

**Electric Actuator Specification  
FOR  
Northern Palm Beach County Improvement District**

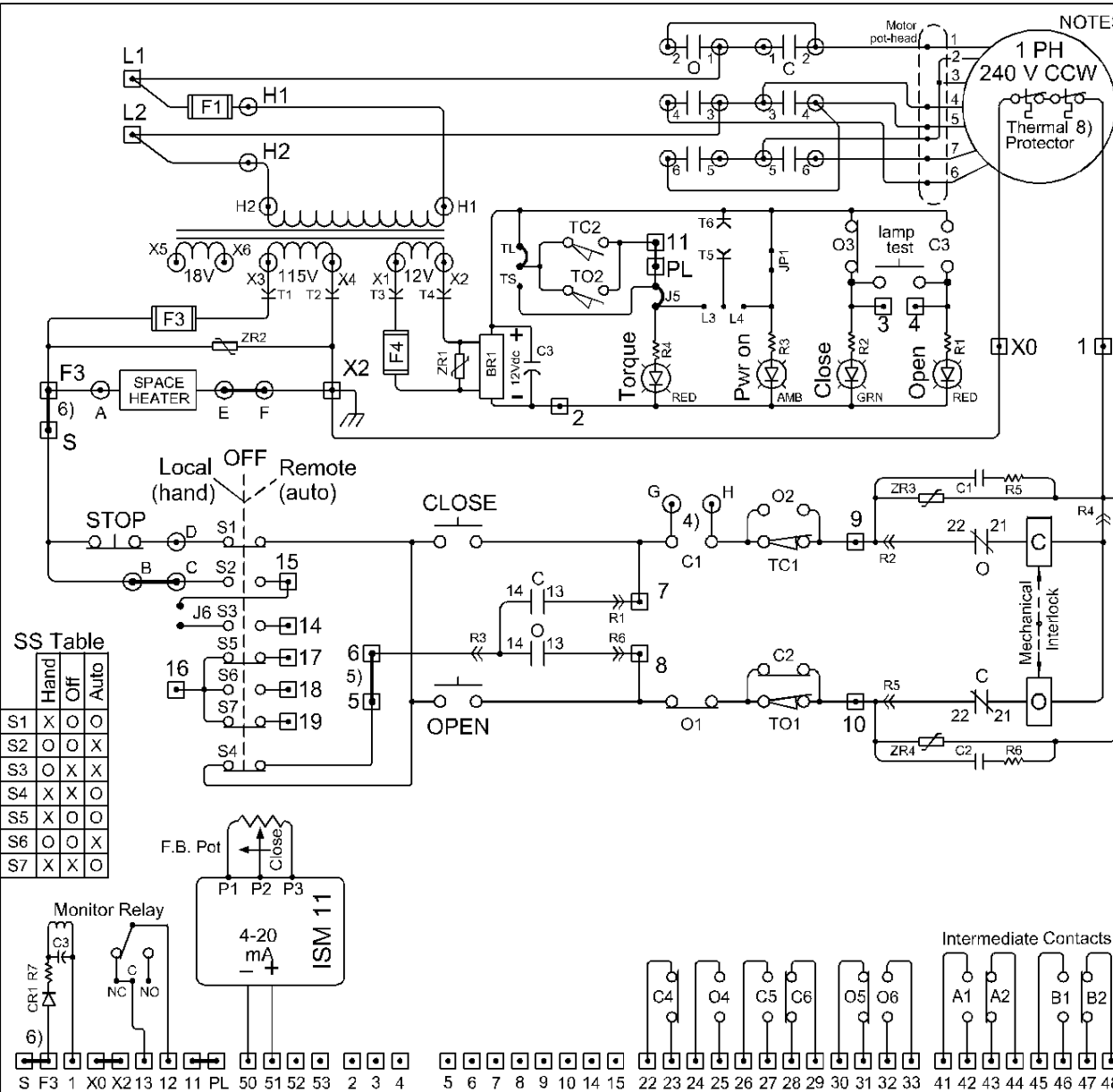
The actuator shall be EIM model **2FLG-8** for 24 RPM applications or model **2FRG-8** for 48 RPM applications where the gate stem size, torque and thrust requirements are within the ratings of the identified actuators. The Gate stem shall support a clockwise to close output from the actuator. Alternate actuator models will require engineering approval. The desired operation speed of the gate shall be 12 inches per minute. In no case shall the actuator motor be smaller than 1 HP. In addition the actuator shall include the following mechanical and control options:

- 2" square AWWA handwheel drive nut.
- EIM "RINO" coating system for entire actuator.
- Actuator drive sleeve and handwheel shall rotate Clockwise to Close.
- Integral reversing starter and control transformer.
- 4-20mA output signal for reporting of valve position, A Mechanical Dial Position Window Shall "**NOT**" be provided.
- 4 train 4 gear, geared limit switch base
- Open and close torque switch.
- Monitor relay (control power and motor thermals)
- Control compartment heater.

**Control elements listed below shall be contained inside the actuator cover with no lenses, buttons, knobs on the cover.**

- 3 push buttons (open – stop – close)
- The stop button shall be active in both local and remote modes.
- 4 lights ( open – close- power on- over torque)
  - Local / Off / Remote switch.

EIM Wiring Diagram: NPB1



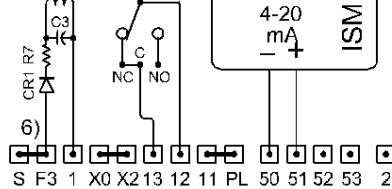
- NOTES: 1) Contacts shown: **Valve Closed**, Voltage: **Off**, S/S : **Hand**
- 2) Customer wires to terminals on PWR and TBM modules.  
 M2CP Internal terminal interconnect wiring points.  
 --- Field Connected Wiring by **OTHERS**.
- 3) Torque switch TC1 & TO1 NC contacts open, and TC2 & TO2 contacts make on field adjustable mechanical overload in (C) Close, or (O) in Open direction.
- 4) For Torque seated valve: Install G to H strap on LSM.
- 5) For maintained PB control: remove 5 to 6 strap on TBM.
- 6) For remote stop PB or relay: remove F3 to S strap on TBM.
- 7) O & C (22-21) Reversing contactor NC interlock contacts.  
 O & C (14-13) Momentary pushbutton NO seal-in contacts.
- 8) Motor thermal contacts open with excessive temperature.
- 9) Position Indicator Pilot Lights: LED solid-state  
 OPEN indicates: Full Open ( RED )  
 CLOSE indicates: Full Closed ( GREEN )  
 Mid-Position : Both OPEN and CLOSE illuminated.  
 Pwr ON and Torque Indicators are only visible with cover open for convenience during maintenance procedures .

SS Table

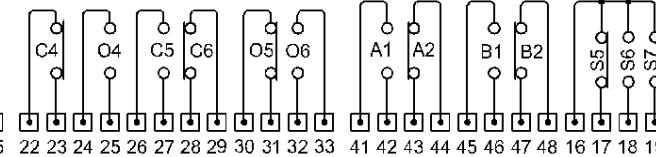
	Hand	Off	Auto
S1	X	O	O
S2	O	O	X
S3	O	X	X
S4	X	X	O
S5	X	O	O
S6	O	O	X
S7	X	X	O

	Valve Position			Contact Function	
	Close	MID	Open		
CLOSE rotor	C1	O	X	X	Close coil
	C2	X	O	O	Bypass TO1
	C3	O	X	X	Open lamp
	C4	X	O	O	
	C5	O	X	X	
OPEN rotor	O1	X	X	O	Open coil
	O2	O	O	X	Bypass TC1
	O3	X	X	O	Close lamp
	O4	O	O	X	
	O5	X	X	O	
	O6	O	O	X	
A	A1	O	X		Spare
	A2	X	O		Spare
B	B1	O	X		Spare
	B2	X	O		Spare

Monitor Relay



Intermediate Contacts Selector



LSM	TBM	RCT	MTR	ISM
01	02	02	11	11

EIM COMPANY, INC.  
 13840 PIKE ROAD  
 CONTROLS MISSOURI CITY, TEXAS

DESIGNED BY: BJ ORIGINAL DATE: 11-12-02

WIRING DIAGRAM NPB1