Chapter 41

SWITCH, MAGNETIC, TYPE 3B, No. 2 (ROTAX F3112)

LIST OF CONTENTS

LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Switch, magnetic, Type 3B, No. 2	Stores Ref. 5CW/4380
Voltage	28V, d.c.
Minimum pull-in voltage (20 deg. C.)	... 14·5V, d.c.
Drop-out voltage...	5 to 2V, d.c.
Current rating	5 amp.
Operating coil resistance	179 ohm
Pilot coil resistance	50·5 ohm
Delay	55 to 75 milliseconds
Overall dimension of base	3·128 by 3·0 in.
Height (approx.)	3·5 in.
Weight	16 oz.

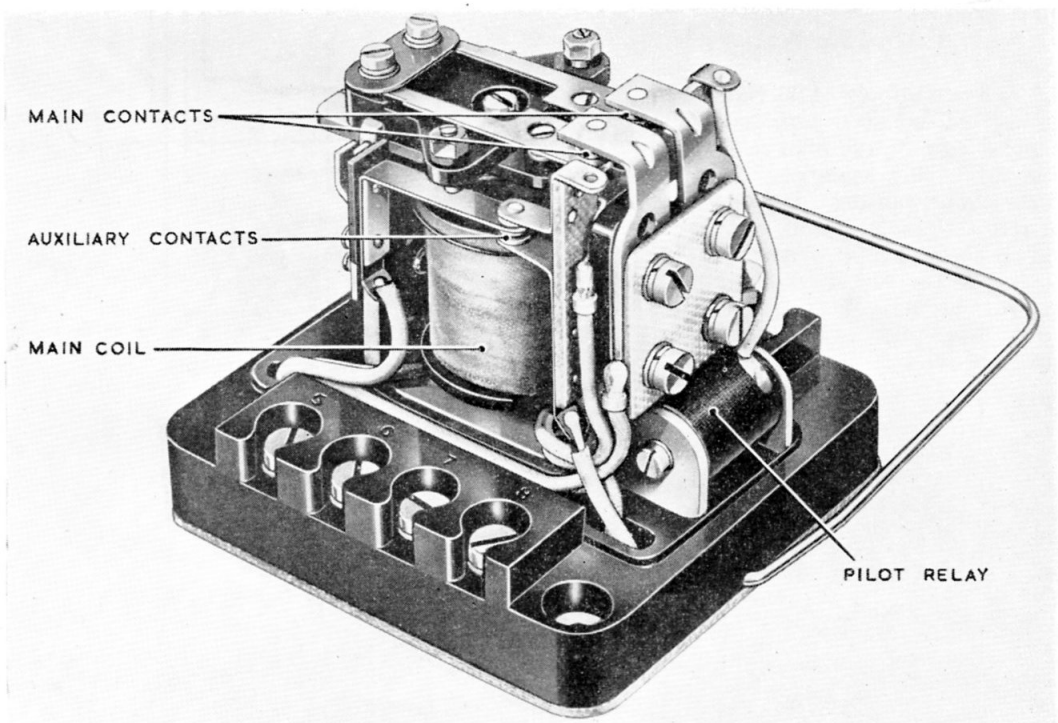

Fig. 1. Type 3B, No. 2 magnetic switch

Introduction

1. The Type 3B, No. 2 magnetic switch (*fig.* 1) is designed for use in aircraft electrical systems as a time delay relay. The relay operates one set of main change-over contacts and one pair of auxiliary (normally open) contacts. Provision is made to use the latter as changeover contacts if required. Time delay is achieved by a slugged coil in the main relay, and by a pilot relay which operates to bring in the main relay coil, the pilot relay being taken out of circuit by the operation of cut-out contacts.

DESCRIPTION

2. The Type 3B, No. 2 magnetic switch is physically similar to that described in A.P.4343, Vol. 1, Sect. 11, Chap. 3.

3. The time delay relay is secured direct to the unit baseplate by a single screw and is so arranged that the coil and the contacts lie above and below the baseplate respectively. The wiring and pilot contacts are protected by an insulated base board.

4. When a supply of 28 volts is applied between terminals 1 and 2 (*fig.* 2), the pilot relay operates. This energizes the main coil, causing contacts across terminals 7 and 8 to close, those across terminals 3 and 4 to close and those across terminals 5 and 6 to open. The pilot coil is open circuited and a further pair of contacts closed to maintain the supply to the main coil. Terminals 3, 4, 5 and 6 are connected to the main contacts, and terminals 7 and 8 are bridged by a 7 ohm, 6 watt resistor mounted on the underside of the base.

5. Details of installation and servicing are given in the general chapter for the F3100 Series of switches (A.P.4343, Vol. 1, Sect. 11, Chap. 3).

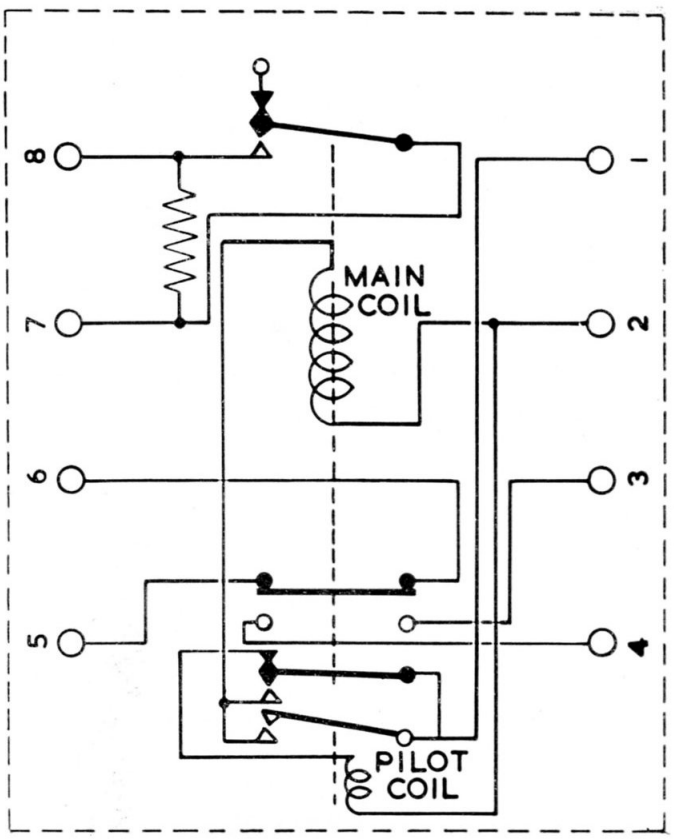

Fig. 2. Diagram of connections

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