



EITEL-McCULLOUGH, INC.
SAN CARLOS, CALIFORNIA

VS-2
VS-4
VS-5
VS-6

VACUUM SWITCH

Eimac VS-2, VS-4, VS-5 and VS-6 are single pole, double throw, electro-magnetically actuated vacuum switches designed for high voltage applications where a compact, fast-acting vacuum switch is required.

The VS-2, VS-4 and VS-5 are identical electrically and are intended for switching radio-frequency circuits at moderate values of current. These three switches differ only in physical characteristics; the VS-4 being shorter and the VS-5 being of more rugged construction.

The VS-6 has a tungsten contact arm to minimize sticking and is intended for pulse switching applications where high peak currents are encountered. These switches are designed to be used with Eimac 12 volts and 24 volts direct-current coils.



GENERAL CHARACTERISTICS

ELECTRICAL

	VS-2	VS-4	VS-5	VS-6	
Peak RF hold-off voltage - - - -	20,000	20,000	20,000	22,000	volts
RF Contact Current (1-15 Mc) - - -	7.5	7.5	7.5		amps
(30 Mc) - - - -	5.0	5.0	5.0		amps
Pulse Current - - - - -				150	amps

(Note) Pulse duration less than 2.5 milliseconds, pulse repetition rate less than 400 pps, Pulse train = 0.5 seconds. With 0.25 second pulse train, this rating increases to 300 amps).

Maximum Contact Resistance:

Normally closed contact - - - - -	0.03	0.03	0.03	0.03	ohms
Normally open contact - - - - -	0.05	0.05	0.05	0.03	ohms
Maximum Contact closing time - - -	20	20	20	20	millisec.

MECHANICAL

Dimensions - - - - -	- - - - -	- - - - -	- - - - -	- - - - -	See drawings
Weight - - - - -	- - - - -	- - - - -	- - - - -	- - - - -	2 ounces

Coil Data:

	12 volt coil	24 volt coil
Part Number - - - - -	512705	51273
Resistance (nominal) - - - - -	30	115 ohms



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APPLICATION

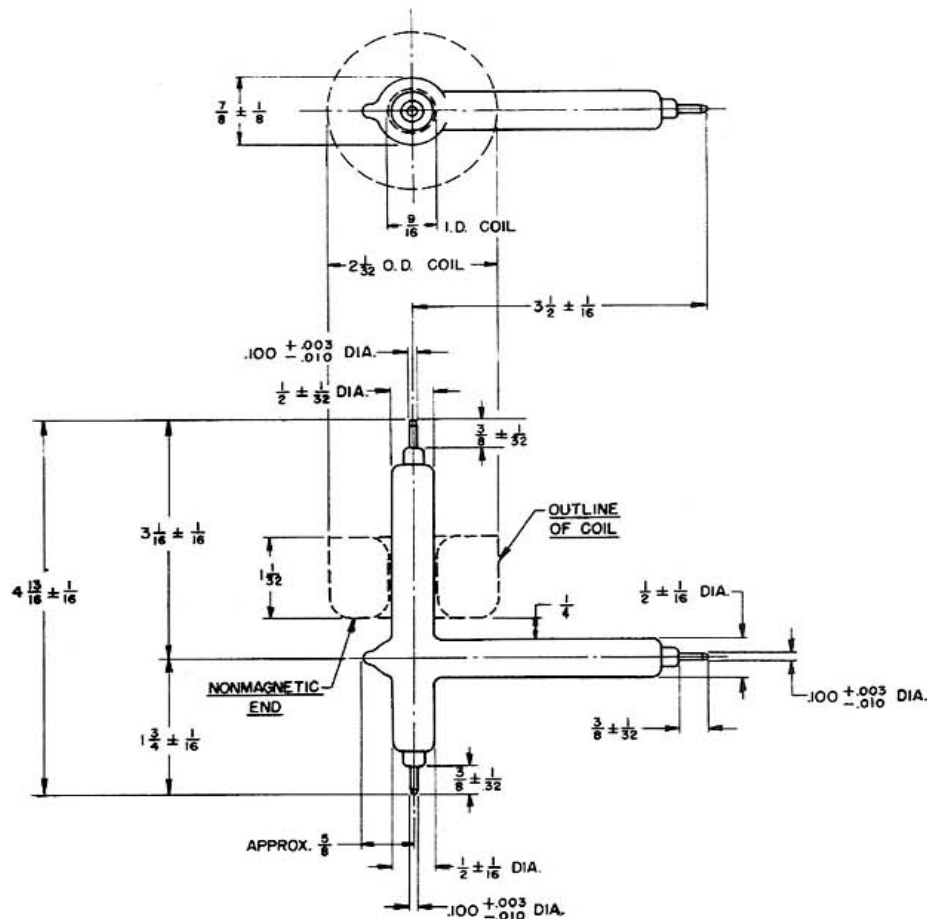
Mounting: The operating coil is mounted in rubber grommets over the glass barrel on the arm containing the iron core. The non-magnetic end of the coil is placed toward the contacts with approximately 1/16 inch clearance between the coil and the glass barrel containing the movable contact arm.

In order to prevent damage from shock and vibration, the switch should be fastened to the equipment with rubber covered metal strips over the glass tubing. Where vibration and shock are encountered, the heavier VS-5 switch is preferred.

Contacts: The normally open contact is housed in the glass barrel containing the iron core; the normally closed contact being directly opposite this core.

DC Ratings: While not designed for dc applications, the VS series may be used at reduced ratings in dc service. The following ratings have been established:

	VS-2	VS-4	VS-5	VS-6	
DC Voltage - - - - -	14,000	14,000	14,000	14,000	volts
DC Current - - - - -	4	4	4	6	amps

VS-2
VS-5



