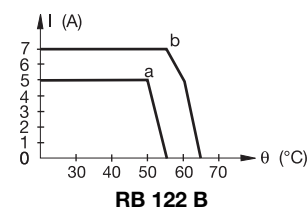
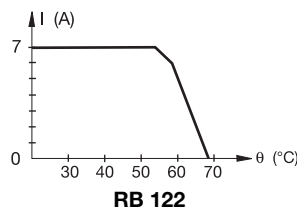
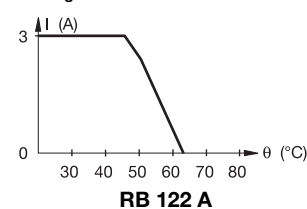
- Relay : 1 DPDT very low level contacts 10⁻⁵ A to 3 A - 11.5 mm .453" spacing
- Relay : 1 DPDT high level contacts 100 mA to 7 A - 15 mm .591" spacing

Characteristics

Relay characteristics	RB 122 A	RB 122	RB 122 B	
COIL				
Rated voltage +15%, -10% on DC ±15% on AC	24 V AC	24 V DC	24 V DC	110 V AC
Frequency	50 / 60 Hz			115 V AC
Power	0.4 VA	0.35 W	0.48 W	50 Hz
Rated current	16.8 mA	14.4 mA	20 mA	60 Hz
Drop-out voltage at 20°C	9.2 V	6.5 V	2.4 V DC	3.6 VA
Permissible leakage current	2 mA max.	2 mA max.	1.5 mA	33 mA
Status device			green LED	4 VA
				35 mA
				11 V AC
				11.5 V AC
				2 mA
				2.6 mA
CONTACT				
Type		1 DPDT		
Voltage switching range min./max.	10 ⁻⁵ V / 250 V AC		12 V / 250 V	
Current switching range min./max.	10 ⁻⁵ A / 3 A	100 mA / 7 A	100 mA / 7 A	100 mA / 7 A
Load switching range				
AC1 min. / max.	10 ⁻¹⁰ VA / 250 VA	1.2 VA / 1750 VA	1.2 VA / 1750 VA	1.2 VA / 1750 VA
DC1 min. / max.	10 ⁻¹⁰ W / 90 W	1.2 W / see curve hereunder		
Number of on-load operations	1.8 x 10 ⁶ (2 A / 60 W)			
Number of off-load operations	10 ⁸		30 x 10 ⁶	
Operating speed				
F	6 ms	8 ms		6 ms
O	11 ms	15 ms		12 ms
Bounce	1 ms		2 ms	
Insulation coil / contact	1500 V RMS		2500 V RMS	
Resistance to shock coil / contact		4000 V RMS		
Insulation contact / contact		1000 V RMS		
Ambient temperature storage		-40°C to +80°C		
operating		see derating curves		
Other characteristics				
Body material	grey	UL 94 V0		
Wire	Solid wire	0.5 - 4 mm ² / 20 - 12 AWG		
size	Stranded wire	0.5 - 2.5 mm ² / 20 - 12 AWG		
Rated wire size		2.5 mm ² / 12 AWG		
Wire stripping length		7 mm .276"		
Recommended screwdriver		3.5 mm .137"		
Protection		IP20 NEMA1		
Recommended torque		0.4 - 0.6 Nm 3.5 - 5.3 lb.in		
Approvals		CE		
Reference standards	CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.			



Derating curves



Order codes

Description	Type	Order P/N	Packaging Weight kg
Relay module 1 DPDT very low level 11.5 mm sp.	RB 122A-24VAC/DC	1SNA 630 011 R2100	1 0.05
Relay module 1 DPDT high level 15 mm sp.	RB 122-24VDC	1SNA 630 019 R0100	1 0.05
Relay module 1 DPDT high level 15 mm sp.	RB 122B-110VAC/50Hz	1SNA 630 021 R2300	1 0.06
Relay module 1 DPDT high level 15 mm sp.	RB 122B-115VAC/60Hz	1SNA 630 022 R2400	1 0.06

Accessories

High end section	Type	Order P/N	Packaging Weight kg
BADH		1SNA 116 900 R2700	50
BAMH		1SNA 114 836 R0000	50
BAMH V0		1SNA 194 836 R0100	50
Lengthwise marker	RLV	1SNA 103 849 R0300	100
Marking method	RC55	see marking	