Base Load Power Hub (BLPH)

INSTRUMENT AIR PACKAGE A-63000

PACKAGE CAUSE EFFECT MATRIX /LOGIC DIAGRAMS

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COES

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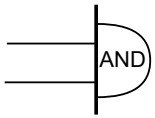
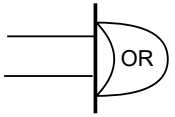
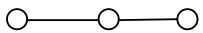
CUSTOMER	END USER
ROSETTI MARINO	CROSSWIND

DOCUMENT NUMBER:
"63-LP-001 LOGIC DIAGRAM"

DRAWN BY:	CHECKED BY:	APPROVED:
R. BERETTA	R. MANZONI	R. MANZONI

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SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	LOGIC GATE: "AND" INPUT A B / OUTPUT Q: 0 0 0; 0 1 0; 1 0 0; 1 1 1		LOGIC GATE: "OR" INPUT A B / OUTPUT Q: 0 0 0; 0 1 1; 1 0 1; 1 1 1
	LOGIC GATE: "NOT" INPUT A / OUTPUT Q: 0 1; 1 0	LOGIC CONTROL FOR VALVES (with delay timer)	THIS BLOCK CONTAINS ALL THE LOGIC OF CONTROL OF THE FEEDBACKS FROM THE LIMIT SWITCHES AFTER THE CHANGE OF THE COMMAND FOR THE VALVE GENERATED BY THE PLC.
	LOGIC GATE: "SET & RESET" WHEN THE "SET" BLOCK RECEIVES 1, THE OUTPUT WILL BE SETTED. WHEN THE "RESET" BLOCK RECEIVES 1, THE OUTPUT WILL BE RESETTED.	**ALARM LOGIC**	THIS BLOCK MANAGES THE ALARMS. WHEN IT RECEIVES A SIGNAL WITH "0", IT MANAGES THE ALARM AND IT SENDS THE INFO TO THE DCS AND TO THE HMI.
	SIGNAL THROUGH COMMUNICATION PROTOCOL		

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INPUTS					PLC SEQUENCE MODE	OUTPUTS				
DESCRIPTION	FIELD		LCP	PCS		PCS	LCP	FIELD		DESCRIPTION
63-HS-004 LOCAL REMOTE SELECTOR STATUS 0=LOCAL 1=REMOTE										THE PACKAGES WORK ONLY IN REMOTE 63-PLANT-LOCA-REM
START SIGNAL FROM 63-START-PLANT-CMD 0= NO ACT 1= START					AND					
63 -HS-001 LCP START PUSHBUTTON 0=NO_ACT; 1=START					OR					AUTOMATIC SEQUENCE STARTED 63-PLANT-RUNNING
63-HS-004 LOCAL REMOTE SELECTOR STATUS 0=LOCAL 1=REMOTE					AND AUTO-SEQUENCE-STARTED 4.2					THE PACKAGES WORK ONLY IN LOCAL 63-PLANT-LOCA-REM
DRYER D-63001 MASTER					AND S R 4.5 AUTO-SEQUENCE-STOPPING					63-XL-003 LCP RUNNING STATUS LAMP
DRYER D-63002 MASTER					AND S R 4.5 AUTO-SEQUENCE-STOPPING					

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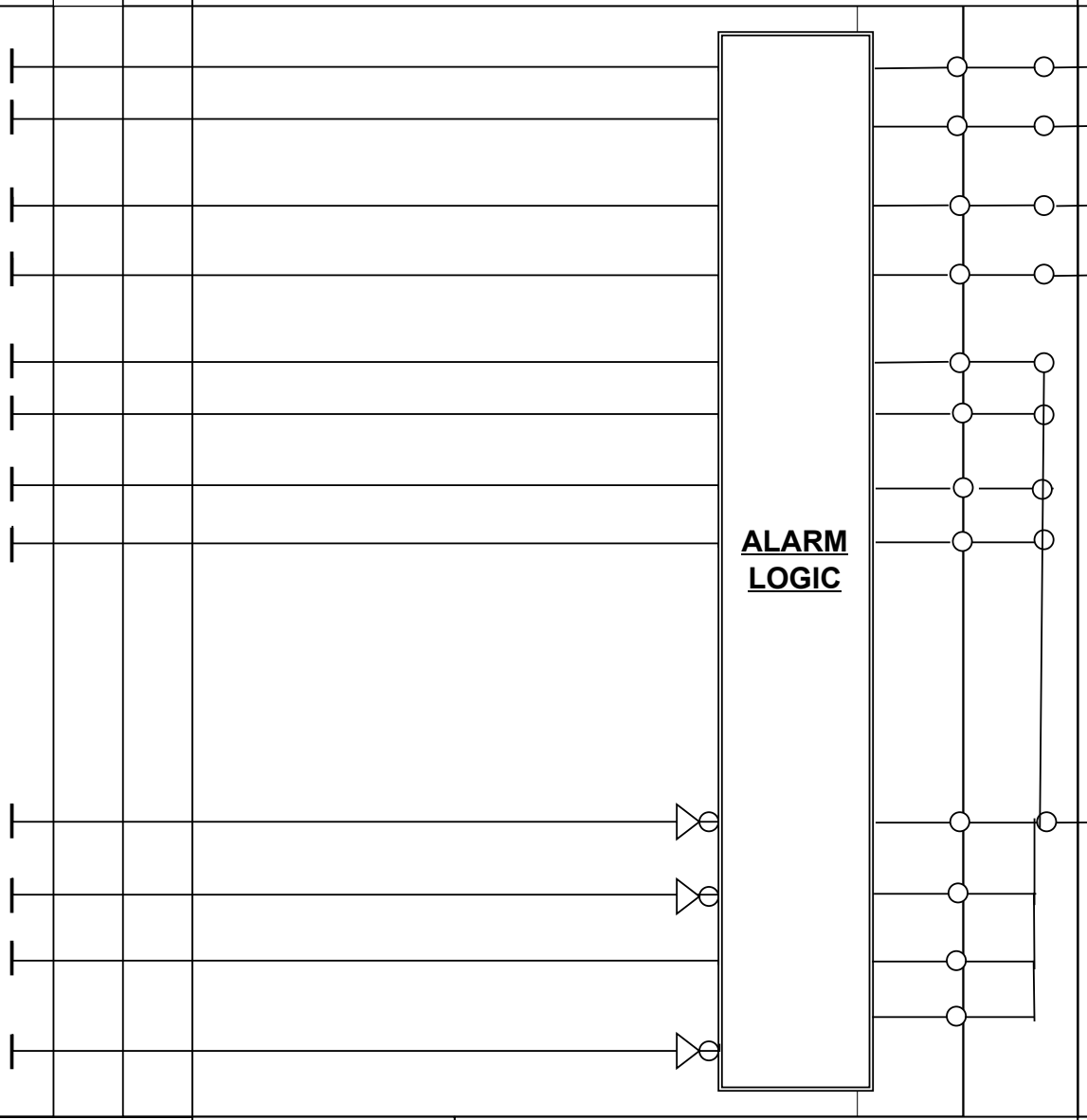
INPUTS					PLC SEQUENCE MODE	OUTPUTS				
DESCRIPTION	FIELD	LCP	SIS	PCS		PCS	LCP	FIELD	SIS	DESCRIPTION
63-XS-001 SHUT-DOWN COMMAND FROM SIS (0= Fault) (NOT DIRECTLY CONNECTED TO PLC)					NOTE: THIS LOGIC "OR" IS NOT INSIDE THE PLC BUT IS MADE BY A SIL SAFETY RELAY.					SHUTDOWN ALARM FROM SIS 63-ESD-01 (0=FAULT) (CONNECTED TO PLC)
63-SBM-001 LCB-EMERGENCY PUHSBUTTON 0=EMERGENCY 1=NO ACT (NOT DIRECTLY CONNECTED TO PLC)										CUMULATIVE CRITICAL ALARM TO SIS 63-XA-003 (0=FAULT) (CONNECTED TO PLC)
STOP SIGNAL FROM 63-STOP-PLANT-CMD 0=STOP 1=NO ACT					3.4 AUTO-SEQUENCE-STARTED					
63 -HS-002 LCP STOP PUSHBUTTON 0=STOP; 1=NO_ACT					AUTO-SEQUENCE-STOPPING 3.5					
SHUTDOWN ALARM FROM SIS 63-ESD-01 (0=FAULT) (CONNECTED TO PLC)										
AT LEAST 1 ALARM PRESENT IN THE SYSTEM 0 = OK; 1 = ALARM										63-XA-001 LCP GENERAL ALARM LAMP
AT LEAST 1 ALARM PRESENT IN THE SYSTEM THAT CAUSE THE SWITCHING BETWEEN 2 PACKAGES 0 = OK; 1 = ALARM										

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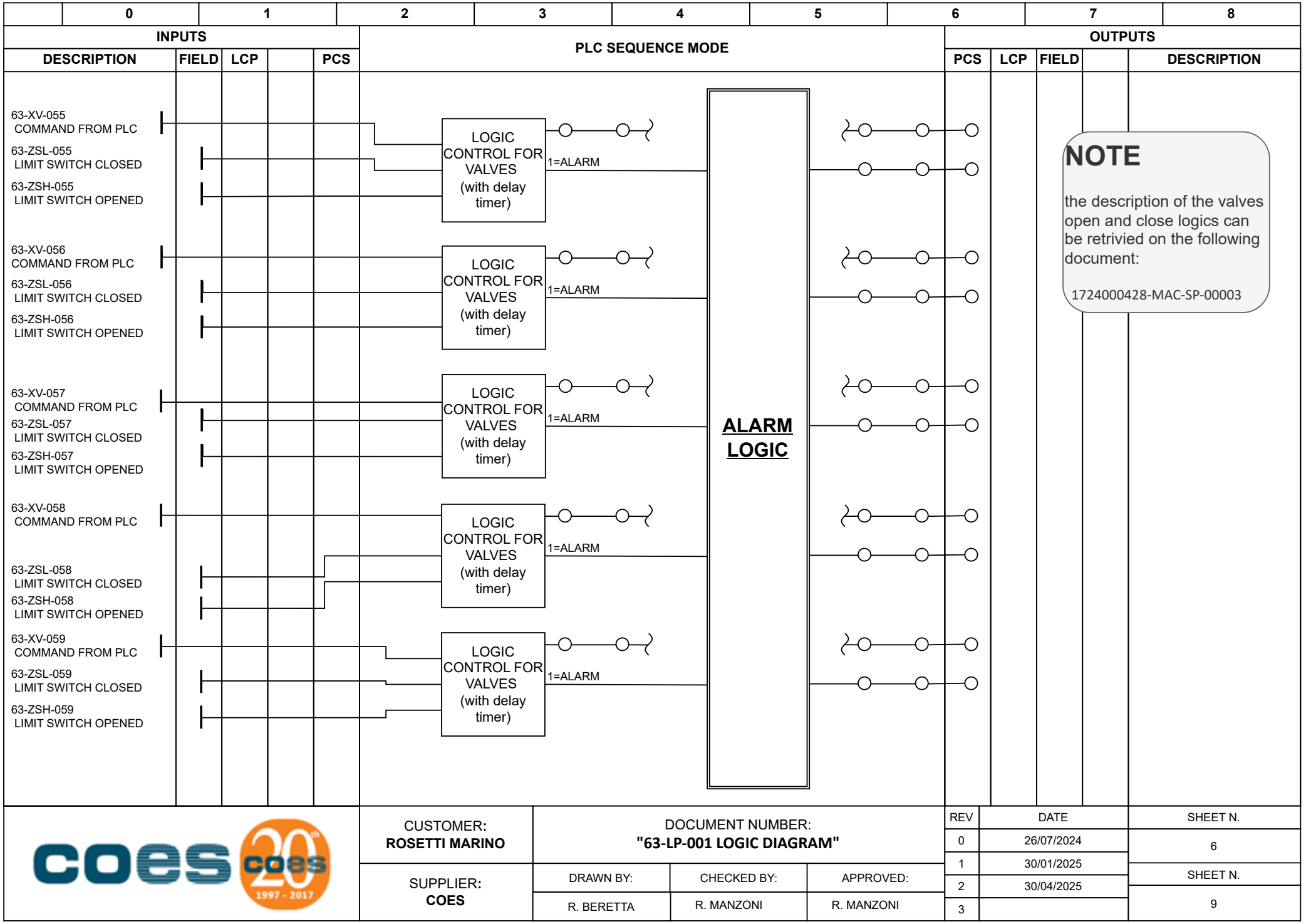
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	FIELD	LCP		PCS	PLC SEQUENCE MODE	OUTPUTS PCS	LCP	FIELD		DESCRIPTION
63-PS-054 (DRYER 1) TOWER A PRESSURE SWITCH										63-ALARM-DRY-001 DRYER 1 ALARM
63-PS-056 (DRYER 1) TOWER B PRESSURE SWITCH										63-ALARM-DRY-001 DRYER 1 ALARM
63-PS-058 (DRYER 1) TOWER A PRESSURE SWITCH										63-ALARM-DRY-002 DRYER 2 ALARM
63-PS-060 (DRYER 1) TOWER A PRESSURE SWITCH										63-ALARM-DRY-002 DRYER 2 ALARM
63-CMPR-ALARM-FDBCK-001 COMPRESSOR 1 COMMON ALARM										
63-CMPR-ALARM-FDBCK-002 COMPRESSOR 2 COMMON ALARM										
63-20FS-12 SOURGE ARRESTER 230VAC_SERVICES OK										63-XA-001 LCP GENERAL ALARM LAMP
63-21FS-12 SOURGE ARRSTER 230VAC_UPS OK										
63-TH-001 INTERNAL CABINET THERMOSTAT										
SHUTDOWN ALARM FROM SIS 63-ESD-01 (0=FAULT) (CONNECTED TO PLC)										



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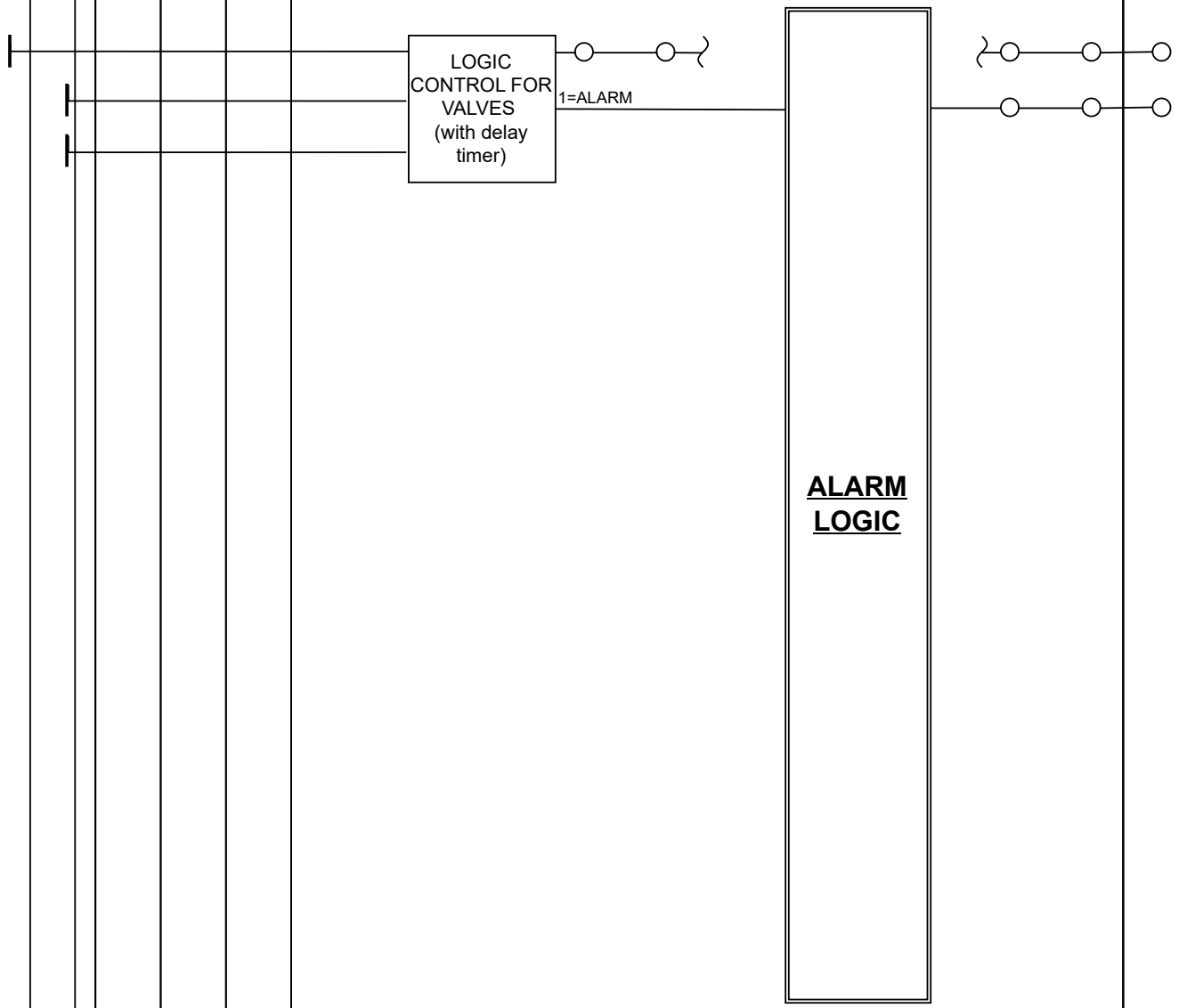
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INPUTS

DESCRIPTION	FIELD	LCP		PCS
63-XV-060 COMMAND FROM PLC				
63-ZSL-060 LIMIT SWITCH CLOSED				
63-ZSH-060 LIMIT SWITCH OPENED				

PLC SEQUENCE MODE



OUTPUTS

PCS	LCP	FIELD		DESCRIPTION

NOTE

the description of the valves open and close logics can be retrivied on the following document:

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INPUTS					PLC SEQUENCE MODE	OUTPUTS				
DESCRIPTION	FIELD	LCP		PCS		PCS	LCP	FIELD		DESCRIPTION
63-PT-064 PRESSURE TRANSMITTER INSTRUMENT AIR RECEIVER					Threshold L 63-PT-064-L ≤ 1=ALARM					63-PT-064 PRESSURE TRANSMITTER INSTRUMENT AIR RECEIVER VALUE 63-PT-064 ALARM L SIGNAL
63-TIT-051 TEMPERATURE TRANSMITTER INLET AIR					Threshold H 63-TIT-051-H ≥ 1=ALARM					63-TIT-051 TEMPERATURE INLET AIR VALUE 63-TIT-051 ALARM H SIGNAL
63-TIT-052 TEMPERATURE TRANSMITTER INSTRUMENT AIR RECEIVER					**ALARM LOGIC**					63-TIT-052 TEMPERATURE TRANSMITTER INSTRUMENT AIR RECEIVER VALUE
63-AIT-051 DEW POINT TRANSMITTER					Threshold H 63-AIT-051-H ≥ 1=ALARM					63-AIT-051 DEW POINT TRASMITTER VALUE 63-AIT-051 ALARM H SIGNAL

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INPUTS					PLC SEQUENCE MODE	OUTPUTS				
DESCRIPTION	FIELD	LCP		PCS		PCS	LCP	FIELD		DESCRIPTION
63-FIT-051 FLOW TRANSMITTER OUTLET AIR										63-FIT-051 FLOW TRANSMITTER OUTLET AIR VALUE
63-PDIT-051 DIFFERENTIAL PRESSURE TRANSMITTER INLET FILTERS					Threshold H 63-PDIT-051-H; ≥; 1=ALARM					63-PDIT-051 DIFFERENTIAL PRESSURE TRANSMITTER INLET FILTERS VALUE; 63-PDIT-051 ALARM H SIGNAL
63-PDIT-062 DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS					Threshold H 63-PDIT-062-H; ≥; 1=ALARM					63-PDIT-062 DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS VALUE; 63-PDIT-062 ALARM H SIGNAL
					ALARM LOGIC					

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