

# PR3 Relay Base for:

# - Octal Relays With DPDT or 3PDT Contacts

### **Universal Modular System**

The 38 mm (1.496 in.) wide PR3 relay base range is a modular system consisting of PR3-B... relay bases, robust REL-OR... electromechanical octal relays with DPDT and 3PDT contacts, and a range of practical accessories. These include:

- Plug-in input/interference suppression modules
- Relay retaining bracket
- Continuous jumpers

Depending on the application, complete coupling relays can be created, which are optimized in terms of cost and function.

#### **Base Versions**

PR3-B... relay bases are available in two versions with screw connections - the PR3-BSC1/2x21 type for octal relays with DPDT contacts and the PR3-BSC1/3x21 for octal relays with 3PDT contacts. Both bases can be extended in terms of functions through the use of keyed plug-in modules with various display and interference suppression elements.

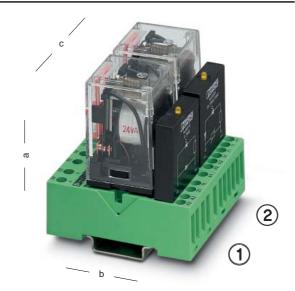
## **Robust Octal Relays**

Octal relays have been used in many sectors of industry for years due to their robust structure, with an 8 or 11-pos. circular connector. They are ideal for use in applications where a solid mechanical structure, powerful power contacts, and easy, error-free operation of a miniature product are important and where global availability is required. The Phoenix Contact REL/OR... series includes the following versions:

With two 10 A PDT contacts

standard features:

- With three 10 A PDT contacts
- In all major AC and DC coil voltages Considerably more expensive miniature contactors can thus be replaced cost-effectively in many applications without adversely affecting machine or system operation. All octal relays have the following
- Manual test key (AC coil = red key, DC coil = blue
- Mechanical switch setting display
- Keying to prevent connection errors



	1 2			
	PR3-BSC1/2x21	PR3-BSC1/3x21		
Nominal voltage U <sup>1</sup> ) Nominal current I <sup>1</sup> )	400 V AC 10 A	400 V AC 10 A		
Conductor cross section - Solid - Flexible American Wire Gauge	2 x 2.5 mm <sup>2</sup> 2 x 2.5 mm <sup>2</sup> 2 x 14 AWG	2 x 2.5 mm <sup>2</sup> 2 x 2.5 mm <sup>2</sup> 2 x 14 AWG		
Connection type	M 3	M 3		
Approvals <sup>2</sup> )	<b>⊕ ₹\</b>	<b>⊕ ₹1</b>		
Stripping length	10 mm (0.39 in.)	10 mm (0.39 in.)		
Height (a) with retaining bracket: – EL3-M52 Depth (b) Width (c)	84 mm (3.307 in.) 75 mm (2.953 in.) 38 mm (1.496 in.)	86 mm (3.386 in.) 75 mm (2.953 in.) 38 mm (1.496 in.)		
Ambient temperature	-40°C+85°C (-40°F+185°F)	-40°C+85°C (-40°F+185°F)		

The maximum electrical data is relay dependent.
 Details on request.

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# PR3 Relay Base for Octal Relays With DPDT or 3PDT Contacts

Description	Туре	Order No.	Pcs. Pkt.
PR3 relay base, for REL-OR octal relays with DPDT contacts, screw connections, optional connection of input/interference suppression modules, for mounting on 3	PR3-BSC1/2x21	28 33 60 2	10
PR3 relay base, for REL-OR octal relays with 3PDT contacts, screw connections, optional connection of input/interference suppression modules, for mounting on 3	PR3-BSC1/3x21	28 33 61 5	10
Relay retaining bracket, wire version, suitable for PR3 relay base:  - For 52 mm (2.047 in.) high octal relays	EL3-M52	28 33 62 8	10
Plug-in module, for mounting on PR3, with free-wheeling diode and yellow LED, polarity: A1 +, A2 - Input voltage:  - 12 - 24 V DC ±20%  - 48 - 60 V DC ±20%  - 110 V DC ±20%	LDP3-12-24DC LDP3-48-60DC LDP3-110DC	28 33 77 0 28 33 78 3 28 33 79 6	10 10 10
Plug-in module, for mounting on PR3, with free-wheeling diode and yellow LED, polarity:  A1 -, A2 + (Japanese standard) Input voltage:  - 12 - 24 V DC ±20%  - 48 - 60 V DC ±20%  - 110 V DC ±20%	LDM3-12-24DC LDM3-48-60DC LDM3-110DC	28 33 80 6 28 33 81 9 28 33 82 2	10 10 10
Plug-in module, for mounting on PR3, with varistor and yellow LED Input voltage:  - 12 - 24 V AC/DC ±20%  - 48 - 60 V AC/DC ±20%  - 120 - 230 V AC/110 V DC ±20%	LV3-12-24UC (30 V varistor) LV3-48-60UC (75 V varistor) LV3-120-230AC/110 DC (275 V varistor)	28 33 83 5 28 33 84 8 28 33 85 1	10 10 10
Plug-in module, for mounting on PR3, with varistor Input voltage:  - 12 - 24 V AC/DC ±20%  - 48 - 60 V AC/DC ±20%  - 120 - 230 V AC/DC ±20%	V3-12-24UC (30 V varistor) V3-48-60UC (75 V varistor) V3-120-230UC (275 V varistor)	28 33 92 9 28 33 93 2 28 33 94 5	10 10 10
Plug-in module, for mounting on PR3, with RC element Input voltage:  - 12 - 24 V AC/DC ±20%  - 48 - 60 V AC/DC ±20%  - 120 - 230 V AC/DC ±20%	RC3-12-24UC       (220 nF/100 Ω)         RC3-48-60UC       (220 nF/220 Ω)         RC3-120-230UC       (100 nF/470 Ω)	28 33 89 3 28 33 90 3 28 33 91 6	10 10 10
Wire jumper, 50-pos., can be separated, maximum jumpering distance of 60 mm (2.36 in.), 0.5 mm² (20 AWG), insulation:  - Blue - Black - Gray	DB 50-90 BU DB 50-90 BK DB 50-90 GY	28 21 18 0 28 20 91 6 28 20 92 9	1 1 1

<sup>1)</sup> See INTERFACE catalog

# Plug-In Octal Relays With DPDT or 3PDT Contacts, Suitable for PR3 Relay Base

Description		Туре	Order No.	Pcs. Pkt.
Plug-in octal relays, with power contacts, DPDT contacts, test key, mechanical switch setting display Coil voltage: - 24 V DC	0	REL-OR-24DC/2x21	28 34 23 2	20
- 24 V AC - 120 V AC - 230 V AC	(A1) (14) (12) (11) (11) (12)	REL-OR-24AC/2x21 REL-OR-120AC/2x21 REL-OR-230AC/2x21	28 34 24 5 28 34 25 8 28 34 26 1	20 20 20
with power contacts, 3PDT contacts, test key, mechanical switch setting display Coil voltage: – 24 V DC	(21) (S) (S) (22) (B) (24) (24) (24) (24) (25)	REL-OR-24DC/3x21	28 34 27 4	20
- 24 V AC - 120 V AC - 230 V AC	(A1) (14) (12) (22) (22) (21) (24) (24) (24) (24) (34) (32) (32) (33) (32) (32) (33) (33) (33	REL-OR-24AC/3x21 REL-OR-120AC/3x21 REL-OR-230AC/3x21	28 34 28 7 28 34 29 0 28 34 30 0	20 20 20
	5 i oim 6 contacts			

### **Technical Data**

#### Coil Side DC Coils

Nominal input voltage U<sub>N</sub> Permissible range (with reference to U<sub>N</sub>) Typical input current at U<sub>N</sub> Response time at U<sub>N</sub> Release time at U<sub>N</sub>
DC coil resistance at 20°C (68°F)

### Coil Side AC Coils (50 Hz/60 Hz)

Nominal input voltage U<sub>N</sub>

Permissible range (with reference to  $\mathsf{U}_\mathsf{N}$ )

Typical input current at  $U_N$  (50 Hz/60 Hz) Response time at  $U_N$  (depending on phase relation) Release time at  $U_N$  (depending on phase relation)

DC coil resistance at 20°C (68°F)

## **Contact Side**

Contact type Contact material

Maximum switching voltage Minimum switching voltage

Limiting continuous current Minimum switching current

Maximum shutdown power (ohmic load)

## Minimum switching power

#### **General Data**

Test voltage: Winding/contact Contact/contact

Ambient operating temperature range

Nominal operating mode Mechanical service life

Electrical service life Standards/specifications

Approvals

Mounting position/mounting

24 V DC 0.8 - 1.1 56 mA 30 ms, maximum 20 ms, maximum 430  $\Omega$  ±15%

24 V AC 0.8 - 1.1 120 V AC 20 mA/18 mA

98 mA/88 mA 20 ms, maximum

20 ms, maximum

62 Ω ±15% 1520  $\Omega$  ±15% 6170  $\Omega$  ±15%

230 V AC

12 mA/11 mA

# REL-OR...2x21 and REL-OR...3x21

Single contact Ag 250 V AC/DC

1 V 10 A

10 mA 2500 VA

250 V AC

For additional data, see diagram on page 4 0,01 W

2.5 kV, 50 Hz, 1 minute

2.5 kV, 50 Hz, 1 minute -10°C to +40°C (+14°F to +104°F)

100% ED 10 x 10<sup>6</sup> cycles

See diagram on page 4

IEC 60 664/IEC 60 664 A/DIN VDE 0110,

degree of pollution 3, Surge Voltage Category II

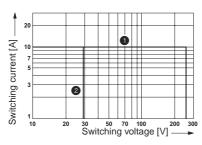
UL: CSA: VDE

Any/can be mounted without spacing

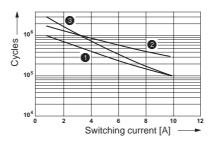
# **Diagrams for REL-OR... Octal Relays**

# REL-OR...2x21 (DPDT Contacts) and REL-OR...3x21 (3PDT Contacts)

### Shutdown power



### Electrical service life



- 1 AC, ohmic load 2 DC, ohmic load
- 1 250 V AC, ohmic load2 120 V AC, ohmic load3 28 V DC, ohmic load

# 单击下面可查看定价,库存,交付和生命周期等信息

>>Phoenix Contact(菲尼克斯)