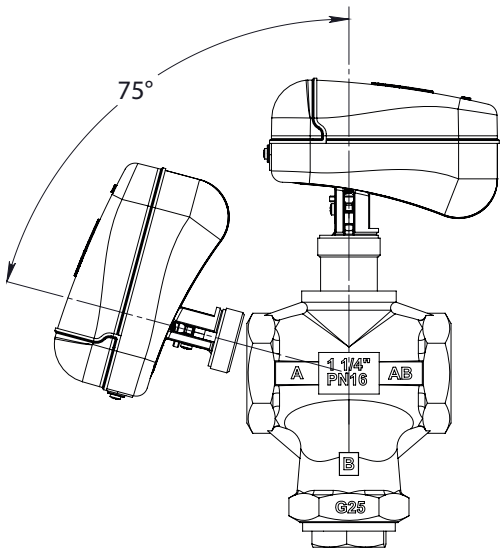
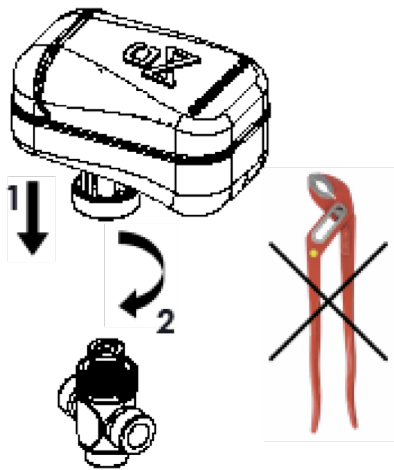
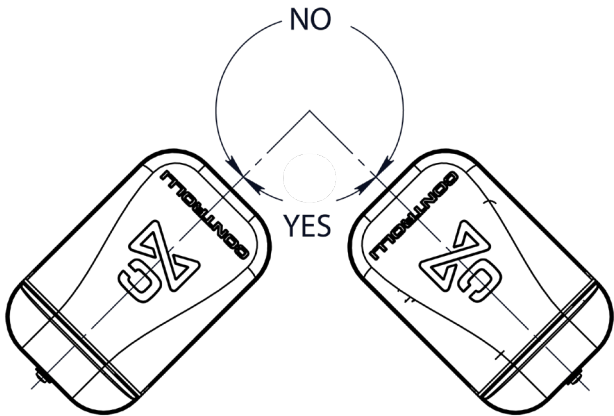


Actuator with Electronic Emergency Return

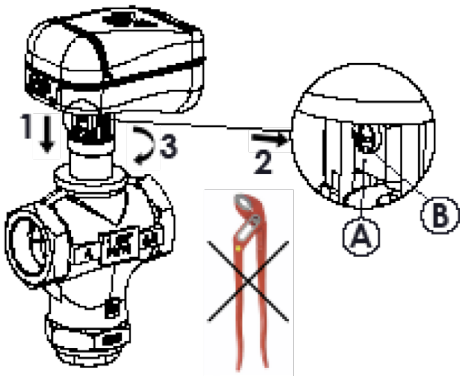
INSTALLATION



Do not use the actuator if not coupled with the valve.



Libra, V.XT, VSXT.PBP, VSBT.-VMBT.
Set the actuator spindle in the retract position.



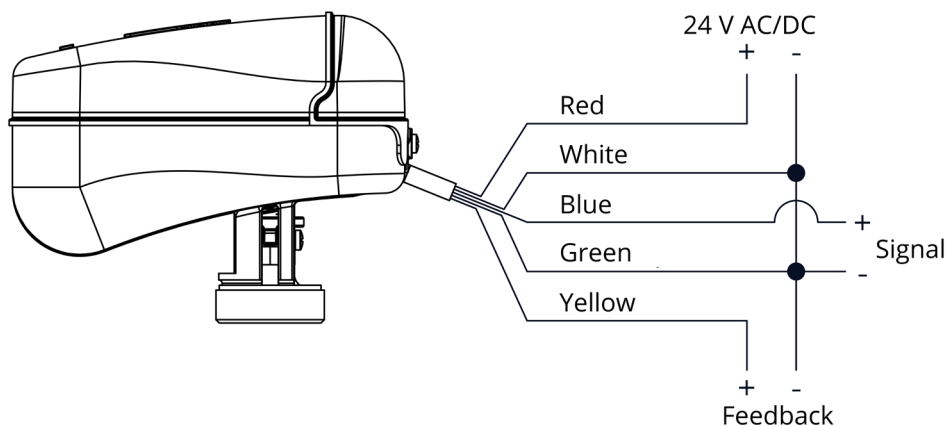
VSB.T-VMB.T, 2-3TGB.B, 2-3TBB.T, 2TGA.BT
Align actuator spindle slot with the hole in locknut (A) , secure with bolt (B) through non threaded hole in locknut (A).

WARNING In case of MVC coupling on a valve produced before September 2019 to replace an MVT, must be used the 55061 kit.

VALVE (Production Previous September 2019)	ACTUATOR To Be Replaced	Replacement KIT
VSB.T-VMB.T	MVT203 MVT403 MVT503	55061
2-3TBB.T		
2-3TGB.B		

The performances stated in this sheet can be modified without any prior notice.

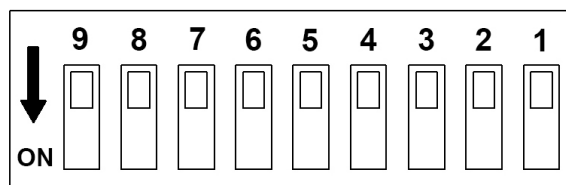
WIRING DIAGRAM



DIP SWITCHES SELECTION

The actuator is supplied prearranged for 0-10 V control signal, direct action and fully extended return position (DOWN); to modify this setting, follow these instructions:

1. Remove the cover and the connector (look at the following picture).
2. Change the DIP switches as indicated in the following scheme.
3. The new settings will be active on the next power off/on cycle.



DIP	ON	OFF
1	Reverse action	Direct action
2	2-10 V / 6-10 V	0-10 V / 0-5 V
3	Range SEQ	Range NORM
4	Fixed stroke	Auto calibrated stroke
5	4-20 mA	DC Voltage range
6	Calibration/Fixed stroke	Fixed stroke
7	Emergency position UP	Emergency position DOWN
8	Fixed stroke selection	Fixed stroke selection
9	Fixed stroke selection	Fixed stroke selection

The actuator can be coupled with push/pull iSMA CONTROLLI valves using auto calibration stroke; or to iSMA CONTROLLI valves with spring return using fixed stroke. Actuators with fixed stroke (DIP 4 ON) have only reverse action.

MODEL	VALVES WITHOUT SPRING					VALVES WITH SPRING			
	VSB.T-VM-B.T 3/4" .. 2" STROKE 5,5 mm	2-3TGB.B 1/2" STROKE 11,5 mm	2-3TBB.T 1/2" .. 2" STROKE 12 mm	2TGA.BT 3/4" .. 2" STROKE 8,5 mm	VALVES OF OTHER MANU- FACTU- RERS STROKE max 12 mm	vlx-Vlx.P 3/4" .. 1 1/4" STROKE 4 mm	vsxt-vmxt- vtxt 1/2" .. 3/4" STROKE 5,5 mm	vsxt.pbp 1 1/2" STROKE 5,5 mm	vsbt.-vmbt. 3/4" .. 2" STROKE 8,5 mm
MVC503R	●	● Ag74-03	●	●	●	●	● Ag74-03	●	●

Calibration (Valid Only With DIP 4 OFF)

This function helps to calibrate the maximum valve time stroke, so that the actuator can place the valve correctly following the control signal.

If the actuator is powered on, this action can be repeated any time DIP 6 goes from OFF to ON and DIP 4 is OFF.

Fixed Stroke Setting

Through DIP 4 you can choose (on the basis of the coupled valve) if the stroke must be fixed or automatically calibrated. In case of fixed stroke (DIP 4 ON) the learning function (DIP 6) change its meaning: DIP 8 and 9 will be used to choose the fixed stroke value (look at the table).

DIP 6	DIP 8	DIP 9	VALVE STROKE [mm]
OFF	OFF	OFF	2,5
OFF	OFF	ON	3
OFF	ON	OFF	3,5
OFF	ON	ON	4
ON	OFF	OFF	4,5
ON	OFF	ON	5
ON	ON	OFF	5,5
ON	ON	ON	6,5

Direct/Reverse Action

Through DIP1 is possible to set direct or reverse action. In direct action without control signal the actuator is fully retracted with feedback set to 2 V. With reverse action the actuator is fully extended and the feedback without control signal is 2 V in this position.

Setting Control Signal Fields

Through DIP 2, 3 and 5 it is possible to set 5 different input ranges.

If DIP 5 is ON, the input range is set at 4-20 mA and DIP 2 and 3 have no meaning.

If DIP 5 is OFF, the possible ranges are: 0-10/2-10 if DIP 3 is OFF and 0-5/6-10 if DIP 3 is ON.

Initial Positioning

It is executed every time the actuator is powered and before to have performed the learning of the race. This operation allows the servocontrol to start from a certain position for then follow the command signal. This position depends on the selection made on DIP 1 (DIP 4 in OFF).

Unexpected Stall Condition

If an unexpected stop during the stroke occurs, this function has the aim to make it disappear. The actuator will be driven in the opposite direction and then it will try again to reach the position. 3 attempts will be performed.

If it was not unlocked after the first 3 attempts, after a 1 minute pause, 3 more attempts are made.

Feedback Output Signal (2-10 V)

The actuator is equipped with a proper output to transmit the feedback signal relating to the supposed actuator position. This signal can vary from 2 to 10 V.

During the "automatic stroke calibration" and "Initial positioning" function it is set at 2 V.

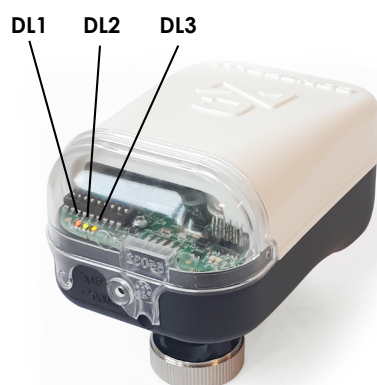
During the emergency positioning function the feedback signal is set to 1 V.

Manual Control

To operate the manual control, remove the power supply, remove the transparent cover and insert a 3 mm hexagonal key into the front hole and turn the key until the desired position is reached.

LEDs BEHAVIOR

Description	DL1 (Red)	DL2 (Green)	DL3 (Yellow)
Calibration	Alternate blinking 5 Hz		ON
Initial positioning	Alternate blinking 1 Hz		ON
Running UP	OFF	Blinking 1 Hz	ON
End of stroke UP	OFF	ON	ON
Running DOWN	Blinking 1 Hz	OFF	ON
End of stroke DOWN	ON	OFF	ON
Holding	OFF	OFF	ON
Unexpected stall	Solid 5 Hz		ON
Low voltage power supply	OFF	OFF	Blinking 1 Hz
High voltage power supply	OFF	OFF	Blinking 5 Hz
Calibrated stroke lower than minimum	Blinking 1 Hz	ON	ON
Calibrated stroke higher than max	ON	Blinking 1 Hz	ON
Extra stroke	Blinking 5 Hz	OFF	ON
Actuator OFF or end of supercap charging	OFF	OFF	OFF
Emergency positioning	Solid 1 Hz		OFF
Supercap charging phase	ON	ON	ON



Manual control hole accessible on removing the transparent lid.