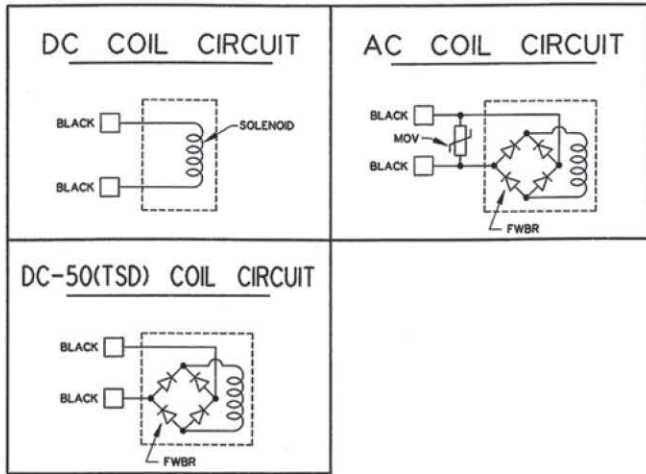


SOLENOID CIRCUIT SCHEMATICS



Transient Suppression Diode (TSD), Order code -50, is available for DC voltages to protect drive circuits from DC voltage spikes generated by the valve.

If operating the valve with a reed switch, the TSD will enhance the life of switch contacts.

If operating the valve with a programmable controller, the TSD will eliminate voltage spikes which could cause erratic operation of the controller.

The TSD option will increase T_3 response times to that of the AC coils.

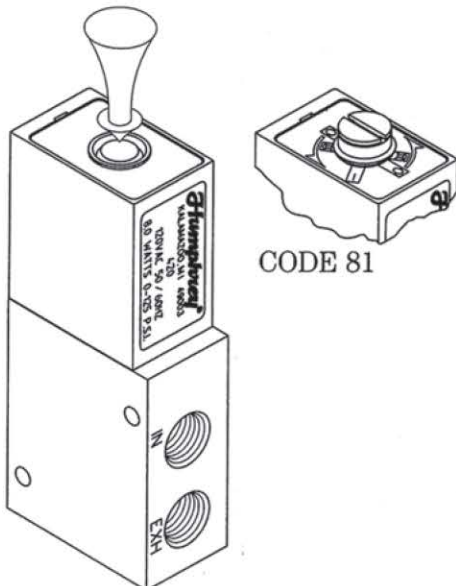
MANUAL OVERRIDE

Push button/spring return manual override is standard. Manual override is located on top of coil.

Pushing red button shifts armature which actuates the main stem of valve. Release of manual force permits valve spring to return valve to normal position.

320/420 valves are available without manual override by specifying Code 87 (example is 320-87 24VDC). On valves without manual override, a solid cover is installed on the coil. This replaces the punched disk which is used on valves with manual override.

A locking manual override is optional; specify Code 81 (example: 320-81 24VDC). In the unactuated position the override is locked "Off" and will not operate the valve. Clockwise rotation of slotted screw approximately 30 degrees provides operation like the standard manual override: pushing center portion actuates the main stem of the valve; release of manual pressure permits spring to return valve to the normal position. Rotating an additional 90 degrees locks override and valve in the "On" position.



METRIC PORTS/DIMENSIONS

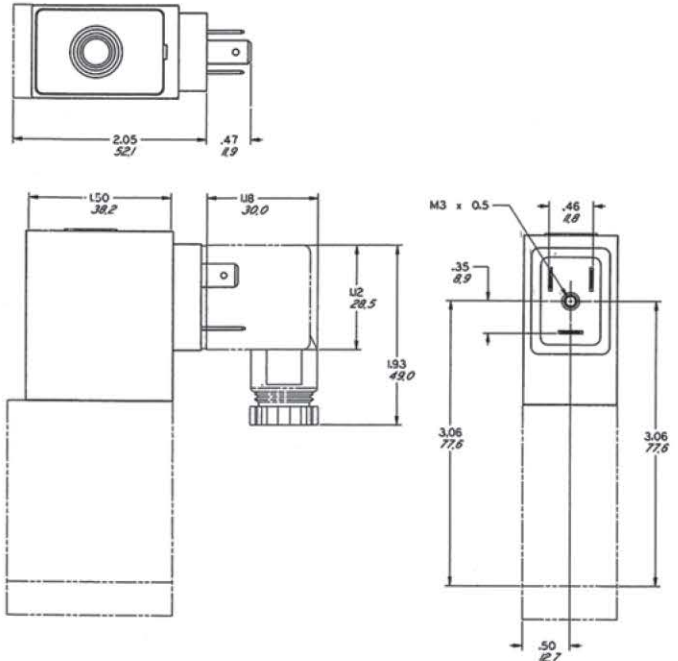
Although these valves are produced using the inch system, all drawings show the metric equivalent in millimeters (indicated by slanted numbers).

All port connections are available in metric sizes. The 1/4-18 NPSF pipe ports are available in ISO 7/1-Rp 1/4.

Specify metric port threads by using letter *E* as a model number prefix. Example: *E410* has metric size ports.

CODE 39

Humphrey Code 39 is an optional plug-in DIN-type connector base that conforms to international standards. It provides simplicity, convenience, and fast, easy electrical installation. Available for both 3-way and 4-way models, the connector base accepts DIN 43 650/ISO 4400 connectors which form a secure, solderless electrical connection.



CONNECTORS (Order separately)

Model HS-3. This connector is available for all 320/420 series valves and has an internal socket for screw-type wire termination contained within a black housing. The housing is capable of being rotated 180 degrees with respect to the socket for flexibility of cable placement.

Model HS-3-LED. This connector is available for all 320/420 series valves and has a built-in AC/DC LED that can be ordered for 12V, 24V, 120V, or 240V coils. It has an internal socket for screw-type wire termination. The transparent housing can be rotated 180 degrees with respect to the socket for flexibility of cable placement. Specify voltage when ordering.

