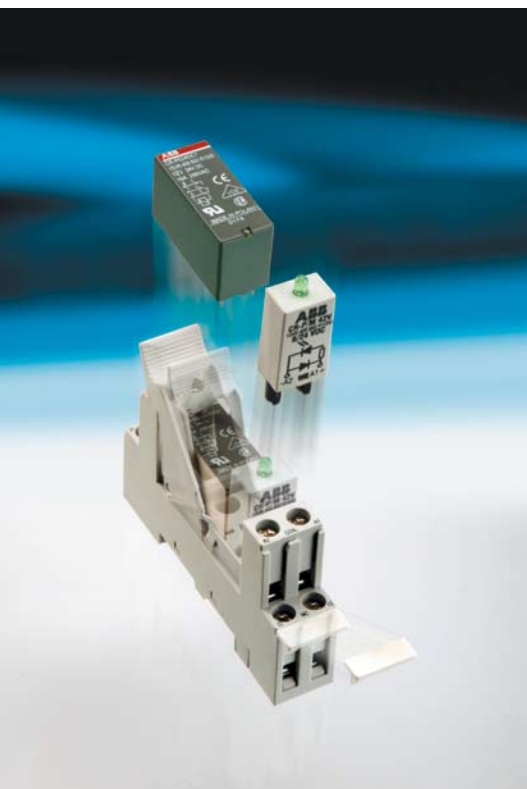


Pluggable interface relays CR-P, CR-M, CR-U range



2CDC 295 007 F0005

Selection guides and order references for pluggable interface relays CR-P, CR-M, CR-U range



2CDC 293 065 F0004



2CDC 291 045 F0004

Pluggable pcb relays CR-P

Type	Rated control supply voltage	Order code
1 c/o contact: 250 V, 16 A		
CR-P012DC1	12 V DC	1SVR 405 600 R4000
CR-P024DC1	24 V DC	1SVR 405 600 R1000
CR-P048DC1	48 V DC	1SVR 405 600 R6000
CR-P110DC1	110 V DC	1SVR 405 600 R8000
CR-P024AC1	24 V AC	1SVR 405 600 R0000
CR-P048AC1	48 V AC	1SVR 405 600 R5000
CR-P110AC1	110 V AC	1SVR 405 600 R7000
CR-P120AC1	120 V AC	1SVR 405 600 R2000
CR-P230AC1	230 V AC	1SVR 405 600 R3000
2 c/o contacts: 250 V, 8 A		
CR-P012DC2	12 V DC	1SVR 405 601 R4000
CR-P024DC2	24 V DC	1SVR 405 601 R1000
CR-P048DC2	48 V DC	1SVR 405 601 R6000
CR-P110DC2	110 V DC	1SVR 405 601 R8000
CR-P024AC2	24 V AC	1SVR 405 601 R0000
CR-P048AC2	48 V AC	1SVR 405 601 R5000
CR-P110AC2	110 V AC	1SVR 405 601 R7000
CR-P120AC2	120 V AC	1SVR 405 601 R2000
CR-P230AC2	230 V AC	1SVR 405 601 R3000

Pluggable pcb relays CR-P

- 1 or 2 c/o contacts
- 1 c/o contact: 250 V / 16 A switching capacity
- 2 c/o contacts: 250 V / 8 A switching capacity
- Suited for logical and standard sockets¹⁾
- Pluggable function modules CR-P/M
- Approvals / Marks (relays):



- 1) **Standard sockets - Position of connecting terminals:**
coil connection (A1-A2) on lower socket side,
contact connections (n/o and n/c contacts) on lower and upper
socket side.
Logical sockets - Position of connecting terminals:
coil connection (A1-A2) on lower socket side,
all contact connections (common contacts, n/o and n/c contacts)
on upper socket side.

- 2) can be used with time modules CR-P/M T ...

Accessories for PCB relays CR-P

Type	Version	Connection	Order code
Sockets			
CR-PLS	Logical socket ¹⁾ with safety isolation	screw	1SVR 405 650 R0000
CR-PLSx	Logical socket ^{1) 2)}	screw	1SVR 405 650 R0100
CR-PLC	Logical socket ^{1) 2)}	spring	1SVR 405 650 R0200
CR-PSS	Standard socket ¹⁾	screw	1SVR 405 650 R1000
Socket accessories			
CR-PH	Plastic holder		1SVR 405 659 R0000
CR-PJ	Jumper bar for sockets with screw connection		1SVR 405 658 R5000



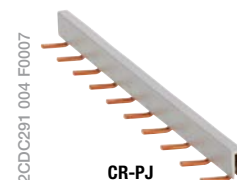
2CDC291 039 F0004

CR-PLS



2CDC 291 040 F0004

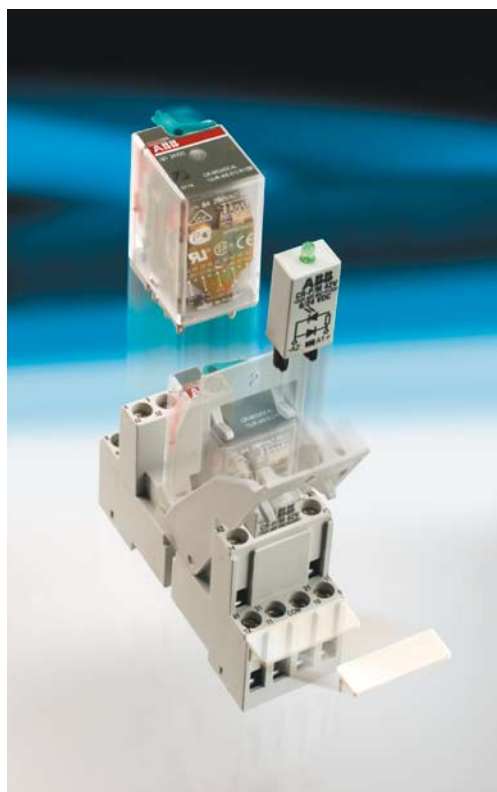
CR-PSS



2CDC291 004 F0007

CR-PJ

Bold printed order code = stocked product
Packing unit = 10 pieces



Pluggable miniature relays CR-M without LED

Type	Rated control supply voltage	Order code
Interface relays without LED		
2 c/o contacts : 250 V, 12 A		
CR-M012DC2	12 V DC	1SVR 405 611 R4000
CR-M024DC2	24 V DC	1SVR 405 611 R1000
CR-M048DC2	48 V DC	1SVR 405 611 R6000
CR-M060DC2	60 V DC	1SVR 405 611 R4200
CR-M110DC2	110 V DC	1SVR 405 611 R8000
CR-M125DC2	125 V DC	1SVR 405 611 R8200
CR-M220DC2	220 V DC	1SVR 405 611 R9000
CR-M024AC2	24 V AC	1SVR 405 611 R0000
CR-M048AC2	48 V AC	1SVR 405 611 R5000
CR-M110AC2	110 V AC	1SVR 405 611 R7000
CR-M120AC2	120 V AC	1SVR 405 611 R2000
CR-M230AC2	230 V AC	1SVR 405 611 R3000
3 c/o contacts: 250 V, 10 A		
CR-M012DC3	12 V DC	1SVR 405 612 R4000
CR-M024DC3	24 V DC	1SVR 405 612 R1000
CR-M048DC3	48 V DC	1SVR 405 612 R6000
CR-M060DC3	60 V DC	1SVR 405 612 R4200
CR-M110DC3	110 V DC	1SVR 405 612 R8000
CR-M125DC3	125 V DC	1SVR 405 612 R8200
CR-M220DC3	220 V DC	1SVR 405 612 R9000
CR-M024AC3	24 V AC	1SVR 405 612 R0000
CR-M048AC3	48 V AC	1SVR 405 612 R5000
CR-M110AC3	110 V AC	1SVR 405 612 R7000
CR-M120AC3	120 V AC	1SVR 405 612 R2000
CR-M230AC3	230 V AC	1SVR 405 612 R3000
4 c/o contacts: 250 V, 6 A		
CR-M012DC4	12 V DC	1SVR 405 613 R4000
CR-M024DC4	24 V DC	1SVR 405 613 R1000
CR-M048DC4	48 V DC	1SVR 405 613 R6000
CR-M060DC4	60 V DC	1SVR 405 613 R4200
CR-M110DC4	110 V DC	1SVR 405 613 R8000
CR-M125DC4	125 V DC	1SVR 405 613 R8200
CR-M220DC4	220 V DC	1SVR 405 613 R9000
CR-M024AC4	24 V AC	1SVR 405 613 R0000
CR-M048AC4	48 V AC	1SVR 405 613 R5000
CR-M110AC4	110 V AC	1SVR 405 613 R7000
CR-M120AC4	120 V AC	1SVR 405 613 R2000
CR-M230AC4	230 V AC	1SVR 405 613 R3000

Pluggable miniature relays CR-M

- 2, 3 or 4 c/o contacts
- 2 c/o contacts: 250 V / 12 A switching capacity
- 3 c/o contacts: 250 V / 10 A switching capacity
- 4 c/o contacts: 250 V / 6 A switching capacity
- Integrated test button for manual actuation and locking of the output contacts³⁾
(blue: DC, orange: AC)
- With or without LED
- 4 c/o version optionally equipped with gold contacts and LED
- Suited for logical or standard sockets¹⁾
- Pluggable function modules CR-P/M
- Approvals / Marks (relays):

⁴⁾, ⁵⁾, ⁶⁾, ⁷⁾, ⁸⁾, ⁹⁾,

1) see previous page

3) can be removed if necessary

4) not for 60 V DC and 125 V DC version with gold contacts

5) not for versions with gold contacts

6) not for 60 V DC and 125 V DC version

7) not for 125 V DC version

8) only for version with 4 c/o contacts

Bold printed order code = stocked product

Packing unit = 10 pieces

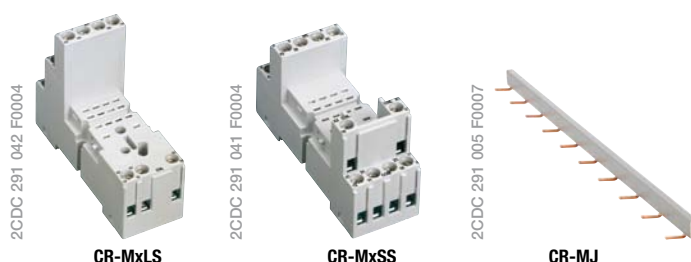


Pluggable miniature relays CR-M with LED

Type	Rated control supply voltage	Order code
Interface relays with LED		
2 c/o contacts: 250 V, 12 A		
CR-M012DC2L	12 V DC	1SVR 405 611 R4100
CR-M024DC2L	24 V DC	1SVR 405 611 R1100
CR-M048DC2L	48 V DC	1SVR 405 611 R6100
CR-M060DC2L	60 V DC	1SVR 405 611 R4300
CR-M110DC2L	110 V DC	1SVR 405 611 R8100
CR-M125DC2L	125 V DC	1SVR 405 611 R8300
CR-M220DC2L	220 V DC	1SVR 405 611 R9100
CR-M024AC2L	24 V AC	1SVR 405 611 R0100
CR-M048AC2L	48 V AC	1SVR 405 611 R5100
CR-M110AC2L	110 V AC	1SVR 405 611 R7100
CR-M120AC2L	120 V AC	1SVR 405 611 R2100
CR-M230AC2L	230 V AC	1SVR 405 611 R3100
3 c/o contacts: 250 V, 10 A		
CR-M012DC3L	12 V DC	1SVR 405 612 R4100
CR-M024DC3L	24 V DC	1SVR 405 612 R1100
CR-M048DC3L	48 V DC	1SVR 405 612 R6100
CR-M060DC3L	60 V DC	1SVR 405 612 R4300
CR-M110DC3L	110 V DC	1SVR 405 612 R8100
CR-M125DC3L	125 V DC	1SVR 405 612 R8300
CR-M220DC3L	220 V DC	1SVR 405 612 R9100
CR-M024AC3L	24 V AC	1SVR 405 612 R0100
CR-M048AC3L	48 V AC	1SVR 405 612 R5100
CR-M110AC3L	110 V AC	1SVR 405 612 R7100
CR-M120AC3L	120 V AC	1SVR 405 612 R2100
CR-M230AC3L	230 V AC	1SVR 405 612 R3100
4 c/o contacts: 250 V, 6 A		
CR-M012DC4L	12 V DC	1SVR 405 613 R4100
CR-M024DC4L	24 V DC	1SVR 405 613 R1100
CR-M048DC4L	48 V DC	1SVR 405 613 R6100
CR-M060DC4L	60 V DC	1SVR 405 613 R4300
CR-M110DC4L	110 V DC	1SVR 405 613 R8100
CR-M125DC4L	125 V DC	1SVR 405 613 R8300
CR-M220DC4L	220 V DC	1SVR 405 613 R9100
CR-M024AC4L	24 V AC	1SVR 405 613 R0100
CR-M048AC4L	48 V AC	1SVR 405 613 R5100
CR-M110AC4L	110 V AC	1SVR 405 613 R7100
CR-M120AC4L	120 V AC	1SVR 405 613 R2100
CR-M230AC4L	230 V AC	1SVR 405 613 R3100
Interface relays with LED and gold contacts		
4 c/o contacts: 250 V, 12 A		
CR-M012DC4LG	12 V DC	1SVR 405 618 R4100
CR-M024DC4LG	24 V DC	1SVR 405 618 R1100
CR-M048DC4LG	48 V DC	1SVR 405 618 R6100
CR-M060DC4LG	60 V DC	1SVR 405 618 R4300
CR-M110DC4LG	110 V DC	1SVR 405 618 R8100
CR-M125DC4LG	125 V DC	1SVR 405 618 R8300
CR-M220DC4LG	220 V DC	1SVR 405 618 R9100
CR-M024AC4LG	24 V AC	1SVR 405 618 R0100
CR-M048AC4LG	48 V AC	1SVR 405 618 R5100
CR-M110AC4LG	110 V AC	1SVR 405 618 R7100
CR-M120AC4LG	120 V AC	1SVR 405 618 R2100
CR-M230AC4LG	230 V AC	1SVR 405 618 R3100

Accessories for miniature relays CR-M

Type	Version	Connection	Order code
Sockets			
CR-M2LS	Logical socket ^{1) 2)} for 2 c/o contacts	screw	1SVR 405 651 R1100
CR-M3LS	Logical socket ^{1) 2)} for 3 c/o contacts	screw	1SVR 405 651 R2100
CR-M4LS	Logical socket ^{1) 2)} for 2/4 c/o contacts	screw	1SVR 405 651 R3100
CR-M2LC	Logical socket ^{1) 2)} for 2 c/o contacts	spring	1SVR 405 651 R1200
CR-M4LC	Logical socket ^{1) 2)} for 2/4 c/o contacts	spring	1SVR 405 651 R3200
CR-M2SS	Standard socket ¹⁾ for 2 c/o contacts	screw	1SVR 405 651 R1000
CR-M3SS	Standard socket ¹⁾ for 3 c/o contacts	screw	1SVR 405 651 R2000
CR-M4SS	Standard socket ¹⁾ for 2/4 c/o contacts	screw	1SVR 405 651 R3000
CR-M2SF	Standard socket ¹⁾ for 2 c/o contacts	fork type screw	1SVR 405 651 R1300
CR-M4SF	Standard socket ¹⁾ for 2/4 c/o contacts	fork type screw	1SVR 405 651 R3300
Socket accessories			
CR-MH	Plastic holder		1SVR 405 659 R1000
CR-MH1	Metal holder		1SVR 405 659 R1100
CR-MJ	Jumper bar for sockets with screw connection		1SVR 405 658 R6000



- 1) **Standard sockets - Position of connecting terminals:**
coil connection (A1-A2) on lower socket side,
contact connections (n/o and n/c contacts) on lower and upper socket side.
Logical sockets - Position of connecting terminals:
coil connection (A1-A2) on lower socket side,
all contact connections (common contacts, n/o and n/c contacts) on upper socket side.
- 2) can be used with time modules CR-P/M T ...

Bold printed order code = stocked product
Packing unit = 10 pieces

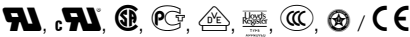


Pluggable universal relays CR-U

Type	Rated control supply voltage	Order code
Interface relays without LED		
2 c/o contacts: 250 V, 10 A		
CR-U012DC2	12 V DC	1SVR 405 621 R4000
CR-U024DC2	24 V DC	1SVR 405 621 R1000
CR-U048DC2	48 V DC	1SVR 405 621 R6000
CR-U110DC2	110 V DC	1SVR 405 621 R8000
CR-U220DC2	220 V DC	1SVR 405 621 R9000
CR-U024AC2	24 V AC	1SVR 405 621 R0000
CR-U048AC2	48 V AC	1SVR 405 621 R5000
CR-U110AC2	110 V AC	1SVR 405 621 R7000
CR-U120AC2	120 V AC	1SVR 405 621 R2000
CR-U230AC2	230 V AC	1SVR 405 621 R3000
3 c/o contacts: 250 V, 10 A		
CR-U012DC3	12 V DC	1SVR 405 622 R4000
CR-U024DC3	24 V DC	1SVR 405 622 R1000
CR-U048DC3	48 V DC	1SVR 405 622 R6000
CR-U110DC3	110 V DC	1SVR 405 622 R8000
CR-U220DC3	220 V DC	1SVR 405 622 R9000
CR-U024AC3	24 V AC	1SVR 405 622 R0000
CR-U048AC3	48 V AC	1SVR 405 622 R5000
CR-U110AC3	110 V AC	1SVR 405 622 R7000
CR-U120AC3	120 V AC	1SVR 405 622 R2000
CR-U230AC3	230 V AC	1SVR 405 622 R3000
Interface relays with LED		
2 c/o contacts: 250 V, 10 A		
CR-U012DC2L	12 V DC	1SVR 405 621 R4100
CR-U024DC2L	24 V DC	1SVR 405 621 R1100
CR-U048DC2L	48 V DC	1SVR 405 621 R6100
CR-U110DC2L	110 V DC	1SVR 405 621 R8100
CR-U220DC2L	220 V DC	1SVR 405 621 R9100
CR-U024AC2L	24 V AC	1SVR 405 621 R0100
CR-U048AC2L	48 V AC	1SVR 405 621 R5100
CR-U110AC2L	110 V AC	1SVR 405 621 R7100
CR-U120AC2L	120 V AC	1SVR 405 621 R2100
CR-U230AC2L	230 V AC	1SVR 405 621 R3100
3 c/o contacts: 250 V, 10 A		
CR-U012DC3L	12 V DC	1SVR 405 622 R4100
CR-U024DC3L	24 V DC	1SVR 405 622 R1100
CR-U048DC3L	48 V DC	1SVR 405 622 R6100
CR-U110DC3L	110 V DC	1SVR 405 622 R8100
CR-U220DC3L	220 V DC	1SVR 405 622 R9100
CR-U024AC3L	24 V AC	1SVR 405 622 R0100
CR-U048AC3L	48 V AC	1SVR 405 622 R5100
CR-U110AC3L	110 V AC	1SVR 405 622 R7100
CR-U120AC3L	120 V AC	1SVR 405 622 R2100
CR-U230AC3L	230 V AC	1SVR 405 622 R3100

Pluggable universal relays CR-U

- 2 or 3 c/o contacts, 250 V / 10 A switching capacity
- Mechanical status indication
- Integrated test button for manual actuation and locking of the output contacts ³⁾ (blue: DC, orange: AC)
- With or without LED
- Pluggable function modules CR-U
- Approvals / Marks (relays):



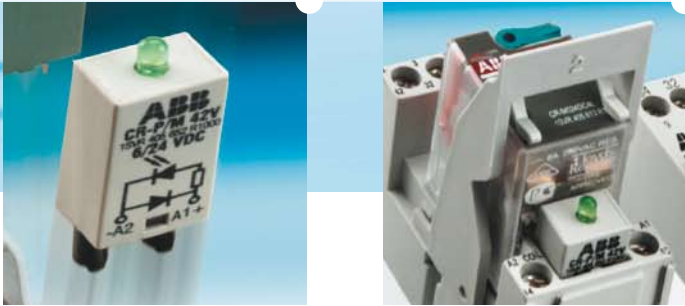
Accessories for universal relays CR-U

Type	Version	Order code
Sockets		
CR-U2S	for 2 c/o contacts + module	1SVR 405 670 R0000
CR-U3S	for 3 c/o contacts + module	1SVR 405 660 R0000
CR-U3E	for 3 c/o contacts	1SVR 405 660 R0100
CR-U2SM	for 2 c/o contacts (small version)	1SVR 405 670 R1100
CR-U3SM	for 3 c/o contacts (small version)	1SVR 405 660 R1100
Socket accessories		
CR-UH	Metal holder	1SVR 405 669 R0000



3) can be removed if necessary

Bold printed order code = stocked product
Packing unit = 10 pieces



Pluggable modules for CR-P and CR-M relays

Type	Rated control supply voltage	Version	Order code
Diode - reverse polarity protection / free wheeling diode			
CR-P/M 22	6-230 V DC	A1+, A2-	1SVR 405 651 R0000
Diode and LED - reverse polarity protection / free wheeling diode			
CR-P/M 42	6-24 V DC	red, A1+, A2-	1SVR 405 652 R0000
CR-P/M 42V	6-24 V DC	green, A1+, A2-	1SVR 405 652 R1000
CR-P/M 42B	24-60 V DC	red, A1+, A2-	1SVR 405 652 R4000
CR-P/M 42BV	24-60 V DC	green, A1+, A2-	1SVR 405 652 R4100
CR-P/M 42C	110-230 V DC	red, A1+, A2-	1SVR 405 652 R9000
CR-P/M 42CV	110-230 V DC	green, A1+, A2-	1SVR 405 652 R9100
RC element - spark quenching			
CR-P/M 52B	6-24 V AC		1SVR 405 653 R0000
CR-P/M 52D	24-60 V AC		1SVR 405 653 R4000
CR-P/M 52C	110-230 V AC		1SVR 405 653 R1000
Diode and LED			
CR-P/M 62	6-24 V AC/DC	red, at DC: A1+, A2-	1SVR 405 654 R0000
CR-P/M 62V	6-24 V AC/DC	green, at DC: A1+, A2-	1SVR 405 654 R1000
CR-P/M 62E	24-60 V AC/DC	red, at DC: A1+, A2-	1SVR 405 654 R4000
CR-P/M 62EV	24-60 V AC/DC	green, at DC: A1+, A2-	1SVR 405 654 R4100
CR-P/M 92	110-230 V AC/DC	red, at DC: A1+, A2-	1SVR 405 654 R0100
CR-P/M 92V	110-230 V AC/DC	green, at DC: A1+, A2-	1SVR 405 654 R1100
Varistor and LED - overvoltage protection			
CR-P/M 62C	6-24 V AC/DC	red, at DC: A1+, A2-	1SVR 405 655 R0000
CR-P/M 62CV	6-24 V AC/DC	green, at DC: A1+, A2-	1SVR 405 655 R0100
CR-P/M 62D	24-60 V AC/DC	red, at DC: A1+, A2-	1SVR 405 655 R4000
CR-P/M 62DV	24-60 V AC/DC	green, at DC: A1+, A2-	1SVR 405 655 R4100
CR-P/M 92C	110-230 V AC/DC	red, at DC: A1+, A2-	1SVR 405 655 R0100
CR-P/M 92CV	110-230 V AC/DC	green, at DC: A1+, A2-	1SVR 405 655 R1100
Varistor - overvoltage protection			
CR-P/M 72	24 V AC		1SVR 405 656 R0000
CR-P/M 72A	115 V AC		1SVR 405 656 R1000
CR-P/M 82	230 V AC		1SVR 405 656 R2000
Pluggable time modules			
CR-P/M T1	12-24 V AC/DC	ON-delay	1SVR 405 657 R0000
CR-P/M T2	12-24 V AC/DC	Impulse-ON	1SVR 405 657 R0100

Pluggable modules for CR-U relays

Type	Rated control supply voltage	Version	Order code
Diode - reverse polarity protection / free wheeling diode			
CR-U 41	6-230 V DC	A1+, A2-	1SVR 405 661 R0000
Diode and LED - reverse polarity protection / free wheeling diode			
CR-U 41	6-24 V DC	red, A1+, A2-	1SVR 405 662 R0000
CR-U 41V	6-24 V DC	green, A1+, A2-	1SVR 405 662 R1000
CR-U 41B	24-60 V DC	red, A1+, A2-	1SVR 405 662 R4000
CR-U 41BV	24-60 V DC	green, A1+, A2-	1SVR 405 662 R4100
CR-U 41C	110-230 V DC	red, A1+, A2-	1SVR 405 662 R9000
CR-U 41CV	110-230 V DC	green, A1+, A2-	1SVR 405 662 R9100
RC element - spark quenching			
CR-U 51B	6-24 V AC		1SVR 405 663 R0000
CR-U 51D	24-60 V AC		1SVR 405 663 R4000
CR-U 51C	110-230 V AC		1SVR 405 663 R1000
Diode and LED			
CR-U 61	6-24 V AC/DC	red, at DC: A1+, A2-	1SVR 405 664 R0000
CR-U 61V	6-24 V AC/DC	green, at DC: A1+, A2-	1SVR 405 664 R1000
CR-U 61E	24-60 V AC/DC	red, at DC: A1+, A2-	1SVR 405 664 R4000
CR-U 61EV	24-60 V AC/DC	green, at DC: A1+, A2-	1SVR 405 664 R4100
CR-U 91	110-230 V AC/DC	red, at DC: A1+, A2-	1SVR 405 664 R0100
CR-U 91V	110-230 V AC/DC	green, at DC: A1+, A2-	1SVR 405 664 R1100
Varistor and LED - overvoltage protection			
CR-U 61C	6-24 V AC/DC	red, at DC: A1+, A2-	1SVR 405 665 R0000
CR-U 61CV	6-24 V AC/DC	green, at DC: A1+, A2-	1SVR 405 665 R0100
CR-U 61D	24-60 V AC/DC	red, at DC: A1+, A2-	1SVR 405 665 R4000
CR-U 61DV	24-60 V AC/DC	green, at DC: A1+, A2-	1SVR 405 665 R4100
CR-U 91C	110-230 V AC/DC	red, at DC: A1+, A2-	1SVR 405 665 R0100
CR-U 91CV	110-230 V AC/DC	green, at DC: A1+, A2-	1SVR 405 665 R1100
Varistor - overvoltage protection			
CR-U 71	24 V AC		1SVR 405 666 R0000
CR-U 71A	115 V AC		1SVR 405 666 R1000
CR-U 81	230 V AC		1SVR 405 666 R2000
Multifunctional time module			
CR-U T	24-240 V AC/DC		1SVR 405 677 R0000



CR-P/M...



CR-P/M T...



CR-U ...



CR-U T...

All CR-P/M modules - except time modules CR-P/M T... - can be plugged onto all CR-P or CR-M sockets.

The time modules CR-P/M T... can be plugged onto the following sockets only: CR-PLSx, CR-PLC und CR-M2LS, CR-M3LS, CR-M4LS, CR-M2LC, CR-M4LC.

Bold printed order code = stocked product
Packing unit = 10 pieces



Pluggable interface relays by ABB

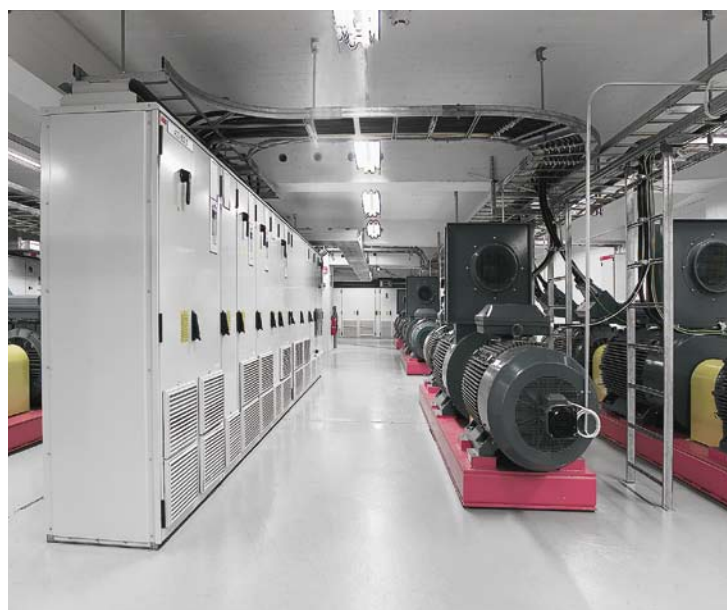
Interface relays are widely used in various industrial applications: As an interface they link the electronic controlling, e.g. PLC (programmable logic controller), PC or field bus systems, to the sensor / actuator level. Here, they take on various functions: Switching of AC or DC loads with different resistive, inductive and capacitive parts, switching voltages from a few mV up to 250 V, switching currents from a few mA up to 16 A, amplification of weak control signals, electrical isolation of control and load circuits, and signal multiplying. In contrast to electronic switching devices, interface relays don't use additional internal protective circuits and thus are overload-proof against short-time variations like current or voltage peaks.

ABB pluggable interface relays are offered in three product ranges:

- Pcb relays CR-P
- Miniature relays CR-M
- Universal relays CR-U

- 12 different coil voltages:
 DC: 12 V, 24 V, 48 V, 60 V, 110 V, 125 V, 220 V
 AC: 24 V, 48 V, 110 V, 120 V, 230 V
-
- All relays are cadmium- and lead-free.
- Our relays feature all major international approvals.

The advantages will convince you.





As part of the on-going product improvement, ABB reserves the right to modify the characteristics or the products described in this document. The information given is not-contractual. For further details please contact the ABB company marketing these products in your country.

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