

## Chapter 98

### RELAYS, OVERSPEED, ROTAX, F.1714/1 & F.1714/1-A

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#### LEADING PARTICULARS

Pull-in current (contacts close) ...	450—550 amperes
Release current (contacts open)	
F.1714/1 ...	140—160 amperes
F.1714/1-A ...	200—220 amperes
Length ...	3-650 in.
Width ...	3-218 in.
Height ...	3-419 in.
Weight ...	1 lb. 1 oz.

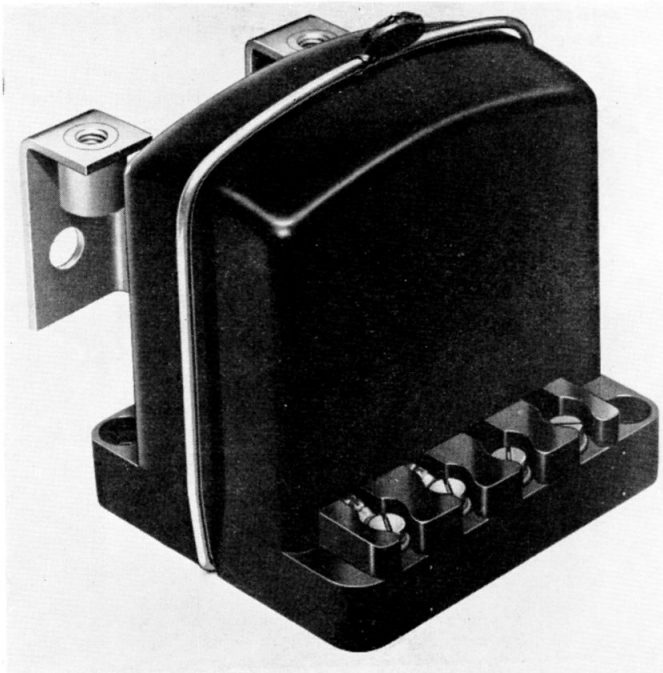


Fig. 1. Overspeed relay, F.1714/1

#### Introduction

1. These units are generally similar to others in the F.1700 series of overspeed relays described in A.P.4343, Vol. I, Sect. 11, Chap. 2, with the exception that they have no shunt winding, the operation of the contacts being controlled entirely by the current flowing in the series winding (leading particulars).

#### F.1714/1

2. This relay has a pull-in current of 450 to 550 amperes and is released when the current falls to 140 to 160 amperes.

#### F.1714/1-A

3. This relay is identical to the F.1714/1 relay except that the armature has been adjusted to release at 200 to 220 amperes.

(A.L.104, May 57)

#### DESCRIPTION

4. The F.1714/1 and F.1714/1-A overspeed relays are similar in construction and operation to the general type described in A.P.4343, Vol. 1, Sect. 11, Chap. 2, which also contains details of installation. These units, however, have only a series winding which consists of half a turn of insulated copper strip. There is consequently an air gap between the winding and the core. The relays operate without a diverter bar between the main positive and negative terminals.

#### SERVICING

5. The inspection, contact cleaning procedure and voltage drop test detailed in A.P.4343, Vol. 1, Sect. 11, Chap. 2, Paras. 7, 8 and 9, apply to the F.1714/1 and F.1714/1-A relays. The insulation resistance should, however, be tested as described in para. 6 of this chapter.

##### Insulation resistance tests

6. Measure the insulation resistance between the iron yoke and the main terminals and between the yoke and terminals 1 and 2 using a 250-V. insulation resistance tester. A reading of at least 50,000 ohm should be obtained in each test.

##### Note . . .

The value of insulation resistance, given in para. 6 applies to units being tested under normal workshop conditions. Due allowance should be made for 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 may be low enough to give apparently sufficient reason for rejection and, in these instances, discretion should be exercised.

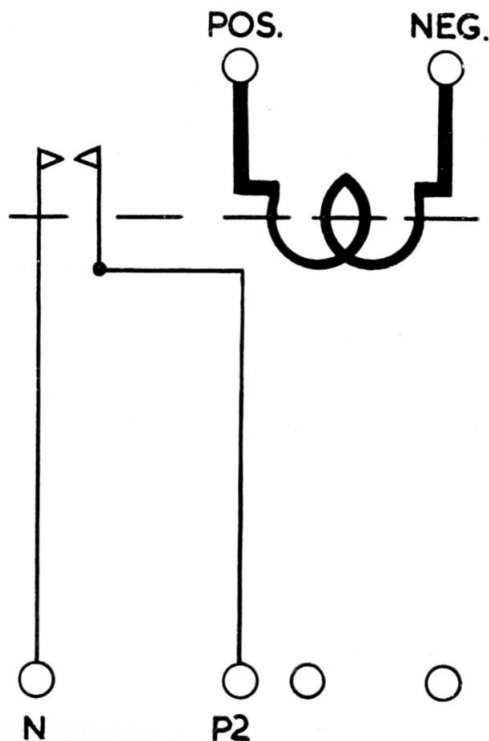


Fig. 2. Diagram of internal connections