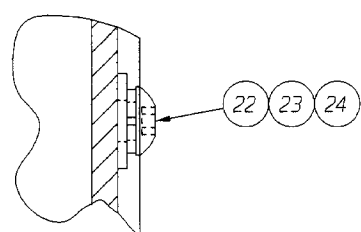
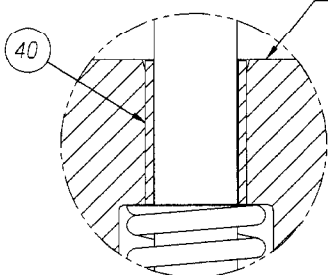


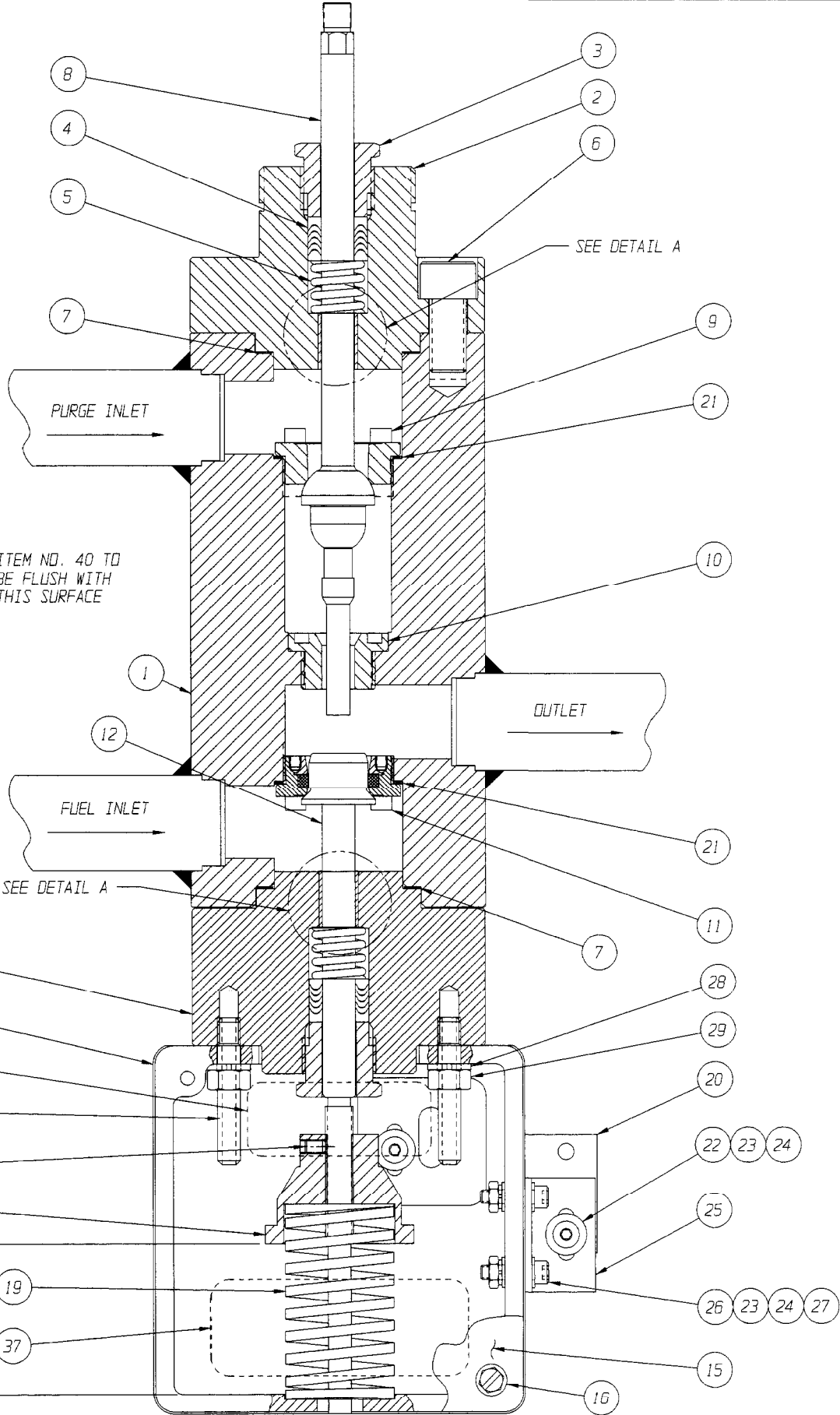
NEMA 7 SWITCH MOUNTING



VIEW "A-A"



DETAIL A SCALE 2:1



LIST OF PARTS			
ITEM	DWG. NO.	QTY.	DESCRIPTION
1	02-011	1	VALVE BODY SUBASSEMBLY
2	118060	1	END FLANGE STEAM SIDE
3	01-012	2	PACKING NUT
4	39-001	2	PACKING SET
5	-	2	PACKING SPRING
6	-	8	0.50-13 X 1.00 LG. SOCKET HEAD CAP SCREW
7	40-001	2	BODY GASKET
8	116633	1	MAIN STEM
9	01-013	1	UPPER SEAT RING
10	01-011	1	PURGE SEAT RING
11	02-110	1	OIL VALVE SEAT RING ASSEMBLY
12	02-107	1	OIL STEM
13	01-218	1	LIMIT SWITCH BOX
14	-	2	STUD (0.31-18 UNC)
15	01-016	1	LIMIT SWITCH BOX COVER
16	-	2	12-24 X 0.50 LG. HEX WASHER HEAD SCREW
17	01-224	1	SPRING SEAT
18	-	1	10-32 X 0.25 LG. SOCKET HEAD SET SCREW
19	-	1	OIL VALVE RETURN SPRING
20	25-007	1	OIL VALVE PROOF OF CLOSURE SWITCH NEMA 4
21	40-026	2	SEAT RING GASKET
22	-	-	10-32 X 0.50 LG. HEX SOC BTNHD CAP SCR
23	-	-	#10 FLAT WASHER
24	-	-	#10 LOCK WASHER
25	01-234	-	SWITCH MOUNTING BRACKET (NEMA 4)
26	-	2	#10-32 X 0.75 LG. HEX SOCKET HD CAP SCREW
27	-	2	#10-32 HEX NUT
28	-	2	0.31 LOCK WASHER
29	-	2	0.31-18 HEX NUT
30	-	-	-
31	25-017	1	OIL VALVE PROOF OF CLOSURE SWITCH NEMA 7
32	01-235	-	SWITCH MOUNTING BRACKET (NEMA 7)
33	-	-	0.31 FLAT WASHER
34	-	-	0.31 LOCK WASHER
35	-	-	0.31-18 X 0.75 LG. HEX SOC BTNHD CAP SCR
36	117504	1	LABEL - CAUTION STEM PACKING
37	90-018	1	LABEL - CAUTION SPRING
38	117500	1	LABEL - PROOF OF CLOSURE
39	118059	1	END FLANGE OIL SIDE
40	-	2	BEARING

ITEM NO.	QUANTITY	
	NEMA 4	NEMA 7
22	2	-
23	6	4
24	4	2
25	1	-
32	-	1
33	-	2
34	-	2
35	-	2

- NOTES:
- 1) SEE ORDER SPECIFICATION FOR MAIN VALVE AND ACCESSORY/OPTIONS SPECIFICATIONS.
 - 2) VALVE IS SHOWN IN CLOSED POSITION.
 - 3) VALVE SHOWN IS LEFT TO RIGHT FLOW. FOR RIGHT TO LEFT FLOW, INLETS/OUTLETS ARE REVERSED.
 - 4) * - DENOTES RECOMMENDED SPARE PART.
 - 5) SPECIAL TOOL IS REQUIRED TO REMOVE SEATS. CONSULT FACTORY.
 - 6) FOR QUANTITY SEE TABLE 1
 - 7) LABEL, ITEM 38, TO BE PLACED ON TOP OF SWITCH HEAD

ECN# 3158

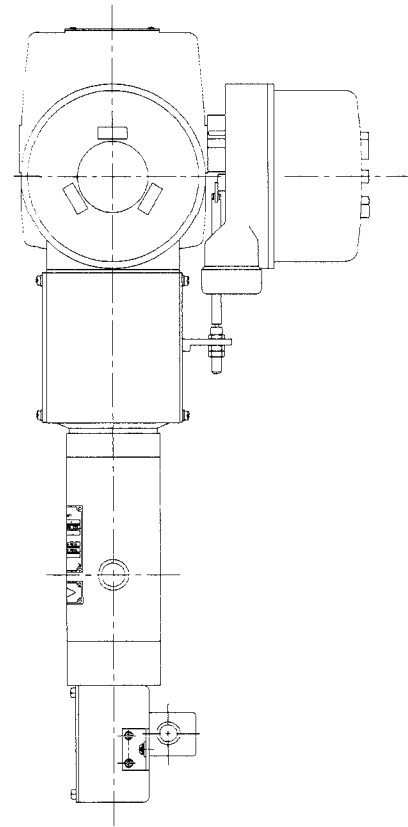
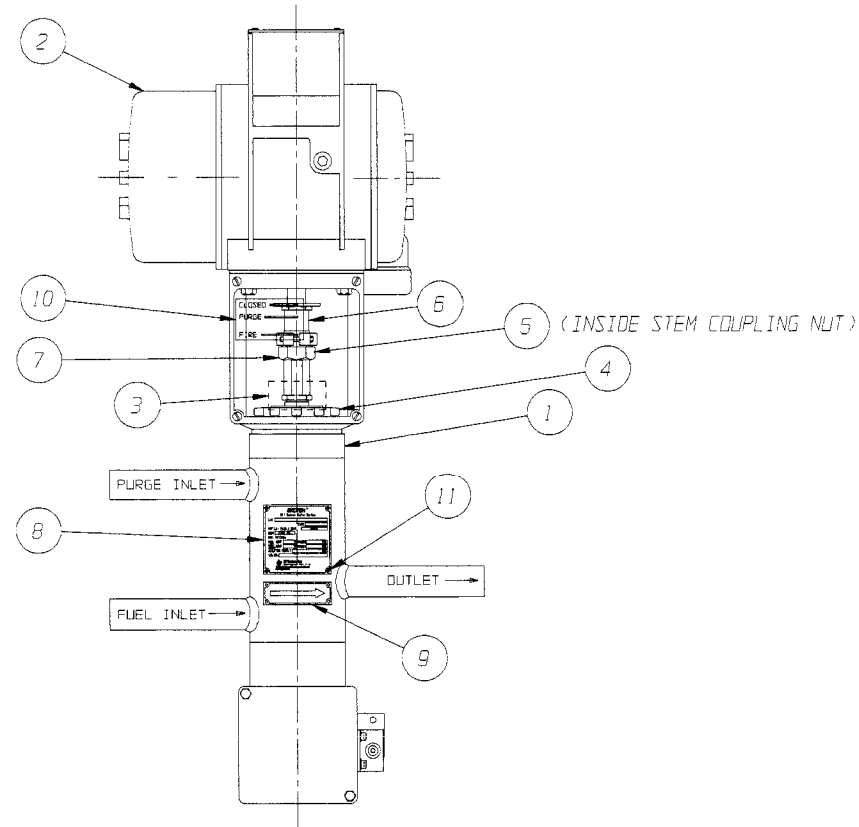
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PART NO. -		PATTERN NO. -	
TOLERANCES EXCEPT AS NOTED DECIMALS .XX ± .02 .XXX ± .005 ANGLE 45°-50° REMOVE ALL BURRS AND SHARP EDGES ALL MACHINED SURFACES TO BE 125 EXCEPT AS NOTED		WEIGHT	SCALE 1:1
DATE 12/10/97	BY JON MJO	DATE 12/10/97	BY JON MJO
REV 1	DATE 12/10/97	CHKD 1/21/98	MJD
REV 2	DATE 12/10/97	APVD 1/21/98	MJD
SUPERSEDES: -		MAIN VALVE ASSEMBLY OIL BURNER VALVE SYSTEM T2000	
SIZE D		DRAWING NUMBER 03-005	
REV G		SUPERSEDES: -	

ITT Engineered Valves
ITT Fluid Technology Corporation
Lancaster, Pa

FILE COPY

LIST OF PARTS				
ITEM	DWG. NO.	PART NO.	QTY.	DESCRIPTION
1	03-005	-	1	VALVE BODY SUBASSEMBLY
2	-	12-001-01	1	ACTUATOR ELECTROHYDRAULIC FAIL CLOSED 100/120V 50/60 HZ
	-	12-001-02		ACTUATOR ELECTROHYDRAULIC FAIL CLOSED 200/220V 50/60 HZ
	-	12-002-01		ACTUATOR ELECTROHYDRAULIC LAST POSITION 100/120V 50/60HZ
	-	12-002-02		ACTUATOR ELECTROHYDRAULIC LAST POSITION 200/220V 50/60HZ
3	117504	37200	1	VALVE PACKING TAG
4	36-013	36-013	1	YOKER LOCKNUT
5	-	11-041	1	ACTUATOR UNION NUT
6	-	-	1	STEM CONNECTOR
7	-	-	1	STEM COUPLING NUT
8	90-012	90-012-02	1	VALVE TAG S.S.
9	90-005	90-005-02	1	FLOW TAG S.S.
10	90-002	90-002	1	POSITION DECAL
11	-	36-151	8	RIVET



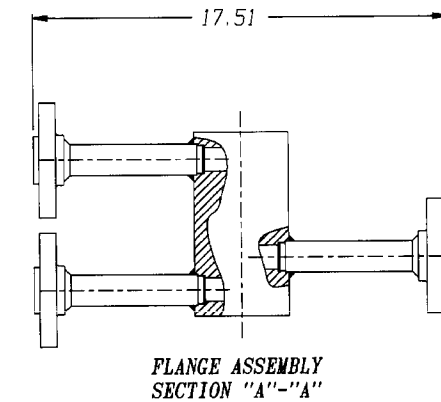
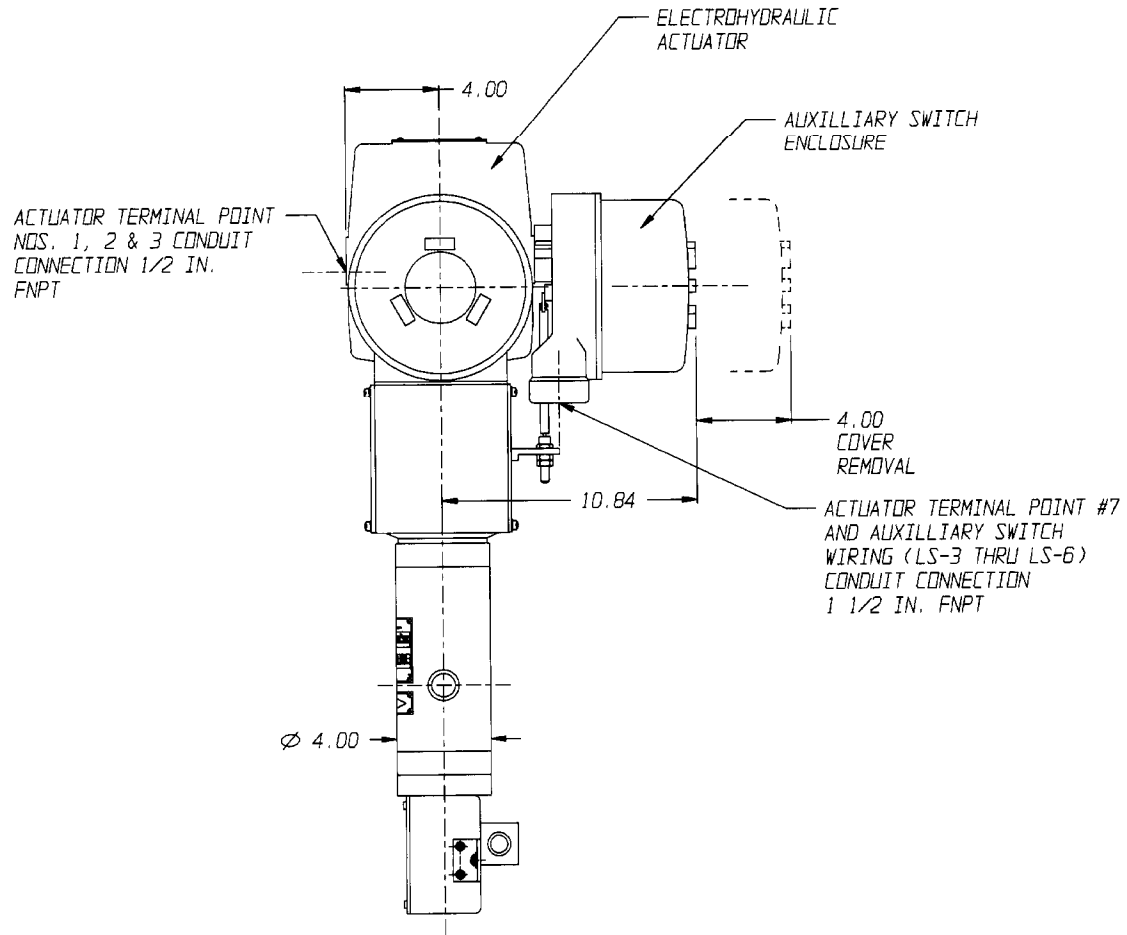
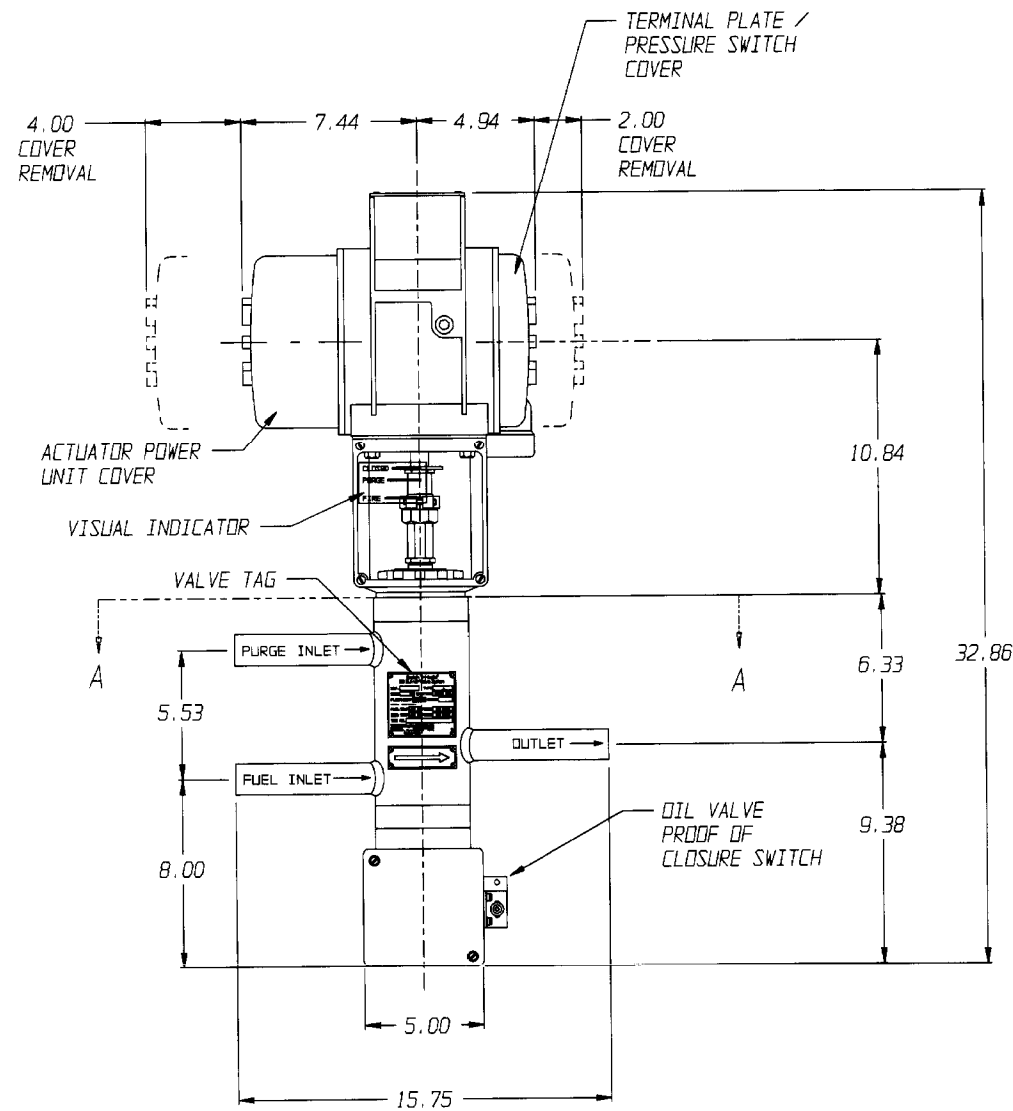
(A) NOTES:
 1) CUSTOMER TO WIRE DIRECTLY TO OIL VALVE PROOF OF CLOSURE SWITCH TERMINALS.
 * 2) LENGTH MUST BE 1.640/1.625. IF NOT MACHINED FROM HEX END.

ECN# 4975

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PART NO. -		PATTERN NO. -	
TOLERANCES EXCEPT AS NOTED DECIMALS .XX ± .02 .XXX ± .005 ANGLES ± 0.50° REMOVE ALL BURRS AND SHARP EDGES ALL MACHINED SURFACES TO BE 125° EXCEPT AS NOTED		WEIGHT	SCALE 1:4
ASSEMBLY T2001 & T2003 TRIFECTA OIL BURNER VALVE SYSTEM	DATE 5/1/95	BY JON	CHKD 6/5/95
APVD 6/5/95	DATE 4/9/95	BY SBN	CHKD APVD
SIZE D	DRAWING NUMBER 03-017	REV A	SUPERSEDES: -

ITT Engineered Valves
ITT Fluid Technology Corporation
Lancaster, Pa



- NOTES:
- 1) SEE INSTRUCTION AND OPERATION MANUAL IOT2003 OR IOT2001 FOR OPERATING AND MAINTENANCE INSTRUCTIONS.
 - 2) DIMENSIONS ARE FOR REFERENCE ONLY.
 - 3) ALLOW 6.00 INCHES MINIMUM CLEARANCE AT TOP AND BOTTOM OF VALVE SURFACES FOR DISASSEMBLY.
 - 4) VALVE SHOWN IS CONFIGURED FOR LEFT TO RIGHT FLOW. FOR RIGHT TO LEFT FLOW ROTATE THE INLET AND OUTLET PORTS 180° ABOUT VALVE CENTERLINE.
 - 5) END CONNECTIONS SHOWN ARE SPIGOT. DIMENSIONS ARE THE SAME FOR BUTTWELD AND SCREWED CONNECTIONS. SEE ORDER SPECIFICATION FOR END CONNECTIONS SUPPLIED.

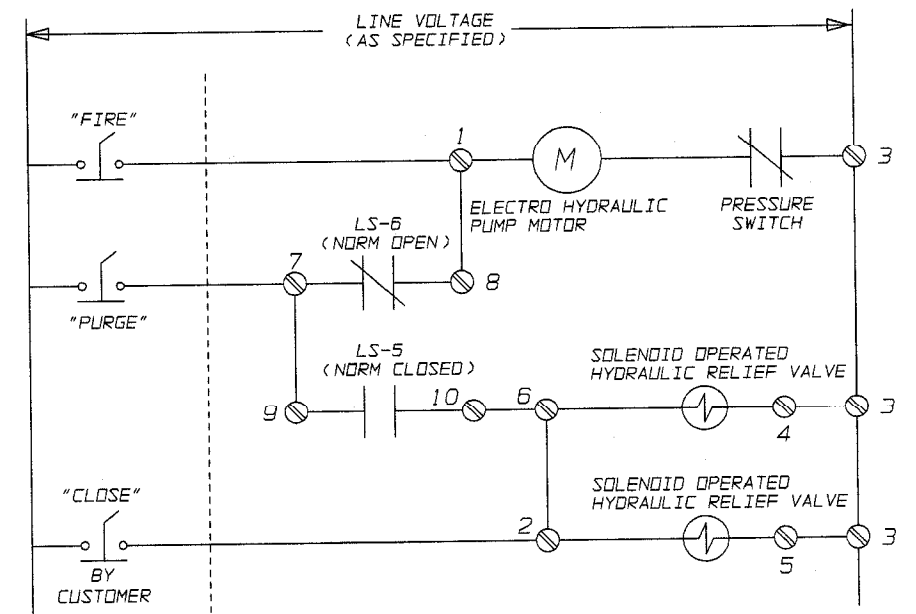
WR# -

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PART NO. -		PATTERN NO. -	
TOLERANCES EXCEPT AS NOTED	WEIGHT	SCALE	DIMENSIONS-MODELS
DECIMALS	-	1:4	T2001 & T2003
.XX ± .00	DATE	BY	TRIFECTA OIL BURNER
.XXX ± .005	DWN 11/92	SCS	VALVE SYSTEMS
ANGLES 40, 50°	CHKD 11/92	JRB	
REMOVE ALL BURRS	APVD		
AND SHARP EDGES			
ALL MACHINED SURFACES TO BE			
125 EXCEPT AS NOTED			
REV A	DATE	ECN NBR	BY
			CHKD
			APVD
SUPERSEDES:-			REV A

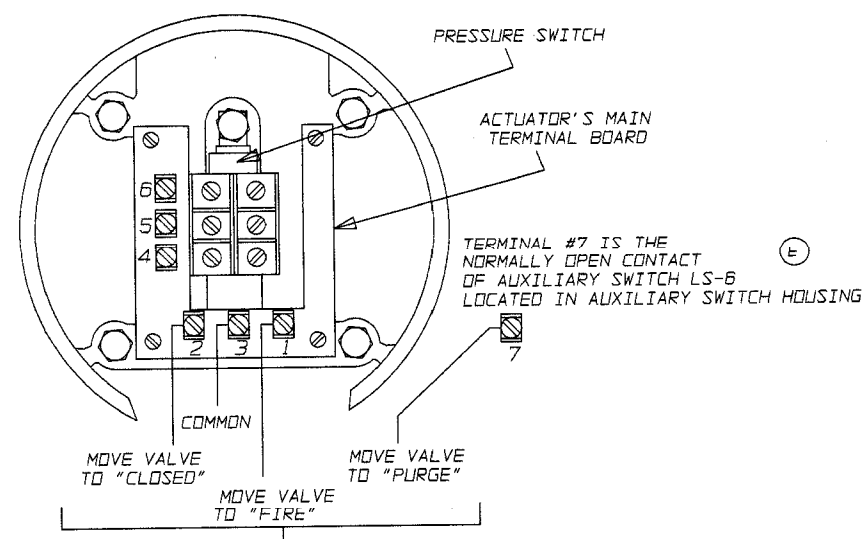
SIZE	DRAWING NUMBER	REV
D	57-007	A

NOTE:
1. SEE ORDER SPECIFICATION FOR MAIN VALVE, ACTUATOR AND ACCESSORIES/OPTIONS SPECIFICATIONS, AND CONTRACT DATA.



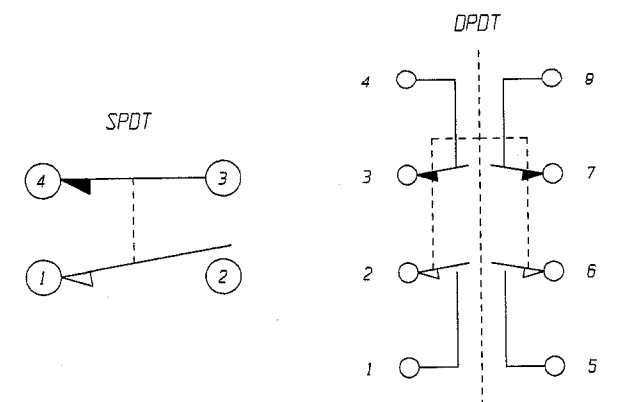
(E) NOTE: ALL SWITCHES SHOWN WITH MAIN VALVE IN FULLY CLOSED POSITION.
TERMINALS 1-6 ARE LOCATED ON ACTUATOR'S MAIN TERMINAL BOARD.
TERMINALS 7-10 ARE LOCATED ON SWITCHES LS-6 & LS-5 IN AUXILIARY SWITCH HOUSING.

ELECTRICAL SCHEMATIC



CUSTOMER WIRING: THREE HOT LEADS, ONE COMMON.

ACTUATOR WIRING



NOTE:
1) OIL VALVE PROOF OF CLOSURE SWITCH IS LOCATED ON THE BOTTOM OF THE MAIN VALVE ASSEMBLY AND OPERATES DIRECTLY FROM VALVES OIL STEM.
2) PROOF OF CLOSURE SWITCH CHANGES STATE PRIOR TO OIL VALVE OPENING OR CLOSING.
3) CONTACTS SHOWN WITH OIL VALVE IN CLOSED POSITION.

OIL VALVE PROOF OF CLOSURE SWITCH WIRING

SWITCH NO.	VALVE POSITION		
	CLOSED	PURGE	FIRE
LS-1			■
LS-2		■	
LS-3	■		
LS-4	■		
LS-5 *	■		
LS-6 *	■		

■ - DEPICTS SWITCH ACTUATED BY CAM
(SWITCHES NORMALLY OPEN CONTACTS ARE MADE)

NOTE: GRAPH SHOWS SETTINGS FOR CAM-OPERATED SPDT AUXILIARY SWITCHES LS-1 THRU LS-6.
SWITCHES ARE LOCATED IN AUXILIARY SWITCH HOUSING. SEE DIMENSIONAL DRAWING FOR LOCATION.
* LS-6 AND LS-5 ARE FOR ACTUATION SYSTEM USE ONLY - NOT FOR CUSTOMER USE.

AUXILIARY SWITCH CAM SETTINGS

SWITCH NO.	LS-1	LS-2	LS-3	LS-4	LS-5*	LS-6*	LS-7 PROOF OF CLOSURE SWITCH					
							SPDT		DPDT			
							1-2	3-4	1-2	3-4	5-6	7-8
VALVE IN CLOSED	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.						
VALVE IN PURGE	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.						
VALVE IN FIRE	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.						

* LS-6 AND LS-5 ARE FOR ACTUATION SYSTEM USE ONLY.

(E) NOTE: FOR "PURGE" INDICATION, WIRE NORMALLY OPEN CONTACTS OF LS-2 AND LS-3 IN SERIES.

SWITCH CONTACT LOGIC

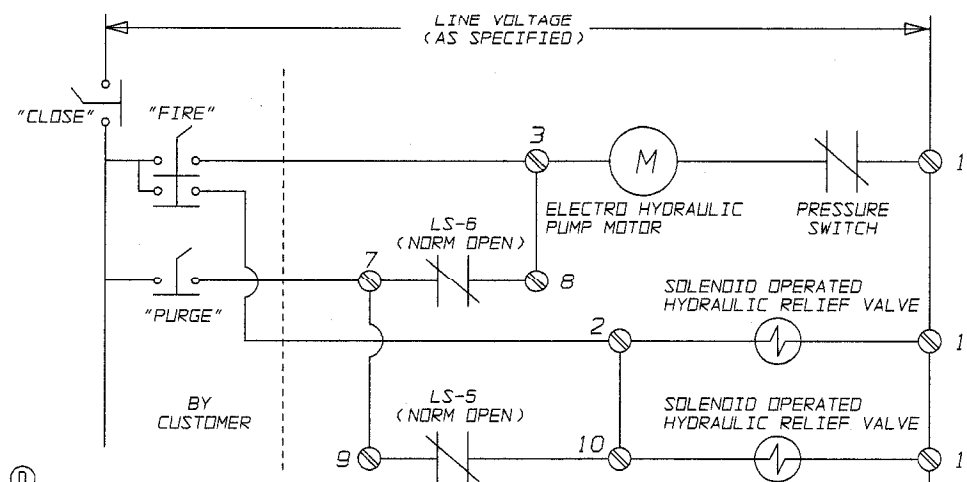
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THIRD ANGLE PROJECTION		UNLESS OTHERWISE NOTED X ± .06 (1.5mm) .X ± .03 (.75mm) .XX ± .02 (.5mm) .XXX ± .005 (.12mm) X/X ± 1/16 (1.5mm) X ± .125 X ± .125		WEIGHT	SCALE	WIRING SCHEMATIC ELECTRICAL SCHEMATIC SERIES T1001 AND T2001		ITT Industries Engineered Valves Lancaster, PA USA	
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES		REMOVE ALL BURRS AND SHARP EDGES. ALL MOUNTING SURFACES TO BE 15° EXCEPT AS NOTED		DATE	BY	SIZE	DRAWING NUMBER	SHEET	REV
				DWN	8-15-02 JS	D	60-001	1 OF 1	E
				CHKD	8/19/02 JLS				
				APVD	8/15/02 JLS	SUPERSEDES: -			

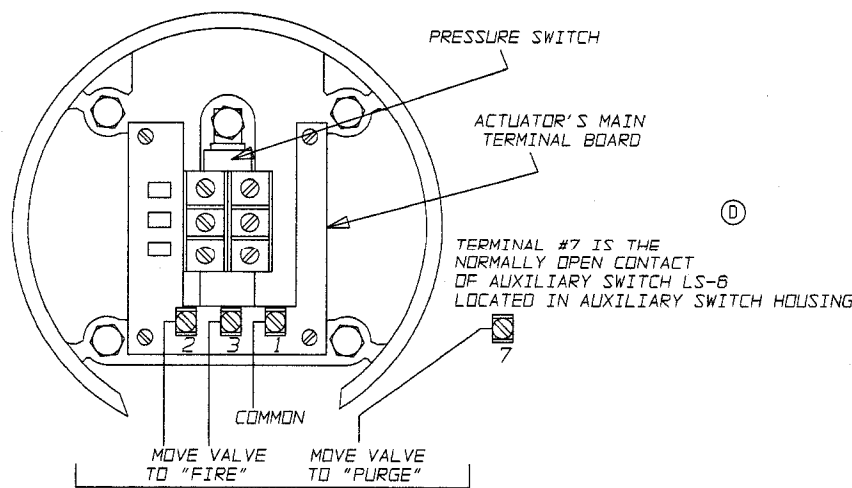
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© NOTE:
1. SEE ORDER SPECIFICATION FOR MAIN VALVE, ACTUATOR AND ACCESSORIES/OPTIONS SPECIFICATIONS, AND CONTRACT DATA.



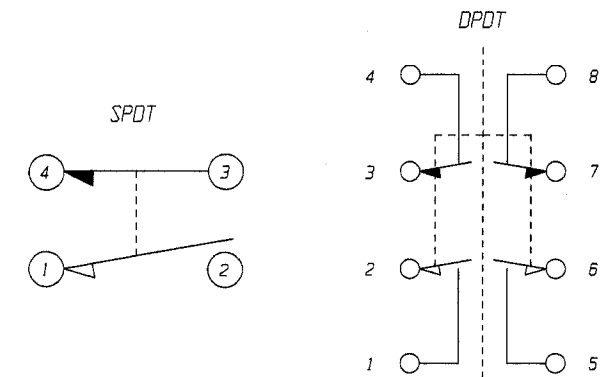
NOTE: ALL SWITCHES SHOWN WITH MAIN VALVE IN FULLY CLOSED POSITION.
TERMINALS 1-3 ARE LOCATED ON ACTUATOR'S MAIN TERMINAL BOARD.
TERMINALS 7-10 ARE LOCATED ON SWITCHES LS-6 & LS-5 IN AUXILIARY SWITCH HOUSING.

ELECTRICAL SCHEMATIC



CUSTOMER WIRING: THREE HOT LEADS, ONE COMMON.
DE-ENERGIZE ALL CIRCUITS TO CLOSE VALVE.
WIRE SIZE: #14 AWG MINIMUM.

ACTUATOR WIRING



NOTE:
1) OIL VALVE PROOF OF CLOSURE SWITCH IS LOCATED ON THE BOTTOM OF THE MAIN VALVE ASSEMBLY AND OPERATES DIRECTLY FROM VALVE'S OIL STEM.
2) PROOF OF CLOSURE SWITCH CHANGES STATE PRIOR TO OIL VALVE OPENING OR CLOSING.
3) CONTACTS SHOWN WITH OIL VALVE IN CLOSED POSITION.

OIL VALVE PROOF OF CLOSURE SWITCH WIRING

SWITCH NO.	VALVE POSITION		
	CLOSED	PURGE	FIRE
LS-1			■
LS-2		■	
LS-3	■		
LS-4	■		
LS-5*	■	■	
LS-6*	■		

■ - DEPICTS SWITCH ACTUATED BY CAM
(SWITCHES NORMALLY OPEN CONTACTS ARE MADE)

NOTE: GRAPH SHOWS SETTINGS FOR CAM-OPERATED SPDT AUXILIARY SWITCHES LS-1 THRU LS-6.
SWITCHES ARE LOCATED IN AUXILIARY SWITCH HOUSING. SEE DIMENSIONAL DRAWING FOR LOCATION.
* LS-6 AND LS-5 ARE FOR ACTUATION SYSTEM USE ONLY - NOT FOR CUSTOMER USE.

AUXILIARY SWITCH CAM SETTINGS

SWITCH NO.	LS-1	LS-2	LS-3	LS-4	LS-5*	LS-6*	LS-7 PROOF OF CLOSURE SWITCH					
							SPDT		DPDT			
							1-2	3-4	1-2	3-4	5-6	7-8
VALVE IN CLOSED	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.						
VALVE IN PURGE	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.						
VALVE IN FIRE	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.	COM N.O. N.C.						

* LS-6 AND LS-5 ARE FOR ACTUATION SYSTEM USE ONLY.

NOTE: FOR "PURGE" INDICATION, WIRE NORMALLY OPEN CONTACTS OF LS-2 AND LS-3 IN SERIES.

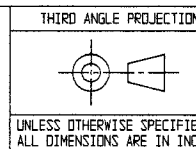
SWITCH CONTACT LOGIC

THIS IS A FACTORY MUTUAL CONTROLLED DOCUMENT. CHANGES MUST BE APPROVED BY FM PRIOR TO IMPLEMENTING.

ECN# 7421

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UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.
UNLESS OTHERWISE SPECIFIED, REMOVE ALL BURRS AND SHARP EDGES. ALL MACHINED SURFACES TO BE FINISHED TO THE FOLLOWING TOLERANCES (EXCEPT AS NOTED):
X ± .06 (1.5mm)
XX ± .03 (.76mm)
XXX ± .02 (.5mm)
XXX ± .005 (.12mm)
XXX ± 1/16 (.5mm)
X° ± 1°

WEIGHT -
SCALE -
DATE 8-15-02 BY LS
DWN 8/15/02
CHKD 8/15/02
APVD 8/15/02

WIRING SCHEMATIC ELECTRICAL SCHEMATIC SERIES T1003 AND T2003
SUPERSEDES:-

ITT Industries
Engineered Valves
Lancaster, PA USA
SIZE 0 DRAWING NUMBER 60-005 SHEET 1 OF 1 REV 0

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