Chapter 71

THERMAL DELAY SWITCH, BELLING-LEE, TYPE L413/1C/6/24

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LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Thermal delay switch, Type L413/1C/6/24 ...	*Stores Ref. 5CW/*
Heater voltage	*24 d.c.*
Time delay	*60 to 120 sec.*
Dimensions	$2\frac{3}{8}$ *in.* × $1\frac{1}{4}$ *in.* × $1\frac{1}{4}$ *in.*

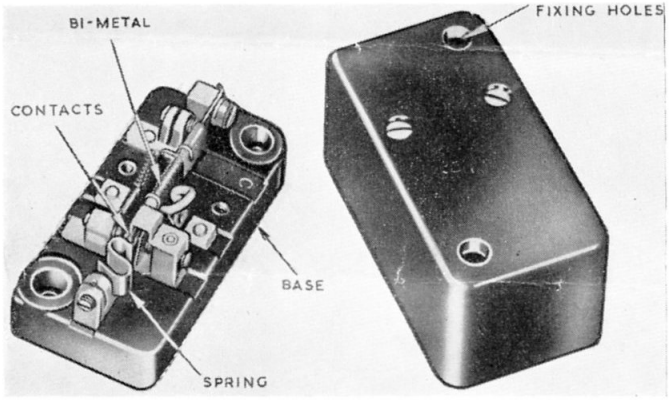

Fig. 1. Thermal delay switch, Type L413/1C/6/24

Introduction

1. The switch, Type L413/1C/6/24, is a normally-closed thermal delay unit which can be used as an overload circuit protection device, or alternatively as a time delay switch.

DESCRIPTION

2. A general view of the unit is given in fig. 1, with a diagram of connections in fig. 2. The components are mounted on a moulded base, and incorporate a bi-metal element, over which is wound an independent heater. When the operating current passes through the heater element, the bi-metal is deflected, thus causing a pair of normally-closed contacts to open.

3. Due to the thermal lag between the heater and the bi-metal, there is a time delay

after initial application of the operating current before the contacts open; in this switch it is between 60 and 120 sec. The contacts will automatically close when the current is removed; this resetting time is dependent on the original operating time and the ambient temperature, and may be up to 120 sec.

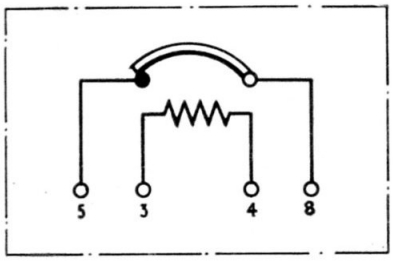

Fig. 2. Circuit diagram

4. Operation of the switch contacts is assisted by a spring, which is mounted on a pillar at one side of the base and bearing on one end of the bi-metal element. Electrical connection is made to numbered tags beneath the base.

INSTALLATION

5. Two fixing holes are provided, suitable for 4 B.A. bolts; the securing bolts pass through the cover and the base. For details of a particular installation, reference should be made to the appropriate Aircraft Handbook.

SERVICING

6. Since this is a sealed unit, no servicing or adjustment is possible apart from a general inspection for security of connections and freedom from damage.