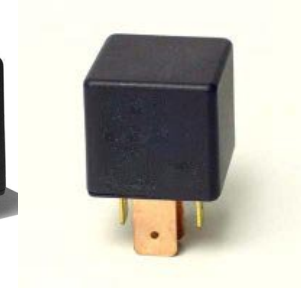


Greenwich Electronics, Inc.

AR3 Series

- Standard automotive type relay
- SPDT-NO 80A capacity
- Plug-in and PCB types
- Heavy-duty Silver alloy contacts
- Coil paralleled diode or resistor
- Applications: automotive, industrial machinery, motor controls, general purpose



COIL DATA

| Nominal Voltage (DC) | Nominal Coil Current (mA) ($\pm 10\%$ at 20°C) | Coil Resistance (Ω) ($\pm 10\%$ at 20°C) |
|----------------------|--|---|
| 12 | 150 | 80 |
| 24 | 75 | 320 |

| | |
|-------------------|----------------------|
| Pick-up Voltage | $\leq 65\%$ nominal |
| Drop-out Voltage | $\geq 10\%$ nominal |
| Max. Coil Voltage | $\leq 150\%$ nominal |
| Coil Consumption | Approx. 1.8W |

Contact

| | |
|------------------------|---|
| Configuration | A: 1 form A (SPST-NO), C: 1 form C (SPDT) |
| Material | Silver (Ag) alloy |
| Rated Load | NO: 80A@14VDC, NC: 60A@14VDC |
| Initial Voltage Drop | SPST: $\leq 100\text{mV}$ @80A |
| Max. Carry Current | NO: 100A |
| Max. Switching Voltage | 75VDC |
| Max. Switching Current | NO: 80A |
| Max. Switching Power | Approx. 980W (application dependent) |

CHARACTERISTICS

| | |
|-----------------------|------------------------------|
| Contact Resistance | Max. 50m Ω |
| Operate Time | $\leq 10\text{ms}$ |
| Release Time | $\leq 10\text{ms}$ |
| Insulation Resistance | Min. 100M Ω (@500VDC) |

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Dielectric Strength:

- Between coil and contacts 500VAC / one minute
- Between open contacts 500VAC / one minute

Vibration Resistance 10-55Hz, 1.5mm double amplitude

Shock Resistance Approx. 20g

Ambient Temperature

- Operate -40°C to +80°C
- Storage -40°C to +155°C

Relative Humidity 45% - 85%

Life Expectancy:

- Mechanical 1×10^7
- Electrical 1×10^5 (at rated load)

Weight Approx. 47 grams (dependent upon mounting type)

ORDERING INFORMATION

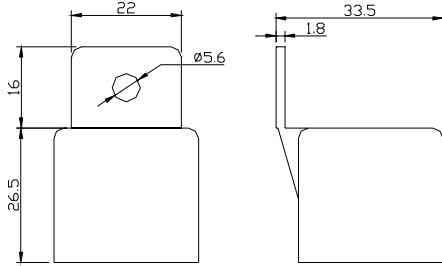
AR3 - 012 - A 0 1 M S
I II III IV V VI VII

- | | |
|-------------------------------|--|
| I. Series | AR3 |
| II. Coil Voltage (VDC) | 012, 024 |
| III. Contact configuration | A - 1 form A (SPST-NO), C - 1 form C (SPDT) |
| IV. Coil Paralleled Component | 0 - No component, 1 - Resistor, 2 - Diode |
| V. Connection Type | 1 - Plug-in, 2 - PCB |
| VI. Mounting Type | N - No bracket, M - Molded bracket, R - Removable metal bracket |
| VII. Package Type | nil - dust cover, S - Sealed (not available with R type) |

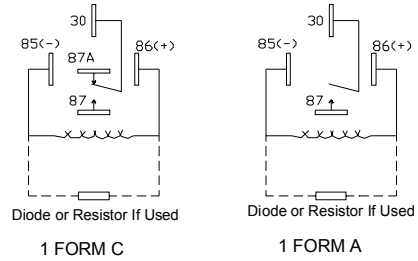
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AR3 Series Dimensions and Schematics (in mm)

M style - Molded bracket

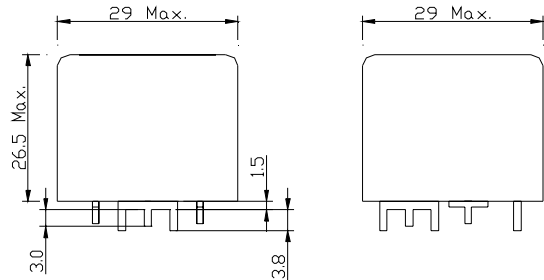
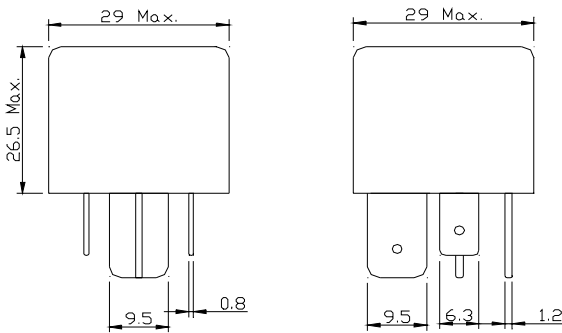


Terminal arrangement and wiring diagram



AR3 – 1 style (plug-in)

AR3 – 2 style (PCB)



Bottom view of plug-in terminals

Bottom view of PCB terminals

