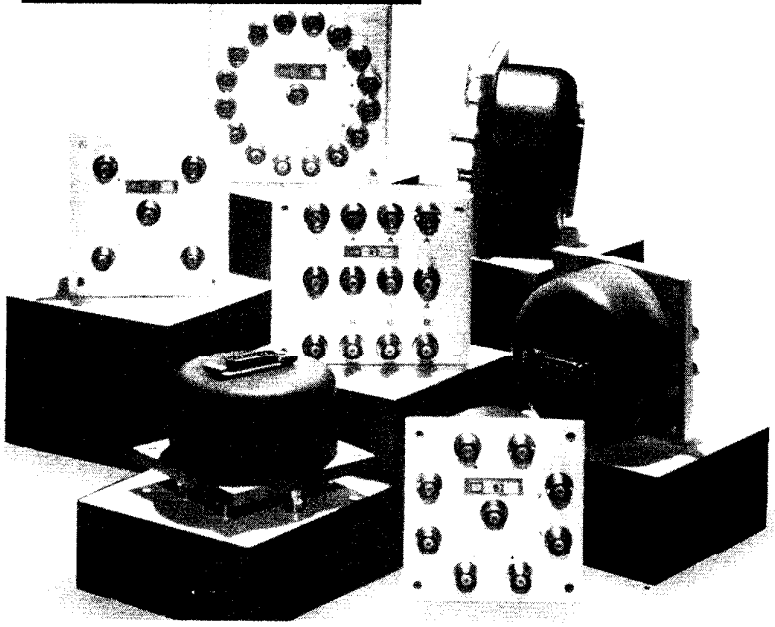
SIGNAL SWITCHERS

MODELS 42/43/82/162



Programmable Coaxial Reed Switches

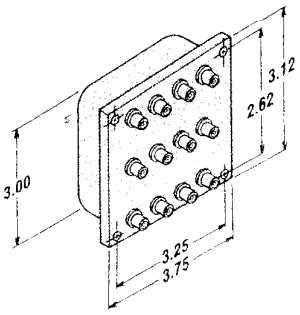
- **Low VSWR and Insertion Loss**
- **Matched Delays — Fast Rise Time**
- **Fast Settling and Drop-Out Time**
- **High Reliability**
- **Long Operating Life**

This line of programmable coaxial switches offers the designer of RF and pulse switching networks the ultimate in fast operating, highly reliable coaxial switches. These switches, for 50Ω, high-speed systems, provide rapid programming, minimum crosstalk, and maximum bandwidth for RF or pulse applications. Available models give single-poles with 4, 8, or 16 output terminals, or 4 independent SPDT sections. All models easily mount on standard 3½ inch rack panels.

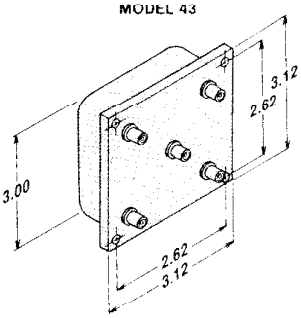
Models 42, 82 and 162 are single-pole switches with 4, 8, or 16 output connections. Rise time is less than 1 ns, and bandwidth greater than 1 GHz. These switches offer low-insertion loss (typically 0.28 dB and 500 MHz for the Model 42) and low VSWR (1.26 at 500 MHz for the Model 42) for RF switching applications and fast rise time for pulse applications. All models are packaged in a compact, rigid enclosure for panel or chassis mounting.

Models 23 and 43 offer maximum flexibility in applications requiring matched delays, termination of unused signal lines, low crosstalk, and fast rise time. The units consist of two and four independent SPDT sections, matched to give delays with ±20 ps. Switching is done by reliable, low-resistance reed switches housed within a rigid aluminum body to give maximum isolation between sections. Careful mechanical and electrical design result in low (less than 3.0 at 1 GHz) VSWR and insertion loss. Models 23 and 43 may be mounted on a standard 3½-inch panel or on any flat surface.

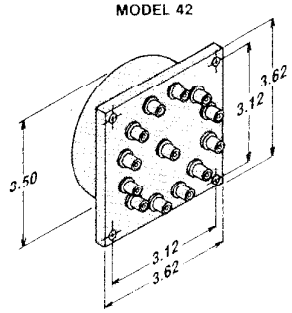
Characteristic Impedance: 50Ω.
Rise Time: <1 ns (<200 ps with Models 23 and 43).
Bandwidth: >1 GHz at −3 dB point.
Signal Delay: Matched within ±20 ps. (Models 23 and 43.)
Typical Shunt Capacitance
Models 23 and 43: <1.0 pF.
Model 42: <1.5 pF.
Model 82: <4.5 pF.
Model 162: <10.5 pF.
Pull-In and Settling Time: <1.5 ms.
Drop-Out Time: Maximum, <75μs; typical, <50μs.
Maximum Contact Rating: 10W.
Maximum Contact Current: 0.5A.
Coil Voltage: 15, 24, or 28 Vdc (specify) ±10%.



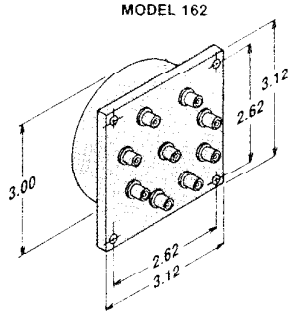
MODEL 43



MODEL 42



MODEL 162



MODEL 82

Maximum Pull-In Current: 50 mA (28V).
Leakage Resistance: $>10^{10}$ Ω.
Maximum Voltage: 300 Vdc, terminals to case.

OPTIONS
XX: Control Voltage 15, 24 or 28 V.
D: Diode Suppression Cathode Common
D1: Diode Suppression Anode Common

FACTORY/FOB
San Diego, CA