Npro NIPPON VALVE CONTROLS,INC.

AE3 type Electric Actuator Specifications

FEATURE

The high performance electric actuator developed for filtration
machines the 5 way ball valve.
It drives into the position of each process by the change
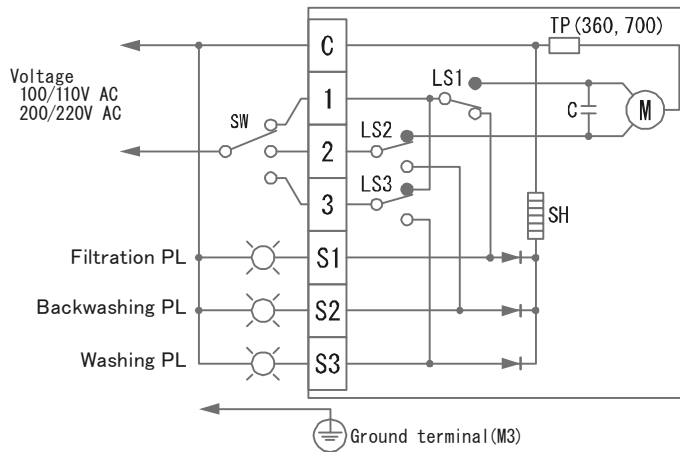incoming signal of three processes of filtration, reverse flow,
and cleaning.
As for operation, raw water does not flow to a direct processing
water side by positive and the inversion rotation system.
A regulation set up is possible for the Form L and Form R.

SPECIFICATION

Actuator type (□:Voltage code)		AE3-120-□	AE3-360-□	AE3-700-□
Voltage		100 / 110 AC V ±10 % 50/60 Hz (Code: 1) 200 / 220 AC V ±10 % 50/60 Hz (Code: 2)		
Rated torque [N·m]		12	36	70
Operation time [s]	Filtration → Reverse flow	19 / 16 (50/60 Hz)	15 / 12 (50/60 Hz)	30 / 24 (50/60 Hz)
	Reverse flow → Cleaning	14 / 12 (50/60 Hz)	11 / 9 (50/60 Hz)	22 / 18 (50/60 Hz)
	Cleaning → Filtration	5 / 4 (50/60 Hz)	4 / 3 (50/60 Hz)	8 / 6 (50/60 Hz)
Power consumption [VA]		19	60	
Motor		Synchronous motor	Reversible motor	
Overload protection		Thermal protector		
Method of operation		Transfer input type		
Operation		When SW1 is ON, it's Filtration. (Filtration PL is lit.) When SW2 is ON, it's Reverse flow. (Reverse flow PL is lit.) When SW3 is ON, it's Cleaning. (Cleaning PL is lit.)		
Output signal rating		Resistance load 3 A 250 V AC (Minimum 0.1 A)		
Duty cycle		20 % 15 min.		
Ambient temperature		-20 to 55 °C		
Space heater		Built in to the control board		
Manual operation		Manual shaft		
Enclosure		Equivalent to IP65 (IEC 60529)		
Housing material		Aluminum alloy diecast (acrylic resin baking finish)		
Wire connection		Terminal Block: M3, Ground terminal: M3		
Conduct port		2-G1/2 Attachments: Cable gland (for Φ6 to 12 mm cable), plug.		

WIRING

LS1 : Filtration limit switch
LS2 : Reverse flow limit switch
LS3 : Cleaning limit switch
C : Condenser
M : Motor
SH : Space heater
TP : Thermal protector
PL : Pilot lamp

Note) Control switch should be prepared one by one for actuator.
Do not operate two or more actuator from one switch. It might malfunction.

Operation (Top view of valve)

Form: L

Form: R