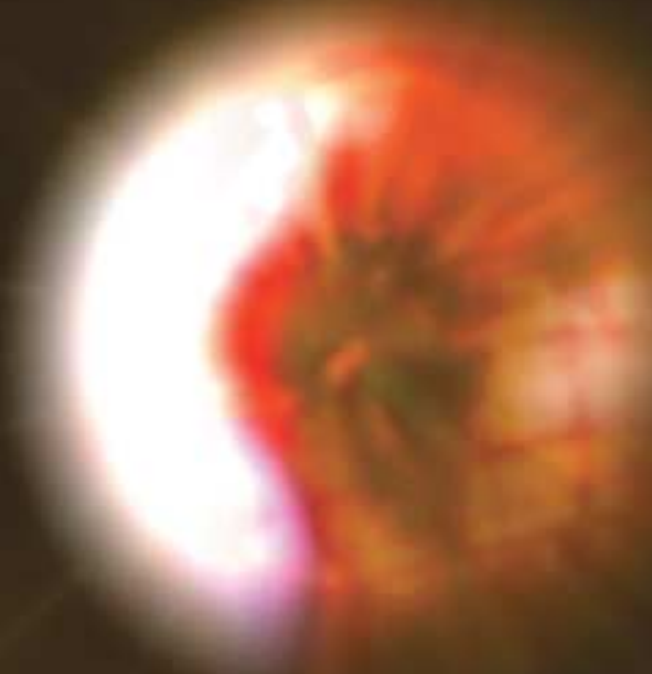


>> **swift·o·matic QM**



ENOLGAS

Enolgas Bonomi was founded in 1960 as a family business. Initially it manufactured valves for the food, oil and gas industry. The company soon specialized in the production of cocks and valves for plumbing and construction, as well as for the natural gas distribution network.

In 1970 it started production of ball valves for general purpose applications.

In 1991 Enolgas Bonomi Quality System obtained ISO 9001 certification for design, manufacturing and service. Every step of the full cycle production is controlled by the skilled staff of the company's Quality Assurance.

Before being packed and delivered, all finished products must complete a series of checkings and tests to ensure that they are perfectly manufactured and functional. They are then shipped all over the world and stocked by an international network of distributors, who by means of efficient logistics can make these goods available in every place of the globe.

Enolgas Bonomi S.p.A. offers its customers a comprehensive range of standard products, plus an advanced technology and skillful staff devoted to researching and designing new products, to be further developed in co-operation with demanding customers.

Enolgas Bonomi S.p.A. strives to maintain product excellence and innovation, collaborating with universities departments by editing its R&D achievements.

Enolgas Bonomi S.p.A. also holds several European and international product certifications and patents, incorporated into its advanced technologies and products.





Thanks to its long and continuously renovated experience in the field, today Enolgas Bonomi S.p.A. markets products which are a landmark on international marketplaces.

These products include a wide range of gas safety devices, as well as manually, pneumatically and electrically operated valves in brass, carbon steel and stainless steel, for plumbing installations, HVAC applications and several industrial automations to be used with gas, water, air, oils and hydrocarbons.

The constant dedication to the improvement of the products and the cooperative relationship with customers and suppliers are the steady foundation towards future positive developments of Enolgas Bonomi S.p.A. to meet the challenges of the globalization.



THE COMPANY QUALITY SYSTEM

ENOLGAS BONOMI S.p.A. has always been considering Quality a strategic factor and has been one of the first Italian firms in its field to implement a Quality Assurance System, in accordance with the ISO 9000.

Consequently, as early as in 1991 ENOLGAS BONOMI S.p.A. obtained the approval of its Quality Assurance System, as per the certificates issued respectively by ICIM-CISQ, as the Italian Certification Institute and IQNET, as the International Certification Network.



ENOLGAS BONOMI S.p.A., aware of the fact that Quality has no time and space limits, is steadily committed with the constant improvement of the products, the service and the collaboration with suppliers and customers.

The primary goal of ENOLGAS BONOMI S.p.A. is the user safety and the customer satisfaction, in line with the Quality VISION 2000. To keep and improve this goal, ENOLGAS BONOMI S.p.A. dedicates persistent care in selecting and training the staff and its professional qualification, being convinced that human resources come first.



SWIFT•O•MATIC® QM

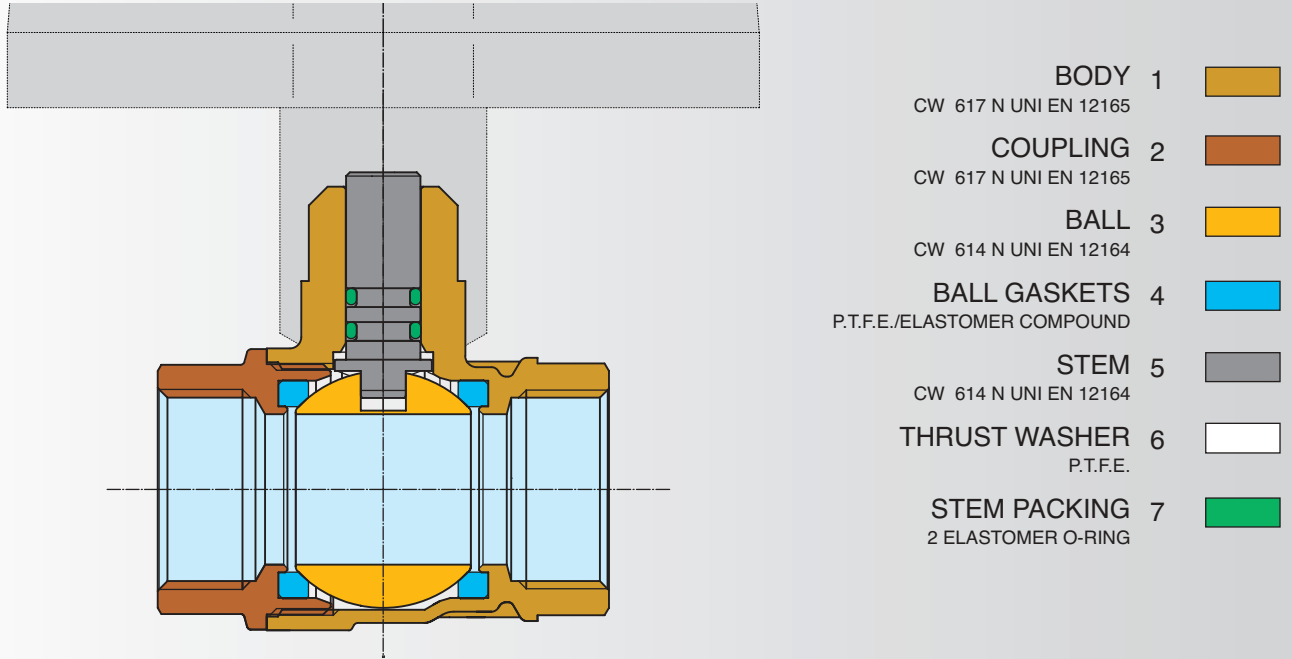
QUICK MOUNTING FULL BORE BALL VALVE FOR ACTUATOR



SWIFT•O•MATIC® QM

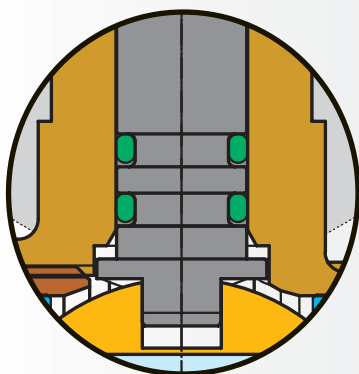
QUICK MOUNTING

FULL BORE BALL VALVE FOR ACTUATOR



TECHNICAL, DYNAMIC AND STRUCTURAL CHARACTERISTICS

- **SWIFT•O•MATIC QM (Quick Mounting)** is a ball valve for civil and industrial automation. SWIFT•O•MATIC QM offers extremely high performance characteristics in terms of duration and reliability of the whole package valve/actuator.
- The operating torques for all sizes are extremely low (see table in the opposite page). Stress from the drives is extremely contained.
- The generous scaling renders **SWIFT•O•MATIC QM** suitable for heavy usage.
- The life of the valve, understood as the number of sudden on/off cycles equating to 1 second, is comparable to the life of the actuator.
- The floatation of the shutter organ of the valve, subjected to the dynamic action of the fluid intercepted, is extremely contained, intensifying the features of stability and resistance of the valve itself.



DOUBLE SEAL BLOW OUT PROOF- STEM

- The **SWIFT•O•MATIC QUICK MOUNTING** ball valves are bottom loaded stem designed. This is called "anti-blow-out" system, because it gives further guarantees against the accidental blow-out of the stem and because it is impossible to tamper it accidentally from the outside.



CHARACTERISTICS AND NORMS

- **SWIFT-O-MATIC QM (Quick Mounting)** valves are made of brass, robust and specially designed to be easily and quickly automated with the actuators.
- Full bore, long threads.
- Brass: UNI EN 12165 CW 614 / CW 617 N
- Threaded connections: ISO 7/1 - ISO 228 - NPT - BSPT
- **PED 97/23/CE - MODULE H**

LIMITS OF USE

- Temperature: -10°C + 80°C (package)

MAIN USES

- Hot and cold water, air
- Hydrocarbons in general
- Non-aggressive fluids

CHEMICAL COMPATIBILITY

- *For detailed information on the chemical compatibility: please contact Enolgas technical dptm.*

COUPLING WITH ACTUATOR

The quick and easy connection between the **SWIFT-O-MATIC QM** valve and the actuator is extremely stable.

ADVANTAGES AND COMPETITIVENESS

- The mechanical characteristics of **SWIFT-O-MATIC QM** provide the motorized valve with considerable advantages.
- The operating torque is greatly reduced and permits a substantial reduction in the choice of the electric or pneumatic drives. This benefit materializes in significant savings in terms of cost for the entire valve plus actuator package.

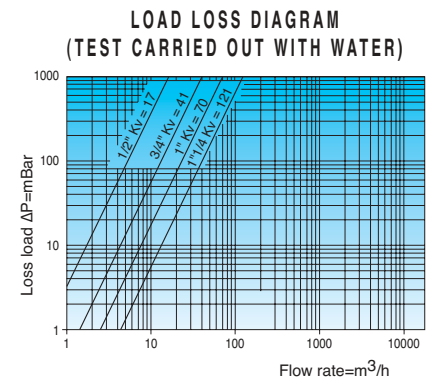
- The valve and actuator have a comparable life in terms of comparable cycle duration.
- The structural stability of the valves offers the possibility of automating heavy usage in many industrial applications too.

INSTALLATION INSTRUCTIONS

- The **SWIFT-O-MATIC QM** valves can be installed in any position: horizontal, vertical, oblique ecc.. In any case they must be visible and easily accessible.
- For the seal of the threaded connections, please refer to what is provided for in the standards UNI ISO 7, UNI ISO 228 or other standards applying other cases.
- The appliance must be planned and realized in such a way as to avoid bending or torsional stresses or other forces which could damage the valve, prevent it from working properly and obstruct its seal.
- The valve must be screwed to the pipes with suitable means and by using the apposite key. The torque wrench setting must guarantee the seal without deforming or damaging any parts of the valve.
- After installing the valve it is necessary to control the connection sealing, the operating devices and the on-off stops.
- Do not let the valve for a long time in such positions where it is neither completely open nor closed. This could indeed damage the gaskets, the ball and prevent the valve itself from sealing and working correctly.
- It is recommended to use the complete package "valve+actuator" supplied by ENOLGAS.
- In order to choose the force of the actuator refer to the operating effort indicated in the table for each size of the valve.
- Rotate the valve cautiously after it has been kept in the same position for a long time.
- For every further information contact the authorized dealers or ENOLGAS BONOMI S.P.A. directly.



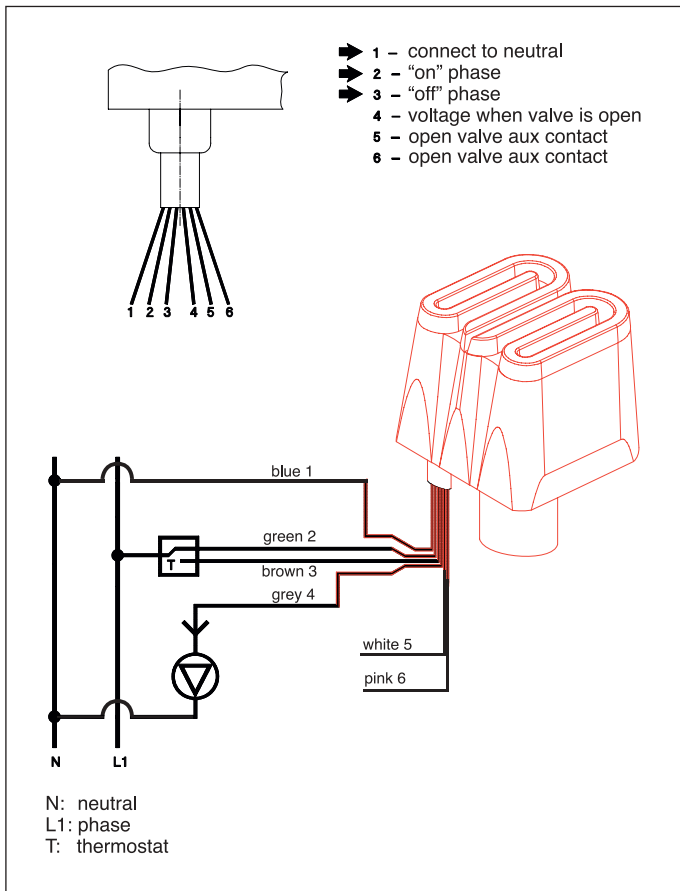
SWIFT-O-MATIC® QM
Ball valve fitted with electric actuator.



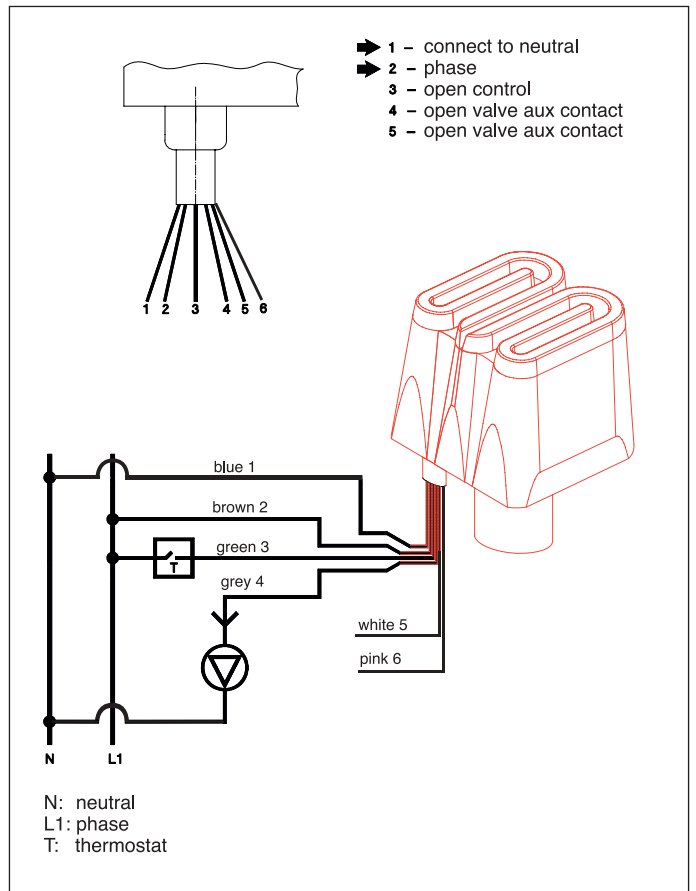
SIZE	DN	MAX BREAKING TORQUE				Kv H ₂ O m ³ /h
		AT PN 0 T 25°C	AT PN 6 T 25°C	AT PN 10 T 25°C	AT PN 16 T 25°C	
1/2"	15	1 Nm (8,85 Lbin)	1,4 Nm (12,39 Lbin)	1,4 Nm (12,39 Lbin)	1,6 Nm (14,16 Lbin)	17
3/4"	20	1,6 Nm (14,16 Lbin)	2 Nm (17,70 Lbin)	2 Nm (17,70 Lbin)	2,5 Nm (22,12 Lbin)	41
1"	25	2,8 Nm (24,78 Lbin)	3,5 Nm (30,97 Lbin)	3,5 Nm (30,97 Lbin)	4 Nm (35,40 Lbin)	70
1 1/4"	32	4,4 Nm (38,94 Lbin)	5,5 Nm (48,68 Lbin)	5,5 Nm (48,68 Lbin)	6,1 Nm (53,98 Lbin)	121

- The given values refer to a new valve, as released by the manufacturer.
- Consider suitable operating power tolerances, in case you combine the valve with different actuators.

WIRING DIAGRAMS

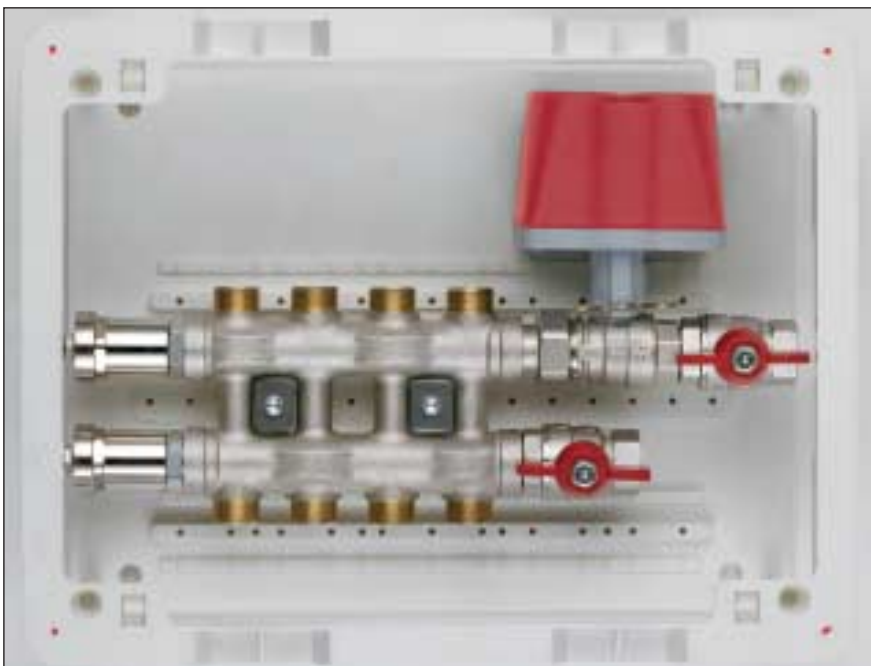


Connection with **3 power wires** (indicated by an arrow), with auxliary micro.



Connection with **2 power wires** (indicated by an arrow), with auxliary micro.

APPLICATION EXAMPLE WITH A TWO-WAY VALVE



Application example with a two-way valve

Use: Swift•O•Matic QM valves are used to intercept fluids in zone systems.

Temperature limits are: -20°C +80°C (package)

Operation: The interception element of the valve is made up by the ball. The sealing gaskets used in Swift•O•Matic series guarantee a perfect sealing, without any leakings.

Swift•O•Matic QM valve shows extremely performant characteristics when it comes to durability and reliability. This is due to an extremely reduced opening torque.

Thanks to a two-way valve it is possible to intercept a zone in a system made of traditional heating bodies in a horizontal distribution plant. Such a valve is also suitable for irrigation, as it allows the farming of different zones within a greenhouse.

THREE-WAY FLOW DIAGRAMS

Three-way zone valve

Use: a three-way valve is suitable for diverting the flow from one loop into another one. It can be used in normal heating equipments in order to divert returning water when repairing the thermostat or to switch from winter to summer and use the same loop both for heating and for conditioning.

Swift•O•Matic valves are used for fluid interception in zone systems or in order to mix fluids coming from different heating sources. They are started by rotary actuators at 90°C and are characterised by a double port in the ball:

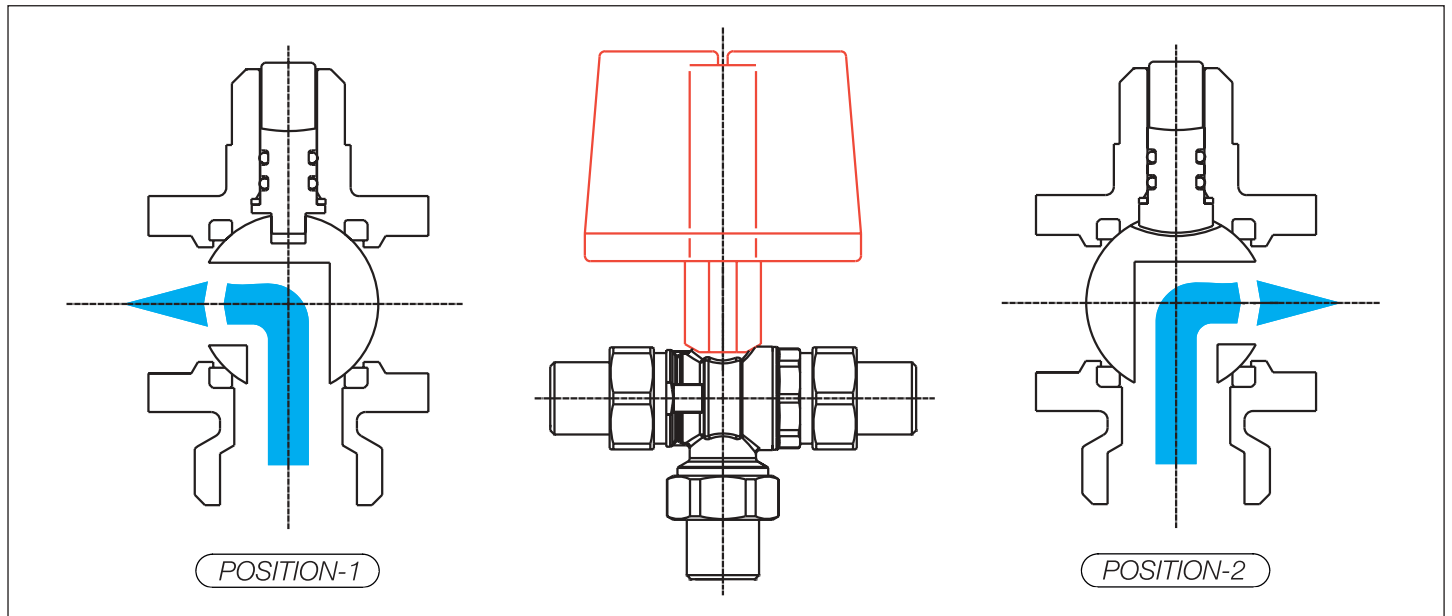
L-port: for diverting applications

T-port: for mixing applications

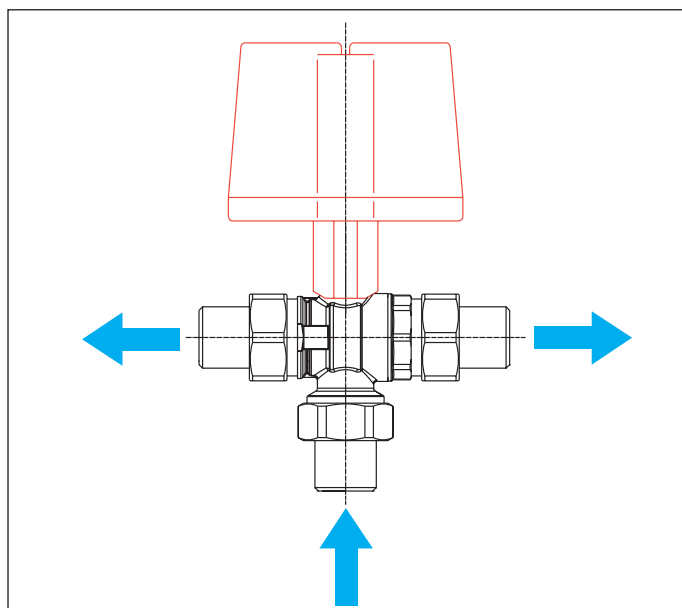
Temperature limits are: -20°C +80°C (package)

Operation: the interception element of the valve is made up by the ball. The gaskets used in Swift•O•Matic series guarantee a perfect sealing, without any leakings.

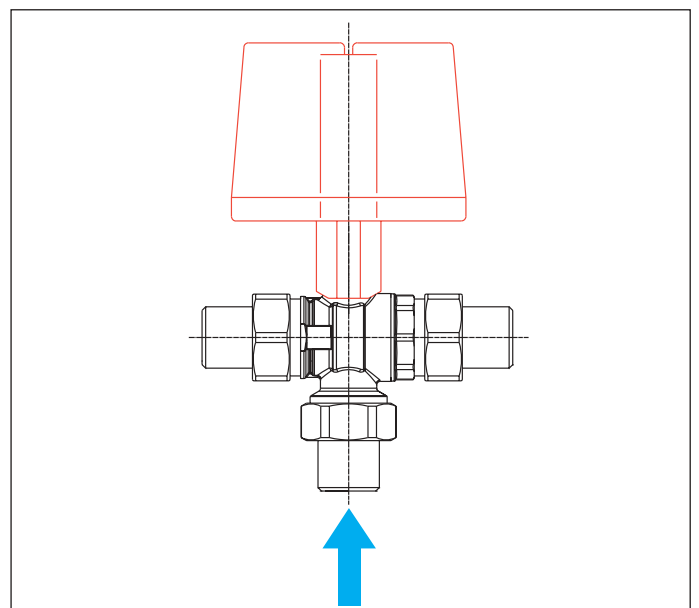
Swift•O•Matic QM valve shows extremely performant characteristics when it comes to durability and reliability. This is due to an extremely reduced torque.



Three-way **L-port** diagram.



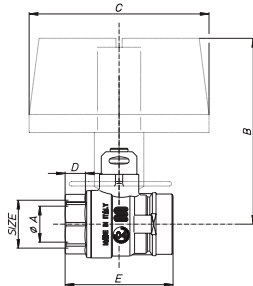
Three-way **T-port** diagram in "ON" position.



Three-way **T-port** diagram in "OFF" position.

QUICK MOUNTING FULL BORE BALL VALVE WITH ACTUATOR

Art. S.2261 a S.2296 SWIFT•O•MATIC QM



Full bore ball valve female/female, nickel-plated, with electric servo control.

Size	½"	¾"	1"	1¼"					
øA bore	15	20	25	32					
B mm	97	100	105	110					
C mm	100	100	100	100					
D mm	7,2	11	12,5	13,5					
E mm	53	61	70,5	84					
SW mm	26	31	38	47					

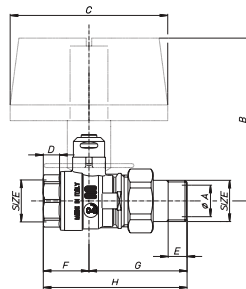
ACTUATOR CHARACTERISTICS

- S2261N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2266N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2271N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2276N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2281N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
- S2286N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
- S2291N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
- S2296N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way

Code	Size	S2261	S2266	S2271	S2276	S2281	S2286	S2291	S2296
N04	½"	91,04	*	94,78	*	100,03	*	114,21	*
N05	¾"	94,72	*	98,42	*	104,19	*	118,10	*
N06	1"	97,23	*	111,03	*	106,95	*	121,13	*
N07	1¼"	110,27	*	113,98	*	121,30	*	136,78	*

* available on request

Art. S.2264 a S.2299 SWIFT•O•MATIC QM



Full bore ball valve nut and tail/female, nickel-plated, with electric servo control.

Size	½"	¾"	1"	1¼"					
øA bore	15	20	25	32					
B mm	97	100	105	110					
C mm	100	100	100	100					
D mm	7,2	11	12,5	13,5					
E mm	10	12	12	15					
F mm	25	29	35	41					
G mm	54,5	62	69,5	81					
H mm	79,5	91	104,5	122					
SW1 mm	26	31	38	47					
SW2 mm	30	37	47	52					

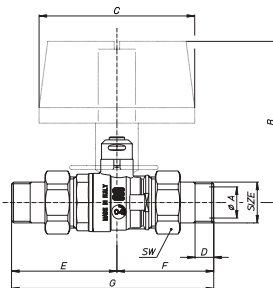
ACTUATOR CHARACTERISTICS

- S2264N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2269N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2274N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2279N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2284N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
- S2289N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
- S2294N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
- S2299N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way

Code	Size	S2264	S2269	S2274	S2279	S2284	S2289	S2294	S2299
N04	½"	92,43	*	102,21	*	106,34	*	116,13	*
N05	¾"	97,04	*	106,74	*	110,81	*	120,89	*
N06	1"	111,31	*	111,31	*	115,38	*	125,87	*
N07	1¼"	127,33	*	131,41	*	135,24	*	143,35	*

* available on request

Art. S.2265 a S.2300 SWIFT•O•MATIC QM



Full bore ball valve nut and tail/nut and tail, nickel-plated, with electric servo control.

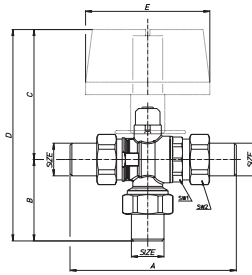
Size	½"	¾"	1"	1¼"					
øA bore	15	20	25	32					
B mm	97	100	105	110					
C mm	100	100	100	100					
D mm	10	12	12	15					
E mm	57	68	77,5	87,5					
F mm	54,5	62	69,5	81					
G mm	111,5	130	147	168,5					
SW1 mm	30	37	47	52					

ACTUATOR CHARACTERISTICS

- S2265N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2270N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2275N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2280N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
- S2285N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
- S2290N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
- S2293N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
- S2300N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way

Code	Size	S2265	S2270	S2275	S2280	S2285	S2290	S2293	S2300
N04	½"	92,84	*	106,62	*	107,15	*	118,23	*
N05	¾"	99,36	*	113,37	*	114,26	*	125,89	*
N06	1"	115,65	*	119,72	*	120,91	*	132,83	*
N07	1¼"	133,35	*	137,43	*	139,41	*	152,15	*

* available on request

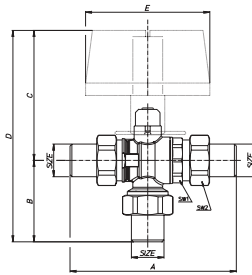
Art. S.2245 a S.2248 SWIFT•O•MATIC QM


Three-way full bore valve, **L-port**, with nut and tail on the 3 sides and electric servo control, nickel-plated.

Size	½"	¾"	1"	1¼"				
A mm	113,5	132,5	151	176				
B mm	56,5	65,5	70	89				
C mm	97	100	105	110				
D mm	171,5	193,5	203	227				
E mm	100	100	100	100				
SW1 mm	28	34	43	49				
SW2 mm	30	37	47	52				

Code	Size	S2245	S2246	S2247	S2248				
N04	½"	104,81	*	104,81	*				
N05	¾"	113,95	*	113,95	*				
N06	1"	131,68	*	131,68	*				
N07	1¼"	148,74	*	148,74	*				

* available on request

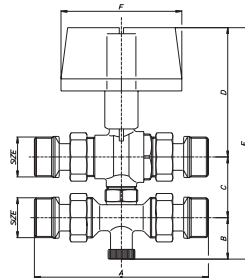
Art. S.2451 a S.2458 SWIFT•O•MATIC QM


Three-way full bore valve, **T-port**, with nut and tail on the 3 sides and electric servo control, nickel-plated.

Size	½"	¾"	1"	1¼"				
A mm	113,5	132,5	151	176				
B mm	56,5	65,5	70	89				
C mm	97	100	105	110				
D mm	171,5	193,5	203	227				
E mm	100	100	100	100				
SW1 mm	28	34	43	49				
SW2 mm	30	37	47	52				

Code	Size	S2451	S2452	S2453	S2454	S2455	S2456	S2457	S2458
N04	½"	*	*	*	*	104,81	*	104,81	*
N05	¾"	*	*	*	*	113,95	*	113,95	*
N06	1"	*	*	*	*	131,68	*	131,68	*
N07	1¼"	*	*	*	*	148,74	*	148,74	*

* available on request

Art. S.2255 a S.2258 SWIFT•O•MATIC QM


Full bore ball valve 4 way, nut and tail on the 4 sides, nickel-plated, with electric servo control.

Size	¾"	1"					
A mm	143	143					
B mm	34,5	34,5					
C mm	50-60	50-60					
D mm	110	110					
E mm	204	204					
F mm	100	100					

Code	Size	S2255	S2256	S2257	S2258				
N05	¾"	163,18	*	169,71	*				
N06	1"	168,15	*	175,23	*				

* available on request

ACTUATOR CHARACTERISTICS

S2245N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
 S2246N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
 S2247N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
 S2248N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way

ACTUATOR CHARACTERISTICS

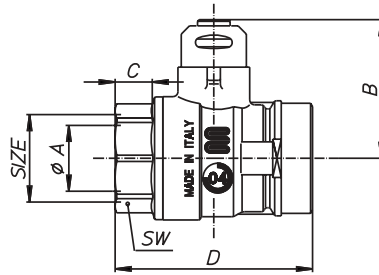
S2451N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
 S2452N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
 S2453N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
 S2454N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
 S2455N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
 S2456N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
 S2457N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
 S2458N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way

ACTUATOR CHARACTERISTICS

S2255N 230V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
 S2256N 24V 50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
 S2257N 230V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
 S2258N 24V 50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way

QUICK MOUNTING FULL BORE BALL VALVE FOR ACTUATOR

Art. S.1041 SWIFT•O•MATIC QM

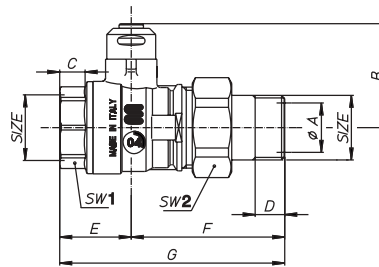


Size	½"	¾"	1"	1¼"			
øA bore	15	20	25	32			
B mm	38,5	42	47	52			
C mm	7,2	11	12,5	13,5			
D mm	53	61	70,5	84			
SW mm	26	31	38	47			

Full bore ball valve female/female, nickel-plated, with quick mounting connection for actuator.

Code	Size	S1041					
N04	½"	13,54					
N05	¾"	18,15					
N06	1"	21,40					
N07	1¼"	36,57					

Art. S.1044 SWIFT•O•MATIC QM

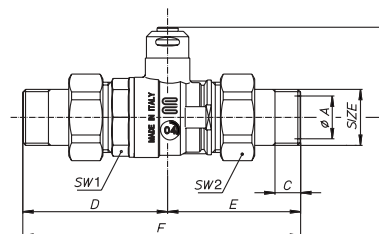


Size	½"	¾"	1"	1¼"			
øA bore	15	20	25	32			
B mm	38,5	42	47	52			
C mm	7,2	11	12,5	13,5			
D mm	10	12	12	15			
E mm	25	29	35	41			
F mm	54,5	62	69,5	81			
G mm	79,5	91	104,5	122			
SW1 mm	26	31	38	47			
SW2 mm	30	37	47	52			

Full bore ball valve nut and tail/female, nickel-plated, with quick mounting connection for actuator.

Code	Size	S1044					
N04	½"	15,87					
N05	¾"	20,88					
N06	1"	25,88					
N07	1¼"	42,97					

Art. S.1045 SWIFT•O•MATIC QM



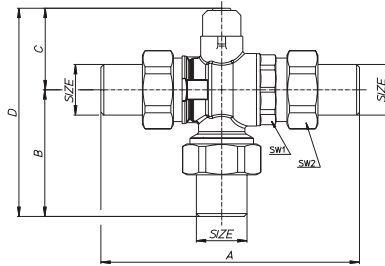
Size	½"	¾"	1"	1¼"			
øA bore	15	20	25	32			
B mm	38,5	42	47	52			
C mm	10	12	12	15			
D mm	57	68	77,5	87,5			
E mm	54,5	62	69,5	81			
F mm	111,5	130	147	168,5			
SW1 mm	28	34	43	49			
SW2 mm	30	37	47	52			

Full bore ball valve nut and tail/nut and tail, nickel-plated, with quick mounting connection for actuator.

Code	Size	S1045					
N04	½"	18,47					
N05	¾"	25,38					
N06	1"	37,55					
N07	1¼"	53,20					

Art. S.1049 e S.1050

SWIFT•O•MATIC QM



Size	½"	¾"	1"	1¼"				
A mm	113,5	132,5	151	176				
B mm	56,5	65,5	70	89				
C mm	37,5	41	45	50				
D mm	94	106,5	111	139				
SW1 mm	28	34	43	49				
SW2 mm	30	37	47	52				

S.1049 T-port ball.

Code	Size	S1049
N04	½"	20,98
N05	¾"	29,65
N06	1"	48,10
N07	1¼"	64,15

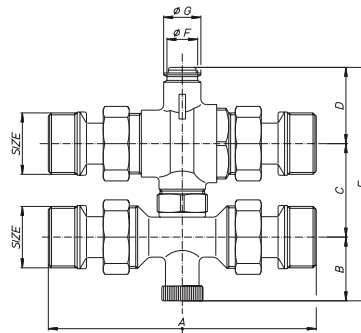
S.1050 L-port ball.

Code	Size	S1049
N04	½"	20,98
N05	¾"	29,65
N06	1"	48,10
N07	1¼"	64,15

S.1049 - Three-way ball valve, T-port, with nut and tail on the 3 sides, nickel-plated, with quick mounting connection for actuator.

S.1050 - Three-way ball valve, L-port, with nut and tail on the 3 sides, nickel-plated, with quick mounting connection for actuator.

Art. S.1055 SWIFT•O•MATIC QM

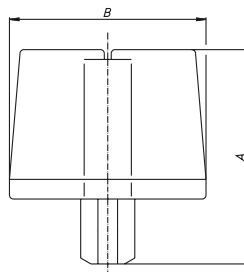


Size	¾"	1"						
A mm	143	143						
B mm	34,5	34,5						
C mm	50-60	50-60						
D mm	40,5	40,5						
E mm	125	125						
øF mm	16,5	16,5						
øG mm	20	20						

Code	Size	S1055
N05	¾"	67,72
N06	1"	72,80

Full bore ball valve 4 way, nut and tail on the 4 sides, nickel-plated, with quick mounting connection for actuator.

Art. S.2811 to S.2818



Size								
A mm	110							
B mm	100							

Electric servo control with quick mounting connection.

Code	Size	S2811	S2812	S2813	S2814	S2815	S2816	S2817	S2818
P00	-	92,18	*	98,15	*	103,81	*	109,33	*

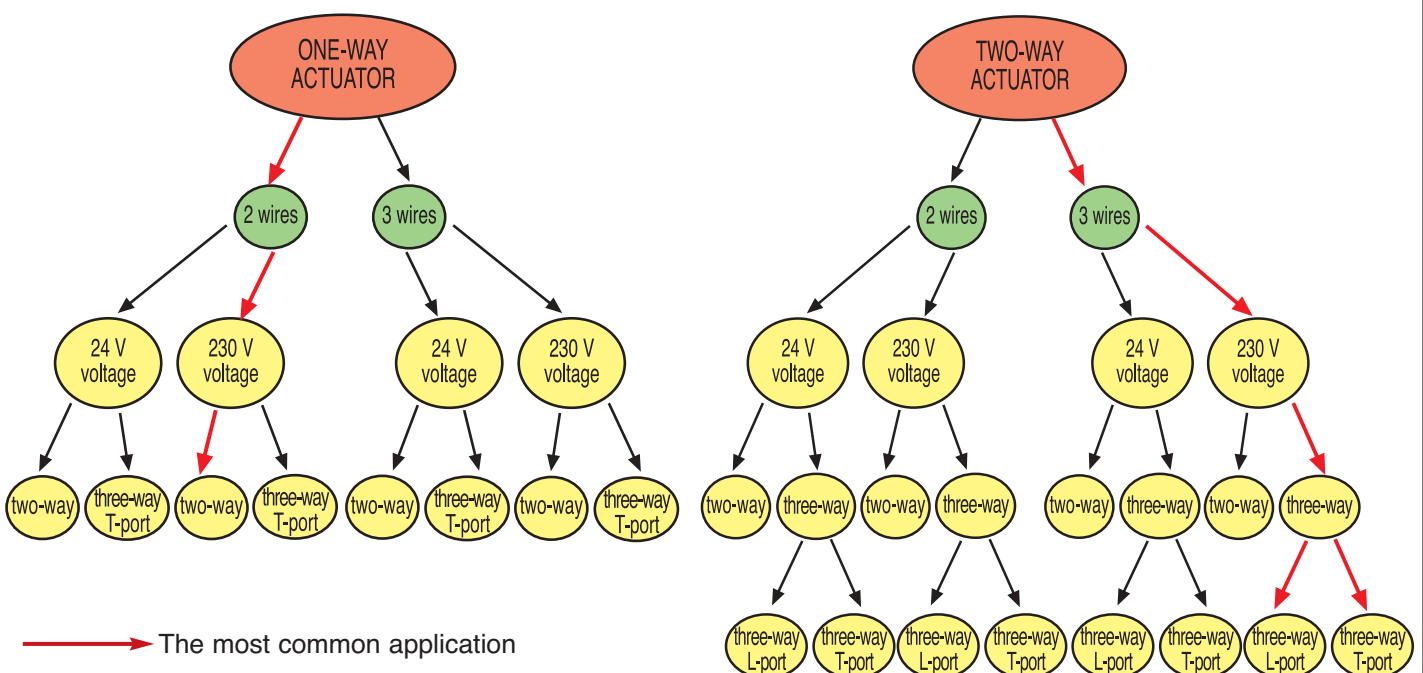
ACTUATOR CHARACTERISTICS

S2811P 230V	50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
S2812P 24V	50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
S2813P 230V	50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
S2814P 24V	50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 one-way
S2815P 230V	50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
S2816P 24V	50 HZ 3 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
S2817P 230V	50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way
S2818P 24V	50 HZ 2 wires 1 MICRO* 10Nm 60 sec. IP 54 two-way

* available on request

1. **D: Which is the difference between “one-way” and “two-way” actuators?**
R: One-way actuators can rotate in one direction only. On the contrary, two-way actuators can rotate in both directions. These ones can stop their own stroke and invert their direction in order to reduce their cycle time (opening and closing time).
2. **D: When should one-way or two-way actuators be used?**
R: In the case of two-way or three-way valves with T-port one can use one-way or two-way actuators without any distinctions. Three-way ball valves with L-port can only be combined with a two-way actuator.
3. **D: What is a micro?**
R: Micros are auxiliary switches which are started at the top of the stroke and allow drawing an electrical signal from the actuator. In the case of a typical application, micro is started when the valve is closed by sending a signal to the pump in order to stop its working.
4. **D: Why does one usually talk about two or three wires if they are actually more?**
R: Because one usually only identifies power wires (two or three), which is the wires to be directly connected to the network. This is due to the fact that the other wires can vary, for example, when the number of micros vary.
5. **D: Which is the difference between two or three wires?**
R: Two wires actuators are provided with an inner relay regulating opening and closing. Such actuators cannot stop in intermediate positions. Three wires actuators need on the contrary an outer relay (which is usually situated in the thermostat). Such actuators can also stop in intermediate positions.
6. **D: What does IP54 mean?**
R: IP stands for the security class of an electrical appliance . The two numbers indicate respectively: the level of protection from the entrance and the contact with solid bodies; the level of protection from water.

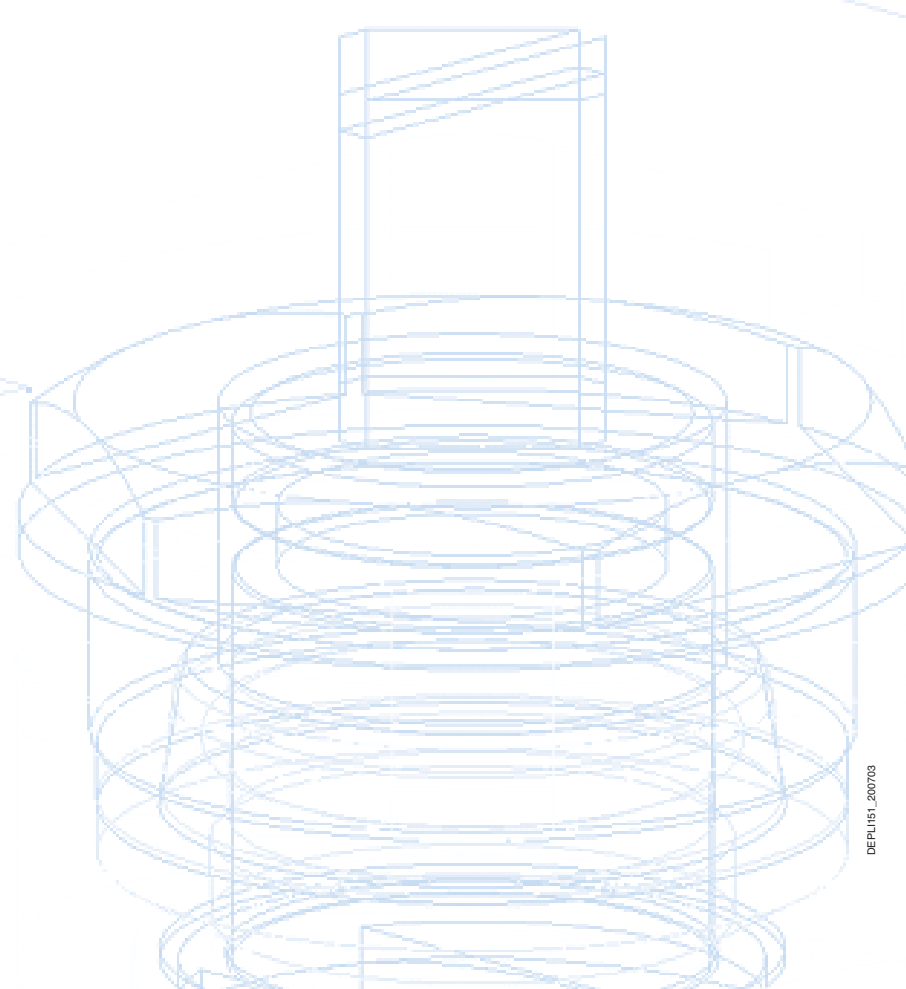
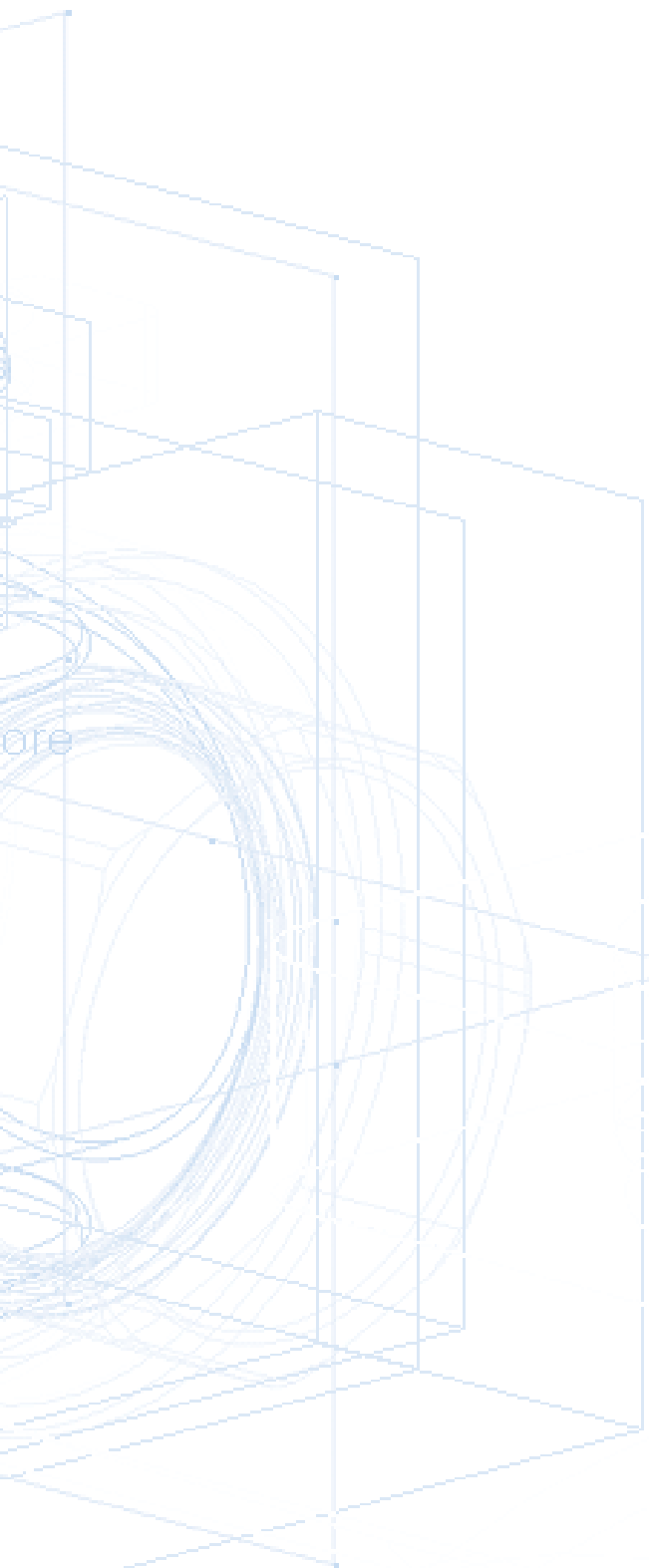
POSSIBLE COMBINATIONS FOR PACKAGE ACTUATOR + VALVE



NOTE

The dimensions and weights reported in the tables and charts are indicative. The manufacturer retains the right to change specifications without prior notice, to ensure that the quality and technical standards are maintained at the highest level.

The measures are expressed in millimeters (mm) and the weights in grams (gr), unless otherwise specified.



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CATALOGUE SWIFT•O•MATIC QM

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