



VALVOLE INDUSTRIALI 2022



**Esperienza,
Dinamismo,
Grande dedizione al lavoro.**

Sono i segreti della nostra
COSTANTE CRESCITA

REA - NO 215083 CAP. SOCIALE 70.400 EURO I.V.

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	FROM	TO	MATERIAL
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**CERTIFICATIONS MUST BE REQUIRED BEFORE ORDERING
AND QUOTED SEPARATELY**

1- Pneumatic and electric actuators

PNEUMATIC ACTUATOR AT



Specifications

(Model) AT
(Size Range) 8-9000 NM 5,5 bar
(Operating Pressure) 10 BAR MAX
(Valve Operation Type) Double actingt, spring return
(Body Materials) ALLUMINIUM
(Connectinon) Namur
(MIN TEMPERATURE) -15 +85 C

ELECTRIC ACTUATOR J4C MULTIVOLTAGE

IP 67

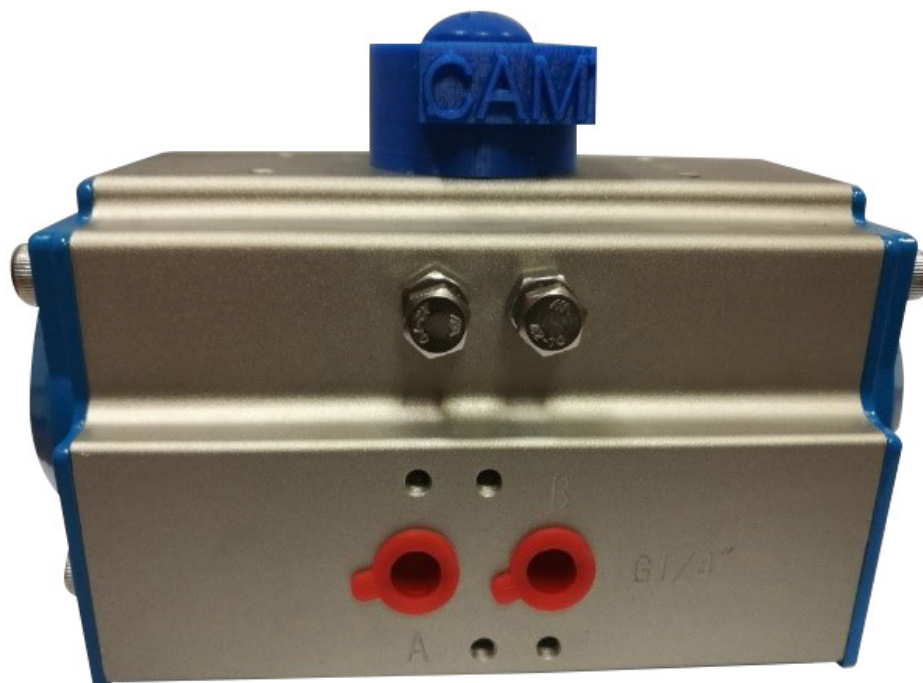
Brushless motor



Specifications

(Model) J4C
(Size Range) 20-300 NM
(POWER) 24 to 240 v Brushless motor
(TEMPERATURE) -20 +70C
(Body Materials) POLYCARBONATE
(OPTION) DIGITAL POSITIONER
BATTERY SYSTEM RETURS KIT
DIGITAL POTENTIOMETER

Pneumatic Actuator At Series



Produced in China, CAM SERVICE SRL DESIGN AND COSTUMIZATION

DICHIARAZIONE DI CONFORMITÀ UE

Oggetto della dichiarazione: ATTUATORE PNEUMATICO

Fabbricante: CAM SERVICE SRL
Via PRIVATA TICINO SN
28078 Romagnano Sesia (NO)

Questa dichiarazione di conformità è emessa sotto la responsabilità del Fabbricante

Oggetto della dichiarazione: "Attuatori Pneumatici"

Avente la marcatura:

II2G Ex h IIC T6 Gb



II2D Ex h IIIC T85° Db

Temperatura ambiente: - 25 °C ÷ 60 °C

Soddisfa i requisiti essenziali di sicurezza e salute ad essa applicabili dalla Direttiva 2014/34/UE.

Riferimento alle norme armonizzate utilizzate:

- UNI EN ISO 80079-36:2016 «Apparecchi non elettrici destinati alle atmosfere esplosive - Metodo e requisiti di base»
- UNI EN ISO 80079-37:2016 «Apparecchi non elettrici destinati alle atmosfere esplosive - Tipo di protezione non elettrica per sicurezza costruttiva "c", per controllo della sorgente di accensione "b", per immersione in liquido "k"»

L'apparecchiatura summenzionata è soggetta al modulo "controllo interno di fabbricazione" (allegato VIII direttiva Atex):

Riferimento documentazione tecnica: *Catalogo Attuatori AT*

Ricevuta di deposito presso Nobo

Romagnano Sesia 24/07/2019

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C.C.I.A.A. MB n° 1093767

P.IVA: IT01512440023

DICHIARAZIONE DECLARATION



ZERTIFIKAT • CERTIFICATE • 證書 • СЕРТИФИКАТ • CERTIFICADO • CERTIFICAT

- 1 **AVVISO DI RICEVIMENTO**
ACKNOWLEDGEMENT OF RECEIPT
- 2 **Apparecchiature o Sistemi di Protezione destinati ad essere utilizzati in atmosfere potenzialmente esplosive Direttiva 2014/34/UE**
Equipment of Protective System of Component intended for use in potentially explosive atmospheres Directive 2014/34/EU
- 3 Numero dell'avviso di ricevimento: **TÜV IT 19 ATEX 072 AR**
Acknowledgement of receipt number:
- 4 Apparecchiatura o sistema di protezione:
Equipment of protective system:
Attuatore pneumatico serie AT
- 5 Identificazione del fascicolo tecnico data dal richiedente:
Technical file reference given by applicant:
Attuatore pneumatico serie AT REv/0
- 6 Richiedente/Applicant: **C.A.M. SERVICE SRL**
Via San Martino nr 3
IT - 13045 GATTINARA (VC)
- 7 Costruttore/Manufacturer: **C.A.M. SERVICE SRL**
Via San Martino nr 3
IT - 13045 GATTINARA (VC)
- 8 Il TÜV Italia, organismo notificato n° 0948 in conformità Direttiva 2014/34/UE del Consiglio dell'Unione Europea del 26 febbraio 2014, avvisa il richiedente di aver ricevuto il fascicolo tecnico relativo all'apparecchiatura o sistema di protezione sopra citato in accordo alla procedura definita all'articolo 13 paragrafo 1-b-ii della Direttiva 2014/34/UE.
TÜV Italia, notified body n° 0948 in accordance with the Concil Directive 2014/34/EU of 26 February 2014, notifies to the applicant to have received the technical file relates to the equipment or protective system above mentioned according to procedure defined to Article 13 paragraph 1-b-ii of the Directive 2014/34/EU.

Data prima emissione / First issue date: 30/09/2019

Data emissione / Issue date: 30/09/2019

Data scadenza / Expiry date: 29/09/2029

TÜV ITALIA Srl

Organismo Notificato No. 0948

Notified Body, No. 0948



PRD N° 081B

Membro degli Accordi di Mutuo Riconoscimento
EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual
Recognition Agreements



Handwritten signature

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PEX-01-MD43_04_dal 29/03/2018

TÜV Italia • Gruppo TÜV SÜD • Via Carducci 125, Pal. 23 • 20099 Sesto San Giovanni (MI) • Italia • www.tuv.it **TÜV**

1 - TECHNICAL CHARACTERISTICS

At series pneumatic actuators, with the integrated use of advanced precision machining equipment, high-quality materials and industrial art design technology. After rigorous testing and optimization of production line, ARC series pneumatic actuators have lots of advantages like smooth and reliable operation, long working life, high corrosion resistance, flexible selection, competitive price and so on.



Piston

The teeth of piston machined by CNC machining center, makes the operation smoother and performance more reliable. Anodized treatment improves the corrosion and wear resistance.



End cap

The function of 95° position limit is optimally designed on the end cap, instead of extra limit screw. This design improves the safety and reliability.



Cam

Cam with lock function*, when the actuator is required to be locked in full open (90°) or fully closed (0°) position, the actuator can be equipped with special bolts and locking device, the actuator position can be locked, and prevent misuse.



AT40 ~AT125 are available at this time

Body

According to different requirements, the surface of aluminum body can be treated with hard anodizing, powder polyester coating in colors (like black, blue, orange, red etc.), PTFE coating of Nickel plated.

Adjust screw

The two independent external travel stop adjust screws can adjust $\pm 5^\circ$ at both open and close positions easily and precisely.

Fasteners

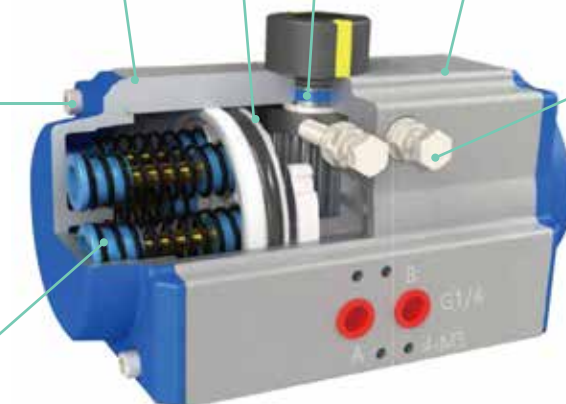
The stainless steel fasteners, are safe with high corrosion resistance.

Spring

Preloaded and coated springs are made from high quality material for higher corrosion resistance and longer service life, which can be demounted safely and conveniently to satisfy different requirements of torque by changing quantity of springs.

Drive shaft

The drive shaft is high-precision and integrative, made from nickel plated alloy steel, fully conform to the latest standards of ISO5211, DIN3337, NAMUR. The dimensions can be customized and stainless steel is available.



2 - INSTALLATION SPECIFICATION



Limit Switch box



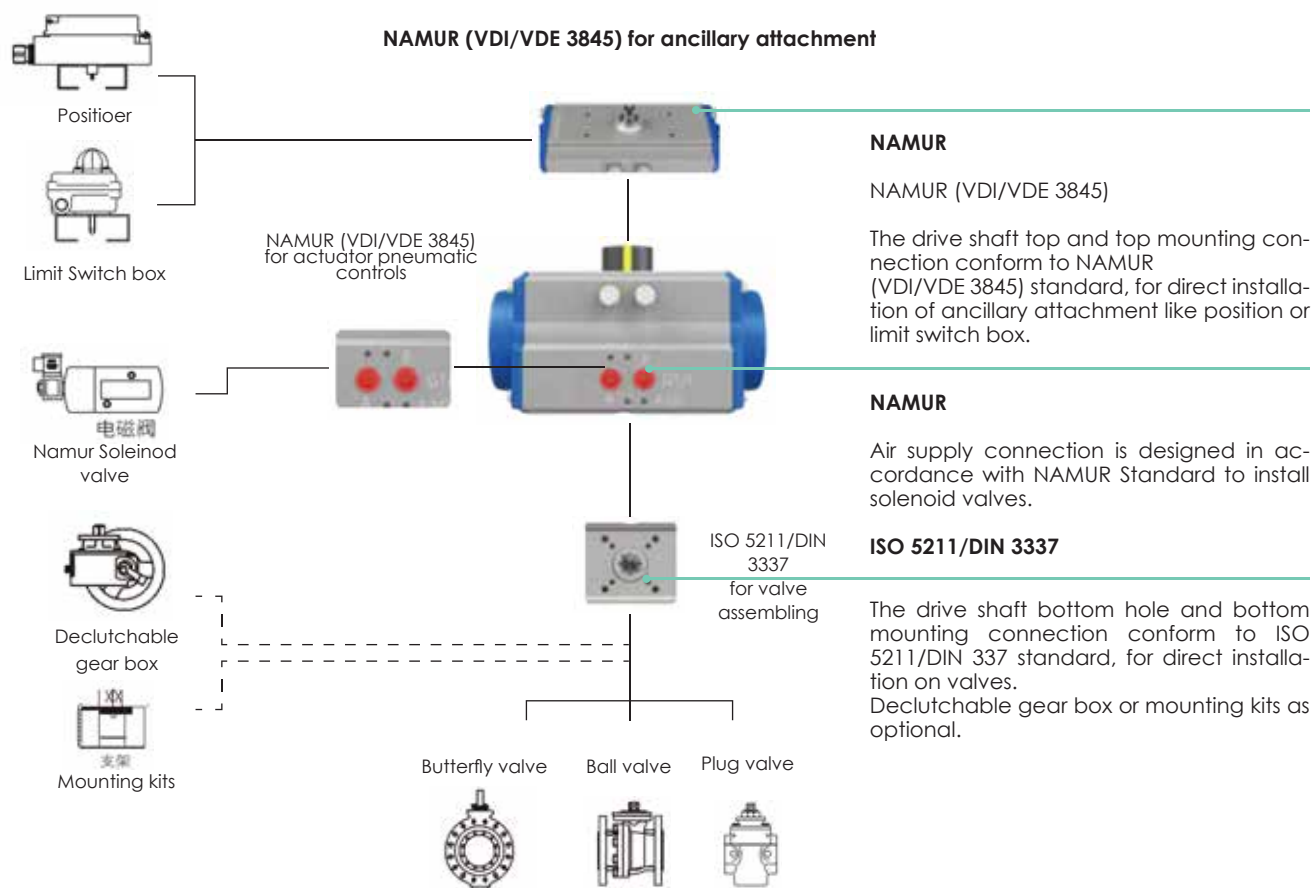
Positioner



Smart Positioner

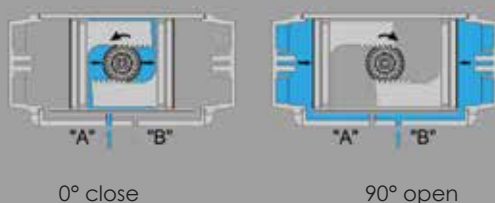


NAMUR Solenoid valve



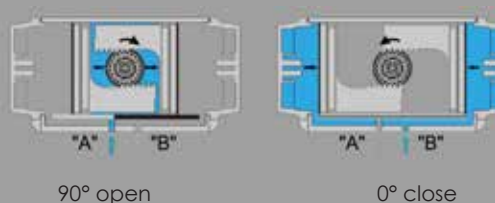
Double Acting Actuators

CCW (Standard)



Air to Port A forces the pistons outwards, causing the drive shaft to turn counterclockwise while the air is being exhausted from Port B. Air to Port B forces the pistons inwards, causing the drive shaft to turn clockwise while the air is being exhausted from Port A.

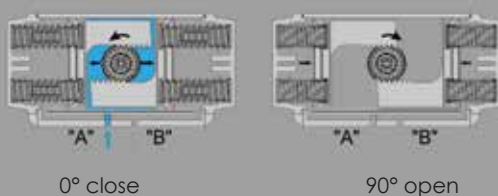
CW



Air to Port A forces the pistons outwards, causing the drive shaft to turn clockwise while the air is being exhausted from Port B. Air to Port B forces the pistons inwards, causing the drive shaft to turn counterclockwise while the air is being exhausted from Port A.

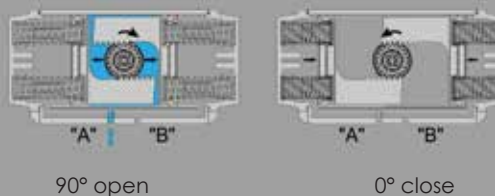
Spring Return Actuators

FC-CCW (Standard)



Air to Port A forces the pistons outwards, causing the springs to compress, the drive shaft turns counterclockwise while air is being exhausted from port B. Loss of air pressure on port A, the stored energy in the springs forces the pistons inwards. The drive shaft turns clockwise while air is being exhausted from port A.

FO-CW



Air to Port A forces the pistons outwards, causing the springs to compress, the drive shaft turns clockwise while air is being exhausted from port B. Loss of air pressure on port A, the stored energy in the springs forces the pistons inwards. The drive shaft turns counterclockwise while air is being exhausted from port A.

4 - OPERATING CONDITIONS

• Operating media

Dry or lubricated air, or non-corrosive gases. The maximum particle diameter must be less than 30 µm

• Air supply pressure

The minimum supply pressure is 2 Bar, the maximum supply pressure is 8 Bar

• Operating temperature

Standard (NBR O-rings): -20°C ~ +80°C

High temperature (Viton O-rings): -20°C ~ +150°C

Low temperature (LTNBR O-rings): -40°C ~ +120°C

• Travel adjustment

Have adjustment range of ±5° for the rotation at 0° and 90°

• Lubrication

Actuators are factory lubrication located.

Undernormal operating condition, no need to add lubricant

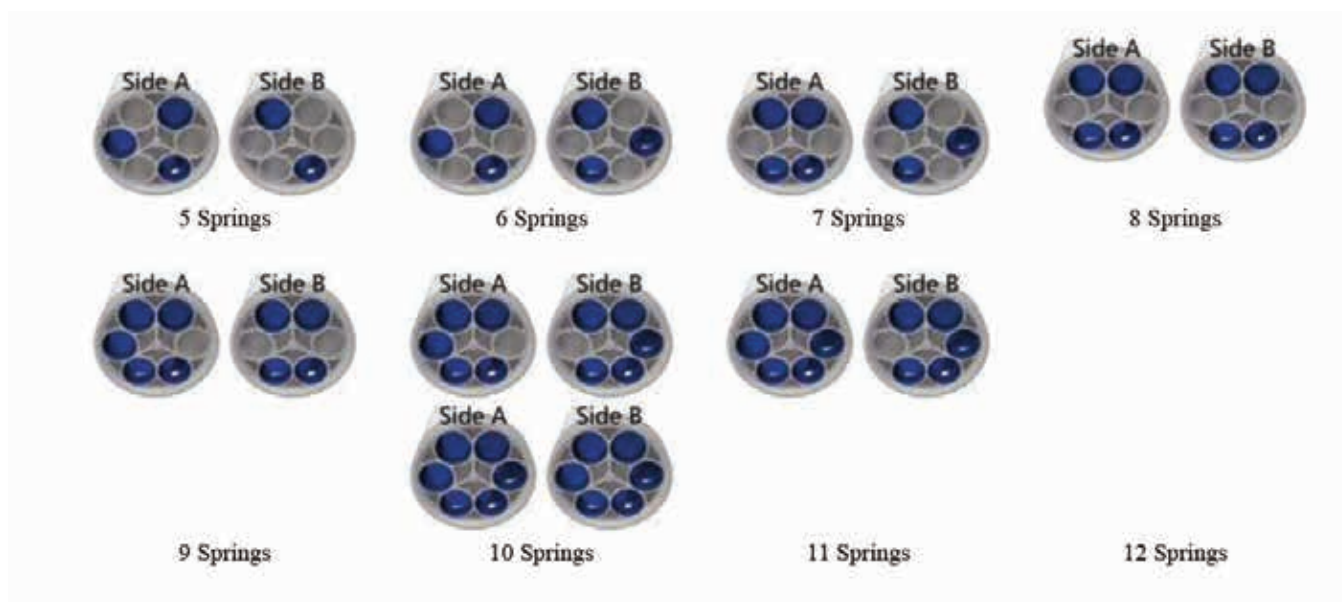
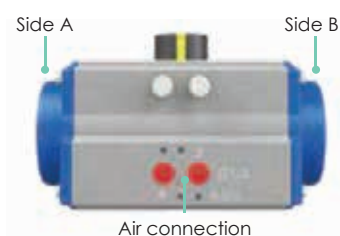
• Application

Either indoor or outdoor

5 - SPRING SET CONFIGURATION

Spring mounting form for spring return actuators

During selecting the spring return actuators, we can choose the more reasonable and more economical actuators, if we know the different torques of the valve at opening, operating and closing.



6 - WEIGHT

Model	32	40	52	63	75	83	92	105	115	125	140	160	190	210	240	270	300	350	400
DA	0.80	0.97	1.22	2.02	2.60	3.23	4.58	5.92	8.18	8.68	14.1	20.6	33.2	39.7	57.0	78.7	121.	210.2	280
SR12	-	1.10	1.35	2.19	2.86	3.64	5.35	6.76	9.30	10.0	16.5	24.4	40.2	49.2	70.0	100.	149.1	259.3	325

7 - OPERATION TIME

Air pressure 5 bar

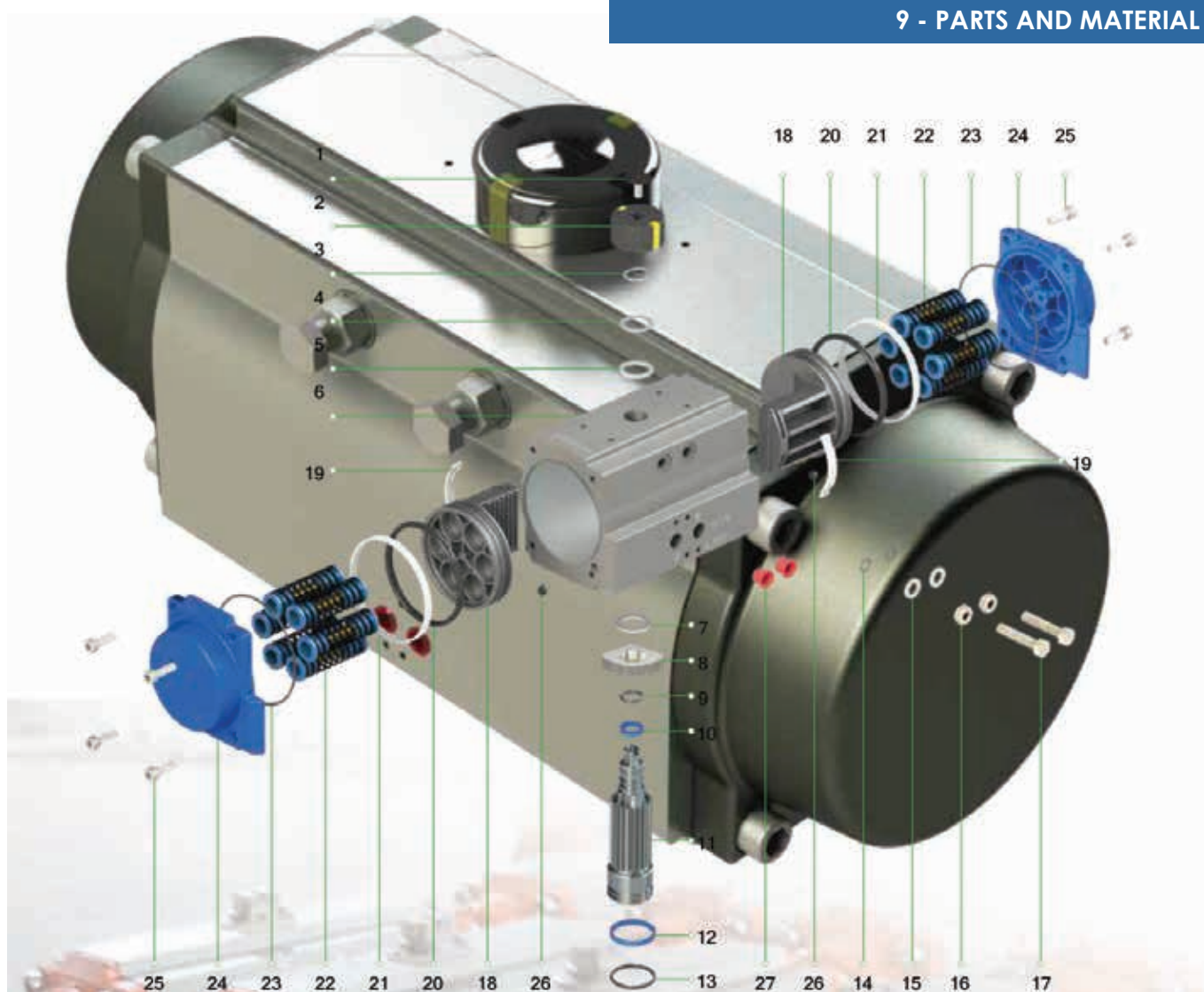
Double Acting			Spring Return (Spring Qty)														
			3+3			3+4		4+4		4+5		5+5		5+6		6+6	
Size	0°~90°	90°~0°	Size	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°
32DA	0.5	0.5	32SR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40DA	0.5	0.5	40SR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52DA	0.6	0.6	52SR	2.46	0.48	2.48	0.46	2.5	0.44	2.52	0.42	2.54	0.4	2.56	0.38	2.58	0.36
63DA	0.7	0.7	63SR	2.54	0.56	2.56	0.54	2.58	0.52	2.6	0.5	2.62	0.48	2.64	0.46	2.66	0.44
75DA	0.8	0.7	75SR	2.62	0.64	2.64	0.62	2.66	0.6	2.68	0.58	2.7	0.56	2.72	0.54	2.74	0.52
83DA	0.9	0.8	83SR	2.71	0.73	2.73	0.71	2.75	0.69	2.77	0.67	2.79	0.65	2.81	0.63	2.83	0.61
92DA	1.0	1.0	92SR	2.89	0.86	2.91	0.84	2.93	0.82	2.95	0.8	2.97	0.78	2.99	0.76	3.01	0.74
105DA	1.5	1.5	105SR	3.14	0.91	3.16	0.89	3.18	0.87	3.2	0.85	3.22	0.83	3.24	0.81	3.26	0.79
115DA	1.7	1.7	115SR	3.59	1.02	3.61	1.00	3.62	0.98	3.64	0.96	3.66	0.95	3.67	0.93	3.69	0.91
125DA	2	2	125SR	4.24	1.2	4.26	1.18	4.28	1.16	4.3	1.14	4.32	1.12	4.34	1.1	4.36	1.08
140DA	2.5	2.5	140SR	4.4	1.35	4.4	1.33	4.62	1.31	4.64	1.29	4.66	1.27	4.68	1.25	4.68	1.22
160DA	4	3	160SR	4.74	1.77	4.76	1.75	4.78	1.73	4.8	1.71	4.82	1.69	4.82	1.67	4.84	1.65
190DA	5	4	190SR	5.75	3.7	5.77	3.5	5.75	3.48	5.77	3.46	5.79	3.44	5.8	3.42	5.83	3.4
210DA	5	4	210SR	8.25	4.8	8.4	4.6	8.42	4.58	8.44	4.56	8.46	4.54	8.48	4.52	8.5	4.5
240DA	6	6	240SR	16.2	5.14	16.4	5.12	16.42	5.1	16.44	4.9	16.6	4.98	16.8	4.86	17	4.84
270DA	8	8	270SR	17.6	6.28	17.8	6.26	17.6	6.24	17.8	6.2	18	6.18	18.2	6.16	18.4	6.14
300DA	12	12	300SR	24	13.2	24.5	13	24.4	12.8	24.3	12.6	24.5	12.58	24.7	12.56	24.9	12.54
350DA	14	14	350SR	31	17.3	31.5	17	31.3	16.8	31	16.6	31.2	16.58	31.4	16.56	31.6	16.54
400DA	15	15	400SR	45	27	51	27	51.3	26.8	51.5	26.8	51.7	26.6	51.9	26.4	52.1	26.2

* The operation time of the actuator depends on the CV values of the solenoid valves, filter regulator and pipes, it also depends on the air pressure, operating load and so on.

8 - AIR CONSUMPTION

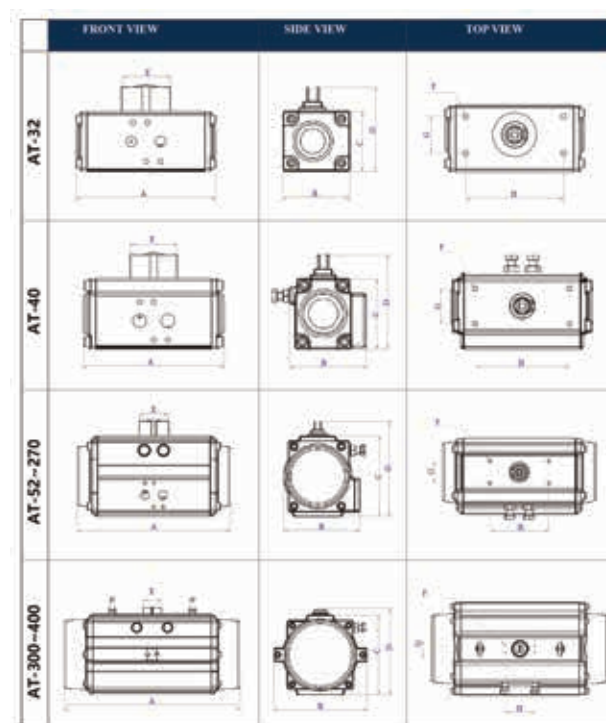
Model	Air volume opening	Air volume closing	Model	Air volume opening	Air volume closing
AT-32	0.04	0.05	AT-140	2.5	2.2
AT-40	0.08	0.11	AT-160	3.7	3.2
AT-52	0.12	0.16	AT-190	5.9	5.4
AT-63	0.21	0.23	AT-210	7.5	7.5
AT-75	0.30	0.34	AT-240	11.0	9.0
AT-83	0.43	0.47	AT-270	17.0	14.0
AT-92	0.64	0.73	AT-300	23.8	29.7
AT-105	0.95	0.88	AT-350	35.1	46.3
AT-115	1.3	1.2	AT-400	52.6	56.0
AT-125	1.6	1.4			

9 - PARTS AND MATERIAL



No	Description	Qty	Standard Material	Protection	Optional Material
1	Indicator screw	1	Plastic+Stainless steel		
2	Indicator	1	ABS Plastic		
3	Spring clip	1	Stainless steel		
4	Thrust washer	1	Stainless steel		
5	Outsider washer	1	Polyformaldehyde		
6	Body	1	Extruded aluminum (6005-T5)	Hard anodized	
7	Inside washer	1	Polyformaldehyde		
8	Cam	1	45# steel		
9	O-ring (Shaft top)	1	NBR		Viton/LTNBR
10	Bearing (Shaft top)	1	Polyformaldehyde		
11	Drive Shaft	1	Alloy steel	Nickel plated	Stainless steel
12	Bearing (Shaft bottom)	1	Polyformaldehyde		
13	O-ring (Shaft bottom)	1	NBR		Viton/LTNBR

No	Description	Qty	Standard Material	Protection	Optional Material
14	O-ring (Adjust screw)	2	NBR		Viton/LTNBR
15	Gasket	2	Stainless steel		
16	Nut	2	Stainless steel		
17	Adjust screw	2	Stainless steel		
18	Piston	2	Cast aluminum	Anodized	
19	Guide (Piston)	2	Nylon 66		
20	O-ring (piston)	2	NBR		Viton/LTNBR
21	Bearing (Piston)	2	Polyformaldehyde		
22	Spring	0 ~ 12	Spring steel	Electrophoretic paint	
23	O-ring (End cap)	2	NBR		Viton/LTNBR
24	End cap	2	Cast aluminum	Powder polyester painted etc	
25	Cap screw	8	Stainless steel		
26	Plug	2	NBR		
27	Dustproof plug	2	Plastic		



Dimension

Model	32	40	52	63	75	83	92	105	115	125	140	160	190	210	240	270	300	350	400
A	112	124	163,5	181	207	213	258	287	298	342,5	411	488	544	580	622	766	794	880	1067
B	51	60,4	68	80	91,2	100,5	103	116	134	133,7	142	160,5	188,1	202,7	245	273	313	359	290
C	45	60	72	88	99,5	109	116,5	133	144	155	172	197	230	255	289	328	348	408	476
D	71	86	98	113	125	135	143	159	164	181	200	224	260	285	319	358	378	438	493
E	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø55	Ø55	Ø55	Ø55	Ø80	Ø80	Ø80	Ø80	Ø80	Ø80	Ø80
F	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8
G	25	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
H	50	80	80	80	80	80	80	80	80	80	80	80	130	130	130	130	130	130	130

Connection

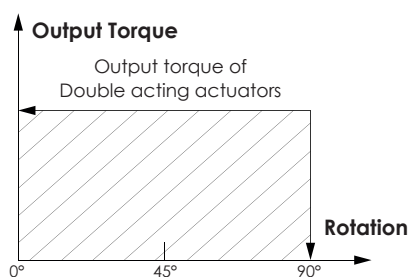
Air connection NAMUR	Bottom view ISO 5211/DIN 3337	Shaft top NAMUR

Connection

Model	32	40	52	63	75	83	92	105	115	125	140	160	190	210	240	270	300	350	400
M	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	45	45	45	45
N	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	40	40	40	40
O	G1/8"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/2"	G1/2"	G1/2"	G1/2"
P	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M6x10	M6x10	M6x10	M6x10
Q	/	F03	F03	F05	F05	F05	F05	F07	F07	F07	F10	F10	/	/	/	/	F16	F16	F16
Q1	F03	F05	F05	F07	F07	F07	F07	F10	F10	F10	F12	F12	F14	F14	F16	F16	Ø215	F25	F25
R	/	M5x8	M5x8	M6x10	M6x10	M6x10	M6x10	M8x13	M8x13	M8x13	M10x16	M10x16	/	/	/	/	M20x25	M20x25	M20x25
R1	M5x8	M6x9	M6x9	M8x13	M8x13	M8x13	M8x13	M10x16	M10x16	M10x16	M12x19	M12x19	M16x24	M16x24	M20x25	M20x25	M20x25	M16x24*	M16x24*
S	9x11	11x14	11x14	14x18	14x18	17x21	17x21	22x26	22x26	22x26	27x31	27x31	36x40	36x40	46x50	46x50	46x60	46x60	55x60
T	10	10	10	10	10	10	14	14	22	22	22	22	32	32	32	32	32	32	32
U	12	12	12	12	12	12	12	12	10	10	10	10	12	12	12	12			

11 - OUTPUT TORQUE

For Double Acting Actuator



/ Torque Unit: Nm

Model	Air supply pressure (Unit bar)									
	2	2.5	3	4	4.5	5	5.5	6	7	8
AT-32DA	3	4	5	6	7	8	8	9	11	12
AT-40DA	5	6	7	10	11	12	13	14	17	19
AT-52DA	8	10	12	16	18	20	22	24	28	32
AT-63DA	15	18	22	29	33	36	40	44	51	58
AT-75DA	20	25	30	40	45	50	55	60	70	80
AT-83DA	31	39	47	63	70	78	86	94	110	125
AT-92DA	45	56	68	90	102	113	124	135	158	181
AT-105DA	66	83	99	132	149	165	182	198	231	264
AT-115DA	86	108	130	173	194	216	238	259	302	346
AT-125DA	100	125	150	200	226	251	276	301	351	401
AT-140DA	171	214	256	342	385	427	470	513	598	684
AT-160DA	266	332	399	532	598	665	731	798	931	1064
AT-190DA	426	532	638	851	958	1064	1170	1277	1490	1702
AT-210DA	532	665	798	1064	1197	1330	1463	1596	1862	2128
AT-240DA	769	962	1154	1539	1731	1924	2116	2308	2693	3078
AT-270DA	1170	1462	1754	2339	2632	2994	3216	3509	4094	4679
AT-300DA	1526	1908	2289	3052	3434	3815	4197	4578	5341	6104
AT-350DA	2285	2856	3427	4570	5141	5712	6283	6854	7997	9139
AT-400DA	3256	4070	4884	6512	7326	8140	8954	9768	11396	13024

Sizing: Double Acting Actuator

The suggested safety factor for double acting actuators under normal working conditions is 20% - 30%

Example:

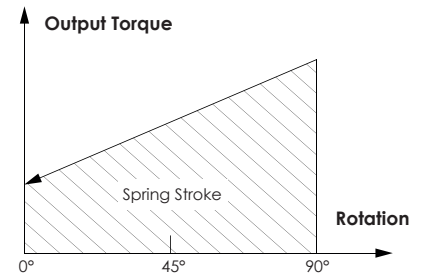
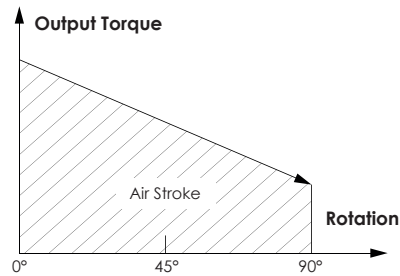
The torque needed by valve= 100N.m

The torque considered safety factor (1+30%) = 130N.m

Air Supply = 5Bar

According to the above table, we can select the model ARC105-DA

For Spring Return Actuator



Output torque of air to springs																	
Air		2.5 Bar		3 Bar		4 Bar		5 Bar		6 Bar		7 Bar		8 Bar		Spring's output	
Model	Spring Qty	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
AT - 40	SR2					5.6	3.4	7.6	5.4	9.6	7.4	12.6	10.4	14.6	12.4	6.6	4.4
AT - 52	SR5	5.7	3.8	7.6	5.7											6.2	4.3
	SR6	4.9	2.5	6.9	4.5	10.9	8.5									7.4	5.0
	SR7	4.0	1.3	6.0	3.3	9.8	7.3	14.0	10.4							8.6	5.9
	SR8			5.2	2.0	9.2	6.0	13.2	9.1	17.2	14.1					9.9	6.7
	SR9			4.3	0.8	8.3	4.8	12.3	7.9	16.3	12.8	20.3	16.8			11.1	7.6
	SR10					7.4	3.6	11.5	6.7	15.5	11.6	19.5	15.6			12.4	8.5
	SR11					6.6	2.3	10.6	5.4	14.6	10.4	18.6	14.3	22.6	18.3	13.6	9.3
	SR12							9.7	4.2	13.8	9.1	17.8	12.2	21.8	17.1	14.8	10.2
AT - 63	SR5	11.4	7.7	15.0	11.4	22.3	14.9									10.4	6.8
	SR6	10.1	5.7	13.6	9.3	20.9	16.6	28.3	23.9							12.5	8.2
	SR7	8.6	3.6	12.5	7.2	19.5	14.5	26.8	21.9							14.6	9.6
	SR8			10.9	5.1	18.2	12.4	25.5	19.8	32.8	27.0	40.1	34.3			16.7	10.9
	SR9					16.8	10.4	24.1	17.7	31.4	24.9	38.7	32.2			18.8	12.3
	SR10					1.4	8.2	22.8	15.6	30.0	22.8	37.3	30.1	44.7	37.4	20.9	13.7
	SR11							21.5	13.5	28.7	20.7	36.0	28.0	43.3	35.3	22.9	15.0
	SR12							20.0	11.4	27.3	18.6	34.6	25.9	41.9	33.3	25.0	16.4
AT - 75	SR5	14.5	10.6	19.4	15.5	29.5	25.7									14.5	10.5
	SR6	12.4	7.6	17.3	12.6	27.4	22.7	37.5	32.8							17.4	12.7
	SR7	10.4	4.8	15.2	9.7	25.3	19.9	35.4	29.9							20.3	14.8
	SR8			13.1	6.8	23.1	16.9	33.3	27.0	43.2	37.0	53.3	47.0			23.2	16.9
	SR9					21.0	14.1	31.2	24.1	41.1	34.1	51.2	44.2			26.1	19.0
	SR10					19.0	11.1	28.8	21.2	39.0	31.2	49.1	41.2	59.1	51.2	29.0	21.1
	SR11							27.0	18.3	37.0	28.3	47.0	38.4	57.0	48.4	31.9	23.2
	SR12							24.9	15.4	34.9	25.4	44.9	35.4	54.9	45.4	34.7	25.3
AT - 83	SR5	23.3	16.1	31.1	24.0	46.8	39.7									23.0	15.8
	SR6	20.1	11.5	28.0	19.3	43.7	35.1	59.4	50.7							27.6	19.0
	SR7	17.0	6.9	24.8	14.8	40.5	30.5	56.2	46.2							32.2	22.1
	SR8			21.7	10.1	37.4	25.8	53.1	41.5	68.8	57.2	84.5	72.9			36.8	25.3
	SR9					34.2	21.3	49.9	37.0	65.6	52.6	81.2	68.3			41.4	28.5
	SR10					31.0	16.6	46.7	32.3	62.4	48.0	78.1	63.7	93.8	79.3	46.0	31.6
	SR11							43.6	27.7	59.3	43.4	75.0	59.1	90.6	74.8	50.6	34.8
	SR12							40.4	23.2	56.1	38.9	71.7	54.5	87.4	70.2	55.2	38.0

Output torque of air to springs																	
Air pressure		2.5 Bar		3 Bar		4 Bar		5 Bar		6 Bar		7 Bar		8 Bar		Spring's output	
Model	Spring Qty	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
AT - 92	SR5	33.1	22.0	44.2	33.2	66.8	55.9									34.4	23.3
	SR6	28.4	15.2	39.6	26.4	62.2	49.0	84.8	71.6							41.2	28.0
	SR7	23.8	8.2	34.9	19.4	57.5	42.1	80.2	64.7							48.1	32.7
	SR8			31.3	12.6	52.9	35.2	75.5	57.9	98.1	80.5	120.7	103.0			55.0	37.7
	SR9					48.2	28.4	70.9	51.0	93.5	73.6	116.0	96.1			61.9	42.0
	SR10					43.6	21.5	66.2	44.1	88.8	66.7	111.3	89.2	134.0	111.8	68.7	46.7
	SR11							61.5	37.2	84.1	59.9	106.6	82.4	129.2	105.0	75.6	51.4
	SR12							56.8	30.4	79.4	53.0	101.9	75.5	124.5	98.1	82.5	56.0
AT - 105	SR5	51.0	33.4	67.5	49.9	100.6	83.0									49.2	31.6
	SR6	44.7	23.5	61.1	40.0	94.2	73.2	127.3	106.2							59.1	38.0
	SR7	38.4	13.7	54.9	30.3	87.9	63.4	121.0	96.4							68.9	44.3
	SR8			48.5	20.4	81.6	53.5	114.7	86.5	147.7	119.6	180.8	152.7			78.7	50.6
	SR9					75.3	43.7	108.4	76.8	141.5	109.8	174.5	142.9			88.6	56.9
	SR10					68.9	33.4	102.0	66.5	135.1	99.6	168.2	132.6	201.2	165.7	98.4	63.3
	SR11							95.7	57.0	128.7	90.1	161.8	123.1	194.8	156.2	108.3	69.6
	SR12							89.4	47.5	122.5	80.6	155.5	113.6	188.6	146.7	118.1	75.9
AT - 115	SR5	65	43	87	65	130	108									65	43
	SR6	56	30	78	52	121	95	164	138							78	52
	SR7	47	17	69	39	112	82	155	125							91	61
	SR8			61	26	104	69	147	112	190	155	233	198			104	69
	SR9					95	56	138	99	181	142	224	185			117	78
	SR10					86	43	129	86	172	129	215	172	259	216	130	87
	SR11							121	73	164	116	207	159	251	203	143	95
	SR12							112	60	156	104	198	146	242	190	156	104
AT - 125	SR5	73	47	98	72	148	122									79	52
	SR6	63	31	88	56	138	107	188	157							94	63
	SR7	52	15	77	40	127	90	178	141							110	73
	SR8			67	25	117	75	167	125	217	176	268	226			125	84
	SR9					107	59	157	109	207	159	257	210			141	94
	SR10					96	44	146	94	196	144	247	194	297	245	157	105
	SR11							136	78	186	128	236	178	286	228	173	115
	SR12							125	63	176	113	226	163	276	213	188	125
AT - 140	SR5	128	85	171	127	256	213									129	86
	SR6	111	59	154	102	239	187	325	273							155	103
	SR7	94	33	137	76	222	162	308	247							181	120
	SR8			120	50	205	136	291	221	376	307	462	392			206	137
	SR9					187	110	273	196	358	281	444	367			232	155
	SR10					170	84	256	169	341	255	427	340	512	426	258	172
	SR11							238	143	324	229	409	314	495	400	284	189
	SR12							221	118	307	203	392	289	478	374	310	206
AT - 160	SR5	193	124	259	191	392	324									208	140
	SR6	165	83	232	149	365	282	498	415							250	168
	SR7	137	41	203	107	336	240	496	373							292	196
	SR8			176	66	309	199	442	237	575	465	708	598			333	223
	SR9					280	157	413	290	546	423	679	556			375	251
	SR10					253	115	386	248	519	381	652	514	785	647	417	279
	SR11							358	207	491	340	624	473	757	606	458	307
	SR12							330	165	463	298	596	431	729	564	500	335
AT - 190	SR5	332	222	438	329	651	542									309	200
	SR6	292	161	398	267	611	480	824	693							371	240
	SR7	252	99	358	205	571	418	784	631							433	280
	SR8			318	143	531	356	744	569	957	782	1169	995			495	320
	SR9					491	295	704	507	917	720	1130	933			557	360
	SR10					451	233	664	446	877	658	1090	871	1302	1084	618	400
	SR11							624	384	837	579	1050	809	1263	1022	680	440
	SR12							584	322	797	535	1010	748	1223	960	742	480

Output torque of air to springs																	
Air pressure		2.5 Bar		3 Bar		4 Bar		5 Bar		6 Bar		7 Bar		8 Bar		Spring's output	
Model	Spring Qty	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
AT - 210	SR5	390	285	523	418	789	684									380	275
	SR6	335	209	468	342	734	608	1000	874							456	330
	SR7	280	133	413	266	679	532	945	798							532	385
	SR8			358	190	624	456	890	722	1156	988	1422	1254			608	440
	SR9					569	380	835	646	1101	912	1367	1178			684	495
	SR10					514	304	780	570	1046	836	1312	1102	1578	1368	760	550
	SR11							725	494	991	760	1257	1026	1523	1292	836	605
	SR12							670	418	936	684	1202	950	1468	1216	912	660
AT - 240	SR5	552	109	744	600	1129	985									554	410
	SR6	470	297	662	489	1047	874	1432	1259							665	492
	SR7	388	187	580	379	964	764	1349	1149							775	575
	SR8			498	268	883	653	1267	1037	1652	1422	2037	1807			886	656
	SR9					800	542	1185	926	1569	1311	1954	1696			998	739
	SR10					718	431	1103	816	1488	1201	1872	1586	2275	1970	1108	821
	SR11							1021	705	1406	1090	1791	1474	2176	1859	1219	903
	SR12							939	594	1323	979	1708	1363	2093	1748	1330	985
AT - 270	SR5	903	675	1195	968	1779	1552									787	560
	SR6	790	519	1083	811	1667	1396	2252	1981							943	672
	SR7	679	316	972	654	1556	1238	2141	1823							1101	783
	SR8			860	497	1444	1081	2029	1666	2614	2252	3199	2836			1258	895
	SR9					1332	923	1917	1509	2502	2094	3087	2678			1416	1007
	SR10					1220	767	1805	1352	2390	1937	2974	2521	3560	3107	1572	1119
	SR11							1693	1693	2278	1779	2862	2364	3448	2949	1730	1231
	SR12							1582	1582	2167	1623	2751	2207	3336	2792	1887	1342
AT - 300	SR5	1097	729													1061	730
	SR6	935	494	1316	875											1273	876
	SR7	772	258	1153	639	1916	1402									1485	1022
	SR8			991	403	1754	1166	2517	1929							1697	1168
	SR9					1592	930	2355	1693	3118	2456					1909	1314
	SR10					1430	695	2193	1458	2956	2221	3719	2984	4482	3747	2122	1460
	SR11							2030	1222	2793	1985	3556	2748	4319	3511	2334	1606
	SR12							1868	1868	2631	1749	3394	2512	4157	3275	2546	1752
AT - 350	SR5	1553	964													1702	1173
	SR6	1292	586	1863	1157											2043	1408
	SR7	1031	208	1602	779	2745	1922									2383	1642
	SR8			1341	401	2484	1544	3626	2686							2724	1877
	SR9					2224	1165	3336	2307	4508	3449					3064	2112
	SR10					1963	787	3105	1929	4247	3071	5390	4214	6532	5356	3405	2346
	SR11							2844	1551	3986	2693	5129	3836	6271	4978	3745	2581
	SR12							2584	1172	3726	2314	4869	3457	6011	4599	4986	2816
AT - 400	SR5	2028	869													2880	1837
	SR6	1736	411	2550	1225											3292	2100
	SR7			2259	768	3887	2396									3703	2362
	SR8			1967	311	3595	1939	5223	3567							4115	2624
	SR9					3303	1482	4931	3110	6559	4738					4526	2887
	SR10					3012	1025	4640	2653	6268	4281	7895	5908	9523	7536	4838	3149
	SR11							4348	2195	5976	3823	7603	5450	9231	7078	5349	3412
	SR12							4057	1738	5685	3366	7312	4993	8940	6621	5761	3674
								3765	1281	5393	2909	7020	4536	8648	6164	6172	3937
										5101	2452	6728	4079	8356	5707	6584	4199

ISTRUZIONI DI ASSEMBLAGGIO MODELLO AT

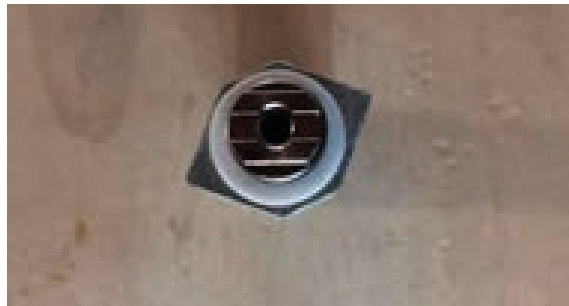
PROCESSO DI ASSEMBLAGGIO			
PREMESSA: la camera dell'attuatore e tutti i componenti presenti all'interno, devono essere puliti e successivamente oleati prima dell'assemblaggio.			
STRUMENTI: morsa, pinza per sieger, mazzuola, chiavi inglesi, chiavi esagonali, pinza.			
Paragrafo	Assemblaggio	Metodi di verifica	Controllo
1 Pignone e stop esagonale	Inserire parzialmente il pignone nella camera in posizione di apertura. Dall'interno, incastonare lo stop esagonale con la sua guarnizione a 45° rispetto alla linea del pignone. Inserire totalmente il pignone nella camera e ruotarlo di 45° in senso antiorario.		
2 Primo bullone di regolazione	Avvitare un bullone nel foro sinistro fino a toccare leggermente la punta dello stop esagonale presente all'interno.		
3 Cremagliere	Inserire le due cremagliere nei rispettivi alloggiamenti in modo diagonalmente opposto e parallelo. Fermarle in modo da rimanere sul bordo delle uscite. Solo successivamente spingere entrambe le basi delle cremagliere ruotando in contemporanea il pignone in senso orario.		
4 Secondo bullone di regolazione	Avvitare il secondo bullone nel foro destro progressivamente e regolarlo in modo da ottenere i 90° in entrambi i movimenti di apertura e chiusura.		
5 Guarnizione - rondella - sieger	Infilare nella testa del pignone i seguenti elementi e nell'ordine qui riportato: guarnizione, rondella, sieger.		
6 Testate laterali	Inserire l'O-ring all'interno della scanalatura presente nelle testate e lubrificare con grasso/olio. Stringere saldamente la vite centrale della testata. Posizionare le testate laterali sulle uscite della camera e avvitarle con i quattro bulloni con incasso esagonale.		
7 Controllo e avvertenze	Stringere fino in fondo i dadi dei bulloni di regolazione. Collaudare l'attuatore in modo da verificarne il corretto funzionamento.		



1



1



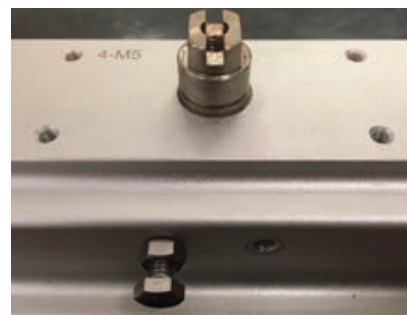
1



1



1



2



3



3



4



5



5



6



INTERNO DI
APERTURA

Actuator Accessory



SPRING CARTRIDGE

Specifications

(Model) FX999- SP



DOUBLE SQUARE ADAPTERS

Specifications

(Model) POLIGON

(Body Materials) INOX



DOUBLE SQUARE ADAPTERS

Specifications

(Model) QUADRO

(Body Materials) INOX



KIT OR NBR FOR AT ACTUATOR

Specifications

(Model) FX999-NBR

(Body Materials) NBR

KIT OR FKM FOR AT ACTUATOR



Specifications

(Model) FX999-FKM

(Body Materials) FKM

TAILORED ADAPTERS



Specifications

(Model) PCS

(Body Materials) INOX316L - CARBON STEEL

BRACKET ISO 5211



Specifications

(Model) BRACKET

(Body Materials) INOX316L - CARBON STEEL



Multivoltaje total
all voltages

ELETRIC POWER

ACTUADORES ELÉCRICOS ELETRIC ACTUATORS



20Nm
V
300Nm

IP67

75%
Duty rating

Electronic
Torque
Limiter

Automatic
Temperature
Control

Battery
System
Returns

Digital
Positioner
System





TECNOLOGÍA BRUSHLESS BRUSHLESS TECHNOLOGY

Seguendo con la filosofía del actuador **multivoltaje total**, incorporamos a nuestra gama de actuadores eléctricos, la cual introduce por primera vez, el **motor brushless**.

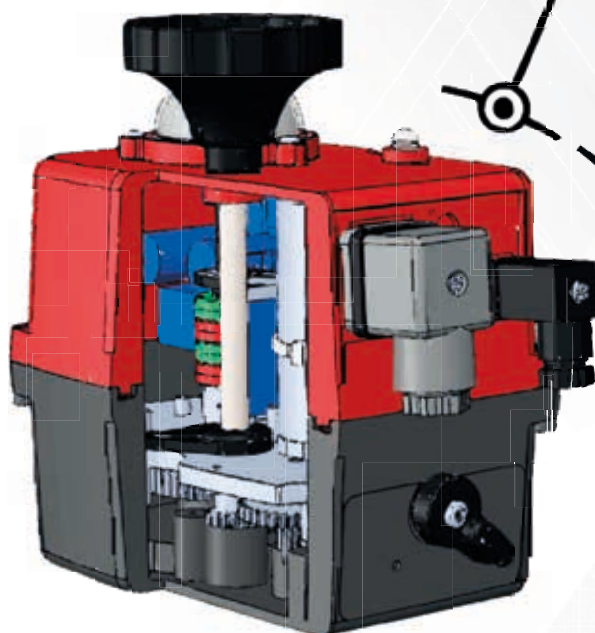
El **motor brushless** es un motor más robusto, más eficiente y necesita menos mantenimiento que un motor de escobillas. Todo esto contribuye a **prolongar la vida** de nuestros actuadores. Lanzamos la **gama completa**, desde 20Nm a 300Nm, cuyos modelos **B** trabajan a **12VAC/VDC** y los **S** desde **24VAC/VDC a 240VAC/VDC** indistintamente.

Su avanzada tecnología los capacita para comunicarse, de manera inteligente, utilizando el protocolo **MODBUS** o vía **BLUETOOTH**. Dichos sistemas de comunicación aparecen como "**opciones de fábrica**" en nuestro catálogo.

Without leaving our philosophy of **total multivoltage** actuators, we would like to introduce, in our range of electric actuators, the **series**, which works, for the first time, with a **brushless motor**.

The **brushless motor** is stronger, more efficient and with less maintenance than a brushed motor. It definitely contributes to **enlarge our actuators life**. We are launching a **complete range** of torques, from 20Nm to 300Nm, which **B** models work at **12AC/VDC** and **S** models do the same from **24VAC/VDC to 240VAC/VDC**.

Its high level technology, makes our actuators capable to communicate intelligently, using both the **MODBUS** protocol or via **BLUETOOTH**. The mentioned communication systems appear as "**factory options**" in our catalogue.



VCO

Control visual operación
Visual control of operation

AVS

Alimentación eléctrica
All voltage supply plug

VFC

Contactos auxiliares
Volt free contact plug

MDL

Palanca automático/manual
Automatic/manual declutching

EMO

Mando manual de emergencia
Emergency manual override

VPI

Indicador visual de posición 360°
360° Visual position indicator

ETL

Limitador electrónico de par
Electronic torque limiter

ATC

Control automático de temperatura interna
Automatic indoor temperature control

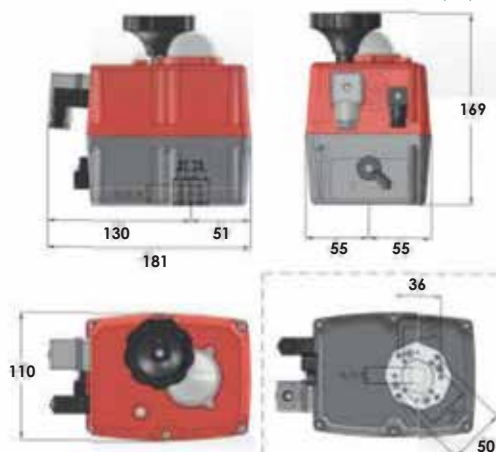
AVS PCB

Electrónica partida
Fluente alimentación + Control
Split PCB
Power supply + Control

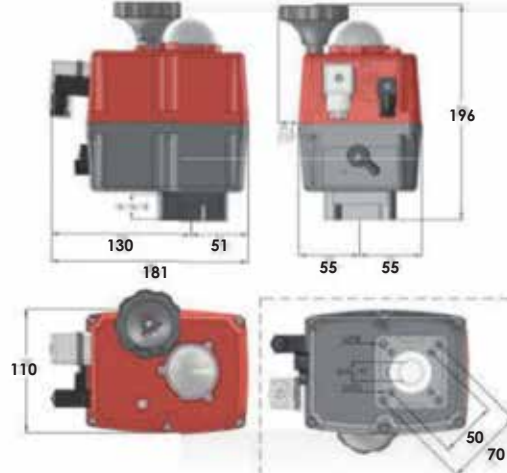
Opcional: Conector INTERFACE
Optional: INTERFACE plug



F3 - F5 - F4

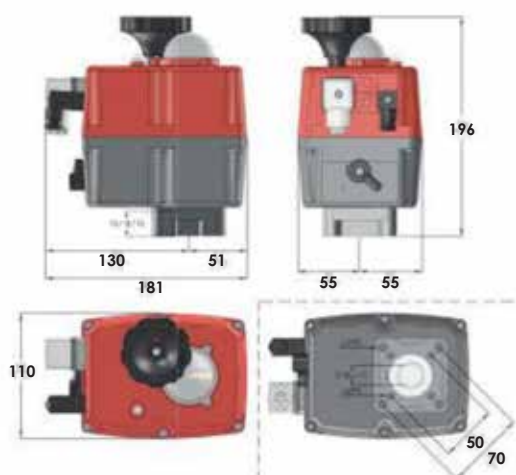


F5 - F7

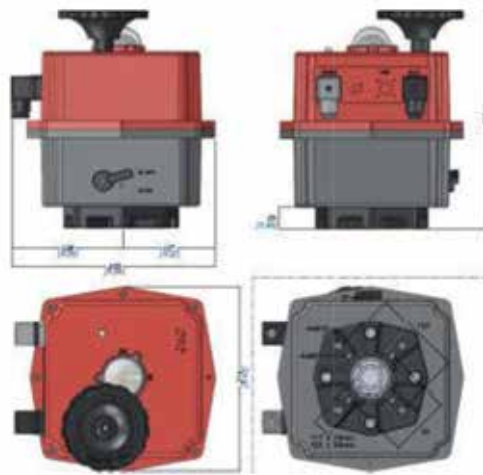


85

F5 - F7



F07 - F010



140/300

Opciones de fábrica/Factory options

- Posicionador digital **DPS**: 4-20mA, 0-10V o 1-10V/**DPS** digital positioner: 4-20mA, 0-10V or 1-10V
- Sistema **BRS** retorno emergencia por batería/**BRS** Battery system returns
- Potenciómetro digital: 1K, 5K o 10K/Digital potentiometer: 1K, 5K or 10K
- Actuador con 3 posiciones: 0°-45°-90° o 0°-90°-180°/3 position actuator: 0°-45°-90° or 0°-90°-180°
- Conector Interface/Interface plug
- Comunicación Modbus vía cable o Wifi/ Modbus interface module wired or Wifi
- Comunicación Bluetooth/ Bluetooth module
- Para otras opciones, consultar/Other options on request



Interface System

A través del cable del KIT INTERFACE establecemos comunicación con el actuador, leemos parámetros y cambiamos la configuración del actuador.

Using the INTERFACE KIT cable we communicate with the actuator, read parameters and change the actuators configuration.



Battery System Returns

Sistema BSR para nuestros modelos desde 20Nm a 85Nm. Se trata de un sistema de retorno por batería que es común a los modelos S y B.

El mismo sistema BSR se ha desarrollado para nuestros modelos de 140Nm y 300Nm pero con una batería de mayor capacidad.

BSR system for our 20Nm to 85Nm models. It is an emergency fail safe kit system by battery which is either S or B models.

The BSR system for our models 140Nm and 300Nm is the same but with a bigger capacity battery.



Digital Positioner System 20-85

Posicionador digital para nuestros modelos desde 20Nm a 85Nm.

Señal de instrumentación 4-20mA, 0-20mA, 0-10V o 1-10V.

Este posicionador es adecuado para los modelos S y B.

Digital positioner for our models from 20Nm to 85Nm.

Instrumentation signal 4-20mA, 0-20mA, 0-10V or 1-10V signal.

This DPS digital positioner is suitable for S and B models.



Digital Positioner System 140-300

Posicionador digital para nuestros modelos desde 140Nm y 300Nm.

Señal de instrumentación 4-20mA, 0-20mA, 0-10V o 1-10V.

Este posicionador es adecuado para los modelos S y B.

Digital positioner for our models from 140Nm and 300Nm.

Instrumentation signal 4-20mA, 0-20mA, 0-10V or 1-10V signal.

This DPS digital positioner is suitable for S and B models.

INFOGRAPHIC BLUETOOTH TECHNOLOGY



Hemos incorporado el sistema de comunicación BLUETOOTH, para poder comunicarnos con nuestros actuadores, desde cualquier dispositivo IOS o ANDROID. Dicho sistema aparece como una opción de fábrica en nuestro catálogo.

Desde nuestro móvil o tablet podemos ordenar al actuador que abra/cierre o se pare en un punto, podemos informarnos de su estado actual, leer parámetros, conocer errores o incidencias, etc.

La comunicación con nuestros dispositivos permanece protegida con una contraseña.

Via BLUETOOTH detectamos hasta un máximo de 50 actuadores a una distancia máxima de 20 cm.

We have introduced the BLUETOOTH communication system in our actuators, in order to communicate with actuators, from any IOS or ANDROID devices. This system appears in our catalogue as a factory option.

From our mobile phone or tablet we could order our actuator to open/close or stop, we could be informed about its status, read parameters, know about errors or incidences, etc.

The communication between our devices is protected by a password.

Via BLUETOOTH we could identify and communicate with up to 50 devices within a max distance of 20m.



MODBUS TECHNOLOGY



Sectorización MODBUS

- Conecta y listo.
- Se puede actuar manualmente sobre el equipo.
- Visible desde el cuadro de control, tablet, móvil, PC, dentro y fuera de la planta.
- Rápido y flexible, podemos empezar con 3 actuadores y ampliar hasta 32.
- Alcance hasta 1.200 m.
- Puede alimentar localmente los equipos y comunicarlos con cable de datos.
- Puede nombrar equipos, hacer un sinóptico de planta, mandar mails de alarma.

Sectorización INALÁMBRICA

- Conecta y listo, tan solo alimente el equipo.
- Se puede actuar manualmente sobre el equipo.
- Visible desde el cuadro de control, tablet, móvil, PC, dentro y fuera de la planta.
- Rápido y flexible, podemos empezar con 3 actuadores y ampliar hasta 32.
- Desde 50 m hasta 1.600 m sin repetidores.
- Los equipos son emisores y receptores a la vez, creando una malla de comunicación, que permite evitar obstáculos como paredes o interferencias.
- Bajo el protocolo 802.15.4
- Hasta 12 bandas de comunicación, con la posibilidad de cambio de banda en caso de saturación.

MODBUS system

- Plug and Play.
- Each device could be operated manually.
- Could be seen from the control panel, tablet, mobile, PC, either inside or outside of the plant.
- Fast and flexible, starting by 3 actuators up to 32.
- Up to 1.200 m distance range.
- Locally connect the device and communicate with a data cable.
- Could name the devices, make a plant synoptic, send alarm mails.

Wireless system

- Plug and Play.
- Each device could be operated manually.
- Could be seen from the control panel, tablet, mobile, PC, either inside or outside of the plant.
- Fast and flexible, starting by 3 actuators up to 32.
- From 50 m up to 1.600 m distance range without repeaters.
- Each device is emitting and receiving at the same time, creating a communication mesh, which enables the device to avoid walls or interfaces.
- Under 802.15.4 protocol.
- Up to 12 bands of communication, which allow a change of band in case of saturation.

CERTIFICACIONES/CERTIFICATIONS

 	ENSAYOS/TESTS	NORMAS/STANDARD	DIRECTIVAS/DIRECTIVES
	Seguridad Eléctrica - Electric Safety	2014/35/UE (LVD) Low Voltage Directive	UNE-EN 60204-1:2007 + Corr:2010
	Compatibilidad Electromagnética.Emisiones Electromagnetic Compatibility.Emissions	2014/30/UE (E.M.C.)	UNE-EN 61000-6-2:2006 + E:2009
	Compatibilidad Electromagnética.Immunidad Electromagnetic Compatibility.Immunity		UNE-EN 61000-6-4:2007 + E:2008 + /A1:2011
	Declaración Original de Incorporación para Cuasi Máquinas Original Declaration of Incorporation of Partly Completed Machinery	2006/42/CE	Articulos/Articles: 1.1.2, 1.1.3, 1.1.5, 1.2.1, 1.2.6, 1.3.1, 1.3.7, 1.5.1, 1.6.3, 1.7.1, 1.7.3, 1.7.4
	Grados de protección proporcionados por las envolventes Degrees of protection provided by enclosures	IEC 60 529:2001 (Ed.:2.1) UNE 20324:1993 + 1M:2000 + ERR:2004	2006/95/CE (Electric Safety, Low Voltage Directive, LVD) 2001/95/CE (Products General safety)
	Ensayos vibración Vibration test	UNE-EN 60068-2-6:2008	UNE-EN 60068-2-6:2008

INOX Pneumatic Actuator

PNEUMATIC VERTICAL ACTUATOR INOX FM21



Specifications



(Model) FM21SX-FM21DX

(Size Range) 85/108

(Operating Pressure) 10 BAR MAX

(Valve Operation Type) SPRING RETURN
OR DOUBLE ACTING

(Body Materials) AISI 304

(Connectinon) DRILLING ISO 5211 DM 14
F03/F04/F05/F07

(TEMPERATURE) -20 +90C

(Options) DOUBLE EFFECT



DRILLING ISO 5211/DIN3337

VALORI DI COPPIA (NM) PER PRESSIONE
TORQUE MOMENTS VALUES (NM) FOR PRESSIONS

FM21-DX

ØXL	DN	3 bar	4 bar	5 bar	6 bar
85x174	25 ÷ 100	30	40	50	60

FM21-SX

ØXL	DN	5 bar	6 bar	7 bar	8 bar
85x174	25 ÷ 100	25	30	35	45

FINECORS A DUE
CONTATTI CON
LED LIMIT SWITCH INOX 316

SPIA VISIVA
VISUAL SPY

FINECORS
PNEUMATICO
PNEUMATIC LIMIT SWITCH



COVER



INOX Pneumatic Actuator

PNEUMATIC VERTICAL ACTUATOR INOX FM21E



Specifications

(Model) FM21ESX-FM21EDX

(Size Range) 85/108

(Operating Pressure) 10 BAR MAX

(Valve Operation Type) SPRING RETURN
OR DOUBLE ACTING

(Body Materials) AISI 304

(Connectinon) DM 14

(TEMPERATURE) -20 +90C

(Options) DOUBLE EFFECT



VALORI DI COPPIA (NM) PER PRESSIONE TORQUE MOMENTS VALUES (NM) FOR PRESSIONS

FM21-DX

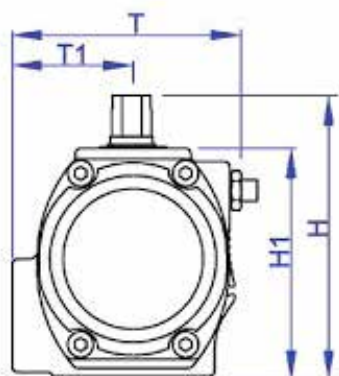
ØXL	DN	3 bar	4 bar	5 bar	6 bar
85x174	25 ÷ 100	30	40	50	60

FM21-SX

ØXL	DN	5 bar	6 bar	7 bar	8 bar
85x174	25 ÷ 100	25	30	35	45

1 - On Demand Actuator

MINI PNEUMATIC ACTUATOR RD32



Specifications



(Model) RD32
(Size) H 55 MM T 45MM L 65 MM
(Size Range) 7 NM F03
(Operating Pressure) 10 BAR MAX
(Valve Operation Type) Double actingt
(Body Materials) ALLUMINIUM
(Connectinon) Namur
(Temperature) -15 +80C

PNEUMATIC ACTUATOR UT



Specifications



(Model) UT
(Size Range) 15-60 NM
(Operating Pressure) 10 BAR MAX
(Valve Operation Type) Double acting, spring return
(Body Materials) TECNOPOLYMER
(Connectinon) Namur
(Temperature) -20 +80C

PNEUMATIC ACTUATOR INOX ST



Specifications



(Model) ST
(Size Range) 10-2400 NM
(Operating Pressure) 10 BAR MAX
(Valve Operation Type) Double acting, spring return
(Body Materials) AISI 316
(Connectinon) Namur
(Temperature) -20 +80C



PNEUMATIC ACTUATOR INOX ATX

Specifications



(Model)	ATX
(Size Range)	10-2400 NM
(Operating Pressure)	10 BAR MAX
(Valve Operating Type)	Double acting, spring return
(Body Materials)	AISI 316
(Connection)	Namur
(Temperature)	-20+80C



PNEUMATIC ACTUATOR AOX

Specifications



(Model)	AOX IP68
(Size Range)	30-5000 NM
(Power)	220 -380VAC 24VAC-24VCC
(Temperature)	-20 +70C
(Body Materials)	ALLUMINIUM



ELECTRIC ACTUATOR VRX

Specifications



(Model)	VRX
(Size Range)	25-300 NM
(Power)	220 -380VAC 24VAC-24VCC
(Temperature)	-20 +70C
(Body Materials)	ALLUMINIUM

2 - Brass Ball Valves - Valvole a Sfera in Ottone

2 WAY BALL VALVE VSDE



Specifications



(Size Range) DN08 to DN100, 1/4" to 4"

(Operating Pressure) 8 BAR

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +120C

3 WAY BALL VALVE VS3LISO-VS3TISO



Specifications



(Size Range) DN08 to DN 50, 1/4" to 2"

(Operating Pressure) 8 BAR

(Body Materials) BRASS PN 30 L or T

(Ball Materials) BRASS

(Sealing Materials) PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +120C

2 WAY BALL VALVE VSFFAP



Specifications 210 BAR



(Size Range) DN10 to DN25, 3/8" to 1"

(Operating Pressure) 8 BAR

(Body Materials) BRASS PN 210

(Ball Materials) BRASS

(Sealing Materials) POM

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -10 +80C

2 - Inox Ball Valves - Valvole in Acciaio Inox

2 WAY BALL VALVE VSXDE



Specifications



(Size Range) DN08 to DN100, 1/4" to 4"

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 PN 63

(Ball Materials) INOX 316

(Sealing Materials) PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -25 +180C

2 WAY BALL VALVE VSX-54



Specifications

HIGH PRESSURE 140 BAR



(Size Range) DN08 to DN80, 1/4" to 3"

(Operating Pressure) 8 BAR

(Body Materials) INOX PN 140

(Ball Materials) INOX

(Sealing Materials) PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +150C

3 PZ BALL VALVE VSX3PISO - VSX3PSW - VSX3PBW



Specifications



(Size Range) DN08 to DN100, 1/4" to 4"

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 PN 63

(Ball Materials) INOX 316

(Sealing Materials) POM

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -25 +180C

2 WAY 3PZ BALL VALVE VSX3PIT



Specifications



(Size Range) DN08 to DN100, 1/4" to 4" ISO 228-BSP
(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100-25
SANDBLASTEDS

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

On request:

BUTT WELDING

SOCKET WELDING

Integral Seal

Connection: ISO 228 female/male thread
Antistatic device ATEX II 2 G-D T4 Zone 1-2
M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

Connection: NPT female/female thread

3 PZ BALL VALVE VSX3PBW A SALDARE DI TESTA



Specifications



(Size Range) DN08 to DN100, 1/4" to 4"

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 PN 63 BUTT WELDING

(Ball Materials) INOX 316

(Sealing Materials) PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -25 +180C



3 PZ BALL VALVE VSX3PSW A SALDARE DI TASCA

Specifications



(Size Range) DN08 to DN100, 1/4" to 4"

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 PN 63 SOCKET WELDING

(Ball Materials) INOX 316

(Sealing Materials) PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -25 +180C



2 WAY BALL VALVE VSX-64-VSX64MF-VSX64MM

Specifications PN 100



(Size Range) DN08 to DN100, 1/4" to 4" ISO 228-BSP

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100-25

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

On request:

Integral Seal

Connection: ISO 228 female/male thread

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographite -20+180C

P.T.F.E. with inox -20+200C

Connection: NPT female/female thread

2 WAY BALL VALVE VSX-65-VSX65MF-VSX65MM



Specifications PN 200 SABBIA Sandblasted



(Size Range) DN15 to DN50, 1/2" to 2" ISO 228- BSP

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 PN 200-64

(Ball Materials) INOX 316

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING, SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

Integral Seal

Connection: ISO 228 female/male thread

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

Connection: NPT female/female thread

2 WAY BALL VALVE VSX-52



Specifications PN 200 BAR



(Size Range) 1/4" to 1"

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 200/160

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING, SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

On request:

Integral Seal

Connection: ISO 228 female/male thread

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

Connection: NPT female/female thread

2 WAY BALL VALVE VSX-50



Specifications PN 400 BAR



(Size Range) 1/4" to 1"

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L

(Ball Materials) INOX 316 L

(Sealing Materials) DEVLON (NO WATER)

(Acting Mode) PNEUMATIC DOUBLE ACTING, SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +125C

On request:

PN 250 Seal PTFE VSX-50P

Antistatic device ATEX II 2 G-D T4

Connection: NPT female/female thread

2 WAY BALL VALVE VSX-20 GAROLLA



Specifications PN 40



(Size Range) DN32 to DN100, GAROLLA

(Connection) GAROLLA

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 40-25

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING, SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

On request:

Integral Seal

Connection: KF

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographite -20+180C

P.T.F.E. with inox -20+200C

2 WAY BALL VALVE VSX-66



Specifications PN100



(Size Range) DN08 to DN100, 1/4" to 4" CLAMP
(standard)

(Connection)

CLAMP normative DIN 32676 TAB.4 REIHE C According to
normative BS/OD (ASTM A270) for TUBE

CLAMP normative DIN 32676 TAB.2 REIHE A

According to normative DIN 11850 for TUBE

CLAMP normative DIN 32676 TAB.3 REIHE B

According to normative ISO 1127 for TUBE

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100-25

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING, SIN-
GLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

On request:

Integral Seal

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographite -20+180C

P.T.F.E. with inox -20+200C



with HEATING JACKET

2 WAY BALL VALVE VSX-70



Specifications PN 100/25



(Size Range) DN10 to DN100, DIN11851

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100-25

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

On request:

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+20C

SMS connection

Integral Seal

2 WAY BALL VALVE VSX-71



Specifications PN 100/25



(Size Range) DN10 to DN100 DIN 11851 female/male

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100-25

(Ball Materials) INOX 316 L

(Sealing Materials) PTFE-G400

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -10 +80C

On request:

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

SMS connection

Integral Seal



2 WAY BALL VALVE VSX-172

Specifications PN 100/25



(Size Range) DN10 to DN100, DIN 11851 male

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100-25

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

On request:

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

SMS connection

Integral Seal



2 WAY BALL VALVE VSX-110 WELDING

Specifications PN 100/25



(Size Range) DN10 to DN100

(Connection)

butt-welding in according to BS-OD ASTM A-270

butt-welding in according to DIN 1185

butt-welding in according to ISO 1127

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100-25

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

On request:

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

Integral Seal

2 WAY BALL VALVE VSX-100 ASEPTIK



Specifications PN 100/25



(Size Range) DN10 to DN100

(Connection)

ASEPTIK normativa DIN 11864-3 REIHE A, NKS Form A. Per TUBO in accordo con normativa DIN 11866-A
ASEPTIK normativa DIN 11864-3 REIHE B, NKS Form A. Per TUBO in accordo con normativa DIN 11866-B
ASEPTIK normativa DIN 11864-3 REIHE C, NKS Form A. Per TUBO in accordo con normativa DIN 11866-C
ASEPTIK normativa DIN 11864-3 REIHE A, BKS + NKS Form A. Per TUBO in accordo con normativa DIN 11866-A

ASEPTIK normativa DIN 11864-3 REIHE B, BKS + NKS Form A. Per TUBO in accordo con normativa DIN 11866-B

ASEPTIK normativa DIN 11864-3 REIHE C, NKS Form A. Per TUBO in accordo con normativa DIN 11866-C
ASEPTIK normativa DIN 11864-3 REIHE A, BKS Form A. Per TUBO in accordo con normativa DIN 11866-AA
ASEPTIK normativa DIN 11864-3 REIHE B, BKS Form A. Per TUBO in accordo con normativa DIN 11866-B
ASEPTIK normativa DIN 11864-3 REIHE C, BKS Form A. Per TUBO in accordo con normativa DIN 11866-C

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100-25

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(Acting Mode) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(Temperature) -20 +160C

On request:

Antistatic device ATEX II 2 G-D T4 Zone 1-2
M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographite -20+180C

P.T.F.E. with inox -20+200C

SMS connection

Integral Seal

2 - Enological Ball Valve PN 16

2 WAY BALL VALVE VSX-72-73



Specifications PN 16/6 VSX-72 AISI 304L VSX-73 AISI 316L



(Size Range) DN08 to DN100, 1/4" to 4" CLAMP BS (STANDARD)

(Connection) CLAMP BS 4825
CLAMP ISO 2852 - VSX72A
CLAMP DIN 32679 - VSX72B
WELDING - VSX72W

(Operating Pressure) 8 BAR

(Body Materials) INOX A304L/A316L PN 16/6

(Disc Materials) INOX A304L/A316L

(Sealing Materials) PTFE NBR VMQ FKM EPDM

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +100C

On request:

M.O.C.A. CE 1935/2004

2 WAY BALL VALVE VSX-74-75



Specifications VSX-74 AISI 304L VSX-75 AISI 316L



(Size Range) DN10 to DN80, 3/8" to 3" ISO 228-BSP

(Operating Pressure) 8 BAR

(Body Materials) INOX A304L/A316L PN 16/6

(Disc Materials) INOX A304/A316

(Sealing Materials) PTFE NBR VMQ FKM EPDM

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +100C

On request:

CONNECTION: ISO 228 FEMALE/MALE THREAD

CONNECTION: ISO 228 MALE/MALE THREAD

M.O.C.A. CE 1935/2004

2 WAY BALL VALVE VSX-78-79



Specifications

VSX-78 AISI 304L VSX-79 AISI 316L



(Size Range) DN08 to DN80, DIN11851

(Operating Pressure) 8 BAR

(Body Materials) INOX A304L/A316L PN16

(Disc Materials) INOX A304L/A316L

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +100C

On request:

M.O.C.A. CE 1935/2004

VSX 78 MF

VSX 79 MF

ON REQUEST

The Valves connection on the end are produced according to the most usual norm of the food industry. Enological, chemical and pharmaceutical industry, GAS-DIN-SMS-CLAMP-MACON-FRIEDERICH-RJT BS.

2 - 3 Way Inox Ball Valves

3 WAY BALL VALVE VSX3LISO-VSX3TISO



Specifications



(Size Range) DN08 to DN 50, 1/4" to 2"

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 PN 63

(Ball Materials) INOX

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -25 +180C

PORT TYPE	1	2	3	4
L				
T				

3 WAY L BALL VALVE VSX-44L



Specifications PN 400 BAR ONLY L



(Size Range) 1/4" to 1" ISO 5211

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L

(Ball Materials) INOX 316 L

(Sealing Materials) DEVLON (NO WATER)

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +125C

On request:

PN 250 Seal PTFE VSX-50P

Antistatic device ATEX II 2 G-D T4

Connection: NPT female/female thread

3 WAY L BALL VALVE VSX-45L



Specifications PN 40/25 BAR ONLY L



(Size Range) 1/4" to 2" ISO 5211

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN40/25

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Integral Seal

Connection: ISO 228 female/male thread

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

Connection: NPT female/female thread

3 WAY BALL VALVE VSX-42 L OR T



Specifications



(Size Range) DN08 to DN 50, 1/4" to 4"

(Operating Pressure) 8 BAR

(Body Materials) INOX 316L PN 100/16 FULL BORE

(Ball Materials) INOXL

(Sealing Materials) VIRGIN PTFE 4 SEALS

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Integral Seal

Connection: ISO 228 female/male thread

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

Connection: NPT female/female thread

3 WAY BALL VALVE VSX 300 L



Specifications



(Size Range) DN08 to DN 50, 1/4" to 4"

(Operating Pressure) 8 BAR

(Body Materials) INOX 316L PN 40/16

(Ball Materials) INOXL

(Sealing Materials) VIRGIN PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Integral Seal

Connection: ISO 228 female/male thread

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

Connection: NPT female/female thread

3 WAY BALL VALVE VSX-310 L OR T



Specifications



(Size Range) DN10 to DN 100 DIN 11851

(Operating Pressure) 8 BAR

(Body Materials) INOX 316L PN 100/16 FULL BORE

(Ball Materials) INOXL 4 SEALS

(Sealing Materials) VIRGIN PTFE 4 SEALS

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Integral Seal

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

SMS connection



3 WAY BALL VALVE VSX-320 L OR T

Specifications



(Size Range) DN10 to DN 100 DIN 11851

(Operating Pressure) 8 BAR

(Body Materials) INOX 316L PN 40/16 FULL BORE

(Ball Materials) INOX L 4 SEALS

(Sealing Materials) VIRGIN PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Integral Seal

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

SMS connection



3 WAY BALL VALVE VSX-330 T OR L

Specifications PN100



(Size Range) DN08 to DN100, 1/4" to 4" CLAMP
(Connection):

CLAMP normative DIN 32676 TAB.4 REIHE C Accor-
ding to normative BS/OD (ASTM A270) for TUBE

CLAMP normative DIN 32676 TAB.2 REIHE A

According to normative DIN 11850 for TUBE

CLAMP normative DIN 32676 TAB.3 REIHE B

According to normative ISO 1127 for TUBE

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100-25

(Ball Materials) INOX 316 L S SEAL

(Sealing Materials) VIRGIN PTFE 4 SEALS

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Integral Seal

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

3 WAY BALL VALVE VSX-340 GAROLLA T OR L



Specifications PN 16/10



(Size Range) DN32 to DN100, GAROLLA

(Connection) GAROLLA

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN16/10

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,

SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Integral Seal

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

3 WAY BALL VALVE VSX-350 WELDING T OR L



Specifications PN 100/16



(Size Range) DN10 to DN100

(Connection)

butt-welding in according to BS-OD ASTM A-270

butt-welding in according to DIN 1185

butt-welding in according to ISO 1127

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 L PN 100/16

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE 4 SEALS

(ACTING MODE) PNEUMATIC DOUBLE ACTING,

SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Integral Seal

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

2 - Flanged Ball Valves

FLANGED BALL VALVE VSX-400

Specifications



(Size Range) DN15 to DN200, UNI EN1092-1

(Operating Pressure) 8 BAR

(Body Materials) INOX 316L PN 40/16

(Ball Materials) INOX 316

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

WITH HEATING JACKET

ON REQUEST:

INTEGRAL SEAL

ANTISTATIC DEVICE ATEX II 2 G-D T4 ZONE 1-2

M.O.C.A. CE 1935/2004

SEALS MADE OF:

P.T.F.E. WITH GLASS -20-170C

P.T.F.E. WITH CARBOGRAPHITE -20+180C

P.T.F.E. WITH INOX -20+200C



FLANGED BALL VALVE 01.622

Specifications



(Size Range) DN15 to DN100, EN1092/ISO7005

(Operating Pressure) 8 BAR

(Body Materials) INOX 316 PN 16

(Ball Materials) INOX 316

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -25 +150C



FLANGED BALL VALVE CAM 664



Specifications



(Size Range) DN15 to DN150 EN558/1 ISO5752

(Operating Pressure) 8 BAR

(Body Materials) CF8M PN 16

(Ball Materials) CF8M

(Stem Materials) CF8M

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -25 +180C

PN 40 DN15 - DN50

PN 16 DN65 - DN150

FLANGED BALL VALVE C128



Specifications



(Size Range) DN15 to DN200 EN1092 ISO7005

(Operating Pressure) 8 BAR

(Body Materials) CF8M ANSI 150

(Ball Materials) CF8M

(Stem Materials) CF8M

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -30 +180C

FLANGED BALL VALVE C 129



Specifications



(Size Range) DN65-150 to DN200

(Operating Pressure) 8 BAR

(Body Materials) CF8M PN 40

(Ball Materials) CF8M

(Stem Materials) CF8M

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -30 +180C

FLANGED BALL VALVE VSX-60



Specifications PN 40/16



(Size Range) DN10 to DN100 UNI EN 1092-1

(Operating Pressure) 6 BAR

(Body Materials) INOX 316 L

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Connection: EN 1759-1 CLASS

150 revolving threaded flanges

Connection: ANSI 300 revolving threaded flanges
Integral Seal

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

FLANGED 3 WAY T/L BALL VALVE VSX-46



Specifications PN 40/16



(Size Range) DN10 to DN100 UNI EN 1092-1

(Operating Pressure) 6 BAR

(Body Materials) INOX 316 L

(Ball Materials) INOX 316 L

(Sealing Materials) VIRGIN PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

Connection: EN 1759-1 CLASS

150 revolving threaded flanges

Connection: ANSI 300 revolving threaded flanges
Integral Seal

Antistatic device ATEX II 2 G-D T4 Zone 1-2

M.O.C.A. CE 1935/2004

Seals made of:

P.T.F.E. with glass -20-170C

P.T.F.E. with carbographe -20+180C

P.T.F.E. with inox -20+200C

2 - Butterfly Sanitary Valves

2 WAY SANITARY VALVE VFX-10-15



Specifications

PN 6 VFX-10 AISI 304L VFX-15 AISI 316L



(Size Range) DN15 to DN100, 1/2" to 4" CLAMP

(Operating Pressure) 8 BAR

(Body Materials) INOX A304L/A316L PN 16

(Disc Materials) INOX A304L/A316L

(Sealing Materials) MVQ -50+200 FKM -15+200
EPDM -30+140

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +160C

On request:

GAROLLA

M.O.C.A. CE 1935/2004

VERTICAL ACTUATOR

2 WAY SANITARY VALVE VFX-20-25



Specifications

PN 6 VFX-20 AISI 304L VFX-25 AISI 316L



(Size Range) DN25 to DN100 DIN 11851 FF - MF

(Operating Pressure) 8 BAR

(Body Materials) INOX A304L/A316L PN 16

(Disc Materials) INOX A304L/A316L

(Sealing Materials) MVQ -50+200 FKM -15+200
EPDM -30+140

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

On request:

M.O.C.A. CE 1935/2004

VERTICAL ACTUATOR





2 WAY SANITARY VALVE VFX-30-35

Specifications

PN 6 VFX-30 AISI 304L VFX-35 AISI 316L



(Size Range) DN25 to DN100 ISO 228-BSP

(Operating Pressure) 8 BAR

(Body Materials) INOX A304L/A316L PN 6

(Disc Materials) INOX A304L/A316L

(Sealing Materials) MVQ -50+200 FKM -15+200
EPDM -30+140

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

On request:

M.O.C.A. CE 1935/2004

VERTICAL ACTUATOR



2 WAY SANITARY VALVE VFX-40-45

Specifications

PN 6 VFX-40 AISI 304L VFX-45 AISI 316L



(Size Range) DN25 to DN100 Welded connections

(Operating Pressure) 8 BAR

(Body Materials) INOX A304L/A316L PN 6

(Disc Materials) INOX A304L/A316L

(Sealing Materials) MVQ -50+200 FKM -15+200
EPDM -30+140

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

On request:

M.O.C.A. CE 1935/2004

VERTICAL ACTUATOR

2 - Butterfly Valves Inox

STAINLESS STEEL WAFER BUTTERFLY VALVE J9.6



Specifications DM 174



(Size Range) DN40 to DN300

(Operating Pressure) 1.0 to 1.6MPa

(Body Materials) Stainless Steel AISI 316 PN16

(Disc Materials) Stainless Steel AISI 316,
Alluminium-bronze

(Sealing Materials) NBR, EPDM, FKM (VITON), PTFE
(TEFLON)

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +190C

(OPTIONS) SEAL EPDM HT – PTFE+EPDM –

2 - Knife Gate Valves Inox

UNIDIRECTIONAL KNIFE GATE VALVE SERIE 19.6



Specifications



(Size Range) DN50 to DN600,

(Body Materials) AISI316 PN 16

(Gate Materials) INOX316

(Sealing Materials) NBR-FKM-PTFE-EPDM-METAL/
METAL

(TEMPERATURE) -40 +180C

BIDIRECTIONAL KNIFE GATE VALVE SERIE 18.6



Specifications



(Size Range) DN50 to DN500,

(Body Materials) AISI316 PN 16

(Gate Materials) INOX316

(Sealing Materials) NBR-FKM-PTFE-EPDM

(TEMPERATURE) -40 +180C

2 - Cast Iron Valves

2 WAY BALL VALVE B2.110



Specifications



(Size Range) DN15 to DN250, EN1092/ISO7005

(Operating Pressure) 8 BAR

(Body Materials) CAST IRON PN 16

(Ball Materials) INOX 304

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +100C FKM -10+150

(OPTION) -FOR GAS (DVGW) – BODY BRONZE

2 WAY BALL VALVE B1.100



Specifications



(Size Range) DN20 to DN100, EN1092/ISO7005

(Operating Pressure) 8 BAR

(Body Materials) CAST IRON PN 16

(Ball Materials) INOX 304

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +100C FKM -10+150

3 WAY BALL VALVE T4.110



Specifications



(Size Range) DN50 to DN150, EN1092/ISO7005

(Operating Pressure) 8 BAR

(Body Materials) CAST IRON PN 16

(Ball Materials) INOX 304

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +100C FKM -10+150

(OPTION) -Y TYPE AND T4.100

BALL AND STEM BRASS

MOUNTING BRACKET



2 - Bronze Ball Valve

2 WAY BALL VALVE B2.322

Specifications



(Size Range) DN15 to DN250, EN1092/ISO7005

(Operating Pressure) 8 BAR

(Body Materials) Bronze

(Ball Materials) INOX 316

(Sealing Materials) PTFE

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +100C FKM -10+150

(OPTION)

B2.300 Ball and stem brass

B2.377 Ball and stem bronze-aluminium

S2 ANSI 150 Full bore

B2.7 Bronze -Aluminium



2 - Carbon Steel Valves

2 WAY BALL VALVE C160



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"

(Operating Pressure) 8 BAR

(Body Materials) A105 PN 400

(Disc Materials) A105

(Sealing Materials) POM

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +100C



MOUNTING BRACKET

3 WAY PNEUMATIC BALL VALVE C161L C162T



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"

(Operating Pressure) 8 BAR

(Body Materials) A105 PN 400

(Disc Materials) A105

(Sealing Materials) POM

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -20 +100C



MOUNTING BRACKET

2 WAY BALL VALVE C999



Specifications



(Size Range) DN10 to DN50, DIN2999-NPT-SW/BW
 (Operating Pressure) 8 BAR
 (Body Materials) A 216 WCB PN 140 PN100 1 1/4-2
 (Ball) INOX 316
 (Sealing Materials) PTFE
 (ACTING MODE) PNEUMATIC DOUBLE ACTING,
 SINGLE ACTING AND ELECTRIC ACTUATOR
 (TEMPERATURE) -10 +150C
 180 C PTFE+CARBOGRAFITE
 (OPTION) FIRE SAFE

MOUNTING BRACKET

2 WAY BALL VALVE 01.411



Specifications



(Size Range) DN15 to DN150, EN1092/ISO7005
 (Operating Pressure) 8 BAR
 (Body Materials) A105 PN 16
 (Disc Materials) INOX
 (Sealing Materials) PTFE
 (ACTING MODE) PNEUMATIC DOUBLE ACTING,
 SINGLE ACTING AND ELECTRIC ACTUATOR
 (TEMPERATURE) -25 +150C
 (OPTION) PN40

MOUNTING BRACKET

PNEUMATIC FLANGED BALL VALVE C126



Specifications



(Size Range) DN15 to DN150, ASME B 16.5
 (Operating Pressure) 8 BAR
 (Body Materials) WCB ANSI 150
 (Disc Materials) INOX 316
 (Sealing Materials) PTFE+ GRAPHITE
 (ACTING MODE) PNEUMATIC DOUBLE ACTING,
 SINGLE ACTING AND ELECTRIC ACTUATOR
 (TEMPERATURE) -30 +220C

2 - PVC Valves

PLASTIC 2 WAY BALL VALVE CP120F-CP120I



Specifications



(Size Range) DN10 to DN100, 3/8" to 4"
 (Operating Pressure) 1.0MPa
 (Body Materials) PVC-U GAS or Plain Ends
 (Disc Materials) PVC-U
 (Sealing Materials) EPDM – FPM
 (ACTING MODE) PNEUMATIC DOUBLE ACTING,
 SINGLE ACTING AND ELECTRIC ACTUATOR
 (TEMPERATURE) 0-60C
 (OPTIONS) PVC – C PVDF SOCKET WELDING

PLASTIC 3 WAY BALL VALVE CP131L - CP131T



Specifications



(Size Range) DN15 to DN50, 1/2" to 2"
 (Operating Pressure) 1.0MPa
 (Body Materials) PVC-U GAS or Plain Ends
 (Disc Materials) PVC-U
 (Sealing Materials) EPDM - FPM
 (STRUCTURE) 3 WAY T PORT, L PORT ARE AVAILABLE
 (ACTING MODE) PNEUMATIC DOUBLE ACTING,
 SINGLE ACTING AND ELECTRIC ACTUATOR
 (TEMPERATURE) 0-60C
 (OPTIONS) PVC – C - PVDF SOCKET WELDING

PLASTIC PNEUMATIC BUTTERFLY VALVE FT



Specifications



(Size Range) DN40 to DN200,
 (Operating Pressure) 1.0MPa
 (Body Materials) PVC-U WAFER TYPE
 (Disc Materials) PVC-U
 (Sealing Materials) EPDM – FPM
 (ACTING MODE) PNEUMATIC DOUBLE ACTING,
 SINGLE ACTING AND ELECTRIC ACTUATOR
 (TEMPERATURE) 0-60C
 (OPTIONS) PVDF

2 - Butterfly Valves

CAST IRON WAFER BUTTERFLY VALVE J9



Specifications

DM 174



(Size Range) DN25 to DN600

(Operating Pressure) 1.0 to 1.6MPa

(Body Materials) Ductile Iron, Stainless Steel PN16

(Disc Materials) Cast Iron, Stainless Steel,
Alluminium -bronze

(Sealing Materials) NBR, EPDM, FKM (VITON),
PTFE (TEFLON)

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +120C

(OPTIONS) SEAL EPDM HT – PTFE+EPDM – NYLON
11FOR GAS / FOR DRINKING WATER

CAST IRON LUG BUTTERFLY VALVE L9



Specifications

DM 174



(Size Range) DN25 to DN600

(Operating Pressure) 1.0 to 1.6MPa

(Body Materials) Ductile Iron, Stainless Steel PN16

(Disc Materials) Cast Iron, Stainless Steel,
Alluminium-bronze

(Sealing Materials) NBR, EPDM, FKM (VITON),
PTFE (TEFLON)

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING AND ELECTRIC ACTUATOR

(TEMPERATURE) -10 +120C

(OPTIONS) SEAL EPDM HT – PTFE+EPDM –
DISK INOX/PTFE
FOR GAS / FOR DRINKING WATER



2 - Knife Gate Valves Ductil Iron

BIDIRECTIONAL KNIFE GATE VALVE SERIE 18



Specifications



(Size Range) DN50 to DN500

(Body Materials) Ductil Iron PN 16

(Gate Materials) INOX316

(Sealing Materials) NBR - EPDM

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING

(TEMPERATURE) -30 +90C

(OPERATING PRESSURE) 1.0 TO 1.6MPA

UNIDIRECTIONAL KNIFE GATE VALVE SERIE 19



Specifications



(Size Range) DN50 to DN600,

(Body Materials) Ductil Iron PN 16

(Gate Materials) INOX 316

(Sealing Materials) NBR – EPDM – METAL/METAL

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING

(TEMPERATURE) -30 +90C

(OPERATING PRESSURE) 1.0 TO 1.6MPA

UNIDIRECTIONAL KNIFE GATE VALVE SERIE 19E



Specifications



(Size Range) DN50 to DN600

(Body Materials) Ductil Iron PN 16

(Gate Materials) INOX316

(Sealing Materials) NBR - EPDM

(ACTING MODE) PNEUMATIC DOUBLE ACTING,
SINGLE ACTING

(TEMPERATURE) -30 +90C

(OPERATING PRESSURE) 1.0 TO 1.6MPA



3 - Box Limit Switch, Namur, Positioner



LIMIT SWITCH BOX APL-210N

Specifications



(Model) APL-210N 2 Mechanical switches
IP66/IP67 DIN EN60529

(Body Materials) Alluminium



LIMIT SWITCH BOX IP2M01

Specifications



(Model) IP2M01 2 Mechanical switches
IP66/IP67 DIN EN60529

(Model) IP2M02 2 Inductive proximity switches
IP66/IP67 DIN EN60529

(OPTION) More connections



LIMIT SWITCH BOX EPP2M01

Specifications



(Model) EP2M01 2 Mechanical switches
IP66/IP67 DIN EN60529

(Model) EP2I01 2 Inductive proximity switches
IP66/IP67 DIN EN60529

(Model) EP2R01-614 2 magnetic reed sensors
IP66/IP67 DIN EN60529

(Body Materials) PA66 (available Aluminium)

(Connections) 2x M20x1,5

(OPTION) Visual indicators-more
connections-bracket Aisi 304



LIMIT SWITCH BOX IV2M01-G-IA

Specifications



(Model) IV2M01-G-IA 2 Mechanical switches
IP66/IP67 DIN EN60529

(Body Materials) Vestamid / Polycarbonate cover

(Atex) II GD Ex ia – Zone 1 - 21

(OPTION) more connections



LIMIT SWITCH BOX IV2I01-IA

Specifications



(Model) IV2I01 2 Inductive proximity switches
IP66/IP67 DIN EN60529

(Body Materials) Vestamid / Polycarbonate cover

(Atex) II GD Ex ia – Zone 1 - 21

(OPTION) more connections



LIMIT SWITCH BOX EVE201-IA-3D

Specifications



(Model) EVE2I01-IA-3D
2 Inductive proximity switches
IP66/IP67 DIN EN60529

(Body Materials) PA66 (available Aluminium)

Connections: 2x M20x1,5

(Bracket Materials) Aisi 304

(Atex) II GD Ex ia – Zone 1 - 21

(OPTION) More connections



LIMIT SWITCH BOX EVE2M01-551-ED-3D

Specifications



(Model) EVE2M01-551-ED -3D 2 Mechanical switches

IP66/IP67 DIN EN60529

(Body Materials) Vestamid / Polycarbonate
(available Aluminium)

(Connections) 2x M20x1,5

(Bracket Materials) Aisi 304

(Atex) II GD Ex e / Ex t - Zone 1 - 21

(OPTION) More connections



LIMIT SWITCH BOX DA2M01-D

Specifications



(Model) DA2M01-D 2 Mechanical switches
IP66/IP67 DIN EN60529

(Body Materials) Aluminium copper free

(Connections) 3x M20x1,5

(Bracket Materials) Aisi 304

(Atex) II GD Ex d Ex t - Zone 1-21



LIMIT SWITCH BOX NEK2M01-551-ED

Specifications



(Model) NEK2M01-551-ED 2 Mechanical switches
IP65/IP66 DIN EN60529

(Body Materials) AISI 316 Ti

(Connections) 2x M20x1,5

(Bracket Materials) Aisi 316 Ti

(Atex) II GD Ex e / Ex t - Zone 1-21

(OPTION) More connections

5/2 WAY SOLENOID VALVE NAMUR 4M310-08



Specifications

(Model)	4M310-08
(Operating Pressure)	2 to 10 BAR
(Air Flow)	950l /min
(Air Supply Port)	G 1/4"
(Number of Ways)	3/2-5/2
(Body Materials)	ALLUMINIUM
(Connections)	2x M20x1,5
(Sealing Materials)	NBR
(Temperature)	-20°C.... +50°C
(Voltage)	DC:12V-24V-48V-110V7 AC: 24V-48V-115V-230V
	IP65

5/2 WAY SOLENOID VALVE NAMUR 4M310-08X INOX



Specifications

(Model)	4M310-08
(Operating Pressure)	2 to 10 BAR
(Air Flow)	950l /min
(Air Supply Port)	G 1/4"
(Number of Ways)	3/2-5/2
(Body Materials)	INOX 316,
(Sealing Materials)	NBR
(Temperature)	-20°C.... +50°C
(Voltage)	DC:12V-24V-48V-110V7 AC: 24V-48V-115V-230V
	IP65

5/2 WAY SOLENOID NAMUR MULTIFUNCTION



Specifications

(Model)	01.202.3
(Operating Pressure)	2 to 10 BAR
(Air Flow)	950l /min
(Air Supply Port)	G 1/4"
(Number of Ways)	5/2 2/2NC/NA 3/2NC/NA
(Body Materials)	ALLUMINIUM,
(Sealing Materials)	NBR
(Temperature)	-20°C+50°C
(Voltage)	DC:12V-24V-48V-110V7 AC: 24V-48V-115V-230V IP65
	WITH MAGNETIC SENSOR



5/2 WAY SOLENOID VALVE NAMUR MNF532-IA

Specifications



(Model) MNF532-IA
 (Operating Pressure) 2 to 8 BAR
 (Air Flow) 950l /min
 (Air Supply Port) G 1/4"
 (Number of Ways) 3/2-5/2
 (Body Materials) ALLUMINIUM,
 (Sealing Materials) NBR
 (Temperature) -20°C.... +50°C
 (Voltage) DC:24V
 (Atex) II GD Ex ia – Zone 1 – 21 / Zone: 21-22 IP65
OPTIONS : Body AISI 316L
MNF532-DM II GD Ex db, tb – Zone 1 – 21 / Zone: 21-22

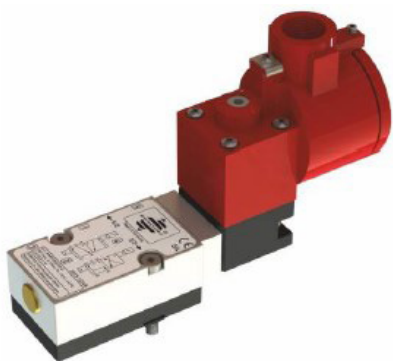


5/2 WAY SOLENOID VALVE NAMUR 51558EIB15

Specifications



(Model)
 (Operating Pressure) 2 to 10 BAR
 (Air Flow) 950l /min
 (Air Supply Port) G 1/4"
 (Number of Ways) 3/2-5/2
 (Body Materials) ALLUMINIUM,
 (Sealing Materials) NBR
 (Temperature) -20°C.... +50°C
 (Voltage) DC:24V
(Atex) II 2G Ex d IIC T6 o T5 Gb
II 2D Ex tb IIIC T80°C o T95°C Db IP67



5/2 WAY SOLENOID VALVE NAMUR MNF532-D

Specifications



(Model) MNF532-D
 (Operating Pressure) 2 to 10 BAR
 (Air Flow) 950l /min
 (Air Supply Port) G 1/4"
 (Number of Ways) 3/2-5/2
 (Body Materials) ALLUMINIUM,
 (Sealing Materials) NBR
 (Temperature) -20°C.... +50°C
 (Voltage) DC:24V AC: 110V-230V
 (Atex) II GD Ex d, tD – Zone 1 – 21
 IP65



PLASTIC ADAPTER PLATE FROM 5/2-3/2

Specifications

(Model) B6001H

(Operating Pressure) 0.5 to 10 BAR

(Air Flow) 650l /min

(Number of Ways) 3/2-5/2-5/3



PLASTIC SPACER PLAIT COIL 30 MM

Specifications

(Model) D000NH

(Operating Pressure) 0.5 to 10 BAR

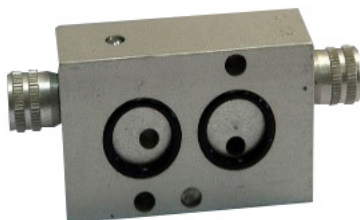


ALLUMINIUM SPACER PLAIT COIL 30 MM

Specifications

(Model) D000NN

(Operating Pressure) 0.5 to 10 BAR



SPEED REGULATOR PLATES SC5-M

Specifications

(Model) SC5-M whit external handles

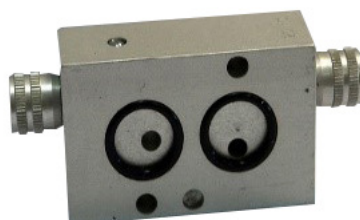
(Operating Pressure) 0.5 to 10 BAR

(Air Flow) 650l /min

(Number of Ways) 5/2-5/3

(Body Materials) ALLUMINIUM,

(Temperature) -10°C.... +50°C



SPEED REGULATOR PLATES SC3-M

Specifications

(Model) SC3-M whit external handles

(Operating Pressure) 0.5 to 10 BAR

(Air Flow) 650l /min

(Number of Ways) 3/2

(Body Materials) ALLUMINIUM

(Temperature) -10°C.... +50°C

BREATHER BLOCK 1/4 ALLUMINIUM



Specifications

(Model) SC6M01

(Operating Pressure) 0.5 to 10 BAR

(Body Materials) ALLUMINIUM

BLOCK & VENT VALVE



Specifications

(Model) SC8M01

(Operating Pressure) 0.5 to 10 BAR

(Body Materials) ALLUMINIUM

ROTARY VALVE POSITIONER PEP - PET



Specifications



(Model) PEP - PET

(PEP) 3-15 PSI Pneumatic Positioner

(PET60-RN4NS0000) Elettro-pneumatic 4-20mA

(PET60-RE4NS0001) Elettro-pneumatic 4-20mA Exd mb IIB T5 ATEX II 2 G

(PET600-RN4NS0M00) 4-20Ma Electro pneu.with 2 internal switches SPDT

(PET60-RN4NS1000) 4-20Ma Electro pneu.with 2 internal switches SPDT

And position transmitter 4-20mA



ELECTRONIC CONTROL ITB-DRIVE

Specifications



(Model) ITB-DRIVE

(Alimentation) 24 vdc

(Signal) 0-10v/ 4-20Ma

(Pneumatic Signal) 5-8 bar

(Protection) IP 54

INDICATORE DI POSIZIONE PG-1435 FOR SSJZF



Specifications



(Size Range) DM40- 50-63-80

(STROKE) 5-35 mm

(A) 25Ma a 24VDC

(C°) -20 +70 C°

(Meccanical switch) SPDM

(Protection) IP 65

FOR SSJZF-15 ASSEMBLING IN FACTORY

PRESSURE TRASDUCER PT



Specifications



(Alimentation) 9/35 vdc
(Signal) 0-10v/ 4-20Ma
(Pneumatic Signal) 0-400 bar
(Protection) IP 65
(Size Range) 1/4
(Body Materials) AISI 316,
(Sealing Materials) FKM -10+140 NBR -10+90

PRESSURE TRASDUCER PT RECOGNIZED UL/CSA



Specifications



(Alimentation) 9/35 vdc
(Signal) 0-10v/ 4-20Ma
(Pneumatic Signal) 0-400 bar
(Protection) IP 65
(Size Range) 1/4
(Body Materials) AISI 316,
(Sealing Materials) FKM -10+140 NBR -10+90

OND DEMAND
CABLES M12



4 - Electric valves

SOLENOID VALVE SERIE 85 NC 2/2



Specifications



(Model) SERIE 85
(Structure) Direct Acting
(Size Range) DN06 to DN15, 1/8" to 1/2"
(Operating Pressure) 0 to 20 BAR
(Temperature) -10+155C FKM (1/8-1/4)
(Valve Operation Type) Normally Closed (NC)
(Number of Ways) 2/2 Valve, Two Way Two Position
(Body Materials) Brass
(Sealing Materials) EPDM-20+140C KARLEZ -30+250
(3/8-1/2)
(OPTION)
NSF
NPT
ATEX
FOR OXYGEN
HIGT PRESSURE
PROPORTIONAL ACTING
PINCH SOLENOID VALVES
TECHNOPOLYMER

SOLENOID VALVE SERIE 88 NA 2/2



Specifications



(Model) SERIE 88
(Structure) Direct Acting
(Size Range) DN06 to DN15, 1/8" to 1/4"
(Operating Pressure) 0 to 7 BAR
(Valve Operation Type) Normally OPEN (NA)
(Number of Ways) 2/2 Valve, Two Way Two Position
(Body Materials) Brass
(Sealing Materials) FKM -10+155

4 - Electric valves

SOLENOID VALVE SERIE 89 NC 3/2



Specifications



(Model) SERIE 89
 (Structure) Direct Acting
 (Size Range) DN06 to DN15, 1/8" to 1/4"
 (Operating Pressure) 0 to 20 BAR
 (Temperature) -10+155C FKM (1/8-1/4)
 (Valve Operation Type) Normally Closed (NC) UNIVERSAL NC/NA
 (Number of Ways) 3/2 Valve,
 (Body Materials) Brass,
 (Sealing Materials) EPDM-20+140C KARLEZ -30+250 (3/8-1/2)

(OPTION)
 NSF
 NPT
 ATEX
 FOR OXYGEN
 INOX 316
 UNIVERSAL NC/NA SERIE89NC/NA

SOLENOID VALVE SERIE 84 NC



Specifications



(Model) SERIE 84
 (Structure) Direct
 (Size Range) DN10 to DN25, 3/8" to 1"
 (Operating Pressure) 0-10 BAR
 (Temperature) -20/+90C NBR
 (Valve Operation Type) Normally Closed (NC)
 (Number of Ways) 2/2 Valve, Two Way Two Position
 (Body Materials) Brass
 (Sealing Materials) EPDM/NBR -20+140 FKM -10+155

(OPTION)
 NPT
 ATEX
 FOR OXYGEN



SOLENOID VALVE SERIE 86 NC

Specifications



(Model) SERIE 86
(Structure) Piston piloted
(Size Range) DN10 to DN50, 3/8" to 2"
(Operating Pressure) 0.1 to 18 BAR
(Temperature) -20/+90C NBR
(Valve Operation Type) Normally Closed (NC)
(Number of Ways) 2/2 Valve, Two Way Two Position
(Body Materials) Brass
(Sealing Materials) EPDM -20+140 FKM -10+155

(OPTION)
NSF
NPT
ATEX
FOR OXYGEN
HIGT PRESSURE



SOLENOID VALVE SERIE 87 NA

Specifications



(Model) SERIE 87
(Structure) Piston piloted
(Size Range) DN10 to DN50, 3/8" to 2"
(Operating Pressure) 0.1 to 16 BAR
(Temperature) -20/+90C NBR
(Valve Operation Type) Normally OPEN (NA)
(Number of Ways) 2/2 Valve, Two Way Two Position
(Body Materials) Brass,
(Sealing Materials) EPDM -20+140 FKM -10+155

(OPTION)
NSF
NPT
ATEX
FOR OXYGEN
HIGT PRESSURE

AISI 304

INOX 304 SOLENOID VALVE SERIE 102



Specifications



(Model) SERIE 102
(Structure) Direct Acting
(Size Range) DN06 to DN15, 1/8" to 1/2"
(Operating Pressure) 0 to 10 BAR
(Valve Operation Type) Normally Closed (NC)
(Number of Ways) 2/2 Valve, Two Way Two Position
(Body Materials) Stainless Steel 304
(Sealing Materials) PTFE -10+180C

INOX 304 SOLENOID VALVE SERIE 103



Specifications



(Model) SERIE 103
(Structure) Direct Acting
(Size Range) DN06 to DN15, 1/8" to 1/2"
(Operating Pressure) 0 to 7 BAR
(Valve Operation Type) Normally OPEN (NA)
(Number of Ways) 2/2 Valve, Two Way Two Position
(Body Materials) Stainless Steel 304
(Sealing Materials) PTFE -10+180C

INOX 304 SOLENOID VALVE SERIE 100



Specifications



(Model) SERIE 100
(Structure) Piston piloted
(Size Range) DN15 to DN50, 1/2" to 2"
(Operating Pressure) 0.1 to 7 BAR
(Valve Operation Type) Normally Closed (NC)
(Number of Ways) 2/2 Valve, Two Way Two Position
(Body Materials) inox 304,
(Sealing Materials) PTFE -10-180 C

AI SI 316

INOX 316 SOLENOID VALVE SERIE 90



Specifications



(Model) SERIE 90
(Structure) Direct Acting
(Size Range) DN06 to DN15, 1/8" to 1/2"
(Operating Pressure) 0 to 25 BAR
(Valve Operation Type) Normally Closed (NC)
(Number of Ways) 2/2 Valve, Two Way Two Position
(Body Materials) Stainless Steel 316
(Sealing Materials) PTFE -10+155C

(OPTION)
NSF
NPT

INOX 316 SOLENOID VALVE SERIE 86 NC



Specifications



(Model) SERIE 86 INOX
(Structure) Piston piloted
(Size Range) DN15 to DN25, 1/2" to 1"
(Operating Pressure) 0.15 to 15 BAR
(Valve Operation Type) Normally Closed (NC)
(Number of Ways) 2/2 Valve, Two Way Two Position
(Body Materials) inox 316,
(Sealing Materials) KKM -20-125 C

(OPTION)
NPT

5 - Pneumatic Valves

PNEUMATIC ANGLE SEAT VALVE SSJZF



Specifications



(Size Range) DN10 to DN80, 1/2" to 2"

(Operating Pressure) 0 to 1.6MPa

(Valve Operation Type) Normally Closed (NC)

(Actuator Materials) Stainless Steel

(Body Materials) Stainless Steel

(Sealing Materials) FKM (VITON), PTFE (TEFLON)
-10-180C

(Piston Sealing Materials) NBR, FKM (VITON)

LIMIT SWITCH



PNEUMATIC ANGLE SEAT VALVE SSJAP



Specifications



(Size Range) DN10 to DN80, 1/2" to 2"

(Operating Pressure) 0 to 40 BAR

(Valve Operation Type) Normally Closed (NC)

(Actuator Materials) Stainless Steel

(Body Materials) Stainless Steel

(Sealing Materials) FKM (VITON), PTFE (TEFLON)
-40-180C

(Piston Sealing Materials) NBR, FKM (VITON)

40 BARS



PNEUMATIC ANGLE SEAT VALVE SSJZF-FL



Specifications

(Size Range) DN10 to DN100 DIN 2576

(Operating Pressure) 0 to 1.6MPa

(Valve Operation Type) Normally Closed (NC)

(Actuator Materials) Stainless Steel

(Body Materials) Stainless Steel

(Sealing Materials) FKM (VITON), PTFE (TEFLON)
-10-180C

(Piston Sealing Materials) NBR, FKM (VITON)



PNEUMATIC ANGLE SEAT VALVE SSJZF-WL



Specifications

(Size Range) DN15 to DN80,

(Operating Pressure) 0 to 1.6MPa

(Valve Operation Type) Normally Closed (NC)

(Actuator Materials) Stainless Steel

(Body Materials) Stainless Steel DIN 11850-2

(Sealing Materials) FKM (VITON), PTFE (TEFLON)
-10-180C

(Piston Sealing Materials) NBR, FKM (VITON)



PNEUMATIC ANGLE SEAT VALVE SSJZF-CLAMP



Specifications

(Size Range) DN15 to DN50,

(Operating Pressure) 0 to 1.6MPa

(Valve Operation Type) Normally Closed (NC)

(Actuator Materials) Stainless Steel

(Body Materials) Stainless Steel TRI-CLAMP
ISO2852-1993

(Sealing Materials) FKM (VITON), PTFE (TEFLON)
-10-180C

(Piston Sealing Materials) NBR, FKM (VITON)



PNEUMATIC ANGLE SEAT VALVE SSJMO



Specifications

(Size Range) DN15 or DN25,
 (Operating Pressure) 0 to 1.6MPa
 (Valve Operation Type) Normally Closed (NC)
 (Actuator Materials) Stainless Steel
 (Body Materials) Stainless Steel GAS
 (Sealing Materials) FKM (VITON), PTFE (TEFLON)
 -10-180C
 (Piston Sealing Materials) NBR, FKM (VITON)



PNEUMATIC ANGLE SEAT VALVE SSJMINI



Specifications

(Size Range) 3/8" to 2"
 (Operating Pressure) 0 to 10 BAR
 (Valve Operation Type) NC
 (Actuator Materials) ALLUMINIUM
 (Body Materials) Stainless Steel
 (Sealing Materials) PTFE



PNEUMATIC ANGLE SEAT VALVE SSJZF-MOD



Specifications

(Size Range) DN15 to DN65, 1/2" to 2 1/2"
 (Operating Pressure) 0 to 1.6MPa
 (Valve Operation Type) NC
 (Actuator Materials) Stainless Steel
 (Body Materials) Stainless Steel
 (Sealing Materials) EPDM -FKM-PEEK

(Ends) THREADED FF ISO228 G
 THREADED FF NPT
 PN6/10/16
 BUTT-WELD ENDS

REGULATING SYSTEM

PINCH VALVES OV



Specifications

(Size Range) DN15-DN250 PN10

(Operating Pressure) 5 BAR

(Valve Operation Type) DE-NC

(Body Materials) ALLUMINIUM

(Sealing Materials) RUBBER-EPDM

PINCH VALVES VF



Specifications

(Size Range) DN10-DN250 PN10

(Operating Pressure) 5 BAR

(Valve Operation Type) DE-NC

(Body Materials) ALLUMINIUM-POM-INOX

(Sealing Materials) RUBBER-EPDM

COAXIAL VALVES VSCP



Specifications



(Size Range) 3/8" to 2"

(Operating Pressure) 0 to 1.6MPa

(Valve Operation Type) Normally Closed (NC)

(Body Materials) Stainless Steel

(Sealing Materials) FKM (VITON), PTFE -20-150C

COAXIAL VALVES VSCPF



Specifications



(Size Range) DN65-DN100 FLANGED DIN 2543

(Operating Pressure) 0 to 1.6MPa

(Valve Operation Type) DE

(Body Materials) AISI 304 DIN 2543 PN16

(Sealing Materials) FKM (VITON), PTFE -20-150C



PNEUMATIC ANGLE SEAT VALVE VBR5NC

Specifications



(Size Range) DN10 to DN50, 1/2" to 2"
 (Operating Pressure) 0 to 12 BAR
 (Valve Operation Type) Normally Closed (NC)
 (Actuator Materials) ALLUMINIUM
 (Body Materials) BRASS
 (Sealing Materials) FKM (VITON), -20+60C
 (Piston Sealing Materials) FKM
 (Acting Mode) Double Acting, Single Acting
 (Spring Return)



PNEUMATIC ANGLE SEAT VALVE VBR4NC

Specifications



(Size Range) 1 1/4 - 4
 (Operating Pressure) 0 to 12 BAR
 (Valve Operation Type) DE
 (Actuator Materials) ALLUMINIUM
 (Body Materials) BRASS
 (Sealing Materials) PTFE 0+60C
 (Acting Mode) Double Acting, Single Acting (Spring Return)



PNEUMATIC ANGLE SEAT VALVE VBR3NC 3WAY

Specifications



(Size Range) 1 1/4 - 4
 (Operating Pressure) 0 to 12 BAR
 (Valve Operation Type) DE
 (Actuator Materials) ALLUMINIUM
 (Body Materials) BRASS
 (Sealing Materials) PTFE 0+60C
 (Acting Mode) Double Acting, Single Acting
 (Spring Return)



VALVOLE MANUALI MANUAL VALVES

5 - Ball Valves Full Bore Brass



2 WAY BALL VALVE F/F VSFF954PLUS



Specifications



(Size Range) DN08 to DN100, 1/4" to 4"

(Body Materials) BRASS PN 50

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C

2 WAY BALL VALVE M/F VSMF956PLUS



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"

(Body Materials) BRASS PN 50

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C

2 WAY BALL VALVE M/F VSMM957PLUS



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"

(Body Materials) BRASS PN 50

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C

2 WAY BALL VALVE F/F CAM 954 RED HANDLE



Specifications



(Size Range) DN08 to DN100, 1/4" to 4"
 (Body Materials) BRASS PN 50
 (Ball Materials) BRASS
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +160C

CAM 954 LB BLUE HANDLE



CAM 954 LN BLACK HANDLE



2 WAY BALL VALVE F/F CAM 954A RED BUTTERFLY



Specifications



(Size Range) DN08 to DN32, 1/4" to 1 1/4"
 (Body Materials) BRASS PN 50
 (Ball Materials) BRASS
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +160C

CAM 954/A FB BLUE HANDLE



CAM 954/AFN BLACK HANDLE





CAM 956 LB BLUE HANDLE



2 WAY BALL VALVE M/F CAM 956 RED HANDLE

Specifications



(Size Range) DN08 to DN50, 1/4" to 2"

(Body Materials) BRASS PN 50

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C

CAM 956 LN BLACK HANDLE



2 WAY BALL VALVE M/F CAM 956A RED BUTTERFLY

Specifications



(Size Range) DN08 to DN32, 1/4" to 1 1/4"

(Body Materials) BRASS PN 50

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C

CAM 956/A FB BLUE HANDLE



CAM 956/AFN BLACK HANDLE



2 WAY BALL VALVE M/M CAM 957 RED HANDLE



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"
 (Body Materials) BRASS PN 50
 (Ball Materials) BRASS
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +160C

CAM 957 BLUE HANDLE



CAM 957 LN BLACK HANDLE



2 WAY BALL VALVE M/F CAM 957A RED BUTTERFLY



Specifications



(Size Range) DN08 to DN25, 1/4" to 1"
 (Body Materials) BRASS PN 50
 (Ball Materials) BRASS
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +160C

CAM 957/A FB BLUE HANDLE



CAM 957/AFN BLACK HANDLE



ON REQUESTED
GAS VALVES WITH YELLOW BUTTERFLY APPROVED DVGW HTB



NPT

2 WAY BALL VALVE F/F VSFF45 NPT



Specifications



(Size Range) DN08 to DN100, 1/4" to 4" NPT

(Body Materials) BRASS PN 50

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C

2 WAY BALL VALVE F/F VSFF45/A NPT



Specifications



(Size Range) DN08 to DN25, 1/4" to 1" NPT

(Body Materials) BRASS PN 50

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C

5 - Ball Valves Standard Bore Brass

2 WAY BALL VALVE F/F CAM 918 RED HANDLE



Specifications



(Size Range) DN15 to DN100, 1/2" to 4"

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -10 +150C

CAM 918 LB BLUE HANDLE



CAM 918 LN BLACK HANDLE



2 WAY BALL VALVE F/B VSFB60 RED BUTTERFLY

Specifications



(Size Range) DN15 to DN32, 1/2" to 1 1/4"

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -10 +150C

CAM VSFB60 RED HANDLE



CAM VSFB60 BLUE HANDLE





2 WAY BALL VALVE M/F CAM 919 RED HANDLE

Specifications



(Size Range) DN15 to DN50, 1/2" to 2"

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -10 +150C

CAM 919 LB BLUE HANDLE



CAM 919 LN BLACK HANDLE



2 WAY BALL VALVE M/F CAM 919A RED BUTTERFLY

Specifications



(Size Range) DN15 to DN25, 1/2" to 1"

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -10 +150C

CAM 919/A FB BLUE HANDLE



CAM 919/AFN BLACK HANDLE



2 WAY BALL VALVE M/F CAM 920 RED BUTTERFLY



Specifications



(Size Range) DN15 to DN20, 1/2" to 3/4"

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -10 +150C

CAM 920/A RED HANDLE



2 WAY BALL VALVE F/F VSFFAP



Specifications



(Size Range) 3/8" to 1"

(Body Materials) BRASS PN 210

(Ball Materials) BRASS

(Sealing Materials) PTFE

(TEMPERATURE) -10 +150C

PN 210

5 - Miniball Brass



MINIBALL F/F MVSFF-ES BLACK BUTTERFLY

Specifications



(Size Range) 1/8" to 3/4"

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) NBR

(TEMPERATURE) -20 +90C



MINIBALL M/F MVSMF-ES BLACK BUTTERFLY

Specifications



(Size Range) 1/8" to 3/4"

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) NBR

(TEMPERATURE) -20 +90C



MINIBALL M/M MVSM-ES BLACK BUTTERFLY

Specifications



(Size Range) 1/8" to 3/4"

(Body Materials) BRASS PN 50

(Ball Materials) BRASS

(Sealing Materials) NBR

(TEMPERATURE) -20 +90C



MINIBALL F/F MVFF-BLACK BUTTERFLY

Specifications



(Size Range) 1/8" to 1/2"

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) NBR

(TEMPERATURE) -20 +90C



MINIBALL F/F MVFFSF-3 WAY BLACK BUTTERFLY

Specifications



(Size Range) 1/8" to 3/8"
(Body Materials) BRASS PN 40
(Ball Materials) BRASS
(Sealing Materials) NBR
(TEMPERATURE) -20 +90C



MINIBALL F/F MVMF BLACK BUTTERFLY

Specifications



(Size Range) 1/8" to 1/2"
(Body Materials) BRASS PN 40
(Ball Materials) BRASS
(Sealing Materials) NBR
(TEMPERATURE) -20 +90C



MINIBALL M/AR BLACK BUTTERFLY

Specifications



(Size Range) 1/8" to 3/8 TUBE 4/6/8
(Body Materials) BRASS PN 40
(Ball Materials) BRASS
(Sealing Materials) NBR
(TEMPERATURE) -20 +90C



MINIBALL MVAR BLACK BUTTERFLY

Specifications



(Size Range) 4/6/8
(Body Materials) BRASS PN 50
(Ball Materials) BRASS
(Sealing Materials) NBR
(TEMPERATURE) -20 +90C



MINIBALL MVBB BLACK BUTTERFLY

Specifications



(Size Range) 4/6/8

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) NBR

(TEMPERATURE) -20 +90C



MINIBALL MV M/B BLACK BUTTERFLY

Specifications



(Size Range) 1/8" to 3/8 TUBE 4/6/8

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) NBR

(TEMPERATURE) -20 +90C



MINIBALL MV M/BAIO BLACK BUTTERFLY

Specifications



(Size Range) 1/8" to 1/4

(Body Materials) BRASS PN 40

(Ball Materials) BRASS

(Sealing Materials) NBR

(TEMPERATURE) -20 +90C

HANDLE AVAILABLE



5 - Ball Valves 3 Way Standard Bore Brass

3 WAY VS3FF-L OR T F/F RED HANDLE



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"
 (Body Materials) BRASS PN 50
 (Ball Materials) BRASS
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +150C

3 WAY CAM72-T CAM73-L RED HANDLE



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"
 (Body Materials) BRASS PN 50
 (Ball Materials) BRASS
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +150C

5 - Strainer Brass

Y STRAINER VSY-924



Specifications



(Size Range) DN08 to DN100, 1/4" to 4"
 (Body Materials) BRASS PN 16
 (Mesh) INOX



STRAINER CAM995L

Specifications



(Size Range) 3/8" to 4"

(Body Materials) NYLON

(Mesh) INOX



STRAINER CAM98

Specifications



(Size Range) 3/8" to 4"

(Body Materials) BRASS

(Mesh) INOX



CYLINDRICAL FOOT VALVE CAM90

Specifications



(Size Range) 3/4" to 4"

(Body Materials) BRASS



FOOT VALVE CAM994

Specifications



(Size Range) 3/4" to 4"

(Body Materials) BRASS

5 - Check Valves



SWING CHECK CAM 993TG

Specifications



(Size Range) DN08 to DN100, 1/2" to 4"

(Body Materials) BRASS

(Seat) RUBBER SEAT



SWING CHECK CAM 993TM

Specifications



(Size Range) DN08 to DN100, 1/2" to 4"

(Body Materials) BRASS

(Seat) METAL SEAT



CHECK VALVES CSRT-999H

Specifications



(Size Range) 3/8" to 4"

(Body Materials) BRASS PN25

(SHUTTER) INOX



CHECK VALVES CSRT-999L

Specifications



(Size Range) 3/8" to 4"

(Body Materials) BRASS PN 16

(SHUTTER) NYLON



CHECK VALVES VSRT-923

Specifications



(Size Range) 3/8" to 4"

(Body Materials) BRASS

(Built-in mesh) INOX

5 - Gate Valves



GATE VALVE CAM 140

Specifications



(Size Range) DN10 to DN100, 3/8" to 4"

(Body Materials) BRASS PN 20



GATE VALVE CAM 605

Specifications



(Size Range) DN15 to DN150, 1/2" to 6"

(Body Materials) BRASS PN 16



GATE VALVE CAM 600

Specifications



(Size Range) DN15 to DN50, 1/2" to 2"

(Body Materials) BRASS PN 10

5 - Pressure Reducing Valves



PRESSURE REDUCING CAM 302

Specifications



(Size Range) DN 25, 1/2"



PRESSURE REDUCING CAM 304

Specifications



(Size Range) 3/8" to 3/4"

(Body Materials) BRASS

(Gauges Connection) 1/4



PRESSURE REDUCING CAM 305

Specifications



(Size Range) 1/2" to 3"

(Body Materials) BRASS

(Gauges Connection) 1/4



PRESSURE REDUCING CAM 303

Specifications



(Size Range) 1/2" to 3"

(Body Materials) BRASS

(Gauges Connection) 1/4

(Seat) inox



PRESSURE REDUCING CAM 300 MM

Specifications



(Size Range) 1/2" to 3"

(Body Materials) BRASS M/M

(Gauges Connection) 1/4

(Seat) inox

5 - Miniball Valves/Pin Valves

MINIBALL F/F MVSX FF BLUE BUTTERFLY



Specifications



(Size Range) 1/4" to 1/2"
 (Body Materials) INOX PN 40
 (Ball Materials) INOX
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +120C

MINIBALL F/F MVSX MF BLUE BUTTERFLY



Specifications



(Size Range) 1/4" to 1/2"
 (Body Materials) INOX PN 40
 (Ball Materials) INOX
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +120C

F/F USX PIN VALVES



Specifications



(Size Range) 1/4" to 1 1/2"
 (Body Materials) INOX 316L PN 100
 (TEMPERATURE) -20 +160C

F/F USX-PP PIN VALVES PANELING



Specifications



(Size Range) 1/4" to 1 1/2"
 (Body Materials) INOX 316L PN 100
 (TEMPERATURE) -20 +160C

5 - Ball Valves Inox



2 WAY BALL VALVE F/F VSXFF

Specifications



(Size Range) DN08 to DN100, 1/4" to 4"

(Body Materials) INOX PN 64

(Ball Materials) INOX316

(Sealing Materials) PTFE

(TEMPERATURE) -20 +180C



2 WAY BALL VALVE F/F STANDARD BORE A3.622

Specifications



(Size Range) DN08 to DN100, 1/4" to 2"

(Body Materials) INOX PN 64

(Ball Materials) INOX316

(Sealing Materials) PTFE

(TEMPERATURE) -20 +180C



2 WAY BALL VALVE F/F BUTTERFLY VSXFF-F

Specifications



(Size Range) DN08 to DN100, 1/4" to 1"

(Body Materials) INOX PN 64

(Ball Materials) INOX316

(Sealing Materials) PTFE

(TEMPERATURE) -20 +180C



2 WAY BALL VALVE F/F VSX3PISO

Specifications



(Size Range) DN08 to DN100, 1/4" to 4"

(Body Materials) INOX PN64

(Ball Materials) INOX316

(Sealing Materials) PTFE

(TEMPERATURE) -20 +180C

2 WAY BALL VALVE VSXM60-VSXM64 MF-VSXM64 MM



Specifications



(Size Range) DN08 to DN100, 1/4" to 4"

(Body Materials) INOX 316L PN 100

(Ball Materials) INOX316

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C

2 WAY BALL VALVE-VSXM52



Specifications



(Size Range) DN08 to DN25, 1/4" to 1"

(Body Materials) INOX 316L PN 200

(Ball Materials) INOX316

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C

2 WAY BALL VALVE-VSXM50



Specifications



(Size Range) DN08 to DN25, 1/4" to 1"

(Body Materials) INOX 316L PN 400

(Ball Materials) INOX316

(Sealing Materials) DEVLON

(TEMPERATURE) -20 +160C

2 WAY BALL VALVE GAROLLA-VSXM20



Specifications



(Size Range) DN32 to DN100

(Body Materials) INOX 316L PN 40

(Ball Materials) INOX316

(Sealing Materials) PTFE

(TEMPERATURE) -20 +160C



2 WAY BALL VALVE CLAMP BS-VSX M-66

Specifications



(Size Range) DN08 to DN100
(Body Materials) INOX 316L PN 100
(Ball Materials) INOX316
(Sealing Materials) PTFE
(TEMPERATURE) -20 +160C



2 WAY BALL VALVE DIN 11851 FM-MM-VSXM-70

Specifications



(Size Range) DN10 to DN100
(Body Materials) INOX 316L PN 100
(Ball Materials) INOX316
(Sealing Materials) PTFE
(TEMPERATURE) -20 +160C



2 WAY BALL VALVE CLAMP BS-VSXM-72

Specifications



(Size Range) DN08 to DN100
(Body Materials) INOX 304 PN 16
(Ball Materials) INOX304
(Sealing Materials) PTFE
(TEMPERATURE) -10 +100C



2 WAY BALL VALVE DIN 11851 FM-MM-VSXM-78

Specifications



(Size Range) DN08 to DN100
(Body Materials) INOX 304 PN 16
(Ball Materials) INOX304
(Sealing Materials) PTFE
(TEMPERATURE) -10 +100C



2 WAY BALL VALVE-VSXM-79

Specifications



(Size Range) DN10 to DN80,
(Body Materials) INOX 304 PN 16
(Ball Materials) INOX304
(Sealing Materials) PTFE
(TEMPERATURE) -10 +100C



3 WAY BALL VALVE F/F VSX3LISO/VSX3TISO



Specifications

(Size Range) DN08 to DN50, 1/4" to 2"
 (Body Materials) INOX PN 64
 (Ball Materials) INOX316
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +180C



3 WAY BALL VALVE-VSXM-44L



Specifications

(Size Range) DN08 to DN25, 1/4" to 1"
 (Body Materials) INOX 316L PN 400
 (Ball Materials) INOX316 L PORT
 (Sealing Materials) DEVLON / PTFE 250 BAR
 (TEMPERATURE) -20 +160C



3 WAY BALL VALVE-VSXM-45L



Specifications

(Size Range) DN08 to DN50, 1/4" to 2"
 (Body Materials) INOX 316L PN 40
 (Ball Materials) INOX316 L PORT
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +160C



3 WAY BALL VALVE L OR T-VSXM-42



Specifications

(Size Range) DN08 to DN100, 1/4" to 4"
 (Body Materials) INOX 316L PN 100
 (Ball Materials) INOX316 L or T PORT
 (Sealing Materials) PTFE
 (TEMPERATURE) -20 +80C

2 WAY BALL VALVE FLANGED 01.622



Specifications



(Size Range) DN15 to DN100,
(Body Materials) INOX PN 40
(Ball Materials) INOX316
(Sealing Materials) PTFE
(TEMPERATURE) -25 +150C

2 WAY BALL VALVE FLANGED CAM 664



Specifications



(Size Range) DN15 to DN200,
(Body Materials) INOX PN 16
(Ball Materials) INOX316
(Sealing Materials) PTFE
(TEMPERATURE) -25 +180C

2 WAY BALL VALVE FLANGED C128



Specifications



(Size Range) DN15 to DN200,
(Body Materials) INOX ANSI 150
(Ball Materials) INOX316
(Sealing Materials) PTFE
(TEMPERATURE) -30 +180C

2 WAY BALL VALVE FLANGED C 129



Specifications



(Size Range) DN63-150 to D100,
(Body Materials) INOX PN 40
(Ball Materials) INOX316
(Sealing Materials) PTFE
(TEMPERATURE) -30 +180C

2 WAY BALL VALVE FLANGED-VSXM-60



Specifications



(Size Range) DN10 to D100,
(Body Materials) INOX PN 40
(Ball Materials) INOX316L
(Sealing Materials) PTFE
(TEMPERATURE) -20 +160C

3 WAY BALL VALVE FLANGED T OR L-VSXM-46



Specifications



(Size Range) DN10 to D100,
(Body Materials) INOX PN 40
(Ball Materials) INOX316L
(Sealing Materials) PTFE
(TEMPERATURE) -20 +160C

**FOR MORE VALVES CHECK OUT THE “VALVES ACTUATED” CATALOG.
ALL VALVES CAN BE MANUAL**

5 - Butterfly Sanitary Valves INOX

BUTTERFLY VALVES CLAMP-VFXM10/15



Specifications



(Size Range) DN15 to D100,
(Body Materials) INOX PN 6
(Ball Materials) INOX304/316
(Sealing Materials) MSV-FKM-EPDM
(TEMPERATURE) -50 +200C

BUTTERFLY VALVES DIN 11851 VFXM20/25



Specifications



(Size Range) DN25 to D100,
(Body Materials) INOX PN 6
(Ball Materials) INOX304/316
(Sealing Materials) MSV-FKM-EPDM
(TEMPERATURE) -50 +200C

BUTTERFLY VALVES ISO228 BSP VFXM30/35



Specifications



(Size Range) DN25 to D100,
(Body Materials) INOX PN 6
(Ball Materials) INOX304/316
(Sealing Materials) MSV-FKM-EPDM
(TEMPERATURE) -50 +200C

BUTTERFLY VALVES WELDED VFXM40/45



Specifications



(Size Range) DN25 to D100,
(Body Materials) INOX PN 6
(Ball Materials) INOX304/316
(Sealing Materials) MSV-FKM-EPDM
(TEMPERATURE) -50 +200C

5 - Butterfly Valves INOX

WAFER BUTTERFLY VALVE J9.6



Specifications



(Size Range) DN40 to D3600,
(Body Materials) inox 316 PN 16
(Disk Materials) INOX316
(Sealing Materials) PTFE-EPDM-NBR-FKM
(TEMPERATURE) -10+150C

Knife Gate Valves INOX

UNIDIRECTIONAL KNIFE GATE VALVE SERIE 19.6



Specifications



(Size Range) DN50 to DN600,
(Body Materials) AISI316 PN 16
(Gate Materials) INOX316
(Sealing Materials)
NBR-FKM-PTFE-EPDM-Metal/Matal
(TEMPERATURE) -10+180C

BIDIRECTIONAL KNIFE GATE VALVE SERIE 18.6



Specifications



(Size Range) DN50 to DN500,
(Body Materials) AISI316 PN 16
(Gate Materials) INOX316
(Sealing Materials) NBR-FKM-PTFE-EPDM
(TEMPERATURE) -10+180C

5 - Strainer INOX

Y STRAINER VSYX



Specifications



(Size Range) DN08 to DN100, 1/4" to 2"

(Body Materials) INOX PN 50

(Mesh) INOX

(TEMPERATURE) -20 +180C

5- Check Valves INOX

Y CHECK VALVES XYDC



Specifications



(Size Range) DN08 to DN100, 1/4" to 2"

(Body Materials) INOX PN 50

(TEMPERATURE) -20 +180C

DISC WAFFER CHECK VALVES CAM 656



Specifications



(Size Range) DN15 to DN200,

(Body Materials) INOX PN 40

(TEMPERATURE) -20 +350C

SWING CHECK VALVES CAM 654



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"

(Body Materials) INOX PN 16

(TEMPERATURE) -20 +180C

DUAL - PLATE WAFER CHECK VALVES D6.622



Specifications



(Size Range) D40 to DN600,
(Body Materials) INOX PN 16
(Seal) FKM
(TEMPERATURE) -20 +100C

SWING WAFER CHECK VALVES CAM687 WITHOUT SPRING



Specifications



(Size Range) DN32 to DN300,
(Body Materials) INOX PN 16
(Seal) FKM
(TEMPERATURE) -20 +150C

Y CHECK VALVES M6.622 WITH SPRING



Specifications



(Size Range) DN32 to DN300,
(Body Materials) INOX PN 16
(Seal) FKM
(TEMPERATURE) -20 +150C

CHECK VALVES XDC



Specifications



(Size Range) 1/8-1/2,
(Body Materials) INOX316L PN 10
(Seal) FKM
(Seal) FKM
(TEMPERATURE) -20 +150C

CHECK VALVES CAM 655



Specifications



(Size Range) 1/4- 4",
(Body Materials) INOX PN 64
(Seal) FKM
(TEMPERATURE) -25 +180C

5 - Ball Valves Cast Airon

2 WAY BALL VALVE WAFER B1



Specifications



(Size Range) DN20 to DN100,
(Body Materials) CAST IRON PN 16
(Ball Materials) B1.000 Ball and steam brass
B1.010 Ball Aisi 304 steam brass
B1.011 Ball and steam Aisi 304
(Sealing Materials) NBR or FKM
(TEMPERATURE) -10 +100C FKM -10+150C

2 WAY BALL VALVE FLANGED B2



Specifications



(Size Range) DN15 to DN250,
(Body Materials) CAST IRON PN 16
(Ball Materials) B2.100 Ball and steam brass
B2.110 Ball Aisi 304 steam brass
B2.111 Ball and steam Aisi 304
B2.121 Ball and steam Aisi 316
(Sealing Materials) NBR or FKM
(TEMPERATURE) -10 +100C FKM -10+150C



3 WAY BALL VALVE FLANGED T4

Specifications

(Size Range) DN50 to DN150,
 (Body Materials) CAST IRON PN 16
 (Ball Materials) T4.100 Ball and steam brass
 T4.111 Ball and steam Aisi 304
 (Sealing Materials) NBR or FKM
 (TEMPERATURE) -10 +100C FKM -10+150C



3 WAY BALL VALVE FLANGED Y4

Specifications

(Size Range) DN50 to DN150,
 (Body Materials) CAST IRON PN 16
 (Ball Materials) Y4.100 Ball and steam brass
 Y4.111 Ball and steam Aisi 304
 (Sealing Materials) NBR or FKM
 (TEMPERATURE) -10 +100C FKM -10+150C

5 - Swivel-Bellow - Globe Valves Cast Iron



SWIVEL GLOBE SHUT-OFF VALVE CAM 281

Specifications

(Size Range) DN15 to DN250
 (Body Materials) CAST IRON PN 16
 (Paking) GRAPHITE
 (TEMPERATURE) -10 +350C



BELLOW GLOBE SHUT-OFF VALVE CAM 288

Specifications

(Size Range) DN15 to DN200
 (Body Materials) CAST IRON PN 16
 (Paking) GRAPHITE
 (TEMPERATURE) -10 +200C

5 - Check Valves Cast Iron

CAST IRON SPRIN CHECK VALVES SERIE 05



Specifications



(Size Range) DN 40 to DN300,
(Body Materials) CAST IRON PN 16
(Trim Materials) Brass-aisi316
(Sealing Materials) NBR – FKM - RUBBER
(TEMPERATURE) -10 +70C

THREADED CHECK VALVES SERIE T5



Specifications



(Size Range) DN50 to DN100,
(Body Materials) CAST IRON PN16
(Sealing Materials) NBR- FKM
(Trim Materials) BRASS
(TEMPERATURE) -10 +70C

DISC WAFER CHECK VALVES W6.020



Specifications



(Size Range) DN32 to DN125,
(Body Materials) CAST IRON PN16
(Sealing Materials) NBR
(Disk Materials) INOX
(TEMPERATURE) -10 +70C

DUAL PLATE WAFER CHECK VALVES D6



Specifications



(Size Range) DN40 to DN600,
(Body Materials) CAST IRON PN16
(Sealing Materials) EPDM
(Disk Materials) INOX
(TEMPERATURE) -10 +70C



BALL CHECK INSPECTION COVER SERIE F7

Specifications



(Size Range) DN50 to DN400

(Body Materials) CAST IRON PN16

(Ball Materials) NBR

(TEMPERATURE) -10 +70C



BALL CHECK INSPECTION COVER SERIE T7

Specifications



(Size Range) DN25 to DN50 THREADED

(Body Materials) CAST IRON PN16

(Ball Materials) NBR

(TEMPERATURE) -10 +70C



SWING WAFER CHECK VALVE SERIE S6

Specifications



(Size Range) DN40 to DN700

(Body Materials) CAST IRON PN16/10

(Sealing Materials) EPDM

(TEMPERATURE) -10 +100C



VENTURI CHECK VALVE SERIE M16

Specifications



(Size Range) DN40 to DN600

(Body Materials) CAST IRON PN16/10/25/40/64/100

(Shutter Materials) AISI 304

(TEMPERATURE) 0 +90C

5 - Ball Valves Bronze

2 WAY BALL VALVE FLANGED B2.3



Specifications



(Size Range) DN15 to DN250,

(Body Materials) Bronze PN 16

(Ball Materials) B2.300 Ball and stem brass

B2.322 Ball and stem Aisi 316

B2.377 Ball and stem Alluminium bronze

(Sealing Materials) FKM

(TEMPERATURE) -10+150C

ON REQUESTED ANSI 150

2 WAY BALL VALVE FLANGED B2.7



Specifications



(Size Range) DN15 to DN250,

(Body Materials) Bronze-Alluminium PN 16

(Ball Materials) B2.722 Ball and stem Aisi 316

B2.777 Ball and stem Alluminium bronze

(Sealing Materials) FKM

(TEMPERATURE) -10+150C

ON REQUESTED ANSI 150

5 - Butterfly Valves Ductile Iron



WAFER BUTTERFLY VALVE J9

Specifications



(Size Range) DN25 to DN600,

(Body Materials) Ductile Iron GG40 PN 16

(Disk Materials) INOX316 or Ductile Iron

(Sealing Materials) PTFE- EPDM – NBR - FKM

(TEMPERATURE) -10+120C



LUG BUTTERFLY VALVE L9

Specifications



(Size Range) DN25 to DN400,

(Body Materials) Ductile Iron GG40 PN 16

(Disk Materials) INOX316 or Ductile Iron

(Sealing Materials) PTFE -EPDM – NBR - FKM

(TEMPERATURE) -10+120C



DECLUTCHABLE GEAR BOXEX

Specifications



(Size Range) 200Nm-4000Nm

(Body Materials) Ductile Iron



GEAR BOXEX

Specifications



(Size Range) 150Nm-16500Nm

(Body Materials) Ductile Iron

5 - Knife Gate Valves Ductil Iron

BIDIRECTIONAL KNIFE GATE VALVE SERIE 18



Specifications



(Size Range) DN50 to DN500,

(Body Materials) Ductil Iron PN 16

(Gate Materials) INOX316

(Sealing Materials) NBR - EPDM

(TEMPERATURE) -30 +90C

UNIDIRECTIONAL KNIFE GATE VALVE SERIE 19



Specifications



(Size Range) DN50 to DN600,

(Body Materials) Ductil Iron PN 16

(Gate Materials) INOX316

(Sealing Materials) NBR - EPDM - METAL/METAL

(TEMPERATURE) -30 +90C

UNIDIRECTIONAL KNIFE GATE VALVE SERIE 19E



Specifications



(Size Range) DN50 to DN600,

(Body Materials) Ductil Iron PN 16

(Gate Materials) INOX316

(Sealing Materials) NBR - EPDM

(TEMPERATURE) -30 +90C

5 - Soft Gate Valves Ductile Iron

SOFT SEATED GATE VALVE 20.900



Specifications



(Size Range) DN40 to DN300

(Body Materials) Ductil iron PN 16

(Steam) aisi 420

(Sealing Materials) NBR - EPDM

(TEMPERATURE) -10 +85C

SOFT SEATED GATE VALVE 20E900



Specifications



(Size Range) DN40 to DN300

(Body Materials) Ductil iron PN 16

(Steam) aisi 420

(Sealing Materials) EPDM

(TEMPERATURE) -10 +85C

SOFT SEATED GATE VALVE 21.900



Specifications



(Size Range) DN40 to DN300

(Body Materials) Ductil iron

(Steam) aisi 420

(Sealing Materials) EPDM

(TEMPERATURE) -10 +85C

5 - Carbon Steel Valves

2 WAY BALL VALVE C160



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"
 (Body Materials) A105 PN 400
 (Disc Materials) A105
 (Sealing Materials) POM
 (TEMPERATURE) -20 +100C

3 WAY PNEUMATIC BALL VALVE C161L C162T



Specifications



(Size Range) DN08 to DN50, 1/4" to 2"
 (Body Materials) A105 PN 400
 (Disc Materials) A105
 (Sealing Materials) POM
 (TEMPERATURE) -20 +100C

2 WAY BALL VALVE C999



Specifications



(Size Range) DN1 to DN50, DIN2999-NPT-SW/BW
 (Body Materials) A 216 WCB PN 140 PN100 1 1/4-2
 (Ball) INOX 316
 (Sealing Materials) PTFE
 (TEMPERATURE) -10 +150C
 180 C PTFE+CARBOGRAFITE
 (OPTIONS) FIRE SAFE



2 WAY BALL VALVE 01.411



Specifications

(Size Range) DN15 to DN150, EN1092/ISO7005

(Body Materials) A105 PN 16

(Disc Materials) INOX

(Sealing Materials) PTFE

(TEMPERATURE) -25 +150C

(OPTIONS) PN40



PNEUMATIC FLANGED BALL VALVE C126



Specifications

(Size Range) DN15 to DN150, ASME B 16.5

(Body Materials) WCB ANSI 150

(Disc Materials) INOX 316

(Sealing Materials) PTFE+ GRAPHITE

(TEMPERATURE) -30 +220C

5 - PVC Valves

PLASTIC 2 WAY BALL VALVE CP120F-CP120I



Specifications



(Size Range) DN10 to DN100, 3/8" to 4"

(Body Materials) PVC-U GAS or Plain Ends

(Disc Materials) PVC-U

(Sealing Materials) EPDM – FPM

(TEMPERATURE) 0 - 60C

(OPTIONS) PVC – C PVDF SOCKET WELDING

PLASTIC 3 WAY BALL VALVE CP131L-CP131T



Specifications



(Size Range) DN15 to DN50, 1/2" to 2"

(Body Materials) PVC-U GAS or Plain Ends

(Disc Materials) PVC-U

(Sealing Materials) EPDM - FPM

(Structure) 3 Way T Port, L Port are Available

(TEMPERATURE) 0 - 60C

(OPTIONS) PVC – C - PVDF SOCKET WELDING

PLASTIC BUTTERFLY VALVE FT



Specifications



(Size Range) DN40 to DN200,

(Body Materials) PVC-U WAFER TYPE

(Disc Materials) PVC-U

(Sealing Materials) EPDM – FPM

(TEMPERATURE) 0 - 60C

(OPTIONS) PVDF

5 - Rubber

SOLID RUBBER JOINT EPDM CAM 287



Specifications

(Size Range) DN32 to DN150,
(Body Materials) EPDM PN10/16



FLANGED RUBBER FLEXIBLE JOINT CAM 697



Specifications

(Size Range) DN32 to DN300,
(Body Materials) EPDM PN 16



THREADED RUBBER JOINT CAM 696



Specifications

(Size Range) 3/4 to 3",
(Body Materials) EPDM PN10



AISI 316 and CF-8M Stainless steel. Magnetic test.

Regarding the magnetic test used to discriminate AISI 316 Stainless Steel from other types of SS (typically from AISI 304), must be considered that this test is efficient only for product obtained by forging or hot forming (rolling, extrusion, etc.); castings grade ASTM A351 CF-8M, which can be considered equivalent to AISI 316 for corrosion resistance and mechanical properties can show a magnetic behavior (magnet sticks).

To clarify what said above we shall consider that magnetic behavior depends on steel microstructure. Austenitic microstructure means non-magnetic material (magnet does not stick), while a steel with ferritic microstructure shows magnetic properties (magnet sticks).

Grade 316 stainless steel is obtained from hot forming or forging (e.g. tubes, bars, plates, sheets) and has a composition optimized to produce a fully austenitic microstructure, because this type of microstructure is more ductile and this makes the forming process easier and lesser energy demanding. Hardening and grain sizes refining given by forming process increase mechanical strength and corrosion resistance, which are lower for austenitic structures compared to ferritic ones, due mainly to lower Cr content.

For casting grade CF-8M, composition is slightly different compared to 316, with lower content of Nickel and Manganese (which have an austenitizing effect), and an higher content of Chrome (which promote the formation of a ferritic structure), and therefore in A351 CF-8M cast products a certain amount of ferrite is present (5-20%). Ferrite is useful because it increases mechanical strength and corrosion resistance, and helps to prevent cracks formation during material solidification, cooling and shrinkage. On the other hand this makes the material magnetic.

For comparison the typical chemical composition of AISI 316 and CF-8M

	Carbon C	Manganese Mn	Silicone Si	Phosphor P	Sulphur S	Nickel Ni	Chrome Cr	Molybdenum Mo
AISI 316	0.08 max	2.00 max	1.00 max	0.045 max	0.03 max	10-14	16-18	2-3
CF-8M	0.08 max	1.50 max	1.50 max	0.040 max	0.04 max	9-12	18-21	2-3



Acciai inox AISI 316 e CF-8M. Caratterizzazione. Prova della calamita

Riguardo alla prova della calamita per distinguere l'acciaio inox AISI 316 da altri tipi di acciaio inossidabile (tipicamente dall'AISI 304) occorre considerare che questa prova è valida solo su prodotti ottenuti per formatura a caldo (trafilatura, laminazione estrusione) o forgiatura; su particolari ottenuti da fusione ad esempio secondo lo standard ASTM A351 CF8-M, ha caratteristiche simili per quanto riguarda resistenza meccanica e alla corrosione, ed è talvolta definito genericamente "316" è possibile riscontrare comunque un comportamento magnetico e ciò può portare ad avviare reclami o scartare il materiale anche in presenza di materiale conforme.

Prima di chiarire quanto detto sopra occorre considerare che il comportamento magnetico o meno dipende dalla microstruttura. Se austenitica il comportamento è non magnetico, mentre se ferritica (in tutto o in parte) si riscontra un comportamento magnetico.

L'acciaio inox tipo 316 propriamente detto è quello ottenuto per formatura o forgiatura, quindi per prodotti come barre, tubolari, piatti, lamiere etc. Gli acciai di grado 316 per lavorazione a caldo hanno una composizione bilanciata in modo da renderli completamente austenitici; questo perché la microstruttura austenitica è più duttile e meno dura e ciò rende le lavorazioni per deformazione plastica più facili ed energeticamente più convenienti. L'incrudimento del materiale e l'affinamento del grano cristallino, propri della lavorazione per deformazione, migliorano la minor resistenza meccanica ed alla corrosione che è minore per la microstruttura austenitica rispetto alla ferritica, dovuto in larga parte al minor contenuto di Cromo.

Per il grado da fusione CF-8M, invece, la composizione è differente rispetto al grado 316, con un minor contenuto di Nichel e Manganese (elementi di lega con effetto austenitizzante) ed un maggior contenuto di Cromo (elemento di lega che favorisce la formazione di ferrite), e pertanto nei particolari fusi è presente una percentuale di ferrite che può andare dal 5 al 20%. La presenza di ferrite è utile perché oltre a migliorare la resistenza meccanica e la resistenza alla corrosione, riduce il rischi di formazione di cricche e fessurazioni durante il raffreddamento dei pezzi. Questo d'altra parte rende il prodotto da fusione magnetico.

A titolo esemplificativo riportiamo per confronto le composizioni tipiche per i due tipi.

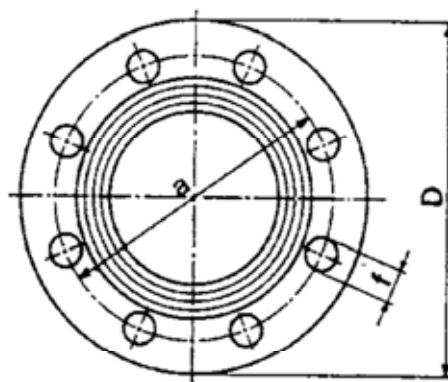
	Carbonio C	Manganese Mn	Silicio Si	Fosforo P	Zolfo S	Nickel Ni	Cromo Cr	Molibdeno Mo
AISI 316	0.08 max	2.00 max	1.00 max	0.045 max	0.03 max	10-14	16-18	2-3
CF-8M	0.08 max	1.50 max	1.50 max	0.040 max	0.04 max	9-12	18-21	2-3

Dimensioni di accoppiamento (in mm) delle flange pe pressioni nominali **FLANGE UNI-DIN**

	PN6				PN10				PN16				PN25				PN40				PN63				PN100				PN160			
	FORI				FORI				FORI				FORI				FORI				FORI				FORI				FORI			
DN	D	N.	f	a	D	N.	f	a	D	N.	f	a	D	N.	f	a	D	N.	f	a	D	N.	f	a	D	N.	f	a	D	N.	f	a
10	75	4	11	50	90	4	14	60	90	4	14	60	90	4	14	60	100	4	14	70	100	4	14	70	100	4	14	70	100	4	14	70
15	80	4	11	55	95	4	14	65	95	4	14	65	95	4	14	65	95	4	14	65	105	4	14	75	105	4	14	75	105	4	14	75
20	90	4	11	65	105	4	14	75	105	4	14	75	105	4	14	75	105	4	14	75	130	4	18	90	130	4	18	90	130	4	18	90
25	100	4	11	75	115	4	14	85	115	4	14	85	115	4	14	85	115	4	14	85	140	4	18	100	140	4	18	100	140	4	18	100
32	120	4	14	90	140	4	18	100	140	4	18	100	140	4	18	100	140	4	18	100	155	4	22	110	155	4	22	110	155	4	22	110
40	130	4	14	100	150	4	18	110	150	4	18	110	150	4	18	110	150	4	18	110	170	4	22	125	170	4	22	125	170	4	22	125
50	140	4	14	110	165	4	18	125	165	4	18	125	165	4	18	125	165	4	18	125	180	4	22	135	195	4	25	145	195	4	25	145
65	160	4	14	130	185	4	18	145	185	4	18	145	185	8	18	145	185	8	18	145	205	8	22	160	220	8	25	170	220	8	25	170
80	190	4	18	150	200	8	18	160	200	8	18	160	200	8	18	160	200	8	18	160	215	8	22	170	230	8	25	180	230	8	25	180
100	210	4	18	170	220	8	18	180	220	8	18	180	235	8	22	190	235	8	22	190	250	8	25	200	265	8	30	210	265	8	30	210
125	240	8	18	200	250	8	18	210	250	8	18	210	270	8	26	220	270	8	26	220	295	8	30	240	315	8	33	250	315	8	33	250
150	265	8	18	225	285	8	22	240	285	8	22	240	300	8	26	250	300	8	26	250	345	8	33	280	355	12	33	290	355	12	33	290
200	320	8	18	280	340	8	22	295	340	12	22	295	360	12	26	310	375	12	30	320	415	12	36	345	430	12	36	360	430	12	36	360
250	375	12	18	335	395	12	22	350	405	12	26	355	425	12	30	370	450	12	33	385	470	12	36	400	505	12	39	430	515	12	42	430
300	440	12	22	395	445	12	22	400	460	12	26	410	485	16	30	430	515	16	33	450	530	16	36	460	585	16	42	500	585	16	42	500
350	490	12	22	445	505	16	22	460	520	16	26	470	555	16	33	490	580	16	36	510	600	16	39	525	655	16	48	560				
400	540	16	22	495	565	16	26	515	580	16	30	525	620	16	36	550	660	16	39	585	670	16	42	585	715	16	48	620				
(450)	595	16	22	550	615	20	26	565	640	20	30	585	670	20	36	600	685	20	39	610	715	20	42	630	770	20	48	675				
500	645	20	22	600	670	20	26	620	715	20	33	650	730	20	36	660	755	20	42	670	800	20	48	705	870	20	56	760				
600	755	20	25	705	780	20	30	725	840	20	36	770	845	20	39	770	890	20	48	795	930	20	56	820	990	20	62	875				

FLANGE ANSI

	ANSI 150				ANSI 300				ANSI 600			
	FORI				FORI				FORI			
pollici	D	N.	f	a	D	N.	f	a	D	N.	f	a
1/2	89	4	16	61	95	4	16	67	95	4	16	67
3/4	98	4	16	70	118	4	19	83	118	4	19	83
1	108	4	16	80	124	4	19	89	124	4	19	89
1 1/4	118	4	16	89	133	4	19	99	133	4	19	99
1 1/2	127	4	16	99	156	4	23	115	156	4	23	115
2	150	4	19	121	165	8	19	127	165	8	19	127
2 1/2	178	4	19	140	191	8	23	150	191	8	23	150
3	191	4	19	153	210	8	23	169	210	8	23	169
4	229	8	19	191	254	8	23	200	273	8	26	216
5	254	8	23	216	279	8	23	235	330	8	29	267
6	279	8	23	242	318	12	23	270	356	12	29	293
8	343	8	23	299	381	12	26	331	419	12	32	350
10	406	12	26	362	445	16	29	388	508	16	35	432
12	483	12	26	432	521	16	32	451	559	20	35	489
14	533	12	29	477	584	20	32	515	603	20	38	527
16	597	16	29	540	648	20	35	572	686	20	42	604
18	635	16	32	578	711	24	35	629	743	20	45	654
20	699	20	32	635	775	24	35	686	813	24	45	724
24	813	20	35	750	914	24	42	813	940	24	51	839



	RAGGIO X 2 ISO 1	INTERSASS E FORI
F03	36 MM	25MM
F04	40MM	30 MM
F05	50MM	35MM
F07	70MM	55MM
F10	102MM	70MM
F12	125MM	85MM
F14	140MM	100MM
F16	165MM	130MM
F25	254MM	200MM
F30	298MM	230MM

TABELLA RILEVAMENTO QUOTE

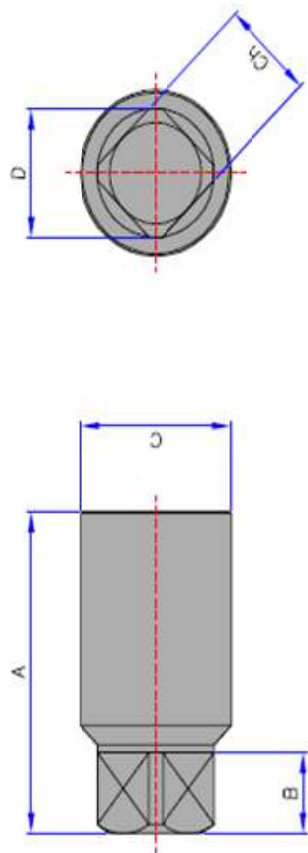
PN20	ANSI150/ASME
PN50	ANSI300/ASME
PN64	ANSI400/ASME
PN100	ANSI600/ASME
PN150	ANSI900/ASME
PN250	ANSI1500/ASME
PN420	ANSI2500/ASME

COUPLING DIMENSIONS ISO 5211

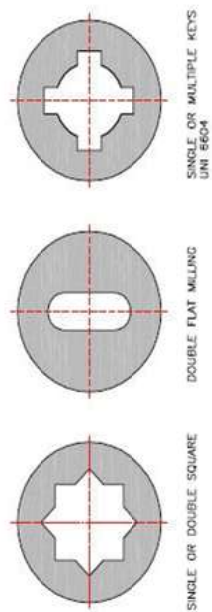
MODEL TYPE	A*	B	C	D	Ch
CH9	76	16	20	11.5	9x9
CH11	76	16	25	14	11x11
CH14	76	16	30	17.5	14x14
CH17	89	19	40	21.5	17x17
CH22	104	24	50	27.5	22x22
CH27	109	29	50	34	27x27
CH36	128	38	60	46	36x36
CH46	148	48	70	58	46x46
CH55	157	57	80	70	55x55

* Only semimachined

Dimensions in mm



Possible machining valve side

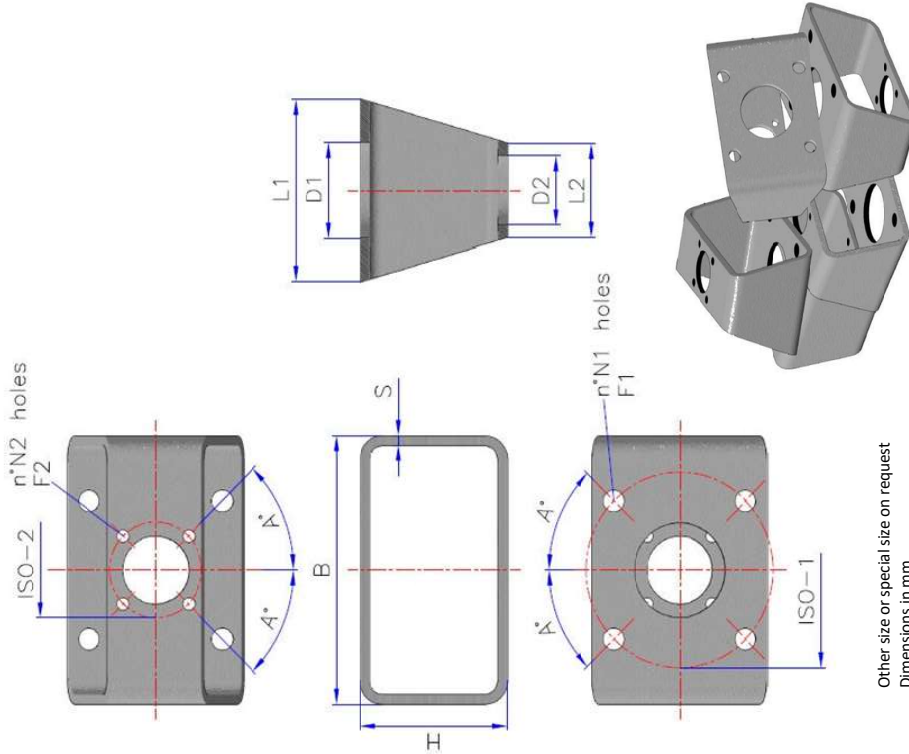


MATERIALS
Carbon steel 11SMnPb37+C GALVANIZED
Stainless steel 1.4404 (AISI 316L)

Other materials on request
Other forms on request

BRACKET ISO 5211 DIMENSIONS

MODEL TYPE	B	H	S (FE)	S (316)	ISO-2	L2	D2	N2	F2	ISO-1	L1	D1	N1	F1
F03/F03	80	40	4	3	36	36	25	4	5.5	36	36	25	4	5.5
F03/F04	100	60	5	4	36	36	25	4	5.5	42	42	30	4	5.5
F03/F05	100	60	5	4	36	36	25	4	5.5	50	50	35	4	6.5
F03/F07	100	60	5	4	36	36	25	4	5.5	70	70	55	4	9
F03/F10	140	80	6	5	36	36	25	4	5.5	102	90	70	4	11
F04/F04	100	60	5	4	42	42	30	4	5.5	42	42	30	4	5.5
F04/F05	100	60	5	4	42	42	30	4	5.5	50	50	35	4	6.5
F04/F07	100	60	5	4	42	42	30	4	5.5	70	70	55	4	9
F04/F10	140	80	6	5	42	42	30	4	5.5	102	90	70	4	11
F05/F05	100	60	5	4	50	50	35	4	6.5	50	50	35	4	6.5
F05/F07	100	60	5	4	50	50	35	4	6.5	70	70	55	4	9
F05/F10	140	80	6	5	50	50	35	4	6.5	102	90	70	4	11
F05/F12	140	80	6	5	50	50	35	4	6.5	125	110	85	4	13
F07/F07	100	60	5	4	70	70	55	4	9	70	70	55	4	9
F07/F10	140	80	6	5	70	70	55	4	9	102	90	70	4	11
F07/F12	140	80	6	5	70	70	55	4	9	125	110	85	4	13
F07/F14	160	90	6	5	70	70	55	4	9	140	135	100	4	17
F10/F10	140	80	6	5	102	90	70	4	11	102	90	70	4	11
F10/F12	140	80	6	5	102	90	70	4	11	125	110	85	4	13
F10/F14	160	90	6	5	102	90	70	4	11	140	135	100	4	17
F10/F16	220	120	10	8	102	90	70	4	11	165	160	130	4	22
F12/F12	140	80	6	5	125	110	85	4	13	125	110	85	4	13
F12/F14	160	90	6	5	125	110	85	4	13	140	135	100	4	17
F12/F16	220	120	10	8	125	110	85	4	13	165	160	130	4	22
F14/F14	160	90	6	5	140	135	100	4	17	140	135	100	4	17
F14/F16	220	120	10	8	140	135	100	4	17	165	160	130	4	22
F14/F25	350	150	10	8	140	135	100	4	17	254	300	200	8	17
F16/F16	220	120	10	8	165	160	130	4	22	165	160	130	4	22
F16/F25	350	150	10	8	165	160	130	4	22	254	300	200	8	17
F25/F25	350	150	10	8	254	300	200	8	17	254	300	200	8	17
F25/F30	350	150	10	8	254	300	200	8	17	298	350	230	8	22
F30/F30	350	150	10	8	298	350	230	8	22	298	350	230	8	22



Other size or special size on request
Dimensions in mm

MATERIALS
S235JR (FE360) - S355J2 (FE510) GALVANIZED
1.4401 (AISI 316)

TYPE	A°
F03 to F16	45°
F25 to F30	22.5°

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Compatibilità chimica dei materiali rispetto alle sostanze chimiche indicate

Informazioni

Legenda	PTFE	NBR	VITON	EPDM	CR (NEOPRENE)	VMQ (SILICONE)	NORYL	GG25	GG40	OTTONE	BRONZO	BRONZO ALLUMINIO	ACCIAIO CARBONIO	AISI 304	AISI 316
A Nessun effetto - Raccomandato															
B Attacco leggero - Buono															
C Attacco moderato - Modesto															
D Attacco forte - Non adatto															
Acetilene	A	A	A	A	B	A		A	A	B	C	C	A	A	A
Acetone	A	D	D	A	C	D	D	B	A	A	A	A	B	A	A
Acidi Grassi	A	C	A	C	B	C	C	D	D	C	C	B	C	A	A
Acido Acetico	A	D	C	B	C	B	D	D	D	C	C	C	D	B	A
Acido Carbonico	A	B	A	A	A	A	A	D	D		C		D	A	B
Acido Citrico	A	D	A	A	A	A	A	D	D	C	C	B	C	A	A
Acido Cloridrico (20%)	A	C	A	A	C	C	D	D	D	D	C	A	D	D	D
Acido Cloridrico (37% Caldo)	A	D	B	C	D	C	D	D	D	D	C	B	D	D	D
Acido Cloridrico (37% Freddo)	A	C	A	C	C	C	D	D	D	D	C	A	D	D	D
Acido Fluoridrico (20%)	A	D	A	A	C	D		D	D	D	C		D	D	D
Acido Fluoridrico (75%)	A	D	A	C	C	D		D	D	D	C		D	D	D
Acido Fluoridrico (100% Freddo)	A	D	A	C	D	D		D	D	D	C		D	D	D
Acido Fluoridrico (100% Caldo)	A	D	B	D	D	D		D	D	D	C		D	D	D
Acido Formico	A	D	C	A	D	B	A	D	D	B	B	B	B	A	B
Acido Fosforico (40%)	A	D	A	B	D	D	A	D	D	D	C	D	C	B	A
Acido Fosforico (40-100%)	A	D	B	B	D	D	A	D	D	D	C	D	C	C	B
Acido Fosforico (Crudo)	A	D	A	B	D	D	A	C	D	D	C	D	C	D	C
Acido Nitrico (5-10%)	A	D	A	B	D	D	A	D	D	D	C	D	C	A	A
Acido Nitrico (20%)	A	D	A	D	D	D	A	D	D	D	C	D	C	A	A
Acido Nitrico (50%)	A	D	A	D	D	D	A	D	D	D	C	D	C	A	A
Acido Nitrico (Concentrato)	A	D	B	D	D	D	C	D	D	D	C	D	C	D	B
Acido Nitroso	A	D	B	D	D	D		D	D	D	C	D	D	A	A
Acido Solforico (10%)	A	C	A	D	C	C	A	D	D	D	B	B	C	C	C
Acido Solforico (10-75%)	A	D	A	D	C	D	B	D	D	D	B	B	C	C	C
Acido Solforico (75-100%)	A	D	B	D	D	D	D	D	D	D	B	B	C	C	C
Acido Solforoso	A	C	A	B	B	B		C	D	C	B	C	C	B	B
Acqua Ammoniacale	A	B	C	A	A	A	A	B	A	D		B	C	A	A
Acqua di Mare	A	A	A	A	B	A	A	D	D	C	B	A	D	A	A
Acqua di Piscina	A	B	A	A	C						A	A	A	A	A
Acqua distillata, demineralizzata, de-ionizzata	A	A	A	A	B	A	A	D	D	A	A		D	A	A
Acqua emulsionata (acqua bianca)	A	A	A	D	B	C		A	A	A	A	A	A	A	A
Acqua Saponata - Soluzioni di Sapone	A	A	A	A	B	A		B	B	A			A	A	A
Acque Acide	A	A	C	A	B	D	A	D	C	D	C		D	A	A
Acque Bianche (da Cartiera)	A		A		A									A	A
Alcol Etilico	A	A	A	B	A	A	A	B	A	B	A	B	B	A	A
Alcol Metilico	A	B	B	A	A	A	A	B	A	B	A	B	B	A	A
Alcol Propilico	A	A	A	A	A	A	A	B	B	A	A	B	B	A	A
Ammine	A	D	D	B	B	A		A	A	B			A	A	A
Ammoniaca (10%)	A	D	D	A	A	A	A	A	A	D	C	B	A	A	A
Ammoniaca, Anidra	A	B	D	A	A	A		B	D	D	A	B	C	B	A
Anilina	A	D	C	B	D	B	D	B	B	D	C	C	C	A	A
Antigelo	A	A	A	A	C	A	A		A					A	A
Bagni per Placcature: Argentatura	A	A	A	A	A	D									A
Bagni per Placcature: Cromatura	A	D	C	A	D	D									C
Bagni per Placcature: Nichelatura	A	A	A		A	D									C
Benzene	A	D	A	D	D	D	D	B	B	B	A	A	A	A	A
Benzina	A	C	A	D	D	D	D	B	A	A	A	A	B	A	A
Benzolo, Alcool Benzilico	A	D	A	B	B	B	A	B	A	B	A		B	A	A
Bicarbonato di Potassio	A	A	A	A	A	A	A	B	D	B	B	B	B	A	B
Bicarbonato di Sodio	A	A	A	A	A	A		C	C	B	B	A	C	A	A
Biossido di Carbonio	A	A	B	B	B	A	A	B	D	A	B		C	A	A
Biossido di Zolfo	A	D	A	A	B	B	D		A	D	B		C	A	A
Butano	A	A	A	D	B	A	D	A	C	A	A	A	A	A	A
Candeggina	A	C	A	B	B	D			D					A	A
Carburante Avio (JP3, JP4, JP5)	A	A	A	D	D	D	D	B	A	A	B	A	A	A	A
Cherosene	A	A	A	D	D	D	D	B	A	A	B	A	B	A	A
Chetoni	A	D	D	D	D	D	D	A	A	A	B		A	A	A
Cloro (Liquido Anidro)	A	D	A	B	D	D		C	C	D	C		C	D	D
Detergenti	A	A	A	A	B	C		B	C	B				A	A
Diserbanti	A	B	A		C									A	A
Esano	A	A	A	D	B	B	D	B	B	A	A	A	A	A	A
Etano	A	A	A	D	B	B	D	B	B	B	A	A	A	B	A
Freon 11	A	C	B	D	D	C		C	C	B	A		A	A	A

Legenda																
A	Nessun effetto - Raccomandato															
B	Attacco leggero - Buono															
C	Attacco moderato - Modesto															
D	Attacco forte - Non adatto															
	PTFE	NBR	VITON	EPDM	CR (NEOPRENE)	VMQ (SILICONE)	NORYL	GG25	GG40	OTTONE	BRONZO	BRONZO ALLUMINIO	ACCIAIO CARBONIO	AISI 304	AISI 316	
Freon 113	A	A	B	D	A	D		C		B	A		A	A	A	
Freon 12 (Soluzione Acquosa)	A	A	A	B	B	D		B		A	A		A	A	D	
Freon 22	A	D	D	A	A	D		B		A	A		A	A	A	
Freon T.F.	D	A	A	D	A	D		C		B	A		A	A	A	
Fluoro	A	D	B	C	C	D			D		C		B	D	D	
Formaldeide	A	C	D	B	D	B	A	C	D	A	A	A	B	A	A	
Gasolio (Diesel)	A	B	A	D	D	D	C	A	A	A	B		C	A	A	
Glicerina	A	A	A	A	A	A	A	B	B	B	A	B	B	A	A	
Glicole, Glicole Etilenico	A	A	A	A	A	A	A	B	B	B	A	A	A	A	A	
Glicole Propilenico	A	A	A	A	C	A	A	B	B	B	A		B	B	A	
Idrocarburi Aromatici	A	D	A	D	D	D	D	A	A	A	A	A	A	A	A	
Idrogeno Gas	A	A	A	B	A	C			B		A	D	D	A	A	
Idrogeno Solforato (Secco)	A		D	A	C	C		C	B	C	A		C	C	A	
Idrogeno Solforato (Soluzione Acquosa)	A	C	D	A	B	C		D	D	D	C		D	A	A	
Idrossido di Potassio	A	B	D	A	A	C		C	C	D	B		B	B	B	
Idrossido di Sodio (Soda Caustica, 20%)	A	A	B	A	B	A	A	B	A	A	B	D	B	A	A	
Idrossido di Sodio (Soda Caustica, 50%)	A	D	C	A	C	A	A	B	B	A	B	D	B	A	B	
Idrossido di Sodio (Soda Caustica, 80%)	A	D	C	C	C	A	A	B	C	B	B	D	B	A	C	
Inchiostro	A	A	A	A	A	A		D	D				D	A	A	
Inibitori della ruggine	A	A	A		C				A					A	A	
Ipoclorito di Sodio (20%)	A	C	A	A	D	B		D	D	D	C	D	D	C	C	
Ipoclorito di Sodio	A	B	A	A	D	B		D	D	D	C	D	D	D	A	
Lacche, Vernici	A	D	D	D	D	D		C	C	A	A		C	A	A	
Liquidi base Tannino, per Concia	A	C	A	B	A	B					B	A	C	A	A	
Liquidi Zuccherini	A	A	A	C	B	A	A	C	B	A	A		D	A	A	
Lubrificanti	A	A	A	D	D	B	D	A	A	B	B	B	A	A	A	
Metano	A	A	A	D	B	B	D	B	B	B	A	A	A	B	A	
Nafta	A	B	A	D	D	D	D	B	B	B	B	A	B	A	A	
Naftalene (Naftalina)	A	D	A	D	D	D	D	B	B	B	B	A	B	A	B	
Oli Combustibili	A	A	A	D	B	D	D	B	B	B	B		C	A	A	
Oli Idraulici (base Petrolio)	A	A	A	D	B	B	D	B	A	B	B	B	A	A	A	
Oli Idraulici (base Sintetica)	A	C	A	C	B	B	D	B	A	B	B	B	A	A	A	
Oleum (Acido Solforico Fumante 25%)	A	D	A	D	D	C		C	D	C	C	C	C	B	B	
Olio di Colza	A	B	A	A	D	A	D	B	B	B	B	B	B	A	A	
Olio da taglio (integrale)	A	B	A	D	D	D		A	A	A	A	A	A	A	A	
Olio da taglio (emulsionato)	A	A	A	D	B	C		A	A	A	A	A	A	A	A	
Olio Diatermico (per trasformatori)	A	A	A	D	B	B	D	B	B	B	B	A	A	A	A	
Olio Minerale	A	A	A	D	B	B	D	B	A	B	B	B	A	A	A	
Olio di Oliva	A	A	A	A	B	B	D	B	A	C	B	B	B	A	A	
Olio di Palma	A	A	A	B	D	A	D	C	C	B		B	C	A	A	
Oli Siliconici	A	A	A	A	A	D	A		A					A	A	
Olio per Trasformatori	A	A	A	D	B	B	D	B	B	B	B	A	A	A	A	
Paraffina	A	A	A	D	C	A	C	B	B	A	A	A	B	A	A	
Pentano	A	A	A	D	B	C	D	B	B	A	A	A	A	C	C	
Permanganato di Potassio	A	A	A	A	A	D		B	B	B	B		B	A	B	
Perossido di Idrogeno (Acqua Ossigenata, 10%)	A	A	A	C	D	A	A	D	D	C	C	D	C	C	C	
Perossido di Idrogeno (Acqua Ossigenata, 30%)	A	D	B	C	C	A	C	D	D	D	C	D	C	C	B	
Perossido di Idrogeno (Acqua Ossigenata, 50%)	A	D	B	C	C	A	C	D	D	D	C	D	C	C	B	
Perossido di Sodio	A	C	A	A	B	D		C	D	D	C		C	A	A	
Petrolio greggio sour (S>1%)	A	C	A	D	C			C	C	C			B	A	A	
Petrolio greggio sweet (S<1%)	A	C	A	D	C			C	B	B			B	A	A	
Potassa	A	A	A	B	B	D	A		B	D		B		A	A	
Propano - GPL (Liquefatto)	A	A	A	D	B	C	D	B	B	A	A	A	B	A	A	
Salamoia	A	A	A	B	C			D	C	B	B	A	C	B	A	
Soda Caustica (Idrossido di Sodio, 20%)	A	A	B	A	B	A	C	B	A	A	B	D	B	A	A	
Soda Caustica (Idrossido di Sodio, 50%)	A	D	C	A	C	A	C	B	B	A	B	D	B	A	B	
Soda Caustica (Idrossido di Sodio, 80%)	A	D	C	C	C	A	C	B	C	B	B	D	B	A	C	
Solventi per Lacche, Vernici	A	D	D	A	D	D		C	C	A	A		C	A	A	
Tinture	A	D	A	D	C				A	C	D	B	A	A	A	
Trementina	A	D	A	D	D	D	D	B	B	B	A	B	B	A	A	
Urina, Urea	A	A	A	A	D	A		C	B	B		B	C	A	A	
Vernici (Usare Viton per Aromatici)	A	B	A	B	D	D		D	C	A	A		A	A	A	







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