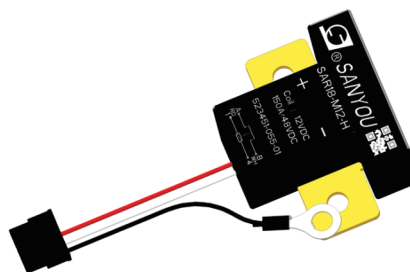


Features:

- Rated 150A contact switching capacity.
- Not position sensitive- can be mounted in any position for ease of installation.
- Meet the requirements for responding to abnormal working conditions and be able to switch to 10-times current
- Can be used in 48V battery pack start-stop systems



Contact Data

Contact arrangement	1 Form A
Contact material	AgSnO2
Contact Resistance	≤0.75mΩ (@12V 150A)
Contact Rating (resistive load)	150A 48VDC
Max. Contact Voltage	70VDC
Operate Time (at nominal volt.)	≤40ms
Release Time (at nominal volt.)	≤20ms
Bounce time (at nominal volt.)	≤5ms

Electrical endurance (resistive load) (1)	100A,70VDC, 1.5×10 ⁴ ops
	150A,70VDC, 5.0×10 ³ ops
	200A,70VDC, 200 ops

Breaking Current (2)	10A,70VDC, 200 ops
	400A,70VDC, 65 ops
	500A,70VDC, 45 ops
	1000A,55VDC, 20 ops
	2500A,55VDC, 4 ops
	3300A,55VDC, 1 ops

Load current capacity (3)	150A, 4H
	175A, 15min
	350A,30s
	750A,7s
	1500A,1s
	2000A,100ms
	2500A,10ms

Note:

(1) Electrical life test: @65°C,(on:off) 0.6s:5.4s, copper bar cross-section 25mm²

(2) Ultimate breaking test: @ 65°C, (on:off) 0.02s:5.4s, copper bar cross-section 25mm²

(3) Anti-short-circuit capability test: @ 85°C, copper bar cross-section 25mm²

Coil Data

Nominal Voltage VDC	Max. Operate Voltage VDC	Min. Release Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance (1±10%) Ω	Coil Power W	Holding Voltage
12	10	1.2	16	48	3	35% to 80% Nomi. Volt.(at 23°C)
24	20	2.4	32	192		40% to 60% Nomi. Volt.(at 85°C)
48	36	4.8	60	768		

Note:

(1) To prevent the coil from overheating, do not continuously apply the maximum voltage for an extended period.

(2) The coil holding voltage is the voltage applied to coil 100ms after the rated voltage

Insulation Data

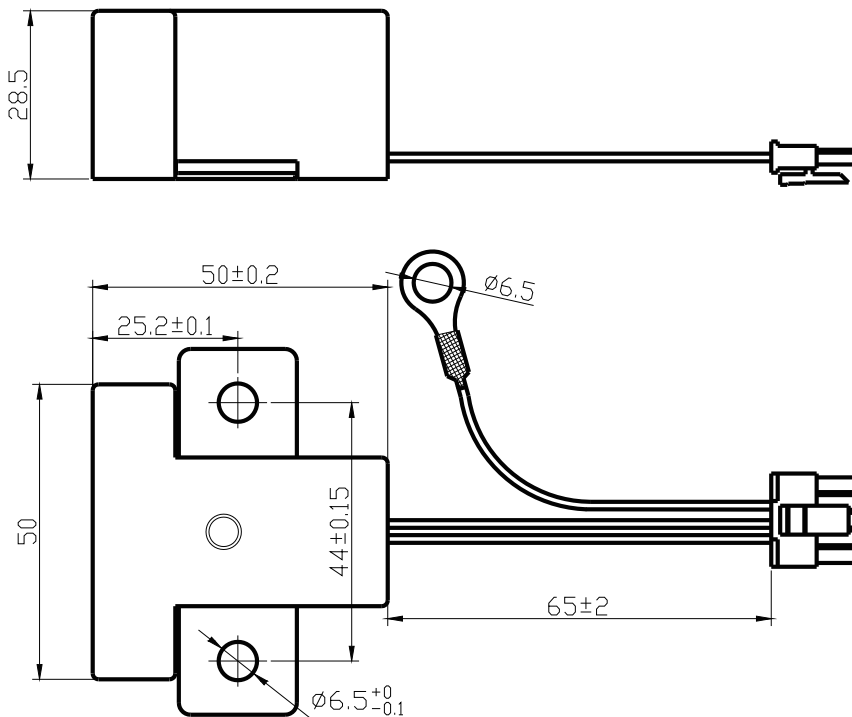
Insulation resistance	100MΩ (500VDC)
Initial dielectric strength(Leakage current ≤ 1mA)	
Between open contacts	1000VAC,50/60Hz,1min
Between contact and coil	1000VAC,50/60Hz,1min

Other Data

Material compliance	EU RoHS/ELV, China RoHS, REACH	
Temperature rise	< 70K, @150A, 85°C (copper bar cross-section 25mm ²)	
Shock resistance	Functional	50G
	Destructive	100G
Vibration resistance	According to LV124-M04, the acceleration is 30.8m/s ²	
Mechanical endurance	5×10 ⁵ ops	
Ambient temperature	-40°C to +85°C	
Humidity	5% to 85%RH	
Terminal Configuration	Terminal :M6 through hole coil :connector	
Weight	110g±5g	
Noise	60dB (40cm)	
Protection Degree	IP64	

Note: The above values are initial values

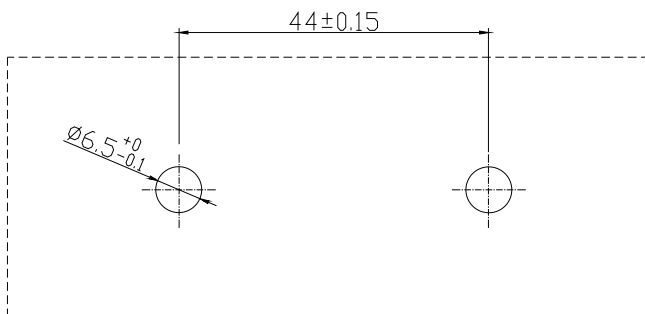
Dimensions



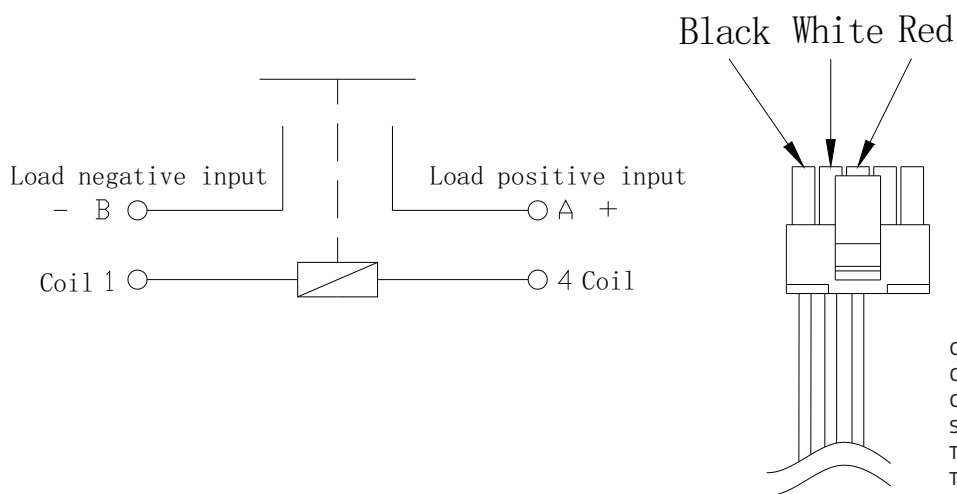
Unless otherwise specified:

If dimension ≤ 10 mm, tolerance: ± 0.3 mm.
If dimension 10~50mm, tolerance: ± 0.5 mm.
If dimension > 50 mm, tolerance: ± 0.8 mm.

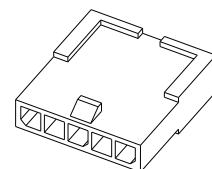
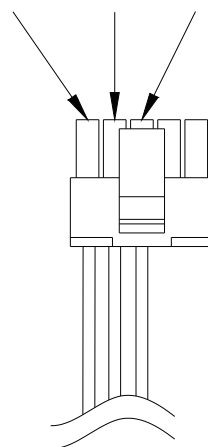
Wiring diagram



Wiring Diagrams



Black White Red



Coil end definition :

Connect Type: Molex 436450500

Crimping terminal Type: Molex430300001

Shell Type: Molex436400501

The white wire is "coil lead -"

The red wire is "coil lead +"

The black wire is "terminal signal detection"

Product Code Structure

SAR18	-M	12	-H	
				Special parameters: Nil-Standard type, Letters or digits-Special requirement
				Coil power:H-3W
				Coil voltage(VDC): 12, 24, 48
				Contact form:M-Form A
				Model:SAR18

Note:The customer's special requirements need to be formulated together with Sanyou.

Disclaimer

This product specification is for reference only, subject to change without prior notice.It is not possible for Sanyou to evaluate all the performance parameter requirements of relays in each specific application field, so customers should choose the suitable product according to the specific application conditions. If you have any questions, please contact us for more technical support, but the customer should be responsible for product selection.