# VFA + MDA/MDL

CODICE	DN	KVS [m³/h]
VFA25	25	26
VFA32	32	26,5
VFA40	40	49,6
VFA50	50	116
VFA65	65	259
VFA80	80	377
VFA100	100	763
VFA125	125	1030
VFA150	150	1790
VFA200	200	3460



VFA series butterfly motorized valves are used in heating, refrigerating, hydraulic plants for fluids belonging to group 2 according to the article 13 of 2014/68/UE 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./5., they can be employed in boiler sequence programming systems.

VFA valves can also be actuated by MDL actuators with AF24 linkage for MDLx4 (20Nm) for valve up to DN100 or AF25 for MDLx6 (30Nm) for valves DN125÷200. Please refer to MDL data sheet (MDL\_DBL021e) for further information about these actuators.

## **VALVE MANUFACTURING CHARACTERISTICS**

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**

**Construction** PN16 (it is also possible to connect to VFA

valves with PN6 and PN10 flanges)

Valve body Nodular iron (EN-J\$1030)

**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.

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

MODEL	TORQUE [Nm]	ANGULAR STROKE	TIMING [S]	POWER SUPPLY	PROTEC- TION DIN 40050
MDA22	20		90	230V 50/60 Hz 24Vac/dc	IP54
MDA24	40		150		
MDA42	20	90°	90		
MDA44	40		150		
MDA52	20		90		
MDA54	40		150		

Control signal Floating (MDA22/42/24/44)

Proportional (MDA52/54) / 0(2)-10V

**Timing** MDA22/42/52 90s - MDA24/44/54 150s

**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> sectionwires

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).

Controlli S.p.A. 16010 Sant'Olcese (GE) Tel. 010 73 06 1 Fax. 010 73 06 870/871 www.controlli.eu 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.).

#### **ACCESSORIES**

AF24 Linkage kit for MDLx4 (20 Nm) only for DN25÷100
AF25 Linkage kit for MDLx6 (30 Nm) only for DN125÷200
The valve with MDL actuator assembled has the following code: actuator part number (ex. MDL24 + AF24) + MDLAV.

# **AUXILIARY CIRCUIT**

# **DMDA** 2 SPST microswitches (S2A):

1 NO (closes with valve completely open) 1 NC (opens with valve completely closed)

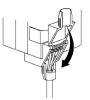
5(1)A - 24 V~

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.

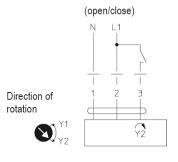
#### **ELECTRIC CONNECTIONS**

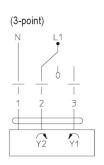
Unscrew the fixing nut of the conduit and raise the upper part; route the cables into the gasket supplied and make the connections with the terminal boards (see illustration).



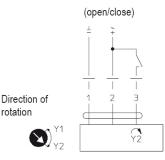
# **WIRING DIAGRAM**

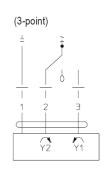
# MDA22/24 - 230V - 50/60Hz



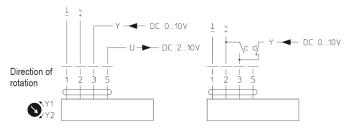


# MDA42/44 - 24Vac/Vdc





#### MDA52/54 - 24Vac/Vdc (proportional)



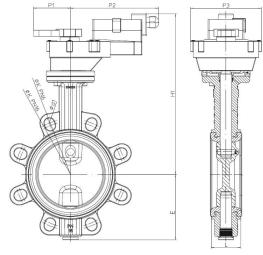
#### **CONSUMPTION VALUES**

DESCRIPTION	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

# MAX. DIFFERENTIAL PRESSURE (kPa)

VALVE	ACTUATOR	ΔΡ
VFA DN 25 ÷100	MDA22/42/52 MDLx4	600
VFA DN125	MDA24/44/54 MDLx6	600
VFA DN 150 ÷ 200		300

### **DIMENSIONS (mm)**



DN	Н1	P1	P2	Р3	Е	L	WEIGHT VFA (KG)							
25	212				58	33	1,4							
32	212	70*			58	33	1,4							
40	218				66	33	1,6							
50	224		70*	142	95	69	43	2						
65	234						81	46	2,6					
80	242					100	46	3,2						
100	263													109
125	293	69	69	9 166	134	124	56	4,6						
150	309					140	56	8,6						
200	343				167	60	12,6							

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

