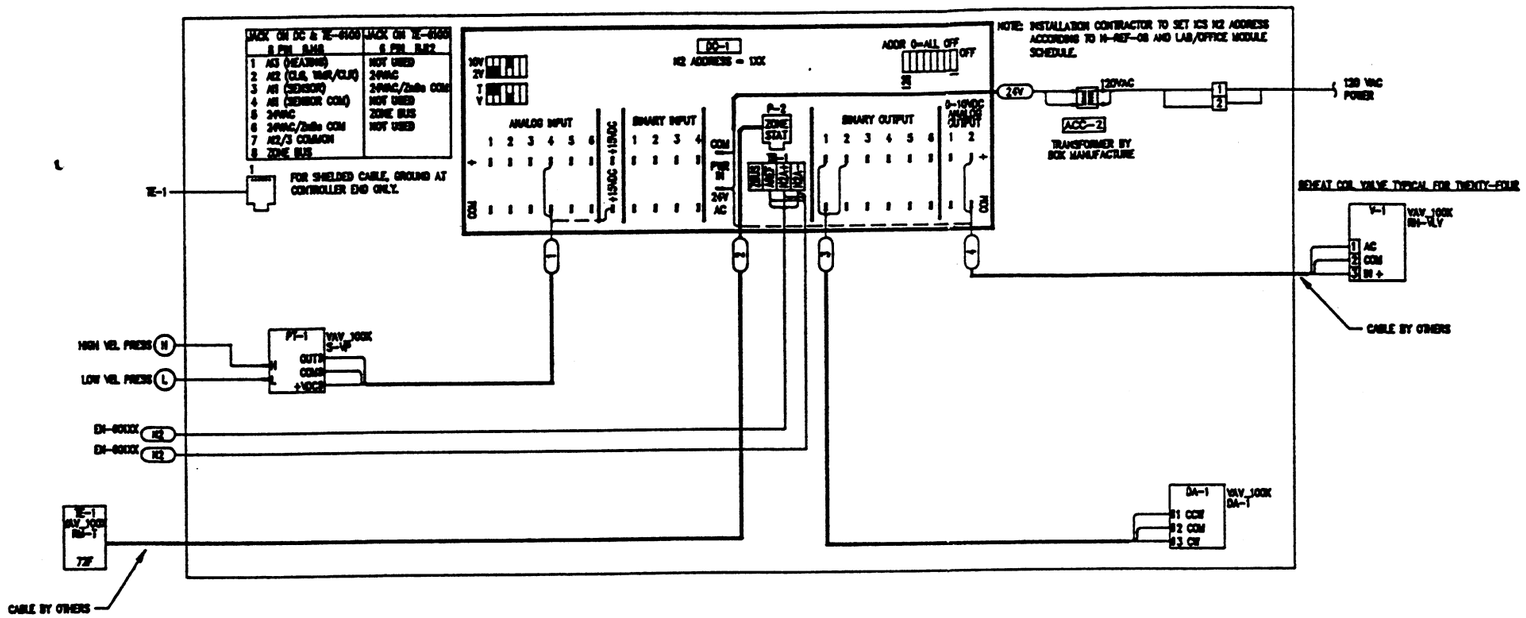
Digital ASCs Serving the VAV Terminal Units for AHU1001-AHU1008
TYPICAL FOR BUILDINGS 431-438



FIELD MATERIAL

DEVICE TAG	QTY	CODE NUMBER	DESCRIPTION
(P) TE-1	248	TE-6411W-1110	SENSOR; ROOM TEMP W/T.P.
ACC-1	248	009161	36" TERMINATED STD CABLE-ANIXTER
V-1	24	———	SEE VALVE SCHEDULE

PANEL MATERIAL

DEVICE TAG	QTY	CODE NUMBER	DESCRIPTION
ACC-2	248	———	120/24 VAC TRANSFORMER
(P) DA-1	248	ATP-6940-012	ACT/TRANS 2 NOM 1.5",1/2"
(P) DC-1	248	AS-VAV101-0	VAV CNTR W/O ENC 6NOR240

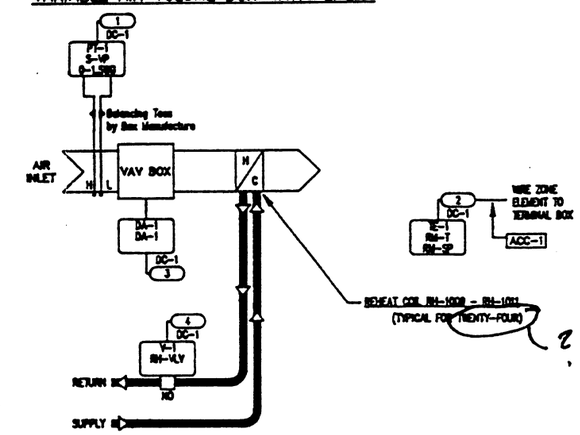
ANY MATERIAL WITH A (P) PRECEEDING THE DEVICE TAG IS CONSIDERED PROPRIETARY EQUIPMENT AND IS BEING SUPPLIED BY JOHNSON CONTROLS, INC. ALL OTHER MATERIAL IS NON-PROPRIETARY EQUIPMENT.

NOTE: ANIXTER PART NUMBER IS BASE ON 50' CABLE LENGTH FIELD VERIFY CABLE LENGTH.

NOTE:
BASE JOB EQUALS QUANTITIES IN THE BILL OF MATERIALS DIVIDED BY TWO. ALTERNATE IS THE QUANTITY AS PRINTED IN THE BILL OF MATERIALS.

BASE JOB IS BUILDINGS 431, 432, 434, 435

VARIABLE AIR VOLUME BOX WITH REHEAT



Enclosure/Room Schedule

See Lab/Office Module Schedule

Sequence of Operations

OCCUPIED MODE:

THE DIGITAL CONTROLLER WILL MODULATE VAV TERMINAL UNIT DAMPER, DA-1 TO MAINTAIN A FLOW SETPOINT ACCORDING TO THE ASC CONFIGURATION FILE INDICATED ON THE ENCLOSURE/ROOM SCHEDULE. THE FLOW SETPOINT WILL BE CALCULATED TO MAINTAIN OCCUPIED HEATING/COOLING MINIMUM AND MAXIMUM FLOW RATES AS THE SPACE TEMPERATURE TRAVELS THROUGH THE HEATING AND COOLING PROPORTIONAL BANDS. THE CONTROLLER WILL PROVIDE A PROPORTIONAL PNEUMATIC OUTPUT TO MODULATE ZONE HEATING COIL CONTROL VALVE, V-X INSIDE THE HEATING PROPORTIONAL BAND. BOTH CONTROLLED DEVICES, DA-1 AND V-X WILL BE MODULATED IN SEQUENCE TO MAINTAIN AN ACTUAL HEATING/COOLING SETPOINT. THE ACTUAL TEMPERATURE SETPOINT CAN BE ADJUSTED PLUS OR MINUS 3 F. FROM THE BASE SETPOINT, 72 F. AT TEMPERATURE ELEMENT, TE-1. THE BASE SETPOINT CAN BE ADJUSTED FROM ANY ICS OPERATOR WORKSTATION.

UNOCCUPIED MODE:

THE ZONE MAY BE PLACED IN A TEMPORARY OCCUPANCY MODE BY ACTIVATING BI-5 FROM THE ICS WORKSTATION, OWS-1. THE DIGITAL CONTROLLER WILL MODULATE VAV TERMINAL UNIT DAMPER, DA-1 TO MAINTAIN A FLOW SETPOINT ACCORDING TO THE CONFIGURATION FILE. THE FLOW SETPOINT WILL BE CALCULATED TO MAINTAIN UNOCCUPIED HEATING/COOLING MINIMUM AND MAXIMUM FLOW RATES AS THE SPACE TEMPERATURE TRAVELS THROUGH THE HEATING AND COOLING PROPORTIONAL BANDS. BOTH CONTROLLED DEVICES, DA-1 AND V-X WILL BE MODULATED IN SEQUENCE TO MAINTAIN AN UNOCCUPIED SPACE TEMPERATURE SETPOINT AS DEFINED IN THE ASC CONFIGURATION FILE. THE UNOCCUPIED TEMPERATURE SETPOINT IS ADJUSTABLE FROM ANY ICS OPERATOR WORKSTATION.

CABLE	DEVICE	BAY	TERM	XDUCER	SYSTEM	OBJECT	EXPANDED ID	REFERENCE DETAIL
CONTROLLER: DC-1								
1	PT-1	AI	AI4		VAV_100X	S-VP	SUPPLY VELOCITY PRESS	——
2	TE-1	P-2	——		VAV_100X	RH-T	ROOM TEMPERATURE	——
3	DA-1	BO	BO1-2		VAV_100X	DA-1	DAMPER ACTUATOR CONTROL	——
4	V-1	AO	AO2		VAV_100X	RH-VLV	REHEAT VALVE	——
N2	EN-601XX	N2BUS	IN					——
N2	EN-601XX	N2BUS	OUT					——

DRAWING TITLE
Primary Air Only
Variable Air Volume Terminal Units

REFERENCE DRAWING	NO.	REVISION—LOCATION	ICN	DATE	BY
	1	GENERAL		07/08/93	DCS

DRAWN: JP SF DCS — APPROVED: DCS DATE 07/01/92

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CONTRACT NUMBER 91390-0009
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