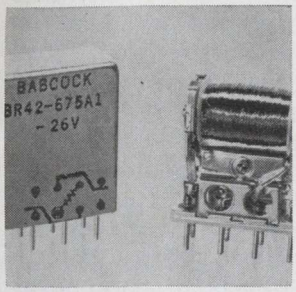
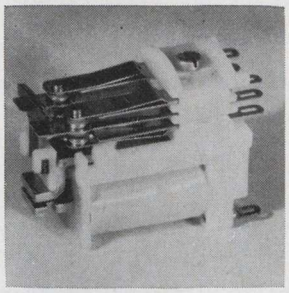
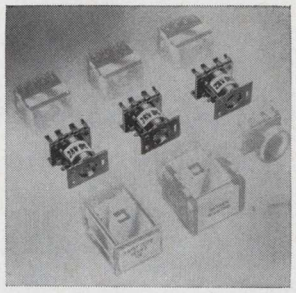
New Components Review



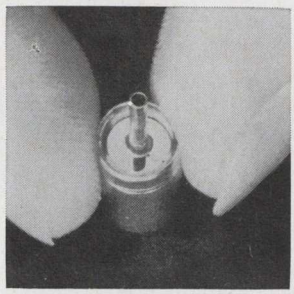
Welded crystal can relay BR42 is designed to meet MIL-R-5757. It is free of internal coil tape and adhesives, thus eliminating a major cause of relay contamination. It has universal contacts that switch dry circuit to 2-amp loads with the same contact set. Price is $6.50 in 1,000 lots. Babcock Relays, Div. of Babcock Electronics Corp., 3501 Harbor Blvd., Costa Mesa, Calif. [341]



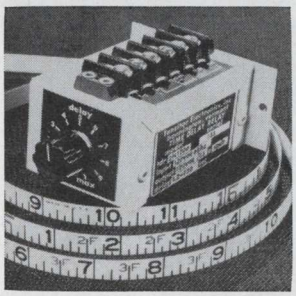
Medium duty relay JBJA offers small size, long life, and reliability. Standard silver contacts will switch 10 amps current for a minimum 250,000 operations or 4 amps for 2 million operations. They also possess a switched voltage rating of 380v a-c max. or 200 v d-c max. Typical operating times are from 4 to 7 msec. ITT Jennings Div. of ITT Corp., Box 1278, San Jose, Calif. [342]



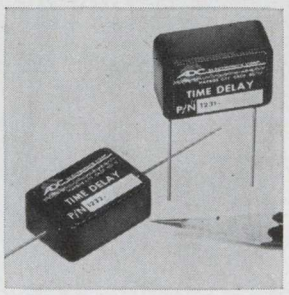
Magnetic holding coils, for snap-on assembly between series 10E, 12 and 19 pushbutton housings and standard 2 pdt or 4 pdt miniature switch modules, provide an economical method for achieving numerous electrical interlock, lock-in and lock-out circuits. Installations can be performed quickly without tools. Master Specialties Co., 1640 Monrovia Blvd., Costa Mesa, Calif. [343]



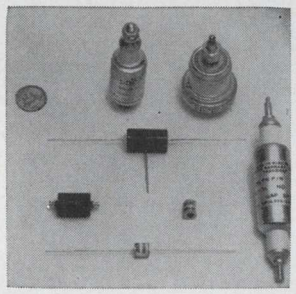
A sapphire-insulated vacuum feed-through limits vacuum leakage to less than 10^{-10} cc of helium per sec. The device, designed for the conductance of minute electrical currents between the atmosphere and vacuum-enclosed circuits, is expected to have wide application in the electronics and spectrometry fields. Cary Instruments, 2724 S. Peck Rd., Monrovia, Calif. [344]



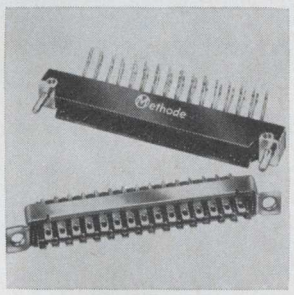
Solid state time delay relay TDR2 is for industrial and commercial use in driving solenoids, relays, small motors and similar loads. With a repeat accuracy of 3%, timing ranges available are 0.1-10, 0.3-30, 0.6-60, 1.2-120, 1.8-180 sec, over a temperature range of 0° to +55°C. Maximum timing variation due to temperature is ±4%. Tansitor Electronics Inc., Bennington, Vt. [345]



Fixed time delays ranging from 0.1 to 15 sec with accuracies of ±5% and ±10% are offered by a line of solid state time delay relays. Units have an output rating of 0.7 amp and a size volume of no more than 0.25 cu in. Weight is 0.5 oz. Input voltage range is 14 to 35 v d-c. Minimum holding current is 10 ma. ADC Elecronics Corp., 1227 W. 254 St., Harbor City, Calif. [346]



Precision spark gaps types 2009-01 through 2009-04 have voltage breakdown capability from 450 v to 1,500 v. All feature ultrafast response and insulation resistance of greater than 1,000 megohms. Maximum surge current handling capability of the line ranges from 10,000 to 40,000 amps on a 10 x 20 μsec waveshape. Joslyn Electronic Systems, 6868 Cortona Drive, Goleta, Calif. [347]



Two-part fork contact p-c connectors are designed to permit tying-in printed circuits directly to the unit's cabling. Features of the new series, available with either 31 or 41 contacts, include glass-filled diallyl phthalate insulators, coated aluminum shells on the male connectors, and solder type terminals for wiring. Methode Electronics Inc., W. Wilson Ave., Chicago. [348]

New components

Switch contacts minimize contamination

Snap-action devices use gold alloy crosspoints for low-energy applications; calculator market is target

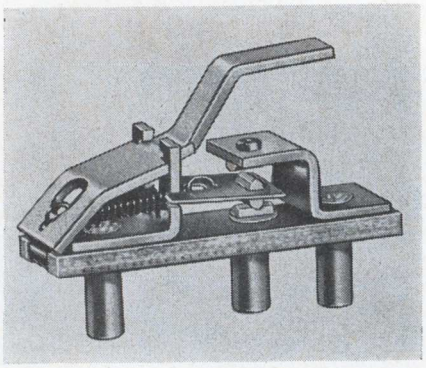
"How sweet it is!" may be an expression coined by Jackie Gleason, but it's fast catching on at the Cherry Electrical Products Corp. The tv comic's signature line perhaps best describes the company's feelings about its newest line of snap-action switches. Called the Cherry gold-crosspoint series, the line is designed for dry-circuit applications and will make its bow at Wescon.

"The new switches are particularly attractive for desk-top calculators and computers requiring switching at low voltages and currents," says Frank A. Amendola, sales promotion manager at Cherry. Considering the potential market for such calculators—in the U.S. alone, sales are estimated at 800,000 units a year—the company believes its new switches will attract lively demands.

One of these snap switches—or at least an adaptation of it—has already found its way into an electronic calculator. The Hewlett-Packard Co. uses 68 Cherry crosspoint-switches in its model 9100A machine; the switches are variation of Cherry's S31, a single-pole, single-throw, normally open unit.

Available in four different types, sizes, and mountings—the E31 miniature, the E63 subminiature, the E53 rotary action, and the S31 open miniature—the new switches have lives measured in millions of operations, contact resistance comparable to that of reed switches, and almost no susceptibility to contact closure interference from foreign particles. But the big difference between conventional switches and the crosspoint line is in the contact. Cherry employs crossbar contacts, a concept almost as old as switches themselves and commonplace in telephone-switching circuits.

Noble mix. Two crosspoint, or crossbar, prisms—noble alloys 69% gold, 25% silver, and 6% platinum—are microwelded at right angles to each other so the contacts cross on closure. This configuration provides high unit contact pressure and just about eliminates contact-closure interference. "The potential contamination area is reduced to 1% of the conventional 1/8-inch diameter contacts," Amendola notes. And reliability is enhanced, he adds, by the metallurgical bond formed by microwelding the prisms at right angles.



Cherry's crosspoint approach does away with reeds, which require some method of activating the switching action—magnets, for instance. "But regardless of what method is chosen," Amendola says, "the installation cost tends to be high with reed types."

All four switches in Cherry's new line are single pole, and either single or double throw, double pole can be achieved by ganging two switches for multicircuits.

Cherry Electrical Products Corp., Highland Park, Ill. 60035 **[349]**

Circle 149 on reader service card→