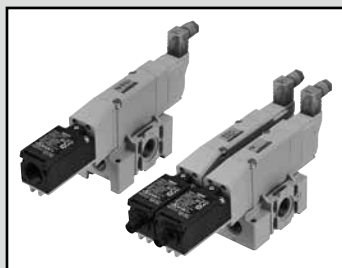


F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain
Separ
Mech
Press SW
Res press
exh valve
SlowStart
Anti-bac/Bac-
remove Filt
Film
Resist FR
Oil-ProhR
Med
Press FR
No Cu/
PTFE FRL
Outdrs FRL
Adapter
Joiner
Press
Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneR
AirBoost
Speed Ctrl
Silncr
CheckV/
other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro
Press SW
ContactSW
AirSens
PresSW
Cool
Air Flo
Sens/Ctrl
WaterR/Sens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Gas
generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending



Residual pressure exhaust valve with spool position detection

SNS Series

● Port size: Rc3/8, Rc1/2, G1/2, NPT3/8, NPT1/2



Common specifications

Item	Description
Valve type and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7 (≈101 psi, 7 bar)
Min. working pressure	0.2 (≈29 psi, 2 bar) (For internal pilot specifications) MPa 0 (≈0 psi, 0 bar) (For external pilot specifications)
External pilot pressure MPa	0.2 (≈29 psi, 2 bar) to 0.7 (≈101 psi, 7 bar)
Proof pressure MPa	1.05 (≈152 psi, 10 bar)
Ambient temperature °C	-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C	5 (41°F) to 55 (131°F)
Manual override	Non-locking/locking common (standard)
Lubrication *1	Not required
Degree of protection *2	Dust proof/jet proof (IP65)
Vibration resistance m/s ²	50 or less
Impact resistance m/s ²	300 or less
Atmosphere	Cannot be used in corrosive gas environments
Maximum operating frequency	30 cycles/min.
Minimum operating frequency	1 cycle/week

Electrical specifications

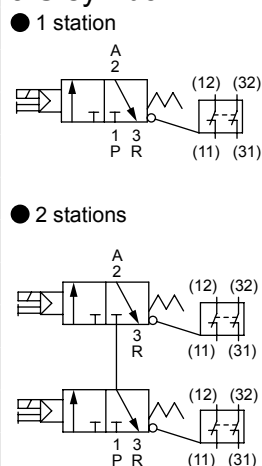
Item	Description
Rated voltage V	24 DC
Voltage fluctuation range	±10%
Holding current A	0.042
Power consumption W	1.0
Thermal class	B
Surge suppressor	Varistor
Indicator	LED

Individual specifications

Item	Description	
Port size	Port P/A	Rc3/8, Rc1/2, G1/2, NPT3/8, NPT1/2
	Port R	Rc3/8, G3/8, NPT3/8

- *1. Use turbine oil Class 1 ISO VG32 for lubrication.
Excessive or intermittent lubrication results in unstable operation.
- *2. Use the specified outer diameter of the cord and tightening torque for fixing.
Do not use this product in environments where it will be constantly exposed to water or oil.
IP65 (IEC60529 [IEC529:1989-11]) standards are applied to the test.
- *3. For the working pressure, refer to page 203 flow characteristics.
- *4. Pilot exhaust is an atmospheric release type. Ports have not been machined.

JIS symbol



Weight

Unit: kg

Item	Weight		
1 station	With safety limit switch	Pg13.5 M12-4P connector	0.7
	Without switch		0.6
2 stations	With safety limit switch	Pg13.5 M12-4P connector	1.2
			1.2

Flow characteristics

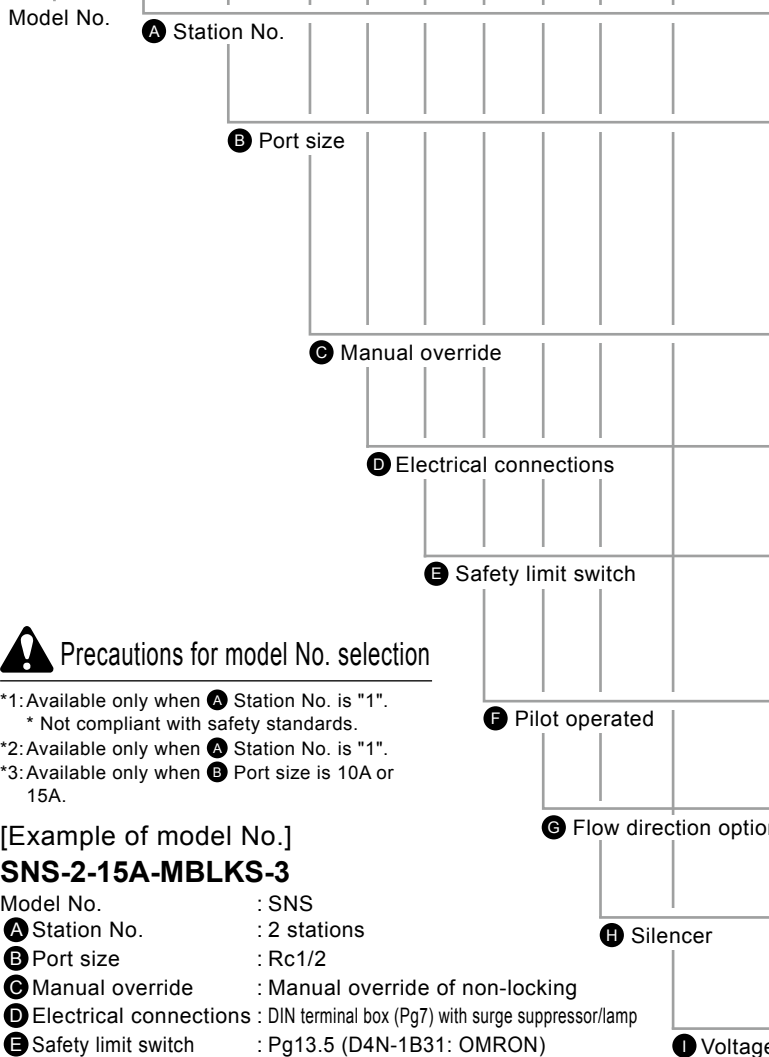
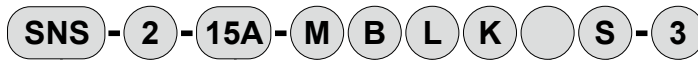
Model No.	Station No.	P→A	A→R
		C[dm ³ /(s·bar)]	
SNS	1 station	13	14
	2 stations	10	14

Limit switch specifications

Item	Limit switch specifications	
Manufacturer model	D4N-1B31 (OMRON)	D4N-9B31 (OMRON)
Terminal	Pg13.5	M12-4P connector
Contact resistance	25 mΩ or less	
Minimum applicable load	5 VDC 1 mA resistance load	
Rated insulation voltage V	300	
Insulation resistance MΩ	100	
Electric shock protection class	Class II	
Pollution degree (working environment)	3 (EN60947-5-1)	
Conditional short-circuit current A	100	

* Refer to the manufacturer's catalog for details.

How to order



⚠ Precautions for model No. selection

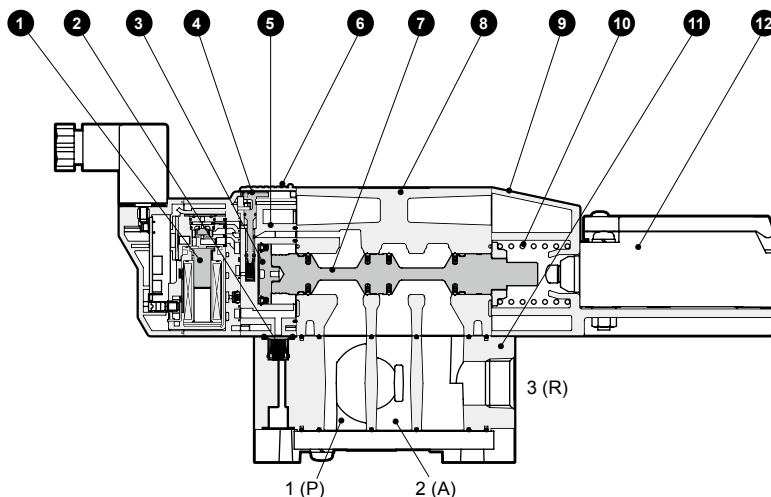
- *1: Available only when **A** Station No. is "1".
* Not compliant with safety standards.
- *2: Available only when **A** Station No. is "1".
- *3: Available only when **B** Port size is 10A or 15A.

[Example of model No.] SNS-2-15A-MBLKS-3

- Model No. : SNS
- A** Station No. : 2 stations
- B** Port size : Rc1/2
- C** Manual override : Manual override of non-locking
- D** Electrical connections : DIN terminal box (Pg7) with surge suppressor/lamp
- E** Safety limit switch : Pg13.5 (D4N-1B31: OMRON)
- F** Pilot operated : External pilot
- G** Flow direction option : Standard flow (left → right)
- H** Silencer : Silencer (SLW-10L) included
- I** Voltage : 24 VDC

Code	Description
A Station No.	
1	1 station
2	2 stations
B Port size	
10A	Rc3/8
15A	Rc1/2
15G	G1/2
10N	NPT3/8
15N	NPT1/2
C Manual override	
Blank	Manual override of non-locking/locking common
M	Manual override of non-locking
D Electrical connections	
B	DIN terminal box (Pg7) with surge suppressor/lamp
BN	DIN terminal box (Pg7) (without terminal box) With surge suppressor
E Safety limit switch	
Blank	Without switch (*1)
L	Pg13.5 (D4N-1B31: OMRON)
M	M12-4P connector (D4N-9B31: OMRON)
F Pilot operated	
Blank	Internal pilot
K	External pilot
G Flow direction option	
Blank	Standard flow (left → right)
X1	Reverse flow (right → left) (*2)
H Silencer	
Blank	None
S	Silencer (SLW-10L) included (*3)
I Voltage	
3	24 VDC

Internal structure diagram and parts list



Parts list

No.	Part name	Material
1	Coil assembly	-
2	Check valve	Hydrogenated nitrile rubber
3	Piston assembly	-
4	Manual override	Resin
5	Piston chamber	Resin
6	Manual protection cover	Resin
7	Spool assembly	-
8	Body	Aluminum alloy die-casting
9	Cap	Resin
10	Spool spring	Stainless steel
11	Single base	Aluminum alloy die-casting
12	Safety limit switch	-

- F.R.L.
- F.R.
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filtr
- Film Resist FR
- Oil-ProhR
- Med Press FR No Cu/ PTFE FRL
- Outdrs FRL
- Adapter Joiner Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/ other
- Fit/Tube
- Nozzle
- Air Unit
- PrecsCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRISens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

F.R.L. Dimensions

F.R. ● 1 station (standard flow)

F (Filtr)
R (Reg)
L (Lub)
Drain
Separ
Mech
Press SW
Res press
exh valve

SlowStart
Anti-bac/Bac-
remove Filtr
Film
Resist FR
Oil-Prohr
Med
Press FR
No Cu/
PTFE FRL

Outdrs FRL
Adapter
Joiner
Press
Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneR
AirBoost

Speed Ctrl
Silncr
CheckV/
other
Fit/Tube
Nozzle
Air Unit

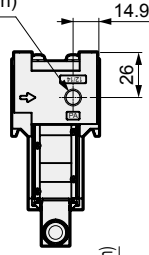
PrecsCompn
Electro
Press SW
ContactSW

AirSens
PresSW
Cool
Air Flo
Sens/Ctrl
WaterRtSens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Gas
generator
RefrDry

DesicDry
HiPolymDry
MainFiltr
Dischrg
etc

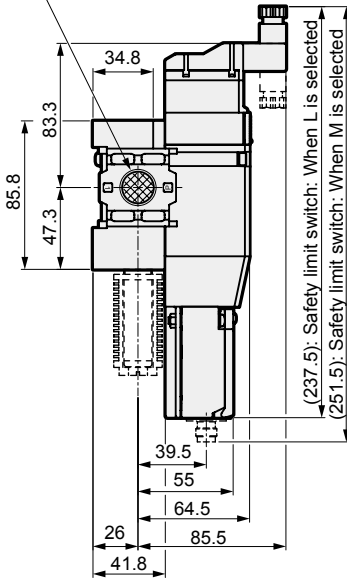
Ending

When selecting External pilot: K
Rc1/8, G1/8, NPT1/8 (selection)
12 (PA) port

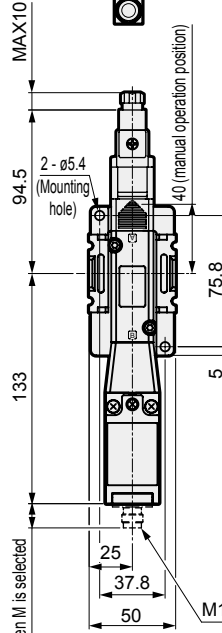


Rc3/8, Rc1/2,
G1/2, NPT3/8, NPT1/2 (selection)

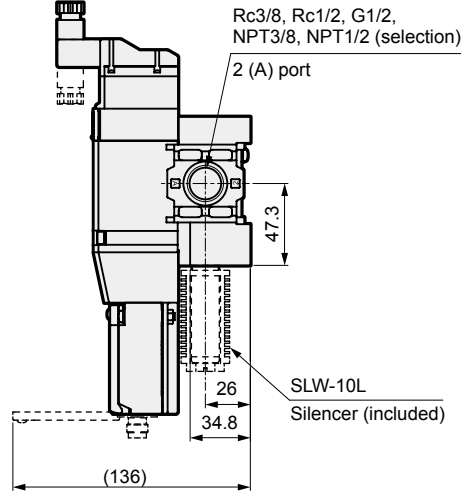
1 (P) port



(237.5): Safety limit switch: When L is selected
(251.5): Safety limit switch: When M is selected



(14): Safety limit switch: When M is selected



Rc3/8, Rc1/2, G1/2,
NPT3/8, NPT1/2 (selection)
2 (A) port

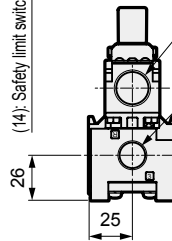
SLW-10L
Silencer (included)

M12-4P connector

Pg13.5: Safety limit switch: When L is selected

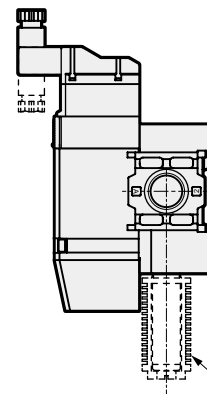
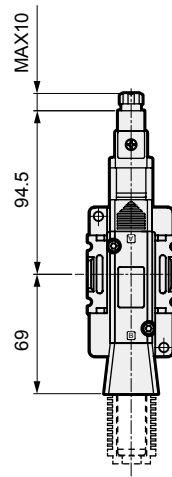
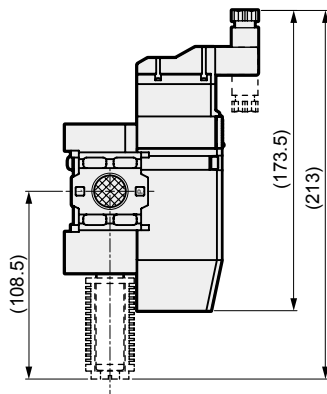
Rc3/8, G3/8, NPT3/8 (selection)

3(R) port



Note: DIN terminal box is shipped facing inward.

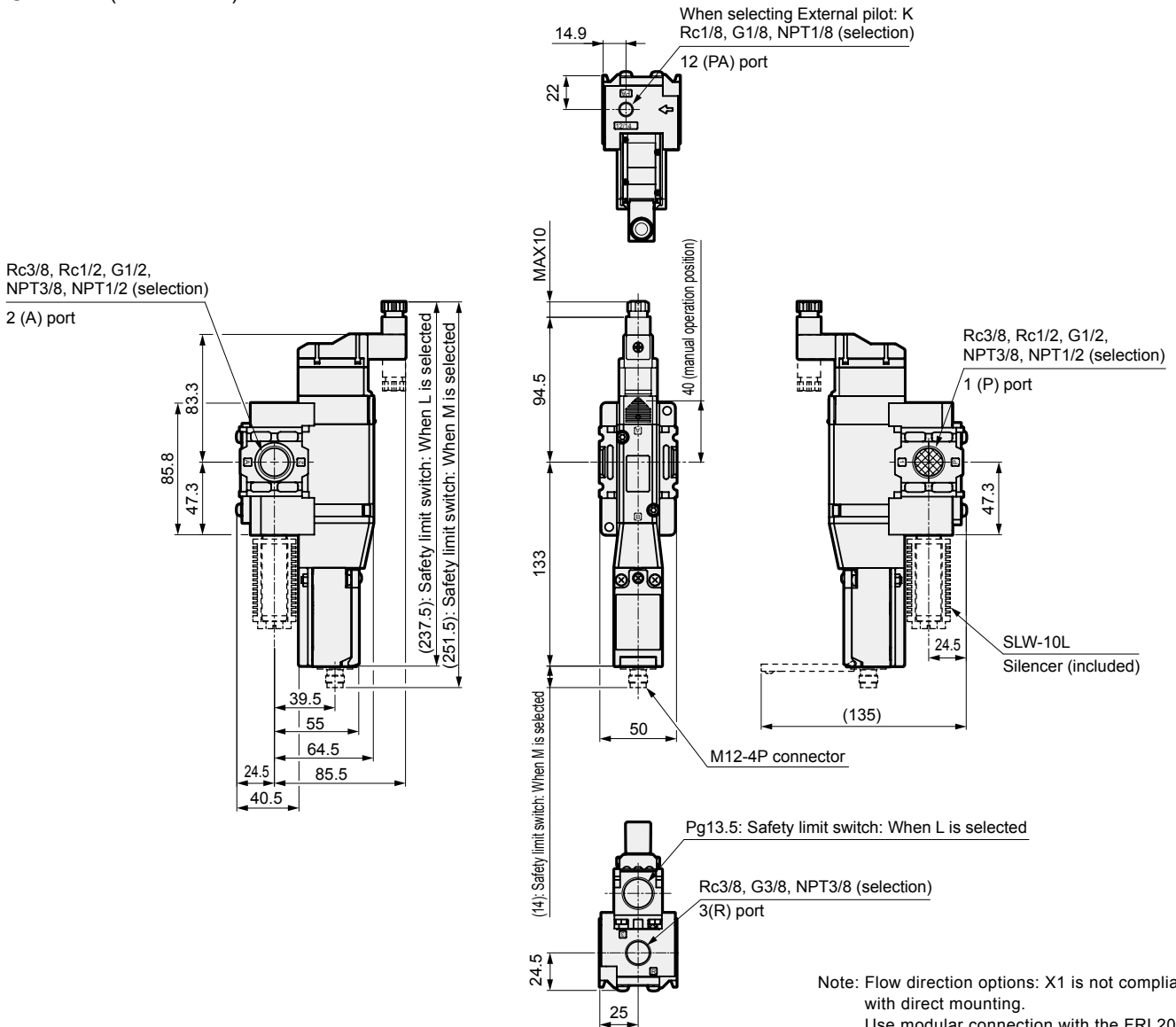
● Safety limit switch: Blank



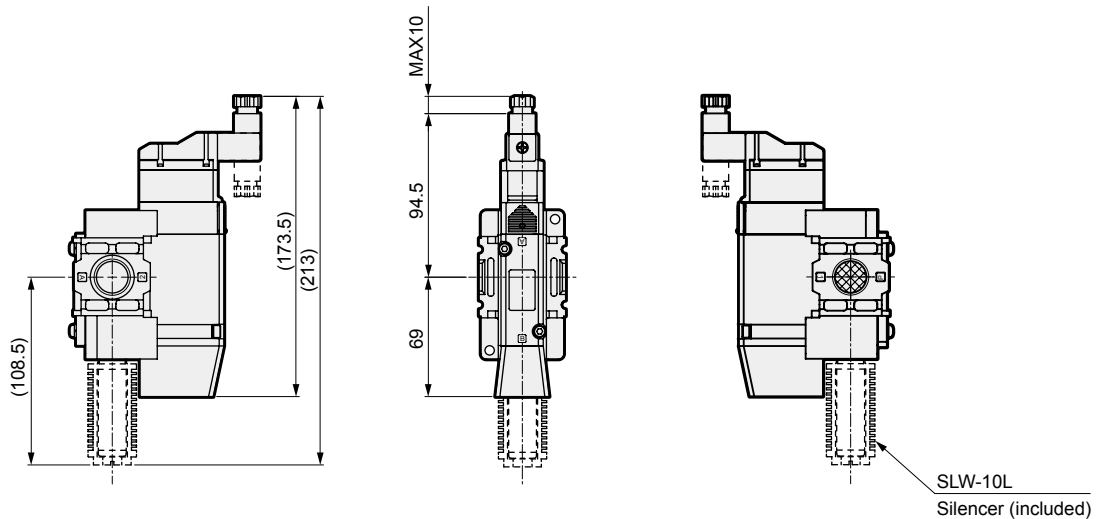
SLW-10L
Silencer (included)

Dimensions

● 1 station (reverse flow)



● Safety limit switch: Blank



F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner
Press Gauge
CompFRL
LgFRL
PreclsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PreclsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

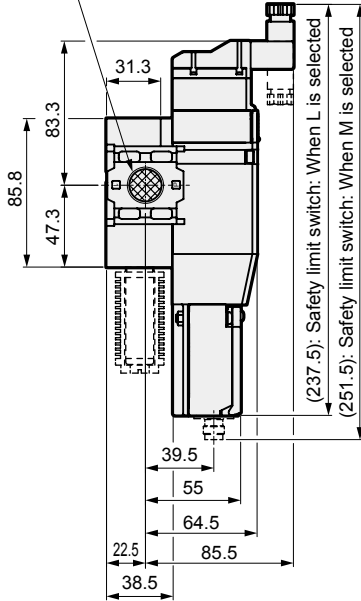
F.R.L. Dimensions

● 2 stations

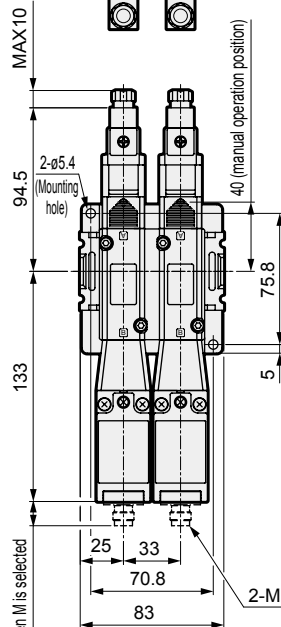
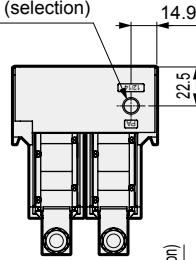
- F.R.
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filt
- Film Resist FR
- Oil-Prohr
- Med Press FR
- No Cu/ PTFE FRL
- Outdrs FRL
- Adapter Joiner Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneur
- AirBoost

Rc3/8, Rc1/2, G1/2, NPT3/8, NPT1/2 (selection)

1 (P) port

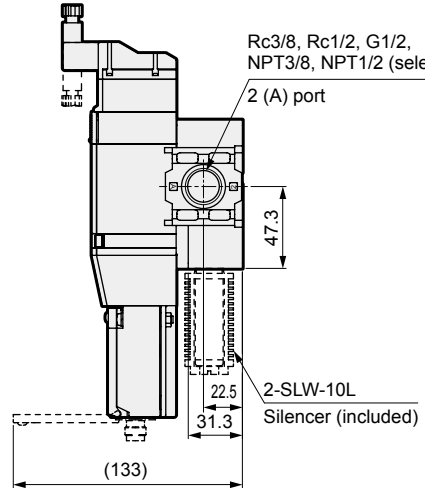


When selecting External pilot: K
Rc1/8, G1/8, NPT1/8 (selection)
12 (PA) port



Rc3/8, Rc1/2, G1/2, NPT3/8, NPT1/2 (selection)

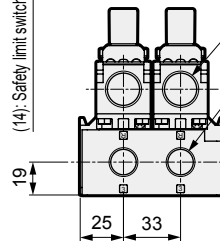
2 (A) port



2-Pg13.5: Safety limit switch: When L is selected

2-Rc3/8, G3/8, NPT3/8 (selection)

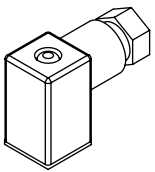
3 (R) port



Note: DIN terminal box is shipped facing inward.

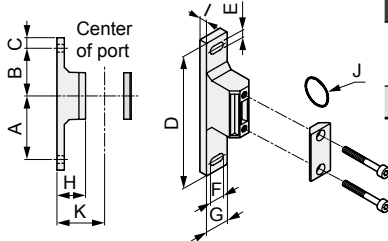
Parts list

● DIN terminal box



Related products

● T type bracket set



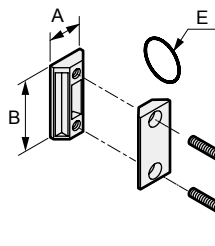
· Material: Aluminum alloy die-casting (B310 to B410-W)
Painting (B310 to B410-W)

Model No.	Compatibility	A	B	C	D	E	F	G	H	I	J	K	Weight (kg)
B310-W	2000 Series	60	45	10	125	7	14	22	27	7	JISB2401-P21	45	0.086
	3000 Series												
B410-W	4000 Series	60	45	10	125	7	14	22	37	7	JISB2401-P21	55	0.094

Part model No.

SNS-TERMINAL-BOX-3

● Joiner set



· Material: Aluminum alloy die-casting (J400)
Painting (J400)

Model No.	Compatibility	A	B	C	D	E	Weight (kg)
C4000-J400-W	2000 Series						
	3000 Series	21	44	32	M5	JIS B2401-P21	0.036
	4000 Series						