PCL5, RCL5 Series

Port Pilot Operated Latching Solenoid Valve Rubber Seal/Sub-base, In-line Mounting Type

PCL245
2-position, Latching solenoid
RCL245
2-position, Latching solenoid

Specificiations(Standard)

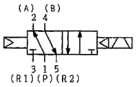
Model No.			Unit	PCL245	RCL245
Fluid				Non-lubricated/lubricated air	
Port size				M5, RC⅛	M5
Effective area			mm^2	3.5(0.19): M5 3.8(0.21):RC⅛	3.7(0.20)
Operating ambient temperature			°C	-5 ~ 50	
Minimum operating pressure			MPa	0.15	
Pressure range			MPa	0.2 ~ 0.7	
Maximum frequency			cycle/min	600	
Response time	L type	ON	s	0.02	
		OFF		0.02	
	SP type	ON		0.02	
		OFF		0.02	
Min.energizing time			s	0.05	
Rated voltage			V	DC24	
Permission voltage fluctuation			%	+10, -15	
Power consumption			W	1.8	
Grade of insulation				JIS grade B	
Wiring				Lead wire(L),Connector with lead wire(SP)	
Mass	L&SP type	NB	g	62	—
		M5		106	62
		RC⅛		118	—

Note: Supply complete-dry air to avoid freezing when temperature of valve site falls below 5°C

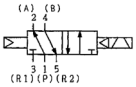
PCL245 | | – M5 – D24 | SP

Model No.

PCL245



RCL245



Wiring
L : Lead wire
SP: Connector with lead wire

Voltage
D24: DC24V

Port size
M5 : M5×0.8
01 : RC⅛
NB : Without sub-base
Note: Port size for RCL245 is only M5.

Special specifications
No mark : Standard (Individual exhaust of pilot)
U : External pilot (Valve body ported) Individual exhaust of pilot

Optional Parts and Spare parts

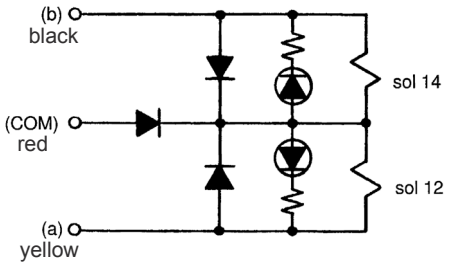
Sub-base

The Sub-base is alse used for PC5.

Connector with lead wire

Parts Name	Length	Model No.
Connector with lead wire	500	PCL5-D24-CL5 (Standard)

Electrical Connection of Solenoid

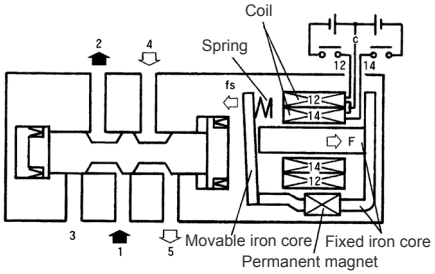


When power is applied onto +COM (red) and —sol 14 (black), Port 4 will open.

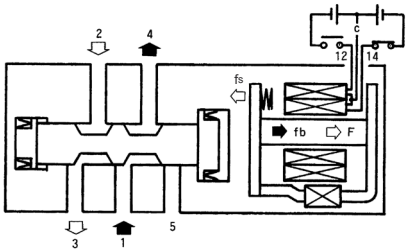
When power is applied onto +COM (red) and —sol 12 (yellow), Port 2 wiill open.

Opearting Principle

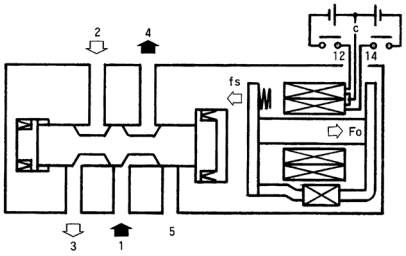
① sol 12 OFF (sol 12, sol 14 OFF)
The movable iron core keeps its position because the spring force (fs) is stronger than the permanent magnetic force (F).



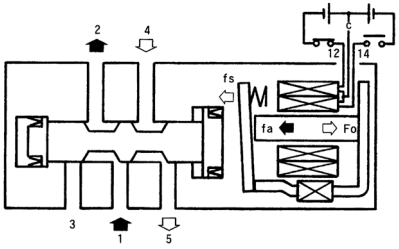
② sol 14 ON
The movable iron core will be attracted when the sum of the permanent magnetic force and power-supplied attractive force (fb) of sol 14 is greater than the movable iron core spring force(fs).



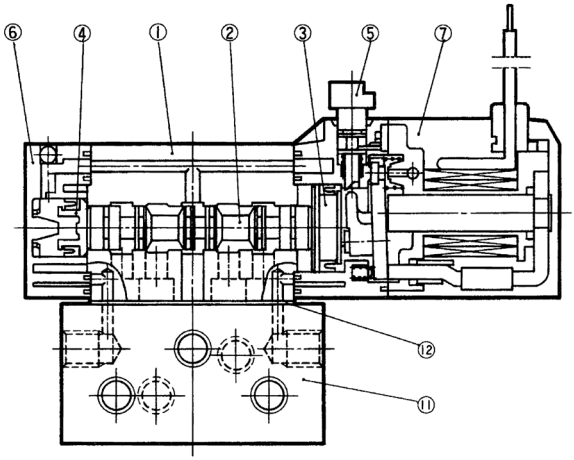
③ sol 14 OFF
The movable iron core will be attracted to the fixed iroin core when the power supplied to sol 14 is off as the workholding force (Fo) of the permanent magenet is greater than the movable iron core spring force (fs).



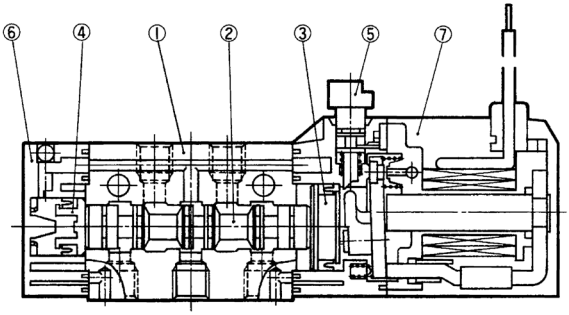
④ sol 12 ON
When the power is on, the workholding force of the permanent magnet will be offset by the attractive force (fa) of sol 12. The movable iron will thus returns to its original position.



PCL245



RCL245

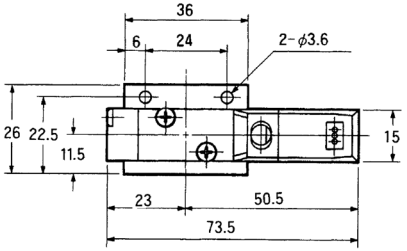


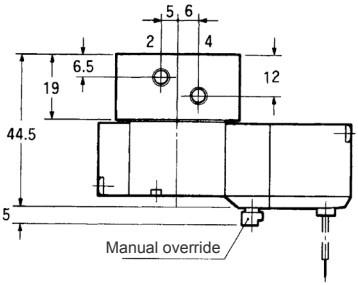
Main Components

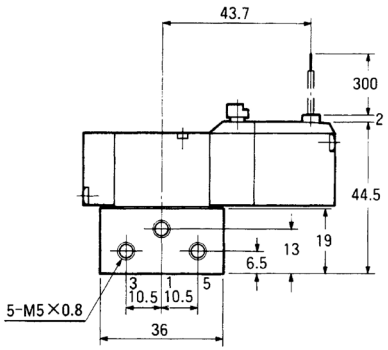
No.	Description	Material
1	Body	Aluminium alloy
2	Spool assembly	—
3	Piston D	Synthetic resin
4	Piston S	Synthetic resin
5	Manual override	Synthetic resin
6	End cover	Synthetic resin
7	Pilot valve	—
11	Sub-base	Alluminium die-casting
12	Base gasket	NBR

PCL245-M5(L type)

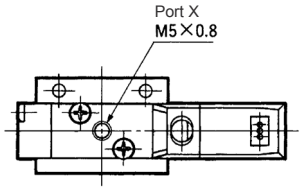
(Unit: mm)



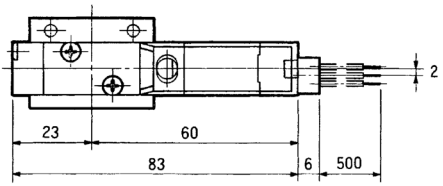


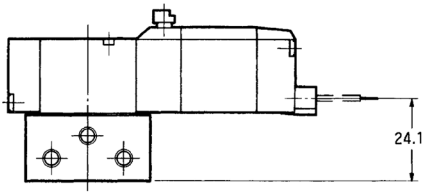


PCL245-M5(U type)



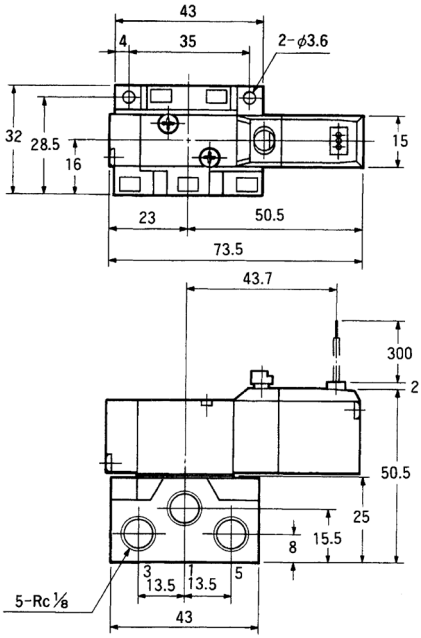
PCL245-M5(SP type)

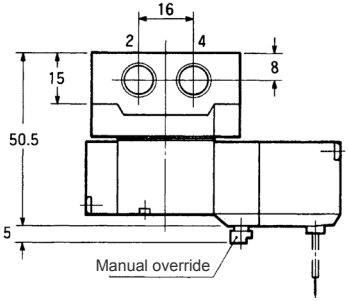




PCL245-01(L type)

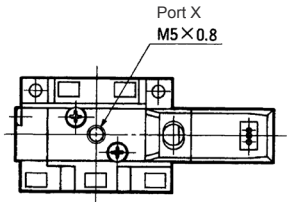
(Unit: mm)





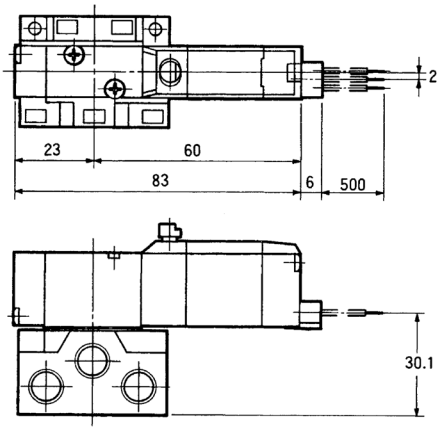
PCL245-01(U type)

(Unit: mm)



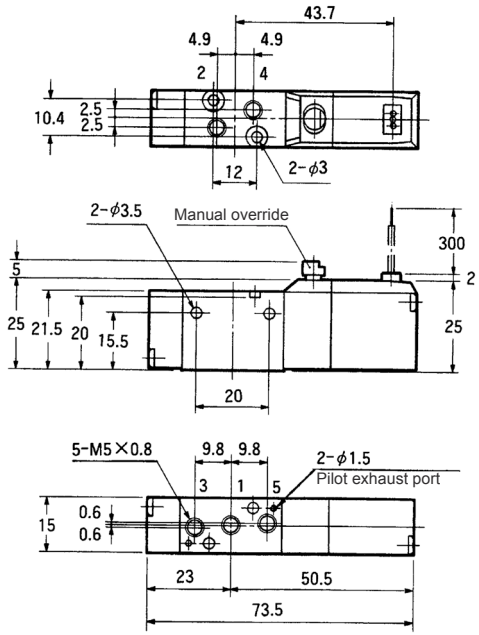
PCL245-01(SP type)

(Unit: mm)



RCL245-M5(L type)

(Unit: mm)



RCL245-M5(SP type)

(Unit: mm)