Chapter 78

PUSH-SWITCH, SMITHS, TYPE 41EAP

LIST OF CONTENTS

LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Push-switch, Type 41EAP ...	*Ref. No. 5CW/4262*
Rating (intermittent)	*0·5 amp. at 24 volts*
Overall length	*1·574 in.*
Diameter of clamp ring	*0·94 in.*
Diameter of body	*0·755 in.*

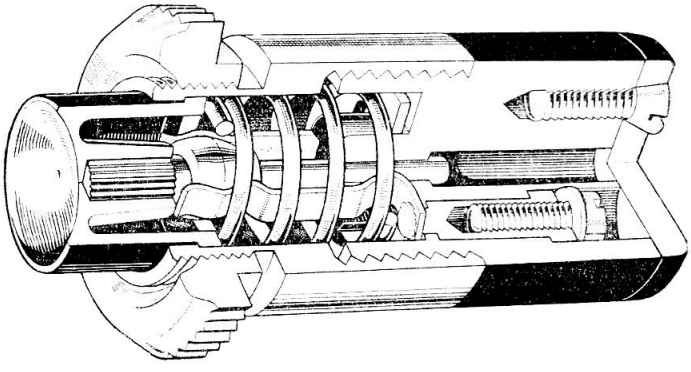

Fig. 1. Push-switch, Type 41EAP

Introduction

1. The push-switch, Type 41EAP is a single-pole press-to-break switch rated for intermittent operation at 0·5 amp., 24 volts.

DESCRIPTION

2. A sectional view of the switch is given in fig. 1. The body of the switch is constructed in two parts. The rear part is moulded in a

hard plastic material, and incorporates two metal bushes which house the two screw terminals. Two specially shaped leaf spring contacts are secured to the inner ends of the terminals, and extend forward from the body moulding. The front part of the body is a tubular metal sheath which screws on to the body moulding and encloses the contacts.

3. The push-button is carried on a guide pin which is located in a hole through the centre of the body moulding. A contact bush, carried loosely on the guide pin, is limited in its linear movement by an insulating washer, and is held between the free ends of the spring contacts when the push-button is in its normal position.

4. When the push-button is pressed, the contact bush is forced free of the spring contacts, thus breaking the circuit in which the switch is connected. When the push-button is released it returns to its normal position under the action of a coiled spring, so that the contact bush is once more held between the ends of the spring contacts. The coiled spring is insulated from the terminals by a Paxolin disc.

5. The forward end of the tubular sheath has an internal flange which retains the push-button assembly in the body. A portion of the sheath is threaded to receive the knurled metal clamp ring which secures the switch to the mounting plate.

6. Electrical connection is made to two terminal screws in the end of the body, to which access is gained after removal of the terminal cover.

SERVICING

7. Little servicing is possible, apart from a general inspection for freedom from damage and security of connections. A faulty switch should be renewed.

8. Check that the push-button moves freely and returns to it normal position when released; a click should be heard when contact is broken. The switch may be tested for continuity by connecting it in series with a warning lamp and battery. The lamp should glow with the push-button in its normal position, and should go out when the push-button is pressed.

9. When tested with a standard 250-volt insulation resistance tester, the insulation resistance between the terminals, and between the terminals and any exposed metallic parts of the switch, should not be less than 2 megohms.

P29794 447625/3768 1/60 1750 C & P Gp 375