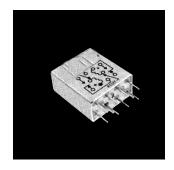


## Double Pole, Magnetic Latching, 2 Amps and Less (Continued)

Magnetic Latching, Grid-space, Relays Type 3SAM (2PDT)

#### **Product Facts**

- Special shock designs up to 700 G, 1 ms
- Suitable for pulse operation
- No hang up feature on low power pulses
- Qualified to MIL-R-39016/32
- Special wiring is available



This relay has "memory" in that the contact positions do not change when coil power is removed. Switching is accomplished by applying power to the applicable coil (dual coil) or with the applicable polarity (single coil). The low switching power requirements are further enhanced by its ability to operate from capacitor discharge or other pulses or through its own contacts for batteries or similarly limited supplies.

#### **Electrical Characteristics** Contact Ratings -

DC resistive — 2 amps at 28 volts DC inductive — 0.5 amps at 28 volts, AC resistive — 1 amp at 115 volts

(single coil), case not grounded AC resistive — 0.25 amps at 115 volts (dual coil), case not grounded Low-level — 50 µA at 50 mV Peak AC or DC

## Contact Resistance —

0.050 ohms initial: 0.100 ohms after life test

100,000 operations at rated load: 1,000,000 at low-level

#### Operating Characteristics

Operate Time - 4 ms

Release Time — 4 ms

Contact Bounce — 2 ms

#### Dielectric Strength -

1,000 volts rms at sea level 700 volts rms across contact gap

Insulation Resistance — 1,000 megohm min.

#### **Environmental Characteristics**

**Vibration** — 30 G, to 3,000 Hz

**Shock** — 150 G at 11 ms

Temperature — -65°C to +125°C

See page 1-52 for Mounting Forms, Terminals and Circuit Diagrams.

## Coil Table (All Values DC) Single Coil 50 mW Sensitivity: (Code: 1)

	Current Calibrated, CODE: 6		
Coil Code Letter	Coil Resistance @25C (Ohms)	Max Operate and Reset Current (mA) ‡	Suggested Source Voltage†
A B C D	16.4 ± 10% 40 ± 10% 96 ± 10% 164 ± 10%	55.2 35.3 22.8 17.4	1.8-4.8 2.7-7.5 4.2-11.0 5.5-15.0
E F H K	$260 \pm 10\%$ $400 \pm 10\%$ $600 \pm 10\%$ $960 \pm 10\%$	13.9 11.2 9.2 7.2	7.0-19.0 8.5-23.0 11.0-29.0 13.0-37.0
L ≥ Z P #.	$1350 \pm 10\%$ $1950 \pm 10\%$ $3000 \pm 15\%$ $4800 \pm 15\%$ $8200 \pm 20\%$	6.1 5.1 4.1 3.3 2.5	16.0-43.0 19.0-52.0 25.0-64.0 32.0-81.0 43.0-99.0

- † Applicable over the operating temperature range in circulating air.
- ‡ Initial or inspection value. Allow 20% increase in value of maximum pickup during rated life.

# Coil Table (All Values DC) Dual Coil 75 mW Sensitivity: (Code: 2)

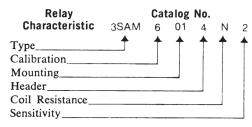
	Current Calibrated, CODE: 6		
Coil Code Letter	Coil Resistance @25C For Each Coil (Ohms)	Max‡ Operate Current For Each Coil (mA)	Suggested Source Voltage For Each Coil†
A B C D	$8.2 \pm 10\%$ $20 \pm 10\%$ $48 \pm 10\%$ $82 \pm 10\%$	95.8 61.2 39.5 30.2	1.5-2.6 2.3-4.1 3.6-6.3 4.7-8.3
EFHK	$130 \pm 10\% \ 200 \pm 10\% \ 300 \pm 10\% \ 480 \pm 10\%$	24.0 19.4 15.8 12.5	6.0-10.0 7.4-13.0 9.0-16.0 12.0-20.0
L M N P R	$\begin{array}{c} 675 \pm 10\% \\ 975 \pm 10\% \\ 1500 \pm 15\% \\ 2400 \pm 15\% \\ 4100 \pm 20\% \end{array}$	10.6 8.8 7.1 5.6 4.3	14.0-24.0 16.0-29.0 21.0-35.0 27.0-44.0 37.0-55.0

- † Applicable over the operating temperature range in circulating air.
- ‡ Initial or inspection value. Allow 20% increase in value of maximum pickup

## **Ordering Instructions**

**Example:** The relay selected in this example is a 2PDT magnetic latching relay, current calibrated, fourhole end bracket mounting, solder hook header, 1500 ohms coil resistance, and 75 mW sensitivity. By choosing the proper code for each

of these relay characteristics, the catalog number is identified as 3SAM6014N2. The letter R following sensitivity code indicates relay received 5000 operation miss-test. Ex. 3SAM6014N2R.



<sup>\*</sup> The part number example shown on this page is for catalog items. For a list of specific QPL part numbers, please see the index in Section 15.



## Double Pole, Magnetic Latching, 2 Amps and Less (Continued)

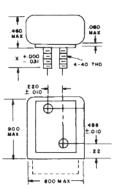
## Mounting Forms (3SAM)

(Vibration note with each form is acceleration from 55 to 3000 Hz)

No Mount

Mounting Code	Vibration*
00	30g

\* Assumes relay se-curely held by pot-ting or other means.



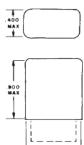
Two-hole End Bracket

Mounting Code

13

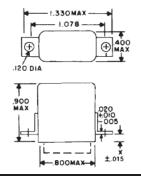
14

15



#### Side Studs

Mounting Code	X Dim.	Vibra- tion
07	0.250	30g
08	0.375	30g

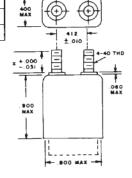


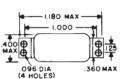
#### All dimensions in inches

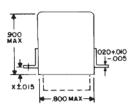
TOLERANCES		
(unless of	therwise specified)	
Hundredths	±0.020	
Thousandths	±0.005	

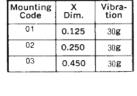
Top Studs

Mounting Code	X Dim.	Vibra- tion
10	0.250	30g
11	0.375	30g







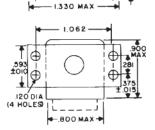


Four-hole

**End Bracket** 

Four-hole Side Bracket

	Mounting Code	Vibration
1	06	30g



## **Header and Connection Diagrams**

0.125

0.250

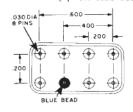
0.450

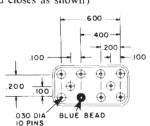
30g

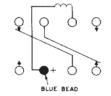
30**g** 

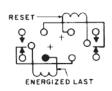
30g

#### Single Coil **Dual Coil** (Terminal View) (+ on blue bead closes as shown)



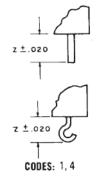






## **Header Types**

	71			
	Туре	z	Header Code	
1		Dimension	Single	Dual
ĺ	Solder hook	0.16	1	4
	Straight pin (socket or PCB type)	0.19	2	5



CODES: 2, 5

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6031007G 6131406HQ 6-1393099-3 6-1393099-8 6-1393122-4 6-1393123-2 6-1393767-1 6-1393843-7 6-1415012-1 6-1419102-2 6-
1423698-4 6-1608051-6 6-1608067-0 6-1616170-6 6-1616248-2 6-1616282-3 6-1616348-2 6-1616350-1 6-1616350-8 6-1616358-7 6-
1616359-9 6-1616360-9 6-1616931-6 6-1617039-1 6-1617052-1 6-1617090-2 6-1617090-5 6-1617347-5 6-1617353-3 6-1617801-8 6-
1617802-2 6-1618107-9 6-1618248-4 M83536/1-027M CX-4014 MAHC-5494 MAVCD-5419-6 703XCX-120A 7-1393100-5 7-1393111-7
7-1393144-5 7-1393767-8
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