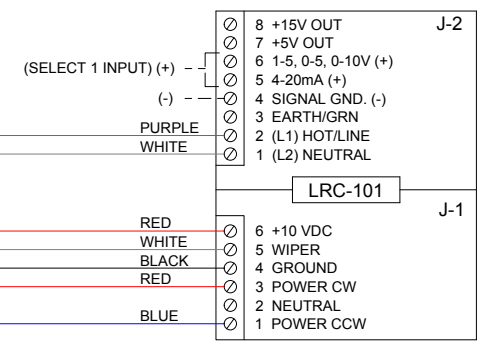


	CLOSE	OPEN
CLS 1-2	_____	_____
CLS 1-3	_____	_____
OLS 1-2	_____	_____
OLS 1-3	_____	_____
ACLS 1-2	_____	_____
ACLS 1-3	_____	_____
AOLS 1-2	_____	_____
AOLS 1-3	_____	_____
CTS 1-3	CLOSING TORQUE SWITCH INTERRUPTS CONTROLS IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE	
OTS 1-3	OPENING TORQUE SWITCH INTERRUPTS CONTROLS IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE	

CLS: CLOSE LIMIT SWITCH (250VAC, 6A MAX)  
 OLS: OPEN LIMIT SWITCH (250VAC, 6A MAX)  
 CTS: CLOSE TORQUE SWITCH (250VAC, 6A MAX)  
 OTS: OPEN TORQUE SWITCH (250VAC, 6A MAX)  
 ACLS: AUX. CLOSE LIMIT SWITCH (250VAC, 6A MAX)  
 AOLS: AUX. OPEN LIMIT SWITCH (250VAC, 6A MAX)  
 TP: THERMAL PROTECTOR (250VAC, 6A MAX)



**NOTES:**  
 WHEN CONVERTING A DIRECT ACTING ACTUATOR TO A REVERSE ACTING ACTUATOR, TWO CHANGES IN WIRING MUST BE MADE ON SERVO BOARD:

- 1- REVERSE THE RED AND BLACK POTENTIOMETER WIRES CONNECTED ON THE SERVO BOARD.
- 2- REVERSE THE BLUE AND RED MOTOR OUTPUT WIRES CONNECTED ON THE SERVO BOARD.

NOTE: DO NOT REVERSE THE INPUT SIGNAL POLARITY. ALSO, MAKE SURE THAT BOTH WIRING CHANGES ARE MADE - IF ONLY ONE IS MADE, THE ACTUATOR WILL RUN TO EITHER FULL OPEN OR FULL CLOSE.

AFTER THE WIRING CHANGES HAVE BEEN MADE, REFER TO CALIBRATION FOR SETTING THE ZERO AND SPAN.

----- DENOTES CUSTOMER SUPPLIED ITEM  
 ACTUATOR SHOWN IN MID POSITION. INCREASING SIGNAL ROTATES COUNTER CLOCKWISE. FOR REVERSE ACTING (SEE NOTES).

**FORUM ENERGY TECHNOLOGIES** Valve Solutions  
**ABZ Valves & Controls**

Title: **Wiring Diagram**

Parts:  
 ABZ 015 thru ABZ 100 Electric Actuator  
 120 VAC Single Phase (Modulating Service)  
 LRC-101 Servo Board  
 Auxiliary Limit Switches  
 Local Control Unit

DWG No.	Date	Drawn	Checked	Approved	Revision
WSA000-A2F-A1-B-X	09-13-12	BC	TP	TH	0