ASTERO MP

LOGIC CONTROLLER

Automation Philosophy :

The astero logic controller is ideally suited forsmall & medium sized RO plants as it has operating logic of process preprogrammed.The controller can take three inputs from three devices namely

A) For RO

1) Low pressure switch
2) High pressure switch
3) Tank level switch (Floaty)

B) For SOLO

1) Raw water tank floaty
2) Treated water tank floaty
3) Pump contact signal

and controls the output pump (RYB/PN).The advanced electronics also takes care of required motor protection such as overload/singlephaseing(in case of 3 MP).

Operating logic :

A) For RO

Upon switching ON power supply if the level of treated water tank is low flushing will go on for programmed time(setteble by TRIM POT).After the flush time is over the controller will check for low pressure input.If input is ON (short) supply to pump will given.

B) For SOLO

Upon switching ON,controller will check for pump contact signal if it is ON (short) & treated water tank is empty then supply to the pump will given.

Operation :

Starting sequence :

Upon switching ON power supply controller will check for following inputs :

A) For RO :

After the flush time is over the controller will check for low pressure input.If input is ON (short) supply to pump will given.

B) For SOLO :

If pump contact signal is ON (short) & treated water tank is empty then supply to the pump will given.

Stoping sequence :

Under following conditions controller will stop it's working :

A) For RO :

1) If power is OFF.
2) If LPS is OFF (open)
3) If HPS is ON (Short)
4) If treated water tank is full (Short)

B) For SOLO :

1) If power is OFF
2) If pump contact signal is OFF(open)
3) If treated water tank is full (Short)
4) If raw water tank is empty (Short)

Instructions for settings :

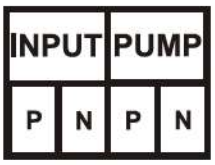
- Use upper knob for setting overload current (1 -10 Amp).
- Use lower knob for setting flushing time (5 -240 sec).

Maximum Recommended HP ratings :

Controller	Astero 1MP	Astero 3MP
Pump	2 hp Single phase	3hpThree phase

Terminal Connections :

Astero 1MP



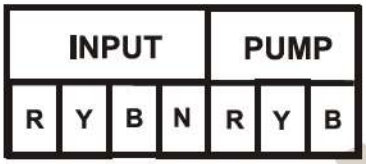
FLUSH		LPS		HPS		FLOATY	
C	NO	C	NO	C	NO	C	NO

RO

P. ON		RWT FLT		P.CONT		TWT FLT	
C	NO	C	NC	C	NC	C	NO

SOLO

Astero 3MP



RWP		FLUSH		LPS		HPS		FLOATY	
C	NO	C	NO	C	NO	C	NO	C	NO

RO

XXX		P. ON		RWT FLT		P.CONT		TWT FLT	
X	X	C	NO	C	NC	C	NC	C	NO

SOLO

Control terminals for Raw Water pump in Astero 3 MP (RO) are added to providethe continuity to RWP/SV throughout the operation.It will cut off only when the system will trip to avoid water inlet to membrane.

Terminal	Description	Connections
*RWP	Raw water pump	C-Common,NO-Normally Open
*Flush	Flushing	C-Common,NO-Normally Open
LPS	Low Pressure Switch	C-Common,NO-Normally Open
HPS	High Pressure Switch	C-Common,NO-Normally Open
*P.ON	Pump ON signal	C-Common,NO-Normally Open
RWT FLT	Raw water tank floaty	C-Common,NO-Normally Closed
P.CONT	Pump Contact Signal	C-Common,NO-Normally Closed
TWT FLT	Treated water tank floaty	C-Common,NO-Normally Open

* Potential free contacts with a max.rating of 1amp @ 230V AC.

TROUBLESHOOTING :

LED ON	CAUSE	ACTION
HPS/LLS	High Pressure/Low Level	------
FLOATY	Treated water tank full	------
O.LOAD	More current than normal rating	Set current accordingly
	Actually motor is drawing more current than normal	Check motor
SP(Single Phasing) {LED blinking}	Current through all three phases is not same.	Check Current in all phases .
LPS {LED blinking}	LPS not connected	Short LPS terminals