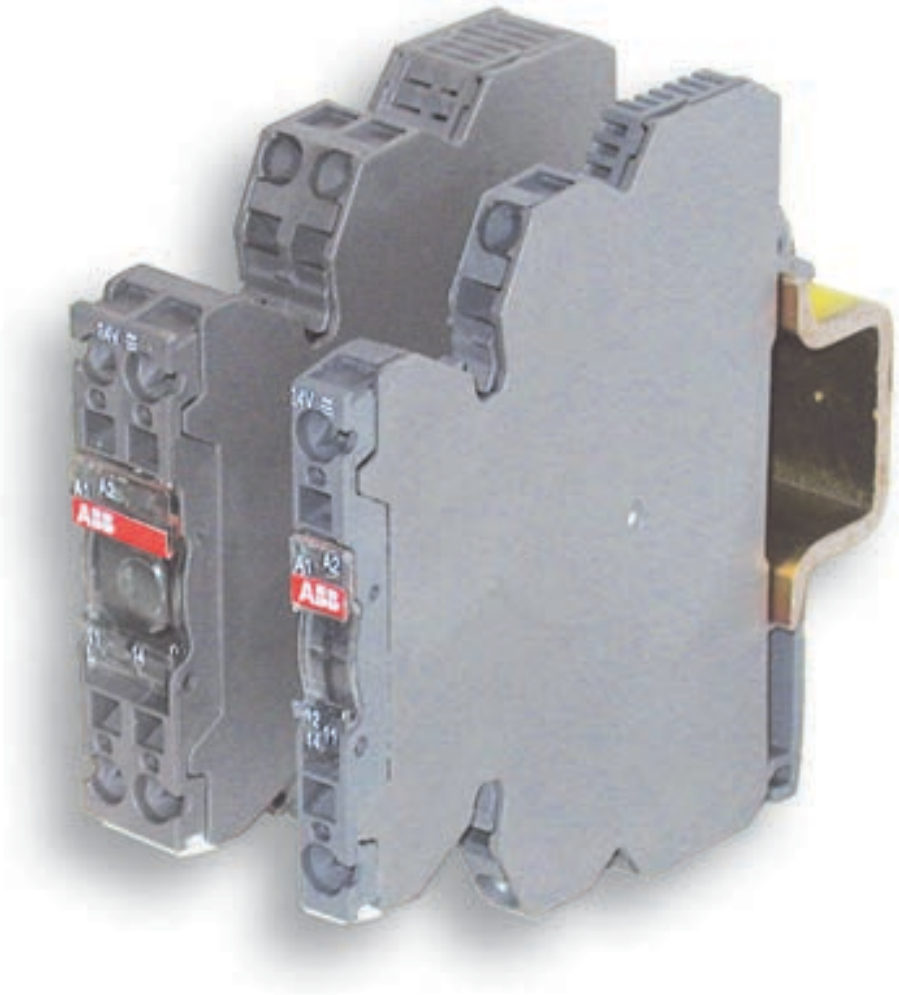
Interface relays and optocouplers R600 range
Product group picture



Interface relays and optocouplers R600 range
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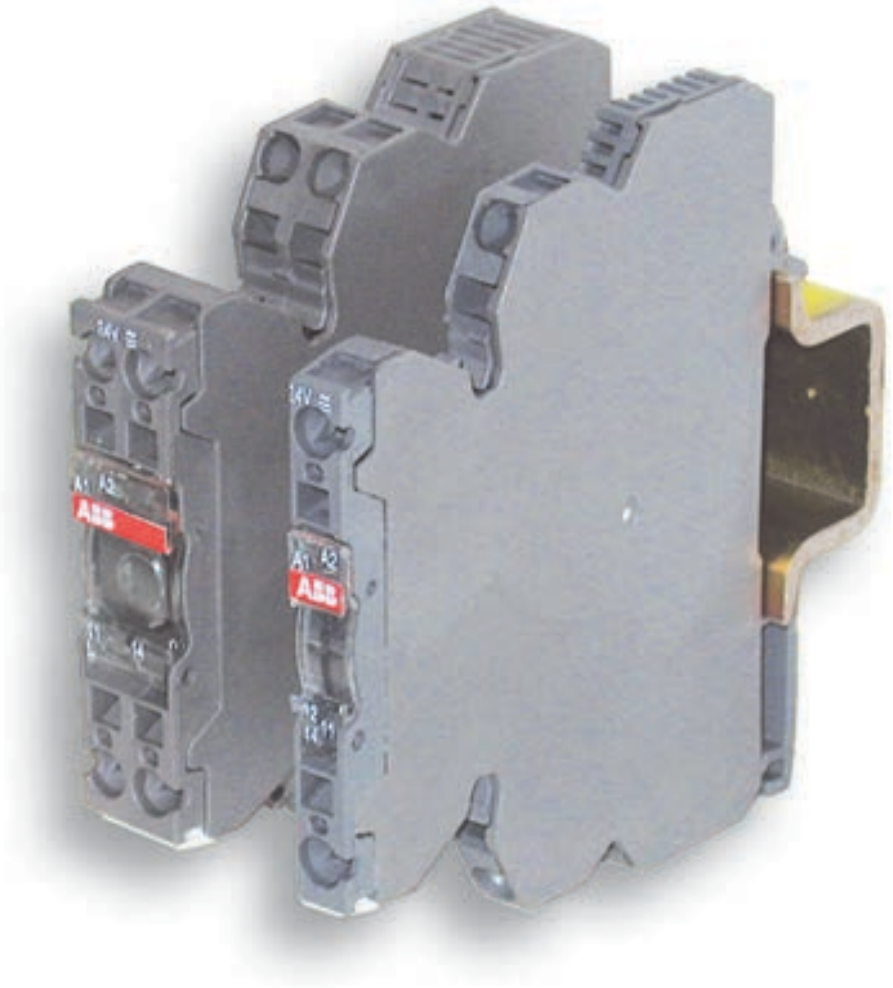
Interface relays R600 range
Product group picture



Interface relays R600 range
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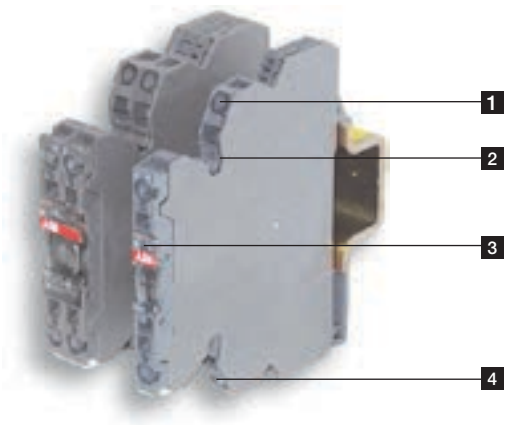
Interface relays R600 range
Benefits and advantages

Characteristics

- Standard range available with screw or spring-type terminals
- 8 different rated control supply voltages:
  DC versions: 5 V, 12 V, 24 V
  AC/DC versions: 24 V, 48-60 V, 115 V, 230 V, 60-230 V
- Output: 1 n/c contact, 1 n/o contact, 1 c/o (SPDT) contact, 2 c/o (SPDT) contacts
- Devices with output contacts protected by built in RC circuit, which result in increased contact life
- Devices with leakage current protection on the input side
- Available with visible or covered switch on the front of the unit, for the configuration of manual or automatic actuation
- With connection for jumper bar, except 2 c/o devices and some discontinued devices
- Width: 6 mm (0.236 in) or 12 mm (0.472 in)
- LED for the indication of the operational state
- Accessories: Jumper bars, separator end section and distribution blocks



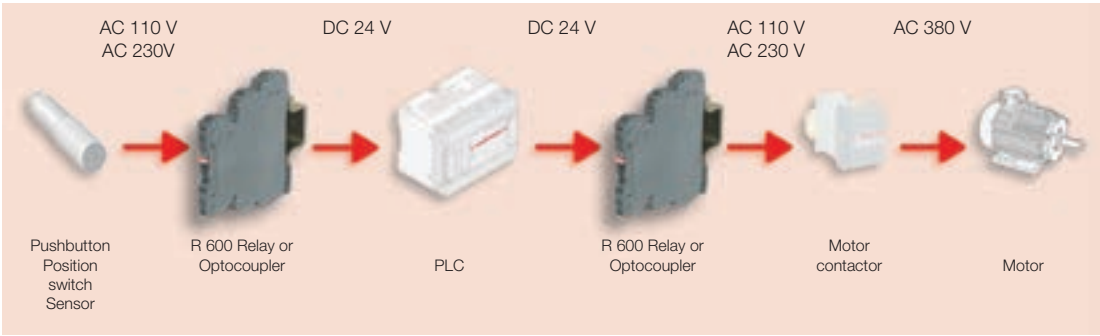
1 Input - Control supply voltage

2 Jumper bar connection

3 Indication of operational states (green LED)

4 Output

Excellent adaption and conversion of digital signals

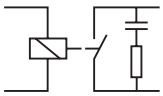


Interface relays R600 range
Benefits and advantages

Interface relays are electromechanic and electronic input and output modules for electrical isolation, levelling, noise suppression or signal amplification between control unit and process.

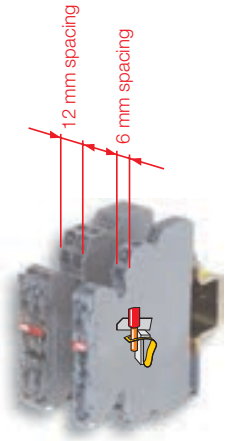
Boxed interface relays are used for electrical isolation, amplification and signal matching between the electronic controlling, e.g. PLC (programmable logic controller), PC or field bus systems and the sensor / actuator level. The compact design and different connection terminal possibilities optimize your panel installation.

Increased contact life
The contacts of some devices are proteced by built in RC-circuits which result in increased contact life.



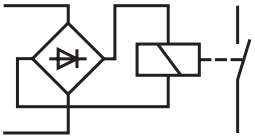
Variety of connections
R600 relays and optocouplers are available with both screw terminals or spring terminals.

Space safing
With a width of only 6 mm or 12 mm the compact design safes space in each cabinet.



Functionning status
Functionning display through a green LED.

Only one part number AC/DC



Measurement & Test
Holes for holding DIA. 2 mm test plugs to simplify any measury or test.

Approvals

UL 508
CAN/CSA C22.2 No.14

Lloyds Register pending

Marks

CE

Interface relays R600 range
Selection

5

Order number	1SNA 645 034 R2300	1SNA 645 036 R2500	1SNA 645 534 R2500	1SNA 645 536 R2700	1SNA 645 069 R0000	1SNA 645 037 R2600	1SNA 645 537 R2000	1SNA 645 019 R0400	1SNA 645 519 R0600	1SNA 645 014 R2700	1SNA 645 063 R0000	1SNA 645 018 R0300	1SNA 645 514 R2100	1SNA 645 563 R0200	1SNA 645 518 R0500	1SNA 645 064 R0100	1SNA 645 065 R0200	1SNA 645 001 R0300	1SNA 645 005 R0700	1SNA 645 032 R2100	1SNA 645 009 R1300	1SNA 645 033 R2200	1SNA 645 010 R0700	1SNA 645 564 R0300	1SNA 645 565 R0400	1SNA 645 501 R0500	1SNA 645 505 R0100	1SNA 645 532 R2300	1SNA 645 509 R1500	1SNA 645 533 R2400	1SNA 645 510 R0100	1SNA 645 012 R2500	1SNA 645 512 R2700
Type	RB 121-5VDC	RB 121-5VDC	RBR 121-5VDC	RBR 121-5VDC	RB 121-12VDC	RB 121-12VDC	RBR 121-12VDC	RB 101AR-24VAC/DC	RBR 101AR-24VAC/DC	RB 111A-24VAC/DC	RB 111AI-24VAC/DC	RB 111AR-24VAC/DC	RBR 111A-24VAC/DC	RBR 111AI-24VAC/DC	RBR 111AR-24VAC/DC	RB 121-24VDC	RB 121-24VDC	RB 121A-24VAC/DC	RB 121A-24VAC/DC	RB 121AI-24VAC/DC	RB 121AI-24VAC/DC	RB 121AI-24VAC/DC	RB 121AI-24VAC/DC	RBR 121-24VDC	RBR 121-24VDC	RBR 121A-24VAC/DC	RBR 121A-24VAC/DC	RBR 121AI-24VAC/DC	RBR 121AI-24VAC/DC	RBR 121AI-24VAC/DC	RBR 121AI-24VAC/DC	RB 122A-24VAC/DC	RBR 122A-24VAC/DC
Input voltage																																	
5 V DC	■	■	■	■																													
12 V DC					■	■	■																										
24 V DC								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
48 - 60 V DC																																	
115 V DC																																	
230 V DC																																	
60 - 230 V DC																																	
24 V AC								■	■	■	■	■	■	■	■			■	■	■	■	■	■			■	■	■	■	■	■	■	■
48 - 60 V AC																																	
115 V AC																																	
230 V AC																																	
60 - 230 V AC																																	
Output rating																																	
10 mA - 6 A	■		■		■			■	■	■	■	■	■	■	■	■		■		■	■			■		■		■	■				
1 mA - 6 A		■		■		■	■										■		■			■	■		■		■			■	■		
1 mA - 8 A																																■	■
Output contacts																																	
c/o	1	1	1	1	1	1	1									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
n/o										1	1	1	1	1	1																		
n/c								1	1																								
Terminal type																																	
Screw	■	■			■	■		■		■	■	■				■	■	■	■	■	■	■	■									■	
Spring			■	■			■		■				■	■	■									■	■	■	■	■	■	■	■		■

Interface relays R600 range
Selection

	1SNA 645 015 R2000	1SNA 645 515 R2200	1SNA 645 002 R0400	1SNA 645 006 R0000	1SNA 645 502 R0600	1SNA 645 506 R0200	1SNA 645 040 R1500	1SNA 645 540 R1700	1SNA 645 003 R0500	1SNA 645 007 R0100	1SNA 645 046 R0700	1SNA 645 503 R0700	1SNA 645 507 R0300	1SNA 645 546 R0100	1SNA 645 041 R0200	1SNA 645 541 R0400	1SNA 645 016 R2100	1SNA 645 516 R2300	1SNA 645 017 R2200	1SNA 645 517 R2400	1SNA 645 004 R0400	1SNA 645 008 R1200	1SNA 645 011 R2400	1SNA 645 504 R0000	1SNA 645 508 R1400	1SNA 645 511 R2600	1SNA 645 013 R2600	1SNA 645 513 R2000	1SNA 645 020 R0100	1SNA 645 520 R0300
RB 111A-48-60VAC/DC	■	■	■	■	■	■	■	■																						
RBR 111A-48-60VAC/DC									■	■	■	■	■	■	■	■	■	■												
RB 121A-48-60VAC/DC																		■	■	■	■	■	■	■	■	■	■			
RB 121A-48-60VAC/DC																													■	■
RBR 121A-48-60VAC/DC	■	■	■	■	■	■	■	■																						
RBR 121A-48-60VAC/DC									■	■	■	■	■	■	■	■	■	■												
RB 122A-48-60VAC/DC																			■	■	■	■	■	■	■	■	■	■		
RBR 122A-48-60VAC/DC																													■	■
RB 121A-115VAC/DC		■	■		■				■		■	■		■			■	■								■				
RB 121A-115VAC/DC				■		■				■			■									■								
RBR 121A-115VAC/DC							■	■							■	■														
RBR 121A-115VAC/DC																			■	■	■	■	■	■	■	■	■	■		
RB 121AR-115VAC/DC	1	1																												
RB 121AR-115VAC/DC									1	1	1	1	1	1	2	2					1	1	1	1	1	1	2	2	1	1
RB 122A-115VAC/DC	■		■	■			■		■	■	■				■		■		■		■	■	■				■		■	
RBR 122A-115VAC/DC		■			■	■		■				■	■	■		■		■		■				■	■	■		■		■

Interface relays R600 range
Ordering details

2CDC 291 024 S0013

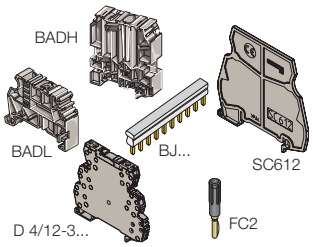
R600

R600 Relay		Type	Order code	Price	Pkg qty	Weight (1 pce) kg (lb)
Relay module 1 NO high level 6 mm spacing		RB 111 A-24VAC/DC	1SNA645014R2700		10	0.02 (0.44)
		RB 111 A-48-60VAC/DC	1SNA645015R2000			
		RB 111 A-115VAC/DC	1SNA645016R2100			
		RB 111 A-230VAC/DC	1SNA645017R2200			
Relay mod. 1 NO high level w/safety switch 6 mm spacing		RB 111 AI-24VAC/DC	1SNA645063R0000			
Relay mod. 1 NO high level w/ contact protection 12 mm spacing		RB 111 AR-24VAC/DC	1SNA645018R0300		5	0.03 (0.44)
Relay mod. 1 NC high level w/contact protection 12 mm spacing		RB 101 AR-24VAC/DC	1SNA645019R0400			
Relay module 1 NO high level 6 mm spacing		RBR 111 A-24VAC/DC	1SNA645514R2100		10	0.02 (0.44)
		RBR 111 A-48-60VAC/DC	1SNA645515R2200			
		RBR 111 A-115VAC/DC	1SNA645516R2300			
		RBR 111 A-230VAC/DC	1SNA645517R2400			
Relay mod. 1 NO high level w/ safety switch 6 mm spacing		RBR 111 AI-24VAC/DC	1SNA645563R0200			
Relay mod. 1 NO high level w/ contact protection 12 mm spacing		RBR 111 AR-24VAC/DC	1SNA645518R0500		5	0.03 (0.44)
Relay mod. 1 NC high level w/contact protection 12 mm spacing		RBR 101 AR-24VAC/DC	1SNA645519R0600			
Relay module 1 SPDT high level		RB 121-5VDC	1SNA645034R2300		10	0.02 (0.44)
		RB 121-12VDC	1SNA645069R0100			
		RB 121-24VDC	1SNA645064R0100			
		RB 121 A-24VAC/DC	1SNA645001R0300			
		RB 121 A-48-60VAC/DC	1SNA645002R0400			
		RB 121 A-115VAC/DC	1SNA645003R0500			
		RB 121 A-230VAC/DC	1SNA645004R0400			
Relay module 1 SPDT high level		RB 121-5VDC	1SNA645534R2500			
		RB 121-12VDC	1SNA645569R0000			
		RB 121-24VDC	1SNA645564R0300			
		RB 121 A-24VAC/DC	1SNA645501R0500			
		RB 121 A-48-60VAC/DC	1SNA645502R0600			
		RB 121 A-115VAC/DC	1SNA645503R0700			
		RB 121 A-230VAC/DC	1SNA645504R0000			
Relay module 1 SPDT low level		RB 121-5VDC	1SNA645036R2500		10	0.02 (0.44)
		RB 121-12VDC	1SNA645037R2600			
		RB 121-24VDC	1SNA645065R0200			
		RB 121 A-24VAC/DC	1SNA645005R0700			
		RB 121 A-48-60VAC/DC	1SNA645006R0000			
		RB 121 A-115VAC/DC	1SNA645007R0100			
		RB 121 A-230VAC/DC	1SNA645008R1200			
Relay module 1 SPDT low level		RB 121-5VDC	1SNA645536R2700			
		RB 121-12VDC	1SNA645537R2000			
		RB 121-24VDC	1SNA645565R0400			
		RB 121 A-24VAC/DC	1SNA645505R0100			
		RB 121 A-48-60VAC/DC	1SNA645506R0200			
		RB 121 A-115VAC/DC	1SNA645507R0300			
		RB 121 A-230VAC/DC	1SNA645508R1400			

Interface relays R600 range
Ordering details

R600

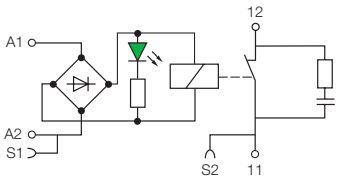
R600 Relay		Type	Order code	Price	Pkg qty	Weight (1 pce) kg (lb)
Relay mod. 1SPDT high level w/ leakage current protec.		RB 121 AR-115VAC/DC	1SNA645046R0700		5	0.03 (0.066)
		RB 121 AR-230VAC/DC	1SNA645011R2400			
Relay mod. 1SPDT high level w/ large coil voltage range		RB 121 A 60-230VAC/DC	1SNA645020R0100			
Relay mod. 1SPDT high level with switch		RB 121 AI-24VAC/DC	1SNA645032R2100			
Relay mod. 1SPDT high level with safety switch		RB 121 AI-24VAC/DC	1SNA645009R1300			
Relay module 1SPDT low level with switch		RB 121 AI-24VAC/DC	1SNA645033R2200			
Relay module 1SPDT low level with safety switch		RB 121 AI-24VAC/DC	1SNA645010R0700			
Relay mod. 1SPDT high level w/ leakage current protec.		RB 121 AR-115VAC/DC	1SNA645546R0100			
		RB 121 AR-230VAC/DC	1SNA645511R2600			
Relay mod. 1SPDT high level w/ large coil voltage range		RB 121 A 60-230VAC/DC	1SNA645520R0300			
Relay mod. 1SPDT high level with switch		RB 121 AI-24VAC/DC	1SNA645532R2300			
Relay mod. 1SPDT high level with safety switch		RB 121 AI-24VAC/DC	1SNA645509R1500			
Relay module 1SPDT low level with switch		RB 121 AI-24VAC/DC	1SNA645533R2400			
Relay module 1SPDT low level with safety switch		RB 121 AI-24VAC/DC	1SNA645510R0100			
Relay module 1 DPDT low level		RB 122 A-24VAC/DC	1SNA645012R2500		5	0.03 (0.066)
		RB 122 A-48-60VAC/DC	1SNA645040R1500			
		RB 122 A-115VAC/DC	1SNA645041R0200			
		RB 122 A-230VAC/DC	1SNA645013R2600			
Relay module 1 DPDT low level		RBR 122 A-24VAC/DC	1SNA645512R2700			
		RBR 122 A-48-60VAC/DC	1SNA645540R1700			
		RBR 122 A-115VAC/DC	1SNA645541R0400			
		RBR 122 A-230VAC/DC	1SNA645513R2000			



Accessories R600	Type	Order code	Price	Pkg qty	Weight (1 pce) kg (lb)
End section	BADH V0	1SNA116900R2700		50	
	BADL V0	1SNA399903R0200		50	
	BAM2 V0	1SNA399967R0100		50	
Seperator end section	SC 612	1SNA290474R0200		10	
Divisible shunt 10 poles	BJ 612-10	1SNA290488R0100		10	
Divisible shunt 20 poles	BJ 612-20	1SNA206754R0000		10	
Screw clamp distribution block sp. 12 mm	D4/12-3-3	1SNA645031R2000		5	
Spring clamp distribution block sp. 12 mm	D4/12-3R-3R	1SNA645531R2200		5	
Test plug DIA. 2 mm	FC2	1SNA645531R2200		10	
Marking method	RC65 / RC610	see marking			

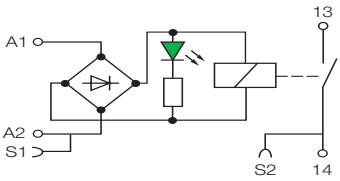
Interface relays R600 range
Connection diagrams

11-12	n/c contact	A1-A2	Control supply voltage
13-14	n/o contact	S1	Connection for jumper bar (input side)
11-12/14	1st c/o contact	S2	Connection for jumper bar (output side)
21-22/24	2nd c/o contact		



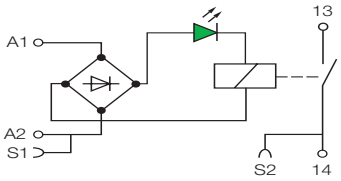
2CDC 292 030 F0013

RB/RBR 101 AR



2CDC 292 031 F0013

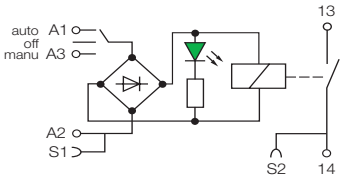
RB/RBR 111 A - 24 V AC/DC



2CDC 292 033 F0013

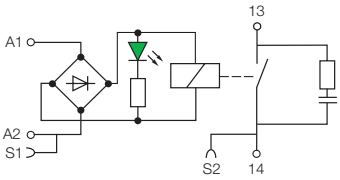
RB/RBR 111 A - 48/60/115/230 V AC/DC

5



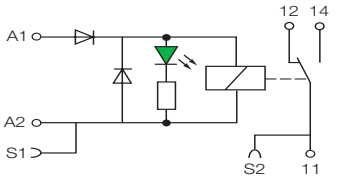
2CDC 292 034 F0013

RB/RBR 111 AI



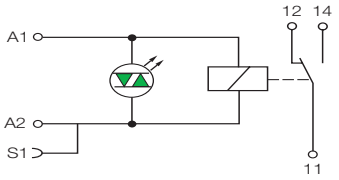
2CDC 292 035 F0013

RB/RBR 111 AR



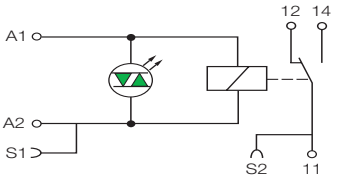
2CDC 292 036 F0013

RB/RBR 121
- 5 V DC, A1-A2 polarized
- 12 V DC, A1-A2 polarized, i.e. only:
1SNA645035R2400, 1SNA645535R2600
1SNA645037R2600, 1SNA645537R2000



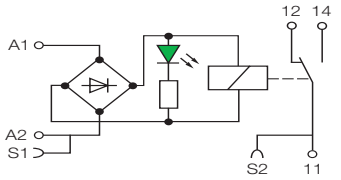
2CDC 292 037 F0013

RB/RBR 121
- 12/24 V DC, only discontinued versions:
1SNA645069R0000
1SNA645064R0100, 1SNA645564R0300
1SNA645065R0200, 1SNA645565R0400



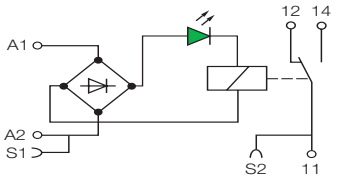
2CDC 292 038 F0013

RB/RBR 121 (AU)
- 12/24 V DC, except:
1SNA645035R2400, 1SNA645535R2600
1SNA645037R2600, 1SNA645537R2000
see connection diagram RB...121-5VDC



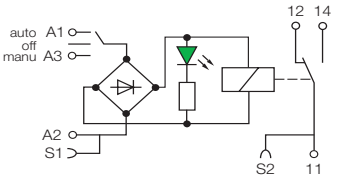
2CDC 292 039 F0013

RB/RBR 121 A
- 24 V AC/DC



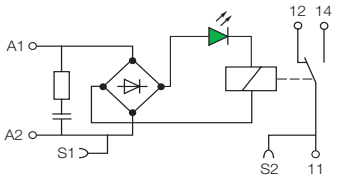
2CDC 292 040 F0013

RB/RBR 121 A - 48/60/115/230 V AC/DC



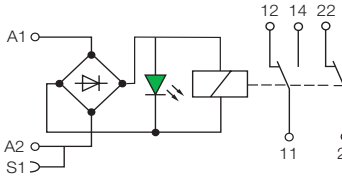
2CDC 292 041 F0013

RB/RBR 121 AI



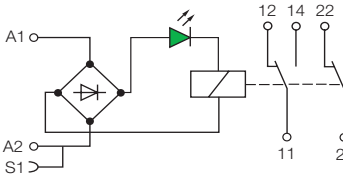
2CDC 292 042 F0013

RB/RBR 121 AR



2CDC 292 043 F0013

RB/RB 122 A - 24/48/60 V AC/DC



2CDC 292 044 F0013

RB/RBR 122 A - 115/230 V AC/DC

Interface relays R600 range
Technical data

Technical data

		RB 111 A					RB 111 AI
Input circuit							
Rated control supply voltage U_s		24 V AC/DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC	24 V AC/DC
Rated control supply voltage U_s tolerance	DC	-15 %, +20 %				-15 %, +10 %	-15 %, +20 %
	AC	-/+ 10 %					
Rated frequency		50/60 Hz					
Typical power consumption		0.24 W	0.34 W	0.54 W	0.46 W	0.8 W	0.24 W
Typical current		10 mA	7 mA	9 mA	4 mA	3.5 mA	10 mA
Drop-out voltage		4.5 V	8 V	8 V	17 V	27 V	4.5 V
Indication of operational states	green LED	⎍: control supply voltage applied					
Output circuit							
Kind of output	13-14	relay, 1 n/o contact					
Rated operational voltage U_e (IEC/EN 60947-1)		250 V AC					
Minimum switching voltage		12 V					
Maximum switching voltage		250 V AC					
Minimum switching current		10 mA					
Rated operational current (IEC/EN 60947-5-1)	AC12 (resistive) 230 V	6 A					
	AC15 (inductive) 230 V	1.5 A					
	AC15 (inductive) 120 V	3 A					
	DC12 (resistive) 24 V	6 A					
	DC13 (inductive) 24 V	1 A					
	DC13 (inductive) 120 V	0.2 A					
	DC13 (inductive) 230 V	0.1 A					
AC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	B300					
DC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	R300					
Minimum switching power		0.6 W / 0.6 VA					
Mechanical lifetime		1 x 10^7 switching cycles					
Electrical lifetime	at AC15	1 x 10^5 switching cycles					
Response time		5 ms	5 ms	5 ms	6 ms	7 ms	5 ms
Release time		8 ms	8 ms	8 ms	15 ms	15 ms	8 ms
Dimensions and weight		RB 111 A / RB 111 AI high level			RBR 111 A / RBR 111 AI high level		
Weight	net weight	0.02 kg (0.044 lb)					
Dimension	product dimension	6 x 75 x 75 mm (0.236 x 2.95 x 2.95 in)					
	packaging dimension						

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Interface relays R600 range
Technical data

Technical data

		RB... 111AR high level	RB... 101AR high level
Input circuit			
Rated control supply voltage U_s		24 V AC/DC	
Rated control supply voltage U_s tolerance	DC	-15 %, +20 %	
	AC	-/+ 10 %	
Rated frequency		50/60 Hz	
Typical power consumption		0.24 W	
Typical current		10 mA	
Drop-out voltage		4.5 V	
Indication of operational states	green LED	∫‾‾‾‾l: control supply voltage applied	
Output circuit			
Kind of output	11-12	-	relay, 1 n/c contact
	13-14	relay, 1 n/o contact	-
Rated operational voltage U_e (IEC/EN 60947-1)		250 V AC	
Minimum switching voltage		12 V	
Maximum switching voltage		250 V AC	
Minimum switching current		10 mA	
Rated operational current (IEC/EN 60947-5-1)	AC12 (resistive) 230 V	6 A	
	AC15 (inductive) 230 V	1.5 A	
	AC15 (inductive) 120 V	3 A	
	DC12 (resistive) 24 V	6 A	
	DC13 (inductive) 24 V	1 A	
	DC13 (inductive) 120 V	0.2 A	
	DC13 (inductive) 230 V	0.1 A	
AC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	B300	
DC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	R300	
Minimum switching power		0.6 W / 0.6 VA	
Mechanical lifetime		1 x 10^7 switching cycles	
Electrical lifetime	at AC15	1 x 10^5 switching cycles	
Response time		5 ms	
Release time		8 ms	
Dimensions and weight		**RB 111AR / RB 101AR high level**	**RBR 111A / RBR 111AR high level**
Weight	net weight	0.03 kg (0.066 lb)	
Dimension	product dimension	12 x 70 x 75 mm (0.472 x 2.76 x 2.95 in)	12 x 75 x 75 mm (0.472 x 2.95 x 2.95 in)
	packaging dimension		

Interface relays R600 range
Technical data

Technical data

		RB... 121 / RB... 121A high level						
Input circuit								
Rated control supply voltage U_s		5 V DC	12 V DC	24 V AC/DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC
Rated control supply voltage U_s tolerance	DC	-15 %, +20 %						-15 %, +10 %
	AC	-		-/+ 10 %				
Rated frequency		-		50/60 Hz				
Typical power consumption		0.2 W	0.2 W	0.24 W	0.33 W	0.54 W	0.46 W	0.8 W
Typical current		40 mA	16 mA	10 mA	7 mA	9 mA	4 mA	3.5 mA
Drop-out voltage		1.2 V	2.2 V	4.5 V	8 V	8 V	17 V	27 V
Indication of operational states	green LED	⎍: control supply voltage applied						
Output circuit								
Kind of output	11-12/14	relay, 1 c/o (SPDT) contact						
Rated operational voltage U_e (IEC/EN 60947-1)		250 V AC						
Minimum switching voltage		12 V						
Maximum switching voltage		250 V AC						
Minimum switching current		10 mA						
Rated operational current (IEC/EN 60947-5-1)	AC12 (resistive) 230 V	6 A						
	AC15 (inductive) 230 V	1.5 A						
	AC15 (inductive) 120 V	3 A						
	DC12 (resistive) 24 V	6 A						
	DC13 (inductive) 24 V	1 A						
	DC13 (inductive) 120 V	0.2 A						
	DC13 (inductive) 230 V	0.1 A						
AC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	B300						
DC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	R300						
Minimum switching power		0.6 W / 0.6 VA						
Mechanical lifetime		1 x 10^7 switching cycles						
Electrical lifetime	at AC15	1 x 10^5 switching cycles						
Response time		5 ms	5 ms	5 ms	5 ms	5 ms	6 ms	7 ms
Release time		8 ms					15 ms	16 ms
Dimensions and weight		RB 121 / RB 121A high level			RBR 122 / RBR 122A high level			
Weight	net weight	0.02 kg (0.044 lb)						
Dimension	product dimension	6 x 70 x 75 mm (0.236 x 2.76 x 2.95 in)			6 x 75 x 75 mm (0.236 x 2.95 x 2.95 in)			
	packaging dimension							

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Interface relays R600 range
Technical data

Technical data

		RB... 121 / RB... 121A low level						
Input circuit								
Rated control supply voltage U_s		5 V DC	12 V DC	24 V AC/DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC
Rated control supply voltage U_s tolerance	DC	-15 %, +20 %						-15 %, +10 %
	AC	-		-/+ 10 %				
Rated frequency		-		50/60 Hz				
Typical power consumption		0.2 W	0.2 W	0.24 W	0.33 W	0.54 W	0.46 W	0.8 W
Typical current		40 mA	16 mA	10 mA	7 mA	9 mA	4 mA	3.5 mA
Drop-out voltage		1.2 V	2.2 V	4.5 V	8 V	8 V	17 V	27 V
Indication of operational states	green LED	⎍: control supply voltage applied						
Output circuit								
Kind of output	11-12/14	relay, 1 c/o (SPDT) contact						
Rated operational voltage U_e (IEC/EN 60947-1)		250 V AC						
Minimum switching voltage		5 V						
Maximum switching voltage		250 V AC						
Minimum switching current		1 mA						
Rated operational current (IEC/EN 60947-5-1)	AC12 (resistive) 230 V	6 A						
	AC15 (inductive) 230 V	1.5 A						
	AC15 (inductive) 120 V	3 A						
	DC12 (resistive) 24 V	6 A						
	DC13 (inductive) 24 V	1 A						
	DC13 (inductive) 120 V	0.2 A						
	DC13 (inductive) 230 V	0.1 A						
AC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	B300						
DC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	R300						
Minimum switching power		0.05 W / 0.05 VA						
Mechanical lifetime		1 x 10^7 switching cycles						
Electrical lifetime	at AC15	1 x 10^5 switching cycles						
Response time		5 ms	5 ms	5 ms	5 ms	5 ms	6 ms	7 ms
Release time		8 ms					15 ms	16 ms

Dimensions and weight		RB 121 / RB 121A low level	RBR 122 / RBR 122A low level
Weight	net weight	0.02 kg (0.044 lb)	
Dimension	product dimension	6 x 70 x 75 mm (0.236 x 2.76 x 2.95 in)	6 x 75 x 75 mm (0.236 x 2.95 x 2.95 in)
	packaging dimension		

Interface relays R600 range
Technical data

Technical data

		RB... 121AR / RB... 121AI low level			RB... 121AI low level
Input circuit					
Rated control supply voltage U_s		115 V AC/DC	230 V AC/DC	24 V AC/DC	24 V AC/DC
Rated control supply voltage U_s tolerance	DC	-20%, +15%	-10%, +15%	-20%, +15%	
	AC	-/+ 10 %			
Rated frequency		50/60 Hz			
Typical power consumption		2 W	2.8 W	0.24 W	0.24 W
Typical current		18 mA	12 mA	10 mA	10 mA
Drop-out voltage		17 V	27 V	4.5 V	
Indication of operational states	green LED	⎍: control supply voltage applied			
Output circuit					
Kind of output	11-12/14	relay, 1 c/o (SPDT) contact			
Rated operational voltage U_e (IEC/EN 60947-1)		250 V AC			
Minimum switching voltage		12 V			5 V
Maximum switching voltage		250 V AC			
Minimum switching current		10 mA			1 mA
Rated operational current (IEC/EN 60947-5-1)	AC12 (resistive) 230 V	6 A			
	AC15 (inductive) 230 V	1.5 A			
	AC15 (inductive) 120 V	3 A			
	DC12 (resistive) 24 V	6 A			
	DC13 (inductive) 24 V	1 A			
	DC13 (inductive) 120 V	0.2 A			
	DC13 (inductive) 230 V	0.1 A			
AC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	B300			
DC rating (UL 508; NEMA ICS-5)	Utilization category (pilot duty)	R300			
Minimum switching power		0.6 W / 0.6 VA			0.05 W / 0.05 VA
Mechanical lifetime		1 x 10^7 switching cycles			
Electrical lifetime	at AC15	1 x 10^5 switching cycles			
Response time		6 ms	7 ms	5 ms	5 ms
Release time		15 ms	16 ms	8 ms	8 ms
Dimensions and weight		RB 121AR/RB 121AI low/high level		RB 121AR/RBR 121AI low/high level	
Weight	net weight	0.03 kg (0.066 lb)			
Dimension	product dimension	12 x 70 x 75 mm (0.472 x 2.76 x 2.95 in)		12 x 75 x 75 mm (0.472 x 2.95 x 2.95 in)	
	packaging dimension				

Technical data

		RB... 122A low level				
Input circuit						
Rated control supply voltage U_s		24 V AC/DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC
Rated control supply voltage U_s tolerance	DC	-15 %, +20 %				-15 %, +10 %
	AC	-/+ 10 %				
Rated frequency		50/60 Hz				
Typical power consumption		0.48 W	0.62 W	0.96 W	0.58 W	1.15 W
Typical current		20 mA	13 mA	16 mA	5 mA	5 mA
Drop-out		5.4 V	8.8 V	8.8 V V	20 V	10 V
Indication of operational states	green LED	⎍: control supply voltage applied				
Output circuit						
Kind of output	11-12/14	relay, 1st c/o (SPDT) contact				
	21-22/24	relay, 2nd c/o (SPDT) contact				
Rated operational voltage U_e (IEC/EN 60947-1)		250 V AC				
Minimum switching voltage		5 V				
Maximum switching voltage		250 V DC - 250 V AC				
Minimum switching current		1 mA				
Rated operational current (IEC/EN 60947-5-1)	AC12 (resistive) 230 V	8 A		5 A		
Minimum switching power		5 mW / 5 mVA				
Mechanical lifetime		2 x 10^7 switching cycles				
Electrical lifetime	at AC15	1 x 10^5 switching cycles				
Response time		6 ms	10 ms	10 ms	6 ms	6 ms
Release time		10 ms	14 ms	14 ms	15 ms	15 ms
Dimensions and weight		RB 122A low level			RBR 122A low level	
Weight	net weight	0.03 kg (0.066 lb)				
Dimension	product dimension	12 x 70 x 75 mm (0.472 x 2.76 x 2.95 in)			12 x 75 x 75 mm (0.472 x 2.95 x 2.95 in)	
	packaging dimension					

Interface relays R600 range
General technical data

Technical data

		RB	RBR
General data			
Material of housing		UL 94 V0	
Degree of protection	housing / terminals	IP20 NEMA1	
Electrical connection		**Screw terminal**	**Spring-type terminal**
Wire size	fine-stranded	0.22-2.5 mm² (24-14 AWG)	
	rigid	0.2-4 mm² (24-12 AWG)	0.2-2.5 mm² (24-14 AWG)
Stripping length		9 mm / 0.354 in	
Tightening torque		0.4-0.6 Nm (3.5-5.3 lb.in)	
Environmental data			
Ambient temperature ranges	storage	-40...+80 °C	
	operation	-20...+70 °C	
Isolation data			
Rated insulation voltage Ui (IEC/EN 60950-1, EN 50178)		4000 V RMS	
Rated impulse withstand voltage U_{imp} (EN 50178)	input / output	4000 V RMS (RB122A: 3800 V RMS, RB111AR: 3500 V RMS)	
	shock coil / output	4000 V RMS	
	output / output	1000 V RMS	

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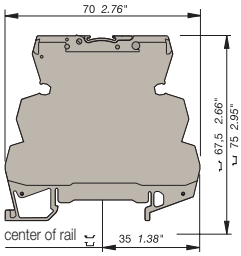
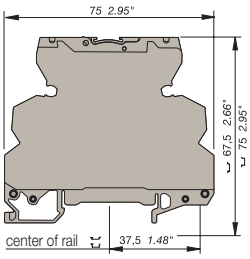
Interface relays R600 range
Dimensional drawings, Load limit curves

All interface relays of R600 range



Screw clamp module



Spring clamp module

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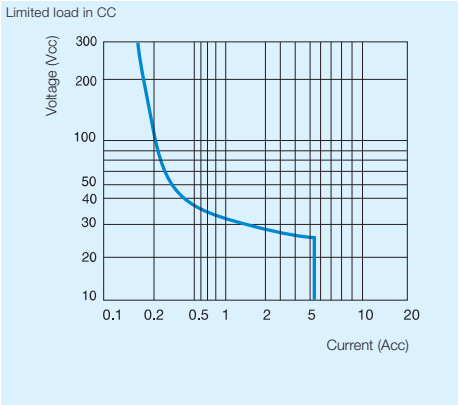
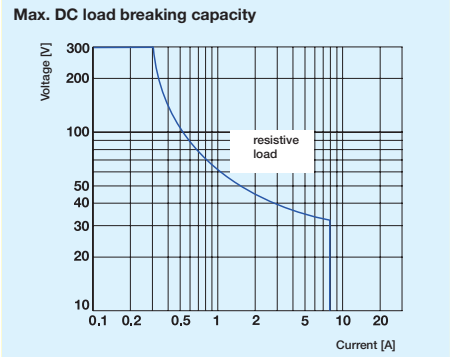
Load limit curves
RB 111 A, RB 111 AI, RB 111 AR, RB 101 AR, RB 121 AR, RB 121 AI, RB 121 AI (gold plated), RB 121 AI RB 121 (gold plated), RB 121 A (gold plated), RB 121, RB 121 A



	DC12	AC12	DC13	AC15
24 V	6 A	6 A	1	3 A
110/120 V	0,3 A	6 A	0.2 A	3 A
220/230 V	0.2 A	6 A	0.1 A	3 A

Load limit curve RB ... 122A (gold plated)



Optocouplers R600 range
Product group picture

Optocouplers R600 range
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Optocouplers R600 range
Selection

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Order number	1SNA 645 047 R0000	1SNA 645 547 R0200	1SNA 645 021 R2600	1SNA 645 521 R2000	1SNA 645 049 R1200	1SNA 645 549 R1400	1SNA 645 022 R2700	1SNA 645 522 R2100	1SNA 645 050 R1700	1SNA 645 550 R1100	1SNA 645 051 R0400	1SNA 645 025 R2200	1SNA 645 024 R2100	1SNA 645 551 R0600	1SNA 645 525 R2400	1SNA 645 524 R2300	1SNA 645 053 R0600	1SNA 645 553 R0000	1SNA 645 054 R0700	1SNA 645 058 R1300	1SNA 645 554 R0100	1SNA 645 558 R1500	1SNA 645 026 R2300	1SNA 645 059 R1400	1SNA 645 526 R2500	1SNA 645 559 R1600	1SNA 645 027 R2400	1SNA 645 029 R0600	1SNA 645 527 R2600	1SNA 645 529 R0000
Type	OBIC 0100 5-12VDC	OBRIC 0100 5-12VDC	OBIC 0100 24VDC	OBRIC 0100 24VDC	OBIC 0100 48-60VAC/DC	OBRIC 0100 48-60VAC/DC	OBIC 0100 115-230VAC/DC	OBRIC 0100 115-230VAC/DC	OBOC 1000-5-12VDC	OBROC 1000-5-12VDC	OBOC 1000-24VDC	OBOC 1500-24VAC/DC	OBOC 5000-24VDC	OBROC 1000-24VDC	OBROC 1500-24VAC/DC	OBROC 5000-24VDC	OBOC 1000-48-60VAC/DC	OBROC 1000-48-60VAC/DC	OBOC 1000-115VAC/DC	OBOC 5000-115VAC/DC	OBROC 1000-115VAC/DC	OBROC 5000-115VAC/DC	OBOC 1000-230VAC/DC	OBOC 5000-230VAC/DC	OBROC 1000-230VAC/DC	OBROC 5000-230VAC/DC	OBOA 1000-24VDC	OBOA 2000-24VDC	OBROA 1000-24VDC	OBROA 2000-24VDC
Input voltage																														
5 - 12 V DC	■	■							■	■																				
24 V DC			■	■							■	■	■	■	■	■											■	■	■	■
48 - 60 V DC					■	■											■	■												
115 - 230 V DC							■	■																						
115 V DC																			■	■	■	■								
230 V DC							■	■															■	■	■	■				
24 V AC												■			■															
48 - 60 V AC					■	■											■	■												
115-230 V AC							■	■																						
115 V AC																			■	■	■	■								
230 V AC																							■	■	■	■				
Output rating																														
100 mA	■	■	■	■	■	■	■	■																						
2 A									■	■	■	■		■	■		■	■	■		■		■		■			■		■
5 A													■			■				■		■		■		■				
1 A																											■		■	
Output voltage																														
58 V DC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
400 V AC																											■	■	■	■
Terminal type																														
Screw	■		■		■		■		■		■	■	■				■		■	■			■	■			■	■		
Spring		■		■		■		■		■				■	■	■		■			■	■			■	■			■	■

Optocouplers R600 range
Selection

	OBOA 1000-48-60VAC/DC	OBROA 1000-48-60VAC/DC	OBOA 1000-115VAC/DC	OBROA 1000-115VAC/DC	OBOA 1000-230VAC/DC	OBROA 1000-230VAC/DC
	1SNA 645 061 R0600	1SNA 645 561 R0000	1SNA 645 062 R0700	1SNA 645 562 R0100	1SNA 645 028 R0500	1SNA 645 528 R0700
	■	■				
			■	■		
					■	■
	■	■				
			■	■		
					■	■
	■	■	■	■	■	■
	■	■	■	■	■	■
	■		■		■	
		■		■		■

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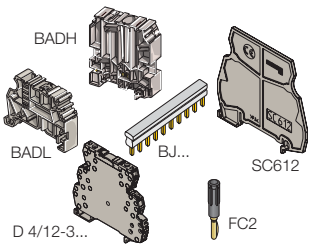
Optocouplers R600 range
Ordering details

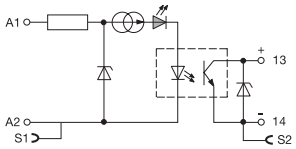
2CDC 291 001 F0013

R600 Optocoupler	Type	Order code	Price	Pkg qty	Weight (1 pce) kg (lb)
Optocoupler module 100 mA/DC	OBIC 0100-5-12VDC	1SNA645047R0000		10	0.02 (0.44)
	OBIC 0100-24VDC	1SNA645021R2600			
	OBIC 0100-48-60VAC/DC	1SNA645049R1200			
	OBIC 0100-115-230VAC/DC	1SNA645022R2700			
Optocoupler module 100 mA/DC	OBRIC 0100-5-12VDC	1SNA645547R0200		10	0.02 (0.44)
	OBRIC 0100-24VDC	1SNA645521R2000			
	OBRIC 0100-48-60VAC/DC	1SNA645549R1400			
	OBRIC 0100-115-230VAC/DC	1SNA645522R2100			
Optocoupler module 2 A/DC	OBOC 1000-5-12VDC	1SNA645050R1700		10	0.02 (0.44)
	OBOC 1000-24VDC	1SNA645051R0400			
	OBOC 1500-24VAC/DC	1SNA645025R2200			
	OBOC 1000-48-60VAC/DC	1SNA645053R0600			
	OBOC 1000-115VAC/DC	1SNA645054R0700			
	OBOC 1000-230VAC/DC	1SNA645026R2300			
Optocoupler module 2 A/DC	OBROC 1000-5-12VDC	1SNA645550R1100		10	0.02 (0.44)
	OBROC 1000-24VDC	1SNA645551R0600			
	OBROC 1500-24VAC/DC	1SNA645525R2400			
	OBROC 1000-48-60VAC/DC	1SNA645553R0000			
	OBROC 1000-115VAC/DC	1SNA645554R0100			
	OBROC 1000-230VAC/DC	1SNA645526R2500			
Optocoupler module 5 A/DC	OBOC 5000-24VDC	1SNA645024R2100		10	0.02 (0.44)
	OBOC 5000-115VAC/DC	1SNA645058R1300			
	OBOC 5000-230VAC/DC	1SNA645059R1400			
Optocoupler module 5 A/DC	OBROC 5000-24VDC	1SNA645524R2300		10	0.02 (0.44)
	OBROC 5000-115VAC/DC	1SNA645558R1500			
	OBROC 5000-230VAC/DC	1SNA645559R1600			
Optocoupler module 1 A/AC 6 mm spacing	OBOA 1000-24VDC	1SNA645027R2400		10	0.03 (0.066)
	OBOA 1000-48-60VAC/DC	1SNA645061R0600			
	OBOA 1000-115VAC/DC	1SNA645062R0700			
	OBOA 1000-230VAC/DC	1SNA645028R0500			
Optocoupler module 2 A/AC 12 mm spacing	OBOA 2000-24VDC	1SNA645029R0600		5	0.03 (0.066)
Optocoupler module 1 A/AC 6 mm spacing	OBROA 1000-24VDC	1SNA645527R2600		10	0.03 (0.066)
	OBROA 1000-48-60VAC/DC	1SNA645561R0000			
	OBROA 1000-115VAC/DC	1SNA645562R0100			
	OBROA 1000-230VAC/DC	1SNA645528R0700			
Optocoupler module 2 A/AC 12 mm spacing	OBROA 2000-24VDC	1SNA645529R0000		5	0.03 (0.066)

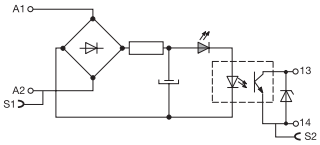


Accessories	Type	Order code	Price	Pkg qty	Weight (1 pce) kg (lb)
End section	BADH V0	1SNA116900R2700		50	
	BADL V0	1SNA399903R0200		50	
	BAM2 V0	1SNA399967R0100		50	
Seperator end section	SC 612	1SNA290474R0200		10	
Divisible shunt 10 poles	BJ 612-10	1SNA290488R0100		10	
Divisible shunt 20 poles	BJ 612-20	1SNA206754R0000		10	
Screw clamp distribution block sp. 12 mm	D4/12-3-3	1SNA645031R2000		5	
Spring clamp distribution block sp. 12 mm	D4/12-3R-3R	1SNA645531R2200		5	
Test plug DIA. 2 mm	FC2	1SNA645531R2200		10	
Marking method	RC65 / RC610	see marking			

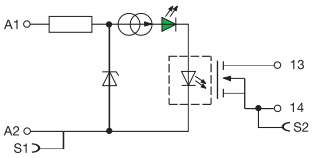
Optocouplers R600 range
Connection diagrams



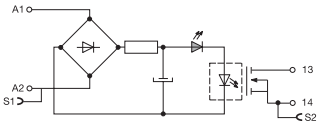
OB...IC 0100 - 5-12 V DC
115-230 V AC/DC



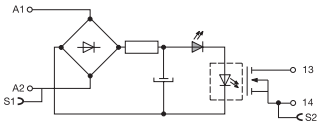
OB...IC 0100
24 V DC
24-48-60 V AC/DC



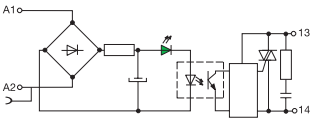
OB...OC 1000 - 5-12 V DC



OB...OC 1500 - 24 V AC/DC
OB...OC 1000
24 V DC
48-60-115-230 V AC/DC



OB...OC 5000
24 V DC
24-48-60-115-230 V AC/DC



OB...OA 1000
24 V DC
48-60-115-230 V AC/DC
OB...OA 2000 - 24 V DC

5

Optocouplers R600 range
Technical data

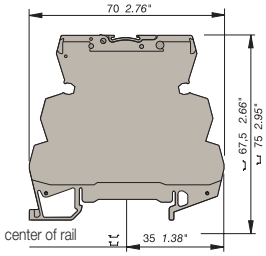
Technical data

Optocoupler : 5 to 58 V DC output / 100 mA - 6 mm 0.236“ spacing

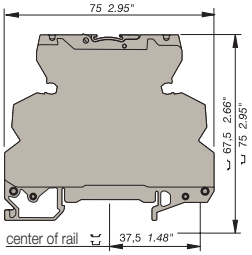
		OB...IC 0100						
Relay characteristics coil								
Input voltage: +20%, -15% on DC ; 10%, -10% on AC		5 V DC - 12 V DC		24 V DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC
Frequency					50 / 60 Hz			
Input current AC/DC		5 mA	9 mA	4 mA	4 mA	5 mA	7 mA / 16 mA	11.5 mA / 25 mA
Pull-in voltage at Is=100%		4 V		15 V	25 V		60 V AC / 70 V DC	
Switching time C / O		10 µs / 500 µs						
Operating frequency		1000 Hz			5 ms / 20 ms		5 ms / 15 ms	
Permissible leakage current					20 Hz			
Output		0.9 mA		1 mA	0.9 mA		1.6 mA	
Output voltage		4.5 to 58 V DC						
Output current min.		1 mA						
Output current max.		100 mA						
Output leakage current at U_{max}		< 50 µA						
Redidual voltage at I max and U rated	typical	1 V						
	max	1.3 V						
Frequency on inductive load								
Isolation Input / Output	input / Output	2500 V RMS						
Temperature	storage	-40...+80 °C						
	operating	-20...+70 °C [1]						
Other characteristics		**Screw clamp**			**Spring clamp**			
Body material	grey	UL 94 V0						
Wire size	Solid wire	0.2 - 4 mm² (24-12 AWG)			0.2-2.5 mm² (24-12 AWG)			
	Stranded wire	0.22 - 2.5 mm² (24-12 AWG)						
Rated wire size		2.5 mm² (12 AWG)						
Wire stripping length		9 mm (0.354 in)						
Recommended screwdriver		3.5 mm (0.137 in)						
Protection		IP20 *NEMA1*						
Recommended torque		0.4-0.6 Nm (3.5-5.3 lb.in)						
Approvals		c UL us (pending for 12 V DC) , (pending), , LRS , CE						
Reference standards		CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IEC 1000-4-2, 3, 4, 5, 6.						

[1] Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.

Dimensional drawings



Screw clamp module



Spring clamp module

Optocouplers R600 range
Technical data

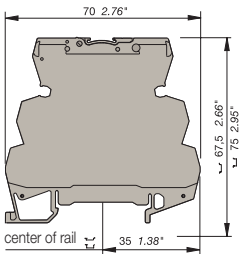
Technical data

Optocoupler : 5 to 58 V DC output / 2 A - 6 mm 0.236“ spacing

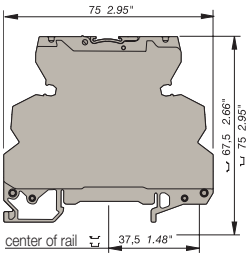
		OB...OC 0100			OB..OC 1500	OB...OC 1000			
Relay characteristics coil									
Input voltage: +20%, -15% on DC ; 10%, -10% on AC		5 V DC - 12 V DC		24 V DC	24 V AC/DC	48 V AC/DC	60 V AC/DC	115 V AC/ DC	230 V AC/ DC
Frequency					50 / 60 Hz				
Input current		5 mA	9 mA	4 mA	6.3 mA	4 mA	5.1 mA	4.2 mA	4 mA
Pull-in voltage at Is=100%		4 V		15 V	15 V	27 V		50 V	80 V
Switching time C / O		15 µs / 250 µs		30 µs / 400 µs	1 ms / 7 ms	5 ms / 20 ms		500 µs / 10 ms	1 ms / 15 ms
Operating frequency		2000 Hz		1000 Hz	60 Hz	20 Hz			
Permissible leakage current		1 mA		0.8 mA	0.9 mA	1 mA		0.3 mA	
Output									
Output voltage		4.5 to 58 V DC							
Output current min.		1 mA							
Output current max.		2 A							
Output leakage current at U_{max}		< 50 µA							
Redidual voltage at I max and U rated	typical	0.1 V							
	max	0.5 V							
Frequency on inductive load									
Isolation Input / Output	input / Output	2500 V RMS							
Temperature	storage	-40...+80 °C							
	operating	-20...+70 °C [1]							
Other characteristics		**Screw clamp**				**Spring clamp**			
Body material	grey	UL 94 V0							
Wire size	Solid wire	0.2 - 4 mm² (24-12 AWG)				0.2-2.5 mm² (24-12 AWG)			
	Stranded wire	0.22 - 2.5 mm² (24-12 AWG)							
Rated wire size		2.5 mm² (12 AWG)							
Wire stripping length		9 mm (0.354 in)							
Recommended screwdriver		3.5 mm (0.137 in)							
Protection		IP20 *NEMA1*							
Recommended torque		0.4-0.6 Nm (3.5-5.3 lb.in)							
Approvals		c UL us (pending for 12 V DC) , CSA (pending), GL , LRS , CE							
Reference standards		CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IEC 1000-4-2, 3, 4, 5, 6.							

[1] Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.

Dimensional drawings



Screw clamp module



Spring clamp module

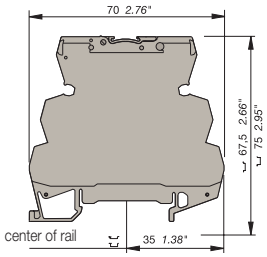
Optocouplers R600 range
Technical data

Technical data

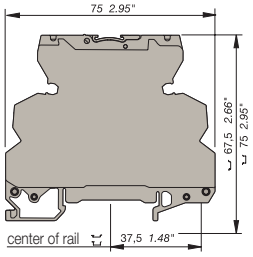
Optocoupler : 5 to 58 V DC output / 5 A - 6 mm 0.236“ spacing

		OB... OC 5000		
Input				
Input voltage		24 V DC	115 V AC/DC	230 V AC/DC
Frequency			50 / 60 Hz	50 / 60 Hz
Input current		5.4 mA	4.2 mA	4 mA
Pull-in voltage at Is=100%		12 V	50 V	80 V
Switching time C / O		30 µs / 400 µs	500 µs / 10 ms	1ms / 15 ms
Operating frequency		1000 Hz	50 Hz	35 Hz
Permissible leakage current		0.8 mA	0.3 mA	0.3 mA
Output				
Output voltage		4.5- 58 V DC		
Output current min.		25 mA		
Output current max.		5 A		
Output leakage current at $U_{max.}$		< 0.50 mA		
Redidual voltage at I max and U rated	typical	1 V		
	max	1.6 V		
Frequency on inductive load		See Note 1		
Isolation Input / Output	input / Output	2500 V RMS		
Temperature				
Ambient temperature	storage	-40...+80 °C		
	operating	See derating curve		
Other characteristics				
Body material	grey	UL 94 V0		
Wire size	Solid wire	0.2 - 4 mm² (24-12 AWG)		
	Stranded wire	0.22 - 2.5 mm² (24-12 AWG)		
Rated wire size		2.5 mm² (12 AWG)		
Wire stripping length		10 mm (0.394 in)		
Recommended screwdriver		3.5 mm (0.137 in)		
Protection		IP20 *NEMA1*		
Recommended torque		0.4-0.6 Nm (3.5-5.3 lb.in)		
Approvals		c UL us (pending), CE		
Reference standards		CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IEC 1000-4-2, 3, 4, 5, 6.		

Dimensional drawings



Screw clamp module



Spring clamp module

Optocouplers R600 range
Technical data

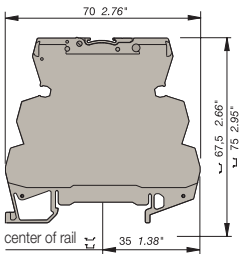
Technical data

Optocoupler : 24 to 400 V AC output / 2 A max. - 6 mm or 12 mm spacing

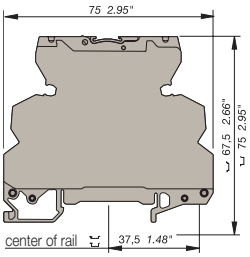
		OB...OA 1000					OB...OA 2000
Relay characteristics coil							
Input voltage: +20%, -15% on DC ; 10%, -10% on AC		24 V DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC	24 V DC
Frequency			50/60 Hz				
Input current		3.6 mA	4.3 mA	5.5 mA	4.15 mA	4.6 mA	3.6 mA
Pull-in voltage at Is=100%		14 V	15 V	18 V	60 V	135 V	14 V
Switching time C / O		150 µs / 1 ms	3 ms / 30 ms		2.2 ms / 18 ms	2.5 ms / 25 ms	150 µs / 1 ms
Operating frequency		500 Hz	20 Hz		25 Hz	20 Hz	500 Hz
Permissible leakage current		1 mA					
Output							
Output voltage		24-400 V AC					
Frequency		50/60 Hz					
Output current min.		25 mA					
Output current max.		1 A					2 A
Output leakage current at $U_{max.}$		< 0.50 mA					
Redidual voltage at I max and U rated	typical	1 V					
	max	1.6 V					
Frequency on inductive load							
Isolation Input / Output	input / Output	2500 V RMS					
Temperature	storage	-40...+80 °C					
	operating	-20...+70 °C [1]					
Other characteristics		Screw clamp			Spring clamp		
Body material	grey	UL 94 V0					
Wire size	Solid wire	0.2 - 4 mm² (24-12 AWG)			0.2-2.5 mm² (24-12 AWG)		
	Stranded wire	0.22 - 2.5 mm² (24-12 AWG)					
Rated wire size		2.5 mm² (12 AWG)					
Wire stripping length		9 mm (0.354 in)					
Recommended screwdriver		3.5 mm (0.137 in)					
Protection		IP20 *NEMA1*					
Recommended torque		0.4-0.6 Nm (3.5-5.3 lb.in)					
Approvals		c UL us (pending for 12 V DC) , CSA (pending), GL , LRS , CE					
Reference standards		CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IEC 1000-4-2, 3, 4, 5, 6.					

[1] Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.

Dimensional drawings



Screw clamp module



Spring clamp module

Terminal blocks component holder

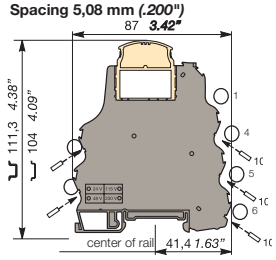
Base for pluggable plug R500 Series

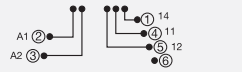
DIN 3

End stop	th. 9 mm	BADL	V0	1SNA 399 903 R0200
End stop	th. 9,1 mm	BAM	V2	1SNA 103 002 R2600
End stop	th. 9,1 mm	BAM V0	V0	1SNA 199 306 R0300
Rail	35 x 7,5 x 1	PR3.Z2		1SNA 174 300 R1700
Rail	35 x 15 x 2,3	PR4		1SNA 168 500 R1200
Rail	35 x 15 x 1,5	PR5		1SNA 168 700 R2200

D 2,5/5-MP

Spacing 5,08 mm *(.200")*

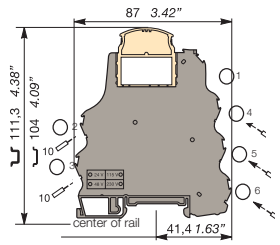


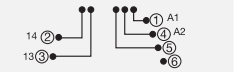


Relay/opto. base without output LED

D 2,5/5-MP1

Spacing 5,08 mm *(.200")*

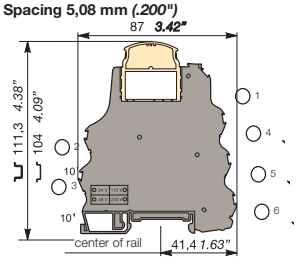


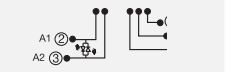


Relay/opto. base without input LED

D 2,5/5-MP...

Spacing 5,08 mm *(.200")*





Relay/opto. base with output LED

Observations

Terminal blocks are delivered without plugs.

Max. working temperature
version without LED : 100°C
version with LED : 85°C
Contact resistance : < 5 mΩ

Type	Part numbers
D 2,5/5-MP	
Grey V0 **Order plugs separately**	
D 2,5/5-MP	1SNA607224R0100
D 2,5/5-MP1	
Grey V0 **Order plugs separately**	
D 2,5/5-MP1	1SNA607223R0000
D 2,5/5-MP...	
Grey V0 **Order plugs separately**	
D 2,5/5-MP-24VDC	1SNA607222R0700
D 2,5/5-MP-24VAC/DC	1SNA607260R2100
D 2,5/5-MP-48VAC/DC	1SNA607261R1600
D 2,5/5-MP-110VAC	1SNA607266R1300
D 2,5/5-MP-230VAC	1SNA607267R1400

Characteristics

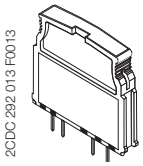
			D 2,5/5-MP IEC	D 2,5/5-MP UL/CSA pending	D 2,5/5-MP1 IEC	D 2,5/5-MP1 UL/CSA pending	D 2,5/5-MP... IEC	D 2,5/5-MP... UL/CSA pending
Wire size	Compression clamp	Solid wire	0,2-4 mm²	24-12 AWG	0,2-4 mm²	24-12 AWG	0,2-4 mm²	24-12 AWG
		Stranded wire	0,22-2,5 mm²	24-12 AWG	0,22-2,5 mm²	24-12 AWG	0,22-2,5 mm²	24-12 AWG
Voltage	Rated		320 V	300 V	320 V	300 V	320 V	300 V
	Pulse		4 kV		4 kV		4 kV	
	Pollution degree		3		3		3	
Current	Rated		6 A	6 A	6 A	6 A	6 A	6 A
Wire size	Rated / Gauge		2,5 mm²	12 AWG	2,5 mm²	12 AWG	2,5 mm²	12 AWG
Wire stripping length			10 mm / .394"		10 mm / .394"		10 mm / .394"	
Recommended screwdriver			3,5 mm / .137"		3,5 mm / .137"		3,5 mm / .137"	
Recommended torque			0,4-0,6 Nm / 3,5-5,3 lb.in		0,4-0,6 Nm / 3,5-5,3 lb.in		0,4-0,6 Nm / 3,5-5,3 lb.in	
Protection			IP 20 / NEMA1		IP 20 / NEMA1		IP 20 / NEMA1	

Accessories

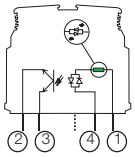
		D 2,5/5-MP Type		Part numbers	D 2,5/5-MP1 Type		Part numbers	D 2,5/5-MP... Type		Part numbers
1 Test device		DCB (1)	blue	1SNA105028R2100	DCB (1)	blue		DCB (1)	blue	1SNA105028R2100
2 Test plug		FC2	DIA. 2	1SNA007865R2600	FC2	DIA. 2	1SNA105028R2100	FC2	DIA. 2	1SNA007865R2600
3 Relay plug	1 SPDT 10 mA/6 A	BNMS R24V-1	beige	1SNA031820R1400			1SNA007865R2600	BNMS R24V-1	beige	1SNA031820R1400
	1 SPDT 1 mA/6 A	BNMS R24V-2	beige	1SNA031847R1300				BNMS R24V-2	beige	1SNA031847R1300
4 Input optocoupler plug	5 V DC				BNMS T5V-1	white	1SNA031831R0300			
	24 V DC				BNMS T24V-1	white	1SNA031848R2400			
	24 V DC				BNMS T24V-2	white	1SNA031800R2100			
	48 V DC				BNMS T48V-1	white	1SNA031801R1600			
	125 V DC				BNMS T125V-1	white	1SNA031845R1100			
	24 V AC				BNMS T24V-1	yellow	1SNA031802R1700			
	48 V AC				BNMS T48V-1	yellow	1SNA031803R1000			
	115 V AC				BNMS T115V-1	yellow	1SNA031804R1100			
	230 V AC				BNMS T230V-1	yellow	1SNA031805R1200			
5 Output optocoupler plug	24 V DC/100 mA	BNMS N24V-3	red	1SNA031807R1400				BNMS N24V-3	red	1SNA031807R1400
	24 V DC/100 mA	BNMS P24V-3	red	1SNA031810R1200				BNMS P24V-3	red	1SNA031810R1200
	24 V DC/2 A	BNMS N24V-1	red	1SNA031813R0100				BNMS N24V-1	red	1SNA031813R0100
	24 V DC/2 A	BNMS P24V-1	red	1SNA031815R0300				BNMS P24V-1	red	1SNA031815R0300
	24 V DC/1 A	BNMS N24V-2	red	1SNA031817R0500				BNMS N24V-2	red	1SNA031817R0500
	24 V DC/1 A	BNMS P24V-2	red	1SNA031819R1700				BNMS P24V-2	red	1SNA031819R1700
	24 V DC/1 A	BNMS A24V-4	black	1SNA031839R1300				BNMS A24V-4	black	1SNA031839R1300
5 Output optocoupler plug	5 V DC/100 mA	BNMS N5V-3	red	1SNA031806R1300						
	5 V DC/100 mA	BNMS P5V-3	red	1SNA031809R2600						
	48 V DC/100 mA	BNMS N48V-3	red	1SNA031808R2500						
	48 V DC/100 mA	BNMS P48V-3	red	1SNA031811R0700						
	5 V DC/2 A	BNMS N5V-1	red	1SNA031812R0000						
	5 V DC/2 A	BNMS P5V-1	red	1SNA031814R0200						
	5 V DC/1 A	BNMS N5V-2	red	1SNA031816R0400						
	5 V DC/1 A	BNMS P5V-2	red	1SNA031818R1600						
7 Fuse plug	125 V/125 mA	BNMS F125mA-1	grey	1SNA031821R0100	BNMS F125mA-1	grey	1SNA031821R0100	BNMS F125mA-1	grey	1SNA031821R0100
	125 V/500 mA	BNMS F500mA-1	grey	1SNA031838R1200	BNMS F500mA-1	grey	1SNA031838R1200	BNMS F500mA-1	grey	1SNA031838R1200
	125 V/2 A	BNMS F2A-1	grey	1SNA031822R0200	BNMS F2A-1	grey	1SNA031822R0200	BNMS F2A-1	grey	1SNA031822R0200
	125 V/5 A	BNMS F5A-1	grey	1SNA031823R0300	BNMS F5A-1	grey	1SNA031823R0300	BNMS F5A-1	grey	1SNA031823R0300
	250 V/125 mA	BNMS F125mA-2	grey	1SNA031824R0400	BNMS F125mA-2	grey	1SNA031824R0400	BNMS F125mA-2	grey	1SNA031824R0400
	250 V/2 A	BNMS F2A-2	grey	1SNA031825R0500	BNMS F2A-2	grey	1SNA031825R0500	BNMS F2A-2	grey	1SNA031825R0500
	250 V/5 A	BNMS F5A-2	grey	1SNA031826R0600	BNMS F5A-2	grey	1SNA031826R0600	BNMS F5A-2	grey	1SNA031826R0600
	125 V/125 mA	BNMS F125mA-3	grey	1SNA031827R0700				BNMS F125mA-3	grey	1SNA031827R0700
	250 V/125 mA	BNMS F125mA-4	grey	1SNA031828R1000				BNMS F125mA-4	grey	1SNA031828R1000
	125 V/2 A	BNMS F2A-7	grey	1SNA031849R2500	BNMS F2A-7	grey	1SNA031849R2500			
8 Strap plug		BNMS ST1	grey	1SNA031829R1100	BNMS ST1	grey	1SNA031829R1100	BNMS ST1	grey	1SNA031829R1100
		BNMS ST2	grey	1SNA031830R1600	BNMS ST2	grey	1SNA031830R1600			
9 Converter plug	0-20 mA/0-10 V	BNMS CAI/U-500	grey	1SNA031832R0400						
	4-20 mA/2-10 V	BNMS CAI/U-500	grey	1SNA031832R0400						
	0-20 mA/0-5 V	BNMS CAI/U-250	grey	1SNA031833R0500						
	4-20 mA/1-5 V	BNMS CAI/U-250		1SNA031833R0500						
10 Comb type jumper bar	10 poles	PCMS V0 (2) RC 55		1SNA205523R2200	PCMS V0 (2) RC 55		1SNA205523R2200	PCMS V0 (2) RC 55		1SNA 205523R2200
R See section on marking										

(1) Solely on the top stage. (2) Comb type jumper bar from 2 to 22 poles, see accessories.

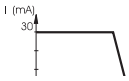
Input optocoupler plugs



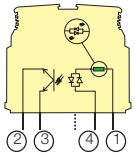
DC plugs



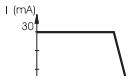
Derating curve



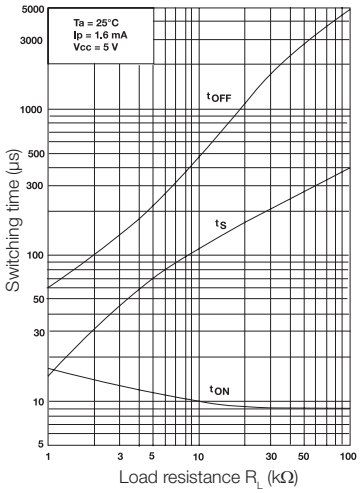
AC plugs



Derating curve



Switching time R_L curve 1 for 24 V DC plugs only

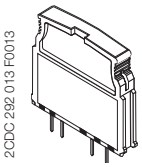


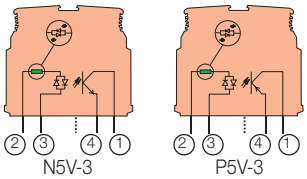
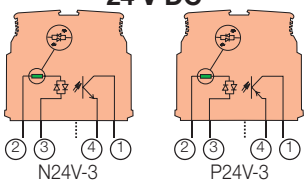
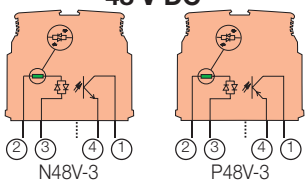
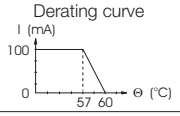
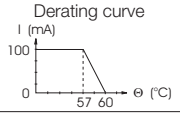
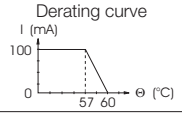
5

	5 V DC	24 V DC		48 V DC	125 V DC
Part number	**Type** **P/N**	**Type** **P/N**		**Type** **P/N**	**Type** **P/N**
	BNMS T5V-1 1SNA**031831**R**03**00	**BNMS T24V-1** 1SNA**031800**R**21**00		**BNMS T48V-1** 1SNA**031801**R**16**00	**BNMS T125V-1** 1SNA**031845**R**11**00
		BNMS T24V-2 1SNA**031848**R**24**00			
Characteristics					
INPUT		**BNMS T24V-1**	**BNMS T24V-2**		
Voltage	4,5 V to 5,5 V DC	19,2 V to 27,6 V DC		38,4 V to 55,2 V DC	93,5 V to 140 V DC
Max. current	6 mA	5 mA		4,1 mA	3 mA
Typical triggering threshol at Is = 100%	3,5 V	12 V DC		21 V DC	50 V DC
Switching time C/O	20 µs / 1,3 ms	20 µs / 1,3 ms	10 µs / see curve 1	20 µs / 1,3 ms	20 µs / 1,3 ms
Leakage current		1 mA		0,8 mA	
OUTPUT					
Max. voltage. / Max. current	58 V / 30 mA	58 V / 30 mA	58 V / 5 mA	58 V / 30 mA	58 V / 30 mA
Residual voltage max. I and rated U standard	2,3 V DC	2,3 V DC	0,3 V DC	2,3 V DC	2,3 V DC
max.	2,7 V DC	2,7 V DC	0,5 V DC	2,7 V DC	2,7 V DC
Compatibility			TTL		
Input / Ouput isolation	2,5 kV	2,5 kV		2,5 kV	2,5 kV
TEMPERATURE					
Storage	- 30°C to + 80°C	- 30°C to + 80°C		- 30°C to + 80°C	- 30°C to + 80°C
Operating	- 20°C to + 55°C	-20°C to + 55°C		- 20°C to + 55°C	- 20°C to + 55°C

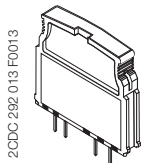
	24 V AC	48 V AC	115 V AC	230 V AC
Part number	**Type** **P/N**	**Type** **P/N**	**Type** **P/N**	**Type** **P/N**
	BNMS T24V-1 1SNA**031802**R**17**00	**BNMS T48V-1** 1SNA**031803**R**10**00	**BNMS T115V-1** 1SNA**031804**R**11**00	**BNMS T230V-1** 1SNA**031805**R**12**00
Charateristics				
INPUT				
Voltage	20,4 V to 26,4 V AC	40,8 V to 52,8 V AC	98 V to 126,5 V AC	195,5 V to 253 V AC
Max. current	8,5 mA	4,5 mA	8 mA	7 mA
Typical triggering threshold at Is = 100%	13 V AC	22 V AC	50 V AC	95 V AC
Switching time C/O	6 ms / 10 ms	6 ms / 10 ms	6 ms / 10 ms	6 ms / 10 ms
Leakage current	1 mA	1 mA	2 mA	2 mA
OUPUT				
Max. voltage / Max. current	58 V / 30 mA	58 V / 30 mA	58 V / 30 mA	58 V / 30 mA
Residual voltage max. I and rated U standard	2,3 V DC	2,3 V	2,3 V	2,3 V
max.	2,7 V DC	2,7 V	2,7 V	2,7 V
Input / Ouput isolation	2,5 kV	2,5 kV	2,5 kV	2,5 kV
TEMPERATURE				
Storage	- 30°C to + 80°C	- 30°C to + 80°C	- 30°C to + 80°C	- 30°C to + 80°C
Operating	- 20°C to + 55°C	- 20°C to + 55°C	- 20°C to + 55°C	- 20°C to + 55°C

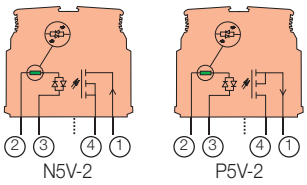
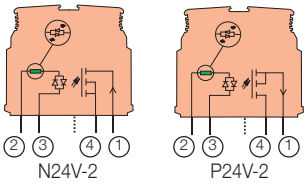
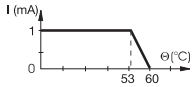
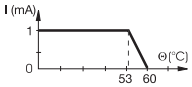
Transistor output optocoupler plugs



	100 mA output optocoupler 5 V DC		100 mA output optocoupler 24 V DC		100 mA output optocoupler 48 V DC	
						
	Derating curve 		Derating curve 		Derating curve 	
Part numbers	**Type**	**P/N**	**Type**	**P/N**	**Type**	**P/N**
	BNMS N5V-3	1SNA**031806**R**13**00	**BNMS N24V-3**	1SNA**031807**R**14**00	**BNMS N48V-3**	1SNA**031808**R**25**00
	BNMS P5V-3	1SNA**031809**R**26**00	**BNMS P24V-3**	1SNA**031810**R**12**00	**BNMS P48V-3**	1SNA**031811**R**07**00
Characteristics						
INPUT						
Voltage	4,5 V to 5,5 V DC		20,4 V to 28,8 V DC		40,8 V to 57,6 V DC	
Max. current	8,5 mA		4,8 mA		3,9 mA	
Typical triggering threshold at Is = 100 %	2,9 V DC		16 V DC		26 V DC	
Switching time C/O	20 µs / 1,3 ms		20 µs / 1,3 ms		20 µs / 1,3 ms	
Leakage current	1 mA		1 mA		1 mA	
OUTPUT						
Max. voltage / Max. current	58 V / 100 mA		58 V / 100 mA		58 V / 100 mA	
Residual voltage max. I and rated U						
standard U	1 V DC		1 V DC		1 V DC	
max.	1,3 V DC		1,3 V DC		1,3 V DC	
Frequency on inductive load	See Note 1		See Note 1		See Note 1	
Input / Output isolation	2,5 kV		2,5 kV		2,5 kV	
TEMPERATURE						
Storage	- 30°C to + 80°C		- 30°C to + 80°C		- 30°C to + 80°C	
Operating	- 20°C to + 60°C		- 20°C to + 60°C		- 20°C to + 60°C	

MOS output optocoupler plugs



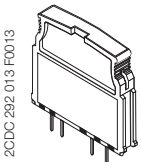
	1 A output optocoupler 5 V DC		1 A output optocoupler 24 V DC	
				
	Derating curve 		Derating curve 	
Part numbers	**Type**	**P/N**	**Type**	**P/N**
	BNMS N5V-2	1SNA**031816**R**04**00	**BNMS N24V-2**	1SNA**031817**R**05**00
	BNMS P5V-2	1SNA**031818**R**16**00	**BNMS P24V-2**	1SNA**031819**R**17**00
Characteristics				
INPUT				
Voltage	4,5 V to 5,5 V DC		20,4 V to 28,8 V DC	
Max. current	12,5 mA		6,7 mA	
Typical triggering threshold at Is=100%	3,5 V DC		10 V DC	
Switching time C/O	20 µs / 250 µs		50 µs / 350 µs	
Leakage current	1 mA		1 mA	
OUTPUT				
Max. voltage / Max. current	58 V / See graphs		58 V / See graphs	
Residual voltage max. I and rated U				
standard U	1 V DC		1 V DC	
max.	1,3 V DC		1,3 V DC	
Frequency on inductive load	See Note 1		See Note 1	
Input / Output isolation	2,5 kV		2,5 kV	
TEMPERATURE				
Storage	- 30°C to + 80°C		- 30°C to + 80°C	
Operating	- 20°C to + 60°C		- 20°C to + 60°C	

Note 1 :

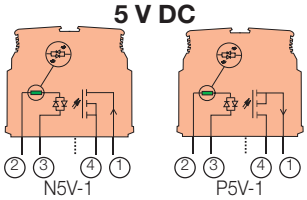
$F_{max} = (1\text{-}0{,}007 \times U_s) / (L \times I_s^2)$
or
$F_{max} = (1\text{-}0{,}007 \times U_s) / (P \times \frac{L}{R})$

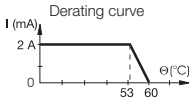
Us = Output voltage supply
Is = Output current
L = Inductive load
P = Load power
R = Load resistance

MOS output optocoupler plug

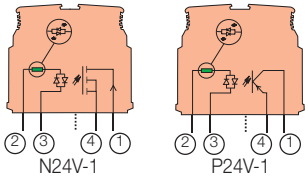


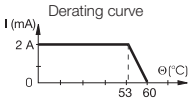
2 A output optocoupler
5 V DC





2 A output optocoupler
24 V DC





Note 2 :

Fmax = (1 - 0,012 x Us) / (L x Is²)
or
Fmax = (1 - 0,012 x Us) / (P x $\frac{L}{R}$)

Us = Output voltage supply
Is = Output current
L = Inductive load
P = Load power
R = Load resistance

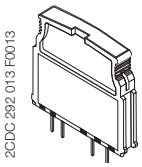
Part numbers

Type	P/N	Type	P/N
BNMS N5V-1	1SNA**031812**R**00**00	**BNMS N24V-1**	1SNA**031813**R**01**00
BNMS P5V-1	1SNA**031814**R**02**00	**BNMS P24V-1**	1SNA**031815**R**03**00

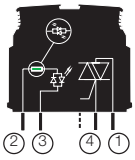
Characteristics

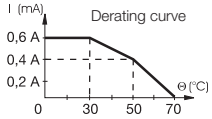
INPUT		
Voltage	4,5 V to 5,5 V DC	20,4 V to 28,8 V DC
Max. current	12,5 mA	6,7 mA
Typical triggering threshold	3,5 V DC	10 V DC
Switching time C/O	20 µs / 250 µs	50 µs / 350 µs
Leakage current	1 mA	1 mA
OUTPUT		
Max. voltage / Max. current	30 V DC / See graphs	30 V / See graphs
Residual voltage max. I and rated U		
standard U	1 V DC	1 V DC
max.	1,3 V DC	1,3 V DC
Frequency on inductive load	See Note 2	See Note 2
Input / Output isolation	2,5 kV	2,5 kV
TEMPERATURE		
Storage	- 30°C to + 80°C	- 30°C to + 80°C
Operating	- 20°C to + 60°C	- 20°C to + 60°C

Triac output optocoupler plug



1 A output optocoupler
24 V DC





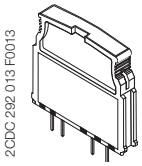
Part numbers

Type	P/N
BNMS A24V-4	1SNA**031839**R**13**00

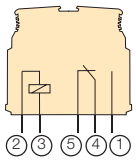
Characteristics

INPUT	
Voltage	20,4 V to 28,8 V DC
Max. current	3,8 mA
Typical triggering threshold	10 V DC
Switching time C/O	9,5 ms / 12 ms
Leakage current	
OUTPUT	
Max. voltage / Max. current	24 V to 253 V AC / See derating curve
Residual voltage max. I and rated U	
standard U	1 V AC
max.	1,3 V AC
Input / Output isolation	2,5 kV
TEMPERATURE	
Storage	- 30°C to + 80°C
Operating	- 20°C to + 70°C

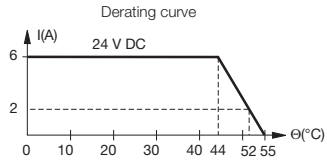
Relay plugs

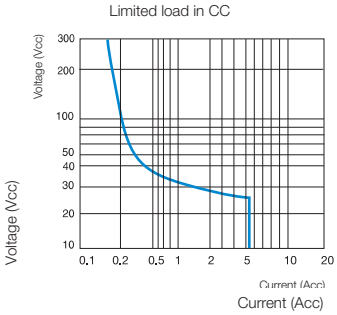


1 SPDT relay



R24V-1



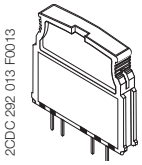


Part numbers	Type	P/N
	BNMS R24V-1	1SNA**031820**R**14**00
	BNMS R24V-2	1SNA**031847**R**13**00

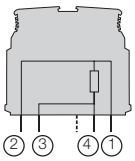
Characteristics	BNMS R24V-1	BNMS R24V-2
COIL		
Voltage	20,4 V to 28,8 V DC	
Current max.	7 mA	
Trip voltage	1,2 V	
CONTACT		
Type	1 SPDT	
Voltage mini. / max.	12 V / 250 V	5 V / 250 V
Switching current mini. / max.	10 mA / 6 A	1 mA / 6 A
Switching current AC1 mini. / max.	0,6 VA/1500 VA (resistance)	0,05 VA/1500 VA (resistance)
DC1 mini. / max.	0,6 W / 140 W	0,05 W / 140 W
Number of operations on load	10^5 operations for AC15	
Number of operations off load	$10x10^6$ operations	
Operating speed C/O	6 ms / 8 ms	
Bounce	1,5 ms	
Isolation Coil / Contact	4 kV	
Resistance to shock waves Coil / Contact	4 kV	
Isolation Contact / Contact	1 kV	
TEMPERATURE		
Storage	- 40°C to + 80°C	
Operating	- 20°C to + 55°C	

	DC12	AC12	DC13	AC15
24 V	6 A	6 A	1 A	3 A
110/120 V	0,3 A	6 A	0,2 A	3 A
220/230 V	0,2 A	6 A	0,1 A	3 A

Analogical plugs

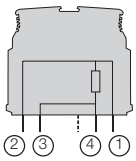


Current / Voltage Converter



Plug with 250 Ω accuracy resistance for analogical signals.

Current / Voltage Converter

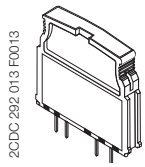


Plug with 500 Ω accuracy resistance for analogical signals.

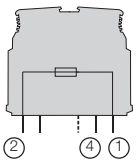
Part numbers	Type	P/N	Type	P/N
	BNMS CA I/U-250	1SNA**031832**R**04**00	**BNMS CA I/U-500**	1SNA**031833**R**05**00

Characteristics		
Resistance	250 Ω	500 Ω
Power	0,35 W	0,35 W
Accuracy	0,1 %	0,1 %
Stability	25 ppm	25 ppm

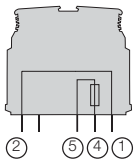
Fuse and strap plugs



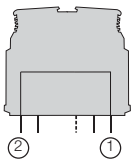
Output fuse plug



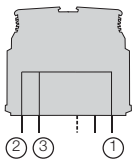
Input fuse plug



Strap plug



BNMS ST1

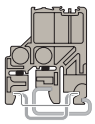


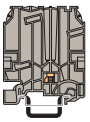
BNMS ST2

Part numbers	Type		P/N	Type		P/N	Type	P/N
	BNMS F125mA-1	125 V / 125 mA	1SNA**031821**R**01**00	**BNMS F125mA-3**	125 V / 125 mA	1SNA**031827**R**07**00	**BNMS ST1**	1SNA**031829**R**11**00
	BNMS F500mA-1	125 V / 500 mA	1SNA**031838**R**12**00	**BNMS F125mA-4**	250 V / 125 mA	1SNA**031828**R**10**00	**BNMS ST2**	1SNA**031830**R**16**00
	BNMS F2A-1	125 V / 2 A	1SNA**031822**R**02**00					
	BNMS F5A-1	125 V / 5 A	1SNA**031823**R**03**00					
	BNMS F125mA-2	250 V / 125 mA	1SNA**031824**R**04**00					
	BNMS F2A-2	250 V / 2 A	1SNA**031825**R**05**00					
	BNMS F5A-2	250 V / 5 A	1SNA**031826**R**06**00					

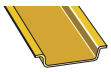
BADL

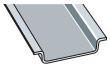
BAM2


BAMH


BADH

PR30


PR3.Z2


PR3.G2

PR5

PR4

FC2

End stops

The end stops are mounted at the extremity of the terminal board assembly, giving additional support to the terminal blocks as markers. For various types of marking, refer to the marker section.

Description		Type		Order P/N	Packaging	Weight kg
End stop DIN 3						
grey V0	■	BADL	9 mm	1SNA**399903**R**02**00	50	
End stop with screws DIN 3						
grey V0	■	BAM2 V0	10 mm	1SNA**399967**R**01**00	50	
grey V2	■	BAM2	10 mm	1SNA**206351**R**16**00	50	
beige V0	■	BAM2 V0	10 mm	1SNA**296351**R**00**00	50	
High end stop with screws DIN 1 and DIN 3 grey	■	BAMH	9,1 mm	1SNA**114836**R**00**00	50	
beige V0	■	BAMH V0	9,1 mm	1SNA**194836**R**01**00	50	
High end stop with screws DIN 3						
grey	■	BADH	12 mm	1SNA**116900**R**27**00	50	

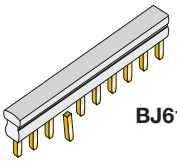
Mounting rails

Symmetrical zinc bichromate plated steel prepunched rail	PR30	2 m	1SNA**173220**R**05**00	1
Symmetrical zinc bichromate plated steel rail	PR3.Z2	2 m	1SNA**174300**R**17**00	1
White, symmetrical passivated galvanized steel rail	PR3.G2	2 m	1SNA**164800**R**03**00	1
Symmetrical zinc bichromate plated steel rail	PR5	2 m	1SNA**168700**R**22**00	1
Symmetrical zinc bichromate plated steel rail	PR4	2 m	1SNA**168500**R**12**00	1

Test devices

Test plug DIA. 2 mm	FC2	1SNA**007865**R**26**00	10

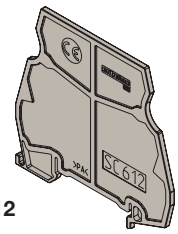
Assembled jumper bar


BJ612-...

This accessory permits electrical connection between 2 to 70 blocks with 6 mm spacing placed side by side. It can be used with screw clamp or spring clamp blocks with 6 mm or 12 mm spacing.
Interconnection of blocks not placed side by side is possible if teeth of the jumper bar have been cut in front of the blocks not to be connected. These teeth can be removed using pliers.
Use of separator end sections before and after the jumper bar is required to preserve IP20 protection of the assembly.

Assembled jumper bar 10 poles - 24 A	BJ612-10	1SNA**290488**R**01**00	10
Assembled jumper bar 20 poles - 24 A	BJ612-20	1SNA**206754**R**00**00	10

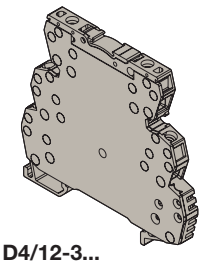
Separator end section

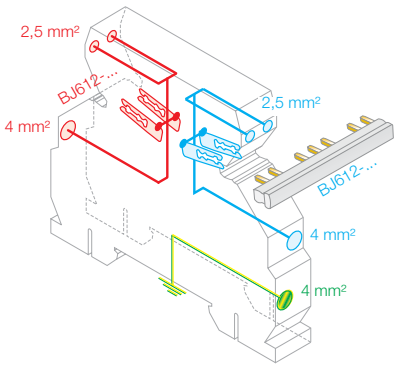

SC612

Directly mounted on the rail beside the block, it permits to identify and make electrical insulation of product groups using jumper bars. Dimensions are the same as screw clamp blocks : width 70 mm and height on rail 67,5 mm with 2 mm spacing.

Separator end section	SC612	1SNA**290474**R**02**00	10

Distribution module


D4/12-3...



This terminal block with BJ612-... jumper bars permits 2 polarities distribution (PCL side and process side) thanks to two separate circuits, each of them including :

- one 4 mm² input,
- two 2,5 mm² outputs
- one double output for jumper bar BJ612-...

It permits also the connection of ground to the rail though a 4 mm² input.

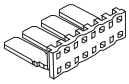
Rated voltage : 250 VAC-DC
Rated current : 32 A (4 mm²) - 16 A (2,5 mm²)
Recommended torque : 0,4 - 0,6 Nm

Screw clamp distribution block sp. 12 mm	D4/12-3-3	1SNA**645031**R**20**00	5
Spring clamp distribution block sp. 12 mm	D4/12-3R-3R	1SNA**645531**R**22**00	5

Accessories

PCMS

Comb-type jumper



This accessory permits the electrical connection of 2 to 22 blocks.

No. of poles	Grey UL94V0	Red UL94V0	Blue UL94V0	Green/Yellow UL94V0
2	1SNA205491R2300	1SNA205492R2400	1SNA205493R2500	1SNA205494R2600
3	1SNA205495R2700	1SNA205496R2000	1SNA205497R2100	1SNA205498R0200
4	1SNA205499R0300	1SNA205500R1000	1SNA205501R0500	1SNA205502R0600
5	1SNA205503R0700	1SNA205504R0000	1SNA205505R0100	1SNA205506R0200
6	1SNA205507R0300	1SNA205508R1400	1SNA205509R1500	1SNA205510R0100
7	1SNA205511R2600	1SNA205512R2700	1SNA205513R2000	1SNA205514R2100
8	1SNA205515R2200	1SNA205516R2300	1SNA205517R2400	1SNA205518R0500
9	1SNA205519R0600	1SNA205520R0300	1SNA205521R2000	1SNA205522R2100
10	1SNA205523R2200	1SNA205524R2300	1SNA205525R2400	1SNA205526R2500
11	1SNA205527R2600	1SNA205528R0700	1SNA205529R0000	1SNA205530R0500
12	1SNA205531R2200	1SNA205532R2300	1SNA205533R2400	1SNA205534R2500
13	1SNA205535R2600	1SNA205536R2700	1SNA205537R2000	1SNA205538R0100
14	1SNA205539R0200	1SNA205540R1700	1SNA205541R0400	1SNA205542R0500
15	1SNA205543R0600	1SNA205544R0700	1SNA205545R0000	1SNA205546R0100
16	1SNA205547R0200	1SNA205548R1300	1SNA205549R1400	1SNA205550R1100
17	1SNA205551R0600	1SNA205552R0700	1SNA205553R0000	1SNA205554R0100
18	1SNA205555R0200	1SNA205556R0300	1SNA205557R0400	1SNA205558R1500
19	1SNA205559R1600	1SNA205560R1300	1SNA205561R0000	1SNA205562R0100
20	1SNA205563R0200	1SNA205564R0300	1SNA205565R0400	1SNA205566R0500
21	1SNA205567R0600	1SNA205568R1700	1SNA205569R1000	1SNA205570R1500
22	1SNA205571R0200	1SNA205572R0300	1SNA205573R0400	1SNA205574R0500

PEF

Identification label holders

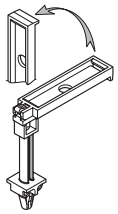
Designed to hold **RPEV** label (see opposite).

PEF * 1SNA020568R0400

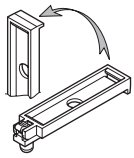
* Delivered with labels.

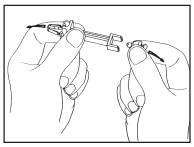
The label holders are removable and the labels can be changed easily.

- For mounting on PCB in a 3,7 mm diameter hole.



- For mounting on a PCB block in a 2 mm diameter hole (no support leg).





RPEV

Label for PEF 29 x 6 mm

Sheets of 99 pre-cut labels

✓ **Blank** **RPEV** 1SNA173178R0700

DC

Test device on screw head

This patented device is mounted on the round screwdriver opening. It is used for trouble shooting, measuring and control for monitoring and repairing an installation, on blocks without a test socket. For this, the device receives an **FC2** test plug.

The DC's are differentiated by their colour :

blue for **MA 2,5/5** blocks

DCB 1SNA105028R2100

BJ Jumper bar

BJS **Jumper bar not assembled**

Subassembly screw + washer + post

Perforated jumper bar to be cut to length

To connect terminal blocks, place the metal tube into the top center hole on each terminal block to be connected.
The metal tube contacts the terminal block's internal connector bar.
The perforated bar is cut to length and placed flat along the center opening of the series of terminal blocks.
The screw is inserted into the perforated bar's hole which is located directly above the blocks being connected. The screw goes through the threaded metal tube and is screwed into the terminal block's internal connector bar.
This completes the electrical connection to the perforated bar and connects the block.

To be mounted on blocks series R910 :

Screw + washer + post	**EV6D**			1SNA168400R1600
Perforated jumper bar	**BJS9**	32 A	8 poles	1SNA177583R1200
	BJS9	32 A	16 poles	1SNA177584R1300

RL Lengthway marker

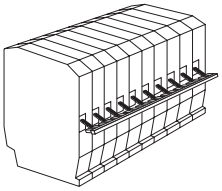
RLV **Lengthway marker Width 9 mm *.354"***

Large area for writing.
To be snapped onto the top of blocks.

Blank marker for writing : **RLV** 1SNA103849R0300

PC

Comb-type jumper bar



PC **EIP**

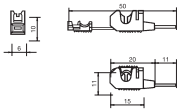
This accessory can be used only on the terminal blocks with at least one compression clamp connection. It permits the electrical connection of 2 to 10 blocks.
Interconnection of non-consecutive blocks is possible by removing the teeth opposite the blocks which must not be connected. The comb-type jumper bars can be cut using pliers (or a saw) : in this case, the use of an insulating tip **EIP** is recommended. The comb is placed in the compression clamp before tightening the screws, above the eventual conductor.

To be mounted on blocks series R900 and R910 :

Insulating tip for comb	**EIP**			1SNA113550R2000
Comb-type jumper bar	**PC9**	15 A	10 poles	1SNA210160R1200

IDC jumper

(insulation displacement jumper)

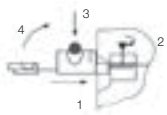


Characteristics		IEC NFC VDE	CSA
Wire size mm² / AWG	Rigid	2,5 mm²	14 AWG
	Flexible	2,5 mm²	
Voltage	V	600	600
Current	A	26	15
Rated wire size	mm² / AWG	2,5 mm²	14 AWG
Working temperature	°C	-55°C -> +110°C	
Protection		IP20 / NEMA1	

Quick-jump lets you interconnect screw clamp terminals of different sizes, levels and all manufacturers quickly and safely. Its insulation displacement technology makes it easy to use, fast, economical and does not require a special tool. Use as a jumper between relays, switches and other electronic components. ABB Quick-jump will fit any screw clamp type terminal block, from 6 mm .238" spacing and larger.

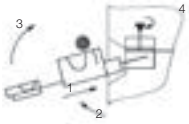
How to use : connecting Quick-jump to your terminal

1 - Insert ABB Quick-jump into your terminal screw clamp.
2 - Tighten the terminal screw.
3 - Guide jumper wire through the V-shaped opening in the Quick-jump.
4 - Secure the wire by closing the Quick-jump lever with any flat nose pliers.

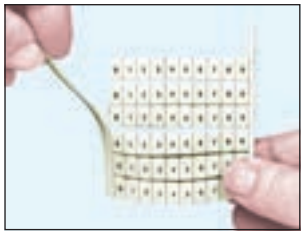


Adding a shunt in an installation :

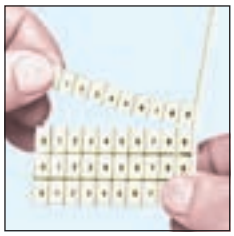
1 - Insert ABB Quick-jump into your terminal screw clamp.
2 - Guide the terminal screw clamp into contact with the wire.
3 - Secure the wire by closing the Quick-jump lever with any flat nose pliers.
4 - Tighten the terminal screw.



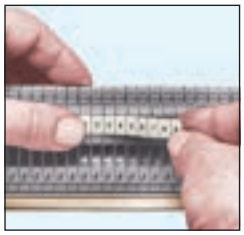
Insulation displacement jumper AD 2,5 1SNA114205R2000



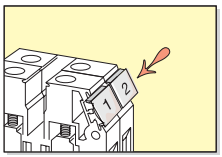
1
Remove one of the side bands of the card.



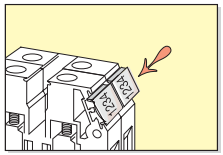
2
Separate the chosen strip from the rest of the card.



3
Press the first marker in place, hold it and slide your thomb on the rest of the strip.



Horizontal marking



Vertical marking

Refilable box of 100 cards of 18 RC markers

Marking for Interface Modules

Selection table

Markers for modules :	RC610	RC55	RC65
R500	⊖	●	⊖
R600	●	POSSIBLE	●
R900	⊖	●	⊖
R910	●	POSSIBLE	●
R1800	⊖	●	⊖

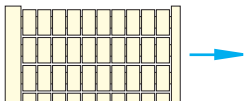
Possible mounting : POSSIBLE

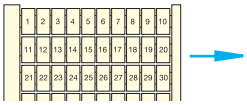
Recommended mounting : ●

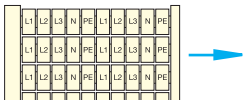
Impossible mounting : ⊖

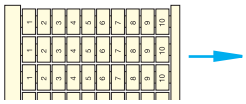
Marking for terminal blocks

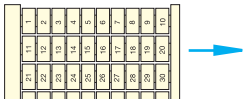
Standard RC marker cards











Marker sizes	RC55 (x) = Nb of cards in 5 mm spacing kit	RC65 (x) = Nb of cards in 6 mm spacing kit	RC610 (x) = Nb of cards in 6 mm spacing kit
Blank cards	1SNA**230000**R1200	1SNA**232000**R0000	1SNA**233000**R0100
Horizontal marking			
10 strips from 1 to 10	1SNA**230002R00**00 (5)	1SNA**232002R26**00 (5)	1SNA**233002R27**00 (25)
10 strips from 11 to 20	1SNA**230003R01**00 (2)	1SNA**232003R27**00 (2)	1SNA**233003R20**00 (10)
10 strips from 21 to 30	1SNA**230004R02**00	1SNA**232004R20**00	1SNA**233004R21**00 (6)
10 strips from 31 to 40	1SNA**230005R03**00	1SNA**232005R21**00	1SNA**233005R22**00 (4)
10 strips from 41 to 50	1SNA**230006R04**00	1SNA**232006R22**00	1SNA**233006R23**00 (3)
10 strips from 51 to 60	1SNA**230007R05**00	1SNA**232007R23**00	1SNA**233007R24**00 (2)
10 strips from 61 to 70	1SNA**230008R16**00	1SNA**232008R04**00	1SNA**233008R05**00 (2)
From 1 to 100	1SNA**230030R07**00 (2)	1SNA**232030R25**00 (2)	1SNA**233030R26**00 (15)
From 101 to 200	1SNA**230031R24**00	1SNA**232031R12**00	1SNA**233031R13**00 (2)
20 times L1-L2-L3-N-PE	1SNA**230131R25**00	1SNA**232131R13**00	1SNA**233131R14**00 (2)
Vertical marking			
10 strips from 1 to 10	1SNA**230041R06**00	1SNA**232041R24**00	1SNA**233041R25**00 **(5)**
10 strips from 11 to 20	1SNA**230042R07**00	1SNA**232042R25**00	1SNA**233042R26**00 **(3)**
10 strips from 21 to 30	1SNA**230043R00**00	1SNA**232043R26**00	1SNA**233043R27**00 **(2)**
10 strips from 31 to 40	1SNA**230044R01**00	1SNA**232044R27**00	1SNA**233044R20**00 **(2)**
From 1 to 100	1SNA**230060R15**00	1SNA**232060**R0300	1SNA**233060**R0400 **(8)**

Marking kit RC 5 mm spacing or 6 mm spacing

Box with 100 cards with 18 various part numbers (see table next page)

Description	Type	Order P/N	Packaging	Weight kg
Box with 100 cards RC 5 mm spacing		1SNA**400085**R**27**00	1	
Refill for box RC 5 mm		1SNA**400145**R**07**00	1	
Box with 100 cards RC 6 mm spacing		1SNA**400084**R**26**00	1	
Refill for box RC 6 mm		1SNA**400144**R**06**00	1	