

## Chapter 54

### ACTUATOR, WESTERN, TYPE ERJ 60 MK. 18

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#### LEADING PARTICULARS

|  |                             |
|--|-----------------------------|
| Actuator, Western, Type ERJ 60, Mk. 18 | Stores Ref. 5W/2716         |
| Voltage range                          | 18 to 29 volt d.c.          |
| Rating                                 | 1 minute                    |
| Normal full load                       | 60 lb. in.                  |
| Maximum working load                   | 85 lb. in.                  |
| Angular travel of coupling             | 75 deg + 0 deg.<br>— 2 deg. |
| Weight                                 | 2 lb. 5 oz.                 |
| Overall length                         | 6.10 in.                    |
| Electrical plug                        | Mk. 4 Breeze (CZ48995)      |

#### Introduction

1. The Western Type ERJ.60 series of actuators is described in A.P.4343, Vol. 1, Sect. 17, Chap. 1, Appendix 7. The Mk. 18 varies from others in this series only in amount of travel of the coupling with its visual indicator, and in the type of electrical connection plug.

#### DESCRIPTION

##### Application and loading

2. The snap action limit switches in the Mk. 18 are adjusted during assembly to permit 75 deg. angular travel of the coupling shaft. This adjustment requires the use of a manufacturers special rig, and no attempt should be made to alter the setting. Detail of the movement of the coupling shaft relative to the mounting flange is shown (fig. 1). The operating times under various loadings at nominal 28 volt, is as follows :—

| Load<br>(lb. in.) | Maximum<br>current<br>(amp.) | Angular<br>Travel Time<br>(seconds) |
|-------------------|------------------------------|-------------------------------------|
| 0                 | 3.0                          | 0.4                                 |
| 30                | 3.8                          | 0.6                                 |
| 60                | 4.2                          | 0.8                                 |

##### Electrical connection

3. A Mk. 4 miniature Breeze, 6-pole plug is fitted, of which pole F is not used. When connecting the free socket to this plug, care must be exercised to ensure correct alignment, and so avoid damaging the moulded projection of the plug.

##### Installation and servicing

4. Information on installation and servicing of this type of actuator will be found in A.P.4343, Vol. 1, Sect. 17, Chap. 1 and App. 7, also in the relevant Aircraft Handbook.

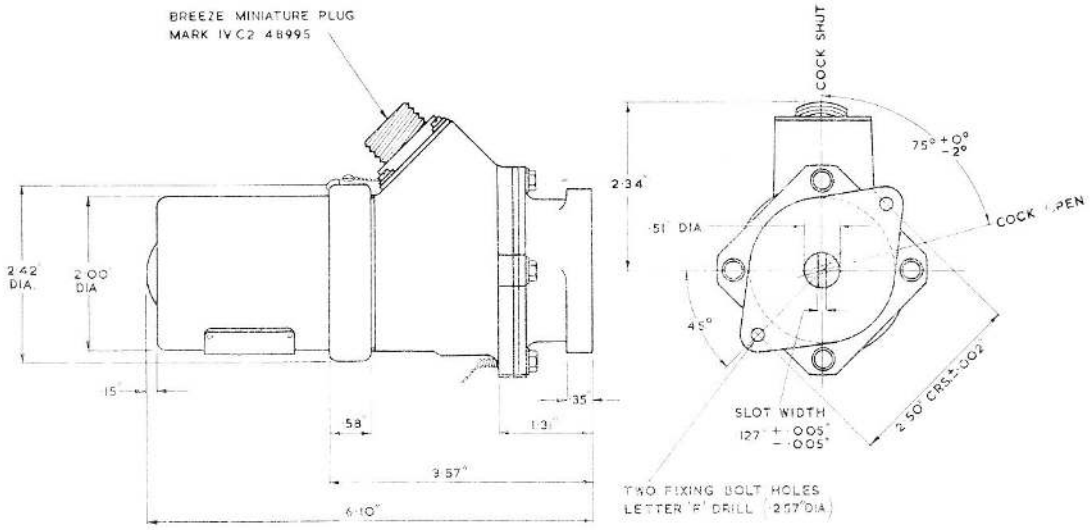


Fig. 1. Installation drawing

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