

MODEL	CONTROL	CONTROL SIGNAL
MVA21	On-off (with cable)	110..220 V
MVA23	On-off (without cable)	110..220 V
MVA41	On-off (with cable)	24 V
MVA43	On-off (without cable)	24 V



APPLICATION AND USE

MVA actuators are used in V.ZB globe valve coupling for cool/warm water control in two- and four-pipe terminal units and zone systems.

OPERATION

MVA actuators are electro-thermal type and are controlled by an on-off signal or, for MVA41/42 only, by pulse width modulation too.

Actuators are supplied by control signal; this causes the thermostatic element to heat up and a small piston to come out and lower the valve stem.

MVA22-42 actuators are supplied with a 2 (0.2)A 250 V SPST microswitch with contact closed by powered actuator; a particular application of fan control terminal unit being: the fan, connected to microswitch contact on the actuator, operates by open valve and stops when valve is near to full close position. This in order to avoid cool air throw.

WORKING CHARACTERISTICS

MVA actuators consist of a base and two thermoplastic covers.

MVA21/41 models are fitted with supply cable.

APTC thermistor heats the thermal element inside actuators.

Actuators are equipped with a guillotine system allowing easy coupling to the valve by screw tightening.

TECHNICAL CHARACTERISTICS

Power supply (control signal)

MVA21-23 110...220 V \pm 10%

MVA41-43 24 V \pm 10%

Consumption 5 VA (fuse dimensioning 30 VA)

Frequency 50/60 Hz

Cold start timing 120 s

Stroke time 10 s for 1/10 of the stroke

Max stroke 3.5 mm

min. force 100 N

Temperature

- working 5...50° C

- storage - 25...65° C

Protection class II (CEI 107-10)

Connection cable

(MVA21/41) 1.5 m (CEI 20-22/II)

Terminal board

(MVA23/43) screw type for 1,5 to 2,5 mm² conductors

Nr. 1 conduit opening

(MVA23/43) D=6 mm hole, rubber

Protection IP 31

Weight 0.2 Kg

Product conforms to EMC 891336 directive with reference to the below-mentioned standards:

EN50081-1 for emission

EN50082-1 for immunity

POSSIBLE COMBINATIONS AND CONNECTIONS

MVA actuators are to be used with CONTROLLI V.ZB terminal and zone valves.

MVA21/23 actuators can be connected to any ON-OFF (110...220 V~) controller while MVA41/43 actuators can be connected both to any ON-OFF controller and to pulse width modulation controllers (24 V~); in particular with CONTROLLI RT700, DIGITROLL 7000, NR 7112/7114 controllers.

ACCESSORIES

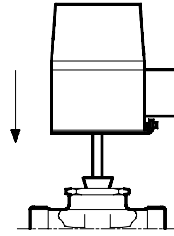
D41 SPST 2(0,2) A - 250 V aux contact
(contact closed when actuator is supplied)

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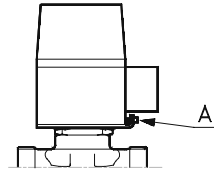
INSTALLATION AND ASSEMBLY

For valve body coupling:

- remove plastic protection cover fitted on valve spring
- place actuator on valve body in the expected position (see ill. 1)
- tighten A screw
- connect the cable as per beside wiring diagram and instruction provided on the data sheets relevant to R.700 and DIGITROLL 7000 controllers.



ill. 1

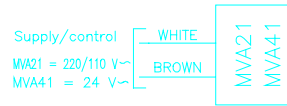


ill. 2

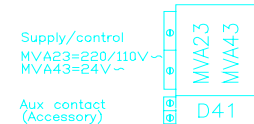
CAUTION: do not energize the actuator when it is not mounted on the valve body.

In order to ensure seal by valve closing, when coupling has been carried on, the actuator has to be powered for a few minutes so as to act a cycle.

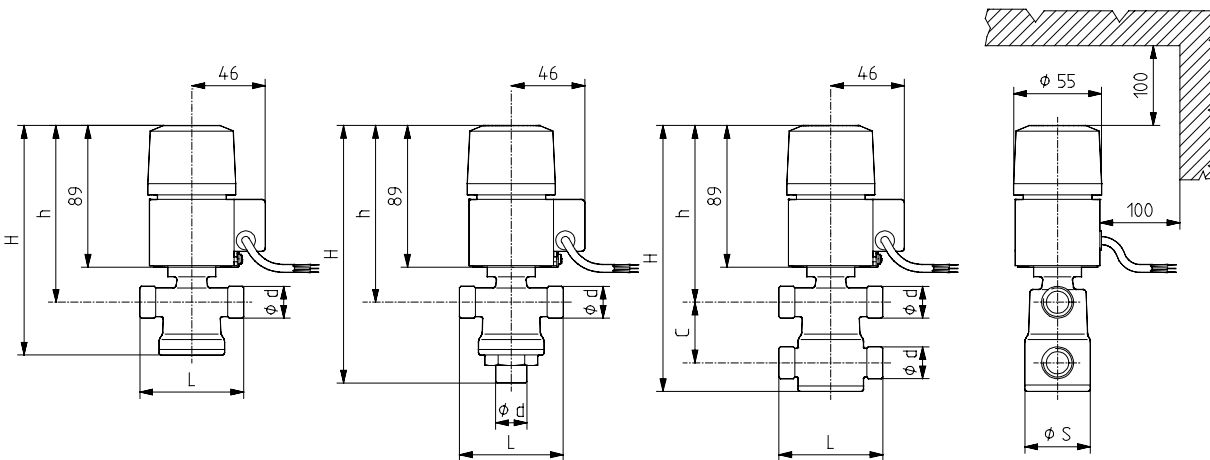
CONNECTION CABLE
(MVA21/41)



TERMINAL BOARD
(MAV23/43)



ACTUATORS AND VALVE DIMENSIONS (mm)



Part Number	Ø d	L	Ø S	C	H	h	Valve weight (kg)
VMZ09B/10B/11B/12B/13B/1B	G 1/2	66	42	--	169	112	0.45
VMZ2B	G 3/4	77	46	--	174	115	0.55
(*) VMZ4	G 1 1/4	87	43	--	182	133	0.75
VSZ09B/10B/11B/12B/13B/1B	G 1/2	66	42	--	151	112	0.40
VSZ21B/2B	G 3/4	77	46	--	158	115	0.50
VSZ4	G 1 1/4	87	43	44	163	133	0.75
VSZ11BA/12BA/13BA/1BA	G 1/2	66	42	--	145	133	0.50
VSZ21BA/2BA	G 3/4	77	46	--	151	137	0.50
VTZ09B/10B/11B/12B/13B/1B	G 1/2	66	42	38	168	112	0.50
VTZ1BA	G 1/2	66	42	38	178	105	0.50
VTZ21B/2B	G 3/4	77	46	65	193	115	0.50

(*) The angle way (b) is threaded G1 female

This specification may be changed without any prior notice due to design improvements

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Automatic control systems for:
air conditioning/heating/industrial thermal process.

SALES AND SERVICE ORGANIZATION IN:

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