

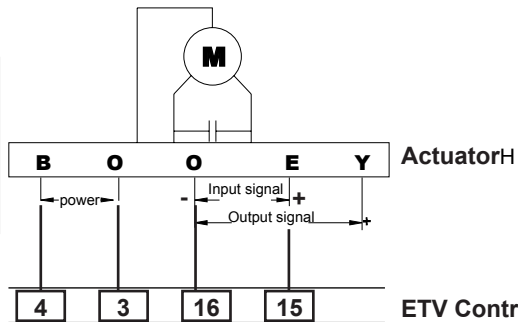


with manual device
TR500-X24-S.12-S

Rating force	500N	Input signal	0(2)~10VDC, 0(4)~20mA
Actual force	500N~600N	Output signal	0(2)~10VDC, 0(4)~20mA
Type of control	proportional	Voltage input impedance	> 100K
Power consumption	7.5VA	Current input impedance	< 0.50K
Motor	Synchronous motor with permanent magnetic	Voltage output load	> 1K
Nominal stroke	25mm	Current output load	< 0.5K
Running speed	1.7 s/ mm (60Hz)	Up and down dead band	≤1.5%
Environmental temperature	-10~50℃ (Operation condition)	Sensitivity	≤1%
Environmental humidity	≤95% RH(40℃) (Operation condition)	Material of bracket	Aluminum die casting (surface anti-rust process)
IP Degree	IP42	Material of cover	ABS engineering plastic
Running mode	Up/ down straight travel	Net weight of product	1.4 Kg

Wiring

⚠ WARNING
CALIBRATION MUST BE PERFORMED BEFORE valve operation. Otherwise, actuator life may be reduced.



Calibration

After assembling TR500-X...actuator with TL..., TW... or TF... valve body, connect AC 24V power supply. Then press down "CALIBRATION" button on PCB for over 3 seconds until the running light flickers:

- Calibration starts
- The actuator moving to 1 (actuator stems retracts until up limit position), running light flickering
- The actuator moving to 0 (actuator stems extends until down limit position), running light flickering
- written the result in CPU, calibration is finished (total process need approx.180 seconds)

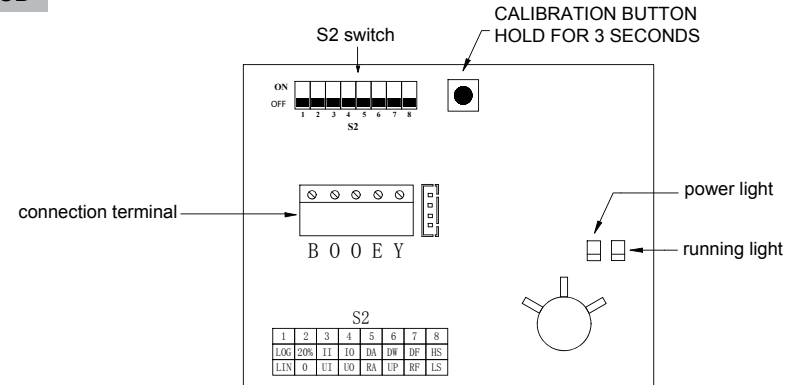
After Calibration:

- Running light show Green when actuator stem extends.
- Running light show Red when actuator stem retracts.

Remarks:

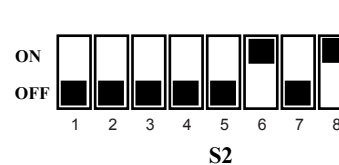
1. When in calibration, actuator can not be controlled by input signal.
2. Each time the type of input signal / output signal be changed, and valve body is replaced, repeat calibration steps.

PCB



S2 Switch	Function	Description	
1	Flow character	ON	LOG: equal-percentage
		OFF	LIN: equal-linear
2	Starting of input/output signal	ON	20%:the starting input / output signal is 20% (namely 4~20mA or 2~10V)
		OFF	0:the starting input / output signal is 0 (namely 0~20mA or 0~10V)
3	Type of input signal	ON	II: input current signal
		OFF	UI: input voltage signal
4	Type of output signal	ON	IO: Output current signal
		OFF	UO: Output voltage signal
5	Operating mode	ON	DA:DA mode (when input signal is increasing, the actuator stem extends)
		OFF	RA: RA mode (when input signal is increasing, the actuator stem retracts)
6	Losing input signal mode	ON	DW: When lose input signal (voltage type), the minimum control signal When lose input signal (current type), the minimum control signal
		OFF	UP: When lose input signal (voltage type), the maximum control signal When lose input signal (current type), the minimum control signal
7	Output signal mode	ON	DF: when the actuator stem retracts to limit position,output signal will be minimum value when the actuator stem extends to limit position, output signal will be maximum value
		OFF	RF: when the actuator stem extends to limit position, output signal will be minimum value when the actuator stem retract to limit position, output signal will be maximum value
8	Sensitivity	ON	HS: the high sensitivity of input signal ≤1%
		OFF	LS: the low sensitivity of input signal ≤1.5%

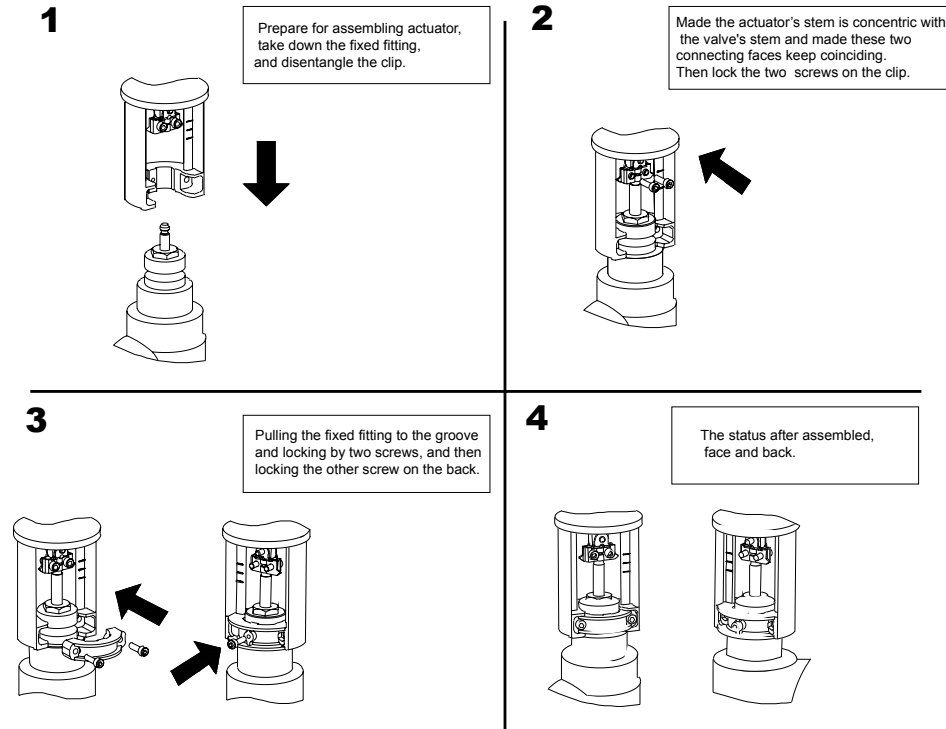
Heat-Timer Settings



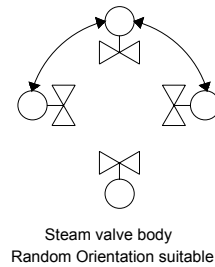
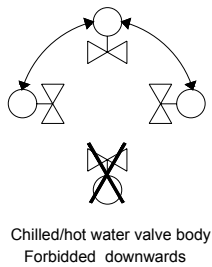
- DIP 1 = OFF
- DIP 2 = OFF
- DIP 3 = OFF
- DIP 4 = OFF
- DIP 5 = OFF
- DIP 6 = ON
- DIP 7 = OFF
- DIP 8 = ON

- Flow: Linear
- Start Signal: 0 (0-10V)
- Input Signal: Voltage
- Output Signal: Voltage
- Direction: Stem retracts/Up on signal Increase
- Input Signal Loss Position: Stem extends/Down
- Output Signal: Minimum Signal when Stem extends/Down
- Sensitivity ≤ 1%

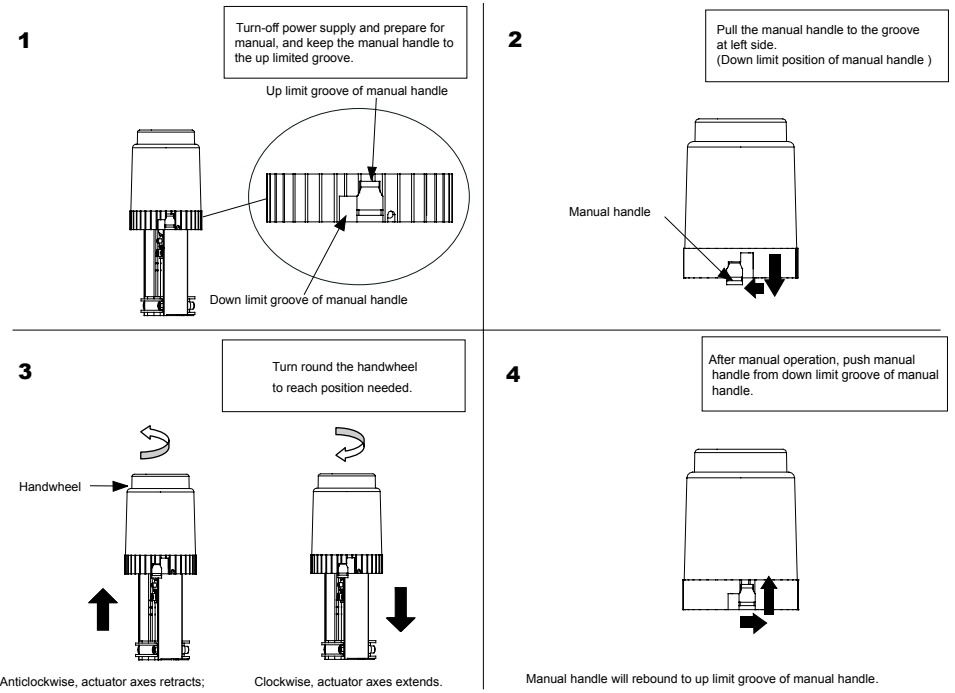
Installation



Mounting Orientation



Manual device operation



Dimensions

⚠ WARNING
CALIBRATION MUST BE PERFORMED BEFORE valve operation.
Otherwise, actuator life may be reduced.

