

TYPE Q1: CONSTANT EXHAUST VELOCITY CONTROL

BILL OF MATERIALS

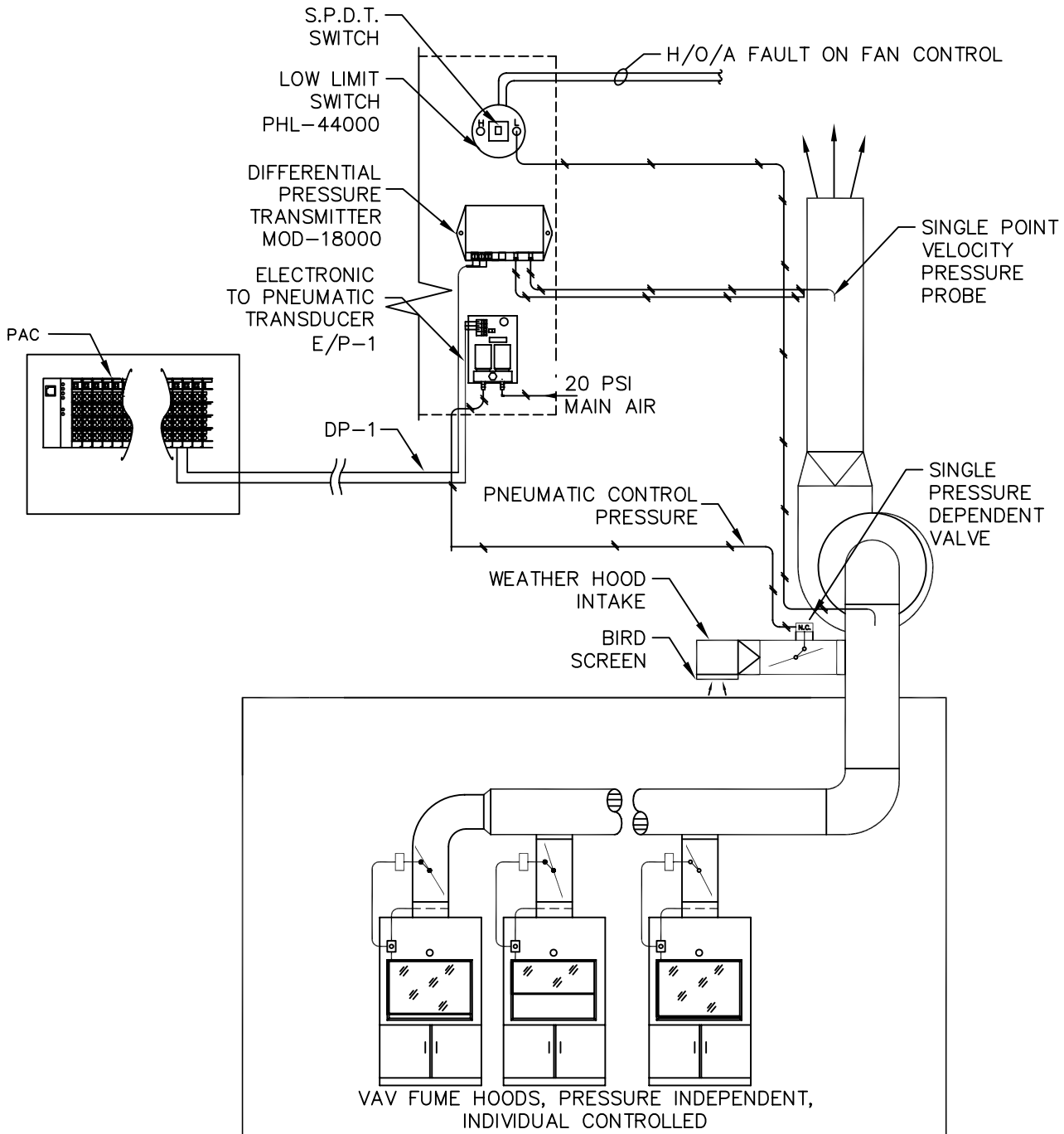
QUANTITY	PRODUCT	DESCRIPTION
1	MOD-18000	Differential Pressure Transmitter
1	EPT-11100	Electric to Pneumatic Transducer
1	PIC-1600	Fieldbus Controller (PAC)
1	PSP-43000	Pneumatic Static Pressure Probe

**SEQUENCE OF OPERATION:**

- A. PAC shall continually measure velocity pressure probe flow signal against the set point to maintain leaving exhaust plume velocity.
- B. PAC receives DP-1 input control flow signal from differential pressure transmitter and calculates exhaust plume velocity, then compares this to the set point and then calculates new value for output control flow signal
- C. Output control flow signal from PAC is transmitted to electronic to pneumatic transducer (E/P-1), and with E/P-1 supplied with a regulated 20 psig main air, E/P-1 transmits a pneumatic control pressure to modulate bypass damper actuator.
- D. The exhaust spill damper will fail closed.
- E. Low Limit Switch\* (PHL-44000) - Fan static pressure control system shall also include a low limit pressure device that de-energizes the duct system before duct system over pressurizes, by disconnecting the fan H-O-A disconnect switch.

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\* Denotes non-standard optional features



SCALE: NONE

## CONSTANT EXHAUST DUCT VELOCITY CONTROL

REFERENCES:  
15590  
15592-A  
15592-B  
15592-C

NOTES: EXHAUST VALVES AVAIL. IN GALVANIZED, PVC-COATED GALVANIZED, STAINLESS STEEL 304 AND 316. PAC IS UNDEDICATED

SOURCE: ACCU\*AIRE CONTROLS  
U.S. PATENT #: 5,205,783 & 5,312,297

SECTION: 15970 - CONTROL SYSTEMS

DETAIL: CONSTANT EXHAUST DUCT VELOCITY CONTROL

BLOCK SIZE: 1  
REV: 2/20/07 SC

TYPE-Q1