

## APPLICATION AND USE

VFA series butterfly motorized valves are used in heating, refrigerating, hydraulic plants for fluids belonging to group 2 according to the article 9 of 97/23/CE directive (PED), therefore, they cannot be used as safety valves.

Group 2 regards water, overheated water, steam. For different fluids belonging to group 2, please contact our Sales Support.

In particular, when actuated by MDA2./4./5., they can be employed in boiler sequence programming systems.

## MANUFACTURING SPECIFICATIONS

They consist of valve body, linkage kit for MDA2./5. actuator assembly, Manual knob with position indicator. If the valve has to be mounted on other manufacturer actuators, it is advisable to realise a specific linkage.

## VALVE TECHNICAL CHARACTERISTICS

Model	Diameter mm.	Kvs m3/h	Max. differential pressure kPa with MDA22/42/52 actuators	Max. differential pressure kPa with MDA24/44/54 actuators	Weight Kg.
VFA25	25	27,8	600	--	1,4
VFA32	32	28,5		--	
VFA40	40	58		--	1,6
VFA50	50	107		--	2
VFA65	65	201		--	2,6
VFA80	80	336		--	3,2
VFA100	100	576		--	4
VFA125	125	840	--	600	4,6
VFA150	150	1295	--	300	8,6
VFA200	200	2470	--		12,6

Construction	PN16 (PN6 and PN10 flanges are available on request)
Valve body	Nodular iron (EN-JS1030)
Disk	1.4581 (DN25-80) EN-JS1030 (DN100-200)
Butterfly shaft	O-Ring
Seat	EPDM
Max fluid temper.	-10T100 °C
Sealing leakage test	DIN EN 12266-1 Leakage rate A (Tight close-off) (DIN 3230 T3 Leakage rate 1)
Connections	Flanges

**Valves are supplied already fitted with coupling elements for MDA2./4./5. actuators.**

**The valve with actuator assembled has the following code: actuator part number (ex. MDA22) + MDAV1.**

## AUXILIARY CIRCUIT

**DMDA** 2 SPST microswitches (S2A):  
 1 NO (closes with valve completely open)  
 1 NC (opens with valve completely closed)  
 5(1)A - 24 V~

## MDA2./4./5. ACTUATOR TECHNICAL CHARACTERISTICS

Model	Torque Nm	Angular stroke	Timing s	Power supply Vac 50 Hz	Protection DIN 40050
MDA22	20	90°	90	230	IP54
MDA24	40		150		
MDA42	20		90	24	
MDA44	40		150		
MDA52	20		90		
MDA54	40		150		

Control signal	Floating (MDA22/42/24/44) Proportional (MDA52/54) / 0(2)-10V
Shaft	D 4 with 11 key (DN25÷100), 17 key (DN125÷200)
Carter	Die-cast aluminium
Case	Anti-shock plastic material
Room temperature	
Operating	-30T50 °C
Storage	-40T80 °C
Terminal boards	Screw-type for 1.5 to 2.5 mm <sup>2</sup> section wires

In compliance with EMC 89/336 directive according to:  
 - EN 50081-1 for emission - EN 50082-1 for immunity and LVD for MDA (230 V version).

**This circuit is mounted in our factory only, therefore, it cannot be supplied as a spare part.**

**The products with DMDA micro assembled have the following codes: actuator part number (ex. MDA22) + DMDA + MDAV2.**

Rev. a	04/11	1	DBL314E
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**CONTROLLI**

ISO 9000

**CONTROLLI**

16010 SANT'OLCESE Genova - Italy  
 Tel.: +39 01073061 Fax: +39 0107306870/871  
 E-mail: info@controlli.eu Web: www.controlli.eu



VFA



MDA

## CONSUMPTION VALUES

	MDA22	MDA24	MDA42	MDA44	MDA52	MDA54
Operating (nominal torque) W	2,5	4	2	4,5	4	4,5
Holding W	0,4	2	0,2	2	1,25	1,5
Transformer Dimensioning VA	6	7	4	7	6	7

## INSTALLATION

VFA butterfly valves can be installed in any position, ensuring that the actuator is oriented so as to avoid direct exposure of the hot air current coming from pipes. The valve body must be locked between the flanges of the piping by bolts or ties. Leave a 30 cm room in order to allow the disassembling of the actuator from the valve for maintenance operations.

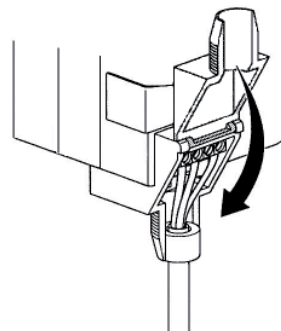
Avoid the valve installation in plants which are considered aggressive and/or corrosive for valve materials.

Please contact our Sales Support in order to determine which potentially aggressive or polluting substances can be used.

We disclaim all responsibility in case of valve failure due to external fortuitous events (fire, earthquakes etc.).

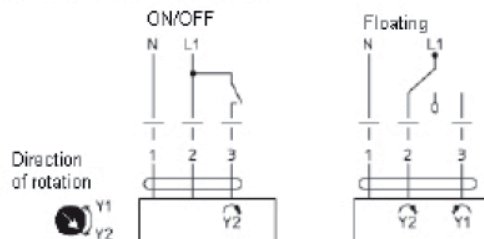
## ELECTRICAL CONNECTIONS

Unscrew the fixing nut of the conduit and raise the upper part; route the cables into the gasket supplied and make the connections with the terminal boards (see illustration shown below).

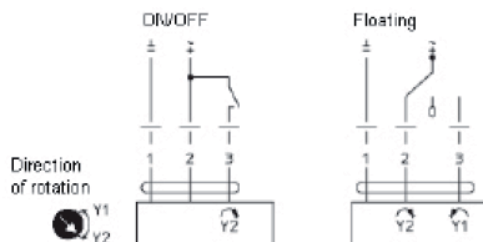


## WIRING DIAGRAM

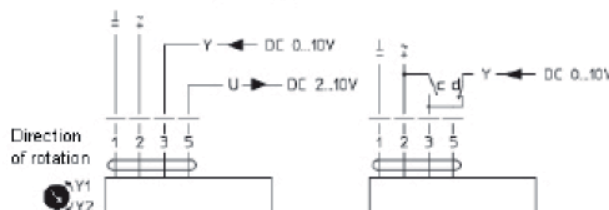
MDA22/24 - 230 V 50/60 Hz



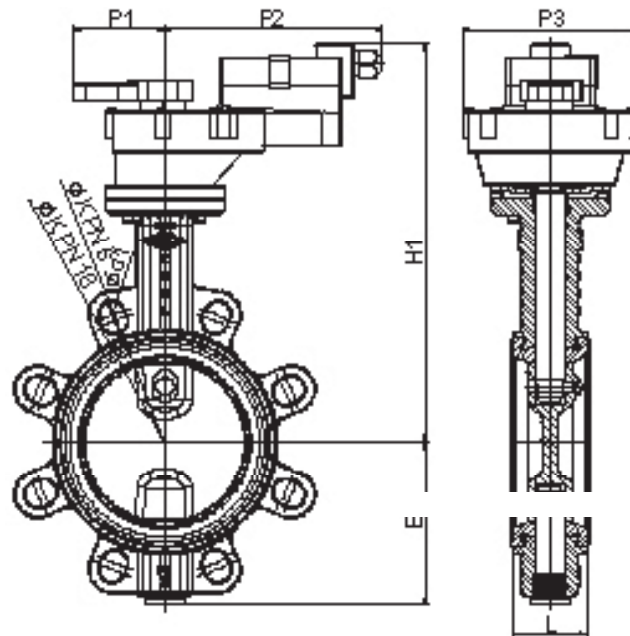
MDA42/44 - 24 Vac/Vdc



MDA52/54 - 24 Vac/Vdc (floating)



DIMENSIONS (mm)



DN	25	32	40	50	65	80	100	125	150	200
H1	212	212	218	224	234	242	263	293	309	343
P1	70 (with lever extension: 176)							69		
P2	142							166		
P3	95							134		
E	58	58	66	69	81	100	109	124	140	167
L	33	33	33	43	46	46	52	56	56	60
Type of actuator DP=600 Kpa	MDA22/42/52							MDA24/44/54		--
Type of actuator DP=300 Kpa	--							--		MDA24/44/54
Timing (s)	90							150		
Weight VFA+MDA (Kg)	2,4	2,4	2,6	3	3,6	4,2	5	8,3	10,3	14,3

The performances stated on this sheet can be modified without any prior notice due to design improvements.

Rev. a

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