CAT.E153-A

SMC

3 Port Direct Operated Poppet
Solenoid Valve

Series VKF300

3 Port Direct Operated Poppet Solenoid Valve

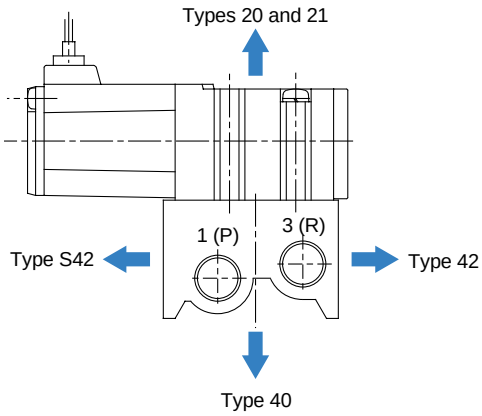
Series VKF300

Compact with large flow rate

Body width 18mm
Cv0.25 (Standard: Base mounted type)
Cv0.20 (Standard: Body ported type)

Various manifold piping directions

Output port: Manifold set-up allowing 360° rotation of 2(A) entry direction (in 90° increments)



Can be used for vacuum (–101.2kPa)

(valve leakage 0.03cm³/s or less with He)
Can be used in vacuum/release circuits

Universal porting type

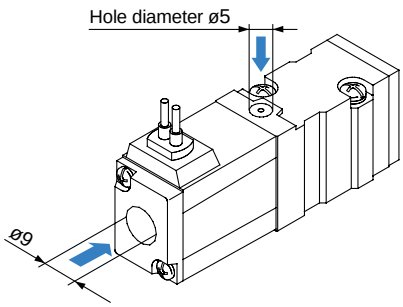
N.C./N.O. type can be switched by supplying air to port 1(P) or 3(R).
2 way valves and selector valves can also be freely used.

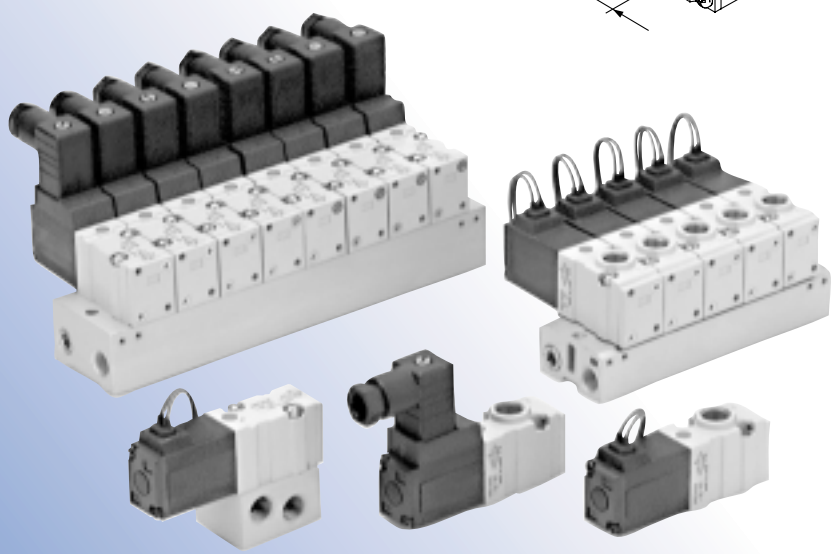
Easy manual operation

Since manual overrides are located in 2 directions, on the top and on the side of the valve, manual override operation is possible unaffected by mounting space and piping direction, etc.

Ozone resistant (Series 80-)

FKM (fluororubber) is used for the fluid-contact rubber materials, allowing use even in ozone environments.





3 Port Direct Operated Poppet

3 Port Direct Operated Poppet Solenoid Valve

Series VKF300

How to Order Valves

Rated voltage

1	100VAC 50/60 Hz
2	200VAC 50/60 Hz
3*	110VAC 50/60 Hz
4*	220VAC 50/60 Hz
5	24VDC
6*	12VDC
7*	240VAC 50/60 Hz
9	Other

* Order made

Electrical entry

G-grommet (lead wire length: 300mm)	H-grommet (lead wire length: 600mm)	D-DIN type terminal	DO-DIN terminal* (without connector)
			

Port size

M5	M5 x 0.8
01	Rc(PT) 1/8 (port A)

Body ported (single type)	**VKF332**	□	**5**	**G**	□	**M5**	**(with bracket)**
Body ported (for manifold)	**VKF333**	□	**5**	**G**	□	**M5**	
Base mounted	**VKF334**	□	**5**	**G**	□	**01**	

Valve option

V	For vacuum
Y*	For low power consumption
W*	For vacuum/low power consumption
E*	For long loading time

* Please inquire separately regarding applicable voltage.

Light/Surge voltage suppressor

Nil	None
S	With surge voltage suppressor
Z	With light/surge voltage suppressor (D type only)

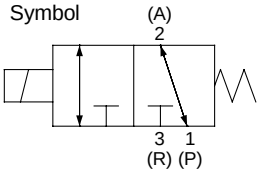
* Since the light is built into the connector, there is no DOZ part number.

Port size

01	Rc(PT) 1/8 (with sub plate)
Nil	Without sub plate

Models

Symbol



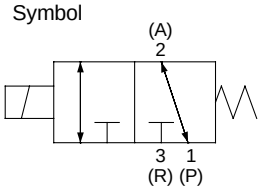
Valve model		Operating pressure range MPa {kgf/cm²}	Port size	Effective area mm² (Cv factor)	Weight g (grommet type)
Body ported	**VKF33**$^{2}_{3}$	0 to 0.7 {0 to 7.1}	M5 x 0.8 Rc(PT) 1/8	3.6 (0.2)	80 Note 1)
	VKF33$^{2}_{3}$**Y** (for low power consumption, DC2W)			2.7 (0.15)	
	VKF33$^{2}_{3}$**E** (for long loading time)			2.7 (0.15)	
	VKF33$^{2}_{3}$**V** (for vacuum)	–101.2kPa to 0.1 {1Torr to 1}		3.6 (0.2)	
	VKF33$^{2}_{3}$**W** (for low power consumption/vacuum)			2.7 (0.15)	
Base mounted	**VKF334**	0 to 0.7 {0 to 7.1}	Rc(PT) 1/8	4.5 (0.25)	120
	VKF334Y (for low power consumption, DC2W)			2.7 (0.15)	
	VKF334E (for long loading time)			2.7 (0.15)	
	VKF334V (for vacuum)	–101.2kPa to 0.1 {1Torr to 1}		4.5 (0.25)	
	VKF334W (for low power consumption/vacuum)			2.7 (0.15)	

Note 1) VKF332 ($^{Y}_{E}$ / $_{W}$): Add 10g to each when equipped with bracket.

Body ported type

Base mounted type

Symbol



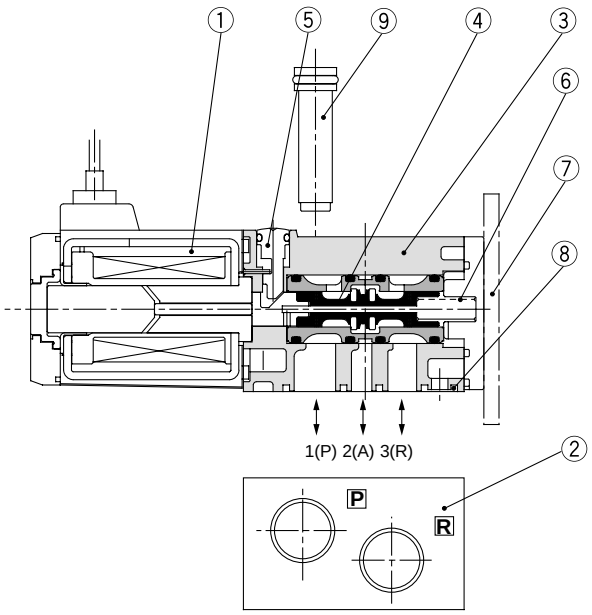
Standard specifications

Valve specifications	**Type of actuation**			Direct operated type 2 position single solenoid
	Fluid			Air
	Ambient and fluid temperature			Maximum 50°C
	Response time (at 0.5MPa {5.1kgf/cm²}) Note 1)			10ms or less (standard), 15ms or less (low power comsumption type)
	Manual operation			Non-locking push type
	Lubrication			Not required (if lubricated, use class 1 turbine oil ISO VG32)
	Mounting orientation			Unrestricted
	Impact/Vibration resistance Note 2)			300/50 m/s²
	Enclosure			Dust proof
Electrical specifications	**Electrical entry**			Grommet (G), DIN terminal (D)
	Rated voltage		**AC**	100V, 110V, 200V, 220V, 240V
			DC	6V, 12V, 24V, 48V
	Allowable voltage fluctuation			±10% of rated voltage
	Apparent power (AC)	**Standard**	**Starting**	9.5VA/50Hz, 8VA/60Hz
			Holding	7VA/50Hz, 5VA/60Hz
		Long loading time	**Starting**	3.5VA/50Hz, 3.3VA/60Hz
			Holding	3VA/50Hz, 2.8VA/60Hz
	Power consumption (DC)		**Without light**	4W (standard), 2W (low power comsumption type)
			With light	4.3W (standard), 2.3W (low power comsumption type)
	Surge voltage suppressor		**AC**	Varistor
			DC	Diode (varistor for 12VDC or less)
	Indicator light		**AC**	Neon bulb
			DC	LED

Note 1) Based on JIS B8374-1981 dynamic performance test. (coil temperature 20°C, at rated voltage, without surge voltage suppressor)
∗ When equipped with DC solenoid/surge voltage suppressor, a delay of about 20 to 30msec occurs in the OFF response time.

Note 2) Impact resistance: No malfunction when tested with a drop tester in the axial direction and at right angles to the main valve and armature, one time each in both an energized and deenergized state. (initial value)
Vibration resistance: No malfunction when tested with one sweep of 8.3 to 2000Hz in the axial direction and at right angles to the main valve and armature, one time each in both an energized and deenergized state. (initial value.)

Construction

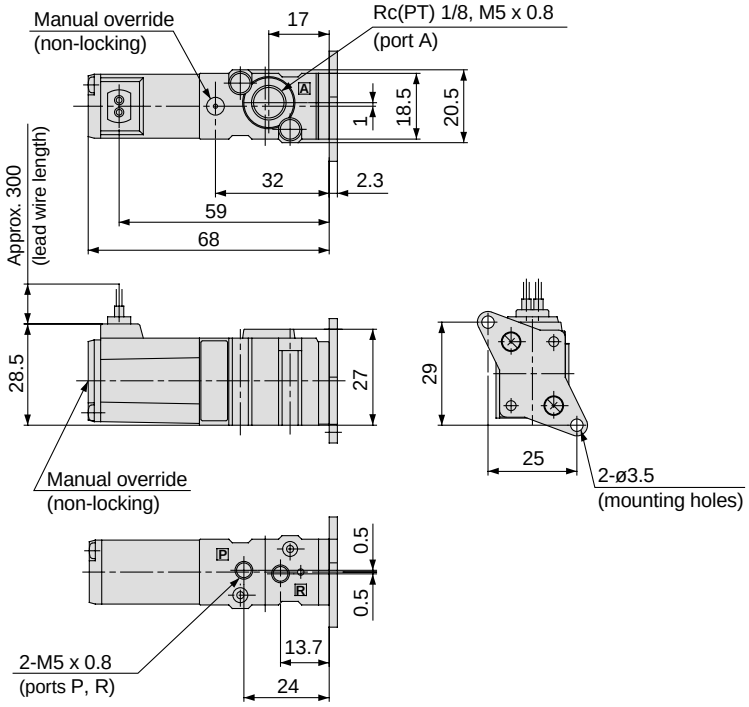


Parts list

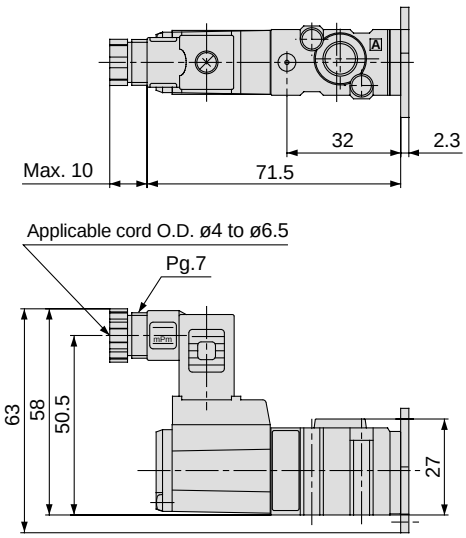
No.	Description	Material	Note
1	**Solenoid coil assembly**	–	
2	**Sub plate**	Die-cast aluminum	For VKF334: VKF300-S-F or $^{M5}_{01}$
3	**Body**	Die-cast aluminum	
4	**Spool/Sleeve**	Aluminum	
5	**Manual override**	Resin	
6	**Return spring**	Stainless steel	
7	**Bracket assembly**	Steel	For VKF332: VKF300-13A-2
8	**Gasket assembly (with mounting screw)**	–	For VKF333: VKF300-11A-2 For VKF334: VKF300-11A-1
9	**Bushing assembly**	Resin	For VKF33$^{3}_{4}$: VKF300-6A-1 2 sets per unit required

Dimensions/Single Type

Body ported type
Grommet: VKF332□-□G-$^{M5}_{01}$

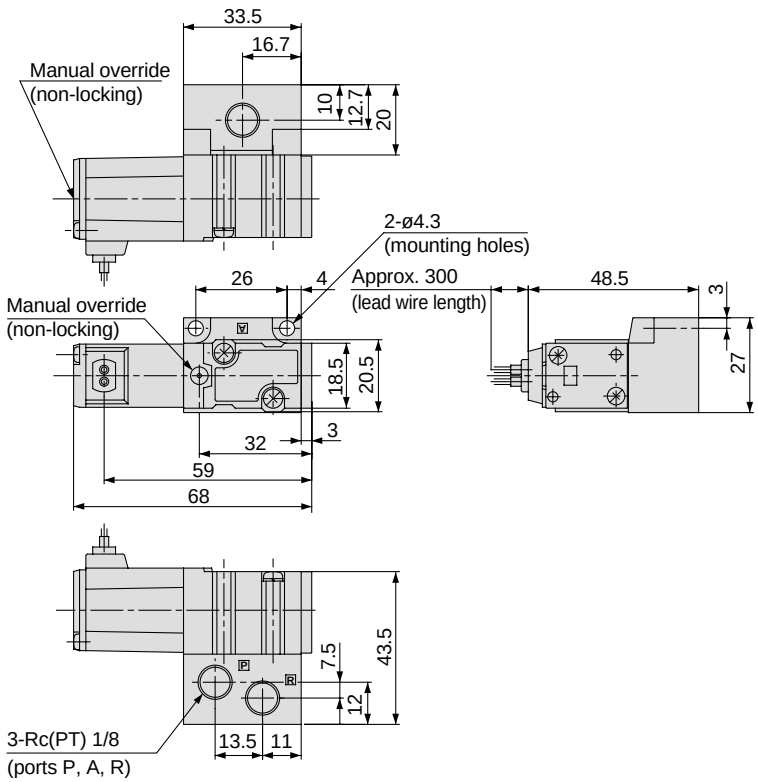


DIN terminal: VKF332□-□D-$^{M5}_{01}$

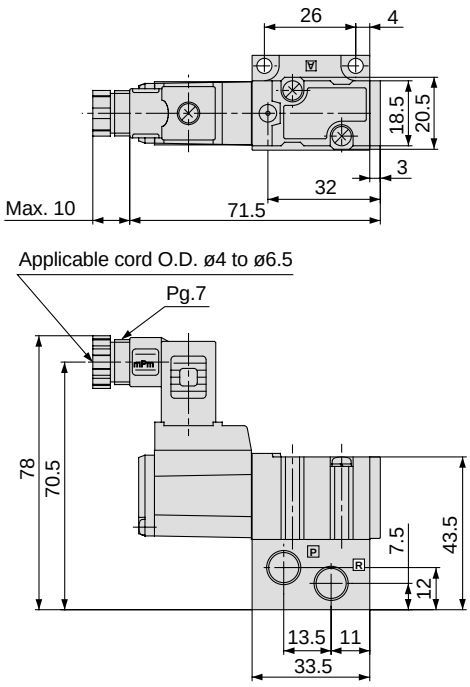


See grommet type for other dimensions.

Base mounted type
Grommet: VKF334□-□G-01



DIN terminal: VKF334□-□D-01



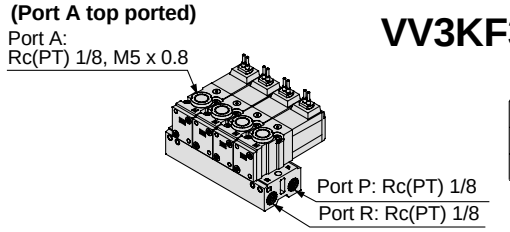
See grommet type for other dimensions.

How to Order Manifolds

Body Ported Type

Common SUP, Common EXH

Type 20/for body ported type
(Port A top ported)



How to Order

VV3KF3-20 — 05 — □

Valve stations

01	**1** station
⋮	⋮
20	**20** stations

Option

Nil	None
F	With bracket (not mounted)

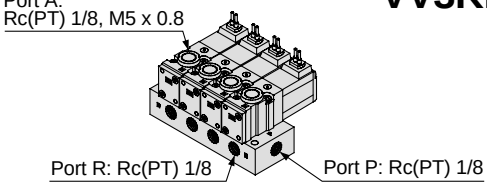
Applicable solenoid valves
VKF333□-□□□-M5
VKF333□-□□□-01

Applicable blanking plate assembly
VK300-42-1A

Bracket
VK300-43-1A

Common SUP, Individual EXH

Type 21/for body ported type
(Port A top ported)



How to Order

VV3KF3-21 — 05

Valve stations

01	**1** station
⋮	⋮
20	**20** stations

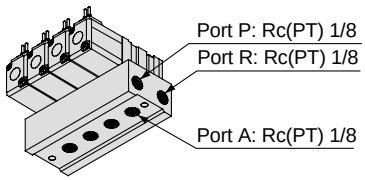
Applicable solenoid valves
VKF333□-□□□-M5
VKF333□-□□□-01

Applicable blanking plate assembly
VK300-42-1A

Base Mounted Type

Common SUP, Common EXH

Type 40/for base mounted type
(Port A bottom ported)



How to Order

VV3KF3-40 — 05 — 01 — □

Valve stations

01	**1** station
⋮	⋮
20	**20** stations

Option

Nil	None
F	With bracket (not mounted)

Port size

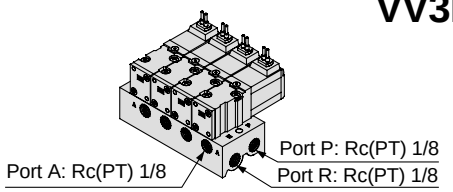
01	Rc(PT) 1/8

Applicable solenoid valves
VKF334□-□□□

Applicable blanking plate assembly
VK300-42-1A

Bracket
VK300-43-1A

Type 42/for base mounted type
(Port A side ported)



How to Order

VV3KF3 — □ 42 — 05 — 01

Solenoid direction

Nil	Solenoid on side opposite port A
S	Solenoid on same side as port A

Port size

01	Rc(PT) 1/8
C4	ø4 cassette
C6	ø6 cassette

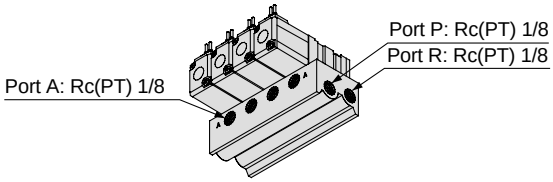
Valve stations

01	**1** station
⋮	⋮
20	**20** stations

Applicable solenoid valves
VKF334□-□□□

Applicable blanking plate assembly
VK300-42-1A

Type **S42 (solenoid on same side as port A)**

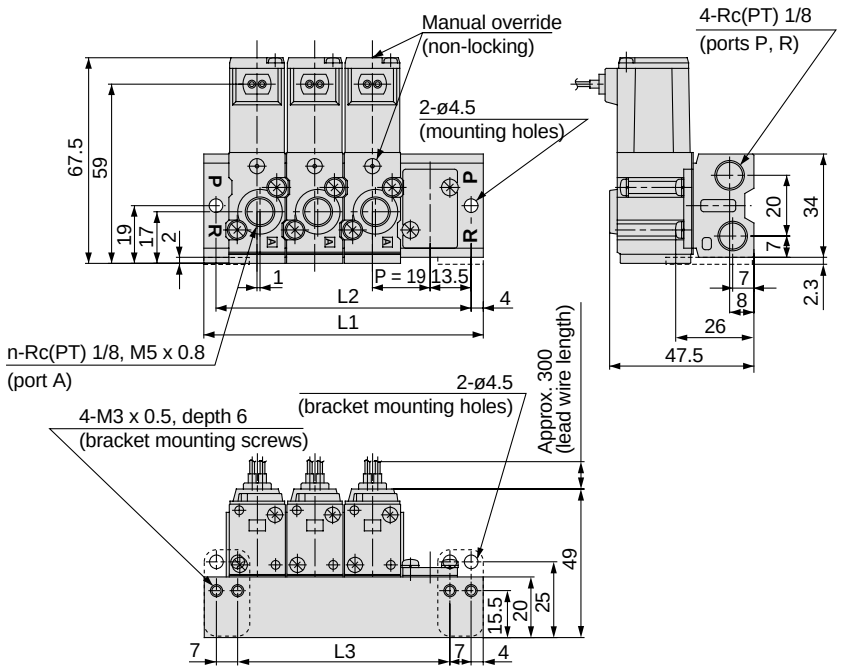


Dimensions/Manifolds

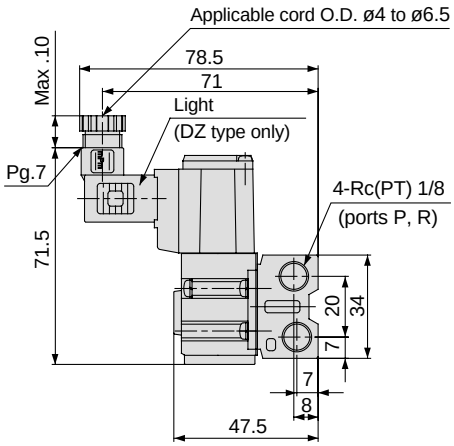
Body Ported Type

Type 20 Manifold **Common SUP, Common EXH/Top Ported**

Grommet: G



DIN terminal: D



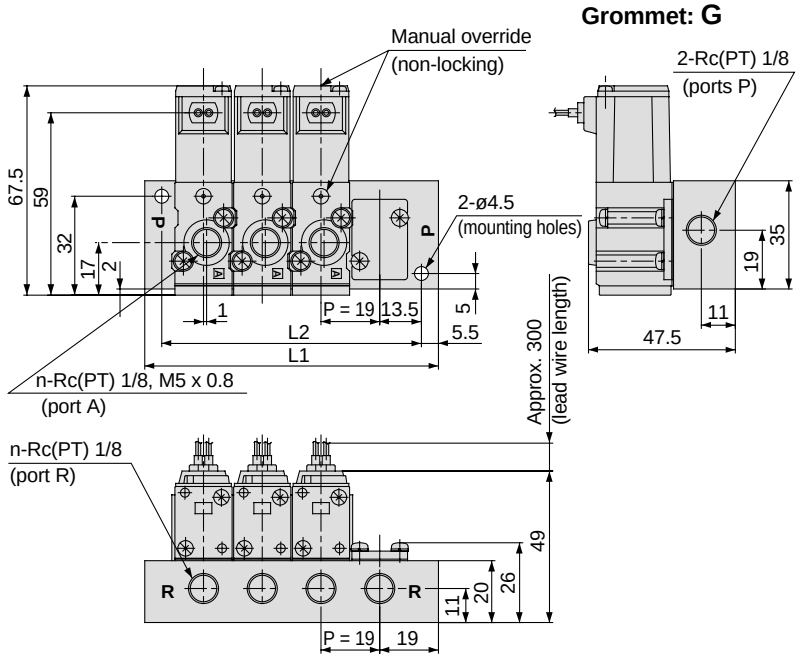
L: Dimension table

n: Stations

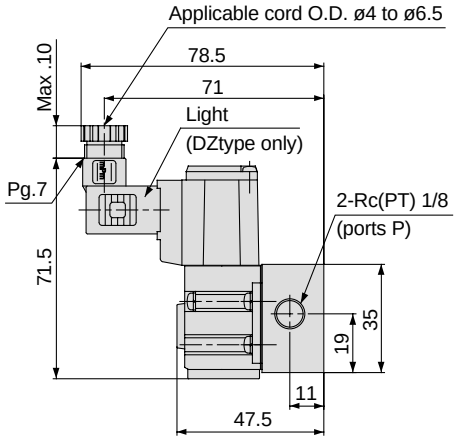
L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	35	54	73	92	111	130	149	168	187	206	225	244	263	282	301	320	339	358	377	396
L2	27	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388
L3	13	32	51	70	89	108	127	146	165	184	203	222	241	260	279	298	317	336	355	374

Type 21 Manifold **Common SUP, Individual EXH/Top Ported**

Grommet: G



DIN terminal: D



L: Dimension table

n: Stations

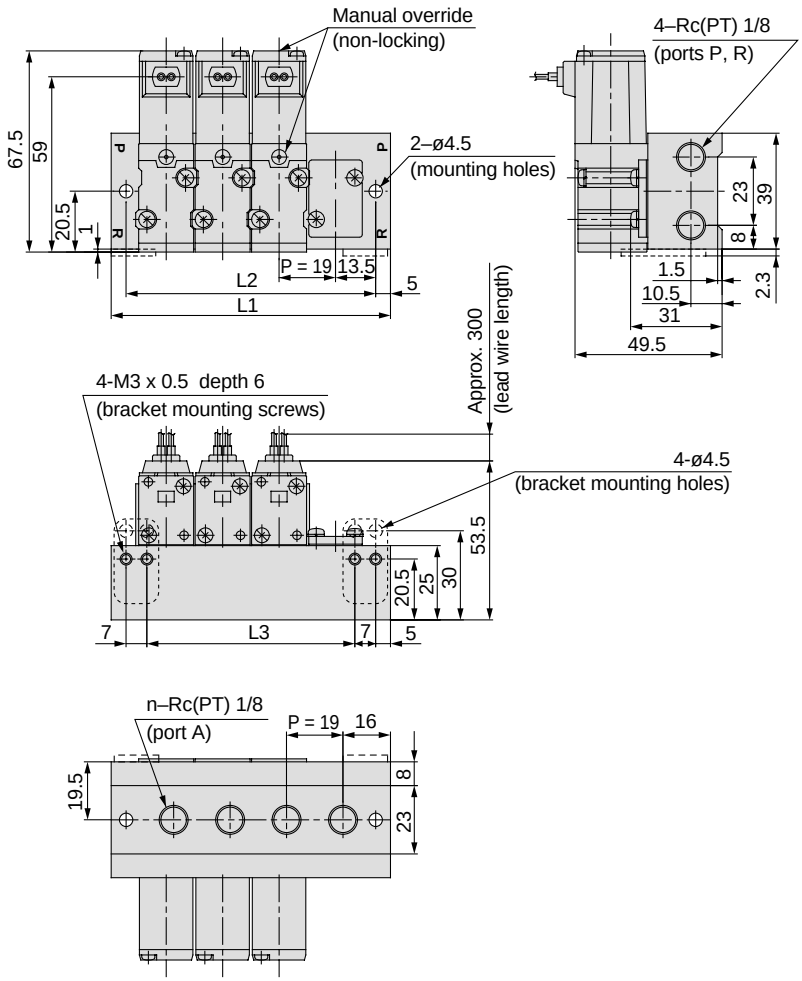
L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323	342	361	380	399
L2	27	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388

Dimensions/Manifolds

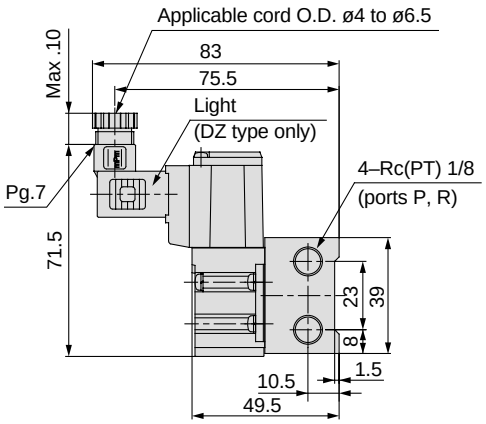
Base Mounted Type

Type 40 Manifold | **Common SUP, Common EXH/Bottom Ported**

Grommet: G



DIN terminal: D



L: Dimension table

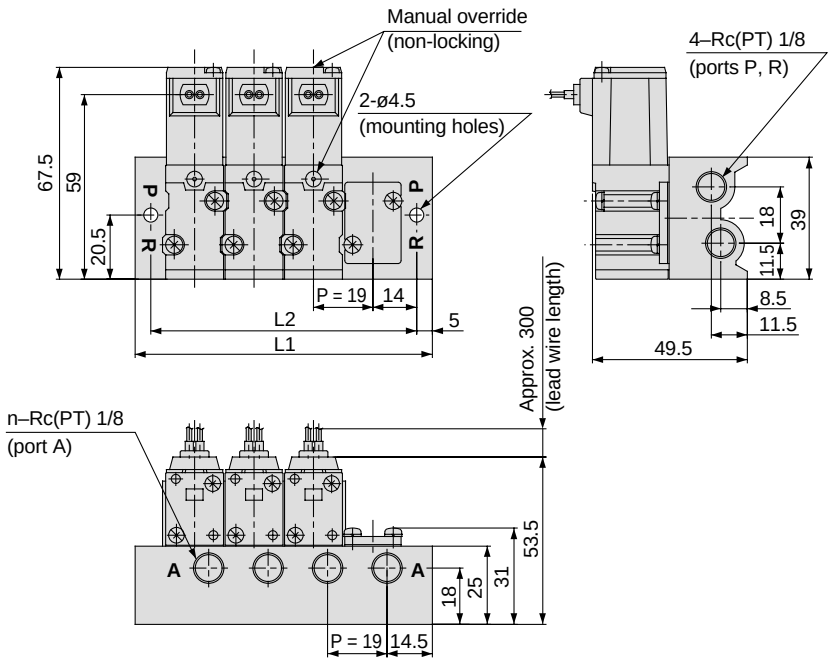
n: Stations

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	37	56	75	94	113	132	151	170	189	208	227	246	265	284	303	322	341	360	379	398
L2	27	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388
L3	13	32	51	70	89	108	127	146	165	184	203	222	241	260	279	298	317	336	355	374

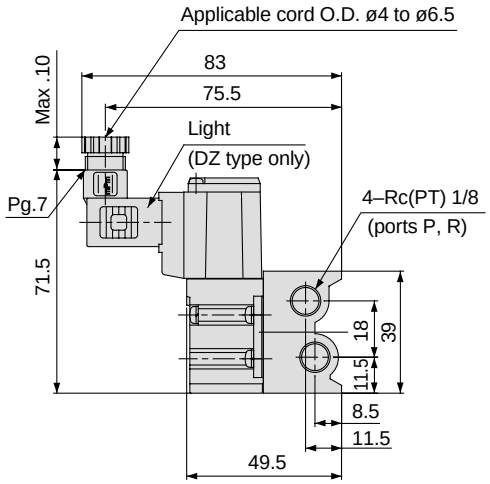
Base Mounted Type

Type 42 Manifold — Common SUP, Common EXH/Side Ported

Grommet: G

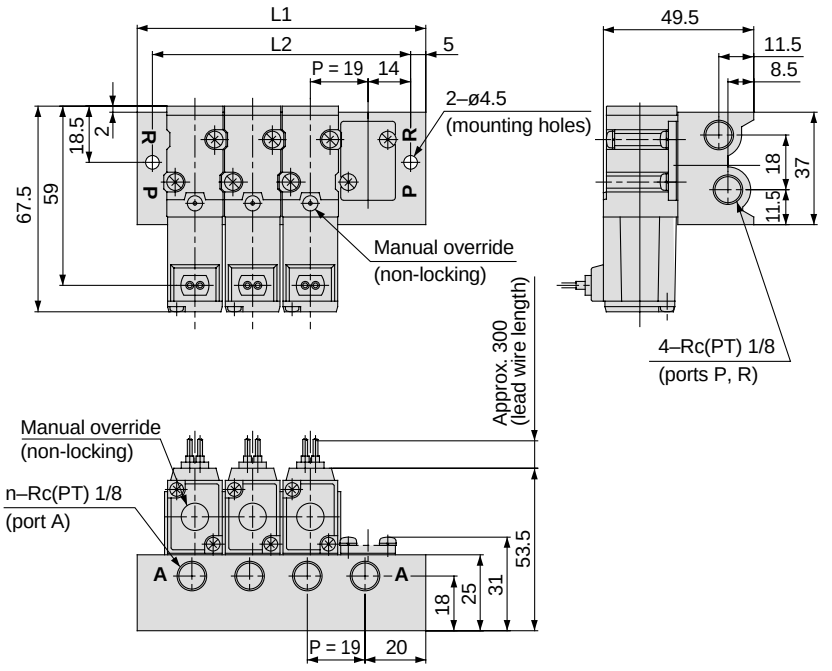


DIN terminal: D

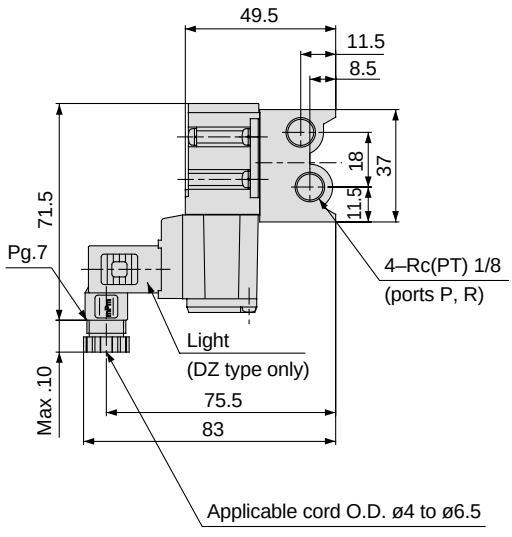


Type S42 Manifold — Common SUP, Common EXH/Side Ported: Same direction as solenoid

Grommet: G



DIN terminal: D



L: Dimension table

n: Stations

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323	342	361	380	399
L2	28	47	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389

Series *VKF300*
Safety Instructions

These safety instructions are intended to prevent a hazardous situation and/or equipment damage. These instructions indicate the level of potential hazard by a label of **"Caution", "Warning" or "Danger"**. To ensure safety, be sure to observe ISO 4414 Note 1), JIS B 8370 Note 2) and other safety practices.

⚠ Caution : Operator error could result in injury or equipment damage.

⚠ Warning : Operator error could result in serious injury or loss of life.

⚠ Danger : In extreme conditions, there is a possible result of serious injury or loss of life.

Note 1) ISO 4414 : Pneumatic fluid power – Recommendations for the application of equipment to transmission and control systems.

Note 2) JIS B 8370 : Pneumatic system axiom.

⚠ Warning

1. The compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.

Since the products specified here are used in various operating conditions, their compatibility for the specific pneumatic system must be based on specifications or after analysis and/or tests to meet your specific requirements.

2. Only trained personnel should operate pneumatically operated machinery and equipment.

Compressed air can be dangerous if an operator is unfamiliar with it. Assembly, handling or repair of pneumatic systems should be performed by trained and experienced operators.

3. Do not service machinery/equipment or attempt to remove components until safety is confirmed.

1. Inspection and maintenance of machinery/equipment should only be performed after confirmation of safe locked-out control positions.
2. When equipment is to be removed, confirm the safety process as mentioned above. Cut the supply pressure for this equipment and exhaust all residual compressed air in the system.
3. Before machinery/equipment is restarted, take measures to prevent shooting-out of cylinder piston rod, etc. (Bleed air into the system gradually to create back-pressure.)

4. Contact SMC if the product is to be used in any of the following conditions:

1. Conditions and environments beyond the given specifications, or if product is used outdoors.
2. Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverages, recreation equipment, emergency stop circuits, press applications, or safety equipment.
3. An application which has the possibility of having negative effects on people, property, or animals, requiring special safety analysis.

Series VKF300
3 Port Solenoid Valve/Precautions 1

Be sure to read before handling.

Precautions on Design

⚠ Warning

1. Actuator drive

When an actuator, such as a cylinder, is to be driven using a valve, take appropriate measures to prevent potential danger caused by actuator operation.

2. Effect of back pressure when using a manifold

Use caution when valves are used on a manifold, as actuator malfunction due to back-pressure may occur. Implement countermeasures in cases where there is a danger of this kind of malfunction.

3. Pressure

Since valves are subject to air leakage, they cannot be used for applications such as holding pressure in a pressure vessel.

Moreover, when used for vacuum, use type m.

4. Cannot be used as an emergency shutoff valve, etc.

The valves presented in this catalog are not designed for safety applications such as an emergency shutoff valve. If the valves are used in this type of system, other reliable safety assurance measures should also be adopted.

5. Maintenance space

The installation should allow sufficient space for maintenance activities.

6. Release of residual pressure

Provide a residual pressure release function for maintenance purposes.

7. Vacuum applications

When a valve is used for vacuum switching, etc., take measures against the suction of external dust or other contaminants from vacuum pads and exhaust ports, etc.

Selection

⚠ Warning

1. Confirm the specifications.

The products presented in this catalog are designed only for use in compressed air systems. Do not operate at pressures or temperatures, etc. beyond the range of specifications, as this can cause damage or malfunction. (Refer to specifications.)

Contact SMC when using a fluid other than compressed air .

2. Long continuous loading time

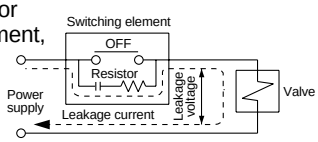
When power will be applied continuously for extended periods of time, use type VKF33○E. However, it cannot be used with high frequency. Contact SMC if it will be operated more than once a day.

3. Be sure to perform switching at least once every 30 days.

⚠ Caution

1. Leakage voltage

Particularly when using a resistor in parallel with a switching element, take note that leakage voltage will increase due to leakage current flowing through the resistor.



Limit the amount of residual leakage voltage to the following values.

For AC coil: 20% or less of rated voltage

For DC coil: 2% or less of rated voltage

2. Low temperature operation

Operation is possible to –10°C, but measures should be taken to avoid solidification or freezing of drainage and moisture, etc.

3. Mounting orientation

The mounting orientation is unrestricted.

Mounting

⚠ Warning

1. If air leakage increases or equipment does not operate properly, stop operation of the valve.

At the time of mounting and maintenance, etc., connect the compressed air and power supplies, and perform appropriate function and leakage inspections to confirm that the unit is mounted properly.

2. Instruction manual

Mount and operate the product after reading the manual carefully and understanding its contents. Also keep the manual where it can be referred to as necessary.

3. Painting and coating

Warnings or specifications printed or pasted on the product should not be erased, removed or covered up.

Series VKF300
3 Port Solenoid Valve/Precautions 2

Be sure to read before handling.

Piping

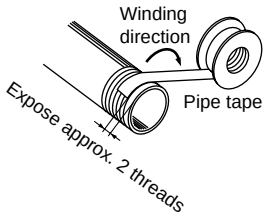
⚠ Caution

1. Preparation before piping

Before piping is connected, it should be thoroughly blown out with air (flushing) or washed to remove cutting chips, cutting oil and other debris from inside the pipe.

2. Wrapping of pipe tape

When connecting pipes and fittings, etc., be sure that cutting chips from the pipe threads and sealing material do not get inside the valve.
Further, when pipe tape is used, leave 1.5 to 2 thread ridges exposed at the end of the pipe/fitting.



3. Always fasten threads with the proper tightening torque.

When screwing fittings into valves, fasten with the proper tightening torques as shown below.

Tightening torque for piping

Connection threads	Proper tightening torque N·m {kgf·cm}
M5	1.5 to 2 {15 to 20}
Rc(PT) 1/8	7 to 9 {71 to 92}

Reference:
Tightening into the M5 fitting threads
After tightening by hand, tighten about 1/6 of a turn further using a tightening tool. (In the case of universal elbows and universal tees , etc., which have gaskets in 2 places, tighten by an additional 1/2 turn.)

4. Connection of piping to products

When connecting piping to a product, refer to its instruction manual to avoid mistakes regarding the supply port, etc.

Wiring

⚠ Caution

1. Polarity

When connecting power to a DC specification solenoid valve equipped with light/surge voltage suppressor, confirm whether or not there is polarity.

If there is polarity, take note of the following points.

- Without AC and DC light/surge suppressor: Non-polar type
- With DC light/surge suppressor:

If a mistake is made regarding polarity, it will not be possible to switch the valve.

2. Applied voltage

When electric power is connected to the solenoid valve, be careful to apply the proper voltage. Improper voltage may cause malfunction or coil damage.

3. Confirm the connections.

After completing the wiring, confirm that the connections are correct.

Lubrication

⚠ Caution

1. Lubrication

1) The valve has been lubricated for life at the factory, and does not require any further lubrication.

2) In the event that it is lubricated, use Class 1 turbine oil (without additives), ISO VG32.
However, once lubrication is applied it must be continued, as the original lubricant may be eliminated leading to malfunction.

Air Supply

⚠ Warning

1. Use clean air.

Do not use compressed air which contains chemicals, synthetic oils containing organic solvents, salts or corrosive gases, etc., as this can cause damage or malfunction.

⚠ Caution

1. Install air filters.

Install air filters close to valves at their upstream side. A filtration degree of 5μm or less should be selected.

2. Install an air dryer, after cooler, etc.

Air that includes excessive condensate may cause malfunction of valves and other pneumatic equipment. To prevent this, install an air dryer or after cooler etc..

3. If excessive carbon dust is generated, eliminate it by installing mist separators at the upstream side of valves.

If excessive carbon dust is generated by the compressor, it may adhere to the inside of valves and cause malfunction.

Refer to SMC's "Air Cleaning Equipment" catalog for further details on compressed air quality.

Series *VKF300*
3 Port Solenoid Valve/Precautions 3
Be sure to read before handling.

Operating Environment

⚠ Warning

1. **Do not use valves in atmospheres of corrosive gases, chemicals, salt water, water or steam, or where there is direct contact with same.**
2. **Do not use in an explosive atmosphere.**
3. **Do not use in locations subject to vibration or impact.**
4. **A protective cover, etc. should be used to shield valves from direct sunlight.**
5. **Shield valves from radiated heat generated by nearby heat sources.**
6. **Employ suitable protective measures in locations where there is contact with water droplets, oil or welding spatter, etc.**
7. **When solenoid valves are mounted in a control panel or are energized for extended periods of time, employ measures to radiate excess heat, so that temperatures remain within the valve specification range.**

Maintenance

⚠ Warning

1. **Perform maintenance procedures as shown in the instruction manual.**

   If handled improperly, malfunction or damage of machinery or equipment may occur.

2. **Removal of equipment maintenance and supply/exhaust of compressed air**

   When equipment is removed, first confirm that measures are in place to prevent dropping of work pieces and run-away of equipment, etc. Then cut the supply pressure and power, and exhaust all compressed air from the system using its residual pressure release function.
   When the equipment is to be started again after remounting or replacement, first confirm that measures are in place to prevent lurching of actuators, etc., and then confirm that the equipment is operating normally.

3. **Low frequency operation**

   Valves should be switched at least once every 30 days to prevent malfunction. (Use caution regarding the air supply.)

4. **Manual override operation**

   When the manual override is operated, connected equipment will be actuated. Confirm safety before operating.

Maintenance

⚠ Caution

1. **Drain flushing**

   Remove condensate from air filters regularly. (Refer to specifications.)

2. **Lubrication**

   Once lubrication is applied, it must be continued.
   Lubricate with class 1 turbine oil (without additives) VG32. If any other lubricant is used, malfunction or other trouble may occur.
   Contact SMC regarding class 2 turbine oil (with additives) VG32.

How to Find the Flow Rate (at air temperature of 20°C)

Subsonic flow when $P_1 + 0.1013 < 1.89 (P_2 + 0.1013)$

$$Q = 226S\sqrt{\triangle P(P_2 + 0.1013)}$$

Sonic flow when $P_1 + 0.1013 \geq 1.89 (P_2 + 0.1013)$

$$Q = 113S (P_1 + 0.1013)$$

Q: Air flow rate [l/min(ANR)]
S: Effective area (mm^2)
$\triangle P$: Pressure drop ($P_1 - P_2$) [MPa]
P_1: Upstream pressure [MPa]
P_2: Downstream pressure [MPa]

* Correction for different air temperatures
  Multiply the flow rate calculated with the above formula by a coefficient from the table below.

Air temperature (°C)	–20	–10	0	10	30	40	50	60
Correction coefficient	1.08	1.06	1.04	1.02	0.98	0.97	0.95	0.94

Series VKF300
Specific Product Precautions

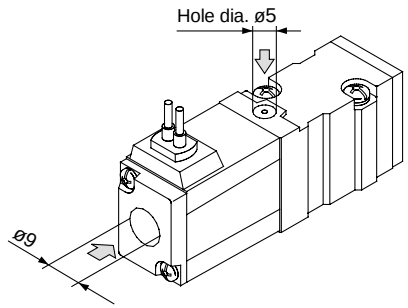
Be sure to read before handling.
Refer to pages 8 through 11 for safety instructions and precautions.

Manual Override Operation

⚠Warning

Since connected equipment will be actuated when manual override operation is performed, first confirm that conditions are safe.

■ Non-locking push type (tool required)



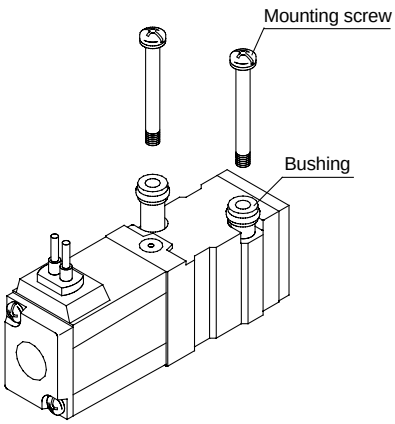
There are manual overrides in 2 directions, on the top and on the side (solenoid side). By pressing either of the manual overrides in the direction of the arrow (→) until it stops (approx. 1mm), it will turn ON, and it turns OFF when released.

Mounting of Valves

⚠Caution

After confirming the installation of the gaskets, securely tighten the screws to the tightening torque shown in the table below.

Proper tightening torque N·m {kgf·cm}
0.6 to 0.8 {6 to 8}



The bushing may be damaged if the tightening torque of 0.8N·m is exceeded. In the event that damage does occur, be sure to replace the bushing.

Bushing assembly part no.	VKF300-6A-1

• 2 sets per unit are required.

Light/Surge Voltage Suppressor

⚠Caution

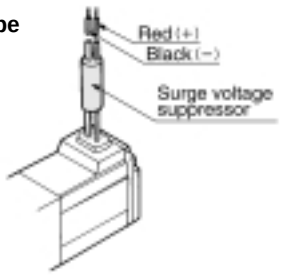
		Grommet type (G)	DIN terminal (D)	Part No. symbol
AC	Without light	Varistor, Coil	No.1, No.2, Varistor, Coil	S
	With light	None	No.1, Neon bulb, Varistor, No.2, Coil	Z
12 VDC or less	Without light	Varistor, Coil	No.1, No.2, Varistor, Coil	S
	With light	None	No.1, LED, Varistor, No.2, Coil	Z
24 VDC or more	Without light	(+) Red, Black (−), Diode, Coil	No.1 (+), No.2 (−), Diode, Coil	S
	With light	None	No.1 (+), LED, No.2 (−), Diode, Coil	Z

Precautions on connection of 24V or more DC

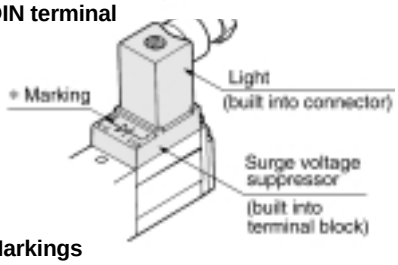
For the grommet type, connect the positive (+) side to the red lead wire and connect the negative (–) side to the black lead wire. For the DIN terminal, connect the positive (+) side to the connector's No.1 terminal and connect the negative (–) side to the No.2 terminal. (See the markings on the terminal block.)

∗ For 12V or less DC, positive (+) and negative (–) can be connected in either direction.

• Grommet type



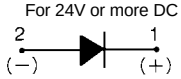
• DIN terminal



∗ Markings

For AC and 12V or less DC

For 24V or more DC



Use of the DIN Connector

⚠Caution

• Connection procedure

1. **Loosen the holding screw, and pull the connector out of the solenoid valve terminal block.**
2. **After removing the holding screw, insert a flat head screw driver, etc. into the notch on the bottom of the terminal block and pry it up, separating the terminal block and the housing.**
3. **Loosen the terminal screws (slotted screws) on the terminal block, insert the core of the lead wire into the terminal in accordance with the prescribed connection method, and attach securely with the terminal screws.**
4. **Fasten the cord by screwing in the ground nut.**

• Cord entry changing procedure

After separating the terminal block and housing, the cord entry direction can be changed by attaching the housing in the desired direction (4 directions in 90° increments).

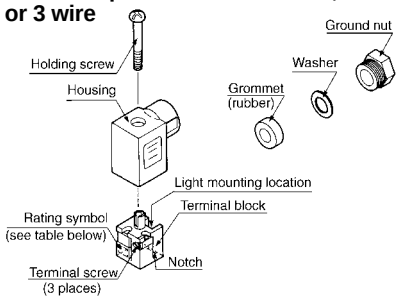
∗ When equipped with light, handle with care so that the light is not damaged by the cord's lead wires, etc.

• Precautions

The connector should be inserted and pulled out in a straight line without tilting diagonally.

• Compatible cables

Cord outside diameter: ø4 to ø6.5 (Reference)
0.5mm² equivalent to JISC3306, 2 wire or 3 wire

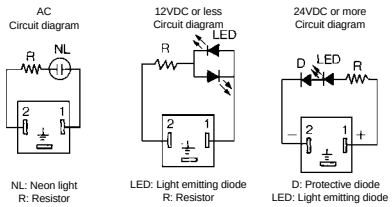


• Connector part no.: VK300-37-1

• Part No. for connector with light

Rated voltage	Rating symbol	Part No.
100VAC	A1	VK300-37-2-01
200VAC	A2	VK300-37-2-02
240VAC	A3	VK300-37-2-07
6VDC	LW06	VK300-37-4-51
12VDC	LW2	VK300-37-4-06
24VDC	LD4	VK300-37-3-05
48VDC	LD8	VK300-37-3-53

• Circuit diagram for connector with light



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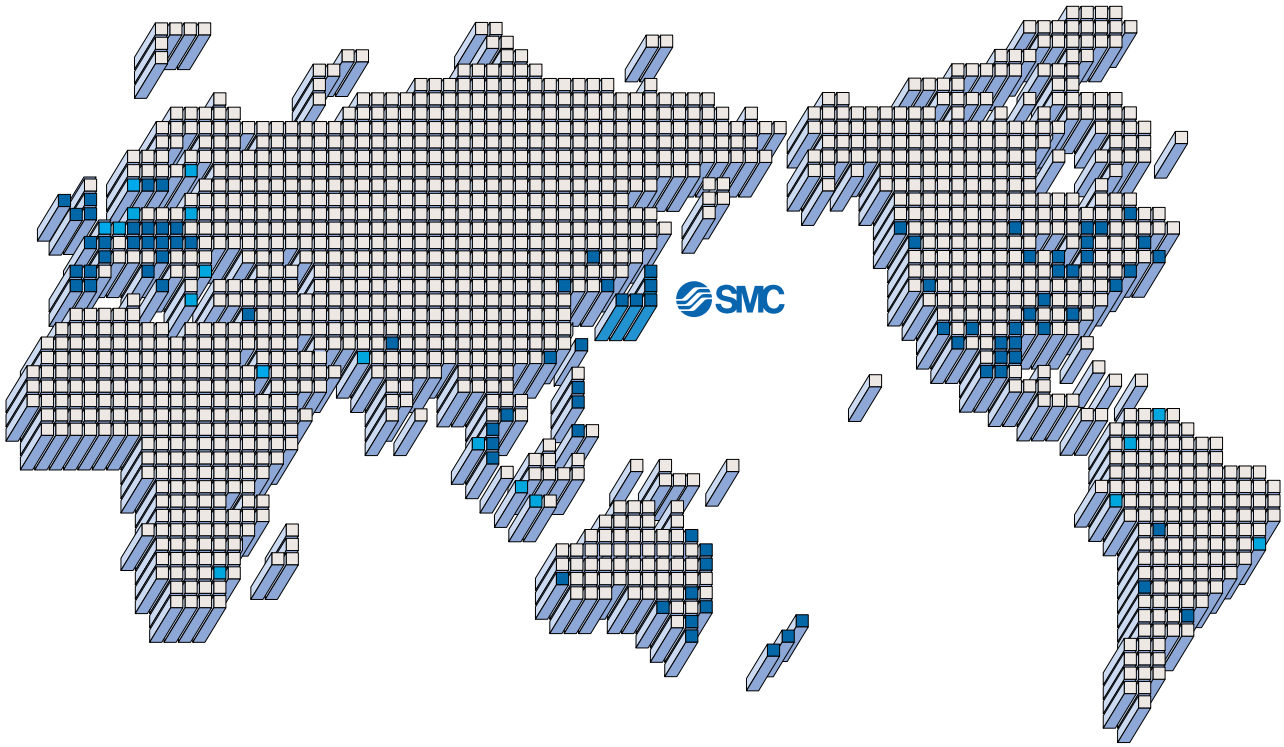

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