

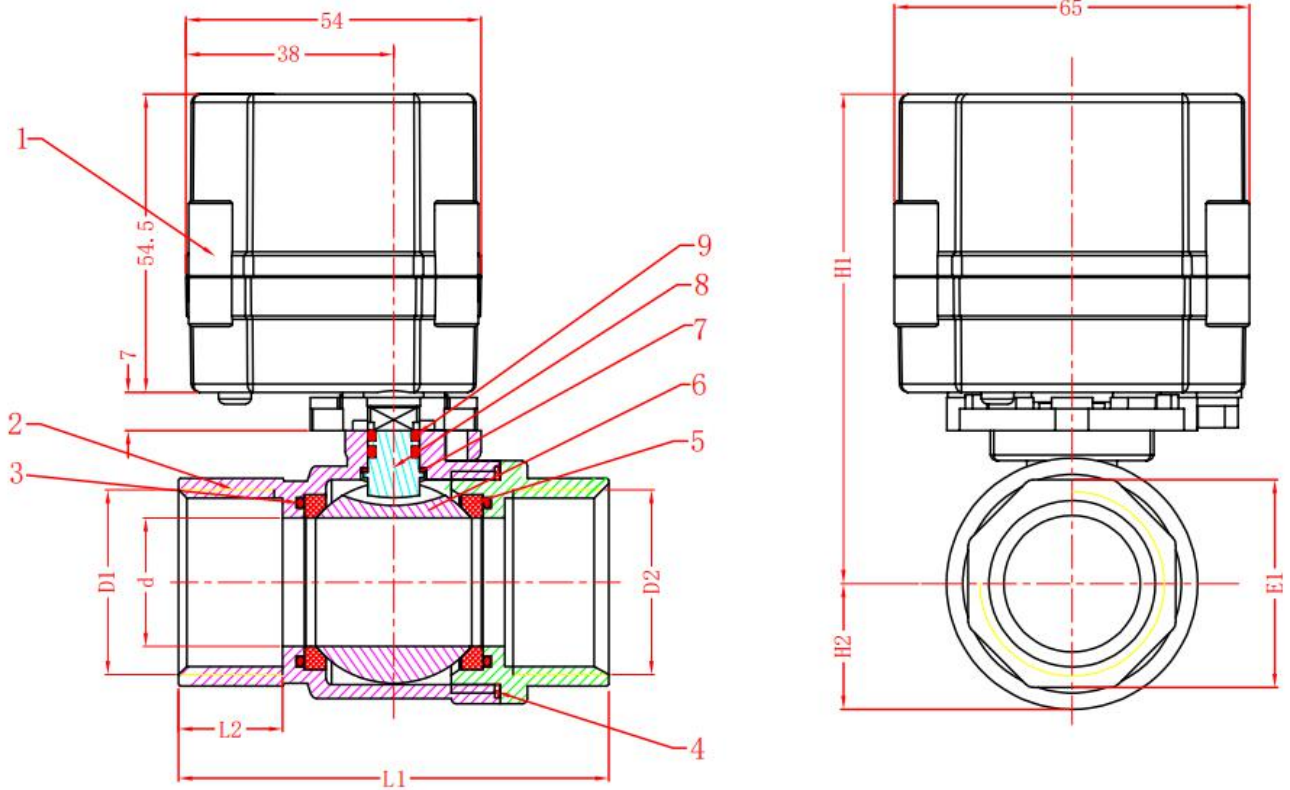
## Tonhe A20 Series TIMER CONTROLLED VALVE



### Technical Parameters:

Product size	<input type="checkbox"/> NPT/BSP 1/4" <input type="checkbox"/> NPT/BSP 3/8" <input type="checkbox"/> NPT/BSP 1/2" <input type="checkbox"/> NPT/BSP 3/4" <input type="checkbox"/> NPT/BSP 1" (Optional)
Maximum working pressure	1.0 MPa
Circulation medium	Fluid, air
Rated voltage	AC/DC9-24V AC110-230V (optional)
Working current	≤500mA
Life time	70000 times
Valve Body material	<input type="checkbox"/> Brass <input type="checkbox"/> 304 Stainless steel (Optional)
Actuator material	Engineering Plastics
Sealing material	EPDM & PTFE
Actuator rotation	90°
Max. torque force	2 N.m
Cable Length	0.5m 1.5m (Optional)
Environment temperature	-15℃~50℃
Liquid temperature	2℃~90℃
Manual override	No
Indicator	Yes
Protection class	IP67

### Technical Parameters:



9	O-ring	FKM		2				
8	Stem	Stainless Steel	304	1				
7	Gasket	PTFE		1				
6	Ball	Stainless Steel	304	1				
5	Sealing	PTFE		2				
4	Sealing	PTFE		1				
3	O-ring	FKM		2				
2	Body Cover	Stainless Steel	304	1				
1	Actuator	PPO		1				
No.	Name	Material	Specification	Quantity				
	25-S2-C-H	1"	25	81	18	38	90	24.5
	20-S2-C-H	3/4"	20	72	17	31	88	20
	15-S2-C-H	1/2"	15	62	14	25	84.5	17
	10-S2-C-H	3/8"	10	51	12	21	82.5	14
	8 -S2-C-H	1/4"	8	51	12	21	82.5	14
	Description	D1/D2	d	L1	L2	E1	H1	H2

**Tonhe Timer Instruction**

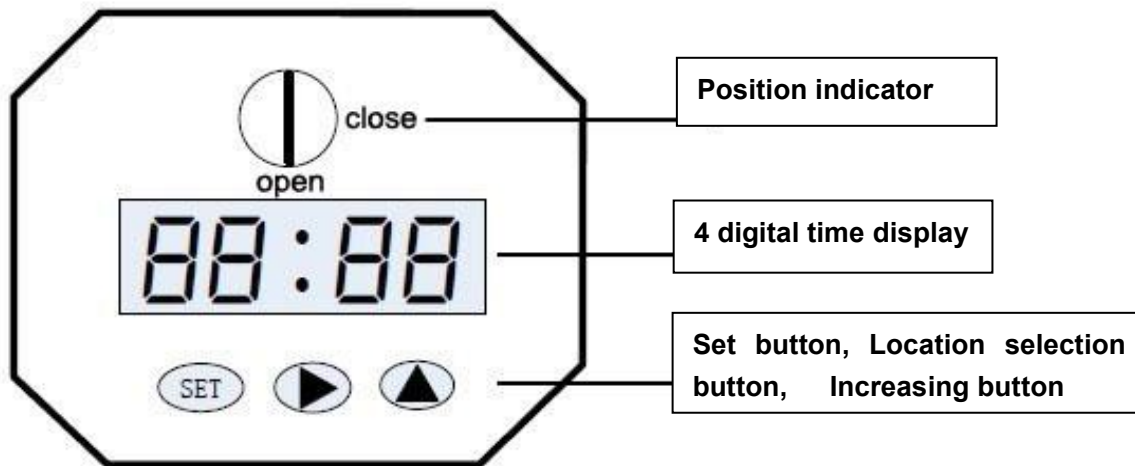
# 1 Parameter specifies

Working voltage :110~230V, 9-24V

The time for keeping valve open :0 H : 0M :0S --99 H 59 M 59 S

The time for keeping valve closed : 0 H : 0M :0S --99 H 59 M 59 S

# 2 Timer specification

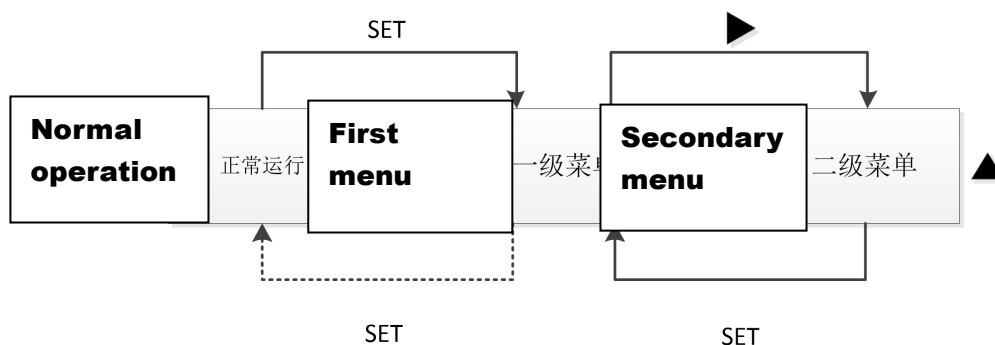


# 3 Operation instruction

Actuator parameter setting have two menu structures on below:

Function code ( fist menu),

The setting parameters of function code ( secondary menu)

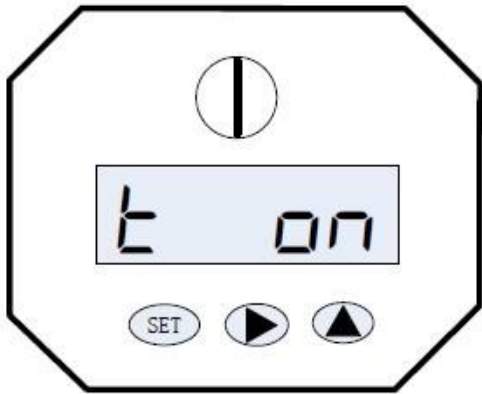


Picture 0 Secondary menu operation menu

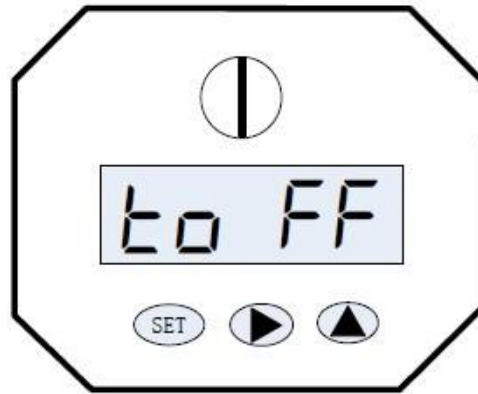
Function code	Content	Value	Unit	Remarks
t on	valve keeping open time	00:00:00 – 99:59:59	H:M:S	
toFF	valve keeping closed time	00:00:00 – 99:59:59	H:M:S	
PonS	Power -on Action	On/off		

Prot	Stall current setting	0-599	MA	When the current is bigger than the setting value 1.6S, the motor will stop working , and the display will show Err.
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**Parameter function control table**




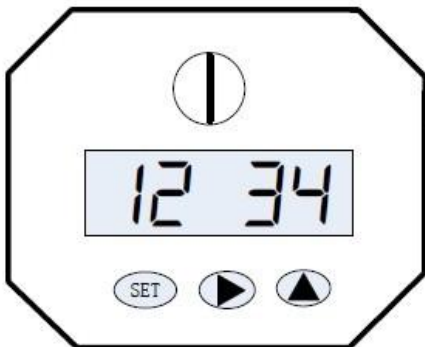
**Picture 1**



**picture 2**

1 Press  2 seconds and enter to fist menu, the screen display picture 1 text ( t on ) , indicating enter to set the valve keeping open state .


Press  again, the screen display picture 2 text ( t o FF ) ,indicating enter to set the valve keeping closed state .






**Picture 3**



**picture 4**

2 Press then the  after entering the stetting state , showing the valve keeping time for setting ( Set the valve keeping open time on the valve keeping open state . Set the valve keeping closed time on the valve keeping closed state.) .

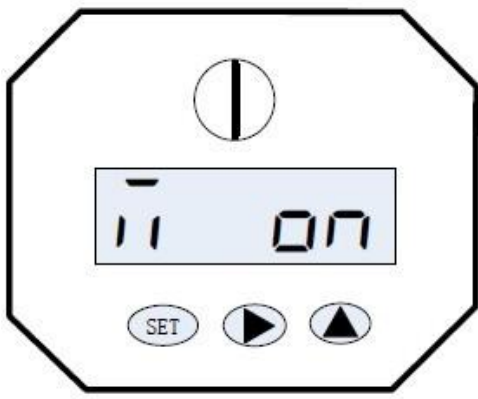
Select flashing bit by pressing  , and change the numerical by pressing  .

When " : " is flashing , indicate setting "HS ( hours ) :MS(minutes)" , and change the flashing fit by pressing  .

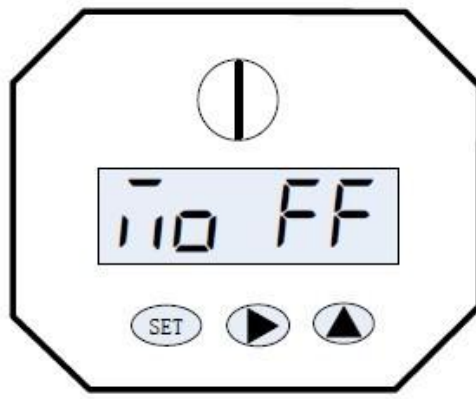
When the " : " is bright , indicate setting " MS(minutes) :SS(seconds) " .

The data will be deposited in the valve controller after completing the setting .



Press  when finish setting , will return fist menu , press  again , enter to next fist menu to set parameters .









Picture 5



picture 6

3 Press the  & , the screen display picture 5, indicating open the valve manually.

Press the  & , the screen display picture 6, indicating closed the valve manually .

Exit manual mode to press the  &  or  &  . And go the power -on action .



Picture 7



picture 8

4 On the normal working state, the displayed time is valve keeping time.(e.g. Valve keeping open time is 10 S, will count down 10S)

The " : " is flashing , indicating the "HS ( hours) : MS(minutes)" .

The " : " is bright, indicating the " MS(minutes) : SS(seconds) " .

#### 4 Stalling protection function

When the actuator is detected stalling, it will run in reverse direction .when reach to the open or closed position , and do the close or open action again , meanwhile displaying flashed **0000-0001** on screen ( indicating the current retrying times ) . If it fail at third retrying , the valve will stop running and display ERR1 on the screen .