

AUTO-purge III

SEQUENCE OF OPERATIONS

COMPONENT IDENTIFICATION CODE

AS-1	Pilot Line Air
AS-2	High Pressure Purge Line Air
HV-1	Supply Air Shut Off Valve
PI-1	Gauge, Supply Air Pressure, 0-160 psig
R-1	Relay, Purge Management (optional for 3rd party transmitter, or Air Monitor's VELTRON DPT-plus, or MASS-tron/CEM)
SV-1A	Solenoid Operated (externally piloted) 3-Way Valve, Static (low) Pressure
SV-1B	Solenoid Operated (externally piloted) 3-Way Valve, Total (high) Pressure
SV-2	Solenoid Operated 3-Way Valve, Main Air

SEQUENCE OF OPERATIONS

The AUTO-purge sequence is initiated by a remote Air Monitor flow transmitter, an optional AUTO-purge smart relay (R-1), or by an external momentary dry contact from a DCS. The remote Air Monitor flow transmitter automatically holds the last measured value prior to transmitter isolation from the process (the AUTO-purge acknowledgement contact may be used to signal a DCS or third party transmitter to hold the last measured value when an Air Monitor flow transmitter is not used). Next, the AUTO-purge isolates the remote transmitter from the sensing lines, and high pressure air (up to 150

psig) is applied to the process lines for a preset time interval, to clean the sensing orifices of the Total and Static pressure manifolds. After purge duration, high pressure air supply is cut off and sensing lines depressurize for a preset time period. Next, the signal lines to the remote transmitter are reconnected to the process lines, and after a short signal recovery period, the transmitter resumes normal flow measurement. For more detail on valve activations and time intervals, refer to the AUTO-purge Purge Cycle Timing Diagram.

SCHEMATIC

