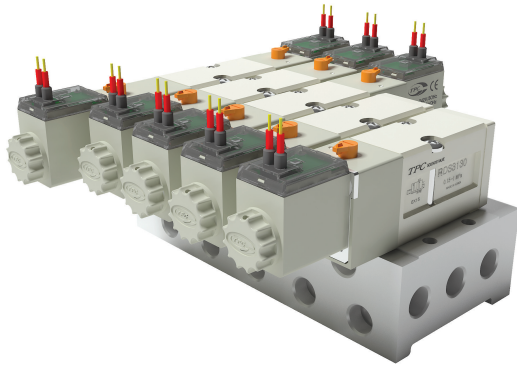
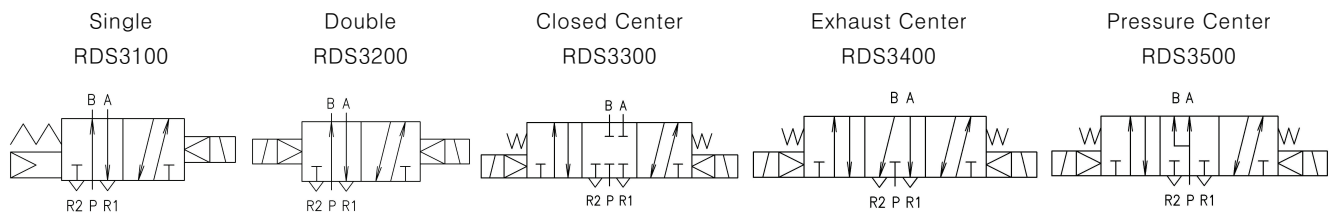


# RDS3000 Sub-Base Mounting Type

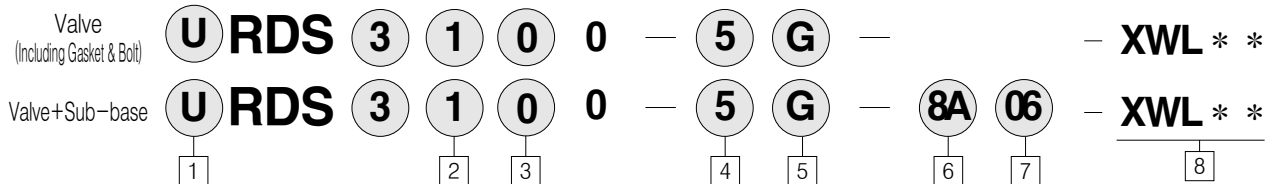


- Upgraded performance and quality
- RoHs Compliant with Eco-friendly materials
- Lamp turn-on for Identification of operation status
- Made with environment friendly materials
- White color design
- Easy to replace coil

## Symbol



## HOW TO ORDER



- ① RDS3000 Series  
Blank : Metric Rc(PT)  
U : NPT

- ② Type of Actuation  
1 → Single  
2 → Double  
3 → Closed Center  
4 → Exhaust Center  
5 → Pressure Center

- ③ Body option  
0 → Standard

- ④ Coil Voltage  
1 → AC110V, 50/60HZ  
2 → AC220V, 50/60HZ  
3 → AC120V, 50/60HZ  
4 → AC240V, 50/60HZ  
5 → DC24V  
6 → DC12V  
8 → AC24V, 50/60HZ  
9 → DC100V

- ⑤ Electrical Entry  
G → Grommet (Lead wire : 300mm)  
D → DIN Connector  
DZ → DIN Connector  
(Lamp and surge voltage protecting circuit attached)  
N : DIN type(connector not included)

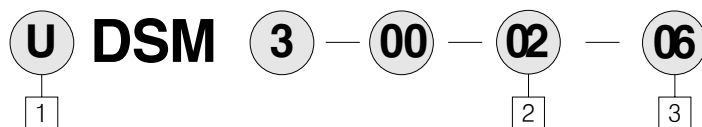
- ⑥ Port Size  
Blank → Valve body only(without sub-plate)  
8A → Rc(PT)1/4(sub-plate included)

- ⑦ One-touch fitting attachment  
Blank → None  
06 → Ø6 one-touch fitting attachment  
08 → Ø8 one-touch fitting attachment

- ⑧ Length of Lead wire  
Blank : 300mm(Standard)  
XWL01: 100mm  
XWL02: 200mm  
:  
XWL20: 2000mm

※ Integrated push & lock type is standard option for manual operation.

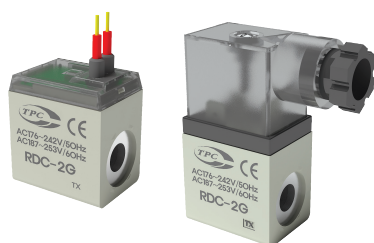
Manifold



- 1 Manifold  
Blank : Metric(PT)  
U : NPT
- 2 Stations  
1 → 1 Station    6 → 6 Station  
2 → 2 Station    7 → 7 Station  
3 → 3 Station    8 → 8 Station
- 3 One-touch fitting attachment  
Blank → None  
06 → Ø6 One-touch fitting attached  
08 → Ø8 One-touch fitting attached
- 4 → 4 Station    9 → 9 Station  
5 → 5 Station    10 → 10 Station  
(Please contact us for over 11 stations.)

Blanking Plate **DSB 3 — 00 (Including Gasket & Bolt)**

# RDC Series



1 RDC Series

2 Coil Voltage

- 1: AC110V, 50/60Hz  
2: AC220V, 50/60Hz  
3: AC120V, 50/60Hz  
4: AC240V, 50/60Hz

- 5: DC24V  
6: DC12V  
8: AC24V, 50/60Hz  
9: DC100V

## HOW TO ORDER

**RDC** 1 G — **XWL** \* \*

1

2

3

4

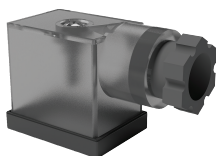
3 Electrical Entry

- G : Grommet(Lead wire length 300mm)  
D : DIN Connector  
DZ : DIN Connector  
(Lamp and surge voltage protecting circuit attached)  
N : DIN type(connector not included)

4 Length of Lead wire

- Blank : 300mm  
XWL01: 100mm  
XWL02: 200mm  
XWL20: 2000mm

## DIN TERMINAL BOX Order form



**TVF3130-61-2005**

Additional Symbol

1

1 Additional Symbol

Additional Symbol	Rated Voltage
1	AC110V, 50/60Hz
2	AC220V, 50/60Hz
3	AC120V, 50/60Hz
4	AC240V, 50/60Hz
5	DC24V
6	DC12V
8	AC24V, 50/60Hz
9	DC100V

### Notice

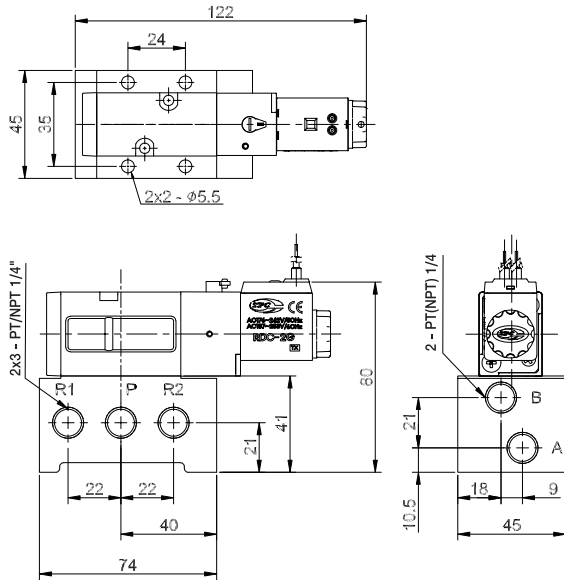
Please fully understand the safety notice before operating this item.

## Specifications

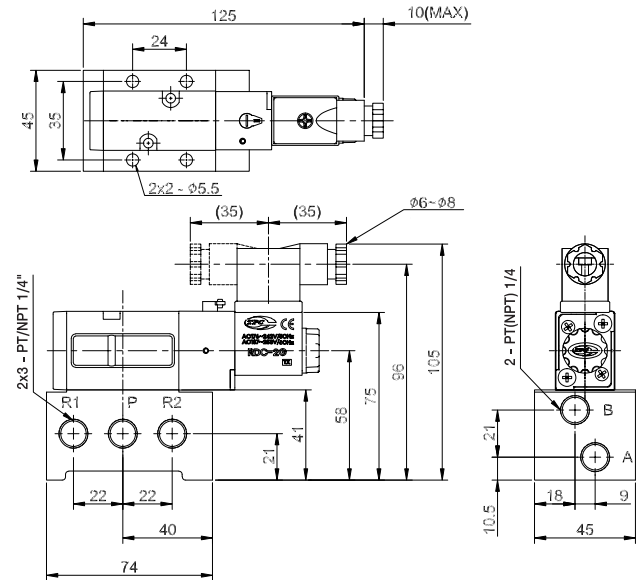
Fluid		Air
Operating pressure Range	2 Position Single, 3 Position	0.15 ~ 1.0 MPa [0.2~1.0kgf/cm <sup>2</sup> ]
	2 Position Double	0.1 ~ 1.0MPa
Ambient and Fluid Temperature		5~50°C (Without freezing)
Response time(ms)	2 Position Single, Double	30ms or less
	3 Position	40ms or less
Max operating frequency	2 Position Single, Double	5 c/s
	3 Position	3 c/s
Lamp(LED)		Standard
Manual operation		PUSH & LOCK (Normal)
Electrical Entry		Grommet(G), DIN Connector(DZ)
Lubrication		Not Required
Voltage(V)	AC(50/60)Hz	110V, 220V, 120V, 240V, 24V
	DC	24V, 12V, 100V
Power consumption	Apparent Electric power	5.0VA(50Hz), 4.0VA(60Hz)
	Apparent Electric power	3.0 / 3.2W(LAMP Attached)
Effective Orifice (m <sup>2</sup> )	2 positions single	16(0.9)
	2 positions double	16(0.9)
	3positions(Closed Center)	12.5(0.7)
	3position(Exhaust Center)	16(0.9)
	3position(Pressure Center)	21(1.2)

## Sub-base /2 Position Single Solenoid

Grommet/RDS3100-○G

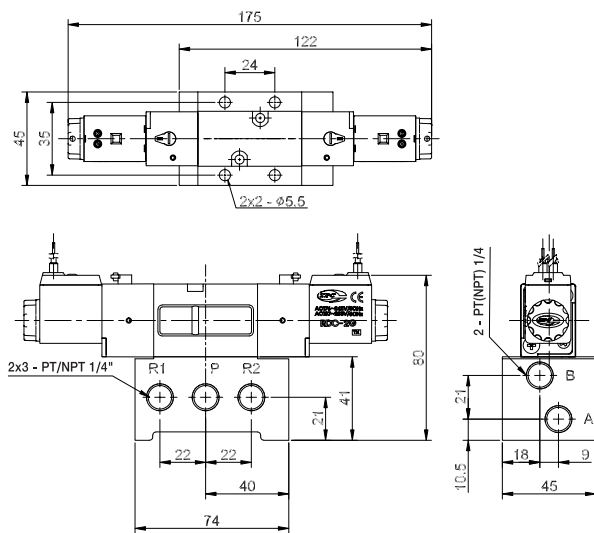


DIN Connector/RDS3100-○D(DZ)

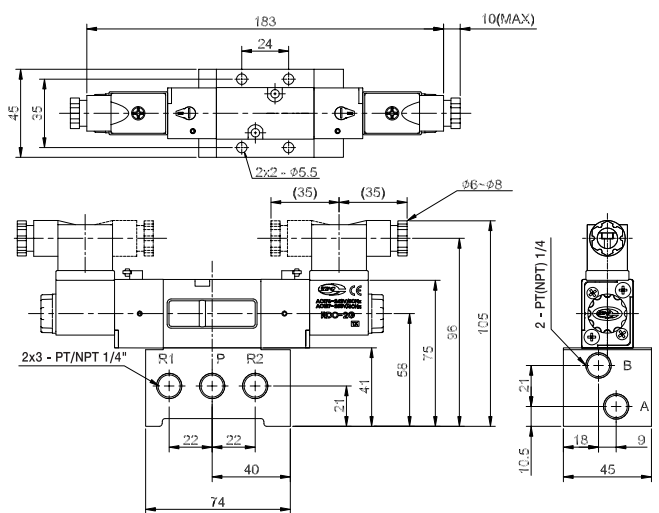


## Sub-base /2 Position Double Solenoid

Grommet/RDS3200-○G

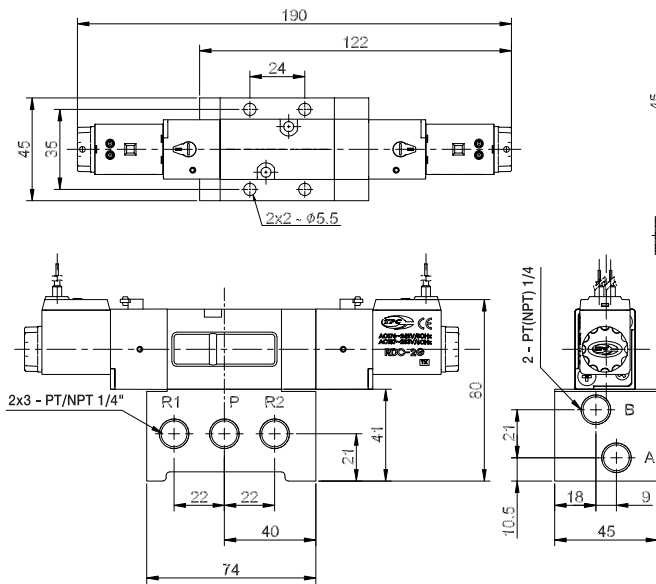


DIN Connector/RDS3200-○D(DZ)

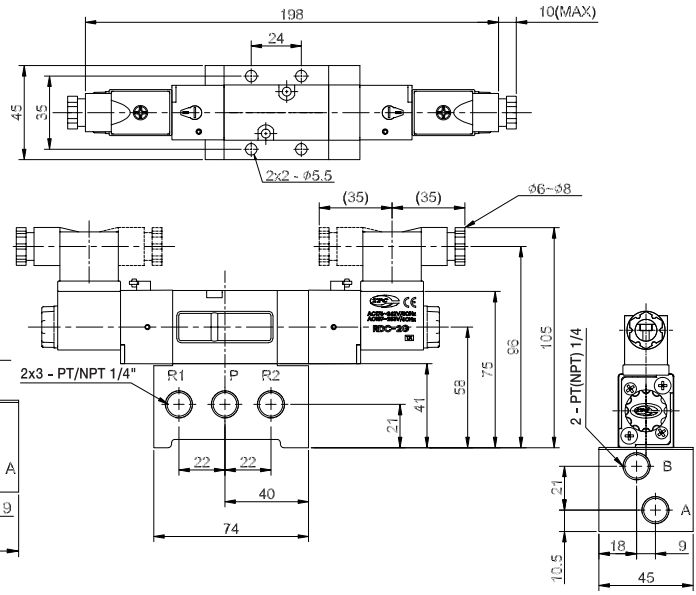


# Sub-base / 3-Position Solenoid

Grommet/RDS3 000 - 0G

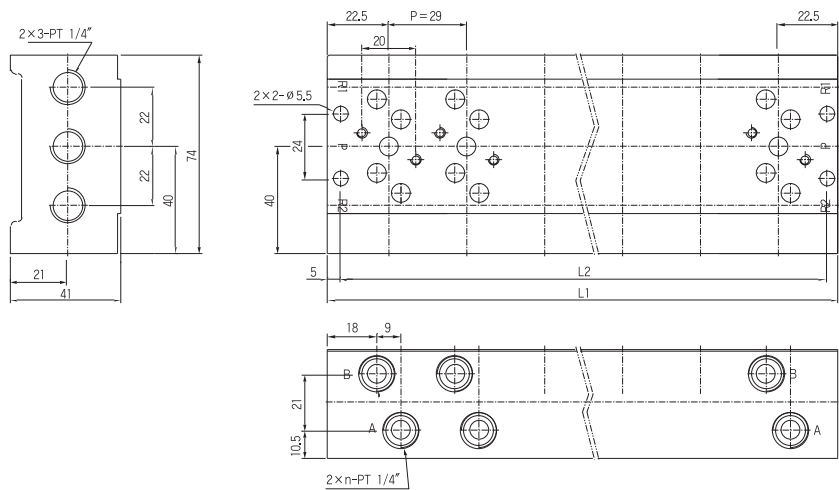


DIN Connector/RDS3 000 - 0D (DZ)



# Dimension/Manifold Block

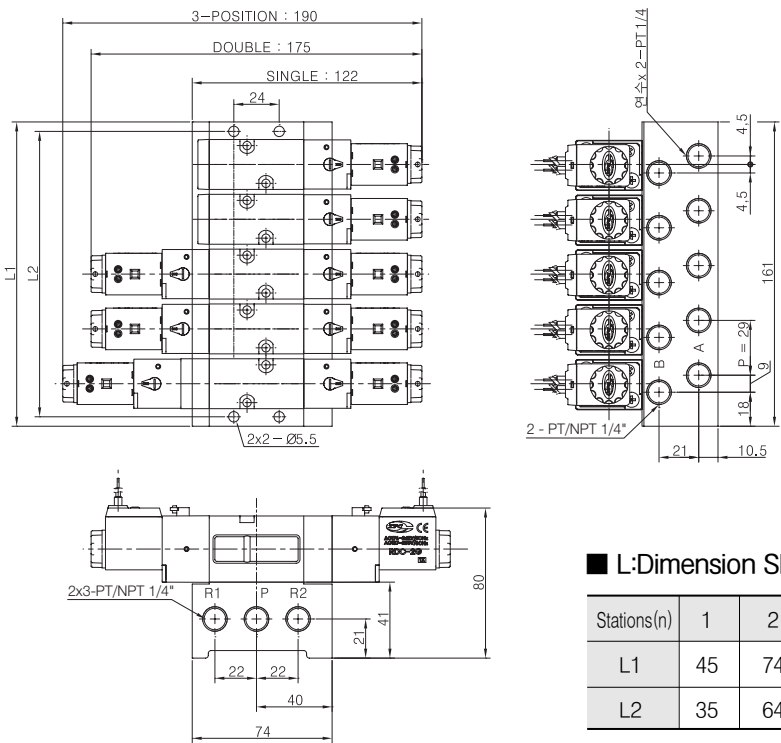
(mm)



Stations(n)	1	2	3	4	5	6	7	8	9	10
L1	45	74	103	132	161	190	219	248	277	306
L2	35	64	93	122	151	180	229	238	267	296

# Dimension/Manifold Ass'y

(mm)



## L:Dimension Sheet

(n: Station Number)

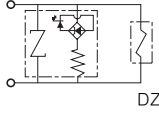
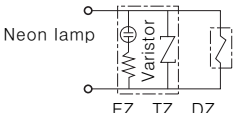
Stations(n)	1	2	3	4	5	6	7	8	9	10
L1	45	74	103	132	161	190	219	248	277	306
L2	35	64	93	122	151	180	229	238	267	296

## Notices for Handling

### ■ Notice

Please fully understand the safety notice before operating this item.

### Indicator Light / Surge Voltage Suppressor

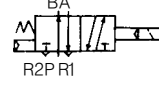
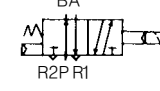
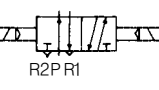
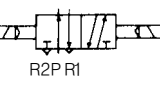
Rated Voltage	AC, DC
Less than 24V	
Less than 200V	

(Note1) No lamp attaching type for Grommet (G) type

(Note2) ZNR is called as Varistor, which is surge voltage protection circuit.

### In Case of Using 3-Port Valve (in case of 5-port)

With closing one direction of cylinder port (A and B), it is applied as 3-port valve of normal closed (N.C) or Normal Open (N.O). It is convenient if 3-port valve is necessary. But, do not apply for special purposes such as Non Leak Valve. Moreover, please use with opened condition for exhaust port.

Plug Location	BPort (CYL.1Port)	APort (CYL.2Port)
Switching Method	N.C	N.O
Solenoid Number	Single	(X)Plug
	Double	(X)Plug
		
		

### For the Quality of Fluid Applied

- ① 5 $\mu$ m filter resolution is sufficient.
- ② Large amount of drain may cause operation failure of pneumatic equipment which firstly uses valve and environmental contamination, so that special management is required. Moreover, if management of drain exhaust is difficult, it is recommended to use automatic exhaust attaching filter.
- ③ If large quantity of carbon powder is generated from compressor, it may cause operation failure owing to attaching on valve inside. It is recommended to use less carbon powder generating compressor or install coalescing filter.

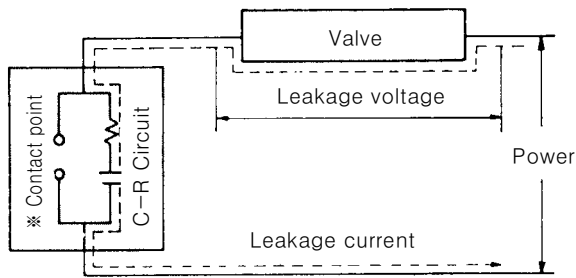
### For Piping

- ① Fully remove chip, cutting oil or dust in a pipe with air blow (flushing) or washing prior to piping.
- ② When connecting fittings or piping, be careful to prevent chips or particles from getting inside. Do not wind seal tape on whole threads. Leave 1.5~2 threads unwound.
- ③ Check if silencer is attached to PE port of Manifold valve.
- ④ Connecting torque for piping.

Contact screw	Proper Tightening Torque kgf · cm(N · m)	Material of Tightening Part
M3	3.1~3.9(0.31~0.39)	Resin
	4.7~5.9(0.47~0.59)	Aluminum
M4	7.5~9.5(0.75~0.95)	Resin
	11.5~14.5(1.15~1.45)	Aluminum
M5	15~20(1.5~2)	Resin
PT 1/8	70~90(7~9)	Aluminum
PT 1/4	120~140(12~14)	

## For Leakage Voltage

- ① In case of power OFF, restrain residual leakage voltage in both ends of AC coil under 20% of rated voltage, and under 3% for DC coil. (Please measure AC coil with manually pressing metal pin.)
- ② In case of using C-R circuit for contact point protection, be cautious that leakage voltage possibly increases owing to leakage current through C-R circuit.



\* Be cautious that some of non-contact point relays have protection circuit built-in

## Operating Environment

- ① Do not attach around the place affected by corrosive gas, chemical liquid, sea water splash, rainwater and steam.
- ② Make a measure such as protection cover, etc, for attaching in the place affected by water drops, oil and splatter during welding process.
- ③ Prevent inflow of dust into valve with attaching silencer at exhaust port of valve.

## For Using in Low Temperature

It is available to use by  $-10^{\circ}\text{C}$ , however, full caution is needed for condensation of drain and moist. It is recommended to install drier for the case above.

## For Sequential Power Supply

In case of sequential power supply, apply more than 0.1 second for power supply and 0.05 second for power OFF.

## In Case of Long Term Power Supply

In case of using for a long period with power supply, please ask for consultation to manufacturer.

## How to Find the Flow Rate

- ① In case of  $P_2 + 1.033 \leq P_1 + 1.033 \leq 1.89(P_2 + 1.033)$

$$Q = 22.2S \sqrt{\frac{\Delta P(P_2 + 1.033)}{G}} \cdot \sqrt{\frac{273}{273 + \theta}}$$

- ① In case of  $1.89(P_2 + 1.033) < P_1 + 1.033$

$$Q = 11.1S(P_1 + 1.033) \cdot \frac{1}{\sqrt{G}} \cdot \sqrt{\frac{273}{273 + \theta}}$$

Q : Flux in Conventional Condition (N l /min)

$P_1$  : 1st Side Pressure (Gauge Pressure) (kgf/cm<sup>2</sup>)

$P_2$  : 2st Side Pressure (Gauge Pressure) (kgf/cm<sup>2</sup>)

$\Delta P$  : Pressure Differential ( $P_1 - P_2$ ) (kgf/cm<sup>2</sup>)

S : Effective Orifice (mm<sup>2</sup>)

G : Specific Gravity (Air=1)

$\theta$  : Temperature of Air Applied ( $^{\circ}\text{C}$ )

## Lubrication

- ① Initially lubricated, possible to use with non-Lube.

- ② Please use turbine oil class 1 (ISO VG32)

Moreover, if refueling is stopped, it may cause operation failure owing to loss of initial lubricant, so that refueling should be continued.

Please contact for turbine oil class 1 (ISO VG32)

## Port Indicating Symbol Sheet

Index	RDS300	RDS3000, RDS5000
Inlet	P(SUP)	
Outlet	A(CYL)	A(CYL.2) and B(CYL.1)
Exhaust hole	R(EXH)	R1(EXH2) and R2(EXH1)
KS symbol (Single Solenoid)		
	S:P(SUP)	