

## Chapter 53

# SWITCH, MAGNETIC, ROTAX D6703/2

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### LEADING PARTICULARS

Voltage	
Main contacts ... ..	208-V., 400 c.p.s., 3-phase a.c.
Coil ... ..	28-V. d.c.
Current rating of main contacts (line) ... ..	40 amperes
Rating ... ..	Continuous
Coil resistance at 20 deg. C.	
Pull-in ... ..	68 ohm $\pm$ 5 per cent
Hold-in (total) ... ..	76 ohm $\pm$ 5 per cent
Operational temperature range ... ..	-65 deg. C. to +70 deg. C.
Operational ceiling ... ..	60,000 ft.
Length ... ..	4.312 in.
Width ... ..	2.937 in.
Height ... ..	3.000 in.
Weight ... ..	2 lb.

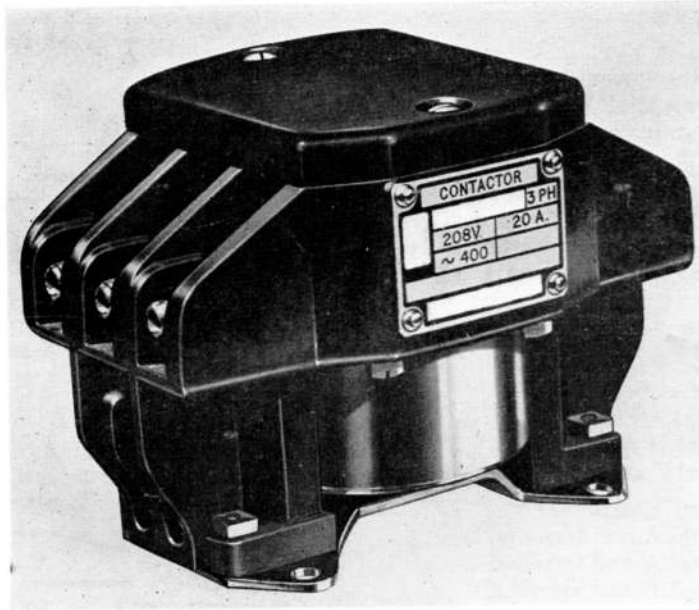


Fig. 1. D6703/2 magnetic switch

## Introduction

1. The D6703/2 magnetic switch is generally similar to others in the D6700 series described in A.P.4343, Vol. 1, Sect. 11, Chap. 20. The main contact voltage is 208-V. 400 c.p.s. 3-phase a.c. and the current rating is 40 amperes per line. There is one pair of normally closed auxiliary contacts, having a rating of 5 amperes, for use in a 28-V. d.c. circuit.

## DESCRIPTION

2. Full details of description and operation will be found by reference to A.P.4343, Vol. 1, Sect. 11, Chap. 20.

## INSTALLATION

3. The main terminals are standard 37 ampere S.B.A.C. sockets and the coil terminals and the auxiliary switch terminals are standard 19 ampere S.B.A.C. sockets.

## SERVICING

4. In addition to the servicing detailed in A.P.4343, Vol. 1, Sect. 11, Chap. 20, Paras. 10 to 12, the following tests should be applied.

### Millivolt drop test

5. Allow 40 amperes d.c. to flow through each pair of main contacts in turn (coil energized). The potential drop across each pair of mating contacts should not exceed 15 millivolt and the potential drop across each opposite pair of terminals should not exceed 70 millivolt.

6. With 5 amperes flowing (with coil de-energized), the potential drop across the auxiliary switch terminals should not exceed 150 millivolt.

### Insulation resistance tests

7. Measure the insulation resistance between the following points, using a 500-V. insulation resistance tester. A reading of not less than 50,000 ohm should be obtained in each test.

- (1) Main contacts open
  - (a) Terminal A and terminal L1
  - (b) Terminal B and terminal L2
  - (c) Terminal C and terminal L3
- (2) Main contacts closed
  - (a) Terminal A and terminal B
  - (b) Terminal A and terminal C
  - (c) Terminal B and terminal C
  - (d) Metal base and terminals A, B, C.

- (e) Terminal CT and terminals A, B, C
- (f) Terminal IN.1 and terminals A, B, C
- (g) Terminal IN.2 and terminals A, B, C.

8. Measure the insulation resistance between the following points, using a 250-V. insulation resistance tester. A reading of at least 50,000 ohm should be obtained in each test.

- (1) Main contacts open
  - (a) Terminal IN.1 and terminal CT
  - (b) Metal base and terminals IN.1 and CT
- (2) Main contacts closed
  - (a) Terminal IN.1 and terminal IN.2

### Note . . .

The value of insulation resistance given in paras. 7 and 8 applies to switches being tested under normal workshop conditions. Due allowance should be made for the climatic conditions of the locality and those of the aircraft servicing area or dispersal point where the tests are being applied. In particularly damp climates, the readings obtained may be low enough to give apparently sufficient reason for rejection and, in these instances, discretion should be exercised.

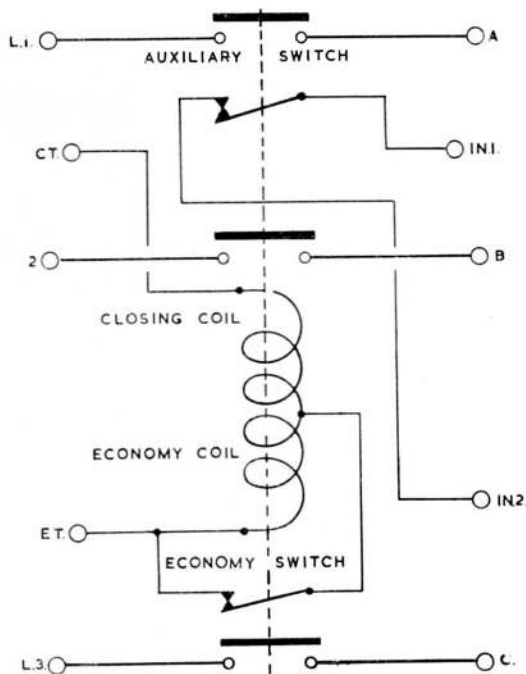


Fig. 2. Diagram of connections

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