

# MULTI-CONTACT AUXILIARY RELAYS HFA99AK\*A

#### TYPE HFA

#### INTRODUCTION

These instructions plus those in GEK-41897 form the instructions for special relay HFA99AK\*A.

#### DESCRIPTION

The HFA99AK\*A relays are similar to the HFA71A relays except the HFA99AK\*A relays are designed to operate from a DC voltage source and to have a time delay on dropout.

#### **CHARACTERISTICS**

The HFA99AK\*A relay has an instantaneous pickup time and an adjustable time delay dropout of 0.25 to 2.0 seconds. If the requisition does not specify a dropout time, the time delay will be set at the factory for 2.0 seconds at rated voltage.

## BURDENS

The burden of the DC relays is approximately 13 watts when cold and ten watts when hot.

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

To the extent required the products described herein meet applicable AMSI, IBEE and WEMA standards; but no such assurance is given with respect to local codes and ordinances because they vary greatly.

### SERVICING AND ADJUSTMENTS

## PICKUP AND DROPOUT

The HFA99AK\*A relays are designed for DC operation and will pick up between 30 percent and 60 percent of rated voltage.

Since the values of time-delay dropout and voltage pickup cannot be adjusted independently, it is necessary to make the time-delay adjustment first and then check that the pickup value falls within approximate limits.

To obtain a particular dropout time, the following procedure is necessary:

- 1. Set control spring for maximum tension by turning the knurled adjusting nut clockwise. Reseat the nut in hexagonal groove in the armature tail piece.
- 2. Adjust the residual screw to obtain the required time delay. The relay dropout time is measured from the time the coil is de-energized until a normally open contact opens. Turning the screw clockwise decreases the time delay. It is permissible to lessen the control spring tension to obtain the required time delay.

Check the value of voltage at which the relay will pick up and seal in. This pickup voltage may be varied by adjusting the control spring. Any change in the control spring tension requires a recheck on the dropout time as it will be affected.