

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	N0423-Y90SS112D00L01
DATE	April. 23, 2021
REVISION	A0
DESCRIPTION	<p>Sealed Subminiature High Power Relay Y90 series, L31.8*W27.4*H19.4mm, 5 Pins</p> <p>Material of contact: Silver Alloy, Contact form: 1C (C/O)</p> <p>Coil power: 0.90 W, Switching current: 30A Max</p> <p>Nominal voltage 12VDC</p> <p>Package: 40pcs/inner box , 400pcs/Carton in Bulk</p> <p>RoHS III and REACH Compliant</p>
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	Y90-SS-112D
PART CODE	Y90SS112D00L01

VENDOR APPROVE

Issued/Checked/Approved



DATE: Apr.23, 2021

CUSTOMER APPROVE

DATE:

SEALED SUBMINIATURE HIGH POWER RELAY Y90 SERIES

MAIN FEATURE

- Material of contact: Silver Alloy, Contact Form: 1C (C/O)
- Coil power: 0.90W
- Switching current: 30A Max.
- Nominal voltage 12 VDC
- Cross main competitors parts HF105F-1 and more
- RoHS/RoHS III compliant



APPLICATION

- Office equipment and Security alarm system
- Home Appliance Telecommunication Equipment
- Automatic electric controlled window, automotive antenna, door lock, etc.

RFQ

[Request For Quotation](#)

PART CODE GUIDE

Y90	SS112D00	L	01
1	2	3	4

- 1) Y90: Part family Code for Sealed Subminiature High Power Relay, L31.8*W27.4*H19.4mm, 5 Pins
- 2) SS112D00: Type code for original part number SS-112D
- 3) L: Thru Hole type, Package: 40pcs/inner box , 400pcs/Carton
- 4) 01: Internal control code, 2 letter or digits

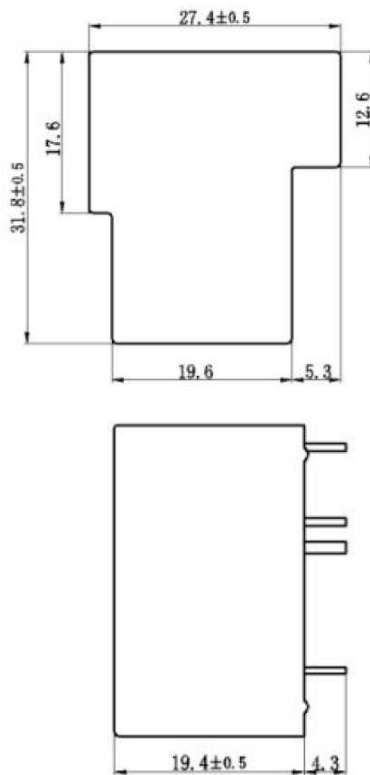
SEALED SUBMINIATURE HIGH POWER RELAY Y90 SERIES

DIMENSION (Unit: mm, Tol: +/-0.4mm Max.)

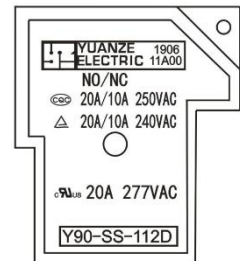
Image for reference



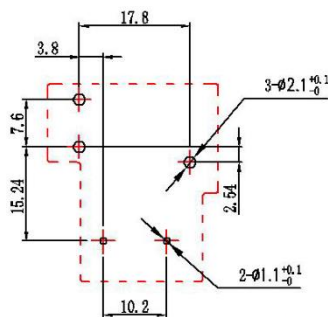
Y90



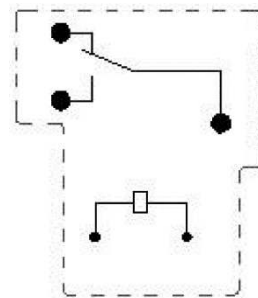
Marking
Sample



Wiring Diagram (Bottom View)



PCB Layout (Bottom View)



SEALED SUBMINIATURE HIGH POWER RELAY Y90 SERIES

GENERAL PARAMETERS

Parameter	Part No. Symbol	Value
Original Manufacturer	Y	YuanZe Relay
Holder Type	90	Size L31.8*W27.4*H19.4mm, 5 Pins
Enclosure	SS	Flux-tight
Contact Pole	1	1 Pole
Nominal voltage	12	12V
Coil Nominal Power	D	Standard coil power, 0.90W
Contact arrangement	00	1 Form C, 5 Pins
Terminal Type		Stand Terminal(No Terminal Between coil terminals)
Package	L	Package: 40pcs/inner box , 400pcs/Carton
Internal Control Code	01	Code- 2 letter or digits
RoHS and REACH Status		RoHS III and REACH Compliant
UL certified		File NO. E341498 20A 277 VAC
TUV certified		File No. R50198473 20 A/10A 240VAC
CQC certified		File No. CQC11002056155 20A /10 A 250VAC

SEALED SUBMINIATURE HIGH POWER RELAY Y90 SERIES

ELECTRICAL PARAMETERS

Parameter		Unit	Value			Condition
			Min.	Typ.	Max.	
Coil specification	Nominal voltage	V		12		DC
	Coil resistance	Ω		160		±10% at 23±5°C
	Rated current	mA		75		DC ±10% at 23±5°C
	Operate voltage	V			9.0	DC at 23±5°C
	Release voltage	V	0.6			DC at 23±5°C
	Maximum voltage	V			13.2	130% of nominal voltage
	Coil temperature rise	K			50K	@ Coil:12V
Contact specification	Contact configuration		SPDT (1 Form C)			
	Contact rating		20A 277VAC 20A/10A 250VAC			@Resistive load
	Contact resistance	mΩ			100	@DC6V 1A
	Operate time	ms			20	
	Release time				20	
	operating frequency	Cycle /hour			18000 600	Mechanically Electrically
	Contact temperature rise				50K	@ Contact:10A
General specification	Insulation resistance	mΩ	1000			@ DC 500V
	Dielectric strength between open contacts between contacts & coil	V		1500 2500		AC 50/60 HZ for 1Minute
	Ambient temperature	°C	-40		+85	
	Relative Humidity	RH	45%		85%	
	Electrical life	Cycle	100K			@ NO/NC 20A 277VAC
	Mechanical life	Cycle	10KK			
	Switching Current	A			30	
	Coil Nominal Power	W		0.90		
	Contact arrangement			1 Form C		

SEALED SUBMINIATURE HIGH POWER RELAY Y90 SERIES

ENVIRONMENTAL CHARACTERISTICS

Test Items	Test Method And Conditions	Requirement
Vibration resistance	Error operation: At constant vibration of double amplitude 1.5mm, 10 ~ 55 HZ , in each direction of X,Y,Z for 5 minutes. No error operation more than 1 ms. Endurance: No construction trouble when vibrate it from 3 directions for 2 hours.(Amplitude 1.5mm, 10 ~ 55 HZ)	It shall meet the specification
Shock resistance	Error operation: At peak acceleration 100m/s ² , duration 11ms, 3 shocks is given in each direction of X, Y, Z. No error operation more than 1 ms. Endurance: No construction trouble when shock it from 3 directions 3 times at peak acceleration 1000m/s ² , duration 6ms.	It shall meet the specification
Cold resistance	No any trouble on construction or characteristic when leave relay in – 40°C±2°C for 240h. After that, leave it in standard condition for 2 hours.	It shall meet the specification
Heat resistance	No any trouble on construction or characteristic when leave relay in +85°C±2°C for 240h. After that, leave it in standard condition for 2 hours.	It shall meet the specification
Moisture resistance	After keeping relay for 240h in 40°C, 90%, then leave it in standard condition for 2 hours. Insulation resistance 10MΩ Min. No any trouble on construction or characteristic	It shall meet the specification

TERMINAL CHARACTERISTICS

Test Items	Test Method And Conditions	Requirement
Terminal strength	5N pushed into any terminals for 10 s. There shall be no abnormalities.	The curving of the terminals shall be acceptable
Terminal solderability	In case of lead free solder 260±5°C, 5±0.5 s , 90% of the dipped portion shall be soldered	It shall meet the specification
Soldering thermal	No any trouble on construction or characteristic. When dipped into solder bath 260±5°C, 10±1s.	It shall meet the specification

SEALED SUBMINIATURE HIGH POWER RELAY Y90 SERIES

STANDARD TEST CONDITION

Test Items	Test Method And Conditions	Requirement
Ambient temperature	23±5°C	It shall meet the specification
Relative humidity	25% ~ 75%	It shall meet the specification
Air pressure	86kPa ~ 106kPa	It shall meet the specification

STORAGE CONDITION

Test Items	Test Method And Conditions	Requirement
Ambient temperature	-40°C ~ +85°C	It shall meet the specification
Relative humidity	35% ~ 85%	It shall meet the specification
Environment	Store in locations where the product or container is not expose to corrosive gas such as hydrogen sulfide Store in locations where no visible dust exists. Store in locations not subject to direct sunlight.	It shall meet the specification

Reminds

1. Any special requirements, please contact us.
2. Under the Environment with dangerous gas such as H₂S, SO₂ or NO₂, fully sealed type is recommended.
3. If the ambience allows, flux proof type is preferentially recommended.
4. If the user washes the PCB and relay in the ultrasonic cleaner, fully sealed type must be selected

SEALED SUBMINIATURE HIGH POWER RELAY Y90 SERIES**PACKAGE (Unit: mm)**

Series No.	MPQ Inner Box Pcs	Carton Dimension cm	MOQ Carton pcs	Net Weight Kgs	Gross Weight Kgs
Y90	40	L35.4*W25.2*H19.5	400	9.5	10.5

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