

# CAMS with Rapid Stop

## SEQUENCE OF OPERATIONS

### IDENTIFICATION CODE

V-1,3	Pneumatically Piloted, 5-Way Valve, Static (low) Pressure
V-2,4	Pneumatically Piloted, 5-Way Valve, Total (high) Pressure
SV-1	Solenoid Operated 5-Way Valve
SV-2	Solenoid Operated 3-Way Valve
HV-1	Supply Air Shut Off Valve
PI-1	Gauge, Supply Air Pressure, 0-160 psig
F-1	Filter
SV-3A, 3B	Solenoid valve, 2-way, N.C. bleed valves

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Automatic line purging interrupts airflow signal transmission at regular field selectable intervals and purges the station sensing lines with up to 125 psig air for short periods. This periodic purging assists in maintaining the sensing orifices of the total and static pressure manifolds in a clean, unobstructed condition.

A selectable timing sequence provided by the CAMM activates solenoid valves (SV-1 & SV-2) which shuttle the CAMM isolation valves (V3 and V4) and purge valves (V1 and V2). A simultaneous output signal hold corresponding to the last measured input is initiated by the CAMM and maintained until the purge cycle is complete.

When valve V1/V3 and V2/V4 operate, the velocity pressure signal lines (C and D) to the CAMM are isolated, and high

pressure purge air AS1 is routed to the station (probes) sensing lines (A and B). The high pressure purge air cleans the flow sensing orifices of the flow station (probes) during the purge duration.

When a purge interrupt (momentary) dry contact is received from the DCS, the CAMM initiates the Rapid Stop cycle. Main air supply solenoid valve SV-2 is de-energized to cut off the supply of purge air; and solenoid valves SV-3A/SV-3B are energized to rapidly bleed off high pressure purge air in the signal lines. After a preset time interval, the CAMM de-energizes SV-3A/SV-3B, allowing the process pressure in the signal lines to stabilize. After second preset interval, valves V1, V2, V3, and V4 are reset, thereby reconnecting the process to the CAMM. Output signal hold is terminated and on-line signal processing resumes.

### SCHEMATIC

