

# Installation Instructions for **HMI** HOYME Adaptor 0241- 10A 24Vac Controlled Voltage - Switches 24Vac/ 120Vac

**INSTALLATION OF THIS ADAPTOR SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION**

Refer also to HOYME Installation Instructions: Combustion Air Control Damper, Series HOM; Replacement/Ventilation Air Control Damper, Series HAC; and Adaptor ADP- 1101- 05A.

## **ADP-0241-10A**



4" x 5" x 2 1/2"  
101 x 127 x 64 mm

This Relay Adaptor may be used as an automatic switch having a **24Vac Coil** and **120Vac points** to control a line voltage circuit for up to a 10 amp draw such as a 120Vac exhaust fan. All the points can also be used for 24Vac switching. (See wire diagrams on next page.)

A typical application where all the points are used for 24Vac switching may occur when dry points are used at the exhaust fan switch. When the exhaust fan switch is turned on, the furnace fan and the fresh air damper, if used, will open simultaneously. The fresh air damper, however, will not open for furnace firing.

**If the damper is required to open when the appliance fires:**

a) Refer to wiring diagram (next page) showing the **Power Close Damper with Relay**;

- or -

b) Use a **regular fresh air damper** with an **ADP-0242-05A** and follow its Installation Instructions;

- or -

c) If controlled line voltage is available from the exhaust fan, use **Adaptor ADP-1102-TWP** and follow its installation instructions.

**Fitness of this Adaptor/Damper combination to satisfy air supply requirements for fuel fired appliances during operation of the Inter-connected exhaust fan(s) shall be investigated by the enforcing authorities.**

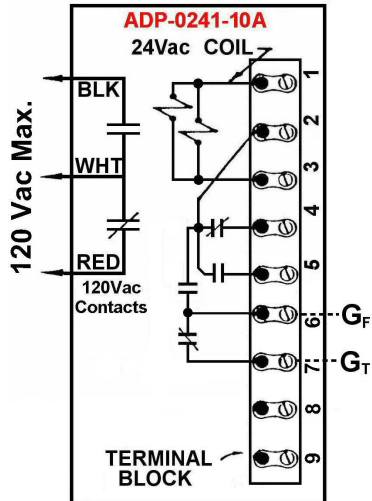
Air intake duct installation shall be in accordance with: In Canada - CAN/CSA B149 & B139; In the USA – ANSI/NFPA 54, 2006, ANSI Z223.1 and/or local codes including local codes relating to ventilation air duct installation.

**I.D.: ADP-0241-10A**; comes with two relays with coils in parallel and therefore acting as one relay.  
DPDT- Coil-24Vac. Points-24Vac-5Amps  
SPDT- Coil-24Vac. Points 120Vac-10Amps  
- One adaptor is required for each heating appliance.

- Adaptor line voltage leads, connected to the appliance shall be suitably cabled, fastened and enclosed in suitable raceways.
- Refer to local and applicable codes.
- If an auxiliary transformer is required, use an approved 24Vac transformer of adequate capacity.
- Supply for the transformer primary shall be taken from the line voltage supply of the appliance.
- Always conduct a thorough check-out after installation is complete.
- Affix appropriate labels and follow instructions and warnings on each label.

1. Install motorized air control damper as per instructions supplied with it. Satisfactory operation of the damper is recommended before interconnecting Adaptor.
2. Turn off electrical power supply to the appliance.
3. Connect Adaptor line voltage leads to fan motor circuit as per wiring diagram and applicable codes.
4. Connect 24Vac Damper terminal wires to appropriate Adaptor, transformer and control switches. (See damper wiring diagram for proper circuit.)
5. Turn on electrical power to 24Vac transformer. If damper is a Power Open type, it will remain closed at this time. If damper is a Power Close type, it will close at this time.
6. Turn on selected switches at least 3 times to verify the intended operation of selected circuits.

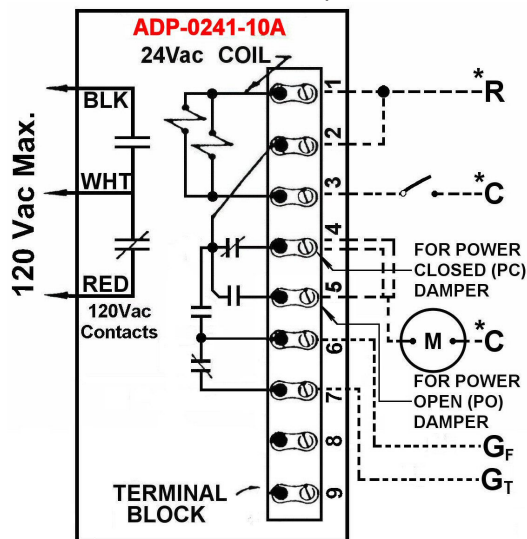
## SCHEMATIC WIRE DIAGRAM OF ADAPTOR ADP- 0241-10A



Note: This marking is also on the cover of the Adaptor unit as well as on a label to be placed next to the wiring diagram of the appliance.

This Adaptor uses a 24Vac Coil SPDT to develop a 10A capacity for 120Vac if needed and a 24Vac Coil DPDT to develop multiple contact points for 24Vac. Coils are connected in parallel and therefore act as one relay.

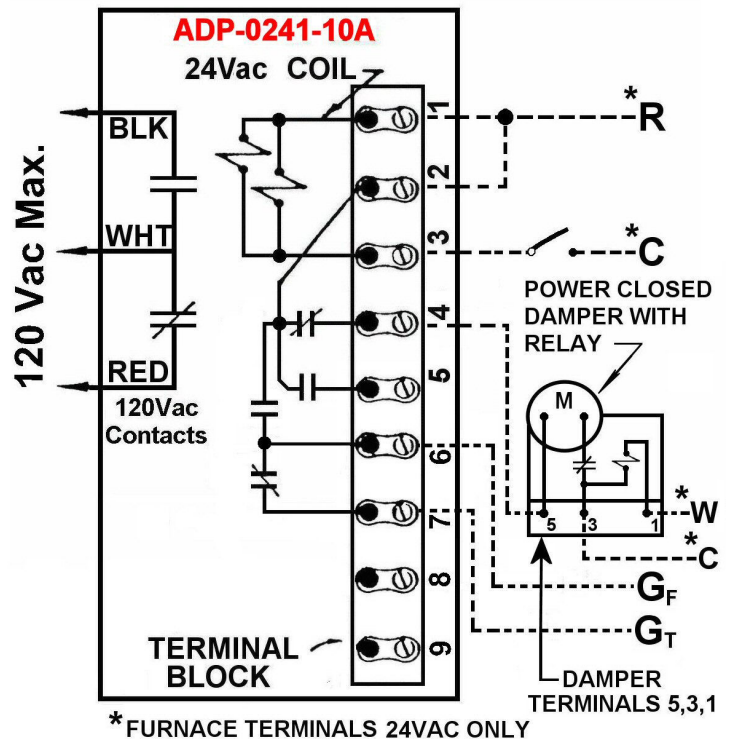
## Schematic Wire Diagram ADP-0241-10A Activated by a Manual or Automatic Switch to Control a Furnace Fan a 120Vac i.e. Booster Fan and a Fresh Air Inlet Damper. Damper remains closed during furnace firing. (See 'Notes' for alternatives)



\* FURNACE TERMINALS 24VAC ONLY

## Schematic Wire Diagram of ADP-0241-10A Activated by an Exhaust Fan Auxiliary Relay Switch and/or Thermostat Controlling a Furnace Fan, and a Power Close Fresh Air Damper with Relay .

Damper also opens during furnace firing.



\* FURNACE TERMINALS 24VAC ONLY

Suggestion: Use Fresh Air **Damper with Relay** HAC - 0X11 - OPC where X = Diameter of Damper, 1 = Relay, PC = Power Close

**Note:** For PC damper only, a toggle switch in series with 24Vac electrical supply line to the Damper will cause it to open as required.

\* **Note:** For **PC damper without relay** and if adding a Combustion Air Damper, re-connect Fresh Air Damper from furnace 'C' to Green wire of the Combustion Air Damper. Both dampers will open during firing of the furnace.

\* **Note:** If existing ventilation relay (auxiliary relay switch) cannot be located, relay wires presently connected to 'R' and 'G' of the furnace are to be re-connected to #3 of ADP and 'C' of the furnace. ADP #6(GF) is then to be connected to 'G' of the furnace and Thermostat wire 'G' is to be connected to #7(GT) of the Adaptor.