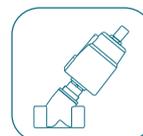# Coreline
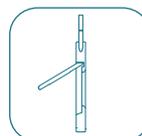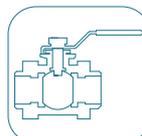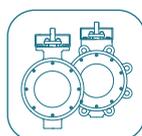
Pneumatic Accessories
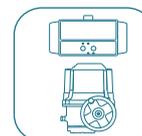
General information

Coreline offer a complete series of actuator accessories to meet your different requirements, such as limit switch box, solenoid valve, positioner, air process accessories, fittings and silencers.

Index

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Fig.561 Position switch box

Features

● Solid and compact design - Body in corrosion resistant and impact resistant
aluminium die-casting with black power coated.

● High level weather proof IP67 and with CE approval.

● Standard 8 points for connection of solenoid valve.

● Quick-set cam - Spring loaded splined cam. No need to re-adjust after initial setting.

● Captive cover bolts - No worry to loose bolts while cover is open.

● Easy mounting - NAMUR stainless steel shaft and ISO5211 stainless steel
bracket as standard.

● Visual position indicator as standard, with Non-visual version indicator type
available on request.

Main parts and material specification

No.	Part Name	Qty.	Material
1	Box Cover	1	Aluminum Die Casting
2	Box Body	1	Aluminum Die Casting
3	Shaft	1	Stainless Steel
4	Indicator Cover	1	Polycarbonate
5	Indicator	1	ABS/Polycarbonate
6	Limit Switch	2	Mechanical/Proximity/ Magnet sensor
7	Terminal Strip	8	Polycarbonate, Tin Plated Brass, Stainless Steel
8	Cam	2	Polycarbonate
9	Cover Bolts	4	Stainless Steel
10	Earth Lug	1	Stainless Steel
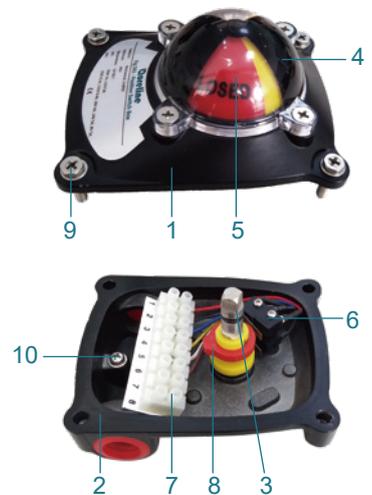
Technical data

Model	Fig.561	
	Standard	**Option**
Weather proof	IP67	
Temperature range	-25℃~+85℃	-25~+125℃
Cable entry	2×1/2NPT	PT1/2, PF1/2, M20 PG13.5
Terminal strips	8	
Position indicator	0~90°	0~180°
	Open-Yellow; Close-Red	
Mechanical switch	250VAC/5A; 30/48VDC/5A	
Proximity sensor	DC 24V (5-60VDC), ≤150mA	
Material	Aluminum Die-casting (Black)	

Dimensions

Features

● Solid and compact design - Body in corrosion resistant and impact resistant aluminium die-casting with black power coated.

● 4-20mA current feedback available on request.

● High level weather proof IP67.

● Multi-point terninal strip, standard 8 points and enough strips for connection of solenoid valve.

● Quick-set cam - Spring loaded splined cam. No need to re-adjust after initial setting.

● Captive cover bolts - No worry to loose bolts while cover is open.

● Easy mounting - NAMUR stainless steel shaft and ISO5211 stainless steel mounting bracket as standard.

● Visual position indicator as standard.

Technical data

Model	Fig.561M	
	Standard	**Option**
Weather proof	IP67	
Temperature range	-25℃~+85℃	-25~+125℃
Cable entry	2×1/2NPT	PT1/2, PF1/2, M20 PG13.5
Terminal strips	8	9~12
Position indicator	0~90°	0~180°
	Open-Yellow; Close-Red	
Mechanical switch	0.3-0.6A 125VDC；3-16A 125/250VAC	
Proximity sensor *)	DC 24V (5-60VDC), ≤150mA	
Feedback	4-20mA	
Material	Aluminum Die-casting (Black)	

*) Proximity sensors available with: P+F NBB3-V3-Z4, NJ2-V3-N. Contact Coreline for other special sensors.

Dimensions

● Only adjustable bracket available for Fig.561M.

● Standard bracket material is stainless steel.

Side A

2-M8

Φ9.5

2-NPT1/2

30×80×H   H=20~30
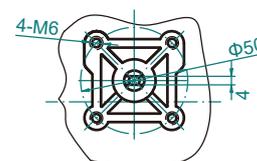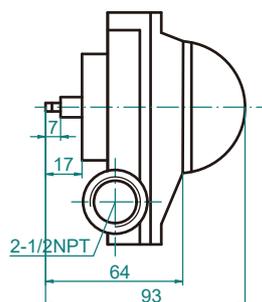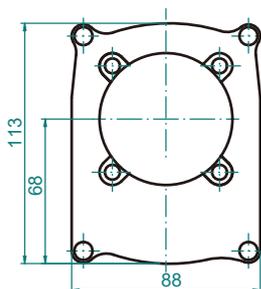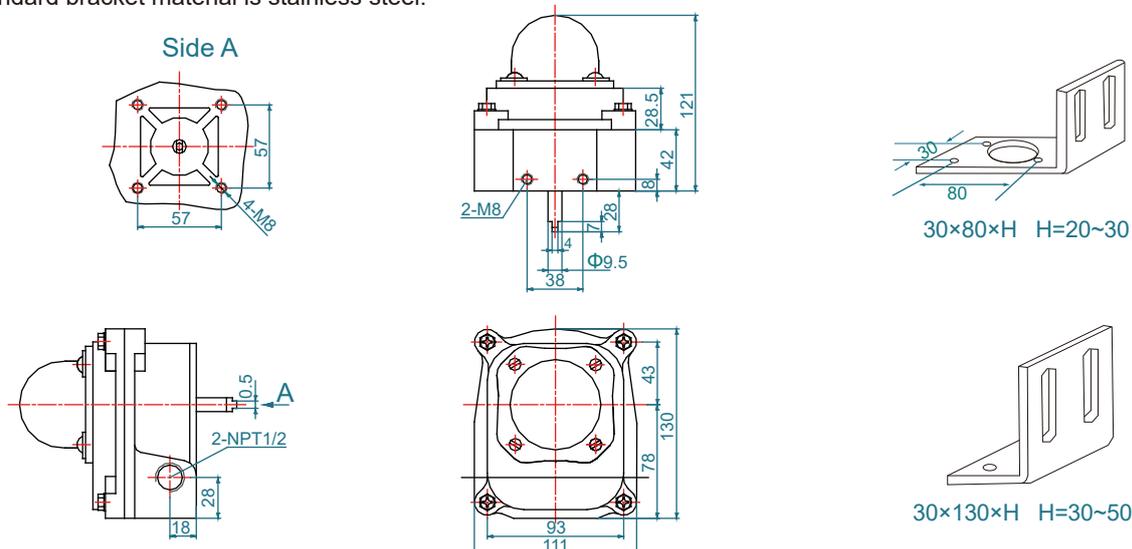
30×130×H   H=30~50

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Fig.560 Position switch box - Exd II CT6

Features

● Solid and compact design - Body in corrosion resistant and impact resistant aluminium die-casting with black power coated.

● High level weather proof IP67 and with explosion proof Exd II CT6.

● Multi-point terninal strip, standard 8 points and enough strips for connection of solenoid valve.

● Quick-set cam - Spring loaded splined cam. No need to re-adjust after initial setting.

● Captive cover bolts - No worry to loose bolts while cover is open.

● Easy mounting - NAMUR stainless steel shaft and ISO5211 stainless steel mounting bracket as standard.

● Visual position indicator as standard, with Non-visual version indicator type available on request.

Technical data

Model	Fig.560	
	Standard	Option
Weather proof	IP67	
Explosion proof	II 2G Ex db IIC T6 Gb, II 2D Ex tb IIIC T80℃ Db	
Temperature range [1]	-25℃~+85℃	-25~+125℃
Cable entry	2×3/4NPT	PT3/4, PF3/4
Terminal strips	8	9~12
Position indicator	0~90°	0~180°
	Open-Yellow ; Close-Red	
Mechanical switch	0.3-0.6A 125VDC; 3-16A 125/250VAC	
Proximity sensor	DC 24V (5-60VDC), ≤150mA	
Material	Aluminum Die-casting	

Dimensions

Dimensions - Bracket

30×80×H H=30   30×80×H H=40   30×130×H H=40   30×80×H H=30~40   30×130×H H=30~50
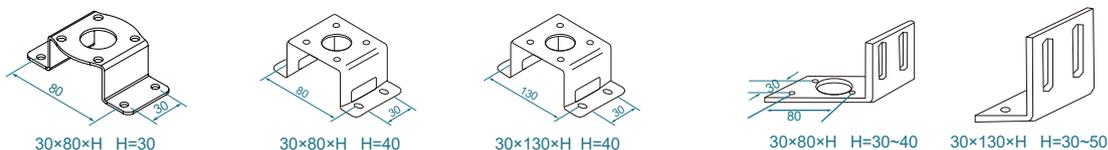
Fig.560 Position switch box - Exd II CT6

Material part list

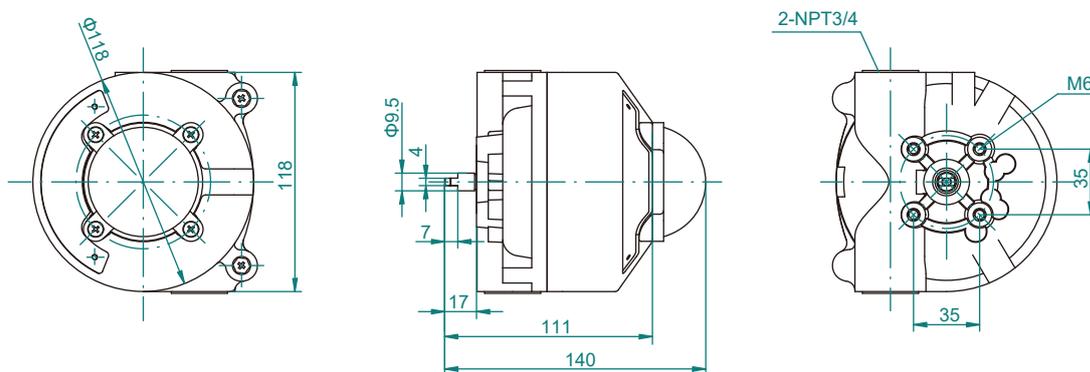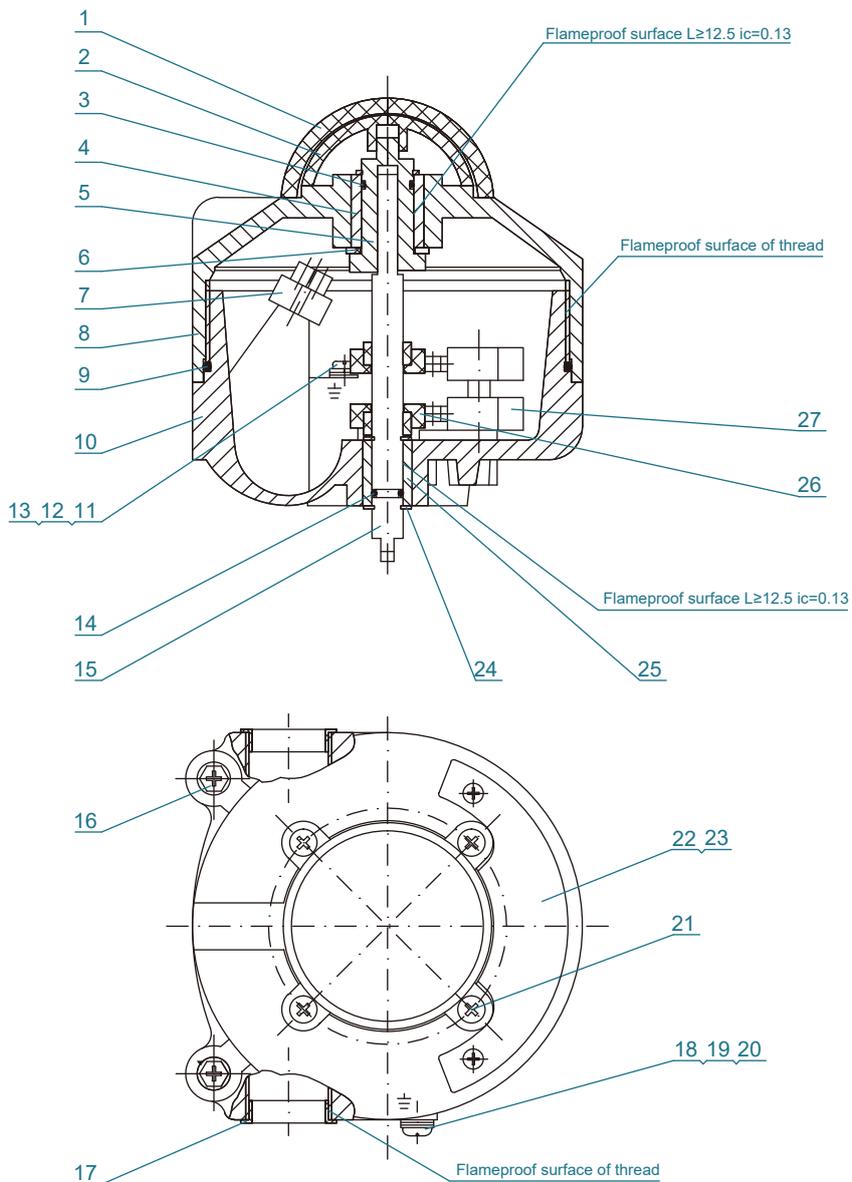| No.	Part name	Qty	Material	No.	Part name	Qty	Material
1	Transparent cover	1	Makrolon	15	Lower stem	1	SS303
2	Indication	1	ABS	16	Bolt	2	SS304
3	O-ring	1	NBR	17	Protecting cover	2	Rubber+plastic
4	Bushing	1	HPb59-1	18	Bolt	1	SS304
5	Upper stem	1	YL102	19	Washer	1	SS304
6	Gasket	1	Nylon 1010	20	Washer	2	SS304
7	Amphenol connector	1	Nylon 6	21	Bolt	4	SS304
8	Cover	1	YL102	22	Nameplate	1	SS304
9	O-ring	1	NBR	23	Bolt	2	SS304
10	Bottom seat	1	YL102	24	Retainer	2	SS304
11	Bolt	1	SS304	25	Bushing	1	HPb59-1
12	Washer	1	SS304	26	Cam	2	ABS
13	Washer	2	SS304	27	Microswitch	2	
14	O-ring	1	NBR				

Fig.560B Position switch box - Exd II BT6

Features

● Solid and compact design - Body in corrosion resistant and impact resistant aluminium die-casting with black power coated.

● 4-20mA current feedback available on request.

● High level weather proof IP67 and with explosion proof Exd II BT6.

● Multi-point terninal strip, standard 8 points and enough strips for connection of solenoid valve.

● Quick-set cam - Spring loaded splined cam. No need to re-adjust after initial setting.

● Captive cover bolts - No worry to loose bolts while cover is open.

● Easy mounting - NAMUR stainless steel shaft and ISO5211 mounting bracket as standard.

● Visual position indicator as standard.

Technical data

Model	Fig.560B	
	Standard	**Option**
Weather proof	IP67	
Explosion proof	II 2G Ex db IIC T6 Gb, II 2D Ex tb IIIC T80℃ Db	
Temperature range [1]	-25℃~+85℃	-25~+125℃
Cable entry	2×3/4NPT	PF3/4
Terminal strips	8	9~12
Position indicator	0~90°	0~180°
	Open-Yellow；Close-Red	
Mechanical switch	0.3-0.6A 125VDC；3-16A 125/250VAC	
Proximity sensor	DC 24V (5-60VDC), ≤150mA	
Feedback	4-20mA	
Material	Aluminum Die-casting	

Dimensions

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Features

● Solid and compact design - Body is available with aluminium die-casting and CF8M.

● 4-20mA current feedback available on request.

● High level weather proof IP67 and with explosion proof Exd II CT6.

● Multi-point terninal strip, standard 8 points and enough strips for connection of solenoid valve.

● Quick-set cam - Spring loaded splined cam. No need to re-adjust after initial setting.

● Captive cover bolts - No worry to loose bolts while cover is open.

● Easy mounting - NAMUR stainless steel shaft and ISO5211 stainless steel mounting bracket as standard.

● Visual position indicator as standard.

Technical data

| Model	Fig.560C	
	Standard	**Option**
Weather proof	IP67	
Explosion proof	II 2G Ex db IIC T6 Gb, II 2D Ex tb IIIC T80℃ Db	
Temperature range [1]	-25℃~+85℃	-25~+125℃
Cable entry	2×3/4NPT	PT3/4, PF3/4
Terminal strips	8	9~12
Position indicator	0~90°	0~180°
	Open-Yellow ; Close-Red	
Mechanical switch	0.3-0.6A 125VDC；3-16A 125/250VAC	
Proximity sensor	DC 24V (5-60VDC), ≤150mA	
Feedback	4-20mA	
Material	Aluminum Die-casting, CF8M	

Dimensions
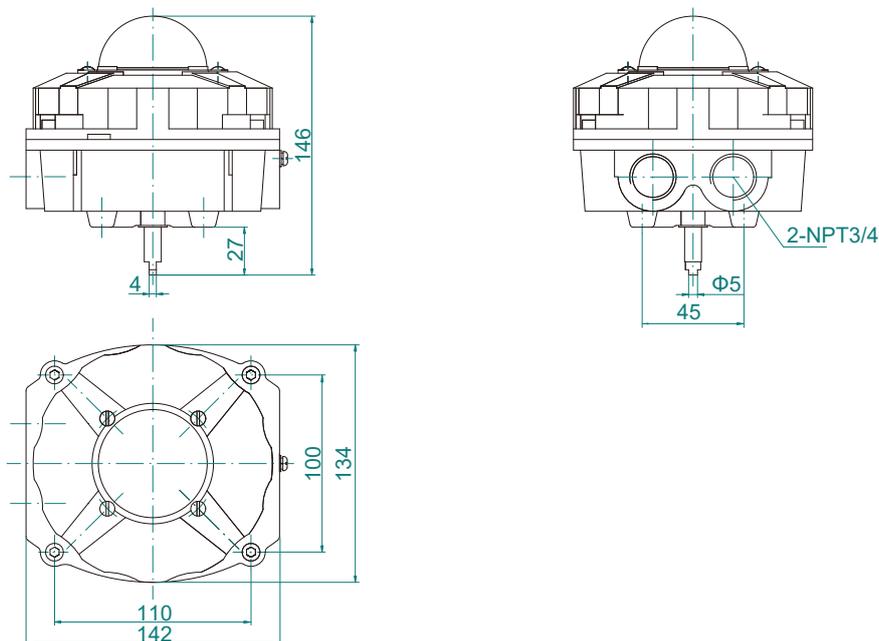
Fig.568 Magnetic switch

Features

● Sense the ON/OFF position of the valve for remote PLC or PC registration.

● The device includes two reed LED indicator and visual indicator on top of the device
to clearly display the valve position for local detection.

● Housing in ABS material, light in weight and corrosion restistant.

● Weather proof IP67.

● Easy assembly with minimal components.

● With flexible set system allows an adaptation to all sizes of actuators according to
NAMUR.

Technical data

Item	Specification
Enclosure material	ABS
Contact form	NO (optional NC)
Output type	2-wire
Switching capacity	1W~10W
Switching voltage	5~240VAC/VDC
Switching current	0~300mA
Switching frequency	0~4.8KHz
Sensor position	-45°/+45° ±10°
Operating temperature	-40℃~+85℃
Proximity distance	1mm~6mm
Mounting	Standard: 30×80 H: 20, 30
	Requiring: 30×130 H: 20, 30
Fasteners	Stainless steel
Wiring (1-red, 2-blue, 3-yellow, 4-black)	-FL: Flying lead (70mm)
	-P4: M12-4P wiring connector

Dimensions

Fig.569-FL

Fig.569-P4

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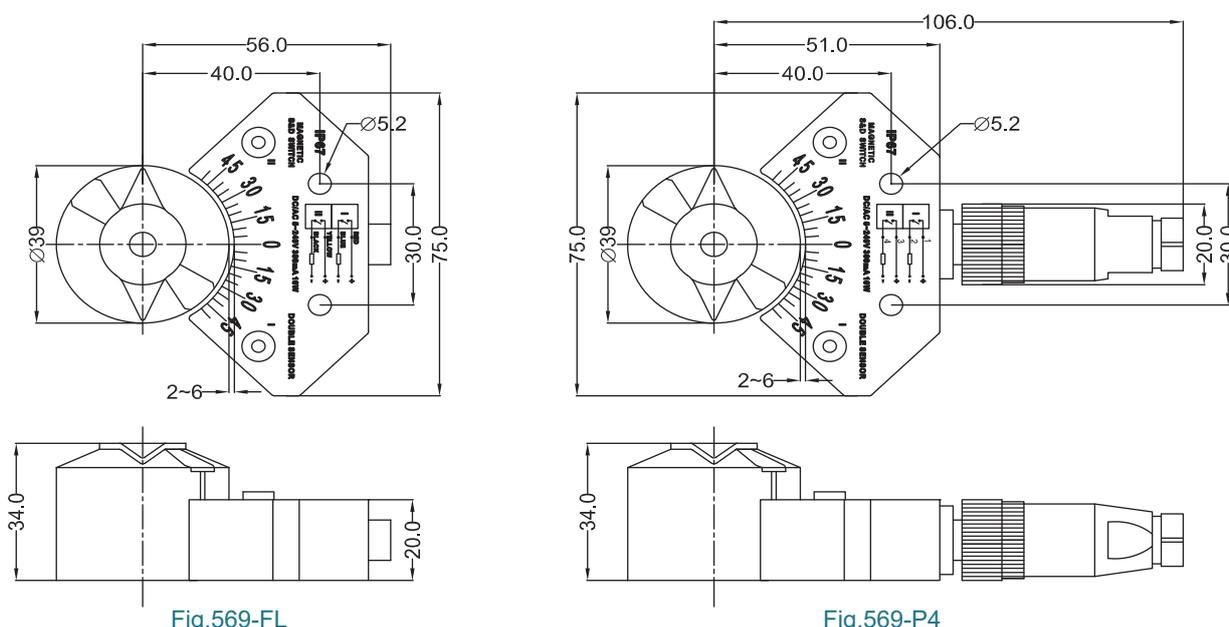
Fig.570 Namur solenoid valve

Features

● Robust industrial 5/2 and 3/2 way solenoid valve.

● Low power consumption and long service life.

● NAMUR standard for direct mounting on actuators.

● Surface is hard anodized as protection against corrosion (20μ).

● Low temperature construction.

● Manuel operation for use in testing or when lack of supply voltage.

● The spring affected piston ensures that the solenoid valve returns to its
  starting point at power failure.

● 100% quality control. Each solenoid valve is function tested and pressure
  tested.

● CE approved.

Specifications

Item	Specification
Body	Extruded aluminium
Seal	NBR
Construction	5/2 , 3/2 way
Air consumption	1100L/min at 5 bar
Flow capacity	Kv = 0.95m³/h
Air ports	1/4" BSPP or NPT
Assembly	NAMUR, manual override on body
Fasteners	Stainless steel
Medium temperature	-25℃~+80℃
Working pressure	2bar~8bar
Working medium	Less than 40μm filtered and dried air; Air quality DIN/ISO 8573-1 Class3.
Operating voltage	24VDC - 3W, 24VAC - 3.5VA, 230VAC - 3.5VA
Wiring connector	M20×1.5 or 1/2"NPT
Weather proof	IP65
Coil operating temperature	-20℃~+60℃

Material part list
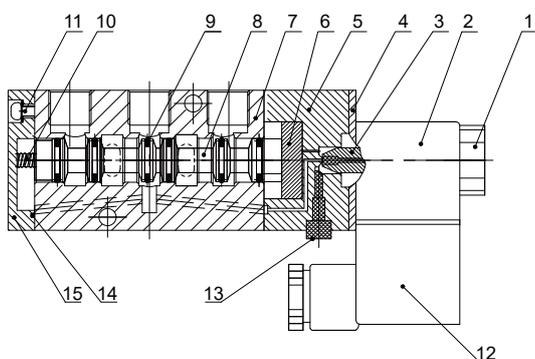
No.	Part name	Material	No.	Part name	Material
1	Nut	PA66	9	O-ring	NBR
2	Coil	-	10	Spring	SS304
3	Armature	-	11	Bolt	SS304
4	Plate	SS304	12	Connector	PA66
5	Pilot body	Aluminum ADC12	13	Manual rod	PA66
6	Gasket	Aluminum	14	Seal	NBR
7	Body	Aluminum ADC12	15	Bottom cover	Aluminum ADC12
8	Core	Aluminum			

Fig.576 Namur solenoid valve - Explosion proof

Features

● Robust industrial 5/2 and 3/2 way solenoid valve.
● Body and coil material are available in both extruded aluminium and SS316.
● Excellent for usage in hazardous area with explosion proof **II 2G Ex db IIC T6 Gb**.
● Designed with "environmentally-protected structure", offer excellent environmental protection against the ingress of liquilds, dusts or other foreign matters.
● NAMUR standard for direct mounting on actuators.
● Manuel operation for use in testing or when lack of supply voltage.
● The spring affected piston ensures that the solenoid valve returns to its starting point at power failure.
● 100% quality control. Each solenoid valve is function tested and pressure tested.
● CE approved.

Specifications

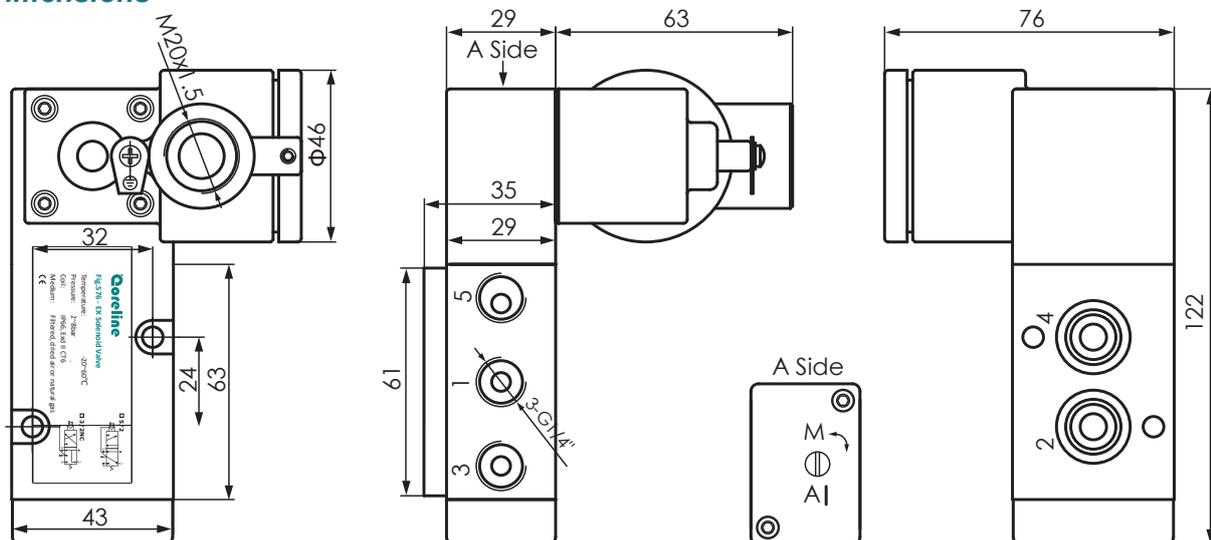| Item	Specification
Valve body material	Extruded aluminium or stainless steel 316
Coil material	Extruded aluminium or stainless steel 316
Seal	NBR
Construction	5/2, 3/2NC
Air consumption	1082L/min
Flow capacity	Cv = 1.1 (19.63mm²)
Air ports	1/4" BSPP or NPT
Assembly	24×32 NAMUR, manual override on body
Fasteners	Stainless steel
Medium temperature	-25℃~+80℃
Working pressure	2bar~8bar
Working medium	Less than 40μm filtered and dried air
Working lifetime	More than 1,000,000 cycles (under normal working conditions)
Operating voltage	12/24/48VDC-3.5W, 110/220/240VAC-4VA (50/60Hz)
Wiring connector	M20×1.5 or 1/2"NPT
Coil insulation protection	F class coil (H class on required)
Weather proof	IP67
Explosion proof	II 2G Ex db IIC T6 Gb
Coil operating temperature	-20℃~+60℃

Dimensions

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Fig.576 Namur solenoid valve - Explosion proof

Assembly

5/2

3/2NC
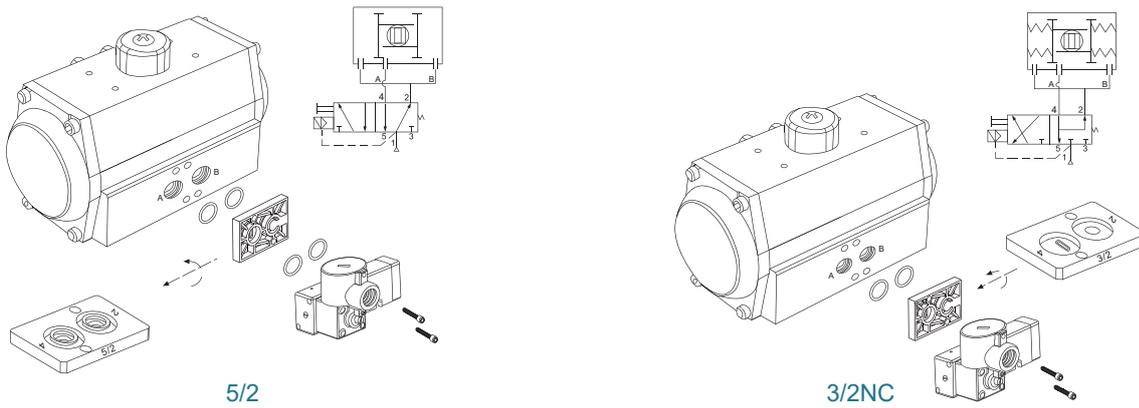
Coil electrical connection

Ground ⏚

V
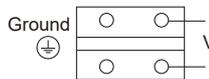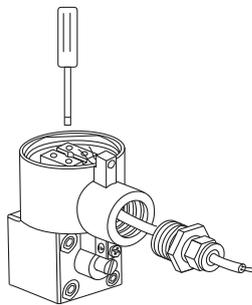
Note:
M20-1.5(or 1/2" NPT) Exd Cable. Gland is
not included. Please contact us if required.

NAMUR interface plate

As for Fig.576 EX solenoid valve, the same valve equipped with 3/2 and 5/2 function NAMUR interface plates can be adapted for 3/2NC or 5/2 functions to control double-acting and single-acting pneumatic actuators.

5/2

5/2

3/2

5/2

3/2
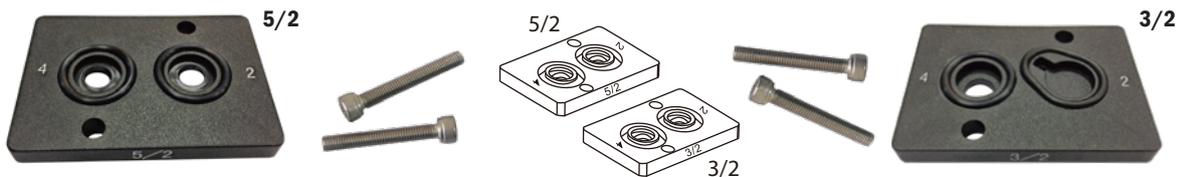
Fig.53S pneumatic actuator speed controller

Body material:	Anodized coated aluminum
Seal:	NBR
Interface:	NAMUR
Working type:	3/2 way, 5/2 way
Working medium:	Less than 40μm filtered and dried air
Working temperature:	-20℃ ~ +60℃
Working pressure:	1.5 bar - 10bar
Port size:	1/4" - φ5mm; 1/2" - φ8mm

● Interface with NAMUR standard - Install directly on pneumatic actuators.
● Available with 3/2 way and 5/2 way.
● Control the opening and closing speed of pneumatic actuators.
● The control of rotary speed of actuator is accurate, consistent and safe without fluctuation.

Fig.577 In-line solenoid valve

Features

● Robust industrial 5/2 and 3/2 way solenoid valve.
● Low power consumption and long service life.
● Thread type for direct mounting on actuators.
● Surface is hard anodized as protection against corrosion (20μ).
● Low temperature construction.
● Manual operation for use in testing or when lack of supply voltage.
● The spring affected piston ensures that the solenoid valve returns to its starting point at power failure.
● 100% quality control. Each solenoid valve is function tested and pressure tested.
● CE approved.

Specifications

Item	Specification
Construction	5/2 , 3/2 way
Air consumption	1100 L/min at 5 bar
Flow rate	Kv = 0,95 m³/h
Pressure single coil	2 bar to 8 bar
Coils	24VDC, 24VAC, 230VAC. Optional: 110V
Voltage indication	LED (Light emitting diode)
Current consumption	24VDC - 3W, 24VAC - 3.5VA, 230VAC - 3.5VA
Temperature	-25°C to +80°C
Connection	Thread, 1/4" inlet/outlet. Optional: Thread, 1/2" inlet/outlet
Medium	Clean air
Air quality	DIN/ISO 8573-1 Class3
Protection class	IP65
Surface	Hard anodized - 20μ

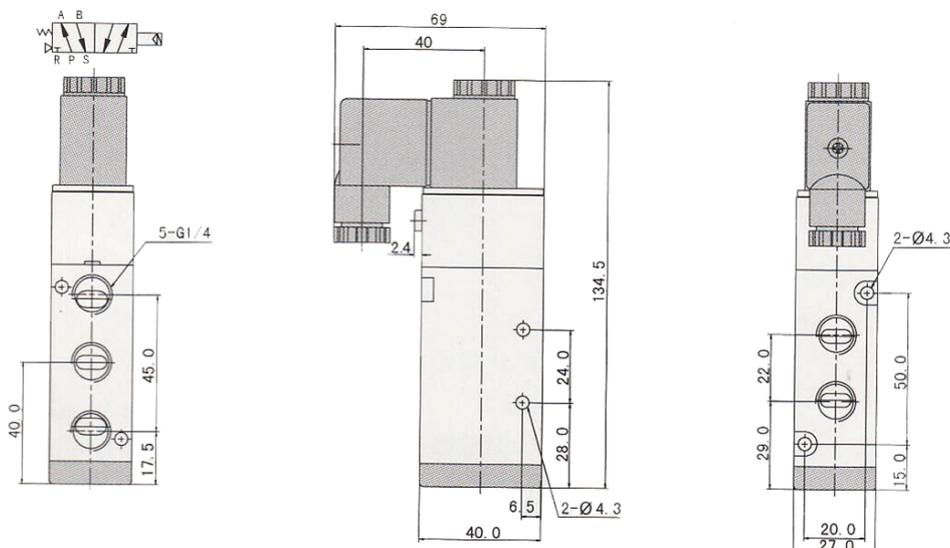## Dimensions - 1/4"

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Fig.578 In-line solenoid valve - Explosion proof

Features

● Robust industrial in-line solenoid valve.
● Body and coil material are available in both extruded aluminium and SS316.
● Excellent for usage in hazardous area with explosion proof **II 2G Ex db IIC T6 Gb**.
● Designed with "environmentally-protected structure", offer excellent environmental protection against the ingress of liquilds, dusts or other foreign matters.
● Manuel operation for use in testing or when lack of supply voltage.
● 100% quality control. Each solenoid valve is function tested and pressure tested.
● CE approved.

Specifications

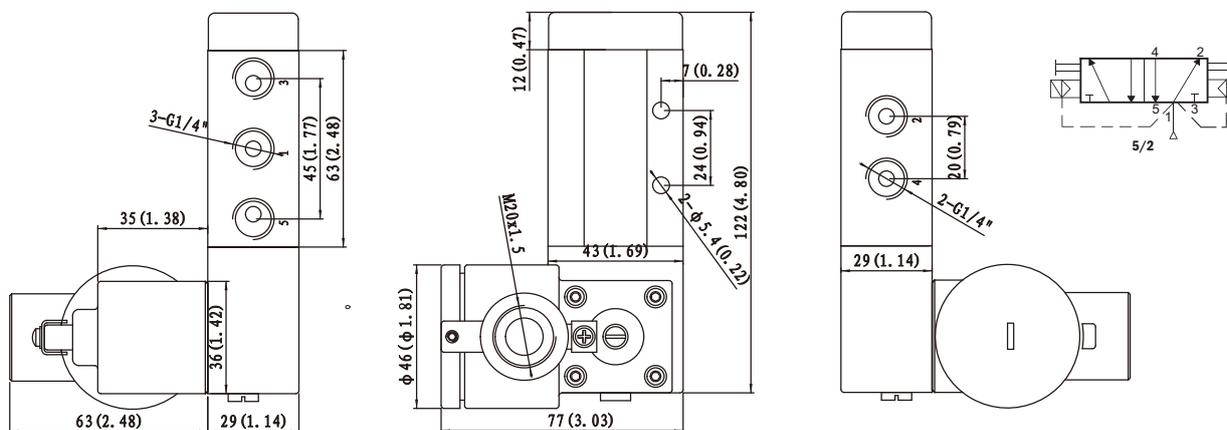| Item	Specification
Valve body material	Extruded aluminium
Coil material	Die-casting aluminium
Seal	NBR
Construction	5/2, monostable, pilot operation
Flow capacity	Cv = 1.1 (19.63mm²)
Air ports	1/4" BSPP or NPT
Assembly	In-line, manual override on body
Fasteners	Stainless steel
Medium temperature	-20℃~+80℃
Environment	Indoor and outdoor
Working pressure	2bar~8bar
Working medium	Less than 40μm filtered and dried air
Working lifetime	More than 1,000,000 cycles (under normal working conditions)
Operating voltage	12/24/48VDC-3.5W, 110/220/240VAC-4VA (50/60Hz)
Wiring connector	M20×1.5 or 1/2"NPT
Coil insulation protection	F class coil (H class on required)
Weather proof	IP67
Explosion proof	II 2G Ex db IIC T6 Gb
Coil operating temperature	-20℃~+60℃

Dimensions

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Fig.585 Intelligent positioner

Features

- Full digital control, reliability, stability, small size and light weight.
- Convenient for adjustment by simple buttons.
- Simple function setting, convenient for the transform of positive action and counter action, valve open and close.
- Intelligent control. It can give analysis, alarm and optimization when medium fluctuation, span excess, actuator leakage occur.

Specifications

Item	Specification
Input signal	4~20mA. Can set up between 20%~100% when by span to zero adjustment
Rated voltage	24VDC
Impedance	310Ω (20mA, 6.2VDC)
Output pressure	0~6bar
Output signal supply voltage	24VDC
Signal range	0~20% (If below this range, positioner will put the pneumatic actuator off)
Rated travel	25~120°(Rotary); 25~60°（Linear)
Air consumption	＜0.03kg/h
Action type	Direct: signal 4~20mA, position 0~100%; Reverse: signal 20~4mA, position 0~100%
Characteristic	Line; Equal percentage 1:25; Equal percentage 1:50; Equal percentage 25:1
Precision	≤0.1%

Dimensions
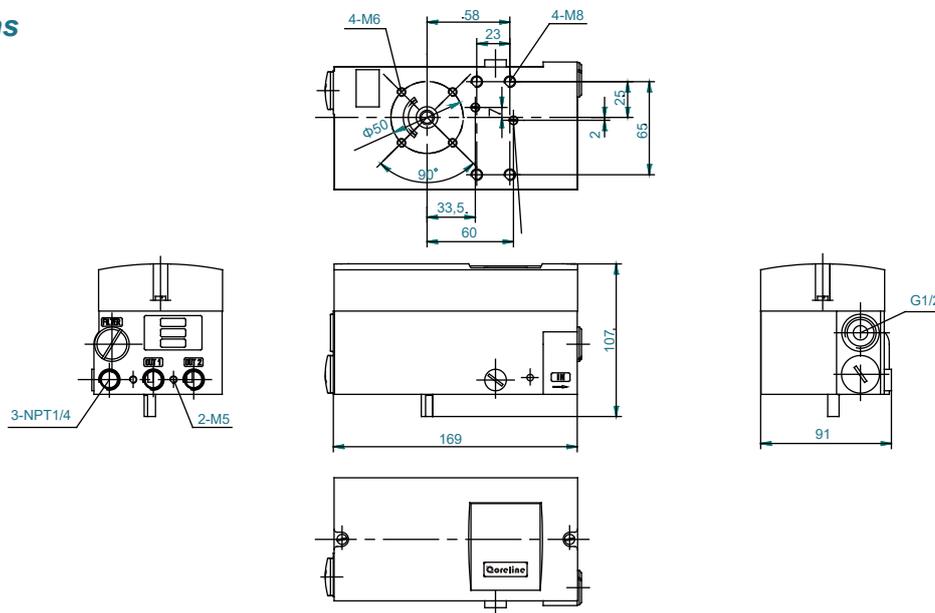
Available

Hart protocal type available on request.
Other brands like ABB, Siemens are also available with comperative prices.

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Fig.586 Electro-pneumatic positioner

Features

● Convenient to change between direct action and back action, or change between spring return and double acting.
● Low air consumption, easy to operate the Zero Adjust and Span Adjust, quick acting and simple to connect the feedback lever.
● Both rotary and linear types can select and install the DC 4~20mA feedback unit.
● No vibration in the range of 5~200Hz.
● Can set 1/2 Split Range with simply operate, do not need to change part.
● Zero & Span adjustment process is simple.
● Acting fast and accurately.
● Economical due to less air-consumption.
● Small pneumatic actuator can use the orifice of pilot valve to avoid vibration.
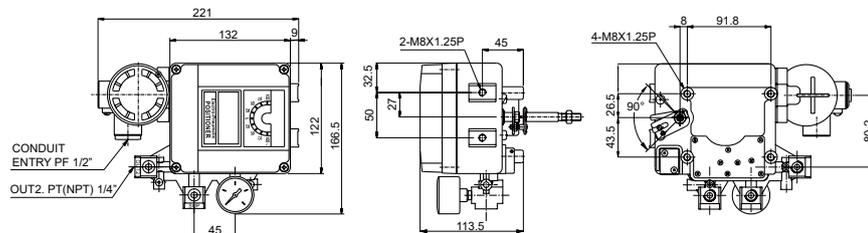

Specifications

Item	Specification
Input signal	4~20mA DC
Impedance	250±15Ω
Supply pressure	1.4bar~7bar
Stroke	0~90°(Rotary); 10~150mm (Linear)
Air connection	1/4"PT (NPT)
Gauge connection	1/8"PT (NPT)
Conduit	1/2" (G1/2")
Explosion proof	Exia II CT6
	Exd II BT6
	Exd II CT6
Protection	IP66
Ambient temperature	-20℃~+70℃ （Operating); -20℃~+60℃ （Explosion)
Hysteresis	±1% F.S.
Repeatability	±0.5% F.S.
Material	Aluminium die-casting
Weight	2.7kg

Dimensions

Rotary Type Dimension

Linear Type Dimension
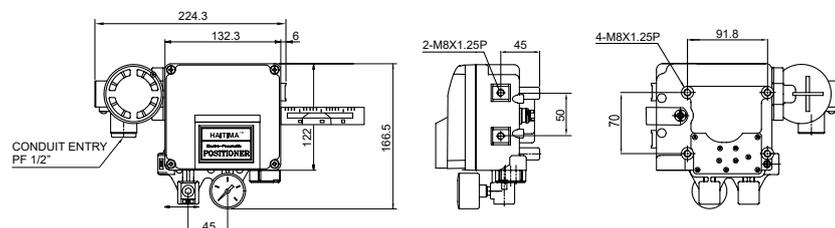
Fig.531 Filter regulator

Specifications

Model	531-10-A	531-20-A	531-30-A	531-40-A	531-40-06-A
Port size	M5×0.8	1/8，1/4	1/4，3/8	3/8，1/2	3/4
Pressure gauge port size	1/16 [1]	1/8		1/4	
Fluid	Air				
Ambient and fluid temperature	−5 ~ +60℃ (with no freezing)				
Proof pressure	15bar				
Maximum operating pressure	10bar				
Set pressure range	0.5 ~ 7bar				
Norminal filtration rating	5μm				
Drain capacity (cm^3)	2.5	8	25	45	
Bowl material	Poly carbonate				
Bowl guard	——	Semi-standard	Standard (Poly carbonate)		
Construction	Relieving type				

1) Use a bushing when connecting the R1/8 pressure gauge to the Rc1/16.

Material part list

531-10-A

531-20-A
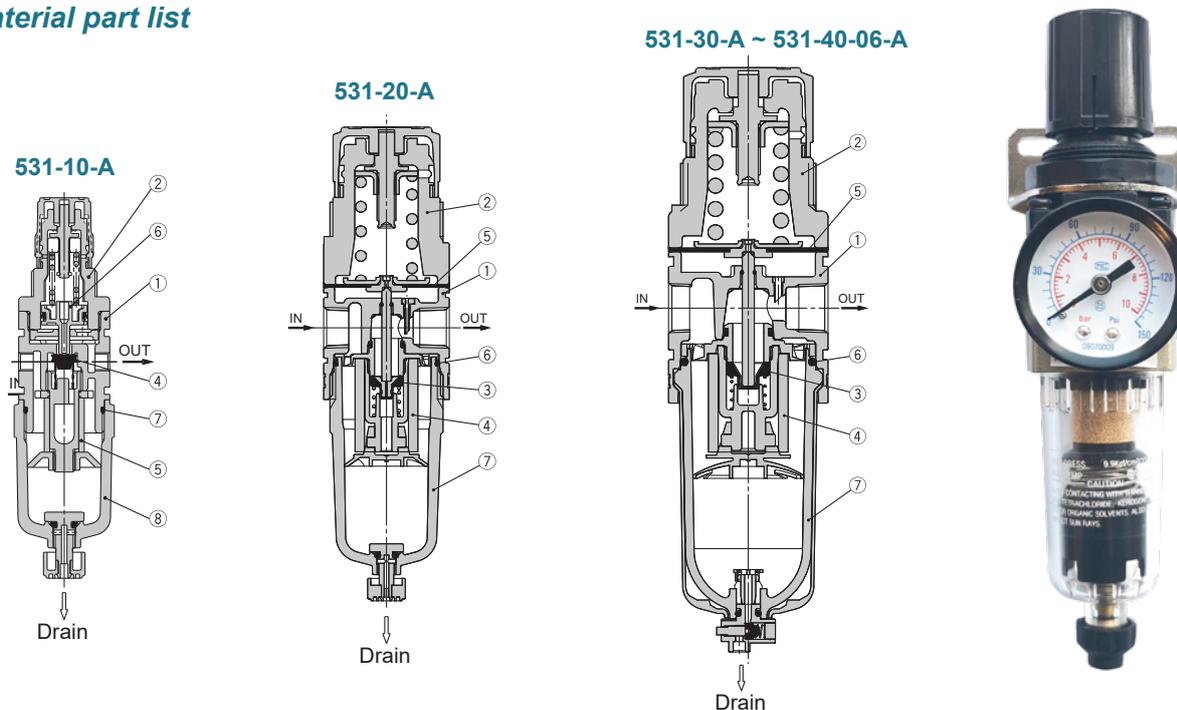
531-30-A ~ 531-40-06-A

No.	Part name	Material	Remark
1	Body	Zinc die-cast	531-10-A
		Aluminum die-cast	531-20-A ~ 531-40-06-A
2	Bonnet	Polyacetal	531-10-A ~ 531-40-06-A
3	Valve assembly	Stainless steel, HNBR	-
4	Filter element	Non-woven fabric	-
5	Diaphragm assembly	Weatherable NBR	-
6	Bowl seal	NBR	-
7	Bowl assembly [2]	Polycarbonate	-

2) Bowl seal is included for the 531-20-A to 531-40-06-A.

Fig.530 Filter/Regulator-Lubricator
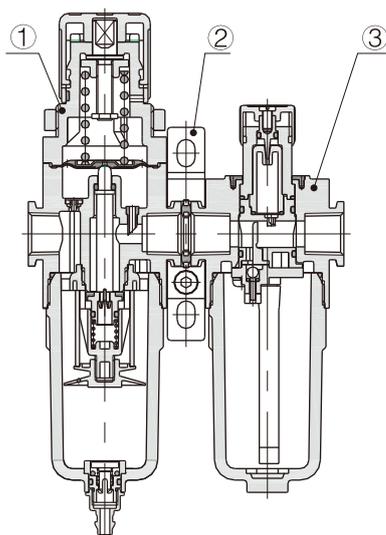
Features

- Quick and reliable mounting clamps makes it convenient to install and use.
- The performance of the pressure adjustment is reliable with high precision.
- The efficiency of eliminating moisture and solid grain is high.
- Three drain types are available: munual drain, semi-auto drain and automatic drain.

Specifications

Model	5302200-06	5302200-08	5302300-08	5302300-10	5302300-15	5302400-10	5302400-15	5302600-20	5302600-25
Fluid	Air								
Port size	1/8"	1/4"	1/4"	3/8"	1/2"	3/8"	1/2"	3/4"	1"
Filtering grade	40μm or 5μm								
Pressure range	Semi-auto and automatic drain:1.5bar~9bar (20psi~130psi); Manual drain: 0.5bar~9bar (7psi~130psi)								
Max. pressure	10bar (145psi)								
Proof pressure	15bar (215psi)								
Temperature range	-5℃~+70℃								
Capacity of drain bow	10CC		40CC			80CC		230CC	
Capacity of oil bowl	25CC		75CC			160CC		380CC	
Recommend lubricant	ISO VG 32 or equivalent								
Weight	430g		980g			1950g		4320g	

Construction

5302200
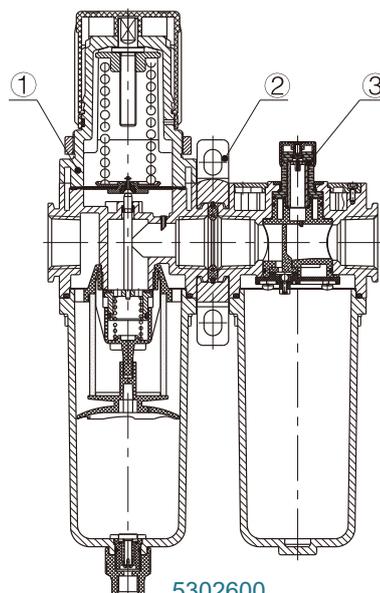
5302600

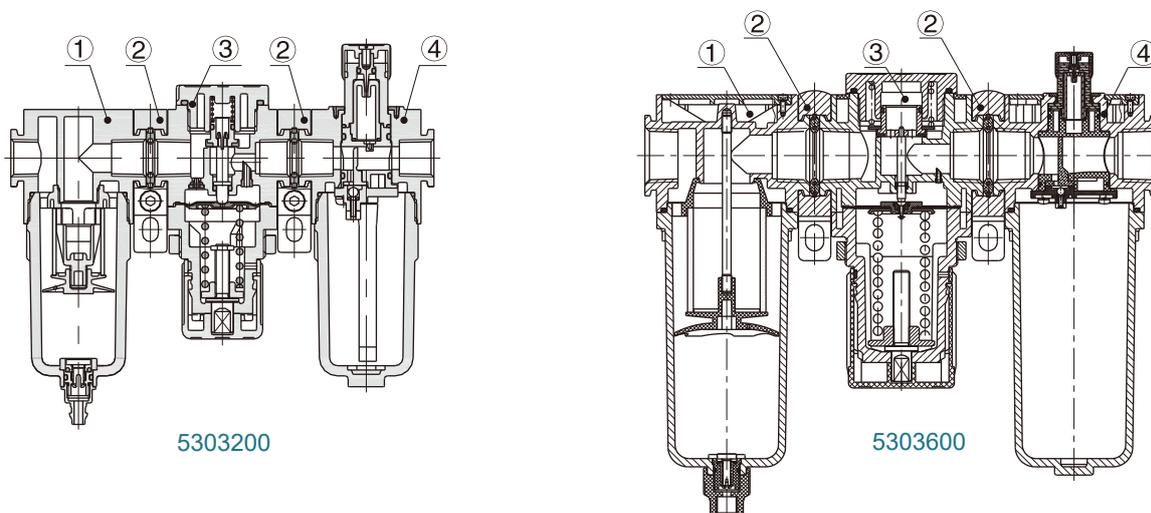| No.	1	2	3
Part name	Filter-regulator	Bracket	Lubricator

Fig.530 Filter-Regulator-Lubricator

Features

● Oil dripping adopts gap seal structure, which makes the adjustment of oil supply more reliable.
● Oil fee ring can only make one full turn. The quantity of oil supply, basically taking on linear distribution. The quantity of oil supply can be generally calculated according to the position of graduation ring.
● Filling of oil while the lubricator is under pressure is made possible.
● Special drip nozzle structure will produce negative pressure in oil dripping outlet and the mist flow is minimal.
● Quick and reliable mounting clamps makes it convenient to install and use.
● Reliable performance of pressure adjustment with high precision.
● The efficiency of eliminating moisture and solid grain is high.
● Three drain types are available: manual drain, semi-auto drain and automatic drain.

Specifications

Model	5303200-06	5303200-08	5303300-08	5303300-10	5303300-15	5303400-10	5303400-15	5303600-20	5303600-25
Fluid	Air								
Port size	1/8"	1/4"	1/4"	3/8"	1/2"	3/8"	1/2"	3/4"	1"
Filtering grade	40µm or 5µm								
Pressure range	Semi-auto and automatic drain:1.5bar~9bar (20psi~130psi); Manual drain: 0.5bar~9bar (7psi~130psi)								
Max. pressure	10bar (145psi)								
Proof pressure	15bar (215psi)								
Temperature range	-5℃~+70℃								
Capacity of drain bow	10CC		40CC			80CC		230CC	
Capacity of oil bowl	25CC		75CC			160CC		380CC	
Recommend lubricant	ISO VG 32 or equivalent								
Weight	580g		1300g			2360g		5550g	

Construction

5303200

5303600

No.	1	2	3	4
Part name	Filter	Bracket	Regulator	Lubricator

Fig.590 Pneumatic silencers and fittings

Name	Type	Size	Picture
Brass silencer	BSL01	1/8"	
	BSL02	1/4"	
	BSL03	3/8"	
	BSL04	1/2"	
	BSL06	3/4"	
	BSL08	1"	
Nickel coated plain silencer	BSLM01	1/8"	
	BSLM02	1/4"	
	BSLM03	3/8"	
	BSLM04	1/2"	
	BSLM06	3/4"	
Plastic silencer	PSL01	1/8"	
	PSL02	1/4"	
	PSL03	3/8"	
	PSL04	1/2"	
	PSL06	3/4"	
Brass speed control	BESL01	1/8"	
	BESL02	1/4"	
	BESL03	3/8"	
	BESL04	1/2"	
	BESL06	3/4"	
	BESLC01	1/8"	
	BESLC02	1/4"	
	BESLC03	3/8"	
	BESLC04	1/2"	
	BESLC06	3/4"	
Brass speed control with spring	ISD01	1/8"	
	ISD02	1/4"	
	ISD03	3/8"	
	ISD04	1/2"	
Nickel coated pipe connector		1/4"	
		1/2"	
Nickel coated L type pipe connector		1/4"	
		1/2"	

Note: Please contact us if other types are required.