

STP-MATIC

LOGIC CONTROLLER



Size: 144(H) X 144(V) X 125(D) mm

Cutout size: 138(H) X 138(V) mm

TECHNICAL SPECIFICATIONS:

1) Size	144(H) X 144(V) X 125(D) mm
2) Cutout size	138(H) X 138(V) mm
3) Display	16 X 2 Alphanumeric backlit LCD
4) Settings	Through front panel keys(3 numbers)
5) Timings	Settable (Password protected)
6) Inputs	Total:08 3 (Potential free) 2 (Pulse input for Flow) 3(Analog Inputs:2 for pH/DO 1 for Conductivity)
7) Outputs	8 (C NO) relay
8) Supply	230 VAC \pm 15%

Automation Philosophy:

Logic Controller is ideally suited for various ETP/STP plants. The process is continuous with most drives having a standby. The key to having a trouble free long-term operation of a well designed plant is

To follow the sequence of starting and stopping,

To automatically switch over to standby pump/blower after a preset time

Give alarm in case of

oConductivity, PH/ORP,DO fault(Optional)

Stop/Start plant based on levels in raw effluent tank.

Level interlock for Transfer pump.

Plant operating status known at any time on a two line alphanumeric display as well as system mimic diagram with LED indicators.

Sludge transfer pump to be ON for a set time periodically.

The Aster Logic controller ensures that all the above process needs are ECONOMICALLY met. Most timings are settable at site. The controller can even be supplied along with a complete panel including the motor starters and instruments/sensors and hooter. Settings are password protected.

Controller has a provision(Optional)for RS 485 output for displaying plant status on remote computer.

TERMINAL CONNECTIONS:

NO.	TERMINAL	DESCRIPTION	CONNECTION
1	MAINS	INPUT SUPPLY	P-Live
2			N-Neutral
3			E-Earth
4	XX	Not applicable	XX
5	TP-2	Filter Feed pump-2	C-Common
6			NO-Normally Open
7	SP	Sludge transfer pump	C-Common
8			NO-Normally Open
9	ALRM	Alarm	C-Common
10			NO-Normally Open
11	BL I/P	Blower Input	NO-Normally Open
12	RMSTP	Remote fault	NO-Normally Open
13	-----	-----	-----
14	COM	Input common	C-Common
15	Flow Sensor2	Flow Sensor 2	R-Red
16			G-Green
17			B-Black
18	ORP INPUT	ORP Input	GND
19			Current I/P
20			5V O/P
21	COND. SENSOR	Conductivity Sensor	R-Red
22			B-Black
23	EP1	Effluent Pump 1	C-Common
24			NO-Normally Open
25	EP2	Effluent Pump 2	C-Common
26			NO-Normally Open
27	BL1	BLOWER-1	C-Common
28			NO-Normally Open
29	BL2	BLOWER-2	C-Common
30			NO-Normally Open
31	TP-1	Filter Feed pump-1	C-Common
32			NO-Normally Open
33	EFT LVL	Effluent tank floaty	NO-Normally Open
34	MBRLVL	MBR tank floaty	NO-Normally Open
35	-----	-----	-----
36	COM	Input common	C-Common
37	Flow Sensor1	Flow Sensor 1	R-Red
38			G-Green
39			B-Black
40	PH Sensor I/P	PH input	GND
41			Current I/P
42			5V O/P
43	Serial Comm	RS 485 O/P(Tx)	+
44			-

HOW TO DO THE SETTINGS:

Upon switching ON power supply display shows-
ASTER

ETPLC V1.0

And then status of plant. Follow the below instructions to set the Required settings.

SECTION 1.1 INPUT CONFIGURATION

Key Pressed	Display
START & STOP simultaneously	PASSWORD:0000
Enter the password 678 using START & STOP keys.	
MENU	CONDUCTIVITY
MENU	CONDUCTIVITY:ON
MENU	FLOW SENSORS
MENU	FLOW SENSORS NO.OF SENSORS:
MENU	FLOW SENSORS NO.OF SENSORS:2
The instrument has facility to connect two flow sensors directly to the terminal. If someone doesn't want to connect flow sensor then he can just make no.of sensors:0 with the help of STOP key.	
MENU	FLOW SENSORS SENSOR RESOL:0.1
MENU	FLOW SENSORS QUIT?
MENU	INST SENSORS:
MENU	INSTSENSORS: NO.OF INPUT:
MENU	INST SENSORS: NO.OF INST:2
What is this facility for? The instrument has a facility to take two analog inputs(4-20mA current)& it can display pH & DO in the line.It also has high & low set point facility for both the channels.If there is no transmitter in the field then one can make No OF INST:0 with the help of STOP key.	
MENU	QUIT?
MENU	EF PMP AUTO :
MENU	EF PMP AUTO : ON TIME : 005
MENU	BLOWER AUTO :
MENU	BLOWER AUTO : ON TIME : 005
MENU	TP AUTO :
MENU	TP AUTO : ON TIME : 005
MENU	DR SERV TIME:
MENU	DR SERV TIME: 010(Previously set value)
What is this 'DR SERV TIME'? This is the service time(in minutes) after which Sludge Transfer pump would start for a set time(DRAINING TIME(in seconds))	
MENU	DRAINING TIME:
MENU	DRAINING TIME: 010(Previously set value)

MENU	EQT LVL IP:
MENU	EQT LVL IP:ON
MENU	BLOWER IP:
MENU	BLOWER IP:ON
MENU	MBR LVL IP:
MENU	MBR LVL IP:ON
MENU	EXIT?
SECTION 1.5 SETTING THE SET POINTS:	
MENU	SCROLL?
MENU	SCROLL? SCROLL? OFF
Use STOP key to make it ON.In that case display will scroll through Status & time of all pumps	
Use STOP key to make it INST/FLOW	
MENU/STOP	PLANT STATUS/VIEW?
MENU	Display scrolls through previous settings
MENU	SETTINGS?
STOP	COND/TDS
MENU	DISP:
MENU	DISP:µsm
Use STOP key to make it ppm	
MENU	EXIT?
MENU	CH1SETPT
MENU	DO
	HIGH SP: (Previously set value).
Use START & STOP key to set required value	
MENU	DO
	LOW SP: (Previously set value).
Use START & STOP key to set required value	
MENU	EXIT?
MENU	CH2SETPT
MENU	PH
	HIGH SP: (Previously set value).
Use START & STOP key to set required value	
MENU	PH
	LOW SP: (Previously set value).
Use START & STOP key to set required value	
MENU	EXIT?
MENU	QUIT?
MENU	

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