# 図目示A Power Relay PR80

## Description

Bistable power relay for single pole disconnection with a variety of versions available. Due to the possible combinations of the different configurations as well as due to different modes of mounting the power relay is suitable for many applications. In release condition its power consumption is zero and it is therefore particularly suited to battery-powered systems.

## **Typical applications**

Passenger cars and commercial vehicles, agricultural vehicles, watercraft, construction vehicles, motor homes and industrial trucks

# PR80

### **Technical data**

Continuous current	100 A, 200 A, 300 A			
Coil data				
Rated voltage	DC 12 V	DC 24 V	DC 48 V	
Operating voltage	916 V	1832 V	3654 V	
Pulse duration for excitation and release	min. 50 ms / max. 500 ms			
Power of excitation coil	approx. 155 W			
Power of release coil	approx. 115 W			
Ambient temperature	-40 °C+85 °C			
Protection class interior terminals	IP67 (0.2 bar: 1 min) to IEC 529 IP00 to IEC 529			
Vibration	6 g (50-2000 Hz)			
Shock	40 g (11 msec)			
Resistance to	oil, fuel, hydraulic fluids			
Housing	galvanized steel, tin-plated or lacquered optional			
Mounting method	side mount, small foot mount			
Spark / reverse polarity protection	special version reverse polarity protected and/or blow magnet			
Terminal thread	100 A: M8			
	200 A: M8 or M10			
	300 A: M10			
Mounting position	any			
Switching element	silver contacts (AgSnO)			
Min. insulation resistance	100 MΩ			
High voltage resistance	1,050 V for 1 min			
Max. initial contact voltage drop	150 mV			
ON duty	100 %			
Overload (ampacity in closed condition)	100 A: 800 A for 1 s, 200 A for 20 s 200 A: 1 600 A for 1 s, 400 A for 20 s 300 A: 2 400 A for 1 s, 600 A for 20 s			
Typical life at ambient rated load Ω mechanically	20,000 cycles (at 40,000 cycles	DC 12 / 24 V)		
Starting time incl. bounce duration	max. 40 ms			
Bounce duration	max. 5 ms			
Release time	max. 20 ms			
Cable cross section at rated load	100 A: min. 50 mm <sup>2</sup> 200 A: min. 70 mm <sup>2</sup> 300 A: min. 95 mm <sup>2</sup>			
Mass	approx. 420 g			

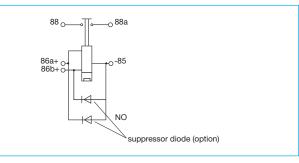
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Contact type         1       make contact         Rated voltage         1       12 V         2       24 V         3       48 V         Continuous current         1       100 A         2       200 A         3       300 A         Design of main terminals         1       M8 (for current ratings 100 A and 200 A)         2       M10 (for current ratings 200 A and 300 A)         Contact design       2 silver (standard)         Qptions       0 without         2       suppressor diode         3       blow magnet, recommended for voltages ≥ 40 V         4       suppressor circuits of coil terminals upon request         Housing       1         1       galvanised steel (standard)         2       tin-plated         3       lacquered (upon request)	ype no.	
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3 300 A         Design of main terminals         1 M8 (for current ratings 100 A and 200 A)         2 M10 (for current ratings 200 A and 300 A)         Contact design         2 silver (standard)         Options         0 without         2 suppressor diode         3 blow magnet, recommended for voltages ≥ 40 V         4 suppressor diode and blow magnet         other suppressor circuits of coil terminals upon request         Housing         1 galvanised steel (standard)         2 tin-plated         3 lacquered (upon request)         Mounting method		
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2 M10 (for current ratings 200 A and 300 A) Contact design 2 silver (standard)  Options 0 without 2 suppressor diode 3 blow magnet, recommended for voltages ≥ 40 V 4 suppressor diode and blow magnet other suppressor circuits of coil terminals upon request Housing 1 galvanised steel (standard) 2 tin-plated 3 lacquered (upon request) Mounting method		<b>v</b>
Contact design         2 silver (standard)         Options         0 without         2 suppressor diode         3 blow magnet, recommended for voltages ≥ 40 V         4 suppressor diode and blow magnet         other suppressor circuits of coil terminals upon request         Housing         1 galvanised steel (standard)         2 tin-plated         3 lacquered (upon request)         Mounting method		
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4 suppressor diode and blow magnet other suppressor circuits of coil terminals upon request Housing     1 galvanised steel (standard)     2 tin-plated     3 lacquered (upon request)     Mounting method		
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Housing           1         galvanised steel (standard)           2         tin-plated           3         lacquered (upon request)           Mounting method		
1 galvanised steel (standard) 2 tin-plated 3 lacquered (upon request) Mounting method		
2 tin-plated 3 lacquered (upon request) Mounting method		
3 lacquered (upon request) Mounting method		
Mounting method		
		1 side mount
2 small foot mount		
PR80 - 1 2 3 -2 2 0 -1 1 ordering example	P80 - 1 0	2 - 2 - 2 0 - 1 1 ordering example

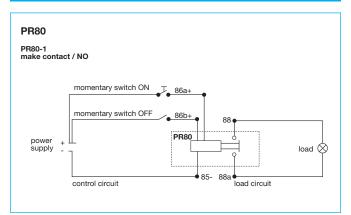
## **Ordering information**

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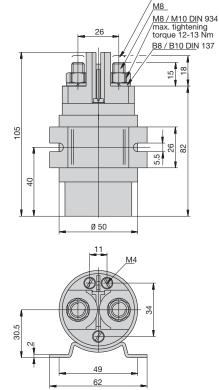


## Schematic diagram



## Dimensions

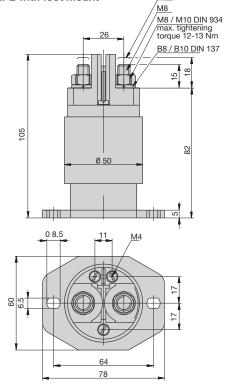




<u>M10</u>

<u>M10</u>

PR80-...-2 with foot mount

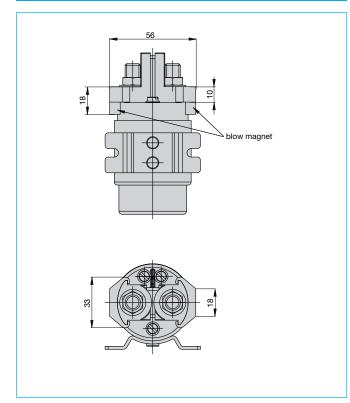


Current rating 100 A: terminal thread M8 Current rating 200 A: terminal thread M8 or M10 Current rating 300 A: terminal thread M10

Nominal dimensions without direct tolerance indication: IT 14 DIN ISO 2

# **習目示A Power Relay PR80**

## Dimensions PR80-...-3-... with blow magnet



# Accessories Suppressor diode X 223 03 001

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved.Product markings may not be exactly as the ordering codes. Errors and omissions excepted.