

HYDRAULIC VALVE GATE CONTROL SYSTEM

VCTH

Time-based hydraulic or pneumatic control of up to 16 zones.

System Capabilities

- Automatically adjusts incoming voltage 115-250 VAC 50/60 Hz to 24 volts DC
- Stores up to 32 programs
- Displays the last 200 events or changes

Items included in System Solutions

- VCTB-03-024D-16 DME 16-Zone Valve Controller
- FSSL-0001 DME Slanted Floor Stand
- FSDP-0001 DME Mounting and Drip Pan
- Trigger Cable RPM0101
- Alarm Connector hood and crimp pins
- Hydraulic Valve Manifold(s) with +24Vdc Solenoids and all wiring to connectors for the DME Controller
- Hydraulic Pumping Supply System (5 GPM Oil at 1:10 ratio of input air Max 100 PSI Air / 1,000 PSI Oil)
- 10-gallon Reservoir Tank
- Air over Hydraulic Supply Pump
- 1 Gallon Accumulator
- Hydraulic Oil Filter Status Indicator
- Air Pressure Regulator – 1:10 Ratio Adj. Hydraulic Pressure i.e. 60 PSI air pressure equals approximate 600 PSI hydraulic pressure
- Air Valve On/Off Control Solenoid Valve
- Accumulator Dump Solenoid Valve
- Hydraulic Oil Temperature, Level and Alarm Switches

System Start-up Requirements & Recommendations

- Trigger signal to start the cycle; typically injection forward
- Recommended Optional Alarm Output Contact to stop next injection molding machine cycle
- Inlet shop air: 30-100 PSI at max volume of 50 CFM
- Connect to two Male Hydraulic Couplers per zone
- Electrical power
 - » **115-250 VAC 50/60 Hz**
 - » Internally fused slow blow fuses at 7 amps
 - » Inrush current at 115 VAC is 20 Amps
 - » Inrush current at 230 VAC is 40 Amps
 - » 19 Ft. USA 120 VAC, 15 Amp 3-prong plug supplied – customer responsible for other plug requirements
- Hydraulic Oil
10 gallons of Mobil DTE 25 / ISO Grade 46 or equivalent for 8-gallon tank and after filling hoses, manifold and Valve Gate Cylinders in the mold.



HYDRAULIC CONTROL SYSTEM SOLUTIONS

ITEM NUMBER	DESCRIPTION
VCTH-03-04	4 ZONE HYDRAULIC TIME SYSTEM
VCTH-03-06	6 ZONE HYDRAULIC TIME SYSTEM
VCTH-03-08	8 ZONE HYDRAULIC TIME SYSTEM
VCTH-03-12	12 ZONE HYDRAULIC TIME SYSTEM
VCTH-03-16	16 ZONE HYDRAULIC TIME SYSTEM

HYDRAULIC CONTROL SYSTEM ACCESSORIES

ITEM NUMBER	DESCRIPTION
VCAH1500	15-ft long Hydraulic Hose Assembly with Female Quick Connect Coupler on each end – two required per zone of control
991-2 See DME Molding Supplies Catalog	Steel Hydraulic MALE Coupler for Mold Side connector and as replacement part for system. (Has ¼" NPT Female Threads)
990-2 See DME Molding Supplies Catalog	Steel Hydraulic FEMALE Coupler for direct connect to the system. (Has ¼" NPT Female Threads)
See DME Molding Supplies Catalog	DME Molding Supplies Catalog carries many competitively priced hydraulic and shop air products, such as regulators, connectors, hoses, disconnects, etc., as well as many other products needed in a molding shop.

HYDRAULIC VALVE GATE CONTROL SYSTEM

VCTH



VCTH-03-024D-16

- **PLC Controller**
- **Emergency Stop Button**
- **16 Output Lights**
- **Built in alarm**
- **Highly Reliable**
- **Built for Longevity**

The VCTB-03-024D-16 Valve Gate Controller is designed to provide time-based control of up to sixteen 24 volt DC solenoid valves used to actuate valve gate pneumatic or hydraulic cylinders. This controller has the same form factor as the Standard 12-zone DME SmartSeries Hot Runner Controller Mainframe. The Controller uses a PLC with programmable timers to provide long life and high reliability. Each timer zone is capable of dual time functions so that each zone can be programmed with a "delay off" time and an "on time". The timers in turn drive larger solid state relays that are individually fused against faults. The Controller is designed to operate on a wide supply of operating voltages (115-250 Volts AC) automatically so that this one device can be used with almost any available power source. This also makes it easier to relocate the controller between different plants or even different countries. The standard product offering comes with a 125 volt AC plug (North American Standard). This plug may be removed and replaced with any number of 240 VAC plugs.

Two DB-025 connectors are provided to remotely connect Standard DME VCAP Pneumatic Air Valve Assembly product lines which are sold separately and include their own cables. The First "VCAP OUT 1" DB-25 connector can directly control standard DME VCAP-0400 (4 zone), VCAP-0600 (6 zone), VCAP-0800 (8 zone), VCAP-1000 (10 zone) or the VCAP-1200 (12 zone). If 16 zones are required, then two VCAP-0800 (8 zone) Air Valve assemblies are used with first VCAP-0800 attached to the "VCAP OUT 1" DB-25 connector for timer zones 1-8, and the second VCAP-0800 (8 zone) attached to the "VCAP OUT 2" DB-25 connector for zones 9-16. Note that zones 9-12 are duplicated/run in parallel on both DB25 connectors for this purpose. These assemblies minimize required wiring and air connections, thereby making the molding environment neater. These connectors are designed to work only with the low amp current DME VCAP air assembly solenoids which are only 1.2 watts each.

For other systems that have independent valve connections, two 16-pin connectors with screw terminals labeled "MAIN OUT 1" and "MAIN OUT 2" are provided for customers' individual valve connections for zones 1-8 and 9-16.