

**VCAP-0400 THROUGH 1200**  
**Air Valve Assemblies**  
**4 Station through 12 Station**  
**Plus Accessory VCAP01 Terminal Breakout Box**



# SAFETY

D-M-E Company products have been designed to be safe and simple to operate. As with any electronic equipment and hot runner system, you must observe standard safety procedures to protect both yourself and the equipment.

## **To Prevent Injuries:**

- Do not use these valves with more than 145 PSI air pressure.
- Do not apply more than 26.4 VDC to the valve assembly.
- To avoid injury or fire hazard, do not operate this product in an explosive atmosphere.
- To avoid burn hazards, do not operate valve gates with operator gates open. Correct hookup of valve gates should only be performed with all operator guards in place.
- To avoid burn hazards and possible damage to equipment, do not leave hot runner systems at elevated temperature for extended periods of time. When the mold and machine are not operating, disconnect the molding machines injection unit from the hot runner system so that pressure may discharge through the sprue or manifold extension nozzle. Make sure the molding machines purge guard is in place.
- DO NOT look into the hot runner system when actuating valve gates. Serious burns could occur. The molding machine gate should be closed when ever operating a valve gate.

## **To Prevent Product Damage:**

- Do not operate this product from an air pressure source of more than 145 PSI.
- Do not apply more than 26.4 VDC to this valve assembly.

## **DME RIGHTS**

Copyright © D-M-E Company 2005. All rights reserved.

D-M-E Company products are covered by USA and foreign patents, issued and pending. Information in this publication supersedes that in all previously published material. Specifications and any changes are reserved.

D-M-E Company and D-M-E are registered trademarks of D-M-E Company.

Printed in the United States of America

**D-M-E Company**  
**29111 Stephenson Highway**  
**Madison Heights, MI 48071**

## **WARRANTY**

D-M-E Company warrants that this product will be free from defects in materials and workmanship for a period of one (1) year from the date of shipment. If any such product proves defective during this warranty period, D-M-E Company, at its option, either will repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. D-M-E Company shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than D-M-E Company representatives to repair or service the product; b) to repair damage resulting from improper use or connection to incompatible equipment; or c) to service a product that has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty of servicing the product.

# VCAP-0400 Through 1200 Multi-Station Valve assemblies

## GENERAL DESCRIPTION

This manual describes the installation and operation of the VCAP valve assemblies.

The VCAP series offers 4 station (0400), 6 station (0600), 8 station (0800), 10 station (1000) and 12 station (1200) valve island assemblies.

The valves in the assemblies are single solenoid, spring returned. The solenoids are intended to run from 24 VDC +/- 10%.

Maximum rated air pressure is 145 PSI (10 BAR). The air supply should be filtered to 40 µm. The air supply can be lubricated or nonlubricated. Dry air is preferred but the valve is constructed in such a way as to tolerate a fair degree of moisture.

Quick connects are provided on all air outputs to accept 1/4" tubing. The deenergized outputs (for closing the valve gates) have check valves in them so that unused valves do not leak air.

## UNPACKING AND INSPECTION

After unpacking, inspect the valve assembly and check for any damage that may have occurred during shipment.

## INSTALLATION

It will be necessary to provide an air inlet into the valve assembly. See below.

Air Input goes here (1/4" NPT)



Electrical Connections:

Connection to the valve is accomplished with a single DB-025 connector, regardless of the number of valves. Pin out of the connector is as follows:

Pin 1: Valve 1 +  
Pin 2: Valve 2 +  
Pin 3: Valve 3 +

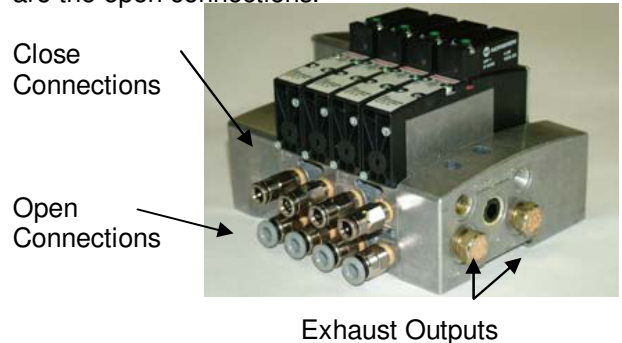


Pin 12: Valve 12 +  
Pin 13: Common -

All valves run at 24 VDC +/- 10%

Valve Gate Connections:

The air connections closest to the valve bodies are the valve close connections. The ones furthest away are the open connections.



There are four mounting holes through the body of the valve island. These can be used to fasten the assembly to the fixed platen, top of the mold any where else that is convenient. Maximum diameter is 0.1780" (4.52 mm)

Maximum recommended ambient temperature is 122°F (50°C). Minimum recommended temperature is 35°F (2°C).

Indicator LEDs on the valves illuminate when the solenoid is energized.

## **SPECIFICATIONS**

### **Operating Pressure**

29 to 145 PSI (2 to 10 bar)

### **Air Supply Inlet**

1/4 inch NPT female

### **Air Connections to Valve Gate Cylinders**

1/4 inch quick connect fittings  
Deenergized positions have check valves. Energized positions do not.

### **Recommended Temperature Range**

Minimum: 35°F (2°C)  
Maximum: 122°F (50°C)

### **Flow Rating**

CV = 0.56  
Volume = 550 L/min

### **Operating Voltage**

24 VDC +/- 10% (21.6 to 26.4 VDC)

### **Electrical Connection**

DB-025 Male  
See pin out on page 4

### **Protection Classification**

IP65 and NEMA 4

### **PELV**

Electrical protection class 3)

## **RETURN POLICY**

The D-M-E® VCAP-0400™ through VCAP-1200™ are warranted for 1-year parts and labor as long as maximum ratings are not exceeded. Contact D-M-E Customer Service for return authorization for repairs, or warranties.

## **D-M-E Customer Service**

In U.S.: 1-800-626-6653

In Canada: 1-905-677-6370

## **SERVICE CENTER U.S.A.**

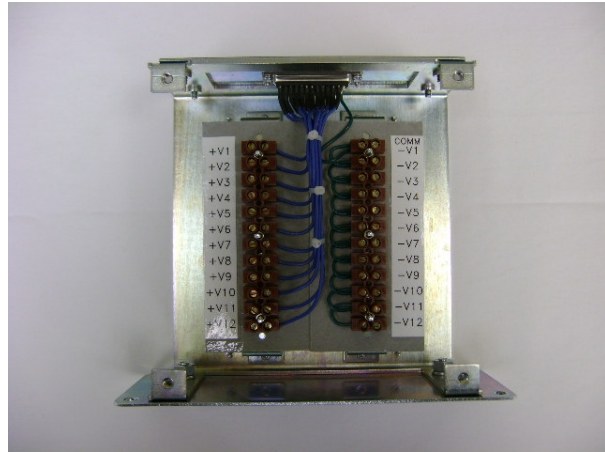
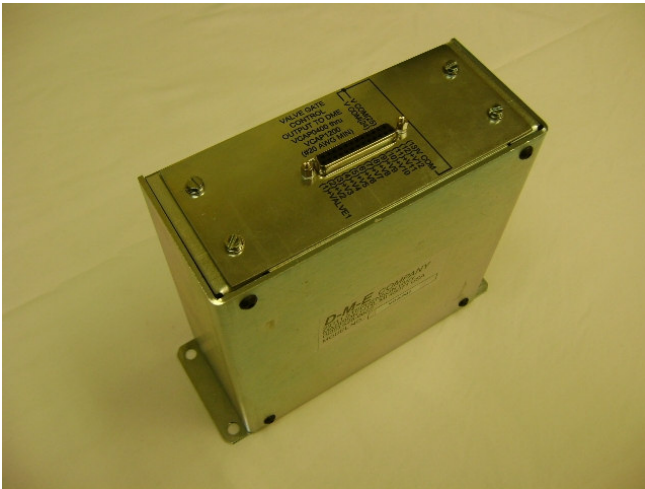
D-M-E WORLD HEADQUARTERS  
29111 STEPHENSON HIGHWAY  
MADISON HEIGHTS, MICHIGAN 48071  
TELEFAX: (248) 398-6174

D-M-E® is a registered trademark of D-M-E Company.

## VCAP01 Terminal Breakout Box Accessory

This option allows customers to use the provided cable to the Air Manifold Valves and then connect their +24Vdc Valve Control to provided screw terminals.

Two views of the VCAP01 Accessory Terminal Breakout Box Shown.



VCAP-0400 Air Manifold shown – Connector will attach to VCAP01 Box for customer wiring.

