

Chapter 100

ROTARY SWITCHES, ROTAX, D0100 SERIES

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Introduction

1. The D0100 series of rotary switches have either two or three positions. From the OFF position, the operating knob is moved either to the right or to the left or right, depending on the switch type, to give either one or two ON positions.

DESCRIPTION

2. The switch mechanism is housed within a metal barrel. The rotary spindle projects from one end of the housing, the other end being attached to a contact plate spring, loaded against a pressure plate, preventing any movement of the operating arm. The terminals are enclosed by a moulded cover which is secured by a captive screw.

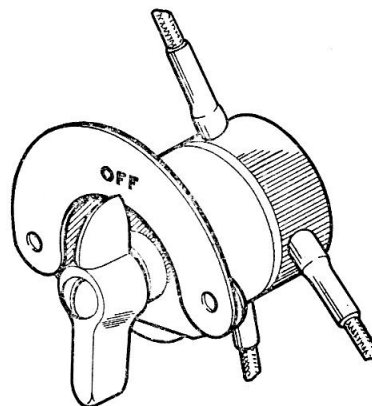


Fig. 1. General view of rotary switch

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Operation

3. Movement of the switch lever causes the contact plate to connect up the appropriate terminals as described in the appendices.

INSTALLATION

4. Mounting and terminals are described in the appropriate appendix.

SERVICING

5. The switch should be examined for signs of damage, and the leads for security.

Testing

6. If the serviceability of the switch is suspect, it may be tested as laid down in Appendix A or B as applicable.

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Appendix A

STANDARD SERVICEABILITY TEST

for

ROTARY SWITCH, ROTAX, TYPE D0123

Introduction

1. The following tests may be applied to the switch before it is put into service or at any time when its serviceability is suspect.

Test equipment

2. The following test equipment is required:—

- (1) Insulation resistance tester, Type C (Ref. No. 5G/152)
- (2) Ammeter, 0–10 amp.
- (3) Millivoltmeter, 150–0–150 millivolts (Ref. No. 5Q/141)

Testing

Millivolt drop test

3. With the switch in the ON position, the millivolt drop across the terminals with 5 amp. flowing must not exceed 30 millivolts.

Insulation resistance tests

4. The insulation resistance between the terminals and case with the switch in the ON position, and between terminals with the switch in the OFF position, must not be less than 5 megohms when tested with a 250-volt insulation resistance tester.

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Appendix B

STANDARD SERVICEABILITY TEST FOR ROTARY SWITCH, ROTAX, TYPE D0126

Introduction

1. The following tests may be applied to the switch before it is put into service, or at any time when its serviceability is suspect.

Test equipment

2. The following test equipment is required:—

- (1) Insulation resistance tester, Type C (Ref. No. 5G/152)
- (2) Ammeter, 0–50 amp.
- (3) Millivoltmeter, 150–0–150 millivolts (Ref. No. 5Q/141)

Testing

Millivolt drop test

3. A current of 35 amp. should be passed

through each pair of contacts for half a minute.

4. The switch should be operated six times to ensure that it is functioning correctly.

5. The voltage drop across the contacts must not exceed 100 millivolts.

Insulation resistance tests

6. The insulation resistance between terminals with the switch open, and between terminals and the body with the switch closed, must not be less than 5 megohms when tested with a 250-volt insulation resistance tester.

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Appendix 1

ROTARY SWITCH, ROTAX, TYPE D0123

LEADING PARTICULARS

Rotary switch, Type D0123	Ref. No. 5CW/1535
<i>Voltage</i>	...	...	...	...	28V d.c.
<i>Current rating</i>	...	...	...	...	5 amp.
<i>Length</i>	...	...	...	...	3.000 in.
<i>Diameter</i>	...	...	...	...	1.625 in.
<i>Weight</i>	...	...	...	...	4.75 oz.

1. The rotary switch, Type D0123, is similar to that described and illustrated in the main chapter. It has two positions, ON and OFF, and is enclosed in a waterproof covering. Two internal terminals are connected via a Du-sheath 4 cable and the

switch actuator is forked to allow for mechanical linkage.

2. There are two holes of 0.189 in. diameter provided for mounting, set 2.000 in. apart on the mounting plate.

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Appendix 2

ROTARY SWITCH, ROTAX, TYPE D0126

LEADING PARTICULARS

Rotary switch, Type D0126	Ref. No. 5CW/2186
<i>Voltage</i>	...	...	...	...	28V d.c.
<i>Current rating</i>	...	...	...	...	12 amp.
<i>Length</i>	...	...	...	...	2.920 in.
<i>Diameter</i>	...	...	...	...	1.500 in.

1. The rotary switch, Type D0126, is similar to that described and illustrated in the main chapter. It has three positions, 1, OFF and 2; the OFF position being in the vertical centre line, position 1 at 55 deg. to the left of the vertical centre line and position 2 at 55 deg. to the right of the vertical centre

line. Each of the three terminals has its own entry.

2. There are two holes of 0.189 in. diameter provided for mounting, set 2.000 in. apart on the mounting plate.

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