

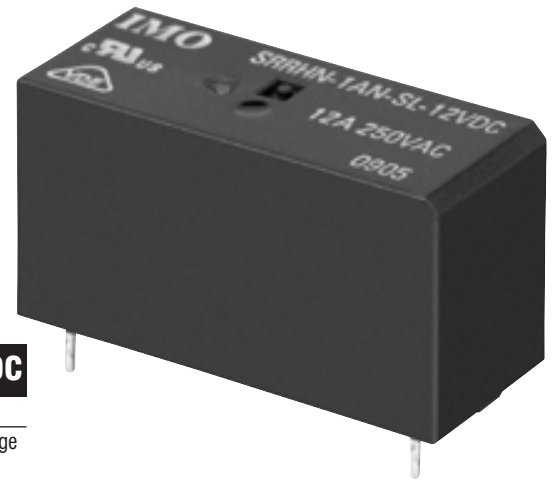
Miniature High Power Relay SRRHN/SRP



**INDUSTRIAL
CONTROL DIRECT**

A B&D Industrial Company

- Low height 15.7mm
- 16A switching capabilities
- 1 & 2 pole configuration
- 5KV dielectric coil to contacts
- Creepage distance 10mm
- Sealed & Flux-Tight construction



Options and ordering codes

SRRHN/SRP	-	1C		T	-	S		L		F	-	110VDC
SRRHN												Coil Voltage
12A Single Pole												
8A Double Pole												
SRP												
16A Single Pole												
Contact Form												
SPNO		1A										
SPNC		1B										
SPCO		1C										
DPNO		2A										
DPNC		2B										
DPCO		2C										
Contacts												
SPNO 5mm Pin Spacing		1A1		N		AgNi						
SPNC 5mm Pin Spacing		1B1		N1		AgNi + Au plated						
SPCO 5mm Pin Spacing		1C1		T		AgSnO ₂						
Insulation												
										NIL		B Class
										F		F Class
Sealing												
										F		Flux-Tight
										S		Sealed
RoHS Compliant												
										L		RoHS Compliant

Contact Data

Contact Arrangement	1A, 1B, 1C	2A, 2B, 2C
Initial contact resistance max.	50mΩ (at 1A 6VDC)	
Contact Material	See ordering info	
Contact Rating (Res. Load)	12A/16A 250VAC/24VDC	8A 250VAC/24VDC
Max. switching voltage	440VAC/125VDC	
Max. switching current	12A/16A	8A
Max. switching power	3000VA/4000VA	2000VA
Mechanical Life	1x10 ⁷ OPS	
Electrical Life	1x10 ⁵ OPS	

Coil Data

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. allowable Voltage (at 25°C)	Coil Resistance Ω
5	3.50	0.5	7.5	62 ± 10%
6	4.20	0.6	9.0	90 ± 10%
9	6.30	0.9	13.5	202 ± 10%
12	8.40	1.2	18	360 ± 10%
18	12.60	1.8	27	810 ± 10%
24	16.80	2.4	36	1,440 ± 10%
48	33.60	4.8	72	5,760 ± 10%
60	42.00	6.0	90	7,500 ± 10%
110	77.00	11.0	165	25,200 ± 10%

Characteristics

Initial Insulation Resistance		1000MΩ @ 500VDC
Dielectric Strength	Between coil & contacts	5,000VAC 1min.
	Between open contacts	1,000VAC 1min.
	Between contact sets	2,500VAC 1min.
Surge voltage between coil and contacts		10KV (1.2x 50μs)
Operate time (at nomi. Volt)		Max. 15ms
Release time (at nomi. Volt)		Max. 8ms
Temperature rise (at nomi. Volt)		55°C
Shock resistance	Functional	100m/s ²
	Destructive	1000m/s ²
Vibration resistance		10 to 150Hz 10g/5g
Humidity		35% to 85%
Ambient temperature		-40°C to +85°C
Termination		PCB
Unit Weight		13.5g
Construction		Sealed IP67 and Flux-Tight

Coil

Coil power	0.4W
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Miniature High Power Relay SRRHN/SRP



Safety Approval Ratings UL

AgSnO ₂	1 Pole 3.5 and 5mm Pin Pitch (SRRHN)	12A 277VAC
AgNi	1 Pole 3.5 and 5mm Pin Pitch (SRRHN)	12A 277VAC
AgSnO ₂	1 Pole 5mm Pin Pitch (SRP)	16A 277VAC
AgNi	1 Pole 5mm Pin Pitch (SRP)	16A 277VAC
AgSnO ₂ /AgNi	2 Pole (SRRHN)	8A 277VAC

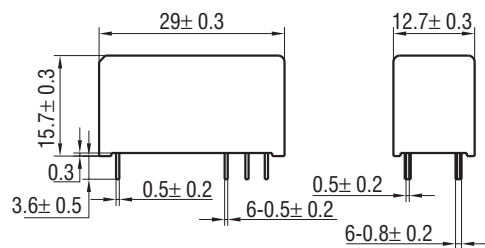
Safety Approval Ratings VDE

AgNi	SRRHN-(2A/2C)N-(,S)	5A 400VAC	at 85°C
		8A 250VAC	at 85°C
AgNi	SRP-(1A1,1C1)N-(,S)	9A 250VAC cos phi=0.4	at 70°C
	16A 250VAC		at 85°C
AgSnO ₂	SRRHN-1A N-(,S)	12A 250VAC	at 85°C
		10A 250VAC	at 85°C
AgSnO ₂	SRRHN-(1A/1C)T-(,S)	12A 250VAC	at 85°C
	SRP-(1A1,1C1)T-(,S)	16A 250VAC	at 85°C
		9A 250VAC cos phi=0.4	at 70°C
	SRRHN-(2A,2C)T-(,S)	8A 250VAC	at 85°C

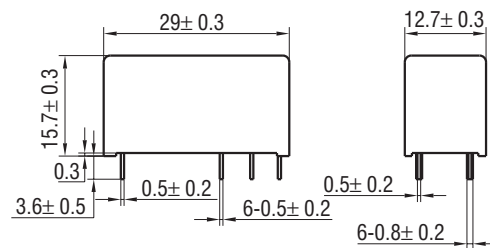
Outline dimensions (mm)

Wiring diagram and PC Board layout

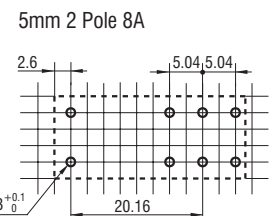
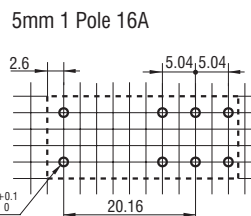
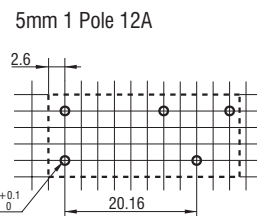
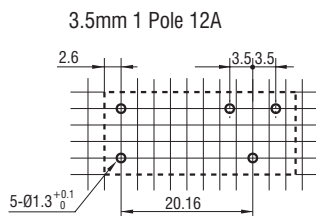
3.5mm Pinning SRRHN-1 x



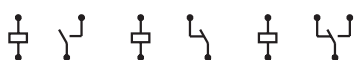
5mm Pinning SRRHN-1x1, SRRHN-2, SRP-1x1



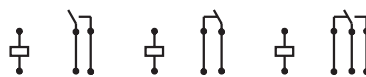
PCB layout (T=2.52±0.02mm)



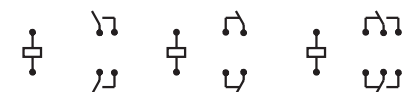
3.5/5mm 1 Pole 12A SRRHN-1 x
SRRHN-1 x 1



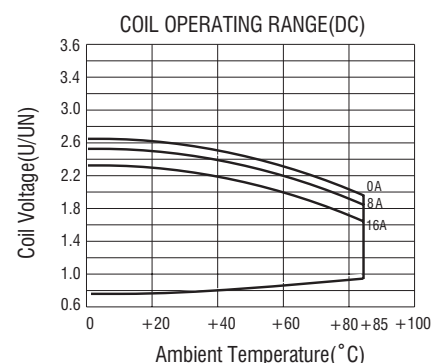
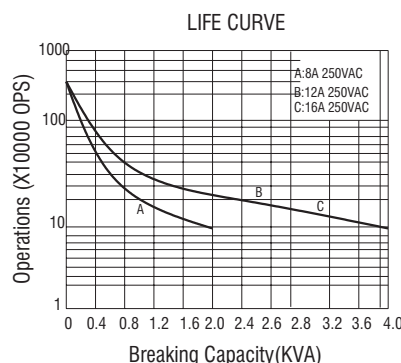
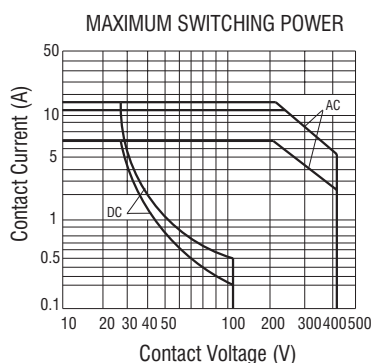
5mm 1 Pole 16A SRP-1 x 1



5mm 2 Pole 8A SRRHN-2 x



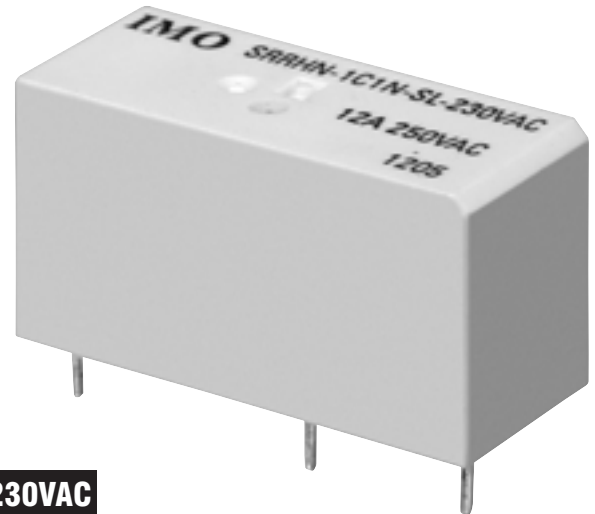
Characteristic Curve



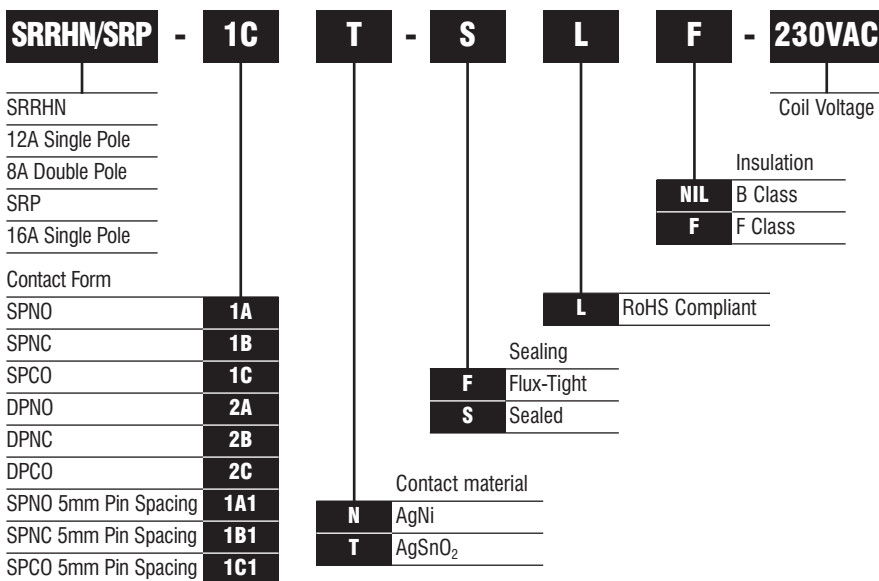
Miniature High Power Relay SRRHN/SRP-AC



- 16A switching capability
- 1 & 2 pole configurations
- 5KV dielectric strength (between coil & contacts)
- Low height: 15.7 mm
- Creepage distance: 10 mm
- Sealed IP67 & flux proof types available
- VDE: 0435/0110 VDE: 0631/0700



Options and ordering codes



Contact Data

Contact Arrangement	1A, 1B, 1C	2A, 2B, 2C
Initial contact resistance max.	100mΩ (at 1A 6VDC)	
Contact Material	See ordering info	
Contact Rating (Res. Load)	12A/16A, 250VAC	8A 250VAC
Max. switching voltage	440VAC	
Max. switching current	12A/16A	8A
Max. switching power	3000VA/4000VA	2000VA
Mechanical Life	5x10 ⁶ OPS	
Electrical Life	5x10 ⁴ OPS	

Coil Data

Nominal Voltage VAC	Pick-up Voltage VAC	Drop-out Voltage VAC	Coil current (at 20°C) mA	Coil Resistance Ω (at 20°C)
24	18	3.60	31.6	350±10%
115	86.30	17.30	6.6	8100±15%
230	172.50	34.50	3.2	32500±15%

Characteristics

Initial Insulation Resistance	1000MΩ @ 500VDC	
Dielectric Strength	Between coil & contacts	5,000VAC 1min.
	Between open contacts	1,000VAC 1min.
	Between contact sets	2,500VAC 1min.
Temperature rise (at nomi. Volt)	65°C	
Shock resistance	Functional	100m/s ²
	Destructive	1000m/s ²
Vibration resistance	10 to 150Hz 10g/5g	
Humidity	35% to 85%	
Ambient temperature	-40°C to +70°C	
Termination	PCB	
Unit Weight	13.5g	
Construction	Sealed IP67 and Flux proof	

Coil

Coil power	0.75VA
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Miniature High Power Relay SRRHN/SRP-AC



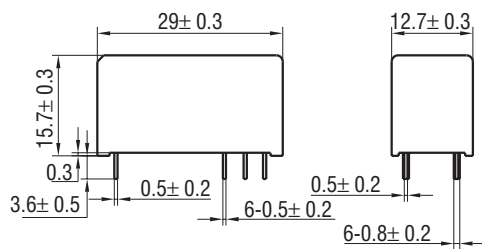
Safety Approval Ratings

UL/CUR	12A 250VAC
	16A 250VAC
	8A 250VAC
VDE (pending)	12A 250VAC
	16A 250VAC
	8A 250VAC

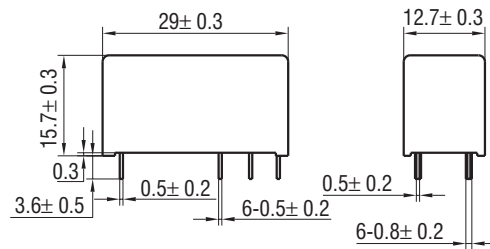
Outline dimensions (mm)

Wiring diagram and PC Board layout

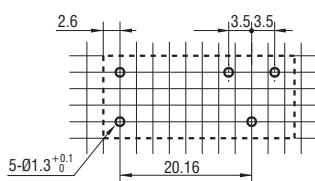
3.5mm Pinning



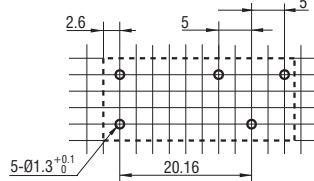
5mm Pinning



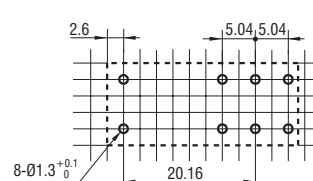
3.5mm 1 Pole 12A



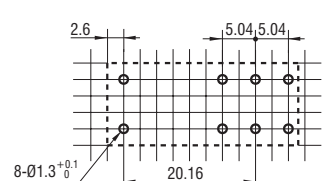
5mm 1 Pole 12A



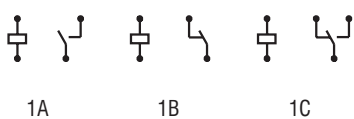
5mm 1 Pole 16A



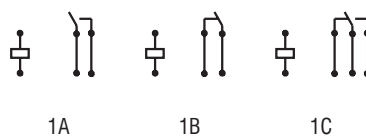
5mm 2 Pole 8A



3.5/5mm 1 Pole 12A



5mm 1 Pole 16A



5mm 2 Pole 8A

