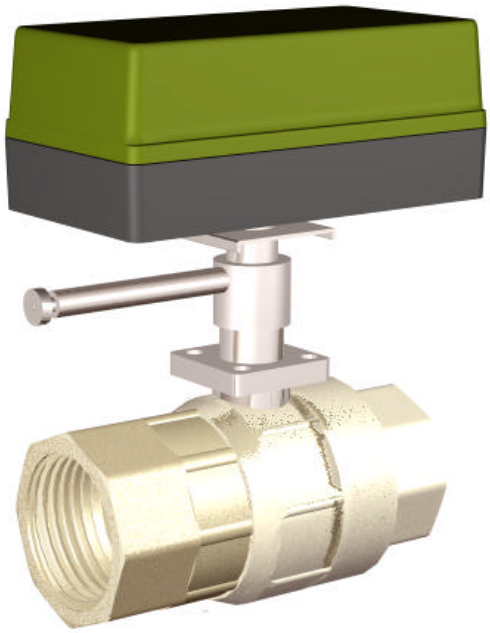
Motorized Ball and Butterfly Valves series MD



- **Attractive prices**
- **Two and three way valves**
- **Rated temperature - up to 160 °C**
- **Rated pressure - up to 64 Bar**
- **Protection class - up to IP55**
- **For liquids and gases**
- **Various full travel times**
- **Manual control option**

Motorized ball and butterfly valves of the **MD** series, are distributed by COMECO, are produced by COMPARATO and other Italian companies. The design of most of the valves of this series is based on a **ball and a Teflon seal**. Available are **one and two way** ball and butterfly valves for liquids and gases with nominal diameter from **DN10 to DN300** for various temperatures, pressures, differential pressures and Kvs. Stainless steel body versions are also available.

The valves are combined with an **electrical motor driven actuator** with different full-travel time and optional manual control. The MD motorized valves are suitable for various applications. Some typical application fields are food processing, hot water and house heating control, chemical industry, pharmaceutical industry etc.

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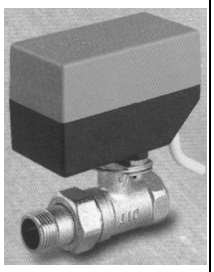
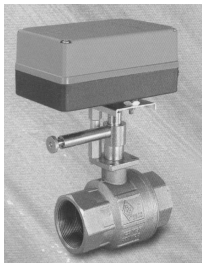
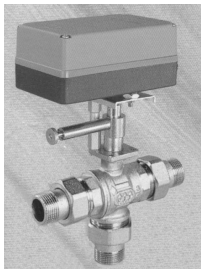
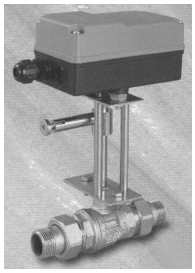
Technical specifications

Model	DIAR		DIAMANT-2			DIAMANT-3S		DIAMANT-3R		UNIVERSAL-2		
												
Valve type	Two way straight (angle)		Two way straight			3-way mixing		3-way deviating		Two way straight		
Working fluid	Water and Teflon compatible non-aggressive liquids									Water and Teflon compatible liquids		
Fluid temperature T	0..100 °C		0..100 °C			0..100		0..100 °C		0..100 °C		
Nominal diameter Dn [mm]	10 (3/8")	15 (1/2")	15 (1/2")	20 (3/4")	25 (1")	20 (3/4")	25 (1")	20 (3/4")	25 (1")	32 (1 1/4")	40 (1 1/2")	50 (2")
Mounting	1/2"	3/4"	3/4"	1"	1 1/4"	1"	1 1/4"	1"	1 1/4"	1 1/4"	1 1/2"	2"
Nominal pressure Pn [bar]	16	16	16 (for T ≤ 80 °C) (1)			16 (for T ≤ 80 °C) (1)		16 (for T ≤ 80 °C) (1)		25 (for T ≤ 80 °C) (1)		
Max. differential pressure Pd [bar]	6	6	16			16	16	16	16	18	18	18
Kvs [m³/h] (2)	0.30 (0.22)	0.68 (0.34)	0.935	1.590	3.200	0.730	1.550	0.730	1.550	7.2	16.5	28.0
Body material	Brass		Brass			Brass		Brass		Brass		
Ball material	Chromium plated brass		Chromium plated brass			Chromium plated brass		Chromium plated brass		Chromium plated brass and nickel		
Angle of rotation in degrees	90		90			90		180		90		
Full travel time [s]	38		35 or 15			35		70		60, 30 or 120		
Supply voltage [Vac]	220 or 24		220 or 24			220 or 24		220 or 24		220 or 24		
Motorized actuator operating temperature [°C]	-10…+70		-10…+70			-10…+70		-10…+70		-10…+70		
Motorized actuator exposed parts (3)	NiCuZn		NiCuZn *Option:* SS			NiCuZn *Option:* SS		NiCuZn *Option:* SS		NiCuZn *Option:* SS		
Manual control	No		No *Option:* Yes			No *Option:* Yes		No *Option:* Yes		Yes		
Seals	Teflon		Teflon			Teflon		Teflon		Teflon		

(1) At higher temperatures the nominal pressure Pn decreases linearly with temperature
(2) Kvs (flow at fixed pressure drop) is measured at pressure drop 0.01 bar
(3) Exposed actuator parts: NiCuZn - nickel plated brass, SS - stainless steel

Model	UNIVERSAL-3S	UNIVERSAL-3R	DIAMANT-T2			DIAMANT-T3S		DIAMANT-T3R	
									
Valve type	3-way mixing	3-way deviating	Two way straight			3-way mixing		3-way deviating	
Working fluid	Water and Teflon compatible liquids		Water and Teflon compatible non-aggressive liquids						
Fluid temperature T	0..100 °C		-25..150 °C			-25..150 °C		-25..150 °C	
Nominal diameter Dn [mm]	32 (1 1/4")	40 (1 1/2")	50 (2")	15 (1/2")	20 (3/4")	25 (1")	20 (3/4")	25 (1")	20 (3/4")	25 (1")
Mounting	1 1/4"	1 1/2"	2"	3/4"	1"	1 1/4"	1"	1 1/4"	1"	1 1/4"
Nominal pressure Pn [bar]	10 (for T ≤ 80 °C) (1)			16 (for T ≤ 80 °C) (1)			16 (for T ≤ 80 °C) (1)		16 (for T ≤ 80 °C) (1)	
Max. differential pressure Pd [bar]	10	10	10	16	16	16	16	16	16	16
Kvs [m³/h] (2)	1.85	2.70	4.40	0.935	1.590	3.200	0.730	1.550	0.730	1.550
Body material	Brass			Brass			Brass		Brass	
Ball material	Chromium plated brass and nickel			Chromium plated brass			Chromium plated brass		Chromium plated brass	
Angle of rotation in degrees	90	180		90			90		180	
Full travel time [s]	60, 30 or 120	120, 60 or 240		35 or 15			35		70	
Supply voltage [Vac]	220 or 24			220 or 24			220 or 24		220 or 24	
Motorized actuator operating temperature [°C]	-10…+70			-10…+70			-10…+70		-10…+70	
Motorized actuator exposed parts(3)	NiCuZn ***Option:*** SS			NiCuZn			NiCuZn		NiCuZn	
Manual control	Yes			No ***Option:*** Yes			No ***Option:*** Yes		No ***Option:*** Yes	
Seals	Teflon			Teflon			Teflon		Teflon	

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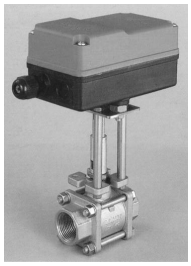
Model	UNICOST-F					UNIVERSAL-T3S		UNIVERSAL-T3R	DIAMANT-S			UNIVERSAL-T2		
														
Valve type	Two way straight					3-way mixing		3-way deviating	Two way straight			Two way straight		
Working fluid	Water and Teflon compatible liquids					Water and Teflon compatible liquids			Water and Teflon compatible liquids					
Fluid temperature T	5..120 °C ***Option:*** -15..120 °C					-20..160 °C			-20..160 °C			-20..160 °C		
Nominal diameter Dn [mm]	40	50	65	80	100	32 (1 1/4")	40 (1 1/2")	50 (2")	15 (1/2")	20 (3/4")	25 (1")	32(1 1/4")	40(1 1/2")	50(2")
Mounting	flange					1 1/4"	1 1/2"	2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Nominal pressure Pn [bar]	16					10 (for T ≤ 90 °C) (1)			64(T≤80)(1)	40(T≤80°C)(1)		25 (T ≤ 80 °C)(1)		
Max. differ. pressure Pd [bar]	6					10			16			18		
Kvs [m³/h] (2)	23.0	26.5	54.0	87.3	139.0	1.85	2.70	4.40	1.7	3.0	4.1	7.2	16.5	28.0
Body material	Cast iron					Brass			Stainless steel			Brass		
Ball material	Chromium plated brass					Chromium plated brass and nickel			Stainless steel			Chr. plated brass and nickel		
Angle of rotation in degrees	90					90		180	90			90		
Full travel time [s]	210 or 52		450 or 150			60, 30 or 120		120, 60 or 240	35			60, 30 or 120		
Supply voltage [Vac]	220 Vac or 24 Vac					220 Vac or 24 Vac			220 Vac or 24 Vac			220 Vac or 24 Vac		
Motorized actuator operating temperature [°C]	5…+70 °C					-10…+70 °C			-10…+70 °C			-10…+70 °C		
Mot. actuator exposed parts(3)	NiCuZn					NiCuZn			NiCuZn ***Option:*** SS			NiCuZn		
Manual control	Yes					Yes			No ***Option:*** Yes (4)			Yes		
Seals	Teflon and viton					Teflon			Teflon			Teflon		

(1) At higher temperatures the nominal pressure Pn decreases linearly with temperature

(2) Kvs (flow at fixed pressure drop) is measured at pressure drop 0.01 bar

(3) Exposed actuator parts: NiCuZn - nickel plated brass, SS - stainless steel

(4) For model DIAMANT-S an option is available (instead of manual control):
'Protective temperature sheath' - protecting the motorized actuator from medium heat- indicate separately in the order

Model	UNIVERSAL-F	BUTTERFLY-W	BUTTERFLY-D
			
Valve type	Two way straight	Two way butterfly valve	Two way butterfly valve
Working fluid	Water and Teflon compatible liquids	Water, oils and oil derivatives	Air plus dust mixtures and liquid plus dust mixtures
Fluid temperature T	-20..160 °C	-20..160 °C	-20..160 °C
Nominal diameter Dn [mm]	25 32 40 50 65 80 100 125 150 200	40 50 65 80 100 125 150 200 250 300	40 50 65 80 100 125 150 200 250 300
Mounting	flange	flange	flange
Nominal pressure Pn [bar]	16 (for T ≤ 80 °C) (1)	16 (for T ≤ 80 °C) (1)	16 (for T ≤ 80 °C) (1)
Max. differ. pressure Pd [bar]	16 16 16 16 16 16 12,16 12,16 4,16 5	16 16 16 16 16 16 16 4,16 14,16 4,16	16,14 16,14 16 16 16 16 14,16 16 4,16 14
Kvs [m³/h] (2)	4.4 9 23.8 28.1 56 105 140 180 209 250	11 20.7 35.1 52 86.1 134 193 344 538 775	11 20.7 35.1 52 86.1 134 193 344 538 775
Body material	Cast iron GG-25	Cast iron GG-25 + rylsan	Cast iron GG-25 + rylsan
Ball material	Brass	Cast iron GG-25 + rylsan	Cast iron GG-25 + rylsan
Angle of rotation in degrees	90	90	90
Full travel time [s]	60, 30, 120 / 40 / 80	60, 30, 120 / 40 / 80	60,120/30* / 40 / 80
Supply voltage [Vac]	220 Vac or 24 Vac / 220 Vac	220 Vac	220 Vac
Mot. act. operating temp-re	-10...+70 °C	-10...+55 °C	-10...+55 °C
Motorized actuator exposed parts (3)	NiCuZn *Option:* SS / NiCuZn	NiCuZn *Option:* SS / NiCuZn	NiCuZn *Option:* SS** / NiCuZn
Manual control	Yes	Yes	Yes
Seals	Teflon	Nitryl rubber	Nitryl rubber

* At maximum differential pressure Pd = 16 bar - full travel time is 60 or 120 s, at Pd = 14 bar - 30 s

** Only at maximum differential pressure Pd = 16

(1) At higher temperatures the nominal pressure Pn decreases linearly with temperature

(2) Kvs (flow at fixed pressure drop) is measured at pressure drop 0.01 bar

(3) Exposed actuator parts: NiCuZn - nickel plated brass, SS - stainless steel

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Ordering code ➔ MD✱ - G0 - G1.G2.G3 - #1#2

Code	Feature or option	Code values
✱	Model (variant)	DR - Diar, DM - Diamant, DT - Diamant-T, DS - Diamant-S, UN - Universal, UT - Universal-T, UF - Universal-F, UC - Unicost-F (5), BW - Butterfly-W, BD - Butterfly-D
G0	Design	2S - two way straight, 2L - two way angle (only for Diar), 3S - three way mixing, 3R - three way deviating (select one of the applicable to the selected model)
G1	Nominal diameter (6)	**a number applicable to the selected model**
G2	Power supply	A - 220 Vac, E - 24 Vac (only if possible for the selected model, variant and diameter)
G3	Full travel time [s]	**a number applicable to the selected model, variant and diameter**
#1	Option: Manual control	M (may be ordered if applicable to the applicable to the selected mode, diameter and variant)
#2	Option: Stainless actuator	S (may be ordered if applicable to the applicable to the selected model, diameter and variant)

(5) For this model an option is available for operation with low temperature fluids (-15..120 °C)

(6) For some models, designs and diameters additionally specify maximum differential pressure Pd