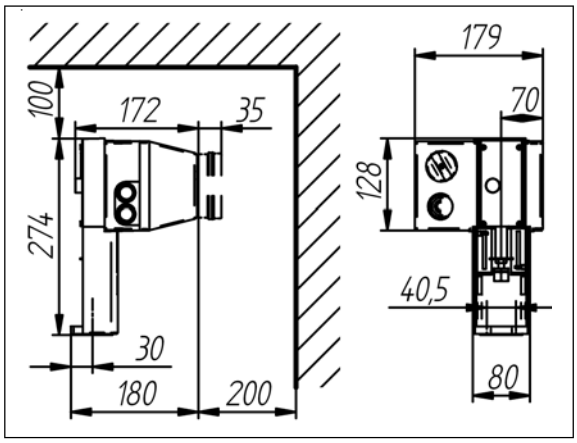
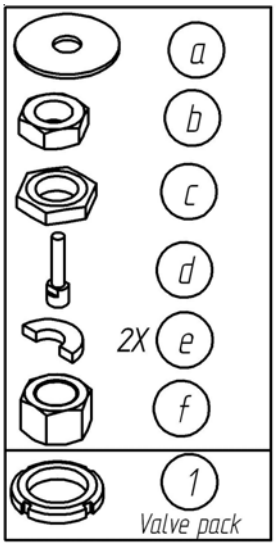
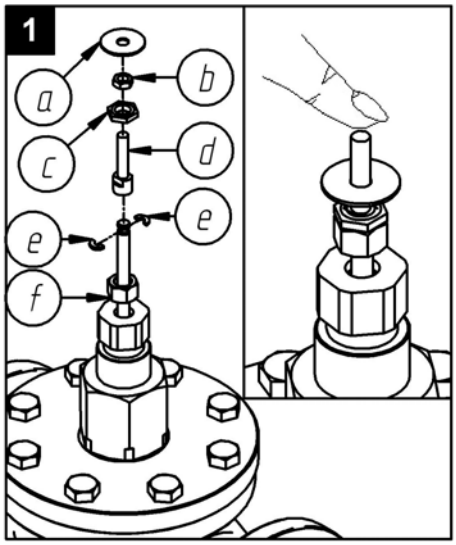
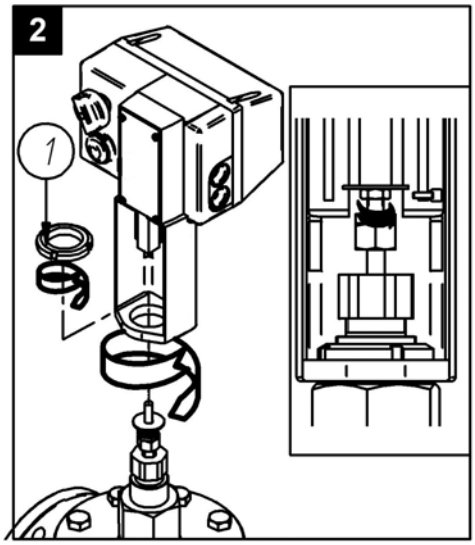
MOUNTING INSTRUCTIONS

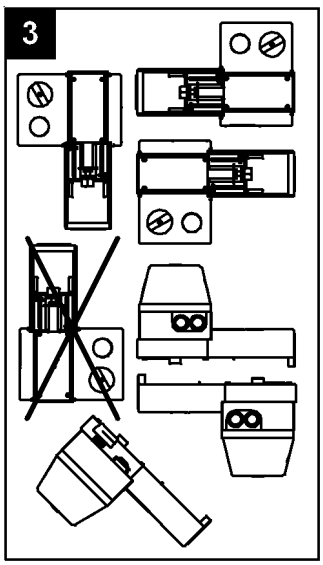
Hot media hazard. Before removing actuator from valve or opening the valve, ensure that the valve control medium is isolated and relieve the pressure. Work should only be carried out by a competent engineer.
To activate the manual override function, push and rotate the knob. Pull out again the knob to return to "AUTO" position.

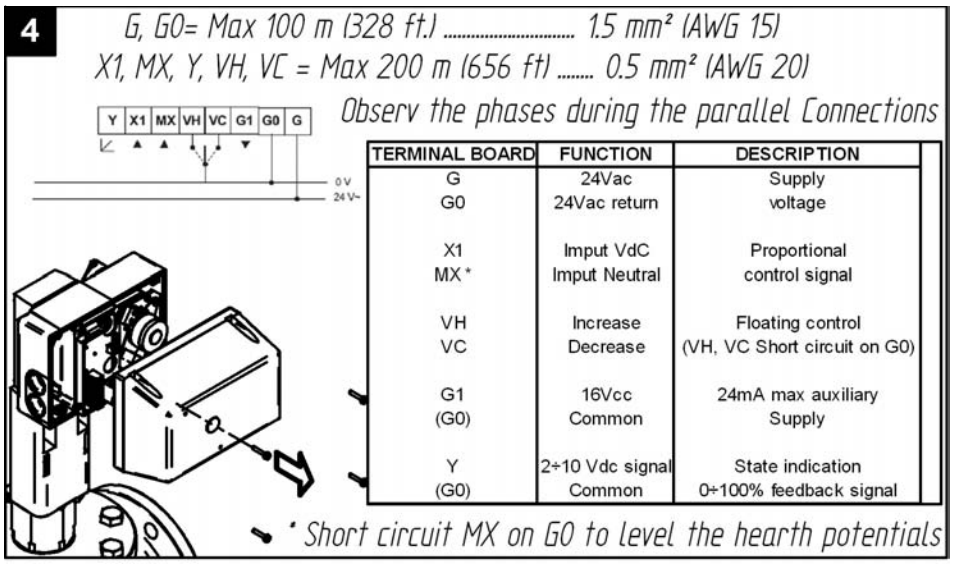












TERMINAL BOARD	FUNCTION	DESCRIPTION
G	24Vac	Supply
G0	24Vac return	voltage
X1	Imput VdC	Proportional
MX *	Imput Neutral	control signal
VH	Increase	Floating control
VC	Decrease	(VH, VC Short circuit on G0)
G1	16Vcc	24mA max auxiliary
(G0)	Common	Supply
Y	2÷10 Vdc signal	State indication
(G0)	Common	0÷100% feedback signal

CONTROLLI

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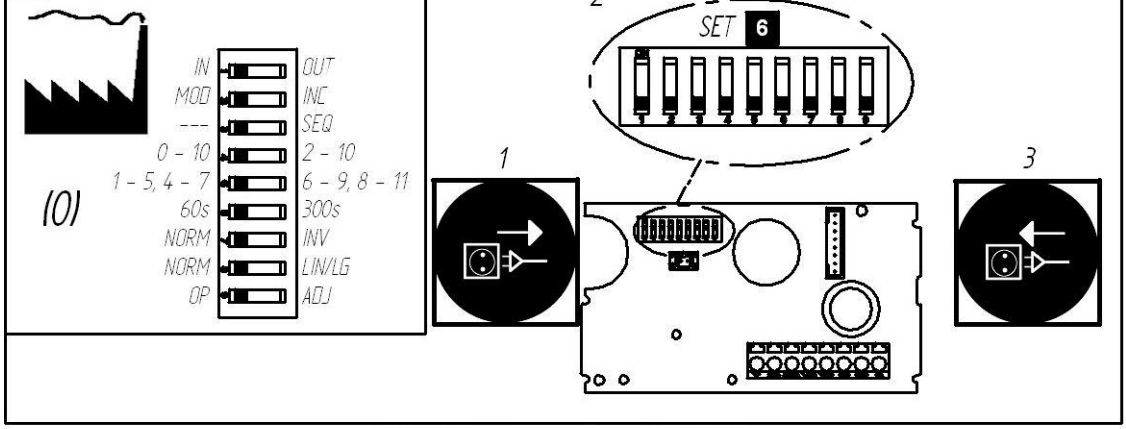
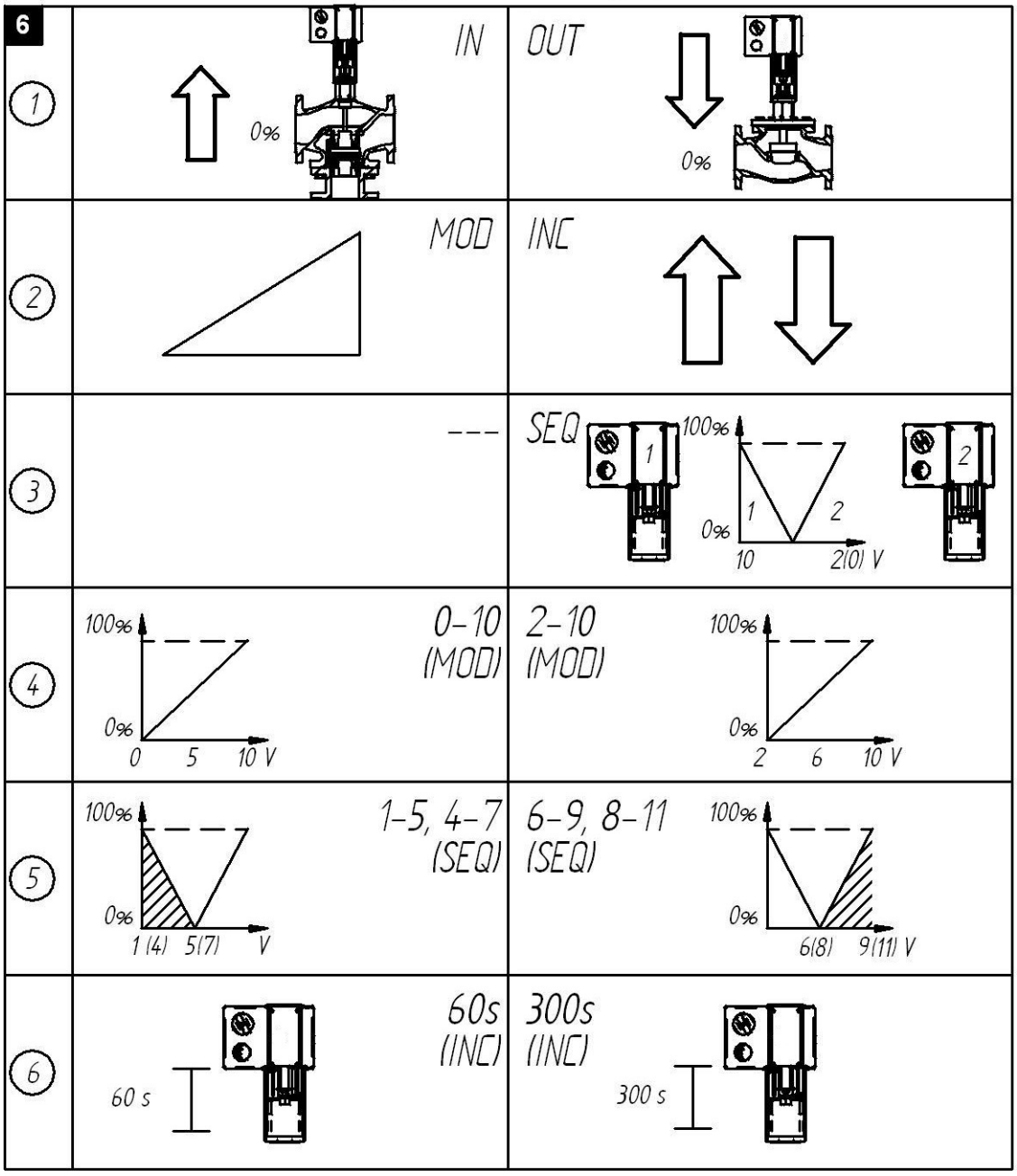
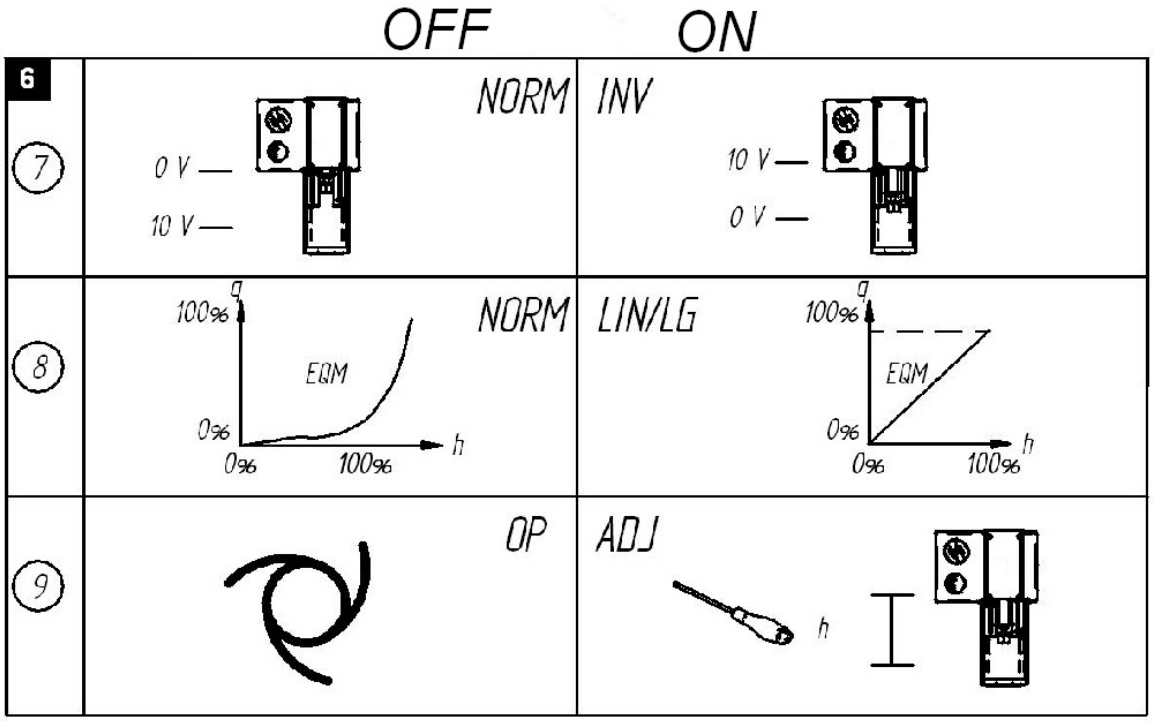

(0)
IN
MOD
---
0 - 10
1 - 5, 4 - 7
60s
NORM
NORM
OP
OUT
INC
SEQ
2 - 10
6 - 9, 8 - 11
300s
INV
LIN/LG
ADJ
2
SET
6
1
3

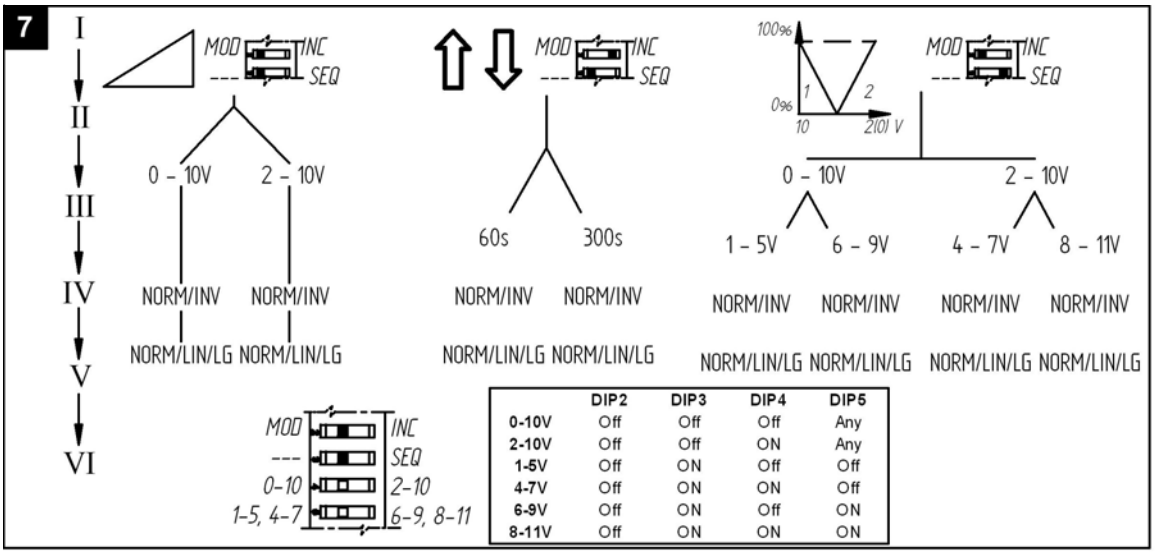
OFF ON

6

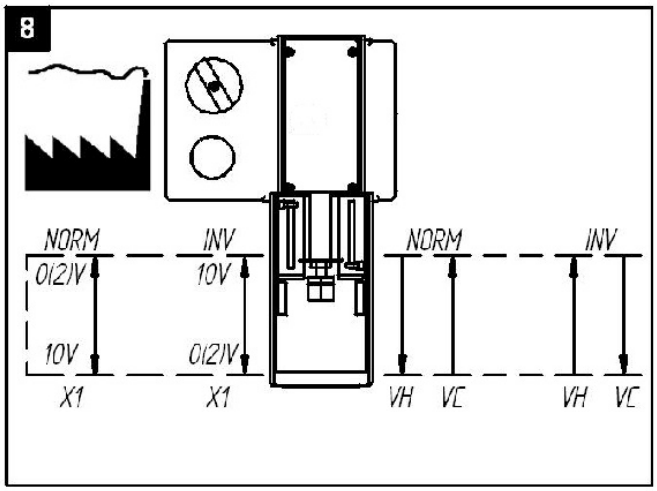

1
IN
0%
OUT
0%
2
MOD
INC
3

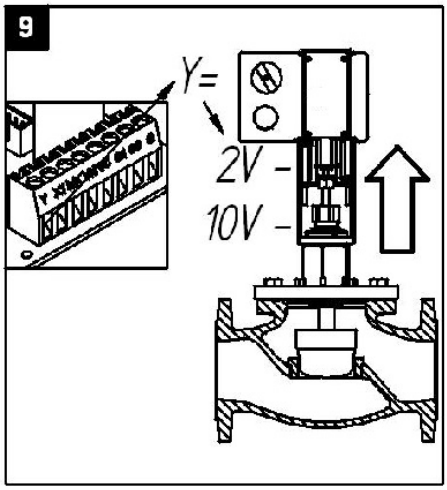
SEQ
100%
1
2
0%
10
2(0) V
4
100%
0%
0
5
10 V
0-10 (MOD)
2-10 (MOD)
100%
0%
2
6
10 V
5
100%
0%
1 (4)
5(7)
V
1-5, 4-7 (SEQ)
6-9, 8-11 (SEQ)
100%
0%
6(8)
9(11) V
6
60 s
60s (INC)
300 s
300s (INC)

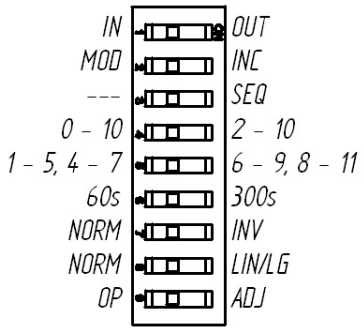




	DIP2	DIP3	DIP4	DIP5
0-10V	Off	Off	Off	Any
2-10V	Off	Off	ON	Any
1-5V	Off	ON	Off	Off
4-7V	Off	ON	ON	Off
6-9V	Off	ON	Off	ON
8-11V	Off	ON	ON	ON







DIP	Function in the		Description
	"OFF" position	"ON" position	
1	In	Out	Valve closing screw direction
2	Modulating	Increase/Decrease	Control (not at sequence)
3	---	Sequence	Sequence control
4	0 - 10V	2 - 10 V *	Voltage range /current
5	1 - 5V, 4 - 7V	6 - 9V, 8 - 11V	Part of voltage range
6	60s	300s	Running time
7	Normal	Inverted	Direction of movement
8	Normal	Linear/Logarithmic	Valve charateristic
9	Operation	End position adjust (mom.)	Operation/End position adjustment

* with the DIP4 on ON and a resistance (supplied with the actuator) it is possible to obtain the 4...20mA range (see last page)

There are nine switches in a row on the circuit board. On delivery ('Factory'), all switches are in the "OFF" position.

1 Valve Closing Screw Direction—IN / OUT

IN direction of movement is used when the spindle of the actuator moves up to close the valve.

OUT direction of movement is used when the spindle of the actuator moves down to close the valve.

2 Control signal—MOD / INC

MVL56F can either be controlled by a variable direct voltage, a so called modulating signal (MOD), or by an increase/decrease signal (INC).

3 Sequence or parallel control—– – – / SEQ

With sequence (or parallel) control (SEQ), two actuators/valves can be controlled by only one control signal.

For each of these you can choose which part of the voltage range to use, the upper one, 6-9 V (8-11 V) or the lower one, 1-5 V (4-7 V).

If the switch NORM / INV is in the NORM position, the higher voltage corresponds to 100% flow and the lower one to 0%.

With NORM / INV in the INV position you will get the opposite function.

4 Voltage range—0-10 / 2-10

You can choose whether to use the control signal voltage range 0-10 V or 2-10 V.

5 Part of voltage range—0-5, 2-6 / 5-10. 6-10

You can choose which part of a voltage range to use, the lower one 1-5 V (4-7 V) or the upper one 6-9 V (8-11 V).

If the switch is in the NORM position, the higher voltage corresponds to 100% flow and the lower one to 0%. To achieve the opposite function, the switch should be put in its INV position.

6 Running time—60 s / 300 s

With increase/decrease control, you can choose a running time between 60 s or 300 s.

With modulating control, the running time is always 15 s / 20 s / 30 s.

7 Direction of movement—NORM / INV

When NORM is selected, the spindle of the actuator moves up when the control voltage decreases or if the actuator gets a decrease signal.

With the switch NORM / INV, the direction of movement can be changed.

8 Linearization—NORM / LIN/LG

The motorized valve characteristics can be modified. If you wish for the characteristics to be affected, the setting LIN/LG will make the characteristics of an equally modified percentage (EQM) valve almost linear.

On the other hand, with LIN/LG a motorized valve equipped with a linear valve will operate with "Quick open characteristics". This means that with a small control signal, the valve will be almost completely open.

Note! For the actuator to register new settings of the switches, the supply voltage must be cut, the settings done and then the power on

or

the end position adjustment must be done again (see point 9).

Refer also to illustration on page 2.

(This does not apply to the switch OP/ADJ).

9 End position adjustment—OP / ADJ

This switch is only used to adjust the end positions when the actuator is commissioned.

With powered actuator, momentarily put the switch in the ON position. The actuator will automatically find the end positions of the valve.

At the end of the adjustment all the other dip switch settings (1 to 8) will be read again.