

CONTROL BALL VALVES
WITH EQUAL PERCENTAGE CHARACTERISTIC

2010

NEW

3 WAY



ENOLGAS



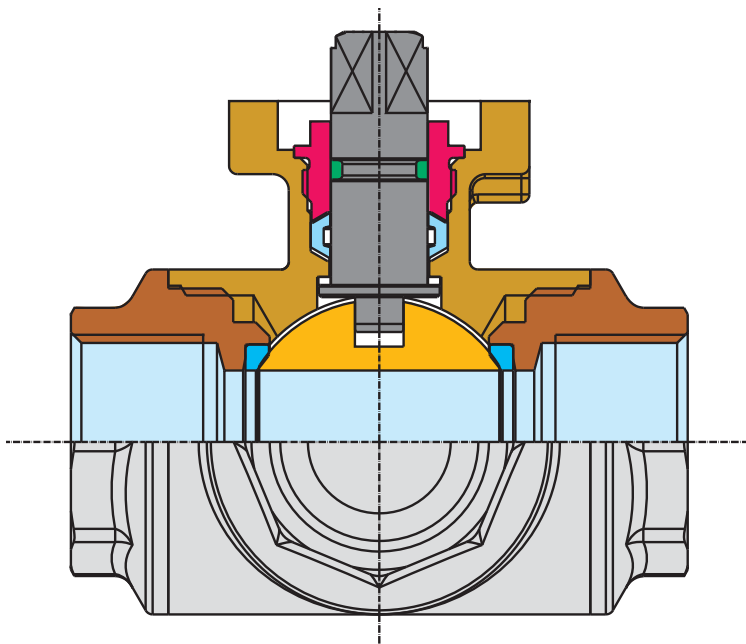
BALL•O•MATIC® 3-WAY

3-way ball valve for actuators



BALL•O•MATIC® 3-WAY

3-way ball valve for actuators



BODY	1	
CW 617 N UNI EN 12165		
END ADAPTER	2	
CW 617 N UNI EN 12165		
BALL	3	
CW 614 N UNI EN 12164		
BALL GASKETS	4	
P.T.F.E.		
STEM	5	
CW 614 N UNI EN 12164		
O-RING	6	
ELASTOMER		
GLAND	7	
CW 614 N UNI EN 12164		
THRUST WASHER	8	
P.T.F.E.		
STEM GASKET	9	
P.T.F.E.		

Size	DN	Max Breaking Torque	Kv	
			ON-OFF	MODULATING
			PN 0 T 25°C	
1/4"	8	5 Nm	5.9	-
3/8"	10	5 Nm	9.4	-
1/2"	15	5 Nm	17	3
3/4"	20	6,5 Nm	41	6,7
1"	25	9,5 Nm	70	9
1 1/4"	32	15 Nm	121	16
1 1/2"	40	25 Nm	200	27
2"	50	30 Nm	292	40

(*) technical information available upon request.

The above mentioned values refer to a new valve, as released from production, after a fixed time. Please consider adequate safety margin in case you might use the valve with different actuators.

FEATURES

BALL•O•MATIC 3-way valves are in brass, heavy line, designed to be easily and quickly combined with an actuator.

Wear resistant, made up of solid and long-lasting materials.

Connections to actuators according to ISO 5211.

TECHNICAL FEATURES

Full bore, 4 gaskets.

THREADS

Ends are EN 10226 (ex UNI ISO 7/1) threaded.

WORKING PRESSURES

From PN 40 (1/2"), see diagram.

TEMPERATURE LIMITS

- 20°C + 130°C, see diagram.

APPLICATIONS

BALL•O•MATIC 3-way valves are suitable for applications with hot and cold water, compressed air, oils, hydrocarbons and non-corrosive fluids. For any special uses see the table of chemical resistance.

COATED OPTIONS



POLYMER PROPERTIES	UNITS	GLOBAL	TEST METHOD
DENSITY	Kg/m ³	500	ISO 845
TENSILE STRENGTH	Kg/cm ²	45	ISO 37
ELONGATION AT BREAK	%	100	ISO 37
TEAR STRENGTH	N/m	11	ISO 34
HARDNESS AT 23°C	Shore A	65-70	ISO 868
COMPRESSION SET (50%)	%	10	ISO 1855
C.L.D. (40%)	Kpa		ISO 3386
TEMPERATURE	°C	-20 +110	-

1. Tensile and Elongation core properties were tested also according to ISO 1798 Test Method

The coated valves has been designed for chilled water applications, easier installation and coating of the pipeline. So the most complicated part, between the valve and the actuator, is already coated with Semirigid Integral Skin foams with model density of 400-600 kg/m³ and a skin hardness of 60-77 Shore A.

NOTE: To require this valve, please put a "P" instead of "N" in the articles number.

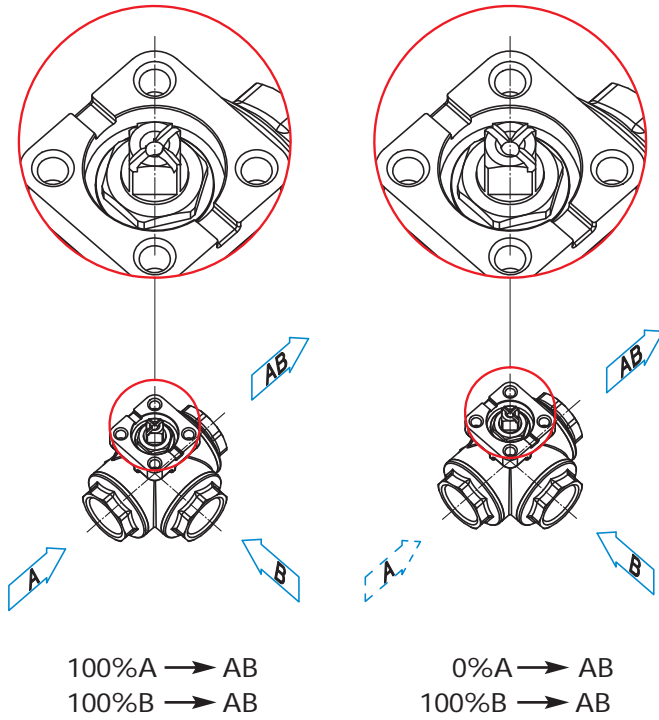




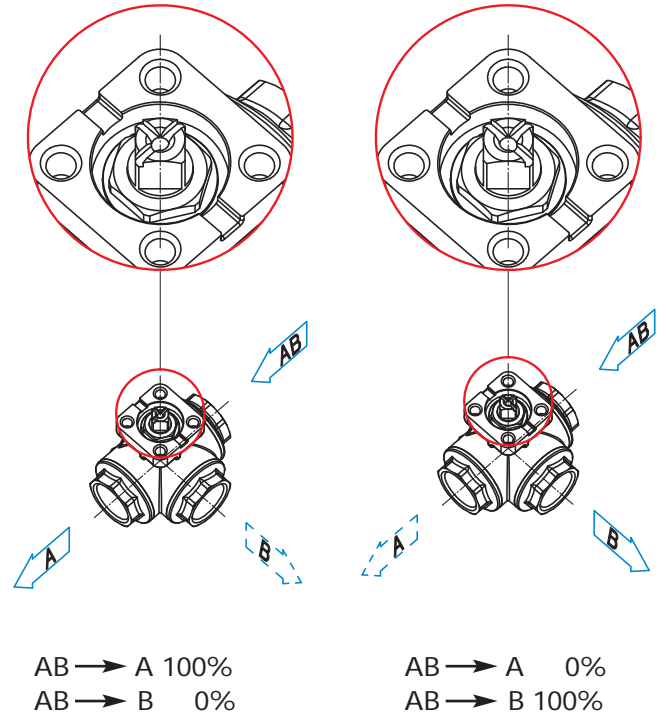
BALL•O•MATIC® 3-WAY

Applications

MIXING

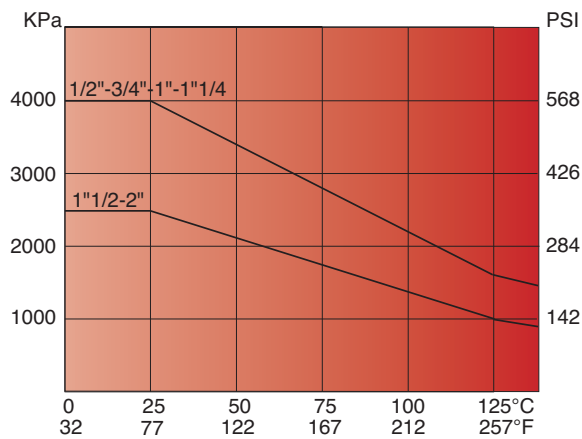


DIVERTING

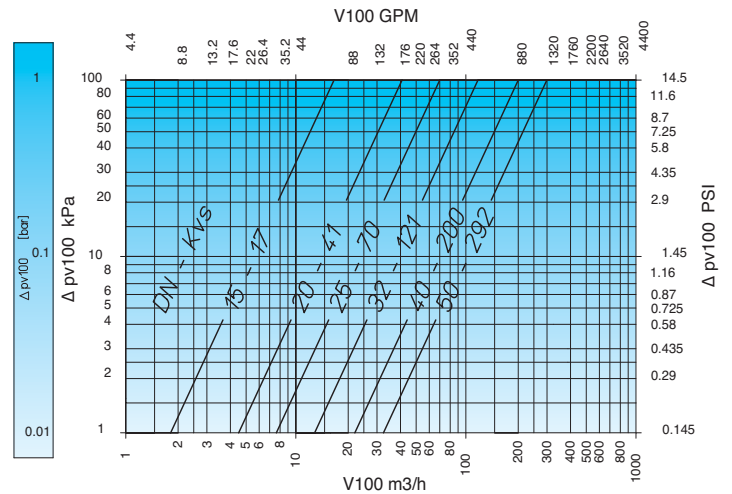


Note: Mixing or diverting depends on installation and flow optimizer position. Specify when ordering.

Pressure/temperature diagram
(test carried out with water)



Loss of head diagram
(for water applications)

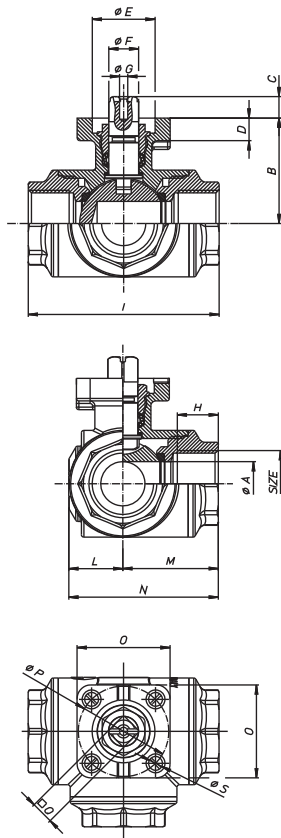
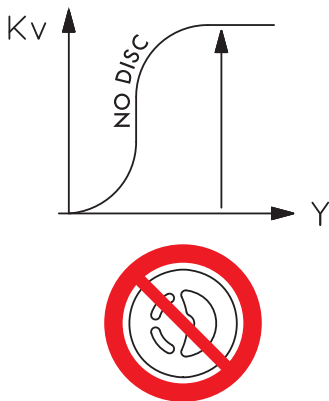




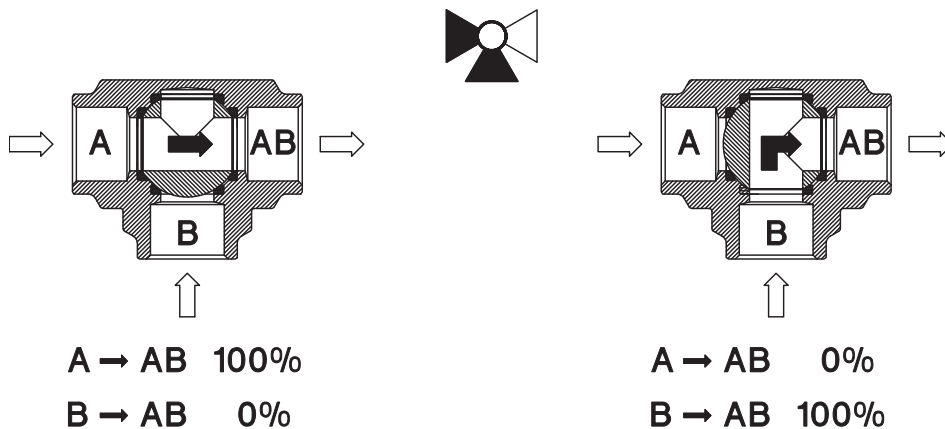
Art. S.1070
BALL•O•MATIC T-PORT



3-way ball valve, full bore with T-port.



Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
øA pass./bore	8	10	14,1	17,6	25	32	40	50
B mm	38	38	38	42	46,5	61,5	63,5	74
C mm	9	9	9	9	9	11	11	14
D mm	9	9	9	9	9	10	10	12
øE mm	25	25	25	25	25	30	30	35
øF	10,8	10,8	10,8	11,9	11,9	13,9	13,9	17,9
øG	M4	M4	M4	M4	M4	M4	M4	M5
H mm	15	15	15	16,3	19,1	21,4	21,4	25,7
I mm	64,5	64,5	64,5	76	97	118	135	157
L mm	17	17	17	21,5	26	36	37,5	43
M mm	32,5	32,5	32,5	38	48,5	59	67,5	78,5
N mm	49,5	49,5	49,5	59,56	74,5	95,2	105	121,5
O mm	37	37	37	37	42	48	48	48
øP	F3	F3	F3	F3	F3-F4	F4-F5	F4-F5	F5
□Q	9	9	9	9	9	11	11	11
øS	5,5	5,5	5,5	5,5	5,5	5,5-6,5	5,5-6,5	6,5
SW mm	25	25	25	31	41	55	55	67



BALL VALVE FOR 2-POSITION CONTROL ON-OFF FULL BORE WITHOUT DISC

Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
DN (mm)	8	10	15	20	25	32	40	50
Kvs (m ³ /h)	5,9	9,4	17	41	70	121	200	292
Article	S.1070N32	S.1070N33	S.1070N34	S.1070N35	S.1070N36	S.1070N37	S.1070N38	S.1070N39





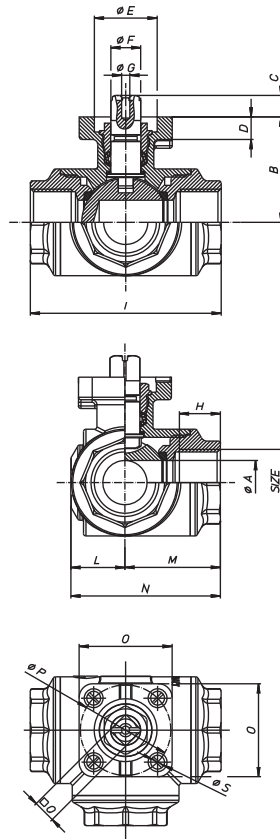
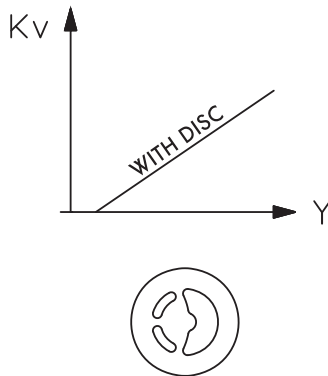
BALL•O•MATIC® 3-WAY

MODULATING

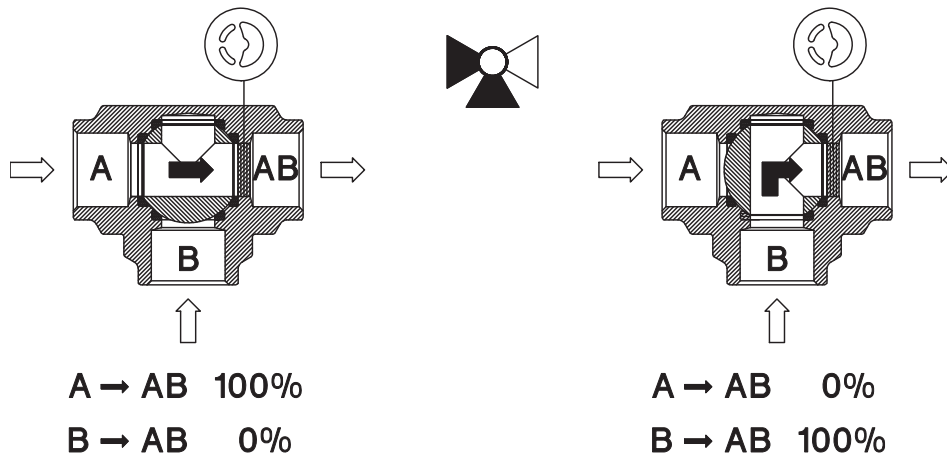
Art. S.1661L
BALL•O•MATIC T-PORT



3-way ball valve, full bore with T-port.



Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
øA pass./bore	8	10	14,1	17,6	25	32	40	50
B mm	38	38	38	42	46,5	61,5	63,5	74
C mm	9	9	9	9	9	11	11	14
D mm	9	9	9	9	9	10	10	12
øE _{HE}	25	25	25	25	25	30	30	35
øF	10,8	10,8	10,8	11,9	11,9	13,9	13,9	17,9
øG	M4	M4	M4	M4	M4	M4	M4	M5
H mm	15	15	15	16,3	19,1	21,4	21,4	25,7
I mm	64,5	64,5	64,5	76	97	118	135	157
L mm	17	17	17	21,5	26	36	37,5	43
M mm	32,5	32,5	32,5	38	48,5	59	67,5	78,5
N mm	49,5	49,5	49,5	59,56	74,5	95,2	105	121,5
O mm	37	37	37	37	42	48	48	48
øP	F3	F3	F3	F3	F3-F4	F4-F5	F4-F5	F5
øQ	9	9	9	9	9	11	11	11
øS	5,5	5,5	5,5	5,5	5,5	5,5-6,5	5,5-6,5	6,5
SW mm	25	25	25	31	41	55	55	67

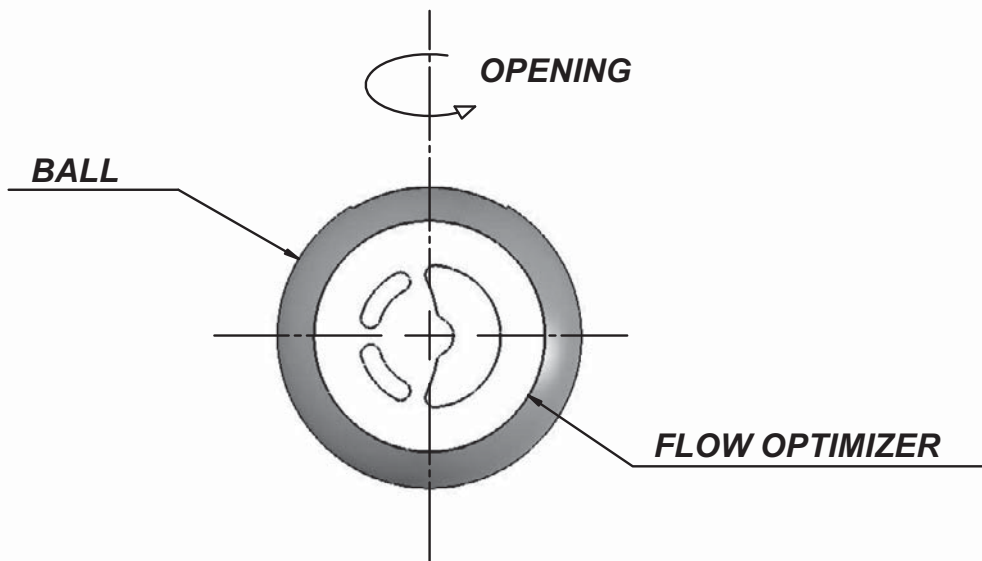
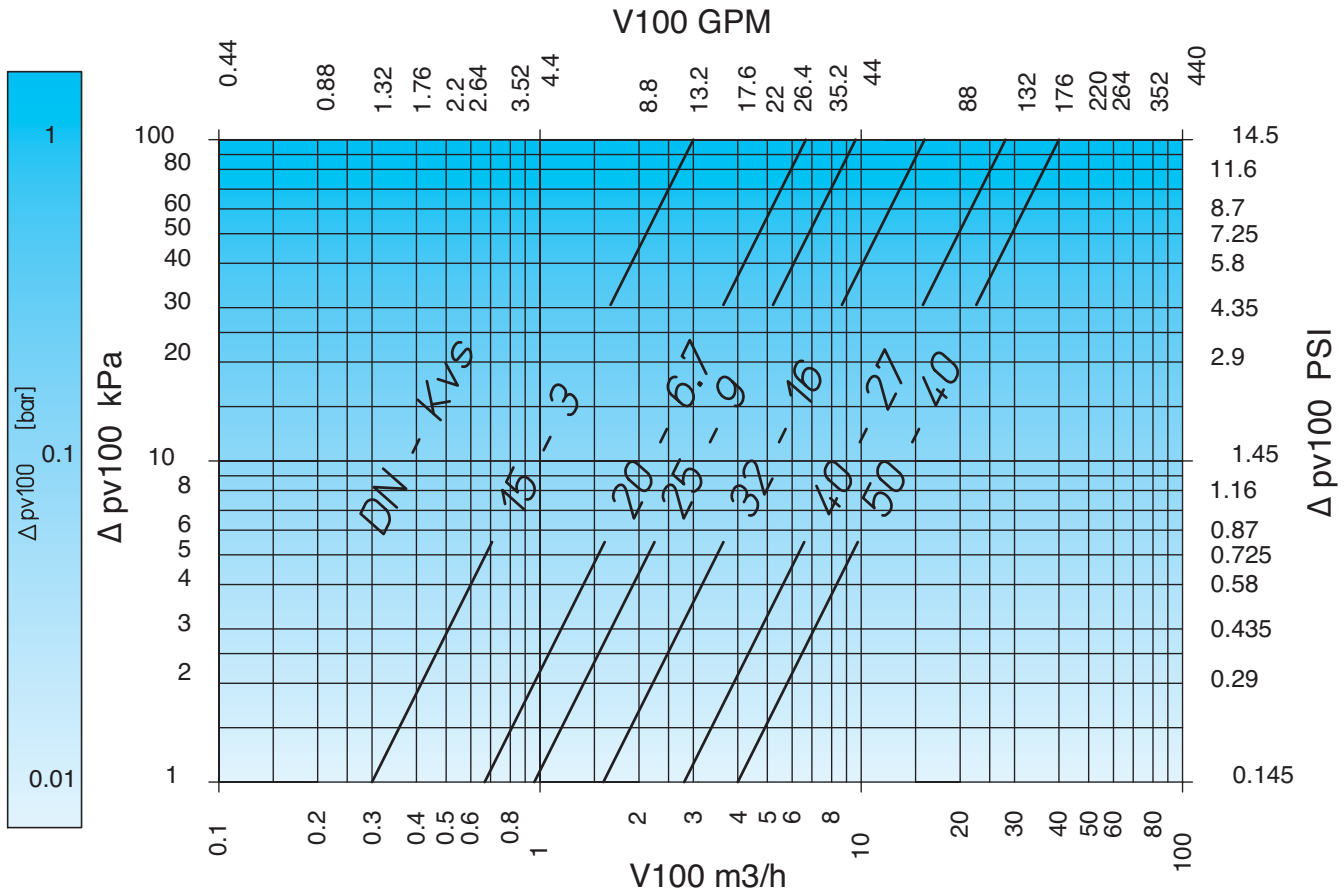


BALL VALVE FOR MODULATING CONTROL WITH DISC

Size		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
DN (mm)		15	20	25	32	40	50
Kvs (m ³ /h)		3	6,7	9	16	27	40
Article		S1070N34 + S1661L04 + S1665P04	S1070N35 + S1661L05 + S1667P05	S1070N36 + S1661L06 + S1668P06	S1070N37 + S1661L07 + S1669P07	S1070N38 + S1661L08 + S1671P08	S1070N39 + S1661L09 + S1672P09

BALL•O•MATIC® 3-WAY **MODULATING**

Loss of head diagram with optimizer disc





3-WAY

TABLE 1

VALVE PRODUCT NUMBER	FLOW OPTIMIZER DISC	SIZE	DN (mm)	TORQUE (Nm)	Kvs (m ³ /h)
S1070N34 + S1661L04 + S1665P04	*	1/2"	15	5	3
S1070N34	17				
S1070N35 + S1661L05 + S1667P05	*	3/4"	20	6,5	6,7
S1070N35	41				
S1070N36 + S1661L06 + S1668P06	*	1"	25	9,5	9
S1070N36	70				
S1070N37 + S1661L07 + S1669P07	*	1" 1/4	32	15	16
S1070N37	121				
S1070N38 + S1661L08 + S1671P08	*	1" 1/2	40	25	27
S1070N38	200				
S1070N39 + S1661L09 + S1672P099	*	2"	50	30	40
S1070N39	292				

3-WAY ACTUATOR

TABLE 2

VALVE PRODUCT NUMBER	230V 3 POINT CONNECTION ON-OFF	24V 3 POINT CONNECTION ON-OFF	230V 2 POINT CONNECTION ON-OFF	24V 2 POINT CONNECTION ON-OFF	24 V 0-10 VDC MODULATING	230 V 0-10 VDC MODULATING
S1070N34 + S1661L04 + S1665P04	S2935P00	S2936P00	S2937P00	S2938P00	S2940P00	AV. ON RQST
S1070N34	S2935P00	S2936P00	S2937P00	S2938P00	S2940P00	AV. ON RQST
S1070N35 + S1661L05 + S1667P05	S2935P00	S2936P00	S2937P00	S2938P00	S2940P00	AV. ON RQST
S1070N35	S2935P00	S2936P00	S2937P00	S2938P00	S2940P00	AV. ON RQST
S1070N36 + S1661L06 + S1668P06	S2935P00	S2936P00	S2937P00	S2938P00	S2940P00	AV. ON RQST
S1070N36	S2935P00	S2936P00	S2937P00	S2938P00	S2940P00	AV. ON RQST
S1070N37 + S1661L07 + S1669P07	AV. ON RQST	AV. ON RQST	S2860P10	S2862P10	AV. ON RQST	AV. ON RQST
S1070N37	AV. ON RQST	AV. ON RQST	S2860P10	S2862P10	AV. ON RQST	AV. ON RQST
S1070N38 + S1661L08 + S1671P08	AV. ON RQST0	AV. ON RQST	S2863P40	S2865P40	AV. ON RQST	AV. ON RQST
S1070N38	AV. ON RQST	AV. ON RQST	S2863P40	S2865P40	AV. ON RQST	AV. ON RQST
S1070N39 + S1661L09 + S1672P09	AV. ON RQST	AV. ON RQST	S2863P40	S2865P40	AV. ON RQST	AV. ON RQST
S1070N39	AV. ON RQST	AV. ON RQST	S2863P40	S2865P40	AV. ON RQST	AV. ON RQST

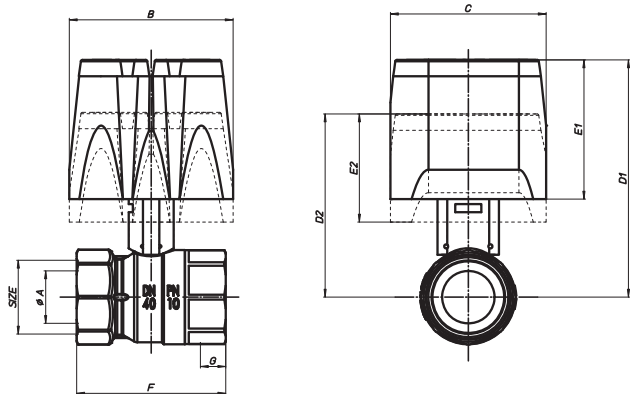
Note: Valve marked with an asterisk (*) have a flow optimizer disc for modulating applications.

Note: For coated valves specify the last letter with P instead of N or L on the valve product number.

Example: S1070P36.

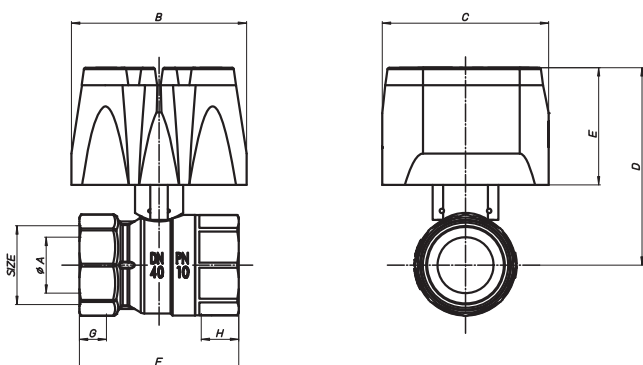


2-WAY ON-OFF



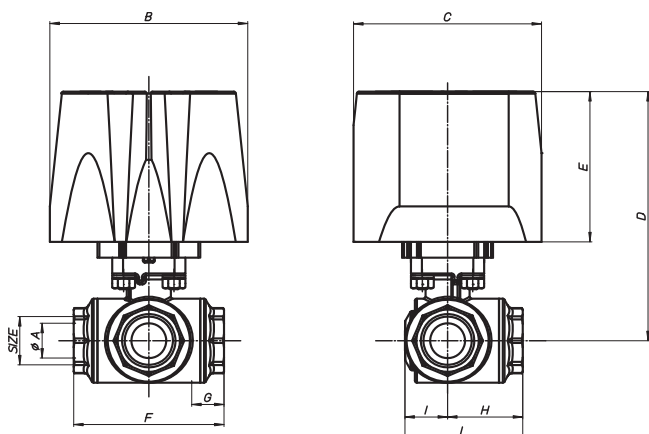
Size			½"	¾"	1"	1¼"	1½"	2"
øA bore			15	20	25	32	32	40
B mm			100	100	100	100	100	100
C mm			73	73	73	73	73	73
D1 mm			122	126	130	135	135	142
E1 mm			76	76	76	76	76	76
D2 mm			110	114	118	123	123	130
E2 mm			66	66	66	66	66	66
F mm			50	58,5	71	82	90	105
G mm			7,2	11	12,5	13,5	15,5	17,5

2-WAY MODULATING



Size			½"	¾"	1"	1¼"	1½"	2"
øA bore			15	20	25	32	32	40
B mm			100	100	100	100	100	100
C mm			73	73	73	73	73	73
D mm			110	114	118	123	123	130
E mm			66	66	66	66	66	66
F mm			57	64,5	77	90,5	95	112,5
G mm			7,2	11	12,5	13,5	15,5	17,5
H mm			15	16,3	19,1	21,4	21,4	25,7

3-WAY ON-OFF and MODULATING

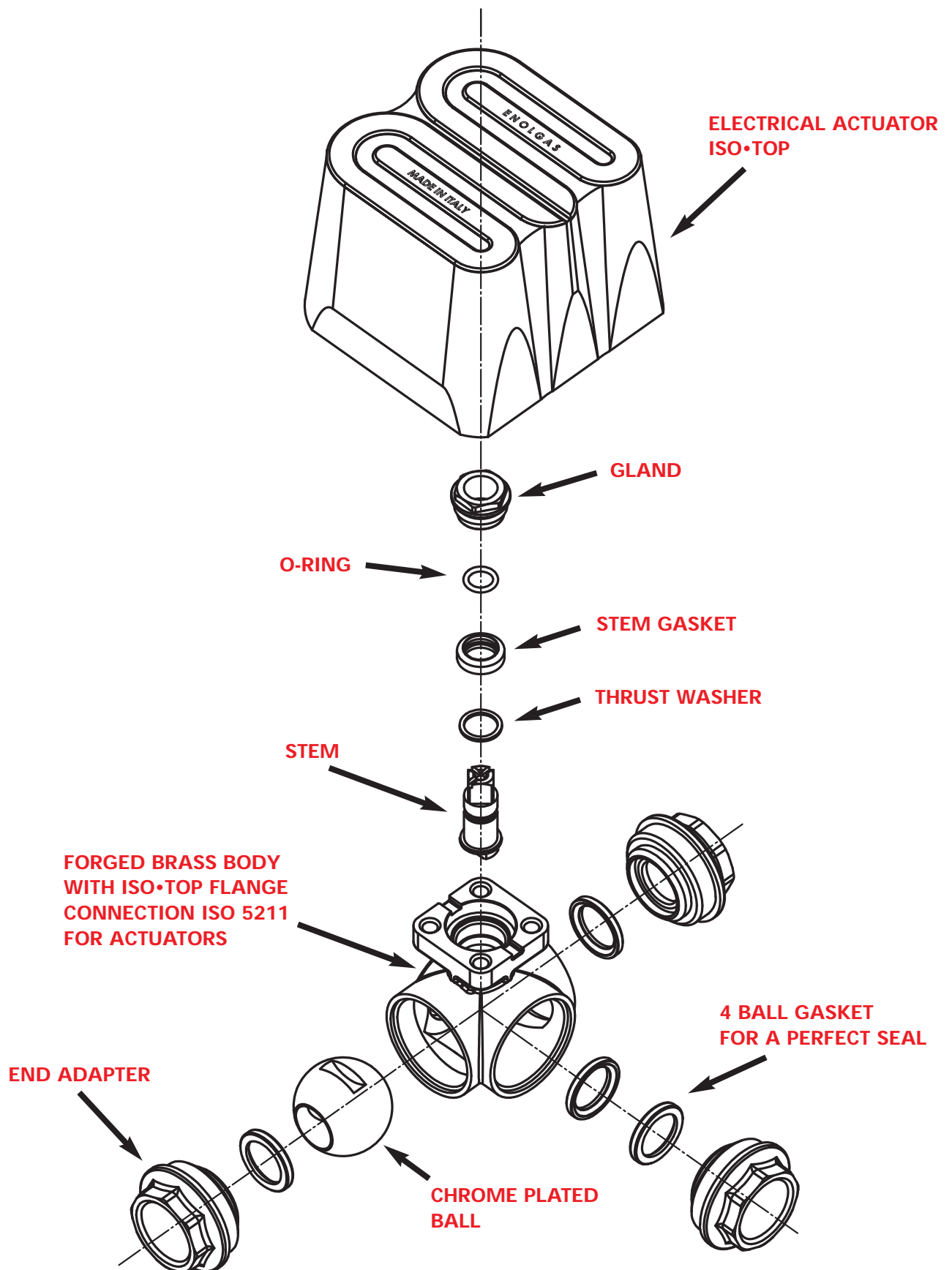


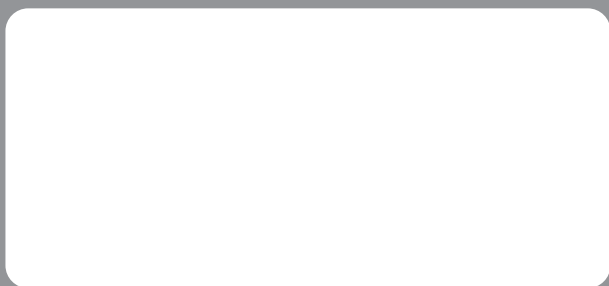
Size	¼"	⅜"	½"	¾"	1"	1½"	1¾"	2"
øA bore	8	10	14,1	17,6	25	-	-	-
B mm	100	100	100	100	100	-	-	-
C mm	73	73	73	73	73	-	-	-
D mm	122	122	122	126	130	-	-	-
E mm	66	66	66	66	66	-	-	-
F mm	64,5	64,5	64,5	76	97	-	-	-
G mm	15	15	15	16,3	19,1	-	-	-
H mm	32,5	32,5	32,5	38	48,5	-	-	-
I mm	17	17	17	21,5	26	-	-	-
L mm	49,5	49,5	49,5	59,5	74,5	-	-	-



SWIFT•O•MATIC® ISO•TOP

Assembly 3-way





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