OPTION BX1, OVERHEAD DOOR SWITCH

Installation Form RZ-NA-I-OPT-DS
Obsoletes Form RGM 400-DS

Applies to: "Door Air Heater" Application

REZNOR®

Description/Application

Although this overhead door is referred to as an option, it is a requirement for Reznor® makeup air systems installed in a "door air heater" application (A.G.A. certified to ANSI Z83.17 or C.G.A. approved to CAN 1-3.12).

The switch is a Honeywell Micro-Switch precision limit switch (P/N 124253). The function of the switch is to energize and interlock the heating unit when an outside overhead door reaches approximately 80% of full open travel. The switch will de-energize the furnace when the overhead door closes approximately 20%. The complete door switch includes a limit switch electrically wired to the heater and a roller yoke for mechanical activation by a field-supplied trigger on the overhead door.

Installation should be done by a qualified agency in accordance with the instructions that follow and in compliance with all codes and requirements of authorities having jurisdiction. The agency performing this work assumes responsibility for this installation.

All electrical wiring and connections, including electrical grounding MUST be in accordance with the National Electric Code ANSI/NFPA No. 70 (latest edition) or, in Canada, with the Canadian Electrical Code, Part 1-C.S.A. Standard C22.1. In addition, the installation must comply with local ordinances and applicable gas company requirements.

Option BX1, Overhead Door Switch (P/N 124253)

REQUIRED FOR ALL DIRECT-FIRED "DOOR AIR HEATER" APPLICATIONS

Switch Models and Specifications, Honeywell Micro-switch #LSNIA-3P	
Dimensions	4.2" H x 2.4" W x 1.9" D
Electrical Rating 230, 600 VAC	10 Amp continuous at 240, 480 or 60 Amp make and 6 Amp break at 120 VAC
Contacts	SPDT maintained, 1 set normally open and 1 set normally closed.
Ambient Rating	30ºF to 240ºF
Actuation	Twin yoke roller lever (rollers are at a 90º angle)
Operating Force	4 lbs
NEMA Enclosure	3, 4, 6P and 13

Installation Instructions

Before beginning installation, read both the switch manufacturer's instructions and the "LEFT" and "RIGHT" instructions below. Follow all instructions carefully. In all cases, disconnect both the electrical power and the gas supply from the heater during installation of the door switch.

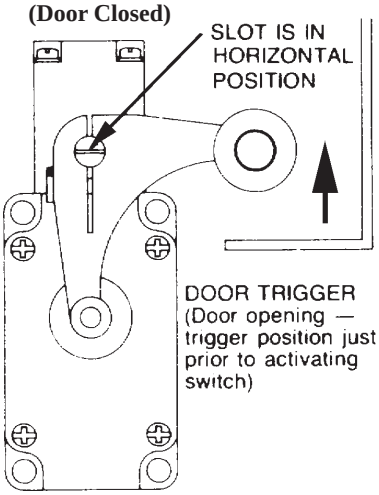
The switch is tapped for a 1/2" threaded (field-supplied) conduit connection. The electrical connection must be sealed and the switch positioned so that moisture will not enter through the connection. See switch specifications and heater wiring diagram for electrical information.

For installation <u>indoors</u> on the *LEFT* side of an automatic overhead door:

WITH DOOR IN CLOSED POSITION. . .

1. Mount the switch and the field-supplied activation trigger in locations so that mechanical contact will be made when the overhead door is approximately 80% open. Secure the switch through the front using two #10 x 2" long sheetmetal screws or through the back using two #10 x 32 x 2" long studs. Attach field-supplied conduit connection.
2. Loosen the two screws on the front of the switch that retain the terminal access cover. Remove the cover exposing four wire terminals. Pull the appropriate gauge (no smaller than 18 gauge and no larger then 12 gauge) protected control wire through the conduit connection. Attach the conduit. Connect the wires to pressure terminals **#3** and **#4**. Connect the ground wire.
3. Using a 9/64" allen wrench, attach the roller yoke in the position illustrated in Figure 1. The field-supplied door activation trigger must mechanically activate the rollers during both the opening and closing of the overhead door.

Figure 1 - Roller Yoke Position for "Left" Side Installation (Door Closed)

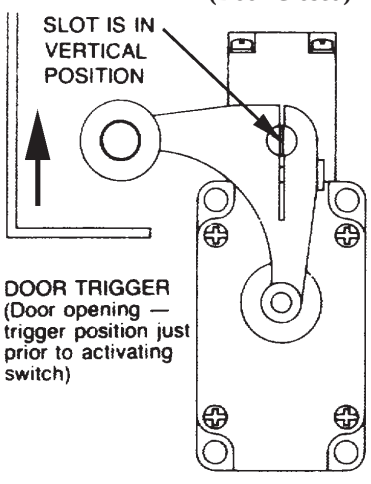


For installation <u>indoors</u> on the *RIGHT* side of an automatic overhead door:

WITH DOOR IN CLOSED POSITION. . .

1. Mount the switch and the field-supplied activation trigger in locations os that mechanical contact twill be made when the overhead door is approximately 80% open. Secure the switch through the front using two #10 x 2" long sheetmetal screws or through the back using two #10 x 32 x 2" long studs. Attach field-supplied conduit connection.
2. Loosen the two screws on the front of the switch that retain the terminal access cover. Remove the cover exposing four wire terminals. Pull the appropriate gauge (no smaller than 18 gauge and no larger then 12 gauge) protected control wire through the conduit connection. Attach the conduit. Connect the wires to pressure terminals **#1** and **#2**. Connect the ground wire.
3. Using a 9/64" allen wrench, attach the roller yoke in the position illustrated in Figure 2. The field-supplied door activation trigger must mechanically activate the rollers during both the opening and closing of the overhead door.

Figure 2 - Roller Yoke Position for "Right" Side Installation (Door Closed)



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