

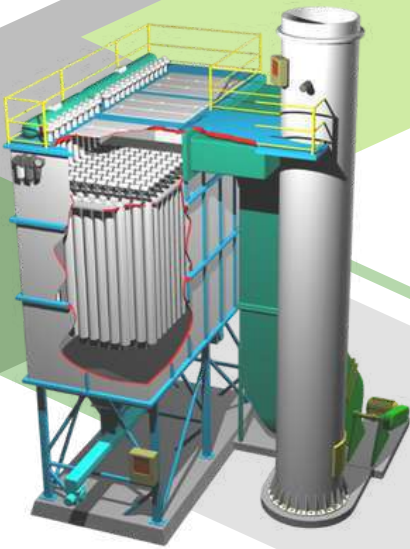
Dust Collector FILTER CLEANING SOLUTIONS

Discover what we've created for you.

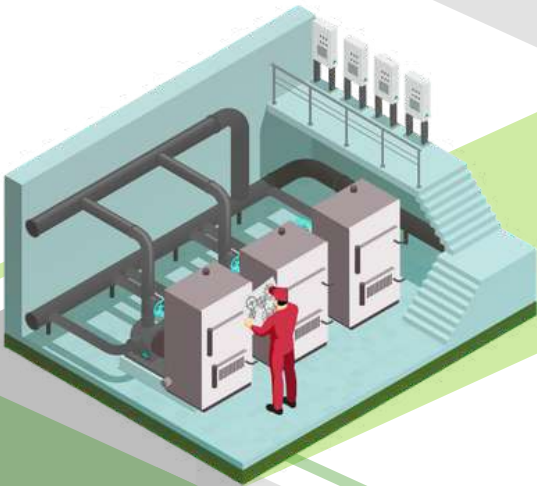


The background image shows an industrial facility with large silos and complex piping. Two workers are visible: one in a blue shirt and white hard hat on a yellow staircase, and another in a dark blue uniform and orange hard hat standing on the ground. The scene is overlaid with large green and grey geometric shapes.

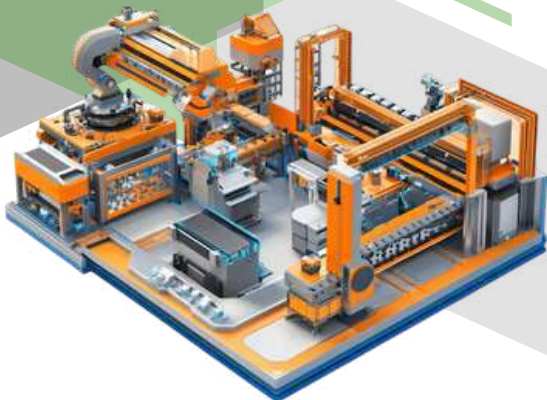
APS
CONTROL



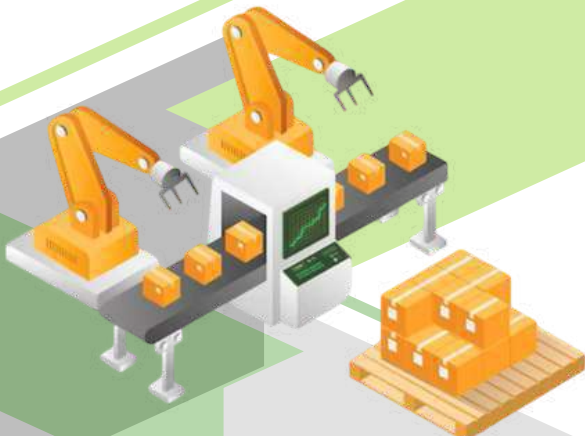
Filter cleaning solution



Dust collector



Industrial automation



Packaging – handle and moving



GOYEN



AVENTICS™

GOYEN 91 YEAR ENGINEERED SINCE 1935

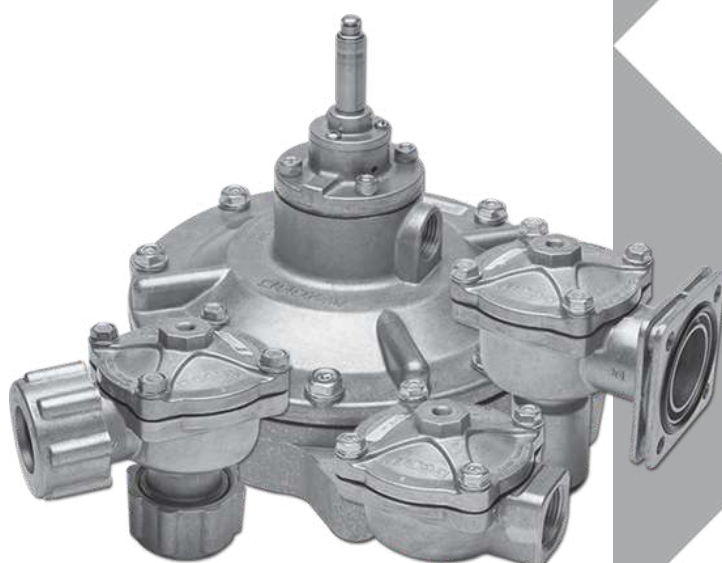
**" FILTER CLEANING SOLUTION FOR REVERSE
JET PULSE DUST COLLECTORS "**



VALBIA



FLOTON



 **GOYEN**

FILTER CLEANING SOLUTIONS

FOR REVERSE JET PULSE DUST COLLECTORS

A CLEAN FUTURE...
INTEGRATED, INNOVATIVE
ENVIRONMENTAL SOLUTIONS

- Cement
- Power
- Steel
- Asphalt
- Starch
- Wood
- Feed Mill
- Rice Mill
- Agriculture
- Food & Bev
- Pharma
- Chemical

GOYEN Clean Air Systems ผู้นำระดับโลก ในระบบการกำจัดฝุ่น - เรา คือหุ้นส่วนทางวิศวกรรม ที่ผ่านการยอมรับ จากบรรดาบริษัทผู้สร้างระบบ Reverse Pulse Filter ขึ้นมา มากมายทั่วโลก ตั้งแต่ปี 1935, ลูกค้าของเราต่างได้รับประโยชน์จากประสบการณ์ และความเชี่ยวชาญเฉพาะด้าน, การออกแบบ นวัตกรรมใหม่ๆ, และเหนือสิ่งอื่นใด คือคุณภาพอันเป็นเลิศของตัวสินค้า อันประกอบไปด้วย วาล์วเป่ากระแทกฝุ่น, วาล์วพร้อมถังพัก, หัวยิงนอชเชิล, ชุดใหม่เมอร์ ความคมล้าดับการยิงของวาล์ว และเครื่องมือตรวจวัดปริมาณฝุ่นละอองในอากาศ

ในระบบ Reverse Pulse Filter - ประสิทธิภาพในการยิงเป่า ทำความสะอาด และการทำงานร่วมกับถุงผ้ากรองในระยะยาว เป็นเรื่องที่ขึ้นกับการจัดสรรควบคุม ปริมาณ และ ความดันลม ที่จะกระจายเข้าไปในถุงผ้ากรอง 'แต่ละใบ' ตั้งแต่แรก จนถึงถุงสุดท้ายที่ปลายท่อยิง, เป็นหัวใจสำคัญ, เพื่อประสิทธิภาพ และความสำเร็จ ของทุกๆระบบกำจัดฝุ่น - GOYEN พร้อมให้คำปรึกษา จากประสบการณ์อันยาวนาน ร่วมกับ GOCO Software Design Tool และสินค้าคุณภาพสูงที่ได้มาตรฐานทุกตัว

ในฐานะที่เป็นผู้ให้บริการโซลูชันอย่างครบวงจร - GOYEN ทั้งผลิตตัวอุปกรณ์ และคำนวณออกแบบระบบ ที่จะทำงานร่วมกันอย่างสมบรณ์แบบบนการบริหารจัดการต้นทุนอย่างมีประสิทธิภาพ, เรา ยึดมั่นในขั้นตอนการควบคุมคุณภาพอย่างเข้มงวด และมุ่งมั่นอย่างเต็มที่ ในการรักษาคุณภาพสิ่งแวดล้อมควบคู่กันไป



Emission Monitoring



Pulse Jet Valves



Blowtube Nozzles



Header Tank Solutions



Knockers & Vibrators



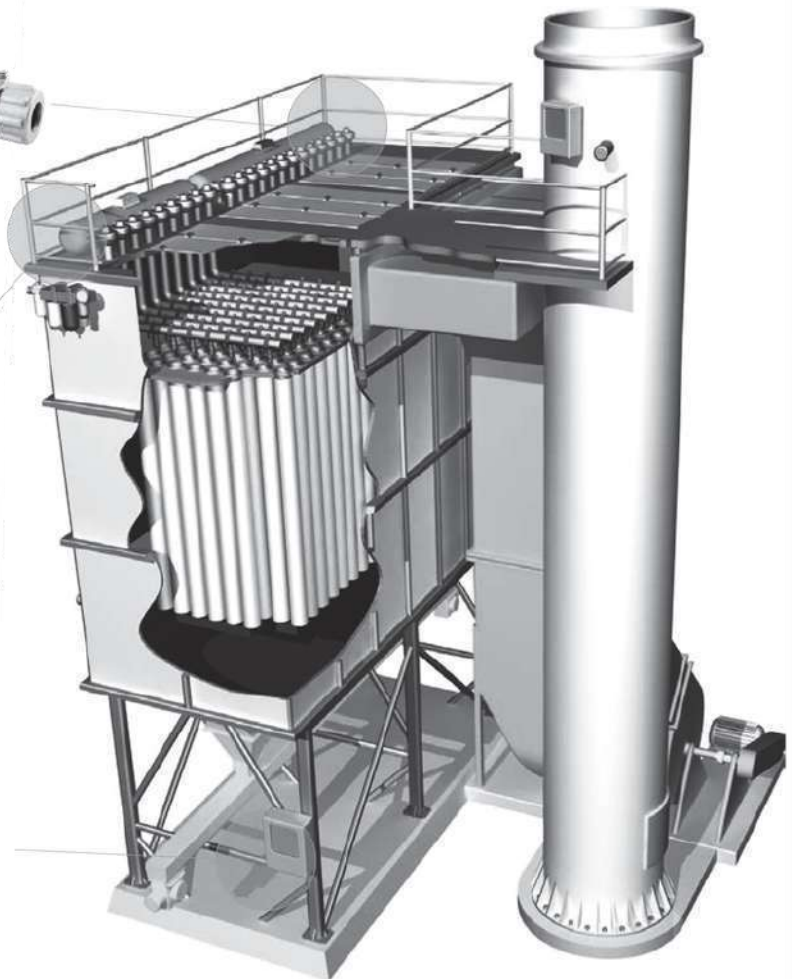
Enclosures & Pilot Valves



Rotary Valves



Filter Cleaning Controllers



PULSE JET VALVES & DIAPHRAGM VALVES

[READ MORE](#)


Goyen manufactures diaphragm valves in a range of configurations to suit a variety of reverse pulse filter designs. These sophisticated valves precisely control airflow through the filters for optimal cleaning. Superior performance, easy maintenance diaphragm valve available with threaded ports (T) dresser nut ports (DD), flange and slide (FS) or manifold mounted (MM). Each series are available with integral pilot (CA) or as remotely piloted valve (RCA)



Port Size	Diap. Kit NBR	MM series	Kv m3/h	Cv usGal/min	T series	Kv m3/h	Cv usGal/min	DD series	Kv m3/h	Cv usGal/min	FS series	Kv m3/h	Cv usGal/min
3/8"	K1001				10 T	2.5	2.9						
3/4"	K2000				20 T	12	14	20 DD	12	14			
1"	K2501	25 MM	26	30	25 T	20	23	25 DD	20	23	25 FS	22	25
1.5"	K3500				35 T	36	42						
1.5"	K4000	40 MM	44	51									
1.5"	K4502				45 T	44	51	45 DD	44	51	45 FS	52	61
2"	K5004				50 T	91	106	model CA	Integral Pilot		Pressure	0.3 to 8.6 bar	
2.5"	K5004				62 T	117	136	model RCA	Remote Pilot		Nitrile seals	-40 to 82 °C	
3"	K7600	76 MM	200	233	76 T	144	167	Body mat'l	Aluminium diecast		Viton seals	-29 to 232 °C	
3.5"	K10200	102 MM	238	277				Diap. seat	PA-6 (standard)		Low temp.	-60 to 40 °C	

PILOT SOLENOID VALVES & ENCLOSURES

[READ MORE](#)


Pilot solenoid valves are used in a reverse pulse filter cleaning system to operate the diaphragm valves from a remote location. Pilot valves can be mounted separately or in multi valve enclosures. Multi valve enclosures provided a cost effective and organised method of housing banks of remote control pilot valves. Goyen offers a range accommodating up to 12 pilots in dust/rain proof and explosion proof configurations.

Pilot Valves



3D1-QR DIN Plug



3PV



3D1-QT2 Screws



3D1-QF Flying leads

Enclosures



3-5V 5 valves
conduit M25x1.5



3-8V 8 valves
conduit M25x1.5



3-12V 12 valves
conduit M25x1.5



3-6VFD ATEX II 2GD
EEx d IIB T6 T85°C IP6X

TIMERS & dP GAUGES

SEQUENTIAL TIMERS AND DIFFERENTIAL PRESSURE GAUGES/SWITCH

READ MORE



DS Sequencer



IS/ISP Sequencer



ECS Control System



dP GAUGES dual scale



dP GAUGES / SWITCHES

DS Sequencer Technical Specifications

Technical Characteristics & Performance

Differential Pressure Support	dP Module can be used with the Fan Stop Input
Input Voltage	110-240 VAC, 50/60 Hz or 24 VDC
Output Voltage	110-240 VAC or 24 VDC
Discrete Solenoid Outputs	12 Outputs
Enclosure	Polycarbonate
Protection Rating	IP 66/67 & NEMA 1, 4, 4X, 6, 12 & 13
Dimensions	PCB: 172x127 mm Enclosure: 255x180x77 mm
Operating Temperature	-20°C to 60°C (-4°F to 140°F)
ON & OFF Time	ON: 30 ms to 100 ms, OFF: 1 s to 1000 s
Inputs	Voltage Free: Fan Stop

Simple, durable, certified sequencer at a low price, for smaller collectors

IS/ISP Sequencer Technical Specifications

Technical Characteristics & Performance

Differential Pressure Support	0 to 4.5kPa on the ISP
Input Voltage	110 - 240 VAC, 50/60 Hz
Output Voltage	110 - 240 VAC or 24 VDC
Discrete Solenoid Outputs	12, 20 & 40 Outputs
Enclosure	Polycarbonate
Protection Rating	Small: IP65 & NEMA 1, 4, 4X, 12 & 13 or Large: IP 66/67 & NEMA 1, 3, 35, 4, 4X, 6, 6P & 12
Dimensions	PCB: Small 172x127mm, Large 273x197mm Enclosure: Small 280x219x156mm, Large 378x278x130mm
Operating Temperature	-40°C to 60°C (-40°F to 140°F)
ON & OFF Time	ON: 30 ms to 1000 ms, OFF: 1 s tp 1000 s
Inputs	Voltage Free: Fan Stop, Low Header Alarm
Outputs	Voltage Free: Coil Error, Analogue 4-20ma on the ISP

Simple, durable, certified sequencer at a low price, for larger collectors

dP GAUGES dual scale

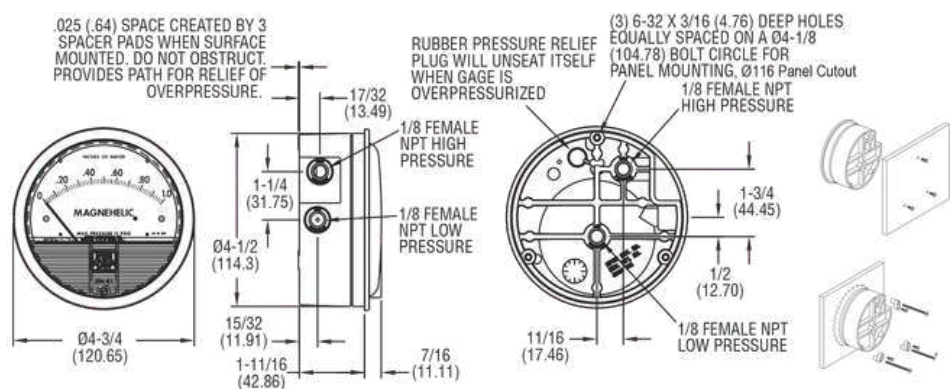
2010D	0-10 inch w.c., 0-2.5 kPa
2015D	0-15 inch w.c., 0-3.7 kPa

Frictionless Magnehelic® Gage Design

ความแม่นยำสูง ใช้กับแก๊สที่ไม่กัดกร่อน
ทนต่อความดันเกิน, กระแทก, หรือสั่น

วัดความดันบวก, ความดันลบ, และผลต่าง

Housing	Diecast aluminium
Dial Face	Acrylic, Ø4"
Range (inch w.c.)	0-0.25 to 0-150
Accuracy	±2% of F.S.
Pressure Limits	-0.67 to 1.03 bar
Temp. Limits	-6 to 60 °C
Weight	0.51 kg
Approvals	RoHS, GOST-R



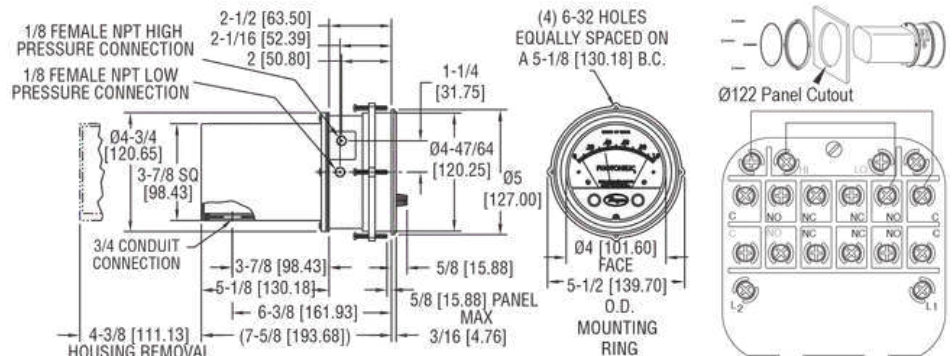
dP GAUGES / SWITCHES

A3010	0-10 inch w.c.
A3015	0-15 inch w.c.

เกจวัดความดัน พร้อม Relay Output
เพื่อนำไปตัดต่อการทำงานของ Timer

ให้สัญญาณ เป่าถุงผ้ากรอง เมื่อเริ่มสกปรก
และให้หยุดเป่า เมื่อถุงผ้ากรองสะอาด

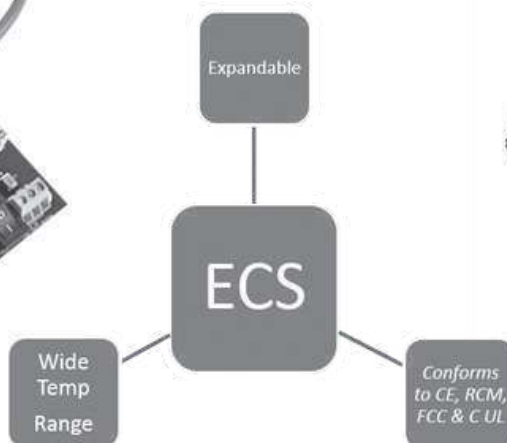
Power Supply	230VAC, 120VAC
Switch Type	2x DPDT, 10A
Switch Function	Hi, Lo, Hysteresis
Repeatability	±1% of F.S.
Setpoint Adj. by	Knobs on gage face
Temp. Limits	-6 to 48 °C
Weight	1.81 kg
Approvals	CE, CSA, UL



GOYEN

WHAT IS ECS CONTROL SYSTEM

An expandable reverse pulse jet valve control system that can run in continuous or demand mode and support up to 360 discrete outputs via 12 output expansion cards.



UNIQUE FEATURES OF ECS CONTROL SYSTEM

Expandable	• Can support 29 unique 12 output expansion cards.
Simple Interface	• Uses a portable membrane interface with an OLED screen
Cleaning Mode Selection	• Demand or Continuous
Manual Push Buttons	• Actuate each output via the push of a button
Multiple Voltage Free Inputs	• Fan Stop, Low Header Alarm, Demand/Continuous Selection
Multiple Voltage Free Outputs	• Coil is Firing, Coil Alarm, High dP
Wide Operating Temperature	• -40°C to 60°C (-40°F to 140°F)

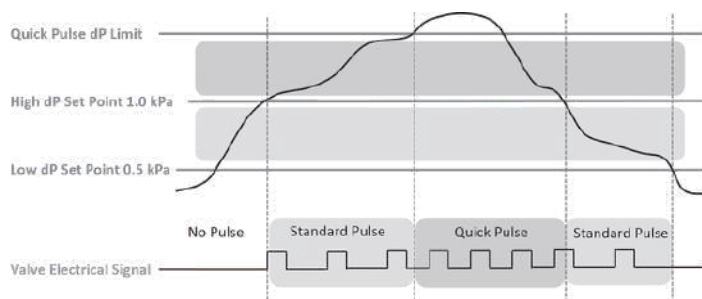
ECS QUICK PULSE TECHNOLOGY

- This is a feature to give your baghouse additional protection in case your dust collector starts to get out of control.
- It gives you another differential pressure (dP) limit where you

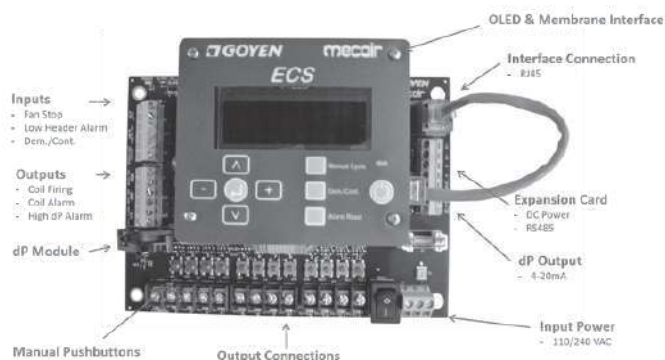
can start pulsing with a shorter off time, quickening your pulse time, If the dP between the clean side and dirty side of your dust collector is still rising.

- This feature is disabled by default and just requires setting two parameters to implement:
 - + Quick dP Limit
 - + Quick OFF Time

ECS QUICK PULSE TECHNOLOGY



ECS CONTROL SYSTEM - DC OUTPUT MAIN BOARD



FILTER FAILURE DETECTOR (FFD)



WHAT IT DOES

- Continuous monitoring of fabric filter baghouses for broken bags
- Detects significant changes in particulate emissions
- Provides dual alarm relays (early warning and set maximum limit)
- Minimize false alarms thanks to digital averaging of readings and user selectable delay
- Has a 4-20mA output scaled to 0-200% of the limit alarm level to feed a PLC or other devices
- It's ATEX Zone 2 (Gas) and 22 (Dust) certified

PRODUCT DESCRIPTION

The main purpose of Goyen FFD is to detect significant increases in particulate concentration likely to be related with a broken bag in the filter or other major failures. Thanks to the 4-20 mA output it also acts as an integrated unit to deliver dependable and pragmatic filter monitoring.

The FFD utilizes a unique probe electrification technology which provides much better performances than conventional DC triboelectric systems as well as alternative AC systems. This allows extending the velocity range over which the system has no cross sensitivity to changing velocity. Thanks to that technology, the FFD is also unaffected by build-up of particulate on the sensing rod, thus eliminating signal drift concerns.

A charge signature is induced by particulates in the airstream interacting with the sensing rod. The FFD extracts a specific frequency band from the induced AC current signature and filter out the DC current generated by direct particle collisions. In order to reject signals falling outside a pre-defined frequency range, the so resulting signal is electronically filtered. Thanks to that, Goyen filter failure detectors are less susceptible to changes in particle velocity and are not affected by any particulate contamination on the sensing rod.

Also this technology, not relying on particles colliding with the probe, is able to measure a more representative area of the stack and eliminate the need of long sensor probe rods.

Thanks to the digital averaging of readings in combination with the alarm delay feature, by properly setting the delay period, the system will exclude short term signal increases associated with pulse cleaning of filters. This translates into a much lower likelihood of having false alarms.

OPERATIONAL RANGE

- Suitable for a wide range of dust collectors designs and configurations
- Dust level response: $<1\text{mg}/\text{m}^3$ to $500\text{mg}/\text{m}^3$ ($<0.028\text{ mg}/\text{ft}^3$ to $14\text{ mg}/\text{ft}^3$)
- Flue gas velocity from $4\text{m}/\text{sec}$
- Flue gas temperature up to 200°C (390°F)
- Ambient temperature from -20°C to $+50^\circ\text{C}$ (-4°F to $+120^\circ\text{F}$)
- Duct sizes from 0.5m
- Hazardous area ATEX II 3GD

FILTER FAILURE DETECTOR (FFD)



CERTIFICATION

CONFORMANCE AND RELATED STANDARDS

Goyen | Mecair hereby declares that this instrument—within the limits specified in this manual—complies with the essential requirements and other provisions of the pursuant European Union Directives : Low Voltage Directive, EMC Directive , and ATEX Directive.

For details refer to the Declaration of Conformance for this instrument or system (available on request from Goyen | Mecair or our local representative).

ATEX Standards

In addition , the instrument has been designed to be compliant with the below standards.

EN 60079-0:2012 + A11:2013	
Explosive atmospheres. Part 0 : Equipment – General requirements	Specifies the general requirements for the construction, testing and marking of electrical equipment used in explosive atmospheres.
EN 60079-15:2010	
Explosive atmospheres. Part 15 : Equipment protection by type of protection “n”	Specifies requirements for the construction , testing and marking for Group II electrical equipment with type of protection , “n” intended for use in explosive gas atmospheres. This standard should be read in conjunction with EN 60079-0.
EN 60079-31:2009 AND EN 60079-31:2014	
Explosive atmospheres – Part 31 : Equipment dust ignition protection by enclosure “t”	Specifies requirements for design , construction and testing of electrical equipment and Ex components.

FILTER FAILURE ALARM (FFA)



WHAT IT DOES

- Continuous monitoring of fabric filter baghouses for broken bags
- Clear indication of system status through full color display
- Provides dual alarm relays (early warning and set maximum limit)
- Easy and user friendly system setting via external keypad
- Has a 4-20mA output to feed a PLC or other devices
- It's ATEX Zone 2 (Gas) and 22 (Dust) certified
- Acts as a preventive maintenance tool

PRODUCT DESCRIPTION

The Goyen FFA provides you dependable and pragmatic filter monitoring through an easy setup external unit and clear, simple and language independent full-color LCD display. It features two alarm relays and a 4-20 mA output and can work in ATEX rated environments (II 3GD) and flu gas temperatures from -20°C to +240°C (-4°F to +464°F).

The FFA utilizes a unique probe electrification technology which provides much better performances than conventional DC triboelectric systems as well as alternative AC systems. This allows extending the velocity range over which the system has no cross sensitivity to changing velocity. Thanks to that technology, the FFA is also unaffected by build-up of particulate on the sensing rod, thus eliminating signal drift concerns.

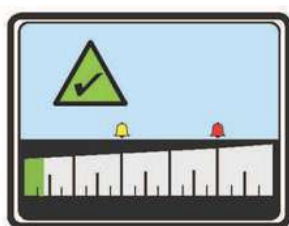
A charge signature is induced by particulates in the airstream interacting with the sensing rod. The FFA extracts a specific frequency band from the induced AC current signature and filter out the DC current generated by direct particle collisions. In order to reject signals falling outside a pre-defined frequency range, the so resulting signal is electronically filtered. Thanks to that, Goyen filter failure alarms are less susceptible to changes in particle velocity and are not affected by any particulate contamination on the sensing rod.

Also this technology, not relying on particles colliding with the probe, is able to measure a more representative area of the stack and eliminate the need of long sensor probe rods.

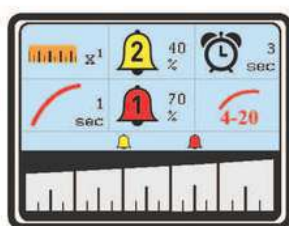
Thanks to the digital averaging of readings in combination with the alarm delay feature, by properly setting the delay period, the system will exclude short term signal increases associated with pulse cleaning of filters. This translates into a much lower likelihood of having false alarms.

OPERATIONAL RANGE

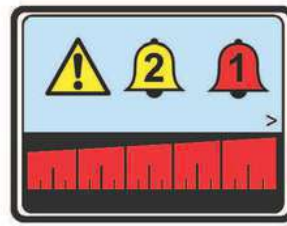
- Suitable for a wide range of dust collectors designs and configurations
- Dust level response: <1mg/m³ to 500mg/ m³ (<0.028 mg/ft³ to 14 mg/ft³)
- Flue gas velocity from 4m/sec
- Flue gas temperature up to 240°C (464°F)
- Ambient temperature from -20°C to +50°C (-4°F to +122°F)
- Duct sizes from 0.5m
- Hazardous area ATEX II 3GD
- US-EPA MACT compliant



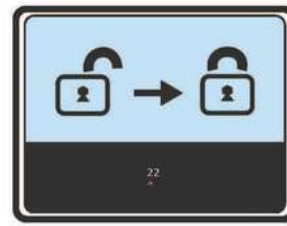
1



2



3



4

FILTER FAILURE ALARM (FFA)



CERTIFICATION

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– General requirements

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EN 60079-15:2010

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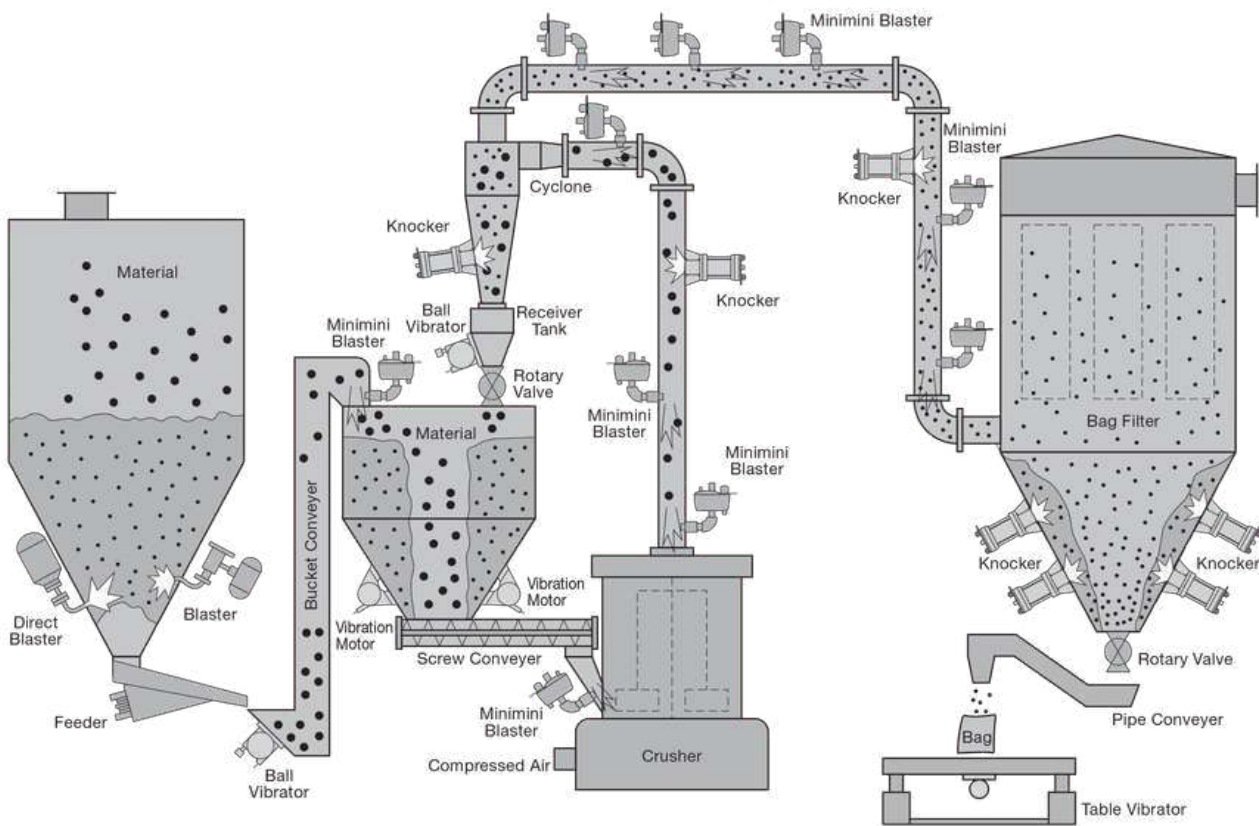
EN 60079-31:2009 AND EN 60079-31:2014

Explosive atmospheres – Part 31 :
Equipment dust ignition protection by
enclosure “t”

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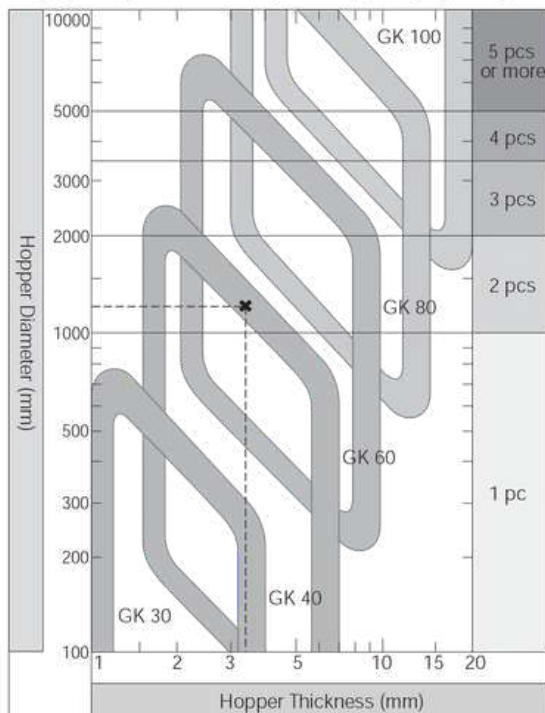
BULK SOLIDS HANDLING

TYPICAL FLOW AID SYSTEM INSTALLATION

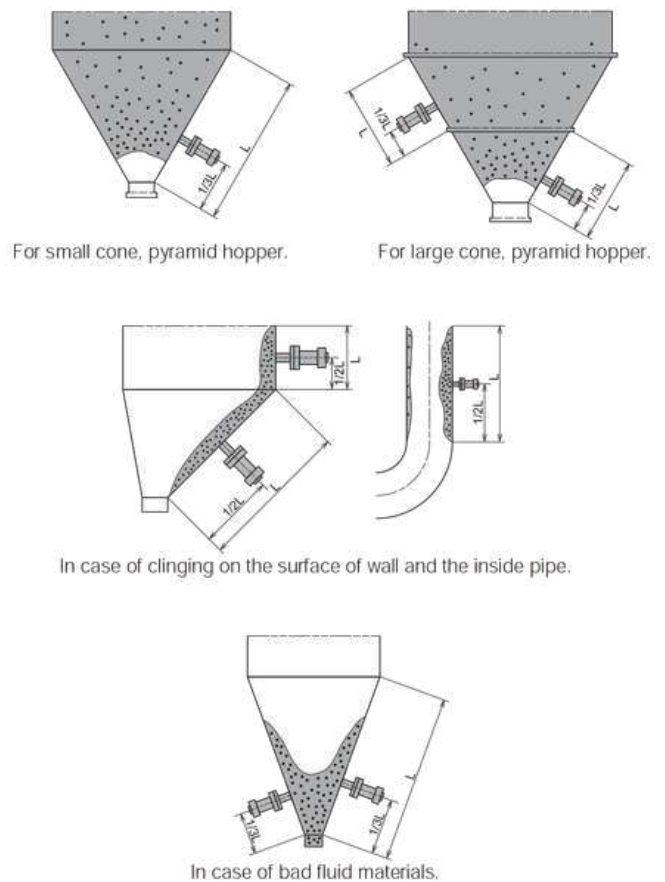


MODEL SELECTION GUIDE

The model and the quantity having the optimum impact force are selected according to the type, the shape, the size, and clinging and blocking condition in silo, hopper etc. For instance, when installing on the conical hopper of 1,200mm dia. 3.2mm thick, find the point of intersection X according to the figure below. As the point X is within the range of GK40 2 pcs, and GK60 2 pcs, select GK40 2 pcs, for small clinging strength, and GK60 2 pcs, for large clinging strength.



INSTALLING POSITION



VIBRATORS, AIR CANNONS, AIR KNOCKERS

EQUIPMENT FOR POWDER AND BULK SOLIDS HANDLING

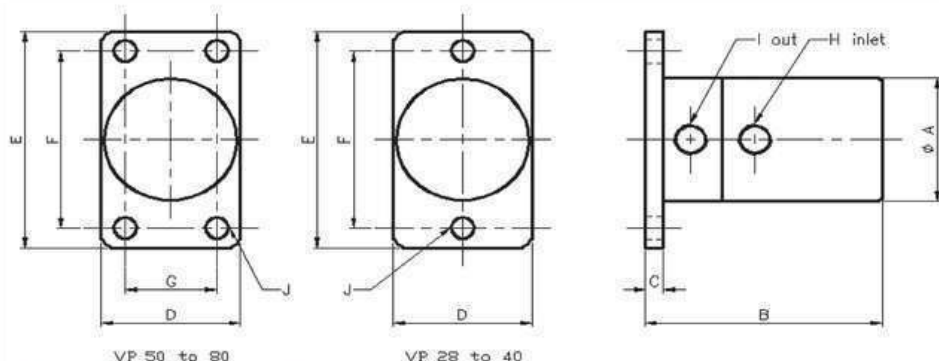


Type VP

Linear Piston Vibrators

ไวยเบรเตอร์แบบลูกสูบ สร้างการสั่นเชิงเส้น โดยความถี่ และความแรงสามารถปรับได้ อย่างอิสระต่อกัน

- ความถี่ จะเปลี่ยนตามความดันลม
- ความแรง จะเปลี่ยนตามน้ำหนักของตั้มลูกสูบที่เขย่า



PRODUCT PERFORMANCE & DIMENSIONS

Model	Frequency rpm	Force N	Air Cons. L/min	Weight kg	A	B	C	D	E	F	G	H,I	J
VP 28	3,000	1,080	141	1.04	55	82	6	60	120	90	0	1/4"	10
VP 40	2,500	1,600	190	3.25	74	127	10	77	130	108	0	1/4"	12
VP 50	2,400	2,170	270	4.25	100	167	16	100	160	130	80	3/8"	12
VP 65	2,500	3,200	350	7.00	124	200	16	130	210	180	90	1/2"	14
VP 80	2,700	4,270	450	9.40	150	228	19	155	220	180	100	3/4"	14

Data measured at 6 bar

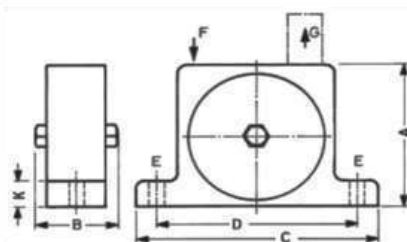


Type GT

Turbine Vibrators

เทอร์โบไนเบรเตอร์ สร้างการสั่นโดยใช้ลมไปหมุนวงล้อที่ถ่วงน้ำหนักแบบเยื้องศูนย์กลาง, ติดตั้งได้ทุกทิศทาง

- เสียงเบา ต่ำกว่า 70 dB
- The ball bearing are lubricated for lifetime, the devices run with dry air



PRODUCT PERFORMANCE & DIMENSIONS

Model	Frequency rpm	Force N	Air Cons. L/min	Weight kg	A	B	C	D	E	F	G	K
GT 0	16,500	715	85	0.30	50	37	86	73	7	1/8"	1/8"	13
GT 1	15,500	950	105	0.40	70	45	115	90	9	1/8"	1/8"	16
GT 2	11,000	1,310	180	0.75	81	50	128	105	9	1/4"	1/4"	16
GT 3	8,500	2,470	325	2.00	100	67	155	130	11	1/4"	1/4"	20
GT 4	5,000	5,080	550	4.20	120	75	180	160	14	3/8"	3/8"	40

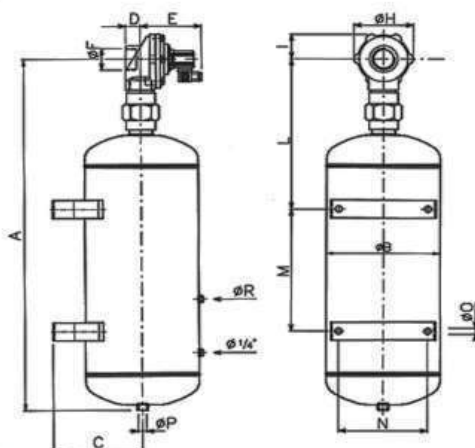
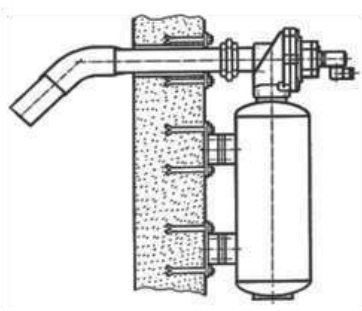
Data measured at 6 bar



Type GC

Pneumatic Air Cannons

ถังระเบิดลม สามารถทะทะฝุ่นทุกชนิดที่เกาะผนังไซโลให้หลุดออกได้ โดยเฉพาะฝุ่นที่เกาะแน่น, เป็นระบบที่ดีกว่าการเขย่า เพราะลมจะพุ่งเข้าไปทะทะฝุ่นโดยตรง



PRODUCT PERFORMANCE & DIMENSIONS

Model	Valve Type	Tank Litre	Wg. kg	A	B	C	D	E	F	H	I	L	M	N	O	P	R
GC 20	CA 20T4	5	7	515	142	100	18	100	3/4"	60	34	230	150	120	13	1/2"	1/2"
GC 25	CA 25T4	15	14	605	220	160	23	100	1"	72	38	220	280	260	13	1/2"	1/2"
GC 45	CA 45T	20	20	895	220	160	31	122	1.5"	135	58	362	320	260	13	1/2"	1/2"

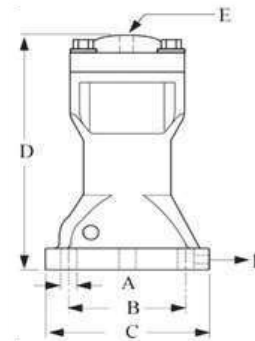
LEVEL SWITCHES, ROTARY AIRLOCK VALVES

EQUIPMENT FOR POWDER AND BULK SOLIDS HANDLING



Type GK
Pneumatic Knockers

ก้อนลม หรือ แอร์น็อคเกอร์ สร้างแรง
กระแทกกับท่อ หรือผนังไซโล เพื่อให้
ฝุ่นที่เกาะตามผนังร่วง และไหลต่อไปได้
Max. 15 cycles per minute
Ambient Temp. -20°C to +70°C



PRODUCT PERFORMANCE & DIMENSIONS

Model	Energy		Pressure	Air Cons.	Weight	A	B	C	D	E	F
	J (Nm)	kp.m	bar	NL/time	kg	hole x no.	P.C.D.	ø		in	out
GK 30	7.4	0.75	3 - 7	0.28	1.1	ø 9 x 4	67	82	135	1/4"	1/8"
GK 40	22	2.2	3 - 7	0.82	3.0	ø 11 x 4	77	98	175	1/4"	1/8"
GK 60	73	7.4	3 - 7	2.28	7.8	ø 12.5 x 4	110	143	220	1/4"	1/4"
GK 80	161	16.4	4 - 5	4.55	16.5	ø 17 x 4	140	170	275	3/8"	3/8"

1 Joule = 1 Nm = 0.102 kp.m (kilopond meter)

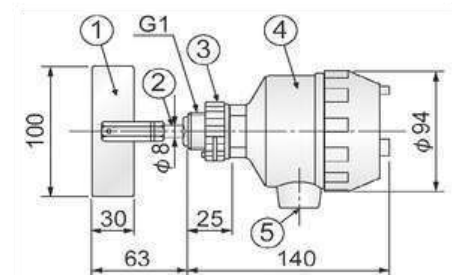


Type NM-SC
Rotary Paddle Level Switches

ใช้ใบหมุนตรวจระดับของฝุ่นในไซโล
สามารถตั้งระดับความสูงของสวิทช์ได้

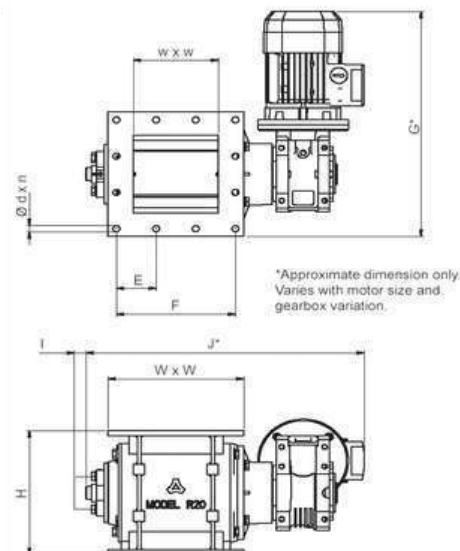
PRODUCT PERFORMANCE & DIMENSIONS

Model	NM-SC
Power Supply	220VAC 4W
Contact Output	SPDT 250VAC 5A
Operating Torque	0.098 ~ 0.176 Nm
Rotation Speed	1 rpm
Pressure Range	0 - 0.19 bar
Temperature	0 - 50 °C
Mounting	G1"
Electrical Wiring	G1/2 Conduit, IP55

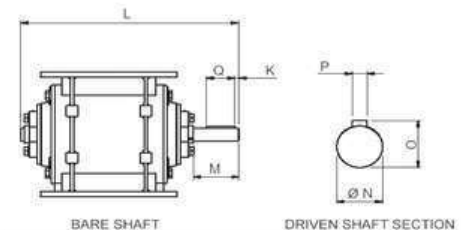


Type GR
Rotary Airlock Valves

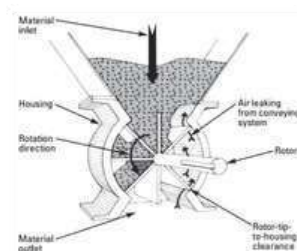
โรตารีแอร์ลอคควาล์ว หรือโรตารีฟีดเดอร์
ทำหน้าที่ป้องกันลมจากภายนอก รั่วเข้า
ไปในห้องดูดฝุ่น และถ่ายฝุ่นที่ออกมา
โดยการหมุนใบกวาดฝุ่น rotating impeller



*Approximate dimension only.
Varies with motor size and
gearbox variation.



BARE SHAFT DRIVEN SHAFT SECTION



PRODUCT PERFORMANCE & DIMENSIONS

Model	Flange	d x no.	E	F	G*	H	I	J*	K	L	M	N	O	P	Q	R	S	T
GR 150	6" x 6"	ø 12 x 4	205	205	490	300	27	530	7	350	50	30	33	8	30	245	150	
GR 200	8" x 8"	ø 12 x 8	128	255	610	325	33	630	7	400	56	35	39	8	30	295	200	
GR 250	10" x 10"	ø 12 x 12	104	312	660	400	38	700	7	500	60	40	45	10	40	370	250	

PREMAFLEX PINCH VALVES

FOR VICOUS, GRANULATED, CONTAMINATED AND AGGRESSIVE MEDIA



closed, by pressure open, by release



DESCRIPTION

สำหรับ เปิด-ปิด ผุ่น ผง ก้อน หิน กรวด
ทราย ซีเมนต์ ซิลิกา แป้ง แกลบ ซีเมนต์
เมล็ด เยื่อ โคลน น้ำ น้ำมัน แก๊ส เติมี
ระบบลำเลียง ฯลฯ โดยการใช้ ลม
Pneumatic บีบ Sleeve เพื่อ ปิดวาล์ว,
และ เปิดวาล์ว โดยการระบายลมทิ้ง
เพื่อให้ Sleeve คืนตัว กลับไปอยู่ใน
สภาวะปกติ หรือ Normally Open

CONSTRUCTION

Body

- PP food-safe	Threaded DN15-50
- POM food-safe	Threaded DN15-50
- Bronze, Steel	Threaded DN20-25
- Cast Iron GG20	Flange DIN PN10
- Aluminium	Flange DIN PN10
- Manual Valves	Flange DIN PN10

Sleeve

a high-elastic, fabric-reinforce

- NR Standard	80 °C
- NR SKAZ	80 °C
- NR Food white	80 °C
- NR Food black	100 °C
- NR Electrically Conductible, 80 °C	
- CR Neoprene	100 °C
- NBR black	100 °C
- NBR Food white	100 °C
- NBR Electrically Conductible, 100 °C	
- EPDM Food black, 120 °C	
- EPDM Food white, 120 °C	
- SBR Buna	100 °C
- FPM Viton	100 °C
- MQ Silicone	150 °C
- IIR Butyl	100 °C
- CSM Hypalon	100 °C

OPERATION

Media Pressure	0-6 bar, Threaded 0-4 bar, Flanged
Pilot Pressure	+2 bar, higher than media pressure, max. 10 bar

DIMENSIONS - Threaded

Model DN	Thread R	L	D	Wg. kg
PQVI 015	G 1/2"	130	63	0.40
PQVI 020	G 3/4"	142	76	0.55
PQVI 025	G 1"	152	80	0.70
PQVI 032	G 1.1/4"	189	95	0.80
PQVI 040	G 1.1/2"	202	110	1.50
PQVI 050	G 2"	210	120	2.00

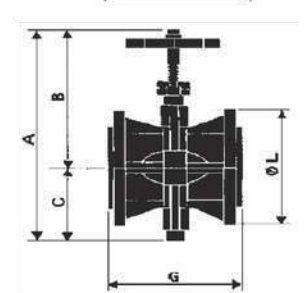
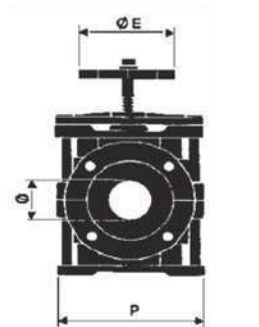
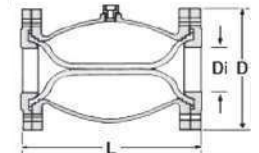
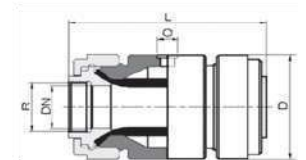
DIMENSIONS - Flange PN10

Model DN	Flange Hole, PCD	L	D	Di
PQVF 040	4x ø18, 110	156	150	40
PQVF 050	4x ø18, 125	167	165	45
PQVF 065	4x ø18, 145	184	185	60
PQVF 080	8x ø18, 160	226	200	75
PQVF 100	8x ø18, 180	282	220	95
PQVF 125	8x ø18, 210	350	250	120
PQVF 150	8x ø22, 240	420	285	145
PQVF 200	8x ø22, 295	559	340	195

DIMENSIONS - Manual Valves

Model DN	Flange DIN PN10	A	B	C	E	G	L	P
P.S.1 010		145	100	45	60	73	90	62
P.S.1 015	1/2"	165	115	50	60	92	95	62
P.S.1 020	3/4"	210	150	60	70	107	105	84
P.S.1 025	1"	230	160	70	80	118	115	102
P.S.1 030	1.1/4"	255	178	77	80	130	140	110
P.S.1 040	1.1/2"	305	212	93	100	154	150	140
P.S.1 050	2"	335	233	102	110	176	165	160
P.S.1 060		355	245	110	120	194	185	180
P.S.1 070		390	260	130	140	206	185	205
P.S.1 080	3"	420	280	140	140	215	200	225
P.S.1 090		490	320	170	200	250	210	275
P.S.1 100	4"	500	330	170	200	275	220	275
P.S.1 125	5"	630	415	215	220	300	250	325
P.S.1 150	6"	680	445	235	240	330	285	360
P.S.1 175		765	500	265	330	355	315	405
P.S.1 200	8"	840	550	290	330	375	340	450

Special design available upon request.

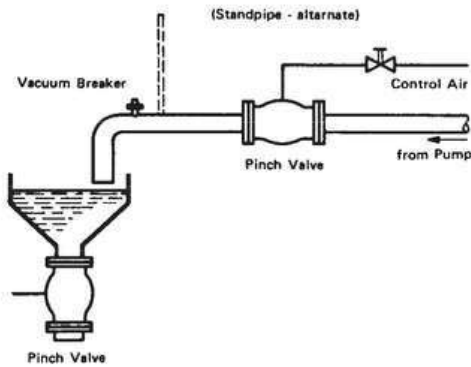


PREMAFLEX APPLICATIONS

PINCH VALVES | TYPICAL APPLICATIONS AND INSTALLATIONS

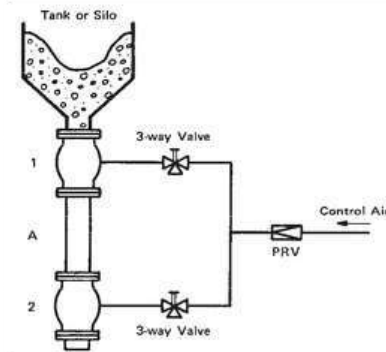
1. Liquid Level ON-OFF CONTROL

ใช้ Pinch Valve ในการ เปิด-ปิด รักษาระดับน้ำในแท่งค์ Vacuum Breaker (หรือ Standpipe) ทำหน้าที่ป้องกันไม่ให้ภายในท่อและ Sleeve เกิดสภาวะสุญญากาศ จากการ suction ของน้ำที่ไหลออก ซึ่งจะมากหรือน้อยก็ขึ้นกับ ความยาว และขนาดของท่อทางออก ที่อยู่ใต้น้ำ



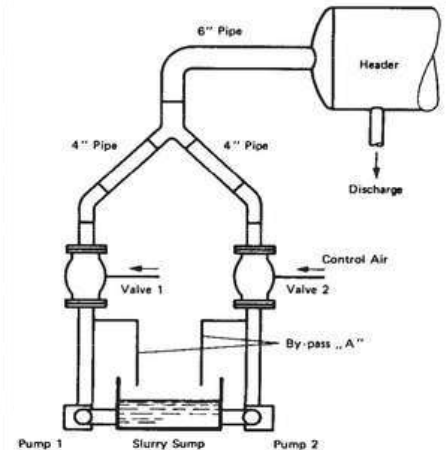
2. Silo AIR LOCK

ติดตั้ง Pinch Valves 2 ตัว ซ้อนกัน เพื่อล็อกไม่ให้อากาศไหลเข้าออก จาก แท่งค์ที่มีความดัน หรือแท่งค์ที่เป็น Vacuum. ปิด V.2, เปิด V.1 เพื่อกักวัสดุไว้ในช่วง "A" จากนั้น ปิด V.1, เปิด V.2 เพื่อปล่อยวัสดุ



3. STANDBY PUMPING

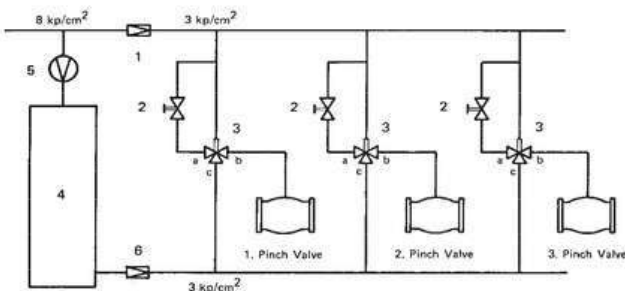
ขณะ Pump1 standby, V.1 ปิด, Pump2 run V.2 เปิด. เมื่อต้องการสลับ, ให้เริ่ม run Pump1 โดย ยังปิด V.1 ก่อน, เพื่อไล่อากาศ ออกจาก by-pass A, เมื่ออากาศออกหมด ค่อยเปิด V.1 และปิด V.2 วิธีการนี้จะช่วยให้ไม่เกิด water-hammer กับ V.1



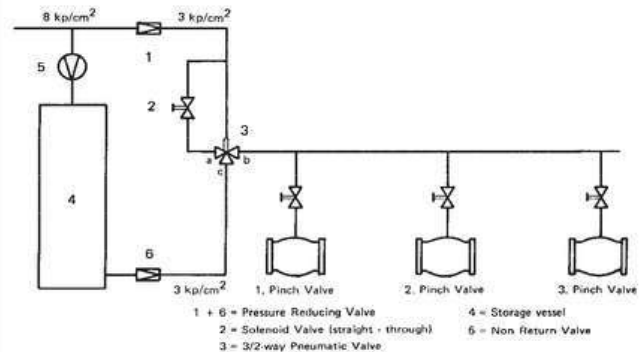
4. AIR FAILURE CLOSED - Independent

หาก safety position ต้องการให้ Pinch Valve "ปิด" เมื่อเกิดปัญหา Air Fail, สามารถทำได้โดยใช้วงจรด้านล่างนี้.

(2) 3/2-way sol.v. มีหน้าที่สั่ง เปิด-ปิด Pinch Valve โดยมี (3) 3/2-way air pilot valve ขวางอยู่, ส่วน (4) เป็นถังสำรองลม โดยมี (5) เป็น check valve. ในสภาวะปกติ, (3) จะได้รับสัญญาณ air pilot จาก (1) และเชื่อมต่อ a-b ตลอดเวลา, (2) จะสามารถควบคุม เปิด-ปิด Pinch Valve ได้โดยตรง. ในสภาวะ Air Fail, สัญญาณ air pilot จาก (1) หายไป, (3) จะกลับตำแหน่ง มาเชื่อมต่อ c-b แทน, ลมจากถังสำรอง (4) ก็จะไหลเข้าไป "ปิด" Pinch Valve

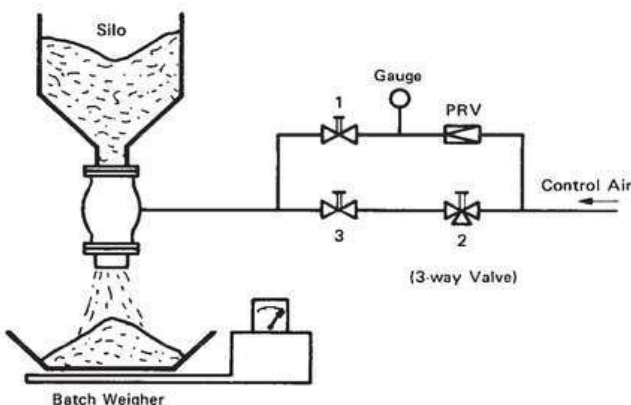


5. AIR FAILURE CLOSED - Simultaneous



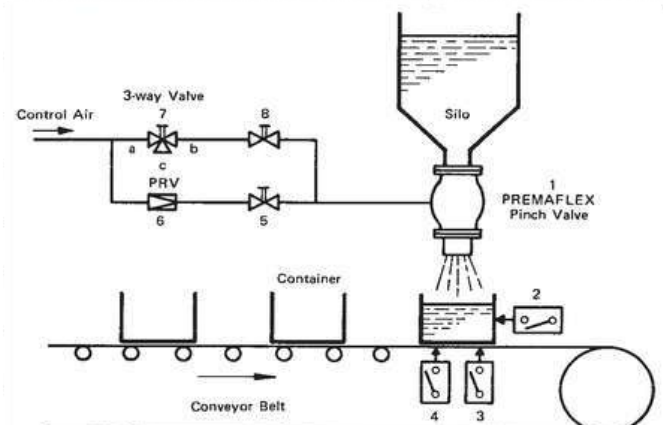
6. DRIBBLE CONTROL

งานซึ่งตวงปริมาณ อาจต้องการให้ Pinch Valve เปิดสุด-หริ-และปิด. เริ่มต้น (1) ปิด, (3) เปิด, (2) 3/2-way sol.v. สั่ง Pinch Valve ให้เปิดสุด เมื่อตวงได้ 90%, (1) เปิด, (3) ปิด, Pinch Valve จะหริลง ตามความดันที่ตั่งไว้ และเมื่อตวงได้ 99%, (1) ปิด, (3) เปิด, (2) ระบายลมทิ้ง เพื่อปิด Pinch Valve



7. AUTOMATIC FILLING STATION

ต่อจาก Dribble Control ให้เป็นการตวงอัตโนมัติ บนระบบสายพาน. เมื่อภาชนะถูกลำเลียงเข้ามาถึงตำแหน่ง Switch (2) จะสั่งเริ่มการตวง เมื่อตวงได้ 90%, Switch (3) จะสั่งให้หริ Pinch Valve เพื่อความแม่นยำในการตวง, และเมื่อตวงได้ปริมาณครบ Switch (4) จะสั่งจบ Batch, ปิดวาล์ว



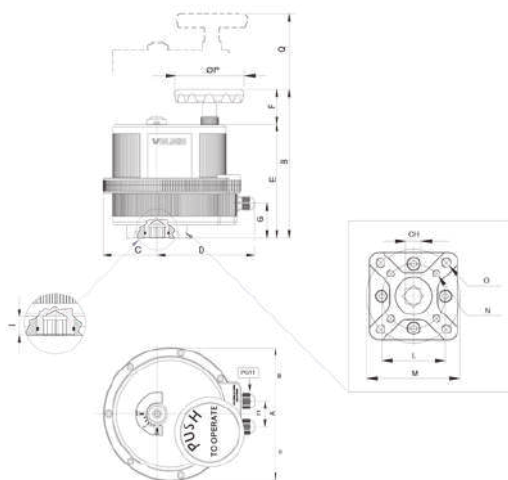


VALBIA

ELECTRIC ACTUATOR

[READ MORE](#)


MODELLO - MODEL	VB015	VB030	VB060	VB110	VB190	VB270	VB350
MASSIMA COPPIA DI LAVORO (Nm) MAX WORKING TORQUE (Nm)	15	30	60	110	190	270	350
TENSIONE NOMINALE (V) NOMINAL TENSION (V)	BASSA TENSIONE - LOW VOLTAGE						
	12V AC/DC	12V AC/DC	12V AC/DC	12V AC/DC	12V AC/DC	12V AC/DC	12V AC/DC
	24V AC/DC	24V AC/DC	24V AC/DC	24V AC/DC	24V AC/DC	24V AC/DC	24V AC/DC
MULTITENSIONE - MULTIVOLTAGE							
TEMPO DI MANOVRA (sec) - WORKING TIME (sec)	10	8	9	27	27	50	50
LIMITATORE DI COPPIA - TORQUE LIMITER	STD	STD	STD	STD	STD	STD	STD
DUTY RATING	12VAC/24VAC 50%	12V AC/DC 50%	12V AC/DC 50%	12V AC/DC 50%	12V AC/DC 50%	12V AC/DC 50%	12V AC/DC 50%
	12VDC/24VDC 75%	24V AC/DC 75%	24V AC/DC 75%	24V AC/DC 75%	24V AC/DC 75%	24V AC/DC 75%	24V AC/DC 75%
	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC
PROTEZIONE - PROTECTION	IP65	IP67	IP67	IP67	IP67	IP67	IP67
ROTAZIONE - ROTATION	90°	90°	90°	90°	90°	90°	90°
ROTAZIONE A RICHIESTA - UPON REQUEST	180°	180° or 270°	180° or 270°	180° or 270°	180° or 270°	180° or 270°	180° or 270°
COMANDO EMERGENZA MAN. - MANUAL OVERRIDE	STD	STD	STD	STD	STD	STD	STD
INDICATORE DI POSIZIONE - POSITION INDICATOR	STD	STD	STD	STD	STD	STD	STD
TEMPERATURA DI UTILIZZO - WORKING TEMPERATURE	-20°C + 55°C	-20°C + 55°C	-20°C + 55°C	-20°C + 55°C	-20°C + 55°C	-20°C + 55°C	-20°C + 55°C
RESISTENZA ANTICONDENSA - HEATER	STD	STD	STD	STD	STD	STD	STD
FINECORSO AGGIUNTIVI - ADDITIONAL FREE LIMIT SWITCHES	n°2 STD (type SPDT)	n°2 STD (type SPDT)	n°2 STD (type SPDT)	n°2 STD (type SPDT)	n°2 STD (type SPDT)	n°2 STD (type SPDT)	n°2 STD (type SPDT)
FORATURA ISO 5211 - DRILLING ISO 5211	*F03 - F05	*F03 - F05	F05 - F07	F07 - F10	F07 - F10	F07 - F10	F07 - F10
QUADRO (mm) - SQUARE (mm)	11	11	14	17	17	22	22
QUADRO A RICHIESTA (mm) - SQUARE UPON REQUEST (mm)	9	9-14	11-17	14-22	14-22	17	17
ALIMENT. MANOVRA DI SICUREZZA - SAFETY BLOCK	NON FORNIBILE NOT AVAILABLE	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST
		NON DISPONIBILE PER MOD. 12V - NOT AVAILABLE FOR MOD 12V					
POSIZIONATORE STD (4-20mA or 0-10 VDC) REVERSE (20-4mA or 10-0 VDC) POSITIONER STD (4-20mA or 0-10 VDC) REVERSE (20-4mA or 10-0 VDC)	NON FORNIBILE NOT AVAILABLE	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST
POTENZIOMETRO LINEARE (5K Ω IW) LINEAR POTENTIOMETER (5K Ω IW)	NON FORNIBILE NOT AVAILABLE	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST	A RICHIESTA UPON REQUEST
CONNESSIONI ELETTRICHE - ELECTRICAL CONNECTIONS	PG11	PG11	PG11	PG11	PG11	PG11	PG11
PESO (Kg) - WEIGHT (Kg)	1.40	2.30	3.30	4.90	4.90	6.00	6.00

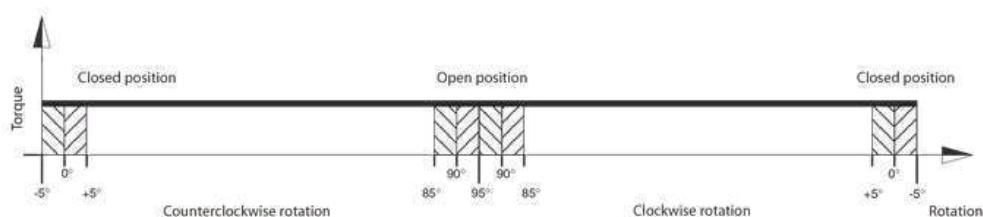
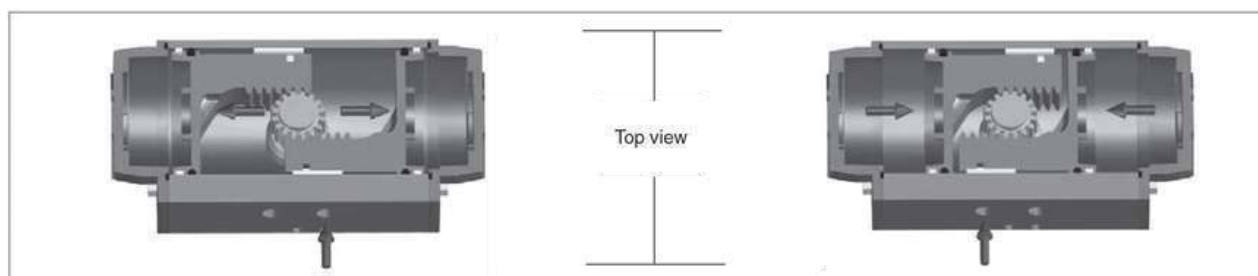


MOD.	FORATURA ISO 5211	CH	A	B	C	D	E	F	G	H	I	L	M	N	O	ØP	Q
VB015	F03-F05*	11	123	141,5	42,5	120,5	126	15,5	103	32	14	36	50	M5X12	M6X14	68	65
VB030	F03-F05*	11	157	188	60,5	129,5	146	42	33	36	12	36	50	M5X12	M6X14	65	100
VB060	F05-F07	14	185	215	67,5	146,5	173	42	51	36	16	50	70	M6X15	M8X17	65	110
VB110	F07-F10	17	211	232,1	84	153	178	54,1	54	40	19	70	102	M8X20	M10X20	110	115
VB190	F07-F10	17	211	232,1	84	153	178	54,1	54	40	19	70	102	M8x20	M10x20	110	115
VB270	F07-F10	22	222	233,5	77	170	182	51,5	54	40	24	70	102	M8x20	M10x20	110	115
VB350	F07-F10	22	222	233,5	77	170	182	51,5	54	40	24	70	102	M8x20	M10x20	110	115

PNEUMATIC ACTUATOR

DOUBLE ACTING ACTUATOR

READ MORE



With reference to the above diagram it can be noted that the torque of a double acting actuator remains constant through-out the complete action. The user can decide on which model to choose according to his/her own specific requirements, using the following guidelines:

1. Define the maximum torque of the valve to automate.
2. To obtain a safety factor increase the torque value chosen by 25-50% (subject to the type of valve and working conditions).
3. Once the torque value suggested is obtained consult the torque chart and in relation to the corresponding air pressure find a torque value exact to or exceeding the one obtained.
4. Once the torque value is determined move horizontally to the column "model" to find the actuator model required.

TYPE	AIR SUPPLY PRESSURE (bar)							
	2,5	3	4	5	5,5	6	7	8
	TORQUE OUTPUT DOUBLE ACTING ACTUATORS (Nm)							
DA 32	3,5	4,2	6	7,5	8	9	10	11,5
DA 52	9	11	14,5	18,5	20	22	26	30
DA 63	15,5	19	26	33	36	39,5	46,5	53,5
DA 75	29	35	47,5	60	66	72	84,5	97
DA 85	41,5	50,5	68,5	87	96	105	123	141
DA 100	66	80	108	136	150	164,5	193	221
DA 115	109	132	179	226	249	272	319	366
DA 125	143,5	174	235	297	327	358	419	481
DA 140	205	246	328	410	451	493	575	657
DA 160	300	360	480	600	660	720	840	960
DA 200	562	675	900	1125	1237	1350	1575	1800
DA 270	1304	1565	2086	2608	2869	3130	3651	4173



DOUBLE ACTING ACTUATOR



** SOLO QUADRO 45° - ONLY SQUARE CONNECTION AT 45°

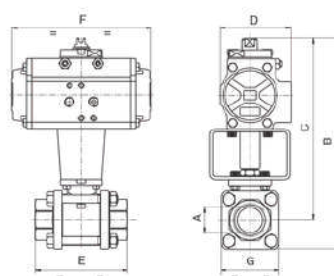


Pneumatic Actuator: Single Acting, Double Acting
Ball Valve 2-pcs, 3-pcs

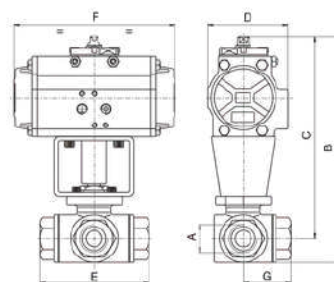
Ball Valve L-port, T-port

Butterfly Valve

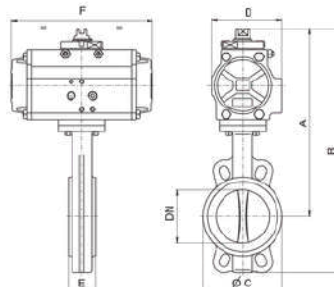
Motorized Actuator, option Positioner 4-20mA



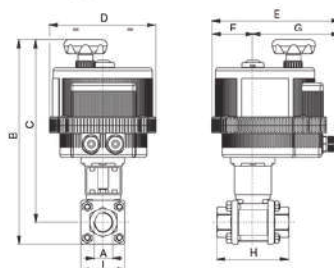
PN	64	64	64	40	40	25	25	25	16	16	16
DN	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	152	152	163	211	220	229	282	309	394	430	461
B	136	136	144	187	191	196	244	264	327	350	366
C	71	71	71	81	81	81	106	123	137	148	148
D	57	57	65	76	92	107	116	136	154	180	217
E	140	140	140	162	162	162	238	272	328	366	366
F	33	33	38	47	58	67	76	90	134	161	190
G	SR 52	SR 52	SR 52	SR 63	SR 63	SR 63	SR 85	SR 100	SR 115	SR 125	SR 125
SR	DA 32	DA 32	DA 32	DA 52	DA 52	DA 52	DA 63	DA 75	DA 85	DA 85	DA 100
DA											



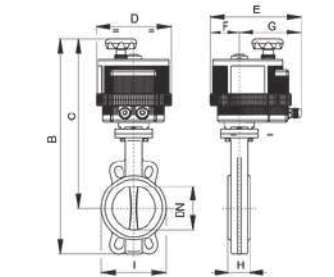
PN	64	64	64	64	64	64	64	64
DN	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	201	201	201	237	258	274	294	313
B	183	183	183	219	232	240	256	265
C	81	81	81	95	106	106	123	123
D	79	79	79	86	108	124	134	164
E	162	162	162	207	238	238	272	272
F	39	39	39	43	54	62	67	81
G	SR 63	SR 63	SR 63	SR 75	SR 85	SR 85	SR 100	SR 100
SR	DA 52	DA 52	DA 52	DA 63	DA 63	DA 63	DA 85	DA 85
DA								



PN	32	40	50	65	80	100	125	150	200	250	300
DN	16	16	16	16	16	16	16	16	16	16	16
A	252	252	252	264	292	310	338	348	454	481	534
B	310	310	315	336	386	418	458	484	619	683	764
C	75	82	96	109	126	152	182	207	273	320	378
D	81	81	81	81	106	106	123	123	164	187	187
E	33	33	43	46	46	52	56	56	60	68	78
F	162	162	162	162	238	238	272	272	428	522	522
G	SR 63	SR 63	SR 63	SR 63	SR 85	SR 85	SR 100	SR 100	SR 140	SR 160	SR 160
SR	DA 52	DA 52	DA 52	DA 52	DA 63	DA 75	DA 75	DA 85	DA 100	DA 115	DA 125
DA											



PN	64	64	64	40	40	25	25	25	16	16	16
DN	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	205	205	215	252	308	317	368	382	434	459	510
B	188	188	196	229	279	283	330	337	367	378	415
C	123	123	123	123	157	157	185	185	211	211	211
D	164	164	164	164	191	191	215	215	237	237	237
E	43	43	43	43	61	61	68	68	84	84	84
F	121	121	121	121	130	130	147	147	153	153	153
G	57	57	65	76	92	107	116	136	154	180	217
H	33	33	38	47	58	67	76	90	134	161	190
I	SR 015	SR 015	SR 015	SR 015	SR 030	SR 030	SR 060	SR 060	SR 110	SR 110	SR 190
ACT.	VB 015	VB 015	VB 015	VB 015	VB 030	VB 030	VB 060	VB 060	VB 110	VB 110	VB 190
RI	3021	3021	3790	3781	3030	3030	3031	3031	3003	3003	3004



PN	32	40	50	65	80	100	125	150	200	250	300
DN	16	16	16	16	16	16	16	16	16	16	16
A	351	351	402	423	473	504	548	574	657	708	875
B	293	293	339	351	379	396	428	438	492	507	625
C	123	123	157	157	185	185	211	211	222	222	222
D	164	164	191	191	215	215	237	237	247	247	247
E	43	43	61	61	68	68	84	84	77	77	77
F	121	121	130	130	147	147	153	153	170	170	170
G	33	33	43	46	46	52	56	56	60	68	78
H	75	82	96	109	126	152	182	207	273	320	378
I	SR 015	SR 015	SR 030	SR 030	SR 060	SR 060	SR 110	SR 190	SR 270	SR 270 *	SR 350
ACT.	VB 015	VB 015	VB 030	VB 030	VB 060	VB 060	VB 110	VB 190	VB 270	VB 270 *	VB 350
RI	3836	3836	3836	3836	3883	3884	3840	3847	3842	3842	4047

SR/DA Actuator



Positioner



0° - 180° Actuator



Limit Switch Box



Nickel Plated Actuator



Namur Valve



Stainless Steel Actuator



Square & Sleeve



P.T.F.E Coated Actuator



KNIFE GATE & AIR DAMPERS

KNIFE GATE VALVES, BUTTERFLY VALVES AND REGULATION DAMPERS

KNIFE GATE VALVES

Pneumatic, Manual, PN16, >100°C

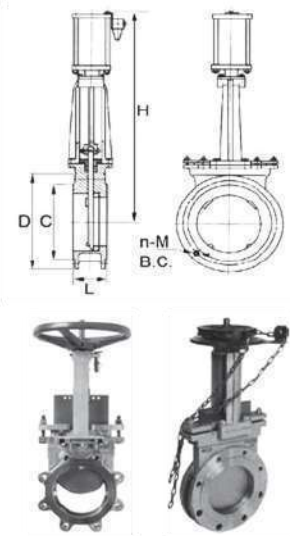
Seal: Rubber, PTFE, SSt, Hard Alloy

เยื่อกระดาษ น้ำเสีย โคลน ซีเมนต์ แร่ ฯลฯ



DN	50	65	80	100	125	150	200	250	300	350
D	160	180	195	215	245	280	335	405	460	520
BC	125	145	160	180	210	240	295	355	410	470
n	4	4	8	8	8	8	12	12	12	16
M	M16	M16	M16	M16	M16	M20	M20	M22	M22	M22
C	100	120	135	155	185	210	265	320	375	435
L	50	50	50	50	50	70	70	70	80	90
H	490	520	580	660	770	880	990	1130	1300	1450

DN	400	450	500	600	700	800	900	1000	1200
D	580	640	705	840	910	1020	1120	1255	1485
BC	525	585	650	770	840	950	1050	1170	1390
n	16	20	20	20	24	24	28	28	32
M	M27	M27	M30	M36	M36	M36	M36	M42	M48
C	485	545	608	718	788	898	998	1110	1325
L	100	120	130	130	160	160	160	160	200
H	1680	1850	2055	2400	2760	3155	3555	3900	4400



BUTTERFLY VALVES

SR Spring Return, Pneumatic Actuator

DA Double Acting, Pneumatic Actuator

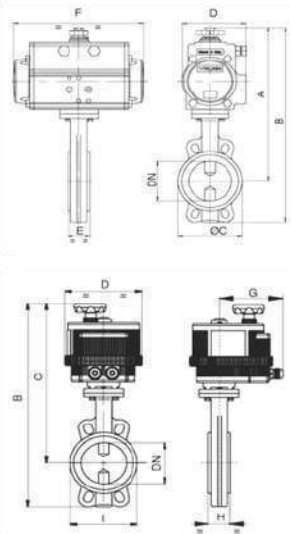
VB Electric Actuator, or with Positioner



PN16, >100°C

DN	32	40	50	65	80	100	125	150	200	250	300
A	252	252	252	264	292	310	338	348	454	481	534
B	310	310	315	336	386	418	458	484	619	683	784
C	75	82	96	109	126	152	182	207	273	320	378
D	81	81	81	81	106	106	123	123	164	187	187
F	162	162	162	162	238	238	272	272	428	522	522
SR	063	063	063	063	085	085	100	100	140	160	160
DA	052	052	052	052	063	075	075	085	100	115	125

DN	32	40	50	65	80	100	125	150	200	250	300
B	351	351	402	423	473	504	548	574	657	708	875
C	293	293	339	351	379	396	428	438	492	507	625
D	123	123	157	157	185	185	211	211	222	222	222
G	121	121	130	130	147	147	153	153	170	170	170
H	33	33	43	46	46	52	56	56	60	68	78
I	75	82	96	109	126	152	182	207	273	320	378
VB	015	015	030	030	060	060	110	190	270	270	350



AIR VOLUME DAMPERS



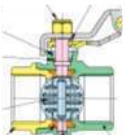
Single Blade, Round Regulation Dampers

- แดมเปอร์ ควบคุมปริมาณลมผ่าน จากท่อกลม, แบบใบเดียว, Balance Type
- แบบมือโยก Manual, แบบใช้ลมขับ Pneumatic, แบบใช้หัวขับไฟฟ้า Motorized Actuator
- ควบคุมแบบ เปิด-ปิด Shut-off, และแบบ แรง-หรือ Regulate, โดยใช้ Positioner Function
- เริ่มจาก DN80 ขึ้นไป, ออกแบบได้ตามต้องการ Custom Design

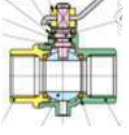
Multiple Blade, Square Regulation Dampers

- แดมเปอร์ ควบคุมปริมาณลมผ่าน จากท่อสี่เหลี่ยม, แบบหลายใบ, แต่ละใบกว้าง 100 mm
- แบบมือโยก Manual, แบบใช้ลมขับ Pneumatic, แบบใช้หัวขับไฟฟ้า Motorized Actuator
- ควบคุมแบบ เปิด-ปิด Shut-off, และแบบ แรง-หรือ Regulate, โดยใช้ Positioner Function
- เริ่มจาก 200x200 mm ขึ้นไป, ออกแบบได้ตามต้องการ Custom Design

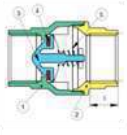
RUBINETTERIE BRESCIANE

RB Rubinetterie Bresciane		Model	DN mm	Kv m3/h	PN bar	TN °C	Port	Body	Seal	Code	Box ea
		EUROFLY	15	8.5	16	130	G1/2	MS/PEI	EPDM	60000004	20
		Butterfly Valve	20	17.0	16	130	G3/4	MS/PEI	EPDM	60000005	10
		with Throttling	25	27.0	16	130	G1"	MS/PEI	EPDM	60000006	10
			32	50.0	16	130	G1.1/4	MS/PEI	EPDM	60000007	6
		*Dirty Media	40	82.5	16	130	G1.1/2	MS/PEI	EPDM	60000008	4
		*Flow Regulating	50	###	16	130	G2"	MS/PEI	EPDM	60000010	2

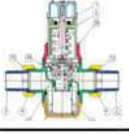
- Brass butterfly valve full bore
- F/F threaded with throttling

		FULL-SFER								
		Ball Valve								
		with Drain M5								
		8	5.4	10	100	G1/4	MS	PTFE	5110020000	20
		10	6.0	10	100	G3/8	MS	PTFE	5110030000	20
		15	16.3	10	100	G1/2	MS	PTFE	5110040000	20
		20	29.5	10	100	G3/4	MS	PTFE	5110050000	10
		25	43.0	10	100	G1"	MS	PTFE	5110060000	10

- Full bore ball valve
- F/F threaded
- with drain hole and steel handle

		EUROBLOCK		10	3.7	40	100	G3/8	MS/PEI	NBR	10000003	20	
		Check Valve		15	5.8	40	100	G1/2	MS/PEI	NBR	10000004	15	
				20	8.6	40	100	G3/4	MS/PEI	NBR	10000005	10	
		*High FLOW		25	13.8	25	100	G1"	MS/PEI	NBR	10000006	10	
		*High Pressure		32	20.2	25	100	G1.1/4	MS/PEI	NBR	10000007	6	
				40	30.9	16	100	G1.1/2	MS/PEI	NBR	10000008	4	
				50	48.8	16	100	G2"	MS/PEI	NBR	10000010	2	

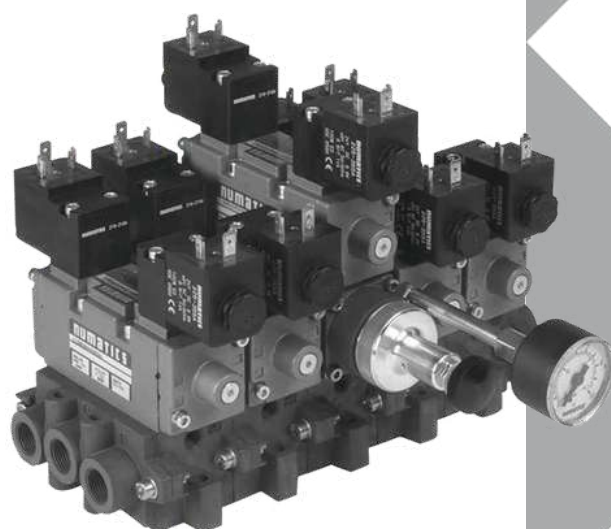
- Full bore check valve
- F/F threaded

		EURO 300000								
		PRV w/Union, Strainer								
		Handwheel & SCALE								
		Pout 1.5-6 bar								
		15		30	70	1/2"	MS/POM	NBR	30000004	1
		20		30	70	3/4"	MS/POM	NBR	30000005	1
		25		30	70	1"	MS/POM	NBR	30000006	1
		32		30	70	1.1/4"	MS/POM	NBR	30000007	1

- Pressure reducing and regulating valve
- with balanced seat
- outlet setting from 1,5 to 6 bar
- with upstream 500 micron flow filtering system
- connections with ring nut and union

		EURO 300030		10	30	70	1/2"	MS/POM	NBR	30003004	1
		PRV w/Union, Strainer		20	30	70	3/4"	MS/POM	NBR	30003005	1
		Pout 1.5-6 bar		25	30	70	1"	MS/POM	NBR	30003006	1
				32	30	70	1.1/4"	MS/POM	NBR	30003007	1
				40	30	70	1.1/2"	MS/POM	NBR	30003008	1
				50	30	70	2"	MS/POM	NBR	30003010	1
		Pressure Reducing V.									

- Pressure reducing and regulating valve
- with balanced seat
- outlet setting from 1,5 to 6 bar
- with upstream 500 micron flow filtering system
- connections with ring nut and union



numatics

SUB-BASE MOUNTED VALVES

TO ISO 5599/1

READ MORE



General Information

ISO 1, 2 and 3 valve series as well as ISO 1 and 2 compact series are manufactured according to ISO standard 5599/1, and incorporate the famous Numatics lapped spool and sleeve for ultimate service life.

Due to the great variety of configuration and drive possibilities, they adapt to each task.

Characteristics:

- Modular reality, thus flexible and wear-free.
- **Strong and light** due to **aluminium alloy housing**
- Equipped with the famous **Numatics lapped spool and sleeve assembly**:
 - Insensitive, self-cleaning spool made of stainless steel with "air bearing effect" by air entrained between spool and sleeve (1 µm clearance), typical service life of **more than 200 million cycles**.
 - Can operate with **different pressures at the same time** within one valve, **independent** of flow direction.
 - Available as **5-port., 2-pos. and 3-pos. valves**.
- **Exchange of valves without dismantling** valve manifold.
- **M12 connector**, also DESINA standard, available
- **Worldwide support** by Numatics subsidiaries and dealers in **almost all countries in the world**.

Common Technical Data:

- Direct solenoid, solenoid pilot or air pilot actuated
- -20 °C to +80 °C ambient temperature range (not for C12... & C23...valves with M12 connector to VDMA 24571)
- Max. 50 °C medium temperature
- 1 to 16 bar pilot pressure
- Vacuum to 21 bar operating pressure
- Suitable media see Operating Instructions Compressed Air, page 844
- AC or DC
- Protection: IP 65 with plug-in and screwed connector
- 100 % solenoid rating
- Several types of manual overrides
- Materials:
 - Body Aluminium
 - Other parts Stainless steel, steel, aluminium alloy or plastic
- Static Seals NBR (Poppet valves H-NBR)
- Finish Anodized or varnished

Valve Symbols

BA4 ZA4	single solenoid pilot actuated 5-port, 2-pos. valve with spring return and manual override	PA4	single air pilot actuated 5-port, 2-pos. valve with spring return without manual override
BW4 ZW4	single solenoid pilot actuated 5-port, 2-pos. valve with air return and indirectly acting manual override		
BB4 ZZ4	double solenoid pilot actuated 5-port, 2-pos. valve with manual override	PP4	double air pilot actuated 5-port, 2-pos. valve without manual override
BB5 ZZ5	double solenoid pilot actuated 5-port, 3-pos. valve, spring centred (1 blocked, 4 & 2 exhausted to 3 & 5) and manual override	PP5	double air pilot actuated 5-port, 3-pos. valve, spring centred (1 blocked, 4 & 2 exhausted to 3 & 5) without manual override
BB6 ZZ6	double solenoid pilot actuated 5-port, 3-pos. valve, spring centred (all ports blocked) and manual override	PP6	double air pilot actuated 5-port, 3-pos. valve, spring return (all ports blocked) without manual override
BB7 ZZ7	double solenoid pilot actuated 5-port, 3-pos. valve, spring centred (2 & 4 pressurised, from 3 & 5 blocked) and manual override	PP7	double air pilot actuated 5-port, 3-pos. valve, spring centred (2 & 4 pressurised, from 3 & 5 blocked) without manual override
SA4	single direct solenoid actuated 5-port, 2-pos. valve with spring return and manual override	JA4	single air pilot actuated 5-port, 2-pos. valve with spring return and manual override
SS4	double direct solenoid actuated 5-port, 2-pos. valve with manual override	JJ4	double air pilot actuated 5-port, 2-pos. valve with manual override
SS5	double direct solenoid actuated 5-port, 3-pos. valve, spring centred (1 blocked, 4 & 2 exhausted to 3 & 5) and manual override	JJ5	double air pilot actuated 5-port, 3-pos. valve, spring centred (1 blocked, 4 & 2 exhausted to 3 & 5) and manual override
SS6	double direct solenoid actuated 5-port, 3-pos. valve, spring centred (all ports blocked) and manual override	JJ6	double air pilot actuated 5-port, 3-pos. valve, spring centred (all ports blocked) and manual override
SS7	double direct solenoid actuated 5-port, 3-pos. valve, spring centred (2 & 4 pressurised, from 3 & 5 blocked) and manual override	JJ7	double air pilot actuated 5-port, 3-pos. valve, spring centred (2 & 4 pressurised, from 3 & 5 blocked) and manual override

SUB-BASE MOUNTED VALVES

TO ISO 5599/1

READ MORE



ISO 1; ISO 2; ISO 3 Series • Overview

How to Order: (example)

I23

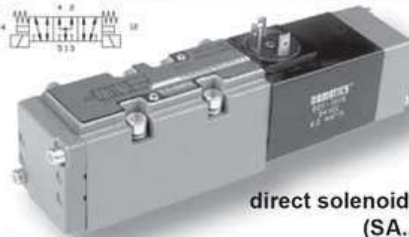
	Valve Series	Port Size	Flow Capacity
I12 =	ISO 1	1/4	1200 NI/min C _v 1.2
I23 =	ISO 2	3/8	1700 NI/min C _v 1.7
I34 =	ISO 3	1/2	4400 NI/min C _v 4.4



solenoid pilot actuated valves
(BA.. BW.. BB..)

BA4

Valve Function	Valve Function
BA4 =	PA4 =
BW4 =	PP4 =
BB4 =	PP5 =
BB5 =	PP6 =
BB6 =	PP7 =
BB7 =	JA4 =
SA4 =	JJ4 =
SS4 =	JJ5 =
SS5 =	JJ6 =
SS6 =	JJ7 =
SS7 =	



direct solenoid actuated valves
(SA.. SS..)

Technical Data

Solenoid Pilot Actuated ISO 1; ISO 2; ISO 3 Series				
Power input:	Low-wattage DC 2.7 W; AC 5.2/3.9 VA Standard DC 6.8 W; AC 10.9/7.6 VA			
Pilot pressure range:	Low-wattage 1 to 10 bar Standard 1 to 16 bar			
Operating pressure:	Vacuum to 21 bar (opt. 40 bar)			
Voltage:	24 VDC ± 10%		24 V,-110V,-230 V, 50-60 Hz ± 10%	
Response Time [ms]				
Single actuated (5-port., 2 pos.)	Energise 20	De-energise 32	Energise 15	De-energise 36
Double actuated (5-port., 2 pos.)	Energise 20	—	Energise 15	—
Double actuated (5-port., 3 pos.)	Energise 20	De-energise 32	Energise 15	De-energise 36
Direct Solenoid Actuated				
	ISO 1; ISO 2 Series		ISO 3 Series	
Power input:	— Standard DC 6.0 W; AC 50.0/9.6 VA		5-port., 2-pos. valve AC 300/34 VA 5-port., 3-pos. valve AC 300/34 VA	
Pilot pressure range:	Low-wattage — Standard 1 to 16 bar		— 1 to 16 bar	
Operating pressure:	Vacuum to 21 bar (opt. 40 bar)		Vacuum to 21 bar (opt. 40 bar)	
Voltage:	24 VDC ± 10%		24 V,-110V,-230 V, 50-60 Hz ± 10%	
Response Time [ms]				
Single actuated (5-port., 2 pos.)	Energise 32	De-energise 12	Energise 15	De-energise 30
Double actuated (5-port., 2 pos.)	Energise 32	—	Energise 18	—
Double actuated (5-port., 3 pos.)	Energise 32	De-energise 12	Energise 18	De-energise 30

SUB-BASE MOUNTED VALVES

TO ISO 5599/1

READ MORE



ISO 1; ISO 2; ISO 3 Series • Overview

00 Bases 00 = Without base 1A = Mounted on manifold block form C 11 = Mounted on connector plate form E, incl. manifold block "1A" 15 = Mounted on manifold block with side and bottom ports 25 = Mounted on sandwich speed control and manifold block "15" 41 = Mounted on individual base form A 56 = Mounted on individual base form B 58 = Mounted on sandwich speed control and individual base "56" * On request: other bases  air pilot actuated valves w/o manual override (PA.. PP..)	4 Base Ports 0 = Without base - G = G-thread - N = NPTF-thread 0 Valve Actuation 0 = Air pilot actuated 2 = AC 4* = DC 7 = M12 DESINA standard connector (DC only) Type 30 mm - C = Solenoid with UL- and CSA-approval - T = M12 connector with LED (DC only) type 30 mm * not for SA / SS valves size 3  air pilot actuated valves with manual override (JA.. JJ..)	000 Solenoid Type 00 = Air pilot actuated 61 = 24 VDC 40 = 230 VAC/50-60 Hz 30 = 110 VAC/50-60 Hz 20 = 24 VAC/50-60 Hz On request: Solenoid to ATEX, see page 612 Options 000 = Manual override in the cover acting directly on the spool, BA/BB-valves and SA/SS-valves 000 = Indirectly acting manual override, BW-valves without manual override 000 = PA/PP-valves 11M = Without manual override, BA/BB-valves 17P = Indirectly acting non-locking manual override, BA/BB-valves 18W = Indirectly acting manual override push/locking, BA/BB-valves 26Y = Indirectly acting non-locking manual override and low-wattage, BA/BB-valves 44Q = Indirectly acting manual override push/locking and low-wattage, BA/BB-valves 26Z = Without manual override and low-wattage, BA/BB-valves - J08 = For high temperatures up to +150°C (*Viton® = FPM) - A39 = Operating pressure Vacuum to 40 bar, without man. override, ext. supply 12+14, 1 to 10 bar Pilot pressure Range *For further information see page 9 On request: other options
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Note: **High temperature valves**

Sizes ISO 1, ISO 2 and ISO 3 available for high temperatures

Maximum temperature:

Valve with connector socket 230-592 (grey) : **+125°C**

Valve with connector socket 230-593 (black) : **+125°C**

Air pilot actuated valve : **+150°C**

Option J08 in 11th to 13th digit of order code

Order example: **I23BA4004000061**

This refers to a ISO 2 series single solenoid pilot actuated 5-ported, 2-pos. valve with spring return.

The manual override acting directly on the spool is standard.

Voltage of the solenoid is 24 VDC.

The valve is supplied without base.

SUB-BASE MOUNTED VALVES

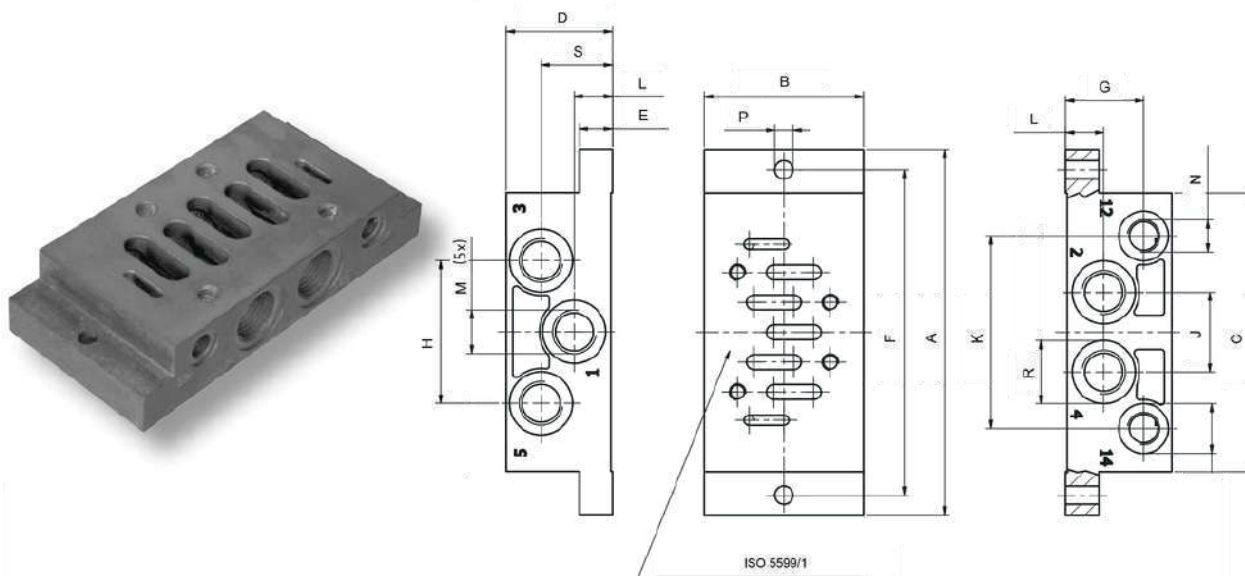
TO ISO 5599/1

READ MORE



Accessories

Individual Base Form A to VDMA 24345, with Side Ports

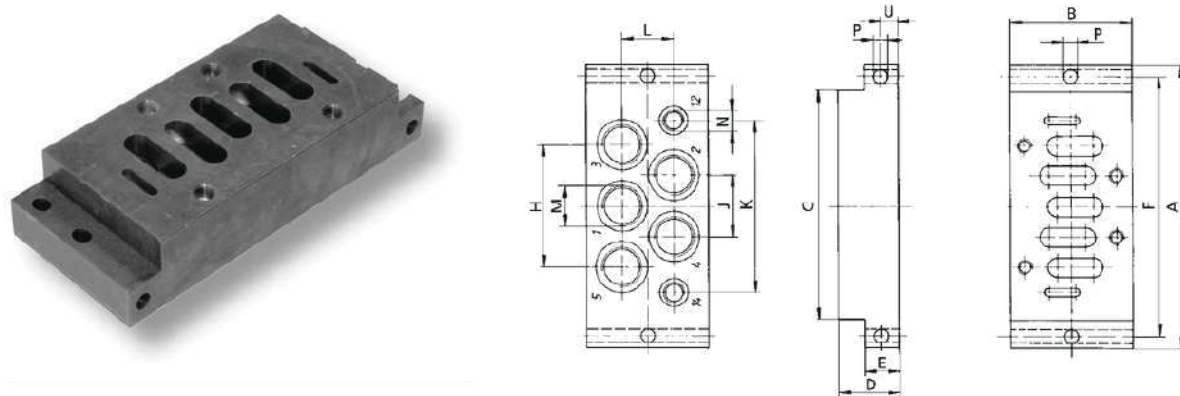


Dimensions [mm]

Series	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
ISO 1	110,0	48,0	84,0	32,0	10,0	98,0	22,0	48,0	25,0	64,0	11,0	G 1/4	G 1/8	5,5	15,0 / 0,3	19,00 (5X)
ISO 2	124,0	57,0	95,0	40,0	13,0	112,0	31,0	56,0	30,0	73,0	15,0	G 3/8	G 1/8	6,6	15,0 / 0,3	
ISO 3	149,0	64,0	119,0	32,0	18,0	136,0	22,0	68,0	32,0	90,0	16,0	G 1/2	G 1/8	6,6	15,0 / 0,3	
Series	S	Weight approx. [kg]	Order Code													
ISO 1	21,50	0,200	103-544													
ISO 2		0,300	103-549													
ISO 3		0,400	103-545													

On request: individual bases with NPTF-thread

Individual Base Form B to VDMA 24345, with Bottom Ports



Dimensions [mm]

Series	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Weight approx. [kg]	Order Code
ISO 1	110,0	46,0	84,0	30,0	10,0	98,0	5,0	46,0	23,0	62,0	23,0	G 1/4	G 1/8	5,5	0,190	103-542
ISO 2	124,0	56,0	95,0	35,0	13,0	112,0	6,5	56,0	26,0	74,0	27,0	G 3/8	G 1/8	6,6	0,320	103-557
ISO 3	149,0	64,0	119,0	32,0	18,0	136,0	9,0	64,0	32,0	90,0	27,0	G 1/2	G 1/8	6,6	0,410	103-543

On request: individual bases with NPTF-thread

SUB-BASE MOUNTED VALVES

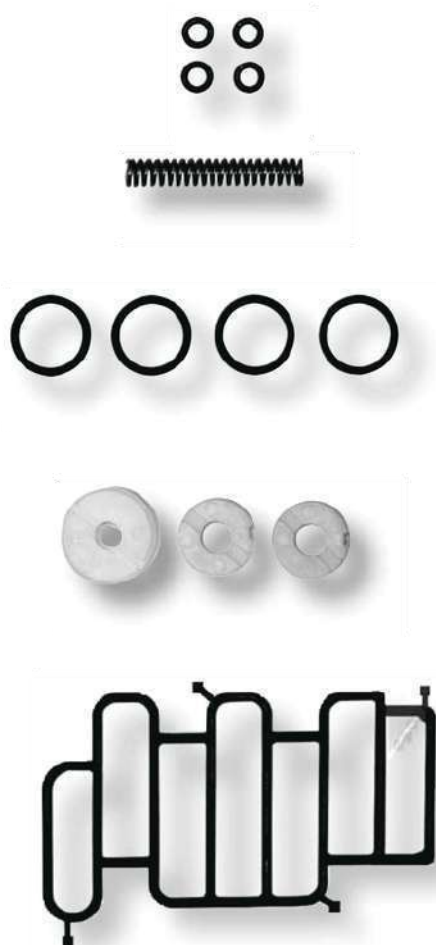
TO ISO 5599/1

READ MORE



Accessories

Spare Part Kits for Valves



ISO 1; ISO 2 and ISO 3 Series

Valve Type	Order Code		
	ISO 1	ISO 2	ISO 3
BA4.. / ZA4.. PA4.. / JA4..	I1B-K1	I2B-K1	I3B-K1
BB4.. / ZZ4.. PP4.. / JJ4..	I1B-K2	I2B-K2	I3B-K2
BB5 / 6 / 7.. / ZZ5 / 6 / 7.. PP5 / 6 / 7.. / JJ5 / 6 / 7..	I1B-K3	I2B-K3	I3B-K3
BW4.. / ZW4..	I1B-K4	I2B-K4	I3B-K4
SA4..	I1S-K1	I2S-K1	I3S-K1
SS4..	I1S-K2	I2S-K2	I3S-K2
SS5 / 6 / 7..	I1S-K3	I2S-K3	I3S-K3

incl. Gasket, O-Rings, Spring or Bumper

ISO 1; ISO 2 and ISO 3 Compact Series

Valve Type	Order Code		
	ISO 1	ISO 2	ISO 3
BA4.. / ZA4.. PA4..	C1B-K1	C2B-K1	C3B-K1
BB4.. / ZZ4.. / PP4..	C1B-K2	C2B-K2	C3B-K2
BB5 / 6 / 7.. / ZZ5 / 6 / 7.. PP5 / 6 / 7..	C1B-K3	C2B-K3	C3B-K3
BW4.. / ZW4..	C1B-K4		

incl. Gasket, O-Rings, Spring or Bumper

Poppet Valves Series ISO 3

Valve Type	Order Code
	Series ISO 3
G34B....	G3B-K1
G34P....	G3P-K1

incl. O-Rings, gaskets, spring

Slow-Start-Valve

Valve-Type	Order Code
P01794000....	40.7069

Spare Part Kits for Regulators



Series	Type	Order Code
ISO 1	I12RS... / I12RD...	229-640
ISO 2	I23RS... / I23RD...	229-640
ISO 3	I34RS... / I34RD...	< Nov. 2004 229-907
ISO 3	I34RS... / I34RD...	> Nov. 2004 239-2277
ISO 3	I34NS... / I34ND	239-2259

G3 Fieldbus I/O, Valve Manifold and Sandwich Regulator



L1/L2 Valve Manifold



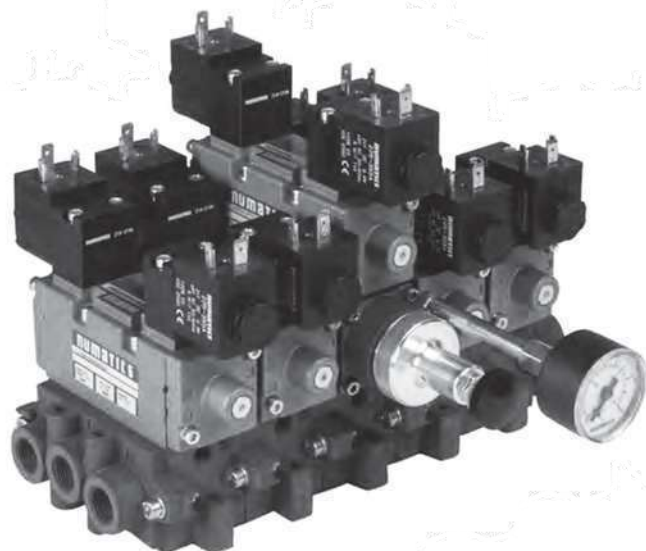
Metal Spool & Sleeve



ประกันการทำงาน
เกินกว่า 200 ล้านรอบ

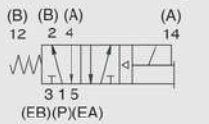
Patented Spool & Sleeve technology,
- wearfree and self-cleaning -
guaranteed for more than 200 million cycles.
This was a Numatics invention in 1952.
It cannot be beaten even today.

ISO 5599/1 Valve Manifold and Sandwich Regulator

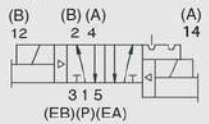




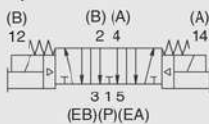
single solenoid pilot 2 position 4-way



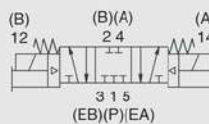
double solenoid pilot 2 position 4-way



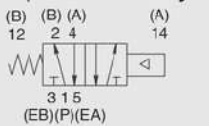
double solenoid pilot 3 position 4-way open center



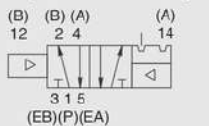
double solenoid pilot 3 position 4-way closed center



single air pilot 2 position 4-way



double air pilot 2 position 4-way



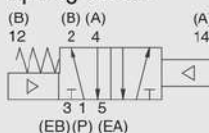
double air pilot 3 position 4-way open center



double air pilot 3-position 4-way closed center



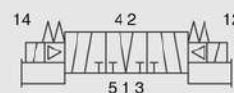
double air pilot 2 position 4-way spring offset



5 Ported, 2 and 3 position, 4-way, Spool & Sleeve
Cv: 1.0

- Solenoid pilot
- DIN plug-in solenoid indicator light
- Unlubricated or lubricated service
- In-line or manifold mounted

double solenoid pilot
3 Position 4-Way (5/3),
open to 4 (A) and
2 (B) in center



double air pilot
3 Position 4-Way (5/3),
open to 4 (A) and
2 (B) in center



Technical Data

VALVE DATA	ENGLISH		METRIC	
Cv	1/8 = 1.0	1/4 = 1.0	1/8 = 1.0	1/4 = 1.0
Flow Capacity	46 SCFM upstream pressure to atmosphere @ 80 PSIG		985 NI/m @ 6 bar upstream/5 bar downstream	
Main Valve Operating Pressure Range	28" HG. Vacuum to 150 PSIG		Vacuum to 10 bar	
Pilot Pressure Range: Internal and External	14.5 to 150 PSIG		1 to 10 bar	
Temperature Range: Solenoid Pilot (ambient)	-10°F to +115°F		-23°C to +46°C	



Operating Data

ALL SOLENOIDS ARE CONTINUOUS DUTY RATED		12 VDC	24 VDC	24 VAC 50-60 Hz	110 VAC 50-60 Hz	230 VAC 50-60 Hz
*Power (Watts)		2.5	2.5	2.5	2.5	2.5
Holding Current (Amps.)		0.21	0.1	0.146	0.032	0.015
Inrush Current (Amps.)		N/A	N/A	0.25	0.055	0.026
Energize in Seconds	2-Position, Single, Spring Return	0.050	0.050	0.045	0.045	0.045
	2-Position, Double, Detented	0.050	0.050	0.045	0.045	0.045
	3-Position, Spring Centered	0.050	0.050	0.045	0.045	0.045
De-Energize in Seconds	2-Position, Single, Spring Return	0.035	0.035	0.035	0.035	0.035
	2-Position, Double, Detented	N/A	N/A	N/A	N/A	N/A
	3-Position, Spring Centered	0.035	0.035	0.035	0.035	0.035

How to Order

Valves

YA1 BA 4 52 4 N 000 20

Valve Series & Port Size

YA1 = 1/8
YA2 = 1/4

Valve Type

BA = Single Solenoid Pilot, Spring Return W/Flush Locking Override
BB = Double Solenoid Pilot W/Flush Locking Override
PA = Single Air Pilot w/Spring Return
PP = Double Air Pilot

Function

4 = 2 Position, 4-Way
5 = 3 Position, 4-Way Open Center
6 = 3 Position, 4-Way Closed Center
7 = 3 Position 4-Way (5/3), Open to 4 (A) and 2 (B) in Center

Mounting

52 = Line Mounted (Manifold Mount With Adaptor)

Voltage

20 = 24 / 50-60 VAC
30 = 110 / 50-60 VAC
40 = 230 / 50-60 VAC
60 = 12 VDC
61 = 24 VDC
66 = 110 VDC
00 = N/A (Used With Air Pilot)

Options

000 = Standard (Class F Coil)
*83C = 22mm Class H Coil
12A = Viton Seals on Sleeve Assembly
14A = External Pilot Supply
18D = Side Ports (Namur Plate Needed When 18D Option Is Used For Namur Interface)

Port Type

N = NPTF
G = G tap

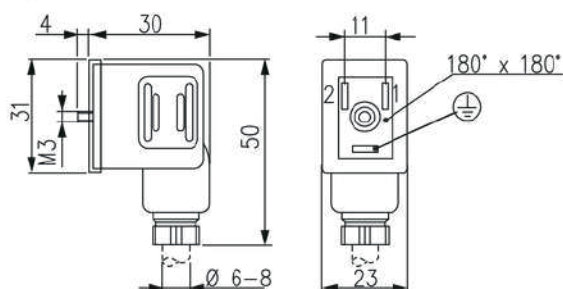
Wiring Option

4 = DIN Plug-In DC Solenoid
2 = DIN Plug-In AC Solenoid or Air Pilot

NOTE: Plug connector is included with DIN solenoid

*: Consult ASCO SongJiang factory

Plug Connector Assemblies



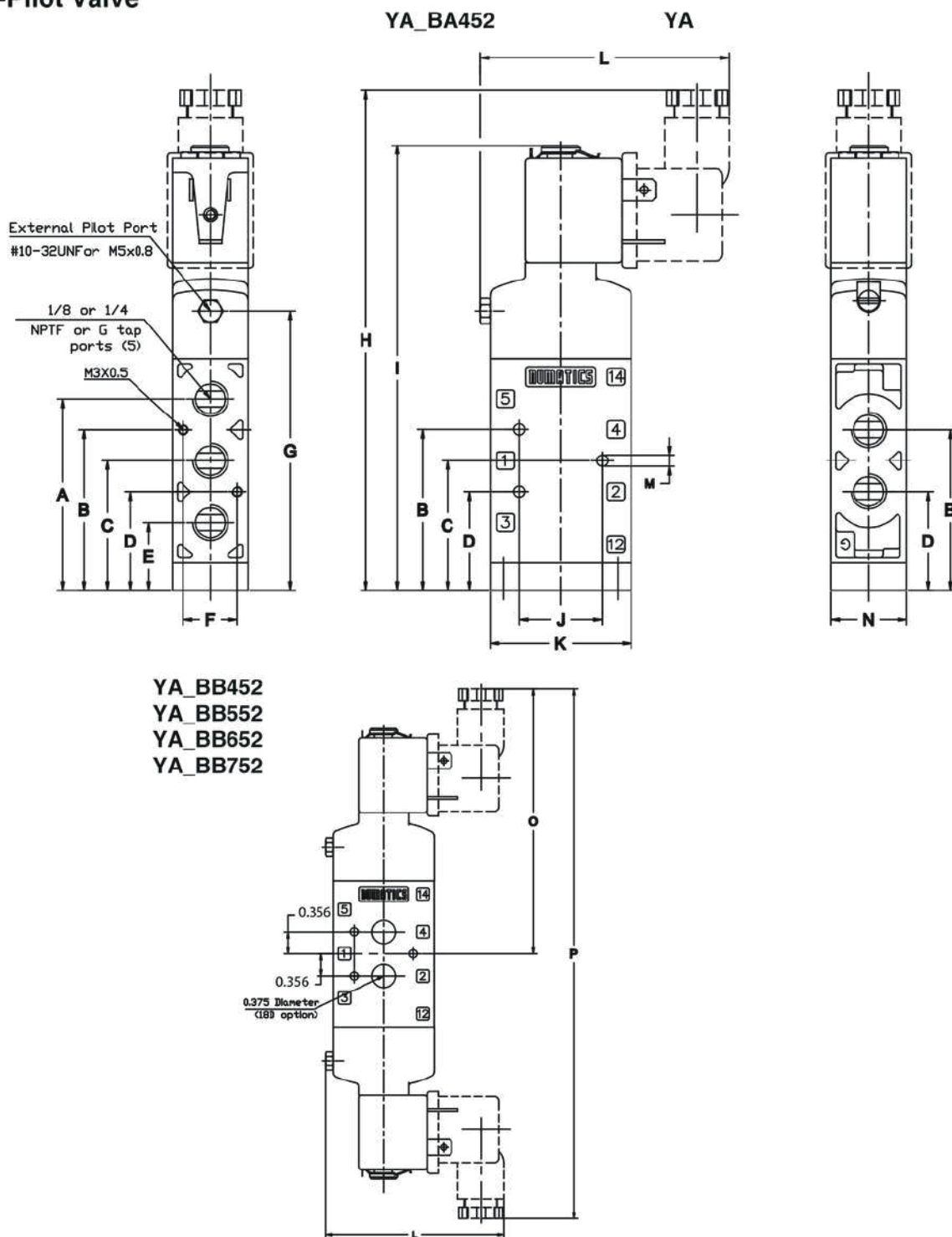
PLUG CONNECTOR DESCRIPTION	PART NO.
Black Plug Assembly	88122404
Plug Assembly with 24V Led	88122405
Plug Assembly with 115V Led	88122407
Plug Assembly with 230V Led	88122410

YA SERIES

READ MORE



Solenoid-Pilot Valve



Dimensions

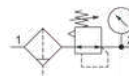
top dimensions = inches and bottom dimensions (in parenthesis) = millimeters

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2.21 (56.1)	1.85 (47.0)	1.50 (38.1)	1.14 (29.0)	0.78 (19.8)	0.62 (15.7)	2.90 (73.6)	5.76 (146.3)	5.12 (130.0)	0.96 (24.4)	1.62 (41.1)	2.87 (72.9)	0.13 (3.3)	0.88 (22.4)	4.27 (108.4)	8.53 (209.0)



PARTICULATE FILTER/REGULATOR

- High flow with a wide range of adjustable output pressure ranges
- Optional low profile gauge, round gauge, digital gauge or digital pressure switch
- Optional extended temperature range of -40 °F to 176 °F (-40 °C to 80 °C)
- Sintered polyethylene elements, with centrifugal separator, include 5, 25 and 40 Microns
- Threaded ports allow for individual or modular mounting
- Innovative two position plastic drain with manual and semi-automatic functions. Additional drains include an automatic style (brass) and manual (stainless steel)
- Polycarbonate and Aluminum bowls with a selection of sight gauge materials that meet industry and application requirements
- Key lockable and tamper resistant models
- Air purity class according to ISO 8573-1: 2010



Performance Data

Performance Data						
Series			651	652	653	
Port Sizes			1/8, 1/4	1/4, 3/8, 1/2	1/2, 3/4, 1	
Thread Type			NPTF, G & Rc			
Nominal Flow - Per ISO 6358 P1 = 145 PSI (10 bar) Setpoint P2 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar)		Micron Rating	SCFM (L/min ANR)			
	1/8	5μ	25.1 (710)	-	-	
		25μ	25.8 (730)	-	-	
		40μ	28.5 (800)	-	-	
	1/4	5μ	79.1 (2240)	133.0 (3800)	-	
		25μ	83.4 (2360)	144.2 (4120)	-	
		40μ	100.1 (2840)	150.5 (4300)	-	
	3/8	5μ	-	155.8 (4450)	-	
		25μ	-	189.7 (5420)	-	
		40μ	-	196.0 (5590)	-	
	1/2	5μ	-	157.2 (4490)	275.4 (7800)	
		25μ	-	192.5 (5500)	278.9 (7900)	
		40μ	-	203.0 (5800)	307.2 (8700)	
	3/4	5μ	-	-	314.3 (8900)	
		25μ	-	-	317.1 (9000)	
		40μ	-	-	353.1 (10000)	
	1	5μ	-	-	317.8 (9000)	
		25μ	-	-	353.1 (10000)	
		40μ	-	-	370.8 (10500)	
	Maximum Inlet Pressure PSIG (bar) P1		Polycarbonate Bowl	232 (16)		174 (12)
			Aluminum Bowl	232 (16)		290 (20)
	Adjustable Pressure Ranges PSIG (bar) P2			3 to 45 (0.2 to 3)		
				3 to 60 (0.2 to 4)		
7 to 125 (0.5 to 8)						
7 to 145 (0.5 to 10)						
Ambient Temperature Range °F (°C)			-4 to 122 (-20 to 50)			
Fluid Temperature Range °F (°C)			-4 to 122 (-20 to 50)			
Fluid			Air or Inert Gas			
Weight lbs. (kg)		w/Polycarbonate Bowl	0.62 (0.304)	1.20 (0.546)	2.90 (1.315)	
		w/Aluminum Bowl	0.99 (0.449)	1.52 (0.688)	3.45 (1.565)	

Materials in Contact with Fluid

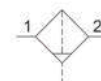
Body	Aluminum
Seals	NBR/FKM
Springs	Stainless Steel
Filter Element	Sintered Polyethylene
Bowl	Polycarbonate or Aluminum
Poppet	Brass
Stem	PA

Air Purity Class - ISO 8573-1: 2010

5μ	(5:8:4)
25μ	(6:8:4)
40μ	(7:8:4)



PARTICULATE FILTER



- Large selection of filtering capacities to remove particulate and water droplets from compressed air or inert gas
- Sintered polyethylene elements, with centrifugal separator, include 5, 25 and 40 Microns
- Optional extended temperature range of -40 °F to 176 °F (-40 °C to 80 °C)
- Innovative two position plastic drain with manual and semi-automatic functions. Additional drains include an automatic style (brass) and manual (stainless steel)
- Polycarbonate and Aluminum bowls with a selection of sight gauge materials that meet industry and application requirements
- Threaded ports allow for individual or modular mounting
- Air purity class according to ISO 8573-1: 2010



Performance Data						
Series			651	652	653	
Port Sizes			1/8, 1/4	1/4, 3/8, 1/2	1/2, 3/4, 1	
Thread Type			NPTF, G & Rc			
Nominal Flow - Per ISO 6358 P1 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar)		Micron Rating	SCFM (L/min ANR)			
	1/8	5μ	31.2 (885)	-	-	
		25μ	32.5 (920)	-	-	
		40μ	34.6 (980)	-	-	
	1/4	5μ	44.1 (1250)	70.8 (2020)	-	
		25μ	49.6 (1410)	89.3 (2250)	-	
		40μ	54.7 (1550)	92.4 (2640)	-	
	3/8	5μ	-	76.5 (2190)	-	
		25μ	-	118.7 (3390)	-	
		40μ	-	135.5 (3870)	-	
	1/2	5μ	-	80.2 (2290)	136.0 (3850)	
		25μ	-	129.5 (3700)	162.4 (4600)	
		40μ	-	153.0 (4370)	196.0 (5550)	
	3/4	5μ	-	-	141.3 (4000)	
		25μ	-	-	166.0 (4700)	
		40μ	-	-	229.5 (6500)	
	1	5μ	-	-	150.1 (4250)	
		25μ	-	-	176.6 (5000)	
		40μ	-	-	245.4 (6950)	
	Maximum Inlet Pressure PSIG (bar)		Polycarbonate Bowl	232 (16)		174 (12)
			Aluminum Bowl	232 (16)		290 (20)
Ambient Temperature Range °F (°C)			-4 to 122 (-20 to 50)			
Fluid Temperature Range °F (°C)			-4 to 122 (-20 to 50)			
Fluid			Air or Inert Gas			
Weight lbs. (kg)		w/Polycarbonate Bowl	0.52 (0.238)	0.94 (0.426)	2.06 (0.934)	
		w/Aluminum Bowl	0.84 (0.382)	1.22 (0.553)	2.51 (1.140)	

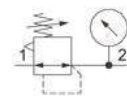
Materials in Contact with Fluid	
Body	Aluminum
Seals	NBR/FKM
Filter Element	Sintered Polyethylene
Bowl	Polycarbonate or Aluminum

Air Purity Class - ISO 8573-1:2010	
5μ	(5:8:4)
25μ	(6:8:4)
40μ	(7:8:4)



REGULATOR

- High flow with a wide range of adjustable output pressure ranges
- Available with relieving, non-relieving and internal flow check options
- Optional low profile gauge, round gauge, digital gauge or digital pressure switch
- Optional extended temperature range of -40 °F to 176 °F (-40 °C to 80 °C)
- Threaded ports allow for individual or modular mounting
- Key lockable and tamper resistant options



Performance Data				
Series		651	652	653
Port Size		1/8, 1/4	1/4, 3/8, 1/2	1/2, 3/4, 1
Thread Type		NPTF, G & Rc		
Nominal Flow - Per ISO 6358 P1 = 145 PSI (10 bar) Setpoint P2 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar)		SCFM (L/min ANR)		
	1/8	28.1 (800)	-	-
	1/4	72.6 (2060)	144.2 (4120)	-
	3/8	-	228.6 (6530)	-
	1/2	-	245.0 (7000)	245.0 (7000)
	3/4	-	-	353.1 (10000)
	1	-	-	406.1 (11500)
Maximum Inlet Pressure PSIG (bar) P1		232 (16)		290 (20)
Adjustable Pressure Ranges PSIG (bar) P2		3 to 45 (0.2 to 3)		
		3 to 60 (0.2 to 4)		
		7 to 125 (0.5 to 8)		
		7 to 145 (0.5 to 10)		
Pilot Operated Regulator Input-to-Output Pressure Ratio		-	1:1	-
Ambient Temperature Range °F (°C)		-4 to 122 (-20 to 50)		
Fluid Temperature Range °F (°C)		-4 to 122 (-20 to 50)		
Fluid		Air or Inert Gas		
Weight lbs. (kg)		0.47 (0.215)	0.95 (0.431)	2.43 (1.102)

Materials in Contact with Fluid	
Body	Aluminum
Seals	NBR/FKM
Springs	Stainless Steel
Poppet	Brass
Stem	PA



LUBRICATOR

- Provides consistent reliable lubrication to the system
- Uses venturi type technology to distribute the lubrication into the compressed air line
- Optional electronic liquid level indicator provides condition monitoring
- Allows fill while under pressure from fill port or bowl by removing the fill plug
- Polycarbonate and Aluminum bowls with a selection of sight gauge materials that meet industry and application requirements
- Recommended oil type: Non-detergent type and without aggressive additives (VG32 - ISO3448)
- Threaded ports allow for individual or modular mounting



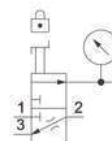
Performance Data				
Series		651	652	653
Port Sizes		1/8, 1/4	1/4, 3/8, 1/2	1/2, 3/4, 1
Thread Type		NPTF, G & Rc		
Nominal Flow - Per ISO 6358 P1 = 91.4 PSI (6.3 bar) ΔP = 11.6 PSI (0.8 bar)		SCFM (L/min ANR)		
	1/8	31.8 (900)	-	-
	1/4	68.5 (1940)	97.3 (2780)	-
	3/8	-	175.0 (5000)	-
	1/2	-	178.5 (5100)	328.4 (9300)
	3/4	-	-	459.1 (13000)
	1	-	-	459.1 (13000)
Maximum Pressure PSIG (bar)	Polycarbonate Bowl	145 (10)		
	Aluminum Bowl	145 (10)		232 (16)
Minimum Flow for Lubrication - SCFM (L/min)		0.16 (4.5)	0.71 (20)	8.83 (250)
Ambient Temperature Range °F (°C)		41 to 122 (5 to 50)		
Fluid Temperature Range °F (°C)		41 to 122 (5 to 50)		
Fluid		Air or Inert Gas		
Bowl Capacity - mL (fluid oz.)		45 (1.52)	90 (3.04)	200 (6.76)
Weight lbs. (kg)	Polycarbonate Bowl	0.53 (0.240)	1.16 (0.526)	2.05 (0.930)
	Aluminum Bowl	0.74 (0.334)	1.47 (0.667)	2.55 (1.157)

Materials in Contact with Fluid	
Body	Aluminum
Seals	NBR/FKM



SHUT OFF ISOLATION VALVE

- Robust and easy-to-operate shut off valve, with lockout (front or back) on handle
- Provides shut off to downstream machinery
- Optional low profile gauge provides clear indication of the downstream pressure, and when the downstream components can be safely removed when pressure (P2) is at zero
- Available as 3/2 or 2/2 construction
- Threaded ports allow for individual or modular mounting



Performance Data							
Series	651		652		653		
Port Sizes	1/8, 1/4		1/4, 3/8, 1/2		1/2, 3/4, 1		
Thread Type	NPTF, G & Rc						
Nominal Flow - Per ISO 6358 P1 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar)	SCFM (L/min ANR)						
		1 → 2	2 → 3	1 → 2	2 → 3	1 → 2	2 → 3
	1/8	50.8 (1440)	8.8 (250)	-	-	-	-
	1/4	166.7 (4720)	8.8 (250)	151.0 (4300)	8.1 (230)	-	-
	3/8	-	-	308.0 (8800)	8.1 (230)	-	-
	1/2	-	-	400.0 (11400)	8.1 (230)	458.0 (12970)	10.6 (300)
	3/4	-	-	-	-	1165.0 (33000)	10.6 (300)
	1	-	-	-	-	1833.0 (51900)	10.6 (300)
Maximum Inlet Pressure PSIG (bar)	232 (16)				290 (20)		
Ambient Temperature Range °F (°C)	14 to 122 (-10 to 50)						
Fluid Temperature Range °F (°C)	14 to 122 (-10 to 50)						
Fluid	Air or Inert Gas						
Weight lbs. (kg)	0.57 (0.260)		0.97 (0.438)		2.08 (0.943)		

Materials in Contact with Fluid	
Body	Aluminum
Ball	Chrome Plated Brass
Seat	PTFE
Seals	NBR/FKM

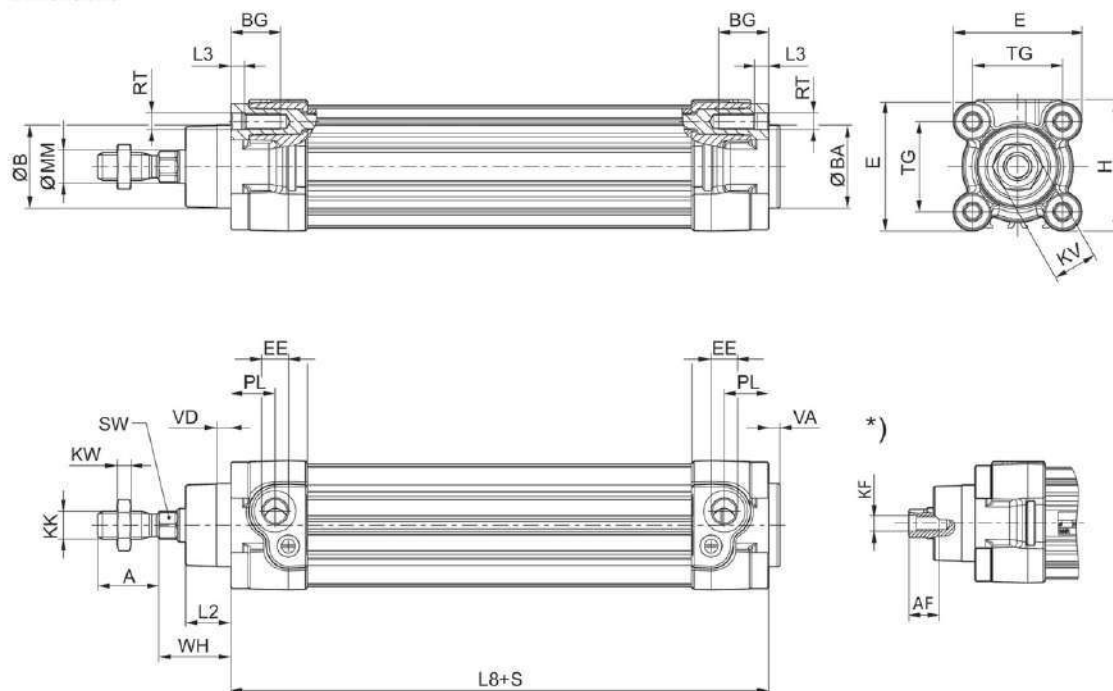


AVENTICSTM

AVENTICS Series PRA Profile cylinders

(ISO 15552)

Dimensions



S = stroke
* Internal thread

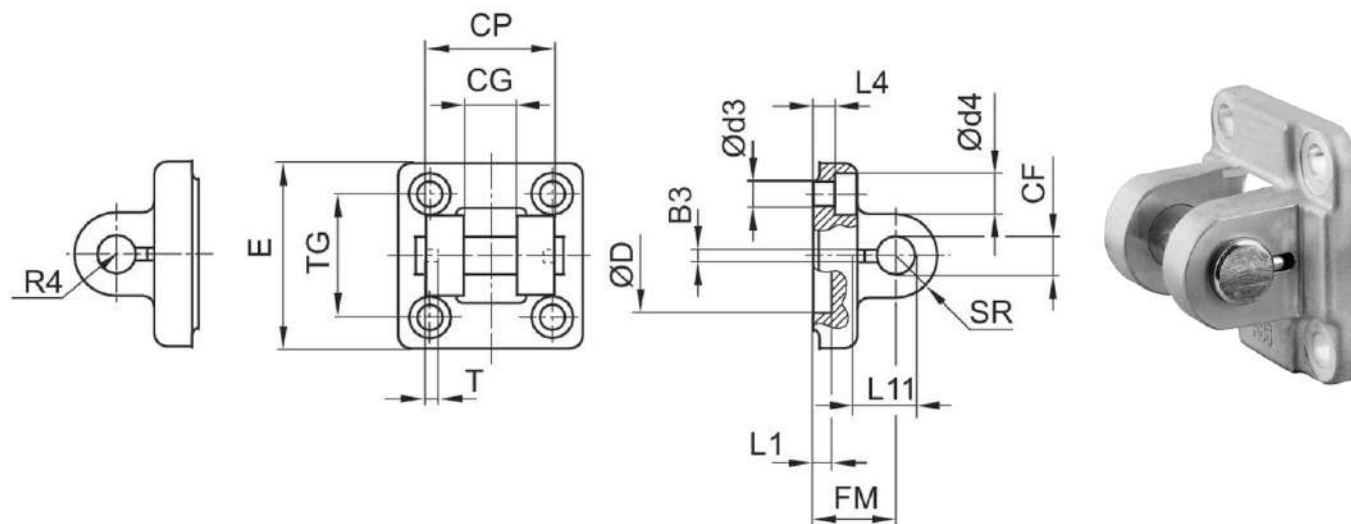
Piston $\varnothing$	A -2	AF+1	$\varnothing B$ d11	$\varnothing BA$ d11	BG min.	E	EE	G	H
32	22	12	30	30	16	46.5	G 1/8	27.75	47.5
40	24	13.5	35	35	16	53	G 1/4	33.25	53
50	32	17	40	40	16	65	G 1/4	31	65
63	32	17	45	45	16	75	G 3/8	38.25	75
80	40	21	45	45	17	95	G 3/8	38.25	95
100	40	21	55	55	17	115	G 1/2	42.25	115
125	54	28	60	60	20	140	G 1/2	53.85	140

Piston $\varnothing$	KF	KK	KV	KW	$\varnothing MM$ f8	PL	L2	L3 $\pm 0,5$	L8
32	M6	M10x1,25	16	5	12	16	16.25	4.5	94 $\pm 0,4$
40	M8	M12x1,25	18	6	16	20	18.25	4.5	105 $\pm 0,7$
50	M10	M16x1,5	24	8	20	19	25	4.5	106 $\pm 0,7$
63	M10	M16x1,5	24	8	20	24	25	4.5	121 $\pm 0,8$
80	M12	M20x1,5	30	10	25	23.5	33	0	128 $\pm 0,8$
100	M12	M20x1,5	30	10	25	25	36	0	138 ± 1
125	M16	M27x2	41	13.5	32	33	45	0	160 ± 1

AVENTICS Series PRA Profile cylinders

(ISO 15552)

Dimensions

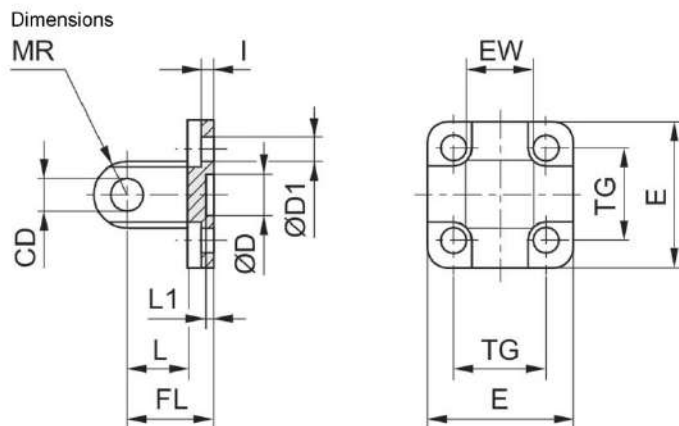


Piston Ø		B3 ±0,2	Ø CF F7	CG D10	CP d12	Ø d3	Ø d4	Ø D	E
32		3.3	10	14	34	6.6	11	30	46
40		4.3	12	16	40	6.6	11	35	52
50		4.3	16	21	45	9	15	40	64
63		4.3	16	21	51	9	15	45	74
80		4.3	20	25	65	11	18	45	94
100		4.3	20	25	75	11	18	55	113
125		6.3	30	37	97	14	20	60	138
160		6.3	35	43	122	18	26	65	180
200		6.3	35	43	122	18	26	75	220
250		8.3	40	49	125	22	33	90	280
320		8.3	50	60	150	26	36	110	340

Piston Ø	FM ±0,2	L1 min.	L4 ±0,5	L11 -0,5	R4	SR	T ±0,2	TG
32	22	4.5	5.5	16.5	17	10	3	32,5 ±0,2
40	25	4.5	5.5	18	20	12	4	38 ±0,2
50	27	4.5	6.5	23	22	15	4	46,5 ±0,2
63	32	4.5	6.5	23	25	15	4	56,5 ±0,2
80	36	4.5	10	27	30	20	4	72 ±0,2
100	41	4.5	10	27	32	20	4	89 ±0,2
125	50	7	10	40	42	26	6	110 ±0,3
160	55	10	10	45	46	32.5	6	140 ±0,3
200	60	10	11	45	49	32.5	6	175 ±0,3
250	70	12	11	53	55	40	8	220 ±0,3
320	80	11	15	69	65	50	8	270 ±0,3

AVENTICS Series PRA Profile cylinders

(ISO 15552)



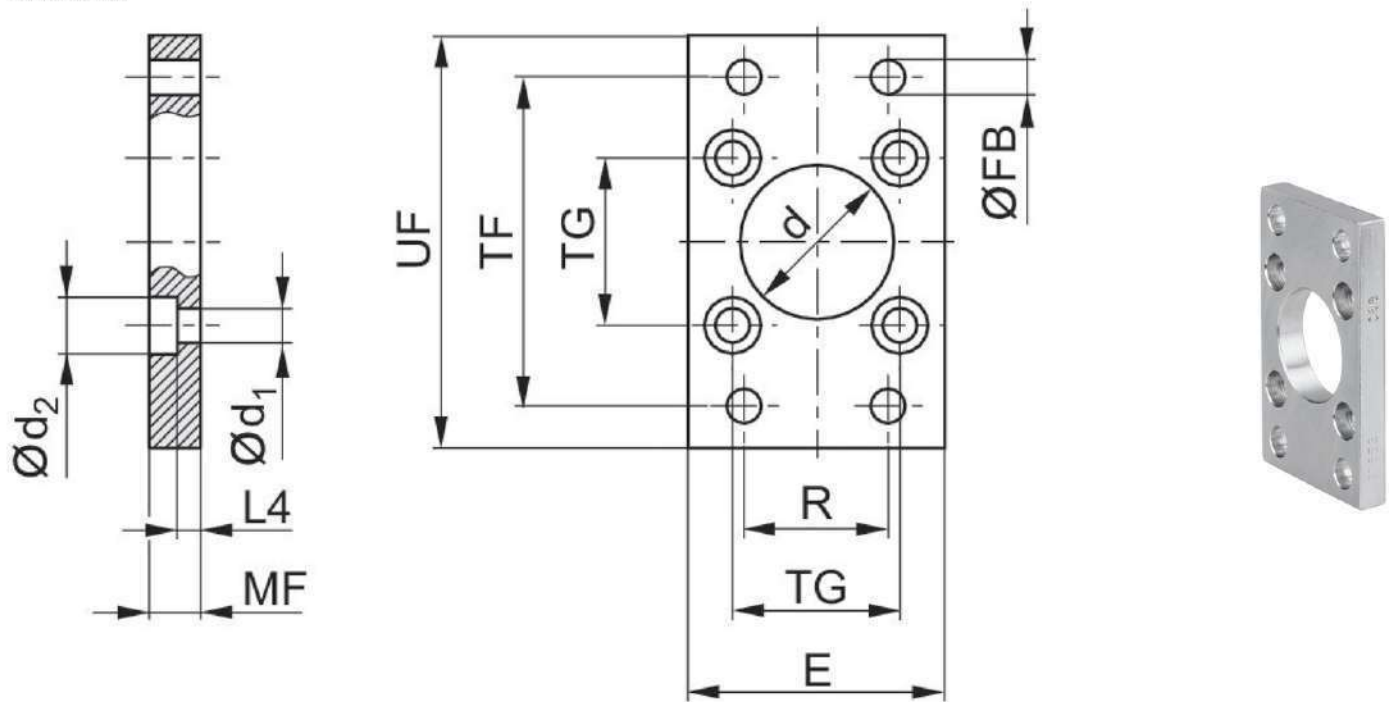
Piston Ø	Part No.	CD H9	Ø D	Ø D1	E	EW	FL ±0,2	I ±0,5	L min.
16	1825805388	6	10 H13	4.5	27	12 -0.2/-0.6	16	2.6	10
20	1827002300	8	12 H13	5.5	34	16 -0.2/-0.6	20	2.6	14
25	1827002301	8	12 H13	5.5	40	16 -0.2/-0.6	20	2.6	14
32	1827001283	10	30 H11	6.6	47.5	26 -0.2/-0.6	22	5.5	12
40	1827001284	12	35 H11	6.6	53.5	28 -0.2/-0.6	25	5.5	15
50	1827001285	12	40 H11	9	64	32 -0.2/-0.6	27	6.5	15
63	1827020086	16	45 H11	9	74	40 -0.2/-0.6	32	6.5	20
80	1827001287	16	45 H11	11	94	50 -0.2/-0.6	36	10	20
100	1827001288	20	55 H11	11	113.5	60 -0.2/-0.6	41	10	25
125	1827004866	25	60 H11	14	138	70 -0.5/-1.2	50	10	30
160	1827004867	30	65 H11	18	180	90 -0.5/-1.2	55	10	35
200	1827004868	30	75 H11	18	220	90 -0.5/-1.2	60	11	35
250	1827004869	40	90 H11	22	280	110 -0.5/-1.2	70	11	45
320	5239813412	45	110 H11	26	350	120 -0.5/-1.2	80	15	50

Piston Ø	L1 min.	MR max.	TG
16	3	6	18 ±0.2
20	3	8	22 ±0.4
25	3	8	26 ±0.4
32	4.5	10	32.5 ±0.2
40	4.5	12	38 ±0.2
50	4.5	12	46.5 ±0.2
63	4.5	16	56.5 ±0.2
80	4.5	16	72 ±0.2
100	4.5	20	89 ±0.2
125	7	26	110 ±0.3
160	7	31	140 ±0.3
200	7	31	175 ±0.3
250	11	41	220 ±0.3
320	11	45	270 ±0.3

AVENTICS Series PRA Profile cylinders

(ISO 15552)

Dimensions

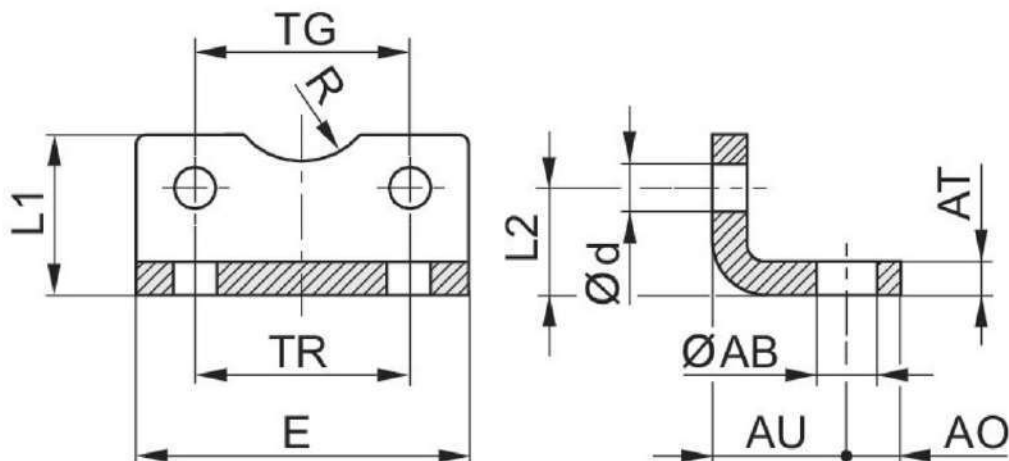


Piston Ø	Part No.	$\varnothing d$ H11	$\varnothing d_1$	$\varnothing d_2$	E max.	$\varnothing FB$	L_4	MF	R
32	1827001277	30	6.6	11	50	7	4.5	10	32
40	1827001278	35	6.6	11	55	9	4.5	10	36
50	1827001279	40	9	15	65	9	6	12	45
63	1827001499	45	9	15	75	9	6	12	50
80	1827001281	45	11	18	100	12	9	16	63
100	1827001282	55	11	18	120	14	9	16	75
125	1827004861	60	14	20	140	16	10.5	20	90
160	1827001460	65	18	26	180	18	9.5	20	115
200	1827001461	75	18	26	220	22	12.5	25	135
250	1827001462	90	22	33	280	26	10.5	25	165
320	5239016012	110	26	40	350	33	15	30	200

AVENTICS Series PRA Profile cylinders

(ISO 15552)

Dimensions



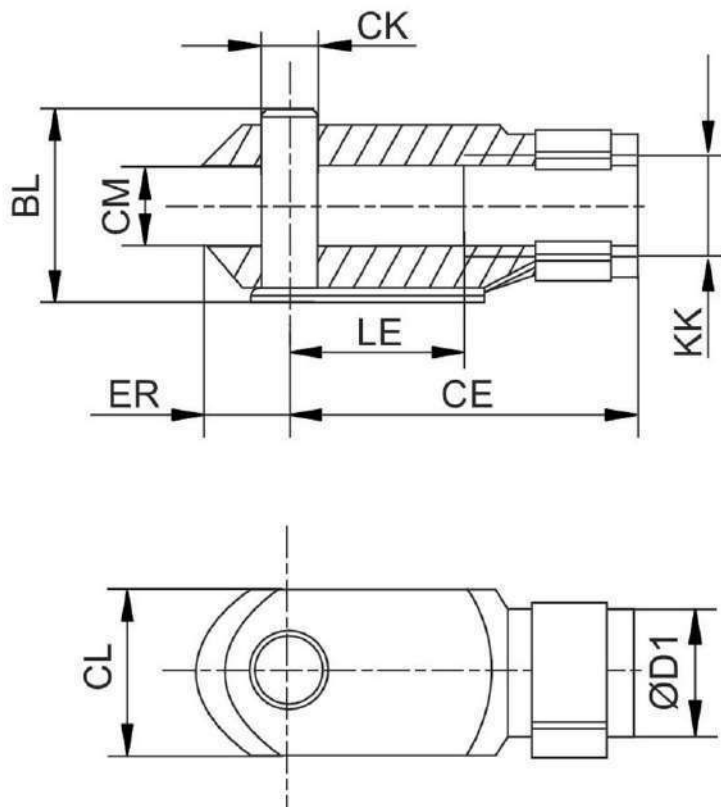
Piston Ø	Part No.	ØAB H14	AO	AT	AU ±0,2	Ød H13	E	L1	L2
20	1827002284	6.6	6	4 ±0,5	16	5.4	36	22	16
25	1827002285	6.6	6	4 ±0,5	16	5.4	40	23	17
32	1827002286	6.6	8	5 ±0,5	18	6.6	50	24	16
32	1827001271	7	8	4 ±0,3	24	6.6	48	25	15,75
40	1827001272	10	10	4 ±0,3	28	6.6	56	26	17
50	1827001273	10	11	5 ±0,3	32	9	68	32	21,75
63	1827001498	10	13	5 ±0,3	32	9	78	34	21,75
80	1827001275	12	16	6 ±0,5	41	11	98	47	27
100	1827001276	14.5	19	6 ±0,5	41	11	117	52	26.5
125	1827001310	16.5	20	8 ±1,0	45	13.5	144	69	35
160	1827001457	18.5	23	10 ±1,0	60	17.5	185	100	45
200	1827001458	24	26	12 ±1,0	70	17.5	220	120	47.5
250	1827001459	28	33	20 ±1,0	75	22	280	135	55

Piston Ø	R H15	TG	TR JS14
20	10	22 ±0,2	22
25	11	26 ±0,2	26
32	12	32 ±0,2	32
32	15	32,5 ±0,2	32
40	17.5	38 ±0,2	36
50	20	46.5 ±0,2	45
63	22.5	56.5 ±0,2	50
80	22.5	72 ±0,2	63
100	27.5	89 ±0,2	75
125	30	110 ±0,3	90
160	32.5	140 ±0,3	115
200	37.5	175 ±0,3	135
250	45	220 ±0,3	165

AVENTICS Series PRA Profile cylinders

(ISO 15552)

Dimensions

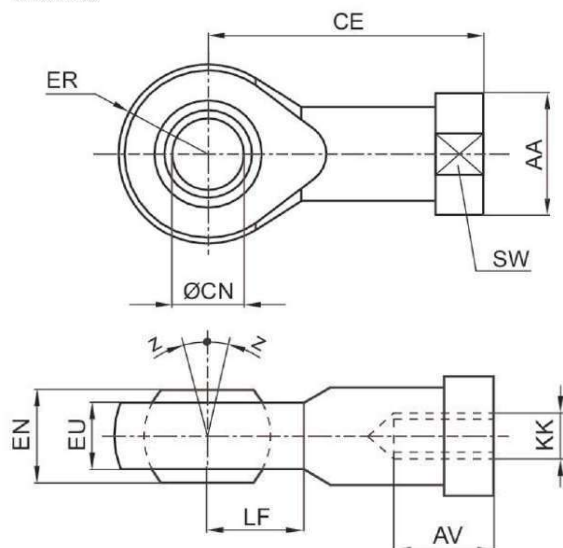


Part No.	BL	CE	ØCK h11	CL	CM	ØD1	ER	KK	LE
1822122028	11	16	4	8	4	8	5	M4	8
1822122008	13.5	20	5	10	5	9	6	M5	10
1822122009	16	24	6	12	6	10	7	M6	12
1822122010	21.5	32	8	16	8	14	10	M8	16
8958000122	26	40	10	20	10	18	12	M10	20
1822122024	26	40	10	20	10	18	12	M10x1,25	20
8958000132	31	48	12	24	12	20	14	M12	24
1822122025	31	48	12	24	12	20	14	M12x1,25	24
1822122005	39	64	16	32	16	26	19	M16x1,5	32
1822122004	50	80	20	40	20	34	20	M20x1,5	40

AVENTICS Series PRA Profile cylinders

(ISO 15552)

Dimensions



KK	Part No.	AA	AV min.	CE	$\varnothing CN H7$	EN -0,1	ER	EU max.	LF
M4	1822124000	12	8	27	5	8	9	7.5	9
M6	1822124001	13	9	30	6	9	10	7.5	10
M8	1822124002	16	12	36	8	12	12	9.5	12
M10	8958206402	19	20	43	10	14	14	10.5	13
M12	8958208852	22	22	50	12	16	16	12	16
M10x1,25	1822124003	19	15	43	10	14	14	11.5	14
M12x1,25	1822124004	22	18	50	12	16	16	12.5	16
M16x1,5	1822124005	27	24	64	16	21	21	15.5	21
M20x1,5	1822124006	34	30	77	20	25	25	18.5	25
M24x2	8958208002	42	36	94	25	31	30	23	30
M27x2	1822124013	50	45	110	30	37	35	27	35
M36x2	1822124008	60	56	125	35	43	40	32	40
M42x2	1822124009	69	60	142	40	49	45.5	37	45
M48x2	8958208842	75	65	160	50	60	58	45	60

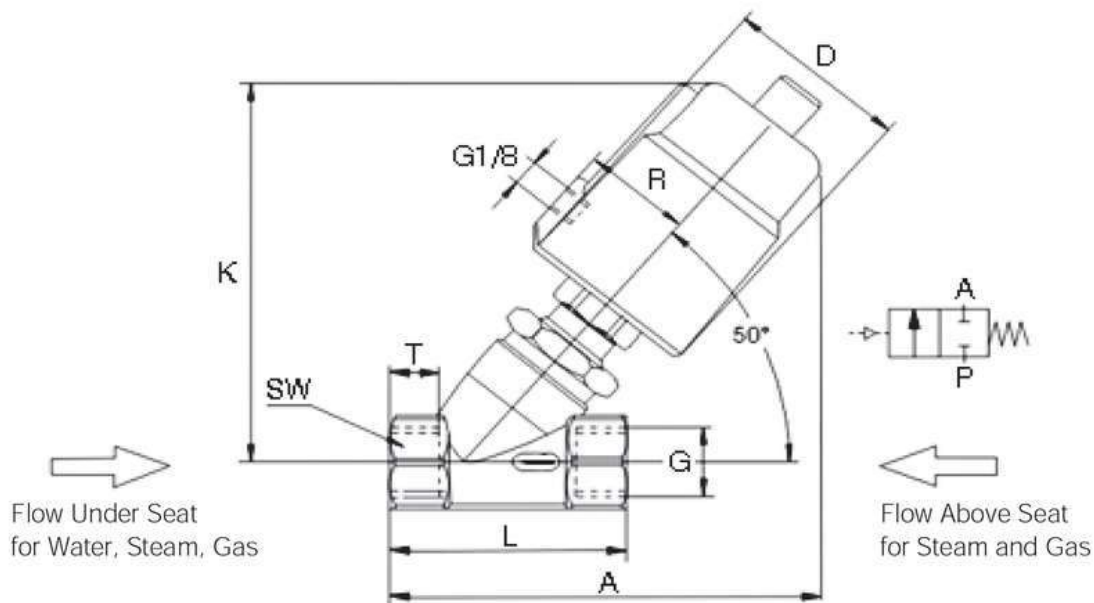
KK	SW	Z [°] max.
M4	9	4
M6	11	4
M8	14	4
M10	17	6
M12	19	13
M10x1,25	17	4
M12x1,25	19	4
M16x1,5	22	4
M20x1,5	30	4
M24x2	36	15
M27x2	41	4
M36x2	50	4
M42x2	55	4
M48x2	65	6



FLOTON



Operated Way	Direct Operated
Control Way	Normally Closed, Pilot 3-8 bar
Port Size	G 3/8 to G 2 (standard)
Orifice	DN 13 to 50
Pressure	see table
Medium	Neutral Gas and Liquid
Viscosity	max. 600 mm ² /s
Medium Temp.	-10 to +180 °C
Ambient Temp.	-10 to +60 °C
Body	Stainless Steel
Seal	PTFE
Installation	As required, preferably head upright
Speciality	Free of maintenance, Easy installation Ultralong life span and Quick response



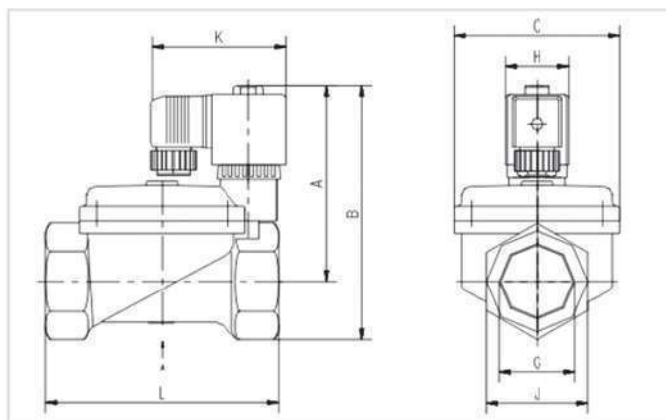
Under Seat P/N	Above Seat P/N	DN mm	Under PN bar	Above PN bar	Kv m ³ /h	G Port	A	D	K	L	SW	R	T
2215010-40U	2215010-40A	13	0-10	0-16	4.7	G 3/8	120	46	115	68	27	35	15
2215010-50U	2215010-50A		0-10	0-16			133	60	126	68	27	35	15
2215015-40U	2215015-40A	13	0-10	0-16	4.7	G 1/2	120	46	115	68	27	35	15
2215015-50U	2215015-50A		0-10	0-16			133	60	126	68	27	35	15
2215020-50U	2215020-50A	20	0 - 8	0-16	9.5	G 3/4	137	60	131	75	32	35	16
2215025-50U	2215025-50A	25	0 - 5	0-16	18.1	G 1	149	60	140	90	40	35	17
2215025-63U	2215025-63A		0 - 8	0-16			174	77	165	90	40	43	17
2215032-63U	2215032-63A	32	0 - 6	0-16	23.1	G 1.1/4	188	77	175	116	50	43	21
2215032-80U	2215032-80A		0 - 8	0-16			203	98	185	116	50	43	21
2215040-63U	2215040-63A	40	0 - 4	0-16	32.9	G 1.1/2	190	77	178	120	55	43	20
2215040-80U	2215040-80A		0 - 8	0-16			204	98	187	120	55	43	20
2215050-63U	2215050-63A	50	0 - 2	0-16	52.8	G 2	203	77	184	138	70	43	22
2215050-80U	2215050-80A		0 - 4	0-16			218	98	195	138	70	43	22



OPERATED WAY : PILOT-OPERATED
CONTROL WAY : NC(STANDARD),NO
PIPE SIZE : G1/4~G2(STANDARD)
DN : DN10~50mm
PN : THE HIGHEST PN : 1.6MPa
MEDIUM : neutral gas and liquid
VISCOSITY : ≤21mm²/s
MEDIUM TEMPERATURE : -10~+80°C(+130°C)
CIRCUMSTANCE TEMPERATURE : -10~+50°C
MATERIAL : BRASS
SEALING MATERIAL : NBR(STANDARD), FPM, EPDM
STANDARD VOLTAGE : AC:220V(50/60Hz) DC:24V
CHANGEABLE OF THE VOLTAGE : ±10%
WORKING PERIOD : COIL CAN WORK CONTINUOUSLY
CONNECTING : JUNCTION BOX(PLUG), IP65
INSTALLATION : HEAD IS UP STRAIGHT

Standard:

Item no.	DN (mm)	PIPE SIZE (G)	PN (MPa)	Kv (m ³ /h)	circumstance temperature (°C)	medium temperature (°C)
2231008B 2231008BT	10	1/4	0.02~1.0	1.4	-10~+50	-10~+80
2231010B 2231010BT	10	3/8	0.02~1.0	1.4		
2231015B 2231015BT	10	1/2	0.02~1.0	1.4		
2231015-14B	14	1/2	0.02~1.0	2.52		
2231020B	14	3/4	0.02~1.0	2.52		
2231020-20B	20	3/4	0.02~1.6	5.0		
2231025B	20	1	0.02~1.6	5.0		
2231032B	40	1 1/4	0.05~1.6	18		
2231040B	40	1 1/2	0.05~1.6	18		
2231050B	50	2	0.05~1.6	28		

**SIZE(mm)**

item no	G	L	K	A		B		C	H	J
				NC	NO	NC	NO			
2231008B, 2231008BT	G1/4	50	76	71	***	85	***	38	36	26
2231010B, 2231010BT	G3/8	50	76	71	***	85	***	38	36	26
2231015B, 2231015BT	G1/2	50	76	71	***	85	***	38	36	26
2231015-14B	G1/2	66	76	71	97	91	111	44	36	26
2231020B	G3/4	60	76	80	***	96	***	44	36	31
2231020-20B	G3/4	83	76	97	111	117	131	65	36	41
2231025B	G1	83	76	97	111	117	131	65	36	41
2231032B	G1 1/4	133	76	108	122	140	154	96	36	56
2231040B	G1 1/2	133	76	108	122	140	154	96	36	56
2231050B	G2	160	76	124	138	167	178	113	36	76

XO SERIES

FR.L COMBINATION

READ MORE



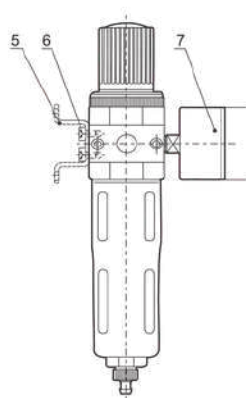
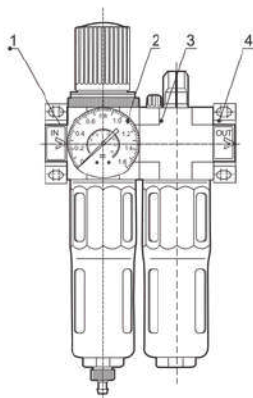
The XOU consisted of XOFR and XOL, each unit can be ordered separately.

The XOF with water separator cleans the compressed air of fluid oil, condensation and dirt. Particles. For special application, the standard 40µm filter element may easily be replaced by a 5µm filter element.

The XOR maintain inputting constant operating pressure despite fluctuation in line pressure and the amount of air consumed. The proportional lubricator adds a regulated quantity of oil to the filtered air. The oil-mist content proportional to the flow and oil can be added during operation. The oil drip rate is controlled by the adjustable bolt. Normally, 1to 12 drops/1000L of the air is Sufficient

XO	—	U	—	1/4	—	□	—	□	—	MINI
Series XO Series		Function code FR.L Combination		Port Size G1/8" G1/2" G1/4" G3/4" G3/8" G1"		Grade of filtration Blank: 40 µm 5M: 5 µm		Manometer Blank: 12bar 7: 7bar		Size MINI MIDI MAXI

Service units		MINI			MIDI			MAXI	
Manual Drain	Working pressure:12bar,40μm	XOU-1/8-MINI	XOU-1/4-MINI	XOU-3/8-MINI	XOU-3/8-MIDI	XOU-1/2-MIDI	XOU-3/4-MIDI	XOU-3/4-MAXI	XOU-1-MAXI
	Working pressure:7bar,40μm	XOU-1/8-7-MINI	XOU-1/4-D-7-MINI	XOU-3/8-7-MINI	XOU-3/8-7-MIDI	XOU-1/2-7-MIDI	XOU-3/4-7-MIDI	XOU-3/4-7-MAXI	XOU-1-7-MAXI
	Working pressure:12bar,5μm	XOU-1/8-5M-MINI	XOU-1/4-5M-MINI	XOU-3/8-5M-MINI	XOU-3/8-5M-MIDI	XOU-1/2-5M-MIDI	XOU-3/4-5M-MIDI	XOU-3/4-5M-MAXI	XOU-1-5M-MAXI
Manometer	0~12bar	OMA-40-16-1/8			OMA-50-16-1/4				
	0~7bar	OMA-40-10-1/8			OMA-50-10-1/4				
Medium		Compressed air							
Features of structure		Sintered filter with water sparator;MINI/MIDI:MAXI:Piston regulator;Diaphragm type regulator;Direct constant-density lubricator							
Mounting type		Pipe mounting or foot mounting							
Assembly position		Vertical ±5°							
Connection		G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Standard nominal flow rate	XOU-...(-A)	700	1000	1200	2000	2600	2600	7000	8000
	XOU-...-7(-A)	800	1300	1500	2500	2800	2800	8500	8700
	XOU-...-5M(-A)	600	850	1050	1700	1800	2100	6500	7200
Primary pressure	Manualcondensate drain	1~16bar							
	Automatic condensate drain	1.5~12bar							
Working pressure		0.5~12bar/0.5~7bar							
Min.Standard nominal flow rate		3 L/min			6 L/min			10 L/min	
Grade of filtration		40μm/5μm							
Capacity of condensate fluid		22ml							
Temperature range		0~60℃							
Materials information		Housing:Zinc die-casting;Filter bowl and oil bowl:PC;Meta bowl guard:Aluminium alloy;Sealing:NBR;Adjusting knob:POM							



NO	Item	Material
1	Flange-IN	Zinc alloy
2	Filter + Regulator	
3	Lubricator	
4	Flange - OUT	Zinc alloy
5	Bracket	SPCC
6	Allen screw	S35C
7	Pressure gauge	

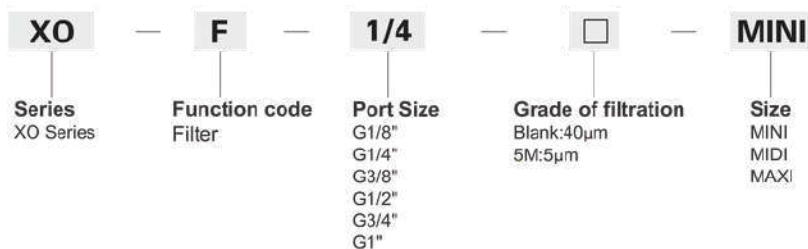
XO SERIES

AIR FILTER

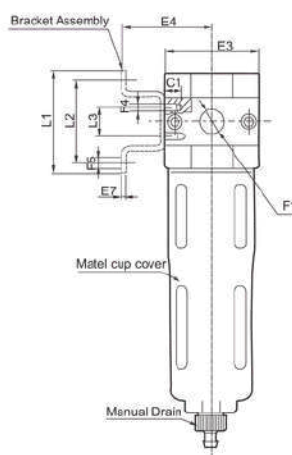
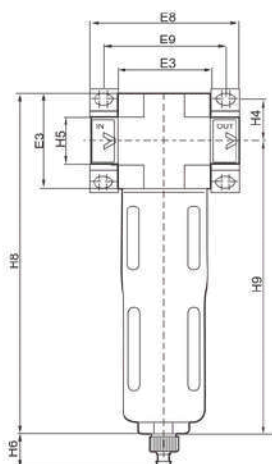
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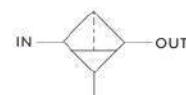
The OF with water separator cleans the compressed air of fluid oil, condensation and dirt particles, for special application, the standard 40µm filter element may easily be replaced by a 5µm filter element.



Filters		MINI			MIDI			MAXI	
40µm	Manual Drain	XOF-1/8-MINI	XOF-1/4-MINI	XOF-3/8-MINI	XOF-3/8-MIDI	XOF-1/2-MIDI	XOF-3/4-MIDI	XOF-3/4-MAXI	XOF-1-MAXI
5µm		XOF-1/8-5M-MINI	XOF-1/4-5M-MINI	XOF-3/8-5M-MINI	XOF-3/8-5M-MIDI	XOF-1/2-5M-MIDI	XOF-3/4-5M-MIDI	XOF-3/4-5M-MAXI	XOF-1-5M-MAXI
Medium		Compressed air							
Features of structure		Sintered filter with water spartor							
Mounting type		Pipe mounling or foot mounting							
Assembly position		Vertical ±5°							
Connection		G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Standard nominal flow rate	OF-...	1000	1200	1400	2700	3000	3000	5000	5300
	OF-...-5M	600	950	1100	1800	1900	1900	3200	3300
Primary pressure	Manual drain	1~16bar							
Grade of filtration		40µm/5µm							
Max.condensate capacity		22ml							
Timperature range		0~60℃							
Materials information		Housing:Zinc die-casting;Filter bowl :PC;Metal bowl guard:Aluminium alloy;Sealing:NBR							



Graphic Symbol



Model	E3	E4	E7	E8	E9	F1	F4	F5 Φ	L1	L2	L3	H4	H5	H6	H8	H9
XOF-...-MINI	40	39	2	64	52	G1/8", G1/4", G3/8"	M4	4.5	44	35	11	17.5	20	15	144	129
XOF-...-MIDI	55	47	3	85	70	G1/8", G1/2", G3/4"	M5	5.5	71	60	22	24.5	32	15	179	156
XOF-...-MAXI	66	53	3	96, 116	80, 91	G3/4", G1"	M5	5.5	71	60	22	24.5	32, 40	15	203	175

XO SERIES

REGULATOR

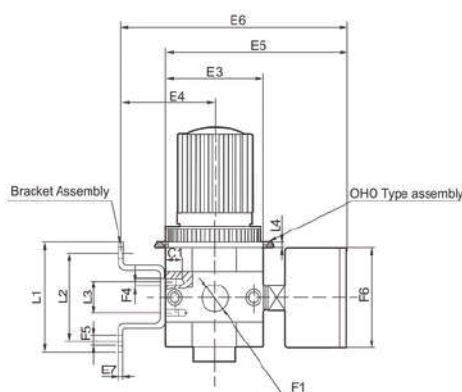
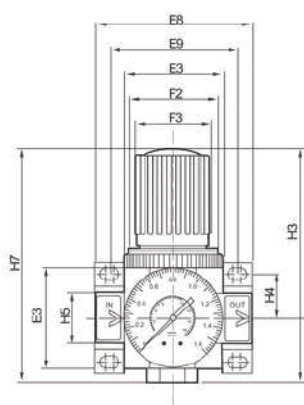
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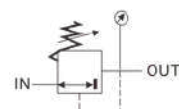
The XO maintain inputting constant operating pressure despite fluctuation in line pressure and the amount of air consumed.

XO	—	R	—	1/4	—		—	MINI
Series XO Series		Function code Regulator		Port Size G1/8" G1/4" G3/8" G1/2" G3/4" G1"		Manometer Blank: 12bar 7: 7bar		Size MINI MIDI MAXI

Regulators		MINI			MIDI			MAXI	
Working pressure 12bar		XOR-1/8-MINI	XOR-1/4-MINI	XOR-3/8-MINI	XOR-3/8-MIDI	XOR-1/2-MIDI	XOR-3/4-MIDI	XOR-3/4-MAXI	XOR-1-MAXI
Working pressure 7bar		XOR-1/8-7-MINI	XOR-1/4-7-MINI	XOR-3/8-7-MINI	XOR-3/8-7-MIDI	OXR-1/2-7-MIDI	XOR-3/4-7-MIDI	XOR-3/4-7-MAXI	XOR-1-7-MAXI
Manometer	0~12bar	OMA-40-16-1/8			OMA-50-16-1/4				
	0~7bar	OMA-40-10-1/8			OMA-50-10-1/4				
Medium		Filtered,compressed air(lubricated or unlubricated)							
Features of structure		MINI/MIDI:Diaphragm type regulator;MAXI: Piston regulator							
Mounting type		Pipe/foot/Plate mounting							
Assembly position		Any							
Connection		G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Standard nominal flow rate	XOR-...	800	1500	1700	3200	3500	3500	11000	11500
	XOR-...-7-	1000	1600	1800	3300	4000	4500	12000	12500
Primary pressure		1~16bar							
Working pressure		0.5~12bar/0.5~7bar							
Timperature range		0~60℃							
Materials information		Housing:Zinc die-casting; Sealing:NBR; Adjusting knob:POM							



Graphic Symbol



Model	E3	E4	E5	E6	E8	E9	F1	F2	F3 Φ	F4	F5 Φ	F6 Φ	L1	L2	L3	L4	H3	H4	H7
XOR-...-MINI	40	39	76	95	64	52	G1/8", G1/4", G3/8"	M36 × 1.5	31	M4	4.5	40	44	35	11	Max 3	69	17.5	96
XOR-...-MIDI	55	47	93	112	85	70	G1/8", G1/2", G3/4"	M52 × 1.5	50	M5	5.5	52	71	60	22	Max 5	98	24.5	96
XOR-...-MAXI	66	53	104	124	96, 116	80, 91	G3/4", G1"	M36 × 1.5	31	M5	5.5	63	71	60	22	Max 4	80	24.5	96

XO SERIES

LUBRICATOR

READ MORE



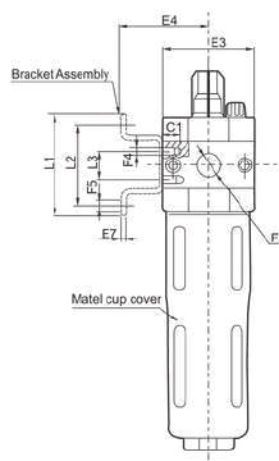
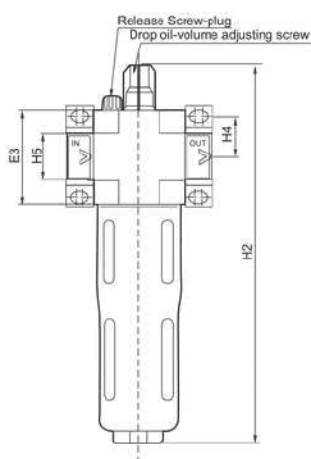
The direct constant-density lubricator add regulated quantity oil to the compressed air. A valve maintains oil mist content proportional to the compressed oil flow.

The pressure drop that occurs when the air flow through a sight feed oil cup delivers oil from the bowl to the sight oil indicator. The drop of the oil flows into the air channel when it is atomized.

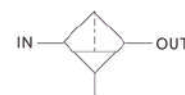
The oil drip rate is controlled by means of the regulating screw. Normally, 1 to 12 drops/1000L of the air is sufficient.

XO	—	L	—	1/4	—	MINI
Series XO Series		Function code Lubricator		Port Size G1/8" G1/2" G1/4" G3/4" G3/8" G1"		Size MINI MIDI MAXI

Lubricators	MINI			MIDI			MAXI	
	XOL-1/8-MINI	XOL-1/4-MINI	XOL-3/8-MINI	XOL-3/8-MIDI	XOL-1/2-MIDI	XOL-3/4-MIDI	XOL-3/4-MAXI	XOL-1-MAXI
Medium	Compressed air							
Features of structure	Sintered filter with water spartor The direct Constant-density Lubricator							
Mounting type	Pipe mounting or foot mounting							
Assembly position	Vertical ±5°							
Connection	G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Standard nominal flow rate	1300	2300	2700	5500	6100	6300	8400	9000
Max.Working pressure	16bar							
Min.Standard nominal flow rate	3 L/min			6 L/min			10 L/min	
Max.condensate capacity	22ml							
Timperature range	0~60℃							
Materials information	Housing:Zinc die-casting;Oil bowl and Drip cap :PC;Metal bowl guard:Aluminium alloy;Sealing:NBR							
Recommended oil	ISO VG 32 or the same grade							



Graphic Symbol



Model	E3	E4	E7	F1	F4	F5Φ	L1	L2	L3	H4	H5
XOL-...-MINI	40	39	2	G1/8", G1/4", G3/8"	M4	4.5	44	35	11	17.5	20
XOL-...-MIDI	55	47	3	G1/8", G1/2", G3/4"	M5	5.5	71	60	22	24.5	32
XOL-...-MAXI	66	53	3	G3/4", G1"	M5	5.5	71	60	22	24.5	32,40

ACCESSORIES

PUSH-IN FITTINGS, PUSH-ON FITTINGS, SILENCERS

							
PC	POC	PCF	PU	PGJ	PIJ	PTJ	PM
							
PL	PLB	PLE	PV	PLL	PH	PHW	PMF
							
PB	PBB	PBE	PE	PD	PX	PY	PP
						Materials -% Resin body & plastic ring -i Nickel-plated & plastic ring -m Nickel-plated body & ring	
PSU	PSC-A (cyl)	PSC-As (cyl)	PSC-Bs (v/v)				
							
TC	TC-t	TC-s	TCF	TU	TM	TZ	TN
							
TL-t	TL-s	TLB	TLE	TLF	TV	TSC-As (cyl)	TSC-Bs (v/v)
						Options -A Meter-out control, cylinder -B Meter-in control, for valves -s Slotted or Swivel or Special -t Taper threaded	
TD	TB	TBB	TBE	TE			
							
SCT	SCQ	SE	SEJ	SS	SEC	SEP	SP
						Port Size 06 3/4 01 1/8 10 1" 02 1/4 12 1.1/4" 03 3/8 14 1.1/2" 04 1/2 20 2"	
SVE, SVE-s	SVL	SVL-s	SPL	SCO			

ACCESSORIES

STANDARD FITTINGS, VALVES, TUBES, SPECIAL UNITS

							
BI	BI-t	BC	BC	BC	BC-s	BU	BV
							
BL	BVM	BE	BB	BD	BDM	BEF	BEM
							
BZ	BZ1	BZM	BMFF	BPM	BPO	BPH	BPF
							
BN, BN-L	BN2	BNS-A (cyl)	BNS-As (cyl)	BSC-As (cyl)	BLE	BNW	BGJ
							
BRV-i	VU check v.	VU-europa	VS-mf	VS-ff	VM-i	Q.Exh. VSR-m	Q.Exh. VSR-i
							
center back	bottom port	SEU / VUS	07 regulator	pilot check v.	manifold	Y-strainer VY	VSR-diap.
							
PU, PA, PE	coiling tube	tube binder	tube cutter	tube insert	disconnect key		
							
Cleanroom	anti-Static	anti-Spatter	PPS resin	PP resin	PP 304	CC	CL
						Ordering Example PC 8-02 m SCT 02 PSC 8-02 A BI 01-02 TC 8/6-02 s BC (m)-(f) TE 8/6 BRV 02 i	
push-in 304	push-in 316	push-on 316					

VACUUM SYSTEMS

Stand alone type Ejector

VH VS VU VUM VB VM VC | VY



อย่างง่าย แบบตัวเดียว
สร้างแรง Vacuum จากลมอัด

Combination type Ejector

VG VK



มาพร้อม Filter, Suction Sol.,
Blow-off Sol., Vacuum Switch

Comb Ejector+Vac.Pump System

VJ, VJP VX, VXP



สามารถใช้ร่วมกับ Vac.Pump
ในกรณีที่ suction เป็นเวลานาน

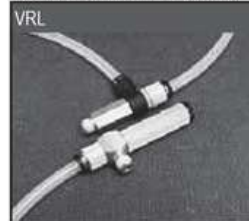
Ejc.+V.Pump on Sub-D Manifolds

VQ, VQP VZ, VZP



ขนาดกระทัดรัด พร้อม Sub-D
Connector สำหรับต่อสายไฟ

Vac.Gen. for Particle Transport



สำหรับลำเลียง แป้ง ผง ผุ่น
ตั้งแต่ขนาดเล็กๆ จนถึง 7 mm

Standard Type

VP_R VP_A



ผิวราบเรียบ ผิวโค้งเรียบ
แผ่นหนา ผลไม้ ลูกบอล

Sponge Type

VP_S



ผิวขรุขระ ผึ่งด้านนอก
หิน กรวด เปลือกหอย

Bellow Type

VP_B



บรรจุภัณฑ์อาหาร
ฉนวน ห่อฟิล์มพลาสติก

Oval Type

VP_E



เซอร์กิตบอร์ด แผงวงจร
จับขอบสองข้างของชิ้นงาน

Soft Type

VP_L



แผ่นพลาสติกชนิด
ชิ้นส่วนของเลนส์ เปราะบาง

Skid-proof

VP_KNH



ชิ้นงานเปื้อนคราบน้ำมัน
แผ่นโลหะปั๊มขึ้นรูป สีน

Thin Type

VP_P



แผ่นกระดาษ แผ่นฟิล์ม
ช่องพลาสติก

Long Stroke

VP_xx



ชิ้นงานพื้นผิวต่างระดับ

Free Holder

FH



Free Holder ทำให้ Pad
สามารถแกว่ง ให้ได้ 30°

Air Pincette

VTA VTB



Vac. Pad + Vac. Generator
ในรูปแบบของปากกา

Polyurethane

UB (cleanroom)



-1 ~ 8 bar

-15 ~ 60 °C

Air, Water

Nylon, Vacuum

NA NB



-1 ~ 15 bar

-1 ~ 10 bar

-15 ~ 60 °C

Air, Water

Coiling

NL



-1 ~ 15 bar

-1 ~ 8 bar

-15 ~ 60 °C

Air

Twin-coiling

UL, ULF

Multi-core

UQ



-1 ~ 8 bar

-15 ~ 60 °C

Air

Plarailchains

HPU



Cable Conveyers

Fluororesin (PFA)

SFT (cleanroom)



-1 ~ 10 bar

-65 ~ 260 °C

Corrosive fluids

Polyamide

SNT



-1 ~ 15 bar

-15 ~ 60 °C

Drinking water, Air

Hot-water Resistant

WA



-1 ~ 7 bar

0 ~ 90 °C

0 ~ 99 °C

Thermal oil

Water, Air

Spatter

FB



-1 ~ 7 bar

0 ~ 90 °C

Thermal oil, Water, Air

Anti-static

UE



-1 ~ 6 bar

-15 ~ 40 °C

Air

We are engineering partner as a total system solution provider, The manufactures a range of components to ensure cost effective and reliable cleaning system design, The products are produced to exacting tolerances and quality standards to ensure their effectiveness within any reverse pulse filter. As a comprehensive solution provider, We have great quality control procedures. The calculate various system designs and can work together perfectly. Finally we are fully committed to maintaining environment quality together.



SCAN ME



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Thank you

**We look forward
to serving you.**

APS
CONTROL