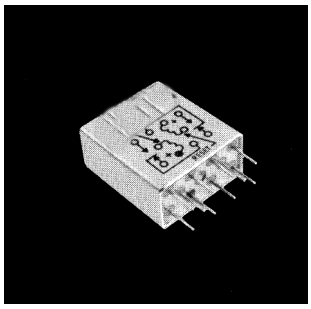
Double Pole, Magnetic Latching, 2 Amps and Less (Continued)

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, 200 mH
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

Life —
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)

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

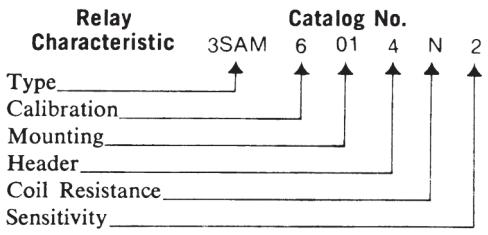
Coil Table (All Values DC) Dual Coil 75 mW Sensitivity: (Code: 2)

Coil Code Letter	Current Calibrated, CODE: 6		
	Coil Resistance @25C For Each Coil (Ohms)	Max‡ Operate Current For Each Coil (mA)	Suggested Source Voltage For Each Coil†
A	8.2 ± 10%	95.8	1.5–2.6
B	20 ± 10%	61.2	2.3–4.1
C	48 ± 10%	39.5	3.6–6.3
D	82 ± 10%	30.2	4.7–8.3
E	130 ± 10%	24.0	6.0–10.0
F	200± 10%	19.4	7.4–13.0
H	300 ± 10%	15.8	9.0–16.0
K	480 ± 10%	12.5	12.0–20.0
L	675 ± 10%	10.6	14.0–24.0
M	975 ± 10%	8.8	16.0–29.0
N	1500 ± 15%	7.1	21.0–35.0
P	2400 ± 15%	5.6	27.0–44.0
R	4100 ± 20%	4.3	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 during rated life.

Ordering Instructions

Example: The relay selected in this example is a 2PDT magnetic latching relay, current calibrated, four-hole 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.



* 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.

Catalog 5-1773450-5
Revised 3-13

www.te.com

Dimensions are shown for reference purposes only. Specifications subject to change.

Dimensions are in millimeters unless otherwise specified.

USA: +1 800 522 6752
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For additional support numbers please visit www.te.com

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

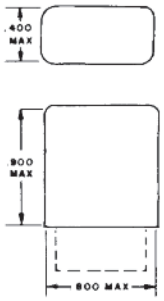
Mounting Forms (3SAM)

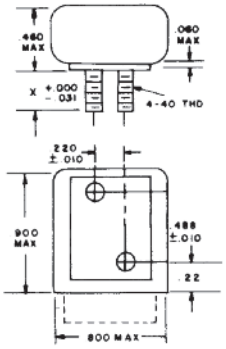
(Vibration note with each form is acceleration from 55 to 3000 Hz)

No Mount

Mounting Code	Vibration*
00	30g

* Assumes relay securely held by potting or other means.



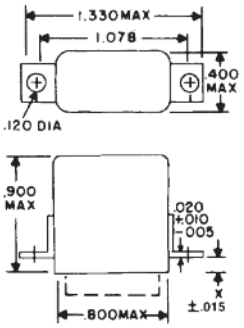


Side Studs

Mounting Code	X Dim.	Vibration
07	0.250	30g
08	0.375	30g

Two-hole End Bracket

Mounting Code	X Dim.	Vibration
13	0.125	30g
14	0.250	30g
15	0.450	30g

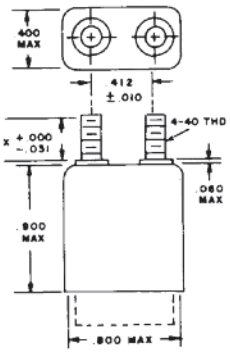


All dimensions in inches

TOLERANCES (unless otherwise specified)	
Hundredths	±0.020
Thousandths	±0.005

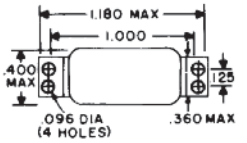
Top Studs

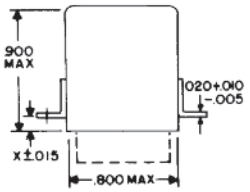
Mounting Code	X Dim.	Vibration
10	0.250	30g
11	0.375	30g



Four-hole End Bracket

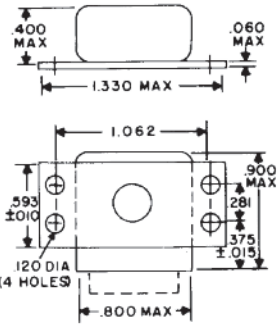
Mounting Code	X Dim.	Vibration
01	0.125	30g
02	0.250	30g
03	0.450	30g





Four-hole Side Bracket

Mounting Code	Vibration
06	30g

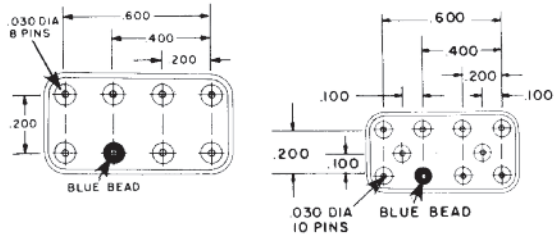


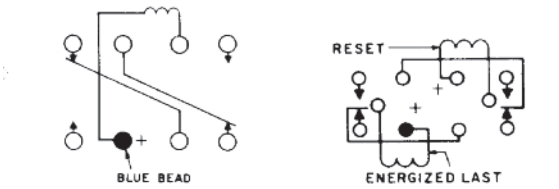
Header and Connection Diagrams

Single Coil **Dual Coil**

(Terminal View)

(+ on blue bead closes as shown)

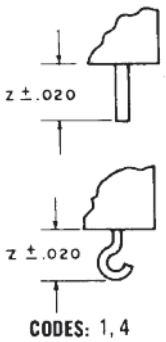




Header Types

Type	Z Dimension	Header Code	
		Single	Dual
Solder hook	0.16	1	4
Straight pin (socket or PCB type)	0.19	2	5

CODES: 2, 5



CODES: 1, 4

Catalog 5-1773450-5
Revised 3-13

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Dimensions are shown for reference purposes only. Specifications subject to change.

Dimensions are in millimeters unless otherwise specified.

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Asia Pacific: +86 0 400 820 6015
UK: +44 800 267 666

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