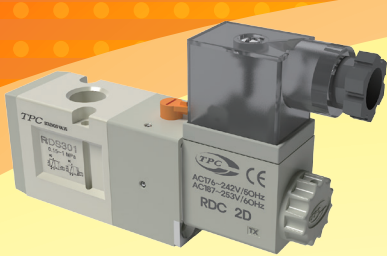


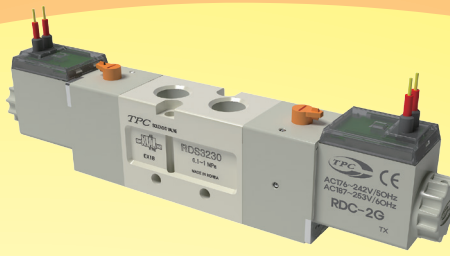
3-5 Port Pilot Type Solenoid Valve

RDS Series 300/3000/5000

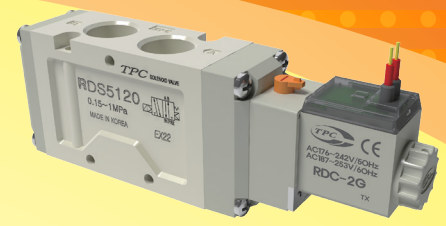
New



RDS300



RDS3000



RDS5000

Fire retardant material : UL94 V-0 grade

Push & Lock function

Enhanced user convenience with Push & Lock function

Using Eco-Friendly material & improved corrosion-resistance

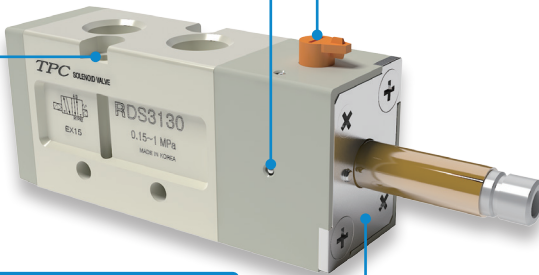
1. RoHs Compliant with Eco-friendly materials.
2. Improved corrosion-resistance with anodized components.

Compatible with TPC DS valve

Manifold can be shared with DS valve (same mounting holes)

Uni-body type

Preventing air leak and malfunction.



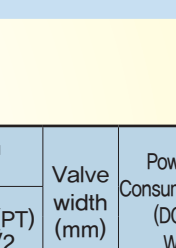
Quick change coils

Skinner shape makes coil replacement easy.

(DIN Connector Type)



(Grommet Type)



Specification & Type

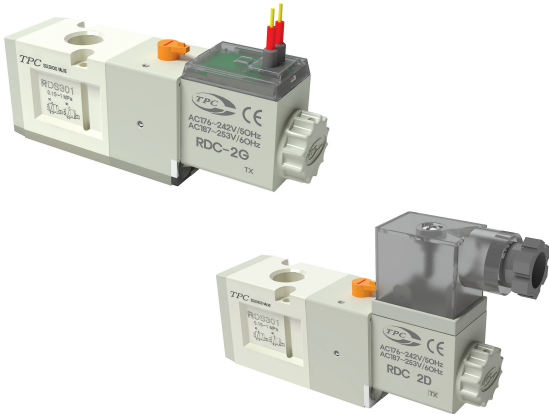
Series	Valve function					Body type	A,B Port Size & Effective orifice mm ² (CV) ^{Note1}				Valve width (mm)	Power Consumption (DC) W	Operating Pressure Range Mpa (kgf/cm ²)	
	2 Position		3 Position				Body ported type	Rc(PT) 1/8	Rc(PT) 1/4	Rc(PT) 3/8				Rc(PT) 1/2
	Single	Double	CLOSE CENTER	EXHAUST CENTER	PRESSURE CENTER									
RDS300	○	—	—	—	—	○	19.2 (1.07)	22 (1.2)	—	—	26.4	3.0/3.2	0.15~1.0 (1.5~10)	
RDS3000	○	○	○	○	○	○	14.4 (0.8)	18 (1.0)	—	—	26.4	3.0/3.2		
RDS5000	○	○	○	○	○	○	—	—	50 (2.8)	58 (3.2)	32	3.0/3.2		

※ PRESSURE CENTER TYPE is available.

※ Note1) This figure is only based on single type.

RDS300 Series

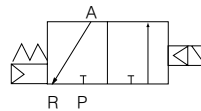
Rubber Seal 3port Pilot type



- Compact size and light weight(26.4mm width)
- Large flow capacity
- Easy modification from N.C to N.O
- Made with environment friendly materials
- White color design
- Easy to replace coil

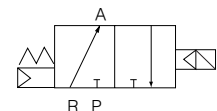
Symbol

RDS301-○○○-
○○A(N.C)

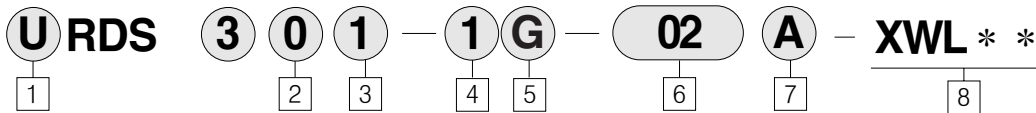


Single

RDS301-○○○-
○○B(N.O)



How to order



1 RDS300 Series
Blank : Metric Rc(PT)
U : NPT

2 Type of actuation
0 : N.C/N.O

3 Port type
1 : Body Ported

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 • Surge voltage protecting circuit attached)
N : DIN type(connector not included)

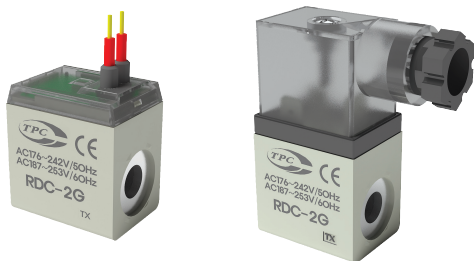
6 Port Size
01 : Rc(PT)1/8
02 : Rc(PT)1/4

7 Action
A : Normal Close
B : Normal Open

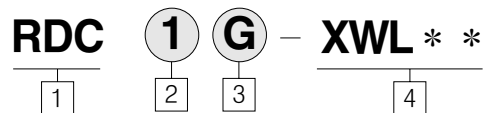
8 Length of lead wire
Blank : 300mm
XWL01: 100mm
XWL02: 200mm
:
XWL20: 2000mm

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

RDC Series



How to order



1 RDC Series

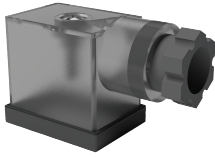
2 Coil Voltage
1: AC110V, 50/60HZ
2: AC220V, 50/60HZ
3: AC120V, 50/60HZ
4: AC240V, 50/60HZ
5: DC24V
6: DC12V

8: AC24V, 50/60HZ
9: DC100V

3 Electrical Entry
G : Grommet(Lead wire 300mm)
D : DIN Connector
DZ : DIN Connector(Lamp • Surge volatage 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

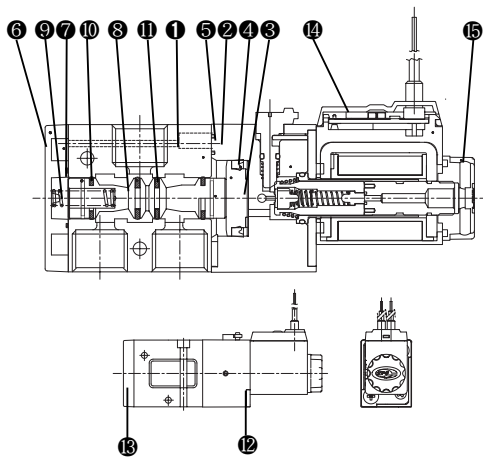
Notice

Please fully understand the safety notice before operating this item.

Specifications

Fluid	Air	
Action	PILOT Type	
Action	Air + Spring Type	
Position, port	2 positions / 3 ports	
Body Option	Body ported and Base mounted type	
Port Size Rc(PT)	1/8	1/4
Effective Orifice mm ² (Cv)	19.2 (1.07)	22 (1.2)
Operating Pressure Range	0.15~1.0MPa(1.5~10kgf/cm ²)	
Ambient and Fluid temperature	5~50℃	
Response time	under 30ms(0.5MPa)	
Max. Operating Frequency	5c/s	
Lamp(LED)	Standard	
Lubrication	Not Required	
Manual operation	PUSH & LOCK	
Mounting Position	Free	
Electrical Entry	Grommet(G)	DIN Connector(DZ)
Lead wire color	AC110V : Blue, AC220V : Red, DC24V : Red • Black	
Enclosure	Dust Proof	
Coil rated Voltage	AC(50/60Hz)	110V, 220V, 120V, 240V, 24V
	DC	24V, 12V, 100V
Allowable voltage fluctuation	-15~+10%	
Coil insulation type	Class H or Equivalent(180℃)	
Allowable temperature	under 40℃	
Apparent power	AC	5.0 VA(50Hz), 4.0VA(60Hz)
Power consumption	DC	3.0W/3.2W(with LED)
Indicator Light & Surge Suppressor Circuit	AC	LED, Varistor
	DC	LED, Varistor

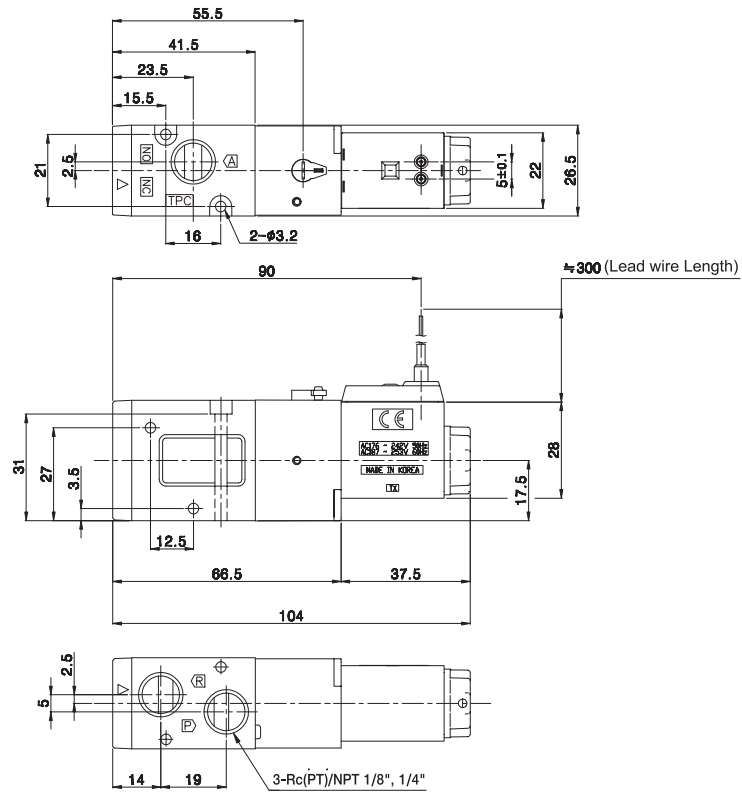
Construction/Parts List



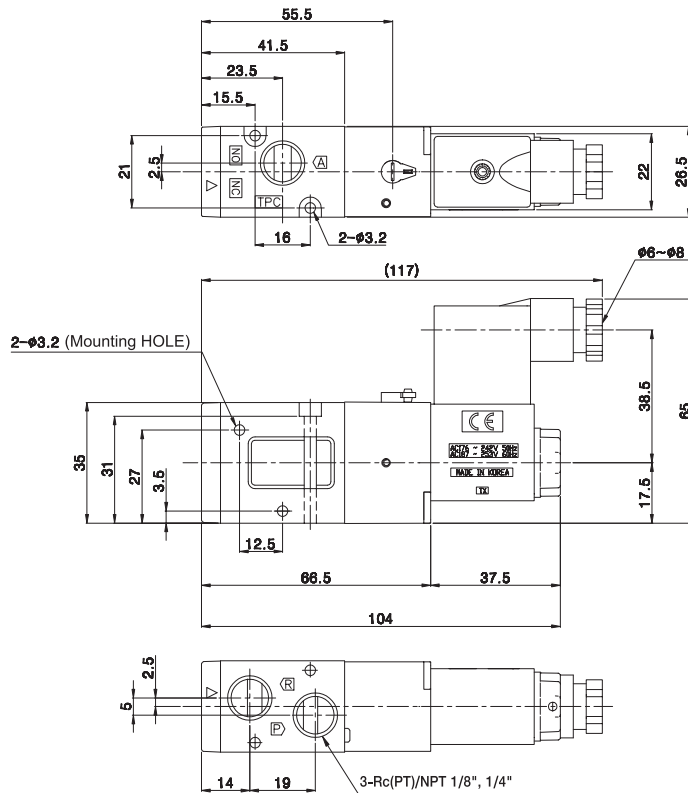
NO.	Description	Material	Remarks
①	Body	Aluminum Die casting	White color
②	Adapter Plate A	Resin	
③	Piston	Resin	
④	Piston Packing	NBR	
⑤	Adapter Plate gasket	NBR	
⑥	End Cover	Resin	
⑦	End Cover gasket	NBR	
⑧	Spool	Alumium	
⑨	Spool Spring	Spring Steel	
⑩	Spool Packing	NBR	
⑪	Quad Ring	NBR	
⑫	+Pan Headed Screw	Carbon steel	M4×0.7×30 l
⑬	+Flush Headed Screw	Carbon steel	M3×0.5×8 l
⑭	Coil Ass'y	-	
⑮	Core Fixed Nut	Resin	

Body Ported/2 Position

Grommet RDS301-OG

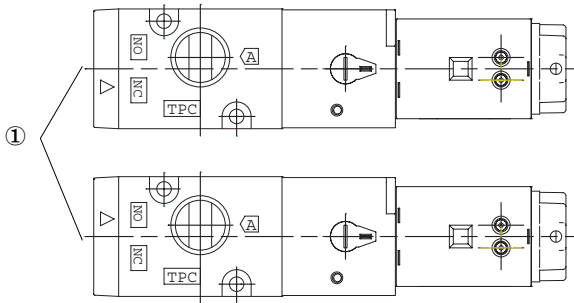


DIN Connector RDS301-ODZ



RDS301 Series

Change of Actuation(RDS 300)



As shown in the figure above, in event that it is needed to change the actuation from normally closed style to normally open style, it is preferred to remove the body from the sub plate and reset the “▲” mark on the body corresponding to the “NO” mark on the sub plate.

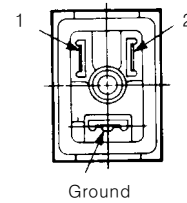
For piping, it is preferred to check the following table.

Flow Path Post	P	A	R
N · C	Upstream	Downstream	Exhaust side
N · O	Exhaust side	Downstream	upstream

Electronical Connection

Be sure to check the inner connections are as follows for the DIN connection and Terminal connection. (with surgeprotection circuit)

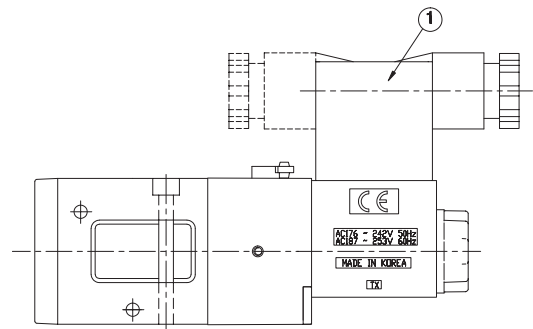
Din Connection



Terminal NO.	1	2
DIN Connection	+	-

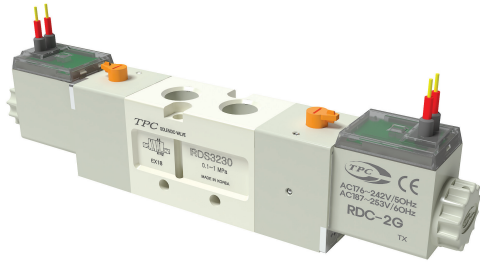
Change of Electrical Entry

Be sure to push out the body of DIN terminal from the cover, and turn it at 180° and then insert it.



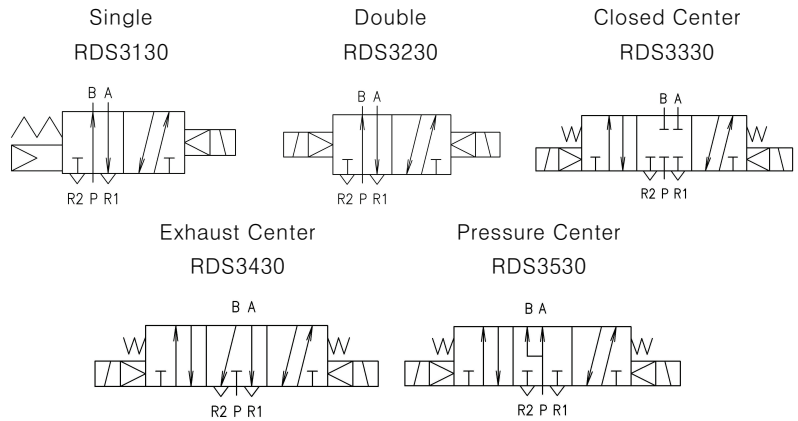
RDS3000 Series

Rubber Seal 3port Pilot Type

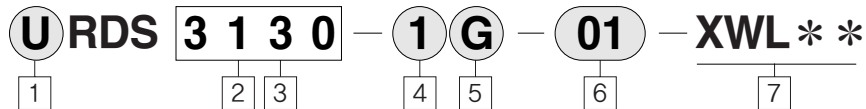


- Upgraded performance and quality
- RoHS Compliant with Eco-friendly materials.
- Lamp turn-on for Identification of operation status
- Made with environment friendly materials
- White color design
- Easy to replace coil

Symbol

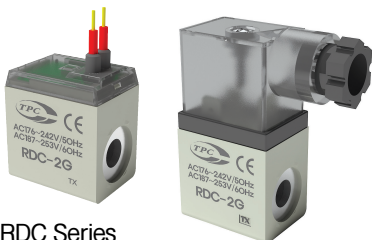


HOW TO ORDER



- | | | | | | | |
|--|---|--|--|---|---|--|
| <p>1 RDS3000 Series</p> <p>Blank : Metric Rc(PT)</p> <p>U : NPT</p> | <p>2 Type of Actuation</p> <p>1 : Single</p> <p>2 : Double</p> <p>3 : Closed Center</p> <p>4 : Exhaust Center</p> <p>5 : Pressure Center</p> | <p>3 Manifold specifications</p> <p>0 : Base mounted</p> <p>3 : Body Ported</p> | <p>4 Coil Voltage</p> <p>1: AC110V, 50/60HZ</p> <p>2: AC220V, 50/60HZ</p> <p>3: AC120V, 50/60HZ</p> <p>4: AC240V, 50/60HZ</p> <p>5: DC24V</p> <p>6: DC12V</p> <p>8: AC24V, 50/60HZ</p> <p>9: DC100V</p> | <p>5 Electrical Entry</p> <p>G : Grommet(Lead wire length 300mm)</p> <p>D : DIN Connector</p> <p>DZ : DIN Connector(Lamp • Surge voltage protecting circuit attached)</p> <p>N : DIN type (connector not included)</p> | <p>6 Port Size(sup cyl')</p> <p>01: Rc(PT)1/8</p> <p>02: Rc(PT)1/4</p> | <p>7 Length of Lead wire</p> <p>Blank : 300mm</p> <p>XWL 01 : 100mm</p> <p>XWL 02 : 200mm</p> <p>: 2000mm</p> <p>* Integrated push & lock type is standard option for manual operation.</p> |
|--|---|--|--|---|---|--|

RDC Series

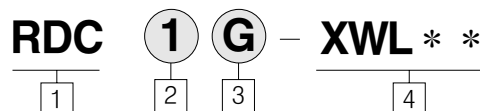


1 RDC Series

2 Coil Voltage

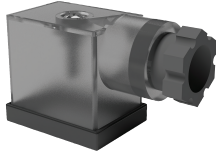
- 1: AC110V, 50/60HZ
- 2: AC220V, 50/60HZ
- 3: AC120V, 50/60HZ
- 4: AC240V, 50/60HZ
- 5: DC24V
- 6: DC12V

HOW TO ORDER



- | | | |
|---|--|--|
| <p>8: AC24V, 50/60HZ</p> <p>9: DC100V</p> | <p>3 Electrical Entry</p> <p>G : Grommet(Lead wire length 300mm)</p> <p>D : DIN Connector</p> <p>DZ : DIN Connector(Lamp • Surge voltage protecting circuit attached)</p> <p>N : DIN type(connector not included)</p> | <p>4 Length of Lead wire</p> <p>Blank : 300mm</p> <p>XWL01: 100mm</p> <p>XWL02: 200mm</p> <p>: 2000mm</p> |
|---|--|--|

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

Type		Specifications
Fluid		Air
Operating Pressure Range(MPS)	2 Position Single, 3 Position	0.15 ~ 1.0 MPa [0.2~1.0kgf/cm ²]
	2 Position Double	0.1 ~ 1.0MPa
Ambient and Fluid temperature		5~50°C
Response time(ms)	2 Position Single, Double	under 40ms
	3 Position	under 50ms
Max. Operating Frequency(Hz)	2 Position Single, Double	5 c/s
	3 Position	3 c/s
Lamp(LED)		Standard
Manual operation		PUSH & LOCK
Electrical Entry		Grommet. DIN terminal
Lubrication		Not Required
Coil rated Voltage	AC(50/60)Hz	110V, 220V
	DC	24V
Apparent power	Apparent power(AC)	5.0VA(50Hz), 4.0VA(60Hz)
	Power consumption(DC)	3.0 / 3.2W(with LED)

Option

Description	Part number	Port Size
Silencer	SN110-01	Rc(PT)1/8

Type

Piping	Type	Type of actuation	⁽¹⁾ PORT SIZE (SUP,CYL.)	⁽²⁾ Effective Orifice mm ² (Cv)		Weight (kgf)
				Rc(PT)1/8	Rc(PT)1/4	
Body Ported	RDS3130-○○- ⁰¹ / ₀₂	2 Position Single	Rc(PT)1/8	14.4(0.8)	18(1.0)	0.21
	RDS3230-○○- ⁰¹ / ₀₂	2 Position Double		14.4(0.8)	18(1.0)	0.32
	RDS3330-○○- ⁰¹ / ₀₂	3 Position Closed Center	Rc(PT)1/4	11.7(0.65)	14.4(0.8)	0.33
	RDS3430-○○- ⁰¹ / ₀₂	3 Position Exhaust Center		14.4(0.8)	18(1.0)	0.33
	RDS3530-○○- ⁰¹ / ₀₂	3 Position Pressure Center		18(1.0)	21(1.2)	0.33

(1) Exhaust port(R1, R2) is Rc(PT)1/8"

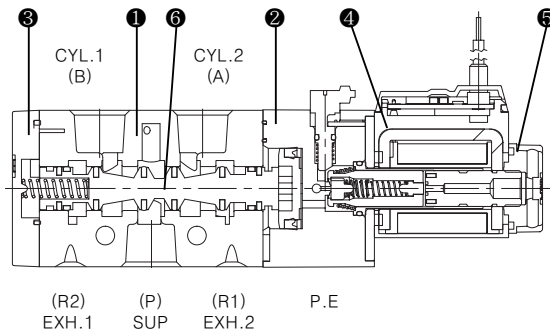
(2) Exhaust effective sectional area is relatively different from supply sectional area. Moreover, it shows possibly speed difference owing to exhaust features of RDS3230 and RDS3430.

Manifold Type

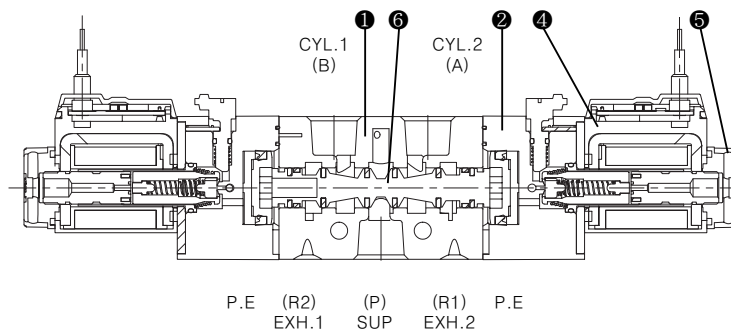
Type	Manifold Type			
	Type	EXH Method	A,B(CYL)Port piping	
RDS3○30-○○- ⁰¹ / ₀₂	B mount	30 Type	Common	Valve

Constuction/Parts List

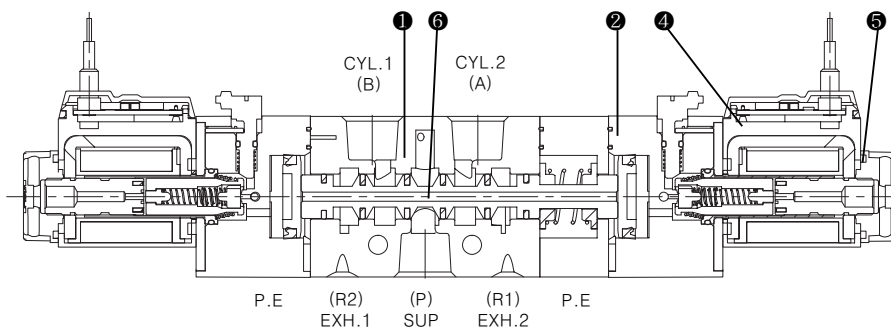
Single Solenoid



Double Solenoid



3 Position Solenoid



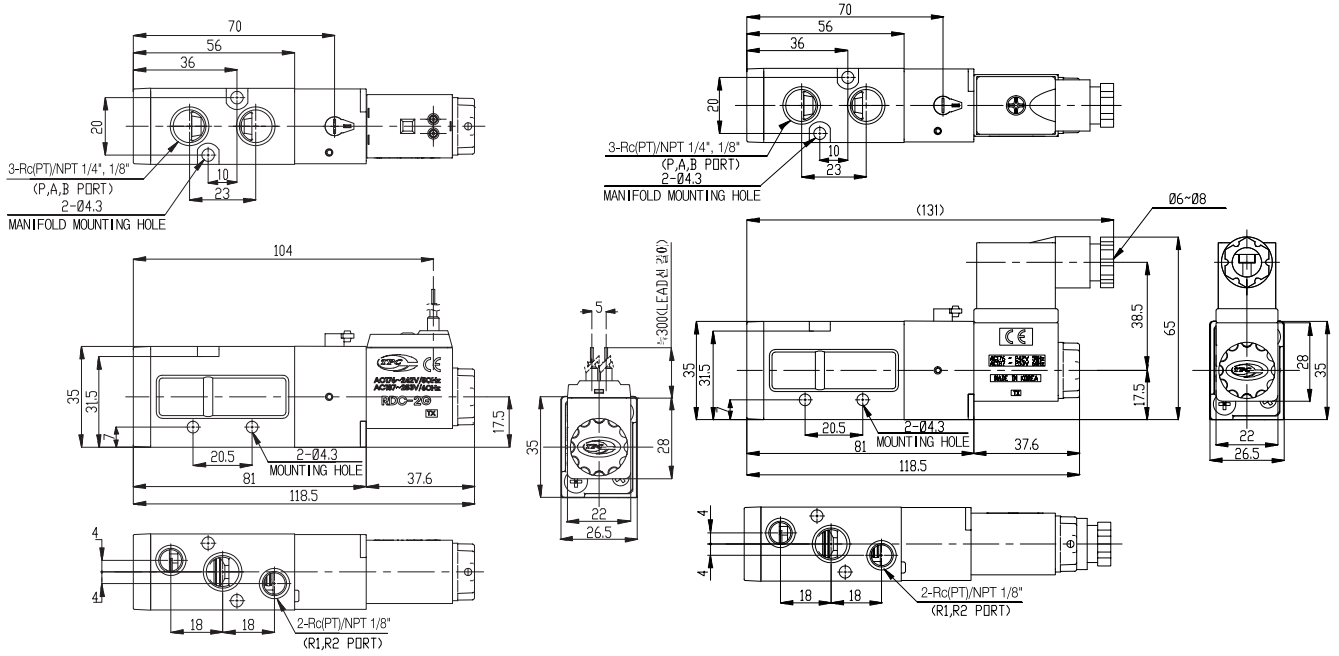
Main Parts

NO.	Description	Material	Remarks
①	Body	Aluminum die casting	White paint
②	Adapter Plate A	Resin	
③	End Cover	Resin	
④	Coil Ass'y	-	
⑤	Core Fixed Nut	Resin	
⑥	Spool	Aluminum	

Body Ported/2 Position Single Solenoid

Grommet/RDS3130-OG

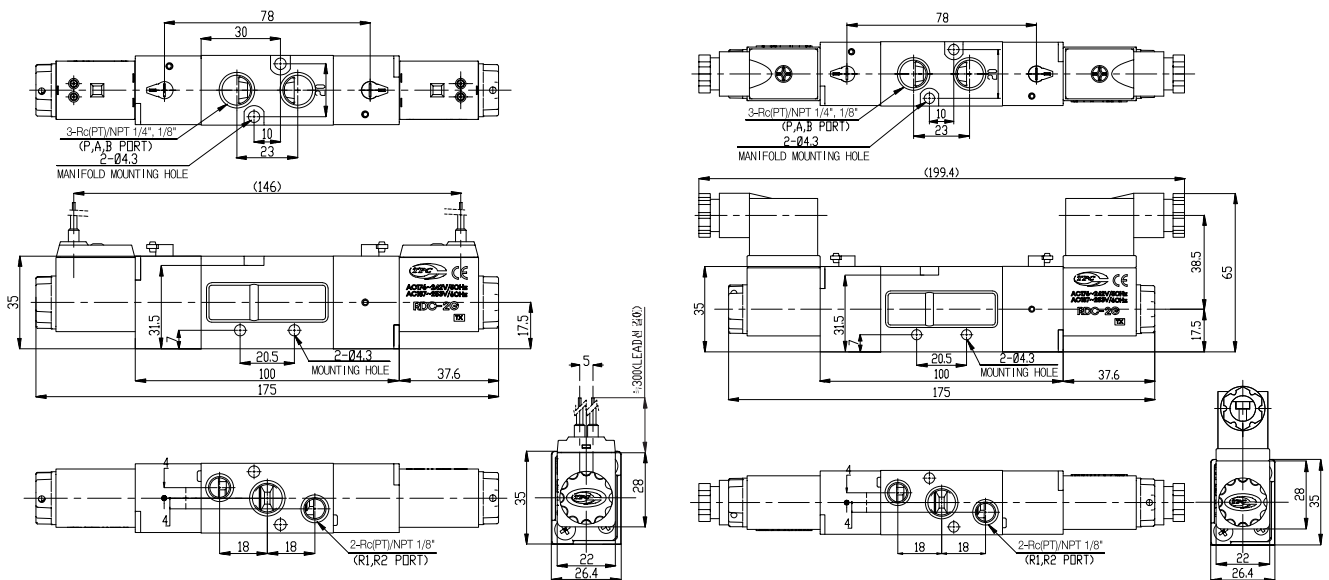
DIN Connector/RDS3130-OD(DZ)



Body Ported/2 Position Double Solenoid

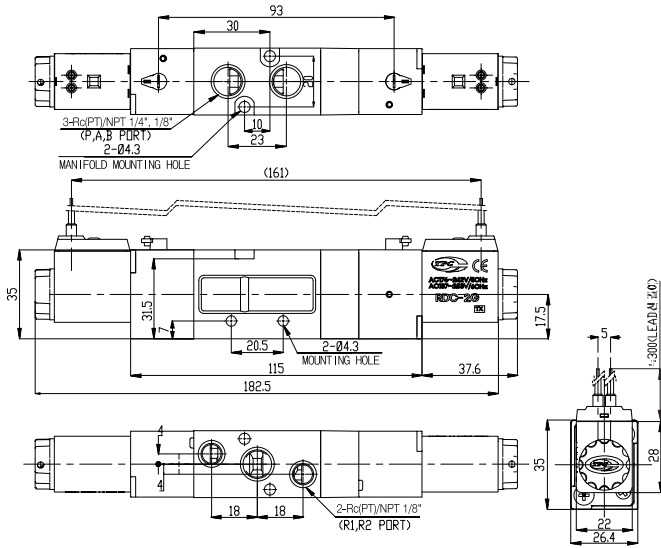
Grommet/RDS3230-OG

DIN Connector/RDS3230-OD(DZ)

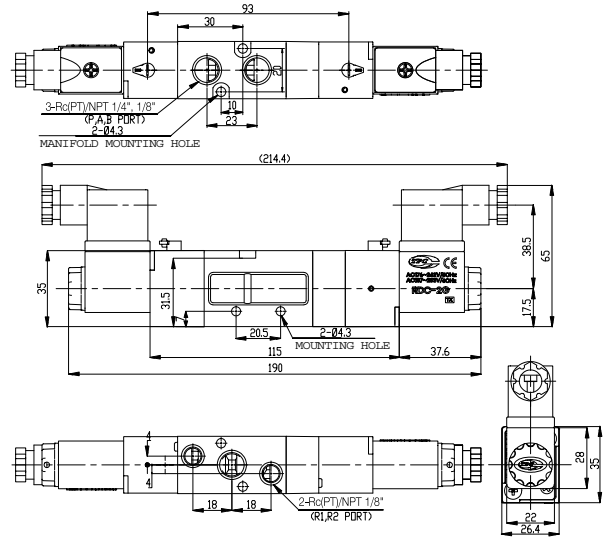


Body Ported / 3 Position Double Solenoid

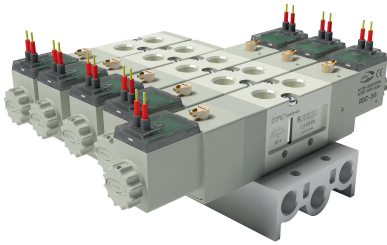
Grommet/RDS3○30-○G



DIN Connector/RDS3○30-○D(DZ)



Manifold



TVV5F3-30

Types · Specifications

Manifold Type	B Mount(Single Base type)	
EXHAUST Port Type	Common	Single
⁽¹⁾ Maximum valve connection number	20 Stations	

(1) For more than 8 stations of B mounting type, pressurized at both ends of P(SUP) port and exhausted by both R(EXH) ports.

Types · Specifications

Type	Manifold Base type	⁽¹⁾ R(EXH) Type	Piping Direction/Connect Location			PORT SIZE Rc(PT)			Applied Valve Type
			P(SUP)	R(EXH)	A,B(CYL)	P(SUP)	R(EXH)	A,B(CYL)	
B Mount	TVV5F3-30	Common	Transverse	Transverse	Upper	1/4	1/4	1/8	RDS3○30
			Base	Base	Valve				

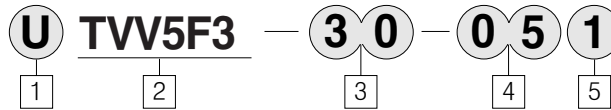
(1) The type of P port is common.

Blank Plate

TVF3130-83A

(Gasket and bolt included)

Manifold Base Order form



1 Manifold
Blank : Metric(PT)
U : NPT

2 RDS3000 Series Manifold

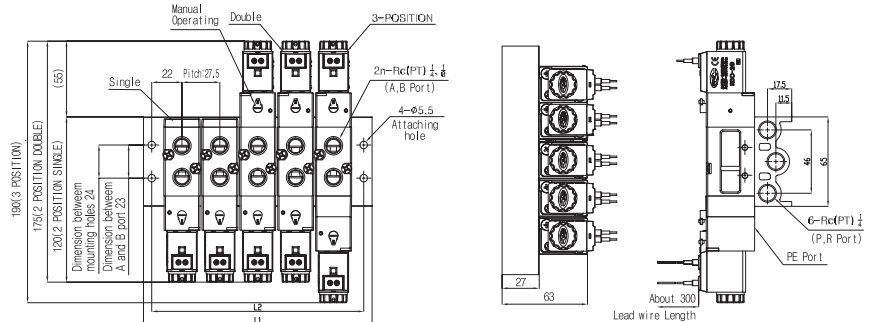
3 Manifold Specification
Symbol : 30
A,B(CYL) port piping position : Valve
Port size : Rc(PT)1/4
Applied Valve : RDS3○30

4 Stations
02 : 2 Stations
}

5 Component Symbol
Symbol : 1
Passage Specification
P(SUP) : Common
R(EXH) : Common
Piping Specification
A, B(CYL):Upper(Transverse)
Remark : 30 Type

B Mount Type/TVV5F3 - 30

Common EXH/TVV5F3 - 30 - ○○1

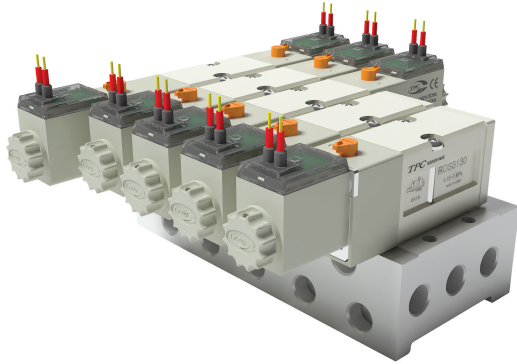


L:Dimension Sheet

(n:stations)

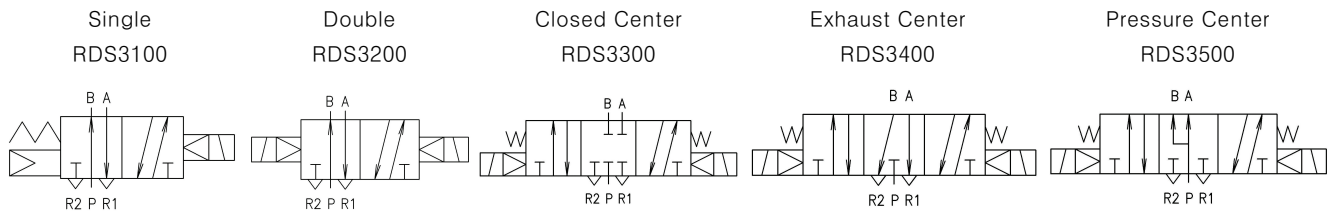
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	83.5	111	138.5	166	193.5	221	248.5	276	303.5	331	358.5	386	413.5	441	468.5	496	523.5	551	578.5
L2	71.5	99	126.5	154	181.5	209	236.5	264	291.5	319	346.5	374	401.5	429	456.5	484	511.5	539	566.5

RDS3000 Sub-Base Mounting Type

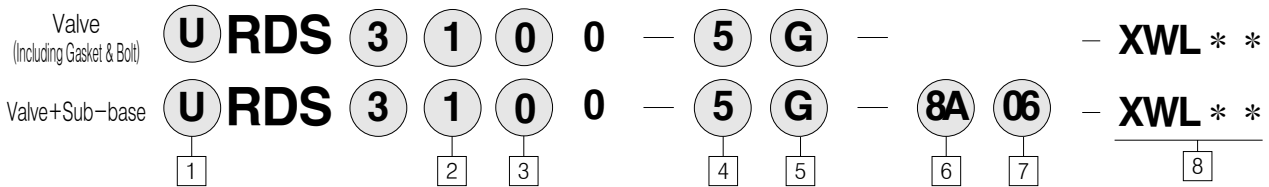


- Upgraded performance and quality
- RoHs Compliant with Eco-friendly materials
- Lamp turn-on for Identification of operation status
- Made with environment friendly materials
- White color design
- Easy to replace coil

Symbol

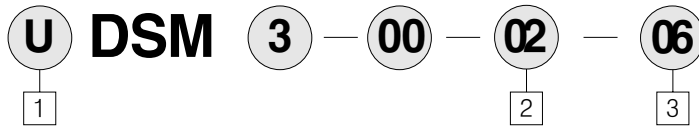


HOW TO ORDER



- | | |
|---|---|
| <p>1 RDS3000 Series
Blank : Metric Rc(PT)
U : NPT</p> <p>2 Type of Actuation
1 → Single
2 → Double
3 → Closed Center
4 → Exhaust Center
5 → Pressure Center</p> <p>3 Body option
0 → Standard</p> <p>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</p> | <p>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)</p> <p>6 Port Size
Blank → Valve body only(without sub-plate)
8A → Rc(PT)1/4(sub-plate included)</p> <p>7 One-touch fitting attachment
Blank → None
06 → Ø6 one-touch fitting attachment
08 → Ø8 one-touch fitting attachment</p> <p>8 Length of Lead wire
Blank : 300mm(Standard)
XWL01: 100mm
XWL02: 200mm
:
XWL20: 2000mm</p> <p>※ Integrated push & lock type is standard option for manual operation.</p> |
|---|---|

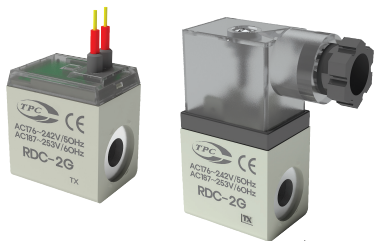
Manifold



- 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

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

RDC Series



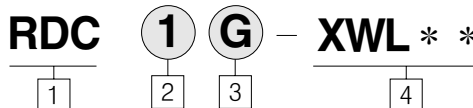
① RDC Series

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



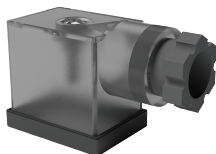
③ Electrical Entry

- 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)

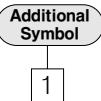
④ Length of Lead wire

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

DIN TERMINAL BOX Order form



TVF3130-61-2005



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

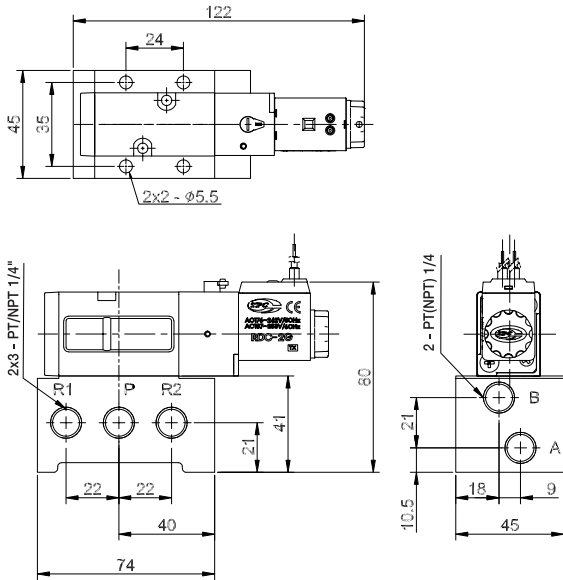
Please fully understand the safety notice before operating this item.

Specifications

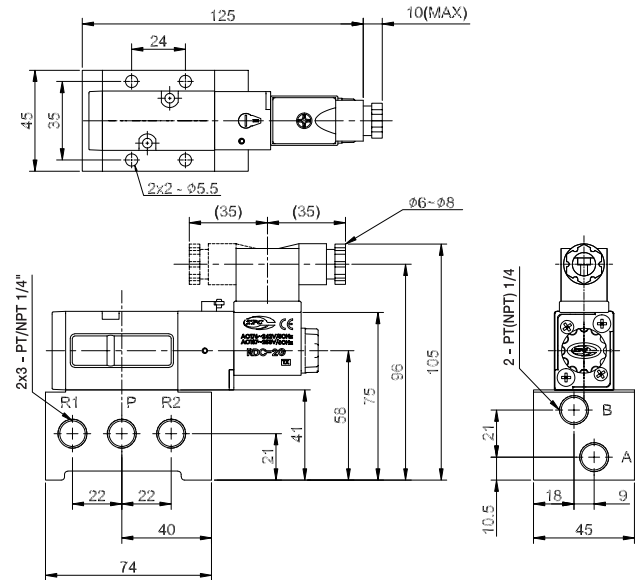
Fluid		Air
Operating pressure Range	2 Position Single, 3 Position	0.15 ~ 1.0 MPa [0.2~1.0kgf/cm ²]
	2 Position Double	0.1 ~ 1.0MPa
Ambient and Fluid Temperature		5~50°C (Without freezing)
Response time(ms)	2 Position Single, Double	30ms or less
	3 Position	40ms or less
Max operating frequency	2 Position 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 ²)	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

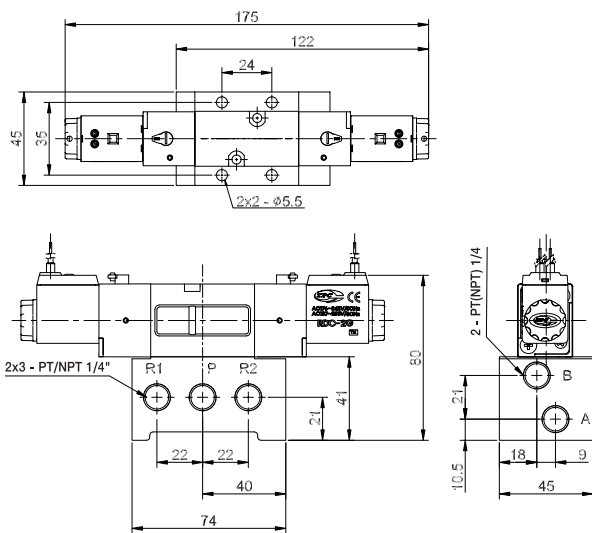


DIN Connector/RDS3100-○D(DZ)

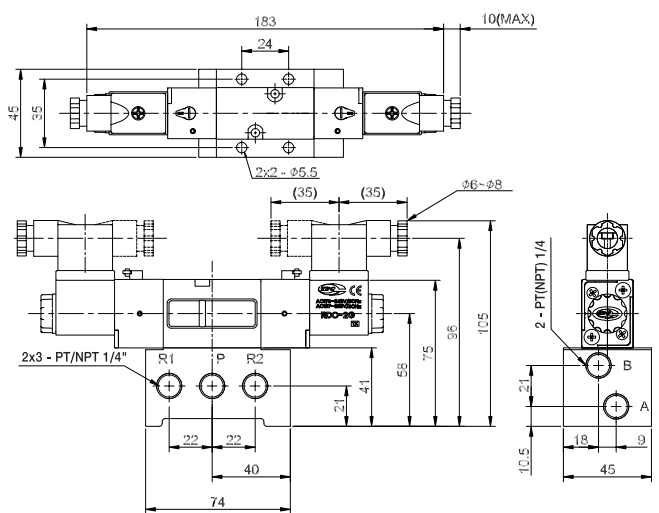


Sub-base /2 Position Double Solenoid

Grommet/RDS3200-○G



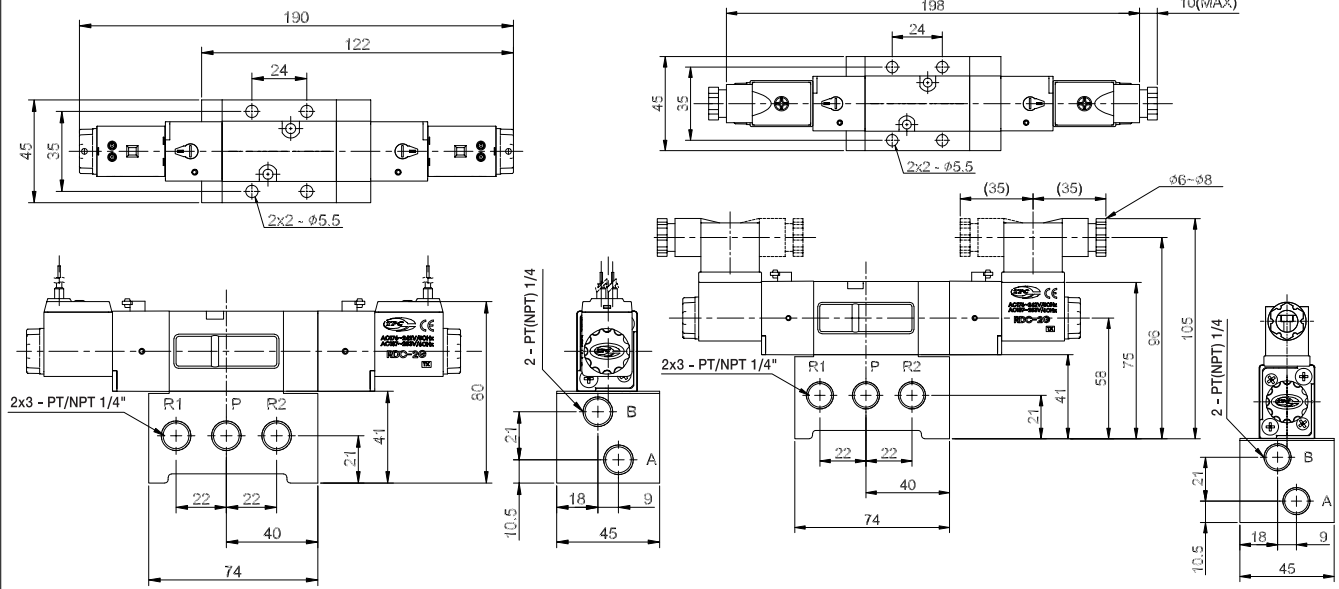
DIN Connector/RDS3200-○D(DZ)



Sub-base / 3-Position Solenoid

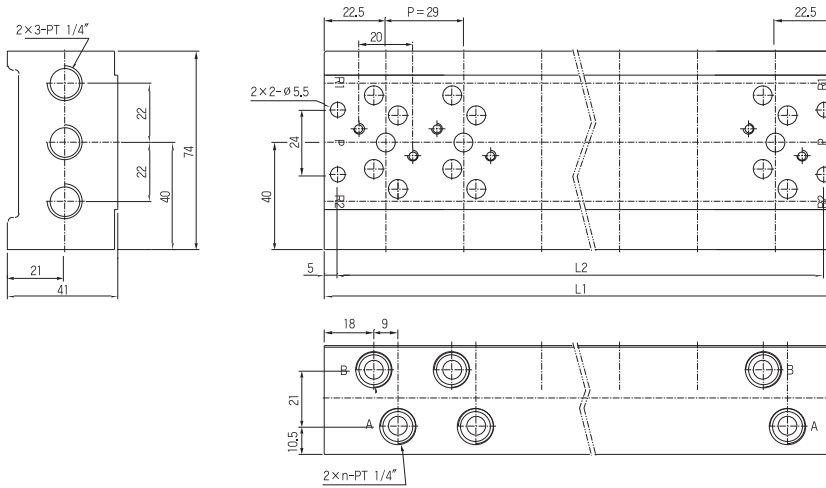
Grommet/RDS3○00-○G

DIN Connector/RDS3○00-○D(DZ)



Dimension/Manifold Block

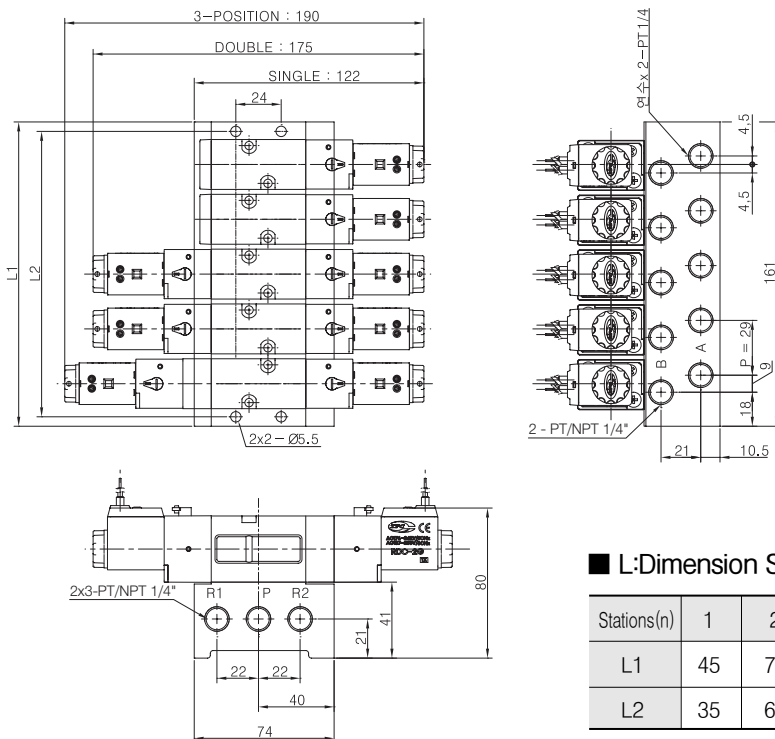
(mm)



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)



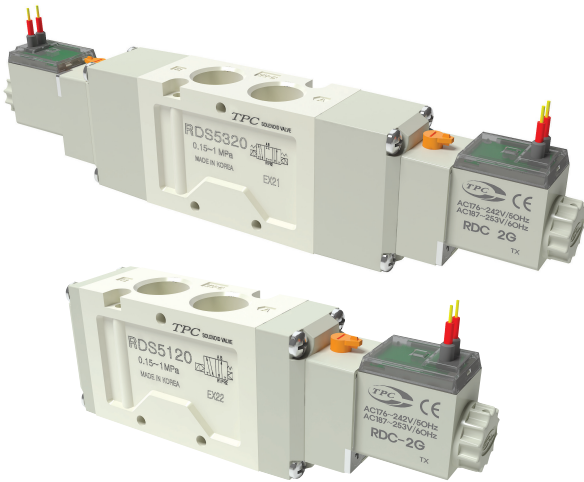
■ L:Dimension Sheet

(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

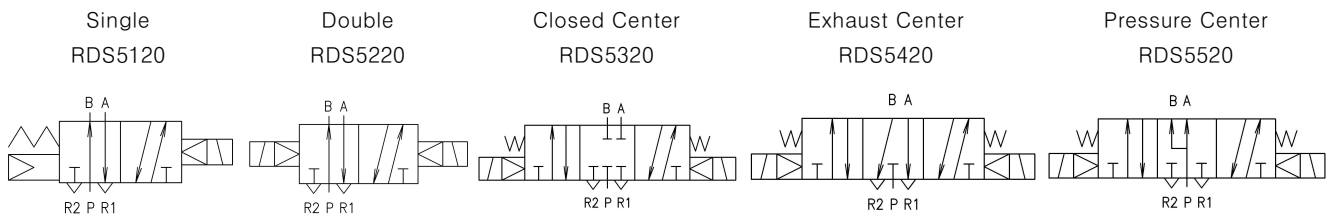
RDS5000 SERIES

Rubber Seal 5port Pilot Type

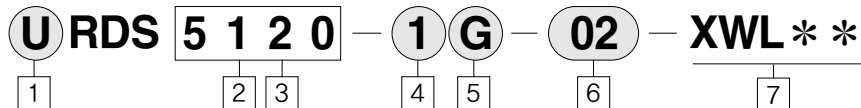


- Compact size and light weight(32mm width)
- Large flow capacity – Cv2.8, Rc(PT)3/8 and Cv3.2, Rc(PT)1/2
- Made with environment friendly materials
- White color design
- Easy to replace coil

Symbol



HOW TO ORDER



1 RDS5000 Series
Blank : Metric Rc(PT)
U : NPT

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

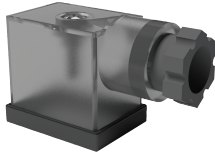
3 Port type
2 : Body Ported

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

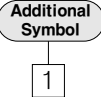
5 Electrical Entry
G : Grommet(Lead wire 300mm)
D : DIN Connector
DZ : DIN Connector
(Lamp and surge voltage protecting circuit attached)
N : DIN type(connector not included)

6 PORT SIZE
02: Rc(PT)1/4
03: Rc(PT)3/8
04: Rc(PT)1/2

8 Lead wire
Blank : 300mm
XWL01 : 100mm
XWL01 : 200mm
:
XWL01 : 2000mm
※ Integrated push & lock type is standard option for manual operation.



TVF3130-61-2005



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

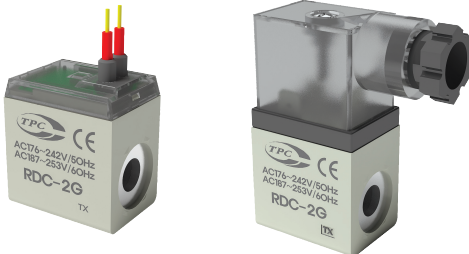
	Fluid	Air
AMBIENT AND FLUID TEMPERATURE(MPS)	2 Position Single, 3 Position 2 Position Double	0.15 ~ 1.0 MPa [0.2~1.0kgf/cm ²] 0.1 ~ 1.0MPa
Ambient and Fluid temperature		5~50℃
Response time(ms)	2 Position Single, Double 3 Position	under 40ms under 50ms
Max. Operating Frequency(Hz)	2 Position Single, Double 3 Position	5 c/s 3 c/s
Lamp(LED)		Standard
Manual operation		PUSH & LOCK
Electrical Entry		Grommet(G), DIN Connector(DZ)
Lubrication		Not Required
Coil rated Voltage	AC(50/60)Hz DC	110V, 220V, 120V, 240V, 24V 24V, 12V, 100V
Power Consumption	Apparent power(AC) Power consumption(DC)	5.0VA(50Hz), 4.0VA(60Hz) 3.0 / 3.2W(with LED)

Type

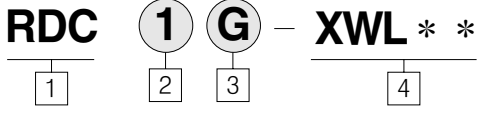
Piping type	Type	Type of Actuation	PORT SIZE (SUP,CYL.)	Effective Orifice mm ² (Cv)		Weight(kg)
				Rc(PT)3/8	Rc(PT)1/2	
Body Ported	RDS5120-○○- ⁰² / ₀₃ / ₀₄	2 Position Single	Rc(PT)1/4	50(2.8)	58(3.2)	0.40
	RDS5220-○○- ⁰² / ₀₃ / ₀₄	2 Position Double		50(2.8)	58(3.2)	0.48
	RDS5320-○○- ⁰² / ₀₃ / ₀₄	3 Position Closed Center	Rc(PT)3/8	40(2.2)	45(2.5)	0.60
	RDS5420-○○- ⁰² / ₀₃ / ₀₄	3 Position Exhaust Center	Rc(PT)1/2	43(2.4)	48(2.7)	0.60
	RDS5520-○○- ⁰² / ₀₃ / ₀₄	3 Position Pressure Center		40(2.2)	45(2.5)	0.60

(1) Body ported type can be attached to each manifold base.(Manifold Type / B mount common exhaust)
 (2) The weight is based on grommet type.
 (3) Effective sectional area of valve is assigned by provider, which shows a bit of difference from exhaust effective sectional area.(Lamp/Surge voltage protecting circuit attached)

RDC Series



HOW TO ORDER

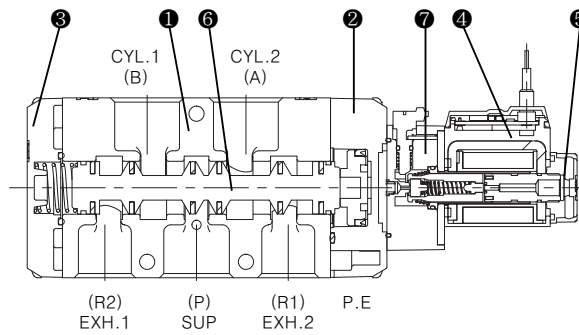


- 1 RDC Series
- 2 Coil Voltage
 - 1: AC110V, 50/60Hz
 - 2: AC220V, 50/60Hz
 - 3: AC120V, 50/60Hz
 - 4: AC240V, 50/60Hz
 - 5: DC24V
 - 6: DC12V

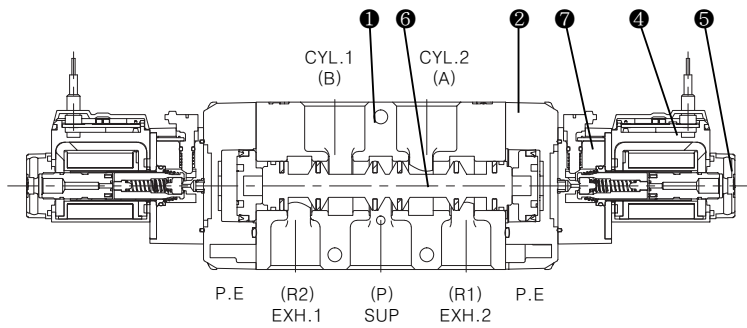
- 8: AC24V, 50/60Hz
- 9: DC100V
- 3 Electrical Entry
 - G : Grommet(Lead wire 300mm)
 - D : DIN Connector
 - DZ : DIN Connector
 - (Lamp and surge voltage protecting circuit attached)
 - N : DIN Type (connector not included)

- 4 Length of lead wire
 - Blank : 300mm
 - XLW01 : 100mm
 - XLW02 : 200mm
 - :
 - XLW20 : 2000mm

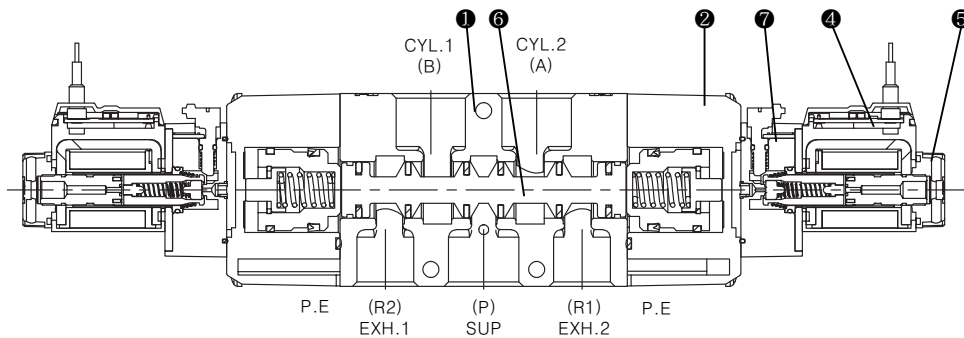
Single Solenoid



Double Solenoid



3 Position Solenoid

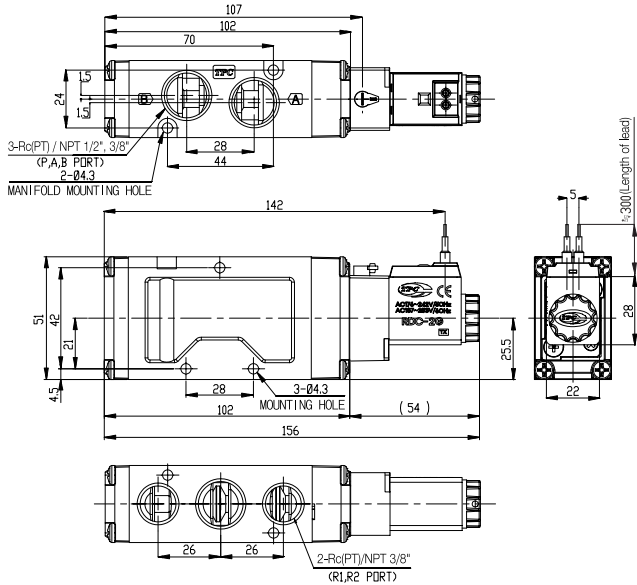


Main Parts for manifold

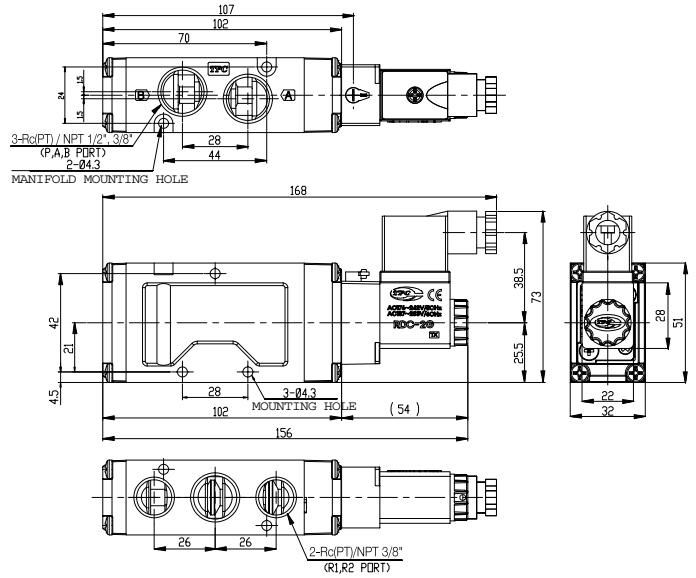
NO.	Description	Material	Remarks
①	Body	Aluminum die casting	White paint
②	Adapter Plate A	Resin	
③	End Cover	Resin	
④	Coil Ass'y	-	
⑤	Core Fixed Nut	Resin	
⑥	Spool	Alumium	
⑦	Pilot Body	Resin	

Body Ported/2 Position Single Solenoid

Grommet/RDS5 1 2 ○ - ○ G

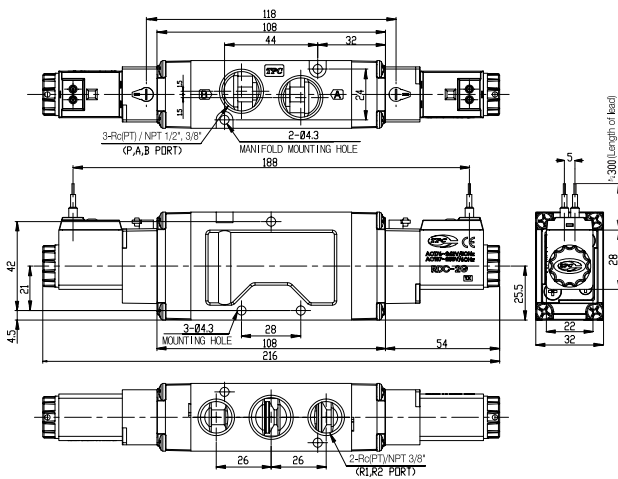


DIN Connector/RDS5 1 2 ○ - ○ D (DZ)

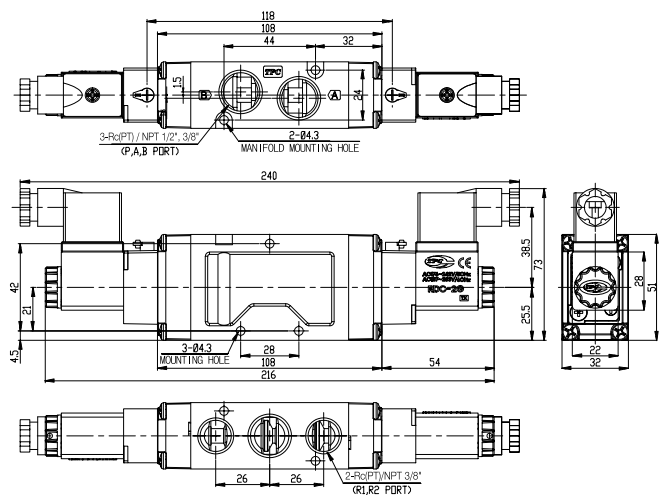


Body Ported/2 Position Double Solenoid

Grommet/RDS5 2 2 ○ - ○ G

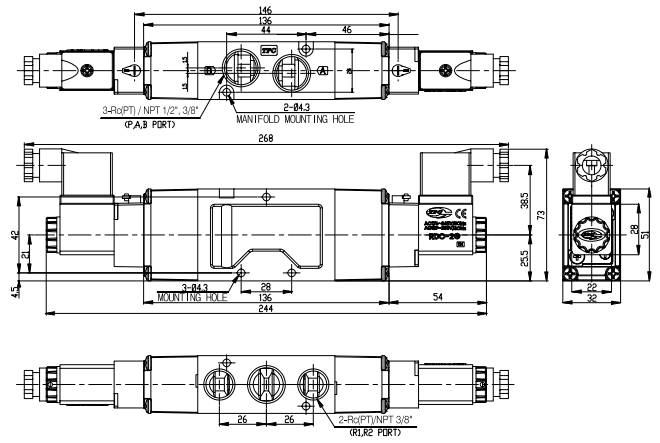
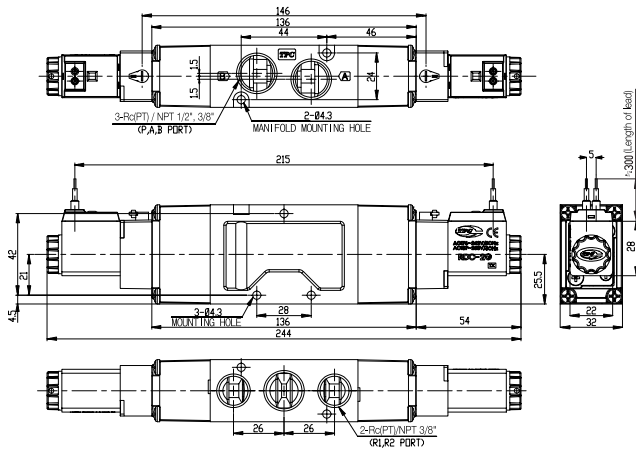


DIN Connector/RDS5 2 2 ○ - ○ D (DZ)

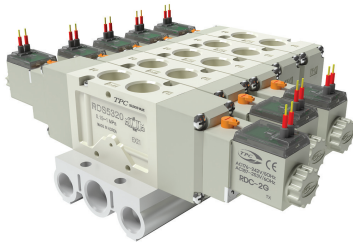


Body Ported / 3 Position Double Solenoid

Grommet/RDS5○2○-○G



Manifold



TVV5F5-30

Type · Specifications

Manifold Type	BMount(Single Base type)	
EXHAUST Port Type	Common	Individual
⁽¹⁾ Maximum Valve Connection number	10 stations	

(1) For more than 5 stations of B mounting type, pressurized at both ends of P(SUP) port and exhausted by both R(EXH) ports.

Type · Specifications

Type	Manifold Base type	⁽¹⁾ R(EXH) Type	Piping Direction/Connect Location			PORT SIZE Rc (PT)			Applied Valve Type
			P(SUP)	R(EXH)	A,B(CYL)	P(SUP)	R(EXH)	A,B(CYL)	
B Mount	TVV5F5-20	Common	Transverse	Transverse	Upper	1/2	3/8	3/8 1/2	RDS5□20
			Base	Base	Valve				

(1) The type of P port is common.

Blank Plate HOW TO ORDER

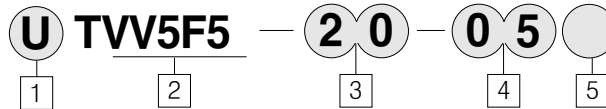
TVF5120-83A

(Gasket & Bolt included)

Manifold Gasket

TVF5120-52A

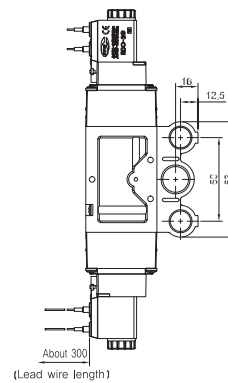
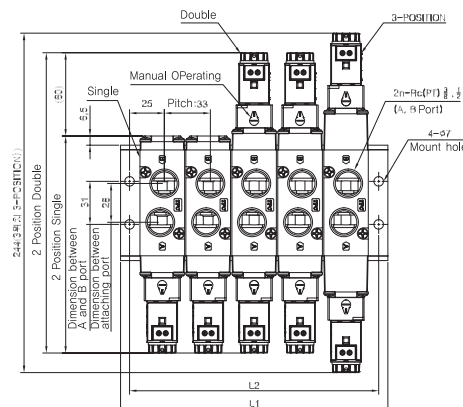
Manifold Base HOW TO ORDER FORM



- 1** Manifold
Blank : Metric(PT)
U : NPT
- 2** RDS5000 SERIES Manifold
- 3** Manifold Specifications
Symbol : 20
A,B(CYL) port piping position : valve
Port size
P : Rc(PT)1/2
R : Rc(PT)3/8
Applied Valve Type : RDS5□20
- 4** Stations
02 : 2 Stations
10 : 10 Station
- 5** Component Symbol
Symbol : 1
Passage Specification
P(SUP) : Common
R(EXH) : Common
Piping Specification
A, B(CYL):Upper(Transverse)
Remark : 20 Type

B Mount type/TVV5F5 - 20

Common EXH/TVV5F5 - 20 - ○○1



L:Dimension Sheet

(n:Stations)

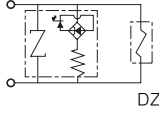
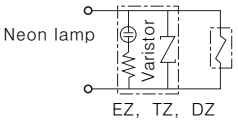
L \ n	2	3	4	5	6	7	8	9	10
L1	93	126	159	192	225	258	291	324	357
L2	80	113	146	179	212	245	278	311	344

Notices for Handling

■ Notice

Please fully understand the safety notice before operating this item.

Indicator Light / Surge Voltage Suppressor

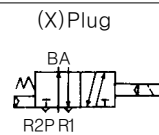
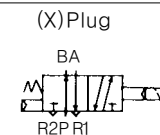
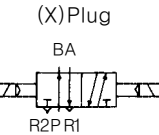
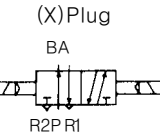
Rated Voltage	AC, DC
Less than 24V	
Less than 200V	

(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 	(X)Plug 
	Double	(X)Plug 	(X)Plug 

For the Quality of Fluid Applied

- ① 5 μ 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.

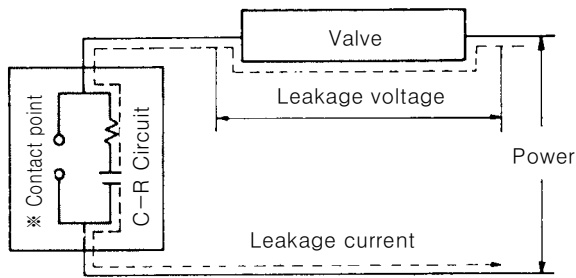
For Piping

- 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°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 $1.89(P_2+1.033) < P_1+1.033$

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

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

P_1 : 1st Side Pressure (Gauge Pressure) (kgf/cm²)

P_2 : 2st Side Pressure (Gauge Pressure) (kgf/cm²)

ΔP : Pressure Differential ($P_1 - P_2$) (kgf/cm²)

S : Effective Orifice (mm²)

G : Specific Gravity (Air=1)

θ : 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)	