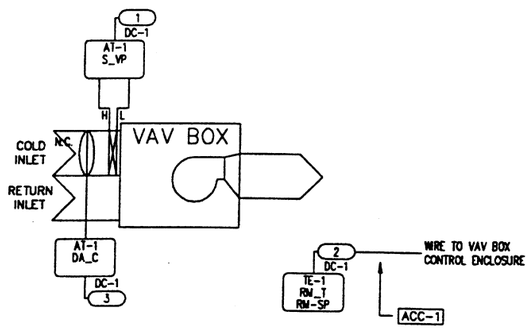
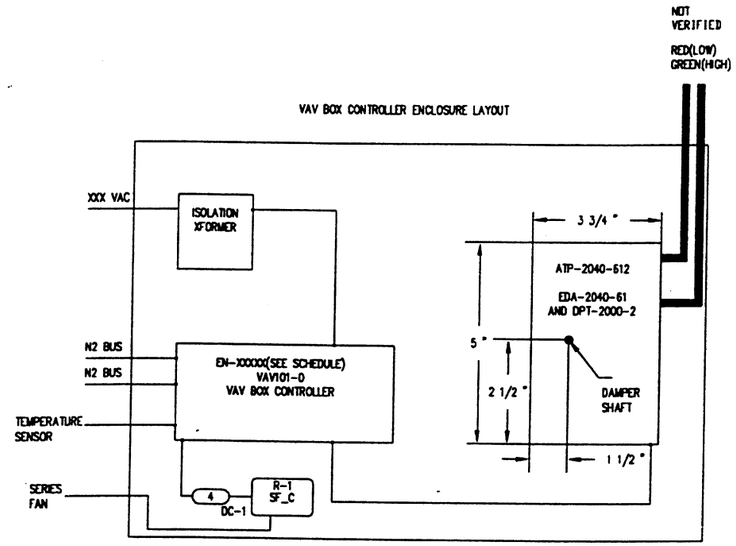
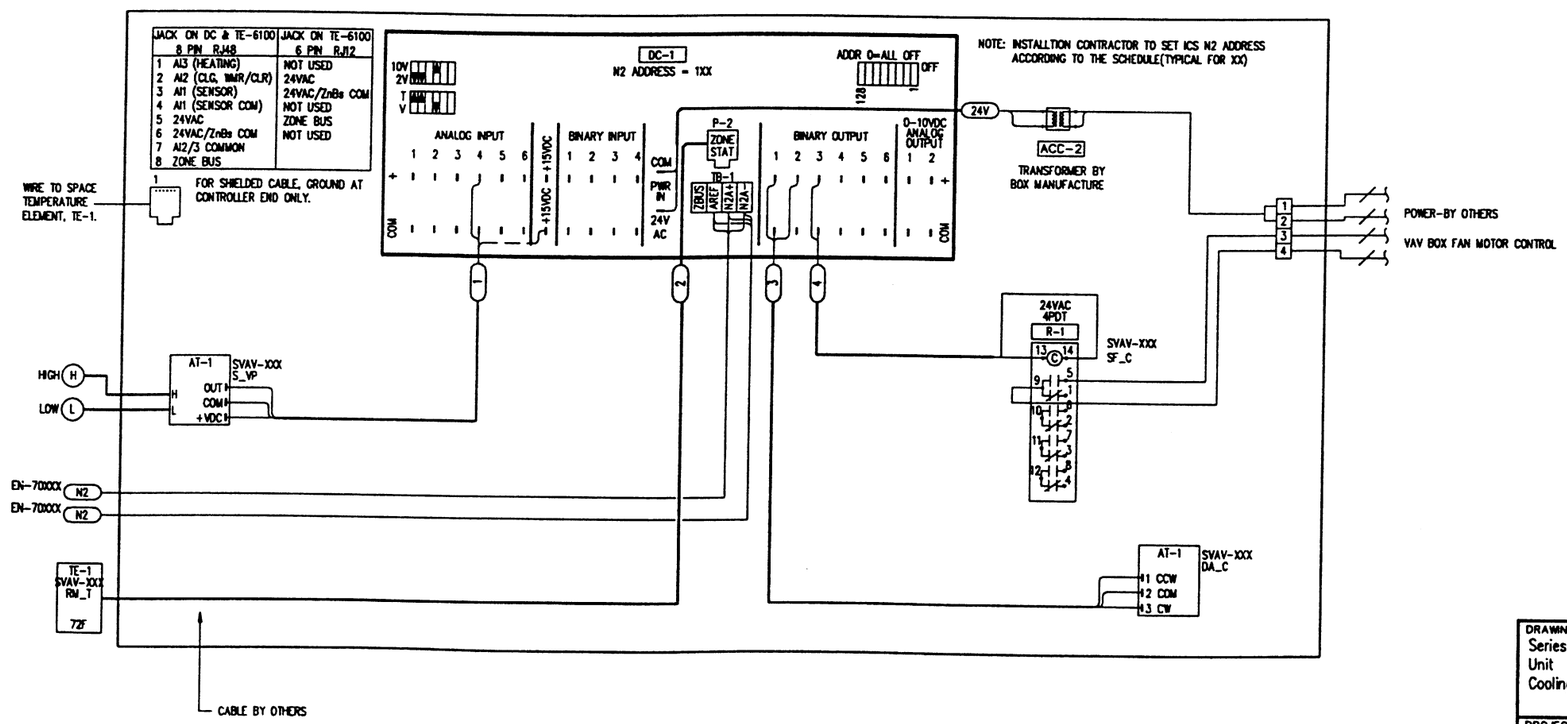
Digital ASCs Serving Series Fan VAV Terminal Units (TYPICAL)







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FIELD MATERIAL

	DEVICE TAG	QTY	CODE NUMBER	DESCRIPTION
	ACC-1		889161	50' TERMINATED STD CABLE-ANIXTER
(P)	TE-1		TE-6411W-1010	SENSOR; ROOM TEMP W/S.P.

PANEL MATERIAL

	DEVICE TAG	QTY	CODE NUMBER	DESCRIPTION
(P)	ACC		PD-113-3	TERMINAL BLOCK; MEDIUM
(P)	AT-1		ATP-2040-612	ACT/TRANS 6 MIN 1.5',1/2'
(P)	DC-1		AS-VAV101-0	VAV CNTR W/O ENC 6BOL2AO
(P)	R-1		RH4B-U-24VAC	4PDT 24 VAC RELAY WITH LIGHT-IDEC
(P)			SH4B-05	RELAY BASE-IDEC

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 BASED ON 50' CABLE LENGTH
FIELD VERIFY CABLE LENGTH.

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. CONTROLLED DEVICE, DA-1, VAV DAMPER WILL BE MODULATED TO MAINTAIN AN ACTUAL HEATING/COOLING SETPOINT. THE ACTUAL TEMPERATURE SETPOINT CAN BE ADJUSTED PLUS OR MINUS 5 F. FROM THE BASE SETPOINT, 76 F. AT TEMPERATURE ELEMENT, TE-1. THE BASE SETPOINT CAN BE ADJUSTED FROM ANY ICS OPERATOR WORKSTATION. THE SERIES BOX FAN WILL RUN CONSTANTLY IN THIS MODE.

UNOCCUPIED MODE:

THE ZONE MAY BE PLACED IN A TEMPORARY OCCUPANCY MODE BY DEPRESSING THE SWITCH LOCATED ON THE SPACE TEMPERTURE ELEMENT, TE-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 DEVICE, DA-1, VAV DAMPER WILL BE MODULATED 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. THE SERIES BOX FAN WILL BE CYCLED PER THE BOX UNOCCUPIED HEATING TEMPERATURE SETPOINT.

RECEIVED
OCT 07 1994
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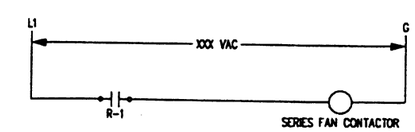
JOB #228-ARGONNE NATL. LAB

Motor Control



DRAWING TITLE: Series Fan, VAV Terminal Unit Cooling Only						FILE: CLO_CVAV DCODE: 19940119.2038	
	REFERENCE DRAWING	NO.	REVISION-LOCATION		ECN	DATE	BY
	SALES ENGR: JP	PROJECT MGR: SF	APPL. ENGR: DCS	DRAWN: BY DCS DATE 12/17/92	APPROVED: BY	DATE	
PROJECT: The Argonne National Labs, Advanced Photon Source Campus, 9700 Cass Avenue South, Argonne, IL 60439	JOHNSON CONTROLS, Systems & Services Division		3007 MALMO ROAD, ARLINGTON HEIGHTS, ILLINOIS 60005, 708/364-1500 Main, 708/806-4438 Eng		CONTRACT NUMBER: 91390-0009		
					DRAWING NUMBER: 91-9-G-01C		