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WESTINGHOUSE INDUSTRIAL CONTROL APPARATUS

Type L-47 Electrical Interlock—Normally Closed INSTRUCTIONS

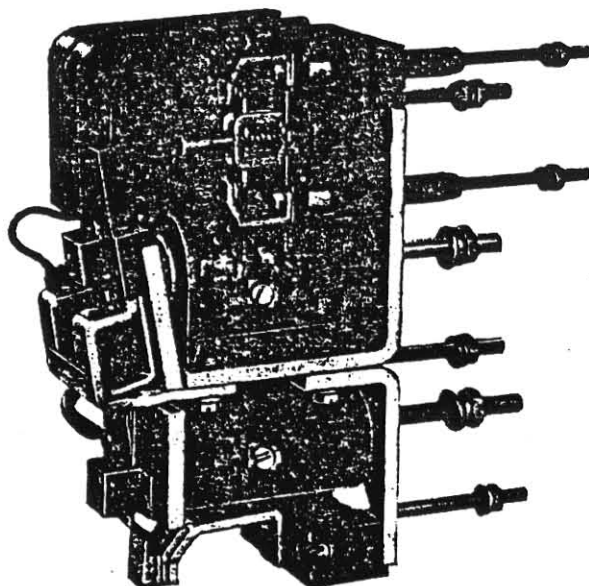


Fig. 1—Type L-47 Electrical Interlock Mounted on a
Type M-211-L Contactor

APPLICATION

The type L-47 electrical interlock is an auxiliary circuit opening device designed primarily for mounting on type M d-c magnetic contactors.

It complements the Type L-46 interlocks, differing from the normally-closed Type L-46 interlock in that its contacts separate late, rather than early, in the closing cycle of the contactor magnet.

The Type L-47 electrical interlock should be employed on Type M single-pole and two-pole normally-open contactors only when its characteristic delayed-break action is desired. (For all ordinary normally-closed interlocking of these contactors the Type L-46 interlock should be used). Type M multipole contactors having one or more normally-closed main poles should employ the Type L-47 electrical interlock exclusively for the normally-closed interlock.

The number of Type L-47 electrical interlocks which may be applied to any of the contactors is limited to a maximum of two. They cannot be employed on the small-frame single-pole contactors, whose bases are not adapted for their use; nor are they recommended for use on the normally-closed single-pole contactors, because of the extra burden which they would place on the contactor armature closing spring.

RATING

The interlock is capable of closing and carrying 10 amperes continuously. Its interrupting capacity is 200 volt-amperes at a maximum of 600 volts.

CONSTRUCTION

The stationary contact assembly consists of a pair of silver contact buttons welded to supports which are secured to an insulating base. The moving contact, comprising a pair of silver buttons welded to a cross-member moves within a guide mounted on the insulating base. A plunger sliding on a stationary pin serves to transmit motion to the moving contact.

Operation of the interlock is produced when an insulating arm attached to the contactor armature strikes the plunger, separating the interlock contacts.

The interlock is provided with mounting studs which are long enough to make provision for electrical connections at the rear of a 2 inch thick panel. Interlocks arranged for front connecting are equipped with screw type terminals in addition to the mounting studs.

INSTALLATION AND MAINTENANCE

The stationary part of the interlock is secured by its studs to the insulating base of the contactor, occupying a position between the arc shields if the base carries two main poles, and a position beside the arc shield if the base carries a single main pole. In the latter instance an insulating member which is installed on the contactor base at the factory must be removed and discarded before the stationary assembly of the interlock is mounted.

The insulating arm of the interlock is secured to the contactor armature by means of a single screw.

The normal gap between each pair of interlock contacts when the contactor magnet is fully closed is $\frac{3}{16}$ inch. When the contactor magnet is open the force exerted against the stationary contacts by each of the moving contact buttons is 2 ounces.

The contacts should be replaced when they have worn to the extent that the clearance (which is $\frac{3}{4}$ inch when the contacts are new) between the moving contact cross-member and the end of the guide has become reduced to less than $\frac{1}{2}$ inch.

A periodic inspection should be made to see that the interlock parts move freely without friction or binding. Oil should not be used on any part of the interlock as it hastens the accumulation of dust.