

# PNEUMATIC VALVES | Brass Heavy Duty

## PE Valves | Mechanically Operated

### PE Series

- Heavy duty brass valves, mechanically operated
- 3/2, 5/2, 5/3
- Port size : 1/4" & 1/2" BSP & NPT

### Application

- Suitable for use in aggressive environments such as mining, cement manufacturing and flour milling industries.

### Technical Data

Fluid	Air / Inert gas / Water
Operation pressure	-1 to 10 bar
Ambient temperature	-5° to 55° C (option for FKM seals) up to 150° C
Lubrication	Not required (use turbine oil class ISO VG32 if lubricated)
Port size	1/4" & 1/2" BSP or NPT
Flow rate (Air)	1/4" port size = 1,100 L/min (at 5.5 bar) 1/2" port size = 3,500 L/min (at 5.5 bar)



Lever



Lever Protec



Foot Return Spring



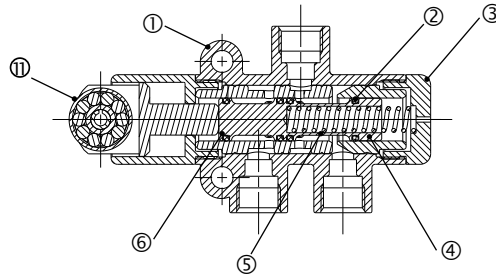
Roller-Spring



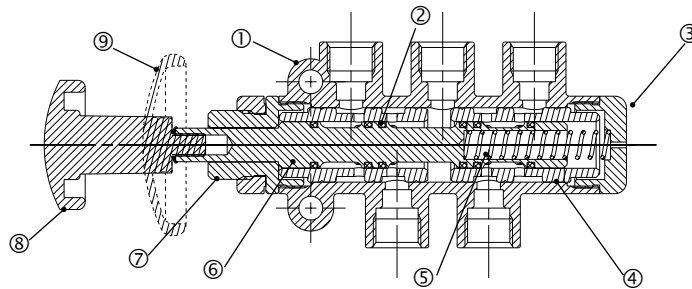
Push-Spring

## Construction

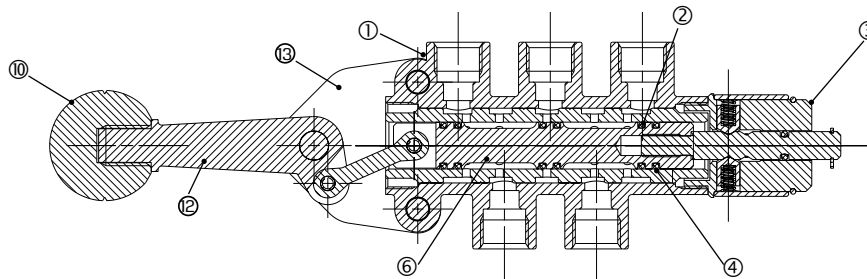
### 3 port Roller-Spring valve



### 5 port Push-Spring valve



### 5 port, 3 Position Stable Lever valve



## Component Parts

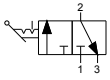
No.	Description	Material
1	Body	Brass *
2	"O" ring	NBR or FKM
3	End cover	Brass
4	Sleeve	Brass
5	Spring	-
6	Spool	Brass
7	Panel Nut	Brass
8	Small button 35.8 mm	Color : Green Red Black Plastic
9	Large button 50.2 mm	
10	Operator knob	Plastic (Black)
11	Roller	-
12	Control handle	Mazak
13	Side plate	Zinc coated steel

\* Painted with grey polyester

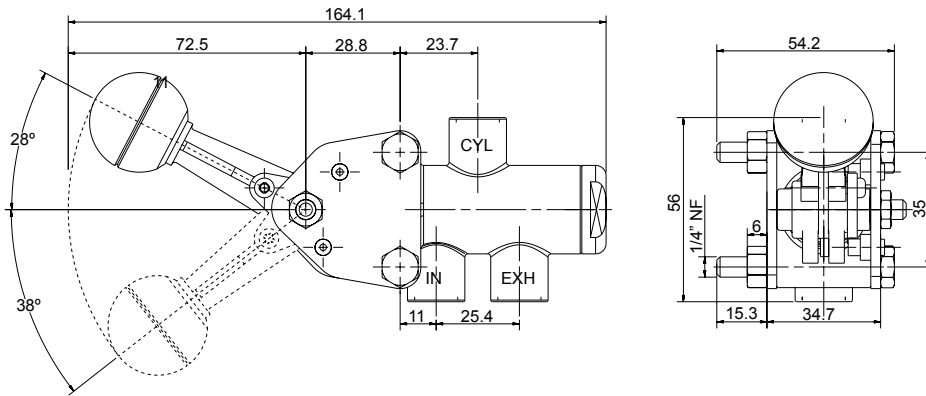
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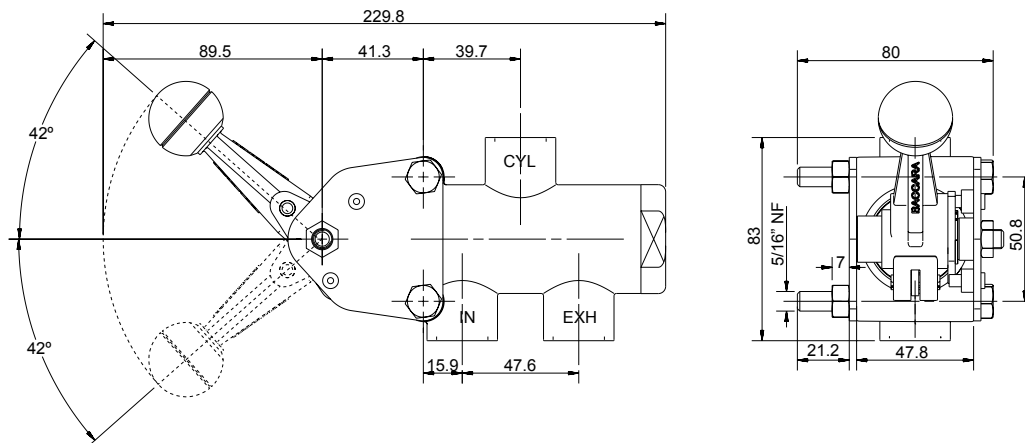
### PEM3-L | Stable Lever | 1/4", 1/2" 3 port



Port size : 1/4"



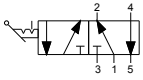
Port size : 1/2"



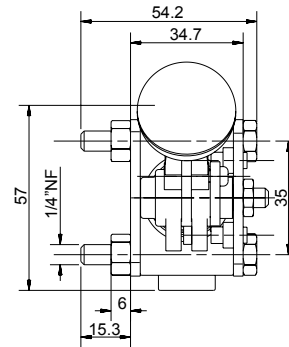
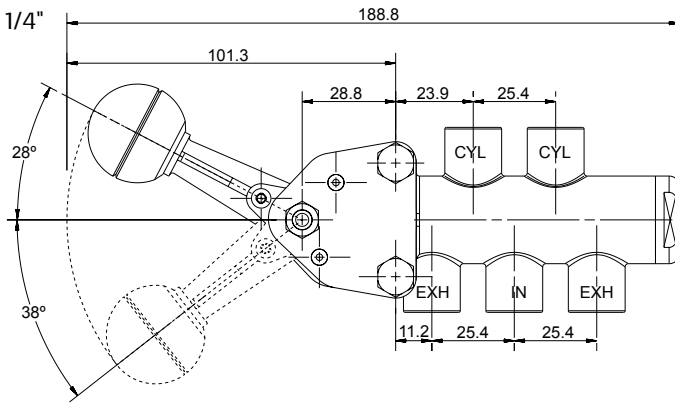
### How to Order

PEM3	-	PORT SIZE	-	L	-	SEAL MATERIAL
		1/4" BSP		0		NBR N
		1/4" NPT		1		FKM V
		1/2" BSP		2		
		1/2" NPT		3		

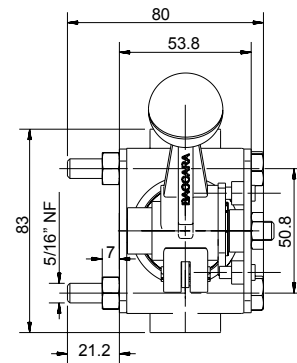
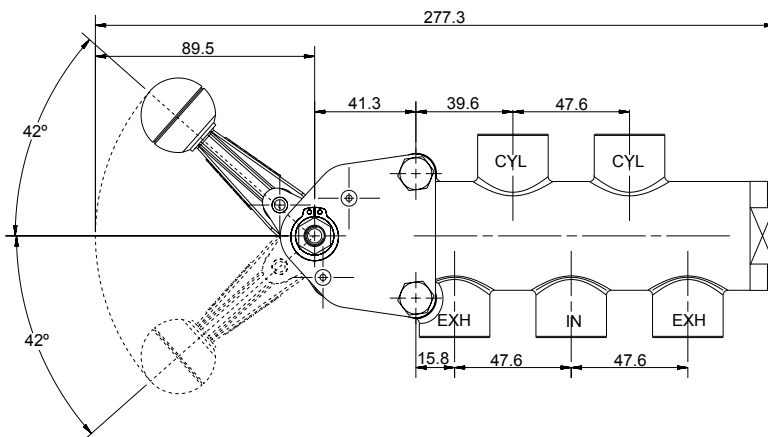
## PEM5-L | Stable Lever | 1/4", 1/2" 5 port



Port size : 1/4"



Port size : 1/2"



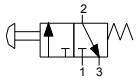
### How to Order

PEM5	-	PORT SIZE	-	L	-	SEAL MATERIAL
		1/4" BSP		0		NBR N
		1/4" NPT		1		FKM V
		1/2" BSP		2		
		1/2" NPT		3		

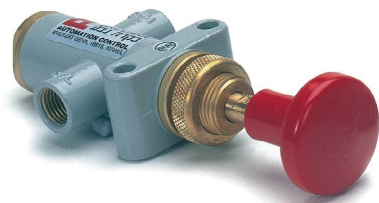
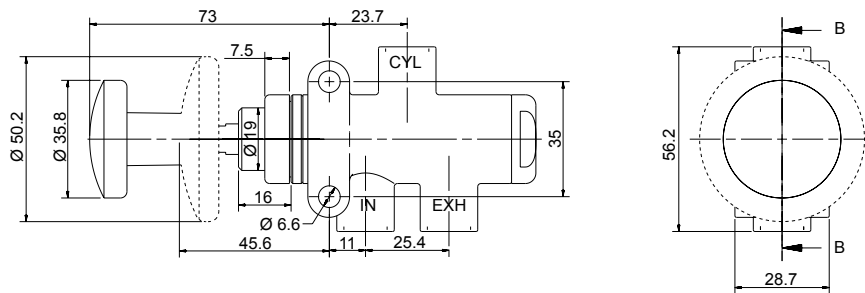
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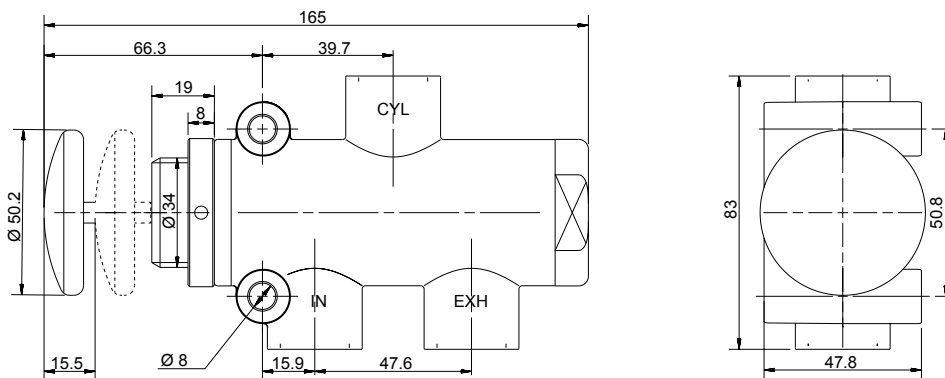
### PEM3-PS | Push-Spring | 1/4", 1/2" 3 port



Port size : 1/4"



Port size : 1/2"

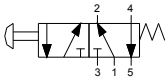


### How to Order

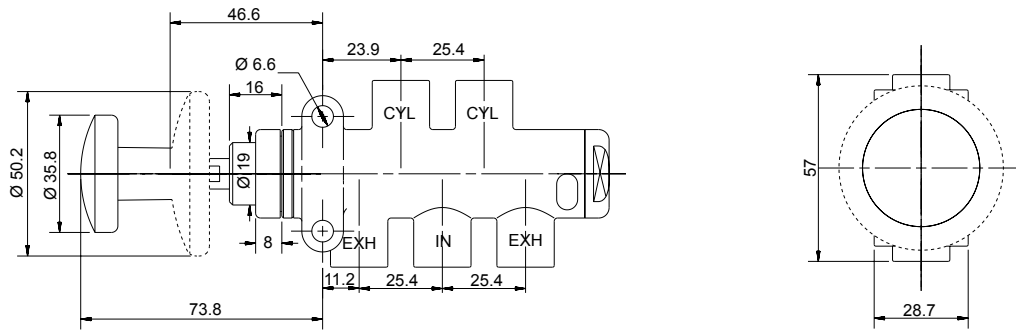
PEM3	PORT SIZE	PS	SEAL MATERIAL	BUTTON SIZE	COLOR OF BUTTON	
	1/4" BSP	0	NBR	N	35.8 1 <sup>(1)</sup>	Red R
	1/4" NPT	1	FKM	V	50.2 2	Green G <sup>(2)</sup>
	1/2" BSP	2				Black B <sup>(2)</sup>
	1/2" NPT	3				

(1) This size is an option for 1/2" valves  
 (2) Optional

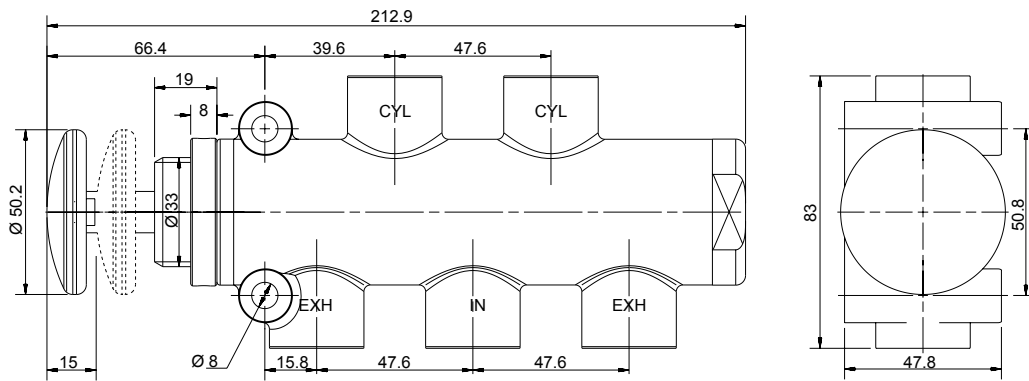
## PEM5-PS | Push-Spring | 1/4", 1/2" 5 port



Port size : 1/4"



Port size : 1/2"



### How to Order

PEM5	PORT SIZE	PS	SEAL MATERIAL	BUTTON SIZE	COLOR OF BUTTON	
	1/4" BSP	0	NBR	N	35.8 1 <sup>(1)</sup>	Red R
	1/4" NPT	1	FKM	V	50.2 2	Green G <sup>(2)</sup>
	1/2" BSP	2				Black B <sup>(2)</sup>
	1/2" NPT	3				

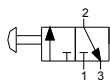
(1) This size is an option for 1/2" valves

(2) Optional

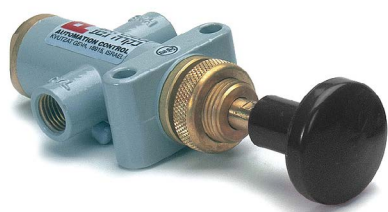
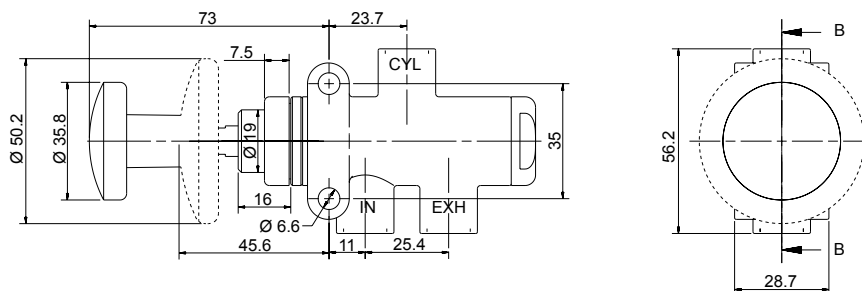
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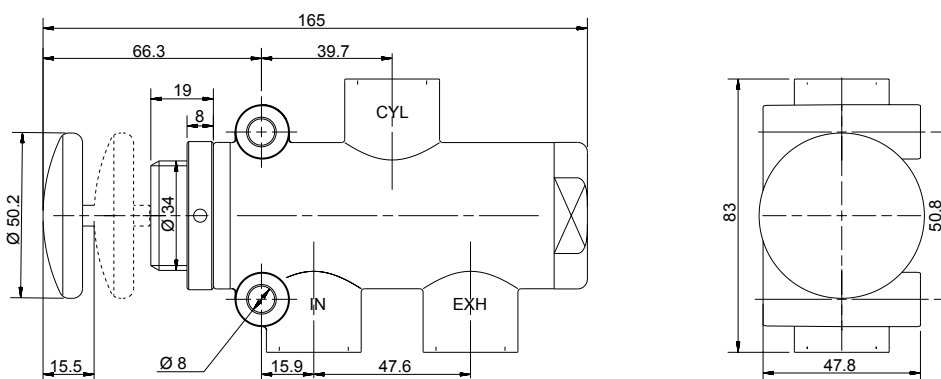
### PEM3-PP | Push-Pull | 1/4", 1/2" 3 port



Port size : 1/4"



Port size : 1/2"

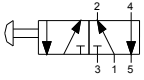


### How to Order

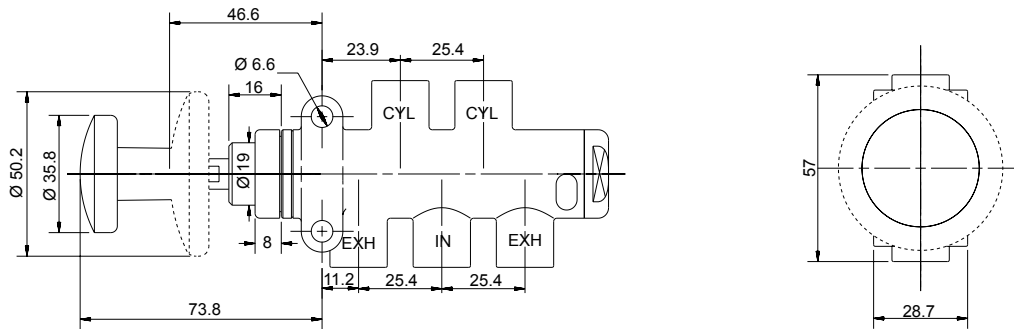
PEM3	PORT SIZE	PP	SEAL MATERIAL	BUTTON SIZE	COLOR OF BUTTON
	1/4" BSP 0		NBR N	35.8 1 <sup>(1)</sup>	Black B
	1/4" NPT 1		FKM V	50.2 2	Green G <sup>(2)</sup>
	1/2" BSP 2				Red R <sup>(2)</sup>
	1/2" NPT 3				

(1) This size is an option for 1/2" valves  
 (2) Optional

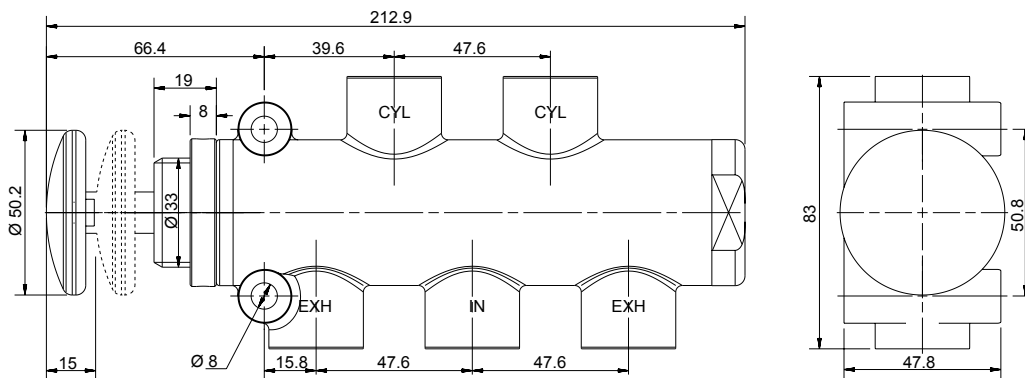
## PEM5-PP | Push-Pull | 1/4", 1/2" 5 port



Port size : 1/4"



Port size : 1/2"



### How to Order

PEM5	PORT SIZE	PP	SEAL MATERIAL	BUTTON SIZE	COLOR OF BUTTON	
	1/4" BSP	0	NBR	N	35.8 1 <sup>(1)</sup>	Black B
	1/4" NPT	1	FKM	V	50.2 2	Green G <sup>(2)</sup>
	1/2" BSP	2				Red R <sup>(2)</sup>
	1/2" NPT	3				

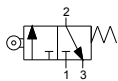
(1) This size is an option for 1/2" valves  
 (2) Optional



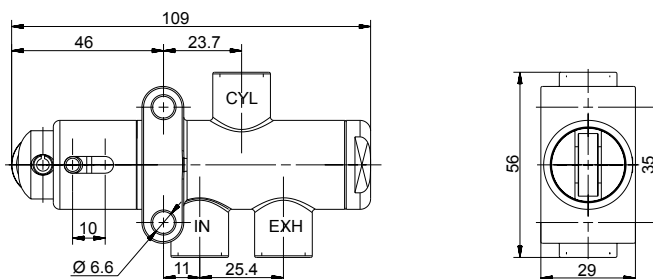
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### PEM3-RS | Roller-Spring | 1/4", 1/2" 3 port

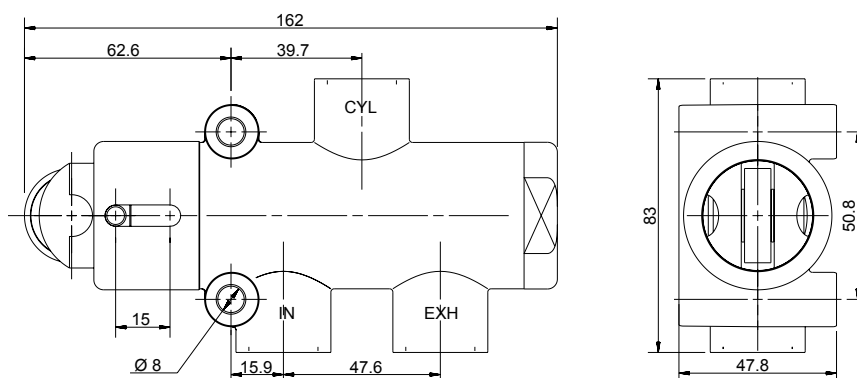


Port size : 1/4"



\*Roller fixed at 90°

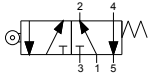
Port size : 1/2"



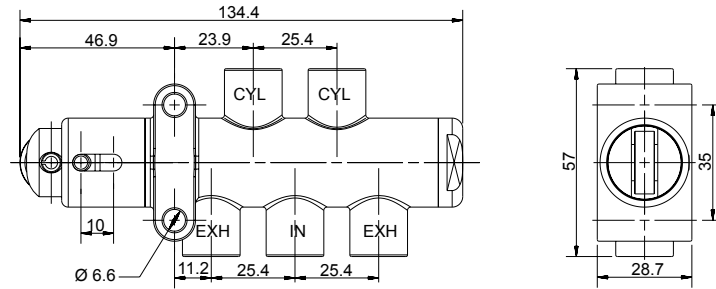
### How to Order

PEM3	-	PORT SIZE	-	RS	-	SEAL MATERIAL	-	ROLLER POSITION
		1/4" BSP		0		NBR		N 180°
		1/4" NPT		1		FKM		V 90°
		1/2" BSP		2				
		1/2" NPT		3				

## PEM5-RS | Roller-Spring | 1/4", 1/2" 5 port

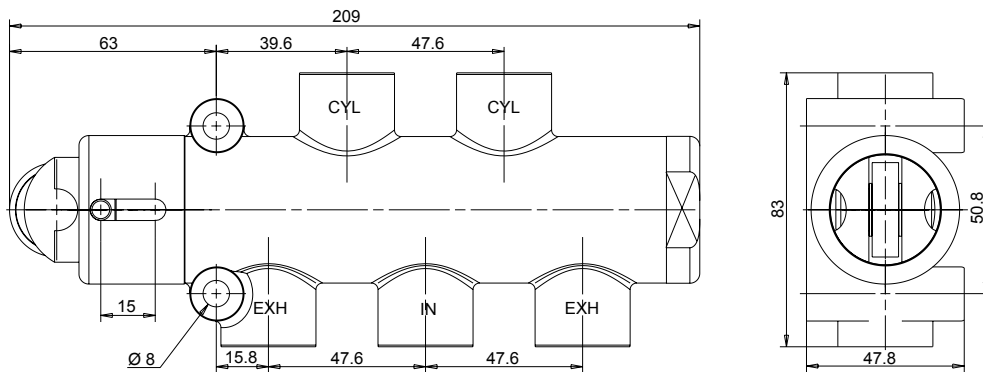


Port size : 1/4"



\*Roller fixed at 180°

Port size : 1/2"



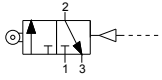
### How to Order

PEM5	-	PORT SIZE	-	RS	-	SEAL MATERIAL	-	ROLLER POSITION
		1/4" BSP		0		NBR	N	180°
		1/4" NPT		1		FKM	V	90°
		1/2" BSP		2				
		1/2" NPT		3				

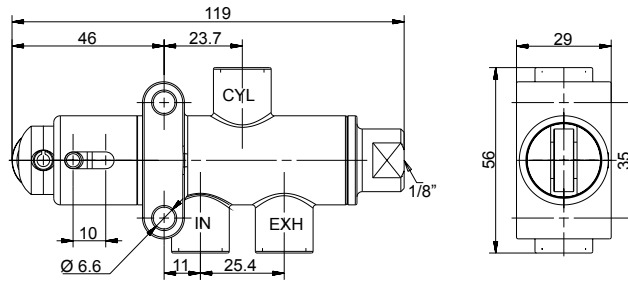
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### PEM3-RA | Roller-Air | 1/4", 1/2" 3 port

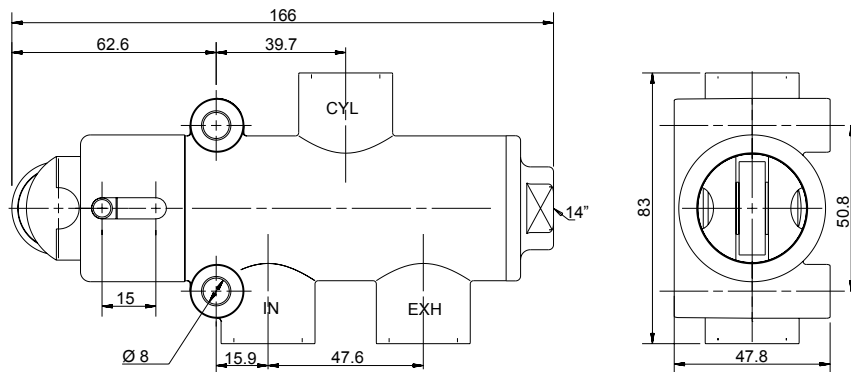


Port size : 1/4"



\*Roller fixed at 90°

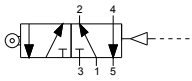
Port size : 1/2"



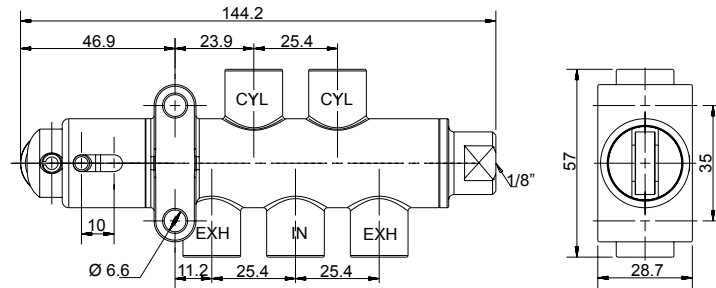
### How to Order

PEM3	-	PORT SIZE	-	RA	-	SEAL MATERIAL	-	ROLLER POSITION
		1/4" BSP		0		NBR		N 180° 1
		1/4" NPT		1		FKM		V 90° 2
		1/2" BSP		2				
		1/2" NPT		3				

## PEM5-RA | Roller-Air | 1/4", 1/2" 5 port

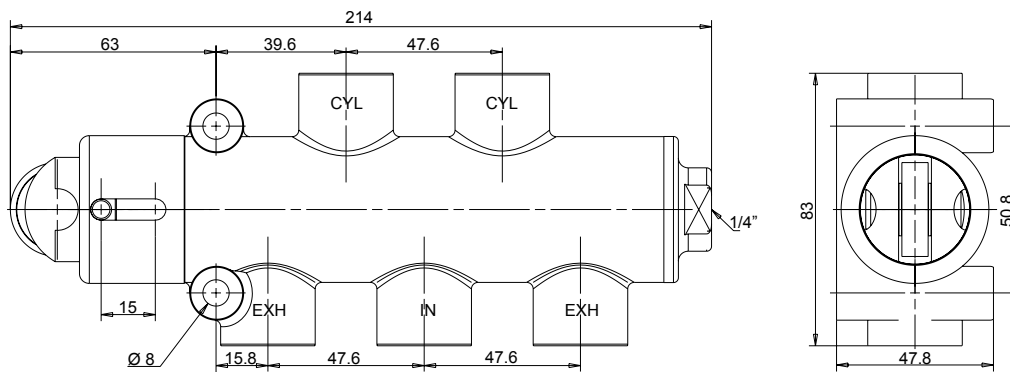


Port size : 1/4"



\*Roller fixed at 180°

Port size : 1/2"



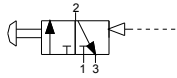
### How to Order

PEM5	-	PORT SIZE	-	RA	-	SEAL MATERIAL	-	ROLLER POSITION
		1/4" BSP		0		NBR	N	180°
		1/4" NPT		1		FKM	V	90°
		1/2" BSP		2				
		1/2" NPT		3				

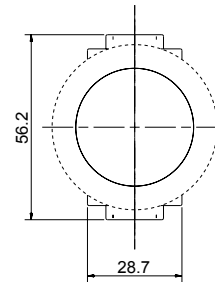
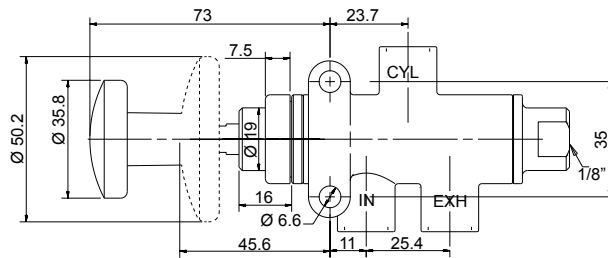
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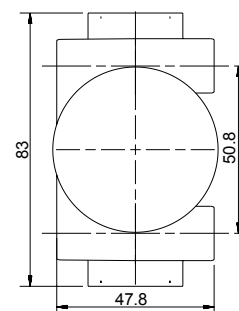
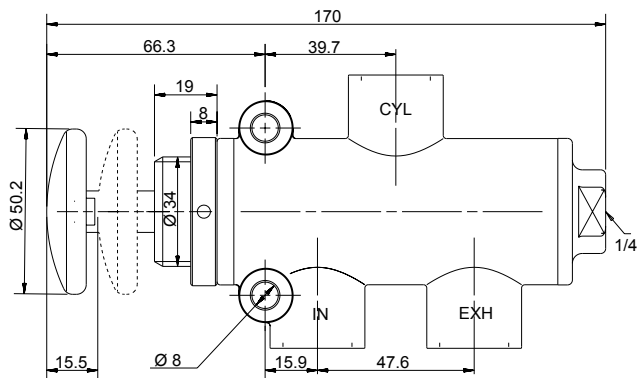
### PEM3-PPA | Push-Pull Air | 1/4", 1/2" 3 port



Port size : 1/4"



Port size : 1/2"



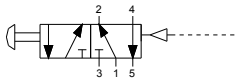
### How to Order

PEM3	PORT SIZE	PPA	SEAL MATERIAL	BUTTON SIZE	COLOR OF BUTTON	
	1/4" BSP	0	NBR	N	35.8 1 <sup>(1)</sup>	Green G
	1/4" NPT	1	FKM	V	50.2 2	Black B <sup>(2)</sup>
	1/2" BSP	2				Red R <sup>(2)</sup>
	1/2" NPT	3				

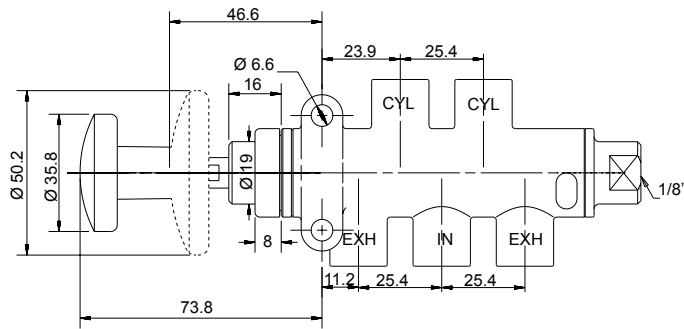
(1) This size is an option for 1/2" valves

(2) Optional

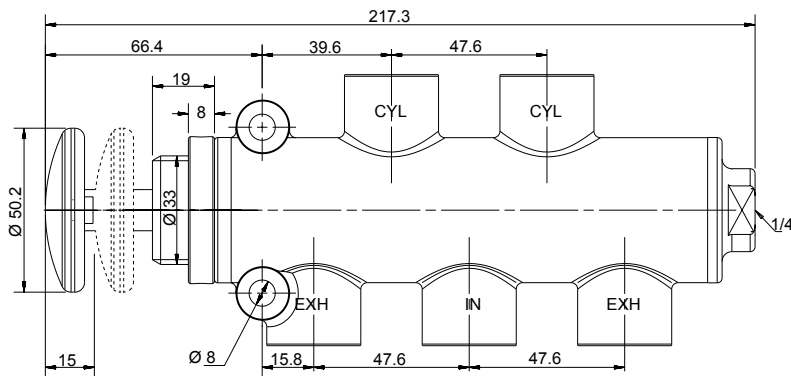
## PEM5-PPA | Push-Pull Air | 1/4", 1/2" 5 port



Port size : 1/4"



Port size : 1/2"



### How to Order

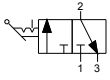
PEM5	PORT SIZE	PPA	SEAL MATERIAL	BUTTON SIZE	COLOR OF BUTTON
	1/4" BSP 0		NBR N	35.8 <sup>(1)</sup>	Green G
	1/4" NPT 1		FKM V	50.2 2	Black B <sup>(2)</sup>
	1/2" BSP 2				Red R <sup>(2)</sup>
	1/2" NPT 3				

(1) This size is an option for 1/2" valves  
 (2) Optional

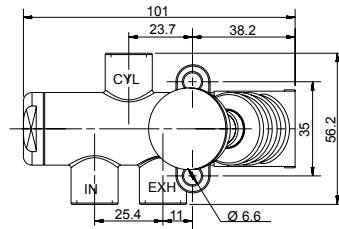
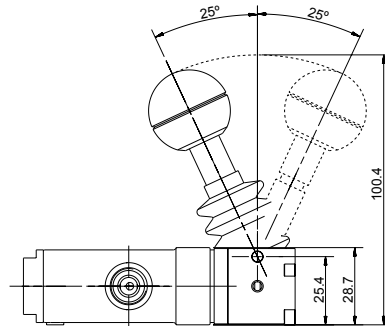
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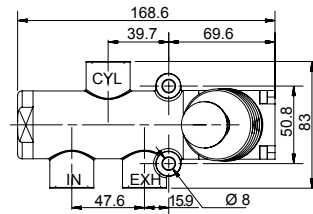
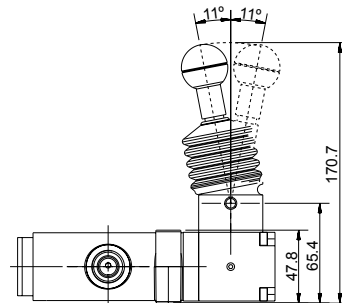
### PEM3-L90 | Stable Lever Protec | 1/4", 1/2" 3 port



Port size : 1/4"



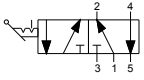
Port size : 1/2"



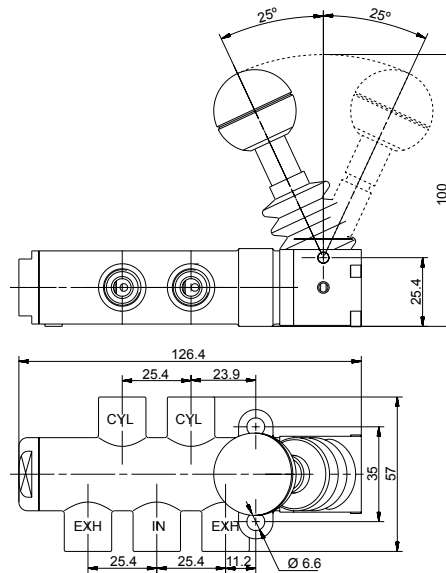
### How to Order

PEM3	-	PORT SIZE	-	L90	-	SEAL MATERIAL
		1/4" BSP	0			NBR N
		1/4" NPT	1			FKM V
		1/2" BSP	2			
		1/2" NPT	3			

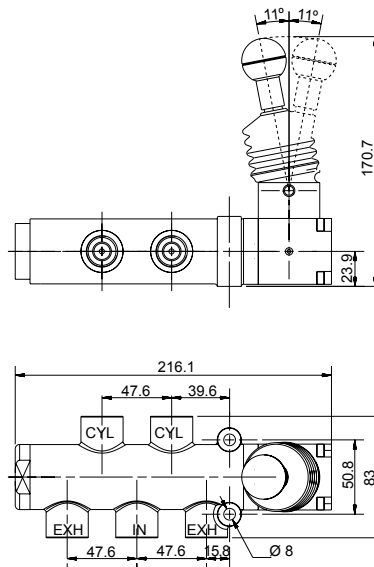
## PEM5-L90 | Stable Lever Protec | 1/4", 1/2" 5 port



Port size : 1/4"



Port size : 1/2"



### How to Order

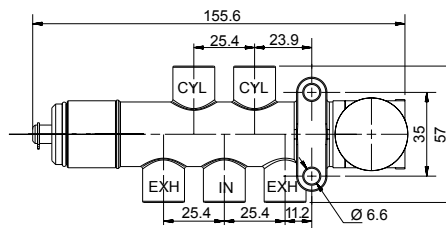
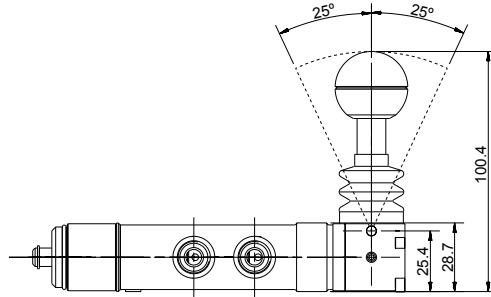
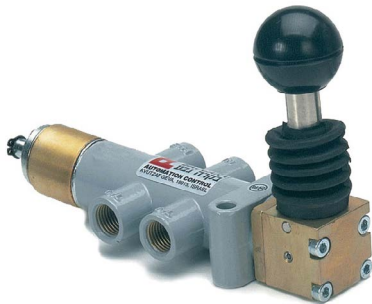
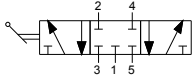
PEM5	-	PORT SIZE	-	L90	-	SEAL MATERIAL
		1/4" BSP	0			NBR N
		1/4" NPT	1			FKM V
		1/2" BSP	2			
		1/2" NPT	3			



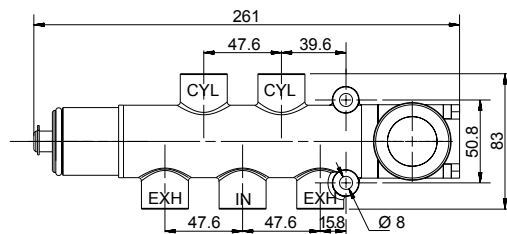
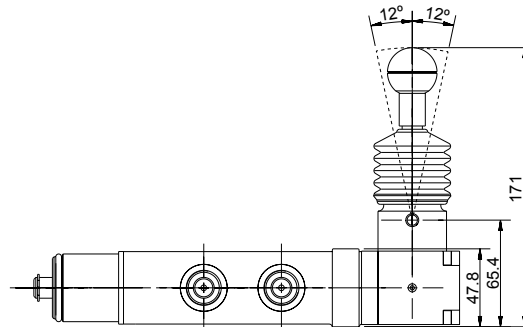
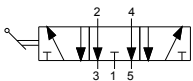
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## PE Valves | Mechanically Operated

### PEM5-D90-M | 3 Position Closed Center-Lever Protec Stable | 1/4" 5 port



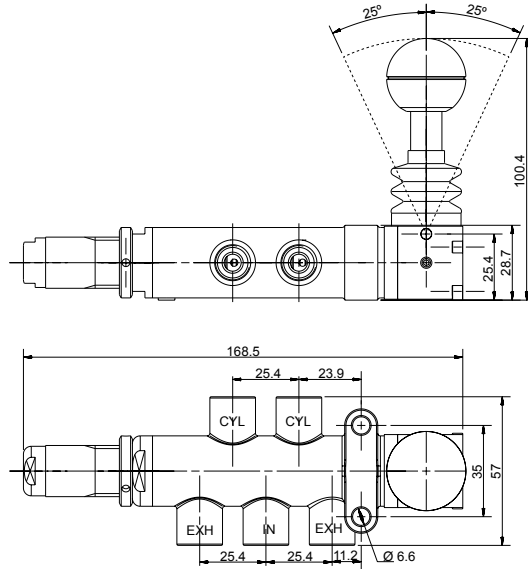
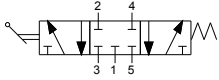
### PEM5-D90-W | 3 Position Exhaust Center-Lever Protec Stable | 1/2" 5 port



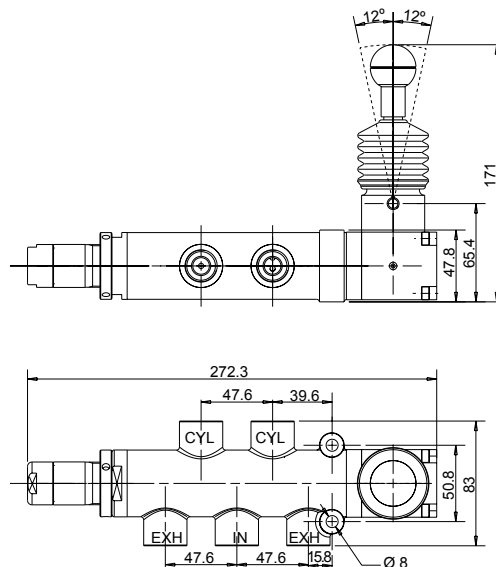
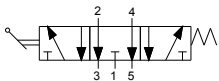
#### How to Order

PEM5	-	PORT SIZE	-	FUNCTION	-	D90	-	SEAL MATERIAL
		1/4" BSP	0	Closed	M			NBR N
		1/4" NPT	1	Center				FKM V
		1/2" BSP	2	Exhaust	W			
		1/2" NPT	3	Center				

## PEM5-S90-P | 3 Position Closed Center-Lever Protec Return to Center | 1/4" 5 port



## PEM5-S90-U | 3 Position Exhaust Center-Lever Protec Return to Center | 1/2" 5 port



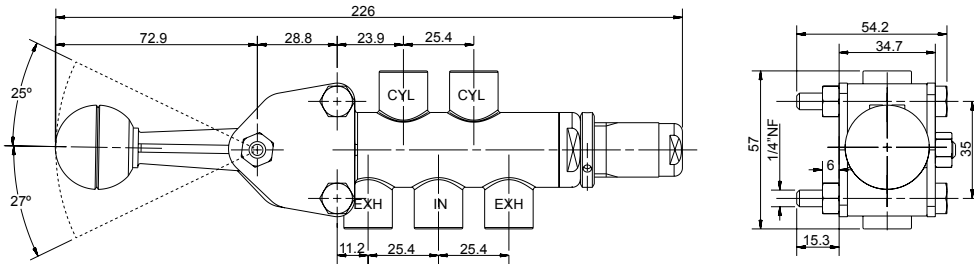
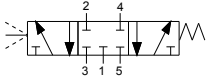
### How to Order

PEM5	-	PORT SIZE	-	FUNCTION	-	S90	-	SEAL MATERIAL
		1/4" BSP	0	Closed	P			NBR
		1/4" NPT	1	Center				N
		1/2" BSP	2	Exhaust	U			FKM
		1/2" NPT	3	Center				V

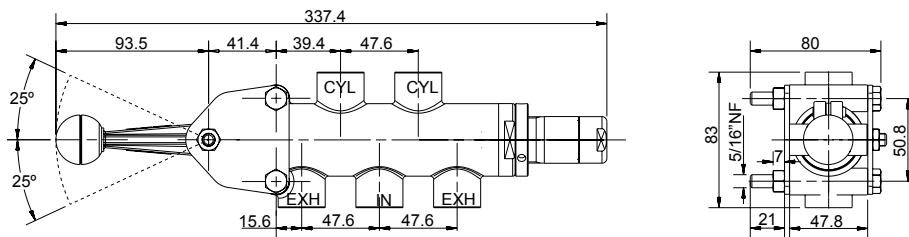
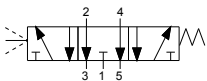
# PNEUMATIC VALVES | Brass Heavy Duty

## PE Valves | Mechanically Operated

### PEM5-S-P | 3 Position Closed Center-Lever Return to Center | 1/4" 5 port



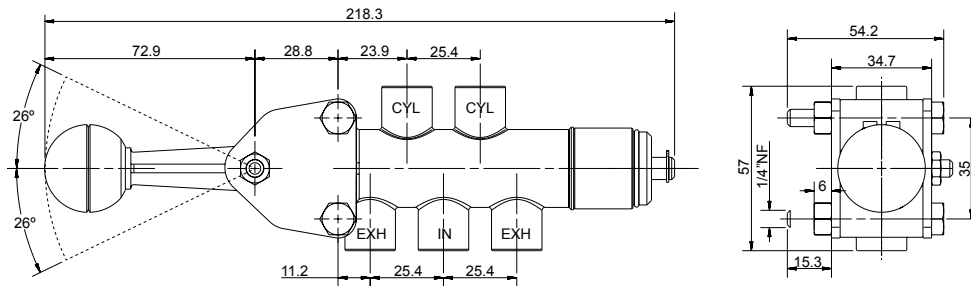
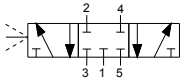
### PEM5-S-U | 3 Position Exhaust Center-Lever Return to Center | 1/2" 5 port



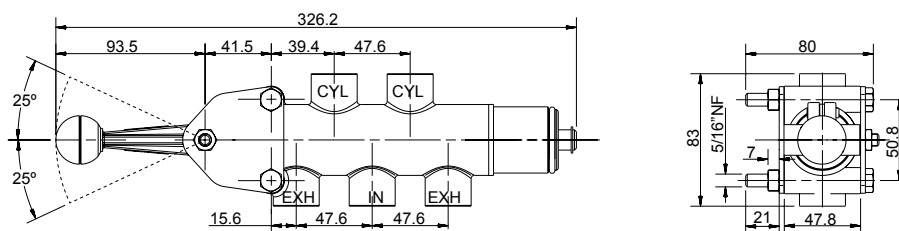
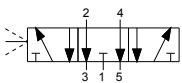
### How to Order

PEM5	-	PORT SIZE	-	FUNCTION	-	S	-	SEAL MATERIAL
		1/4" BSP	0	Closed	P			NBR N
		1/4" NPT	1	Center				FKM V
		1/2" BSP	2	Exhaust	U			
		1/2" NPT	3	Center				

## PEM5-D-M | 3 Position Closed Center-Lever Stable | 1/4" 5 port



## PEM5-D-W | 3 Position Exhaust Center-Lever Stable | 1/2" 5 port



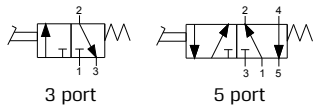
### How to Order

PEM5	-	PORT SIZE	-	FUNCTION	-	D	-	SEAL MATERIAL
		1/4" BSP	0	Closed	M			NBR N
		1/4" NPT	1	Center	M			FKM V
		1/2" BSP	2	Exhaust	W			
		1/2" NPT	3	Center	W			

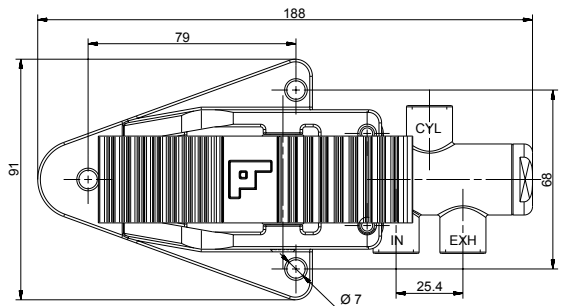
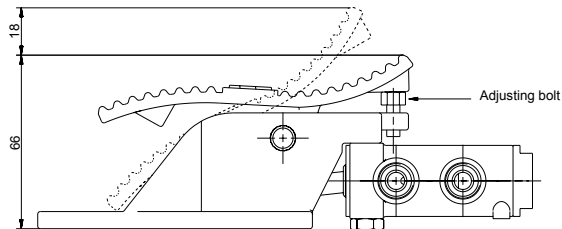
# PNEUMATIC VALVES | Brass Heavy Duty

## PE Valves | Mechanically Operated

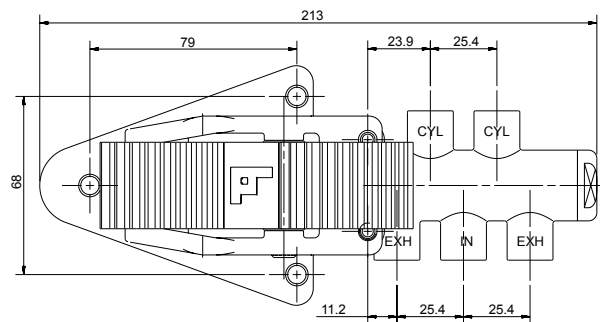
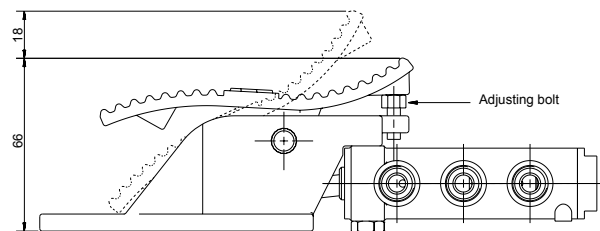
### PEM5-PDS | Foot Return Spring | 1/4" 3 & 5 port



Function : 3 port



Function : 5 port

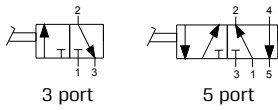


### How to Order

PEM	-	PORT SIZE	-	FUNCTION	-	PDS	-	SEAL MATERIAL
		1/4" BSP	0	3 port	3			NBR N
		1/4" NPT	1	5 port	5			FKM V

# PE Valves | Mechanically Operated

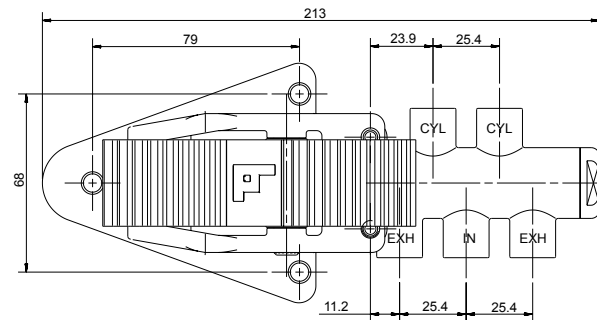
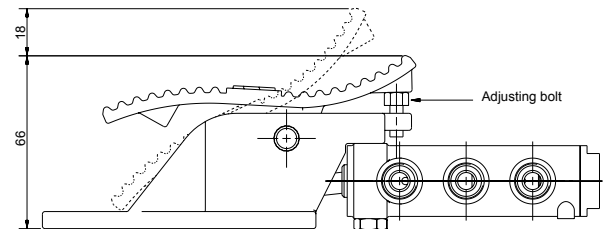
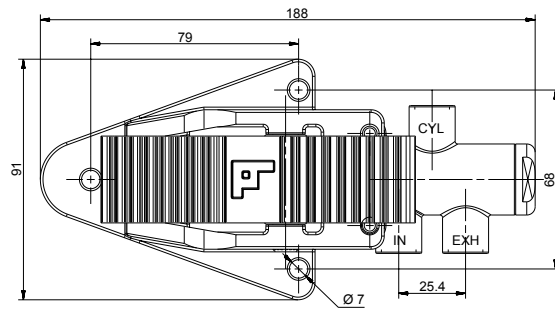
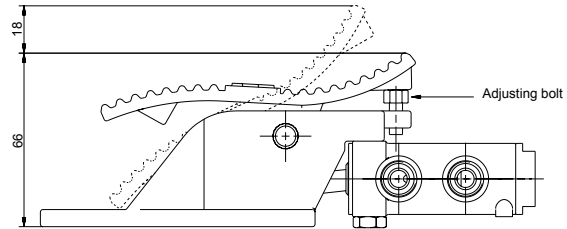
## PEM5-PD | Foot Return Foot | 1/4" 3 & 5 port



Function : 3 port



Function : 5 port



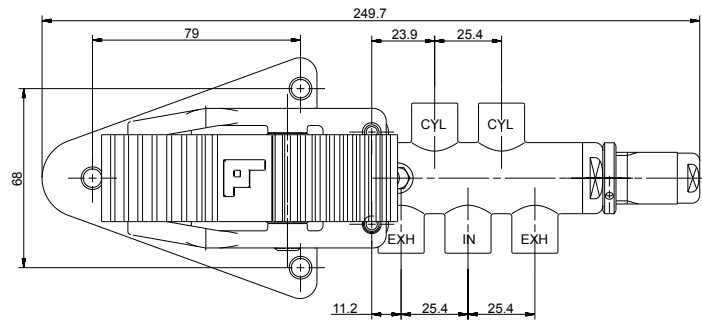
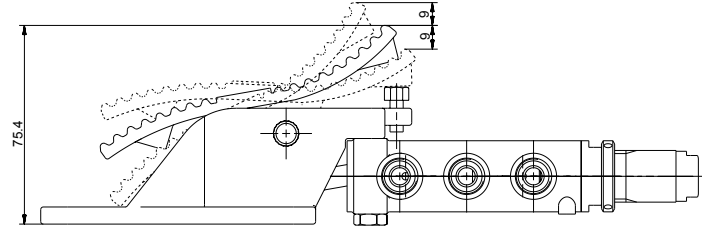
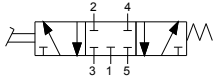
### How to Order

PEM	PORT SIZE	FUNCTION	PD	SEAL MATERIAL
	1/4" BSP 0	3 port 3		NBR N
	1/4" NPT 1	5 port 5		FKM V

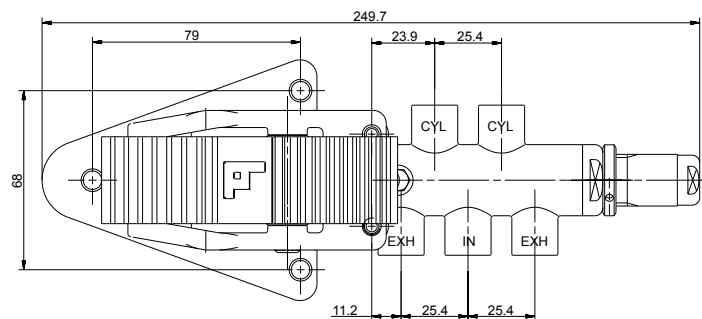
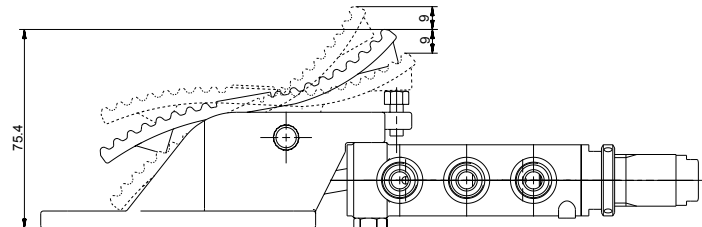
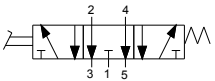
# PNEUMATIC VALVES | Brass Heavy Duty

## PE Valves | Mechanically Operated

### PEM5-PE-P | 3 Position Closed Center-Foot Return to Center | 1/4" 5 port



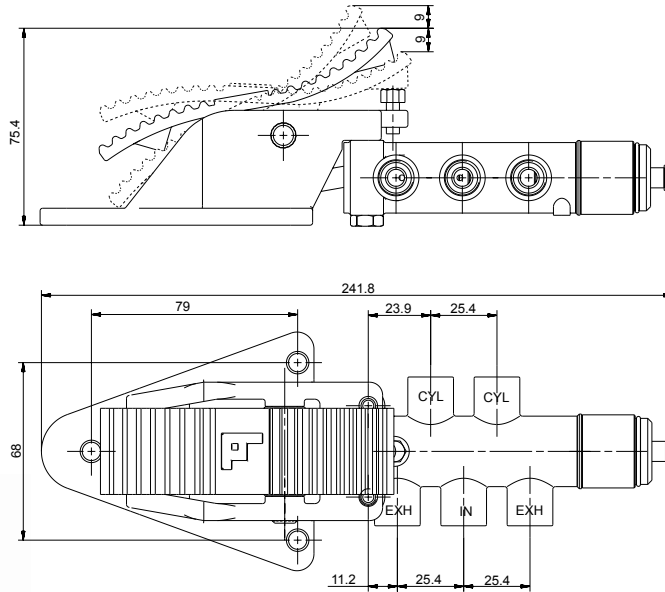
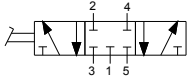
### PEM5-PE-U | 3 Position Exhaust Center-Foot Return to Center | 1/4" 5 port



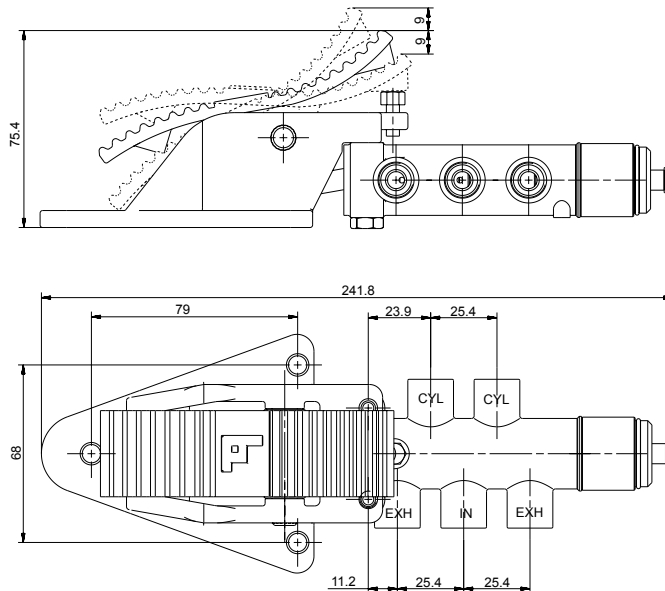
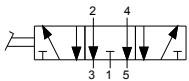
### How to Order

PEM5	PORT SIZE	FUNCTION	PE	SEAL MATERIAL
	1/4" BSP 0	Closed Center	P	NBR N
	1/4" NPT 1	Exhaust Center	U	FKM V

## PEM5-PE-M | 3 Position Closed Center-Foot Stable | 1/4" 5 port



## PEM5-PE-W | 3 Position Exhaust Center-Foot Stable | 1/4" 5 port



### How to Order

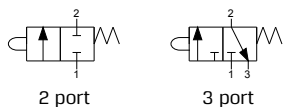
PEM5	-	PORT SIZE	-	FUNCTION	-	PE	-	SEAL MATERIAL
		1/4" BSP	0	Closed Center	M			NBR N
		1/4" NPT	1	Exhaust Center	W			FKM V



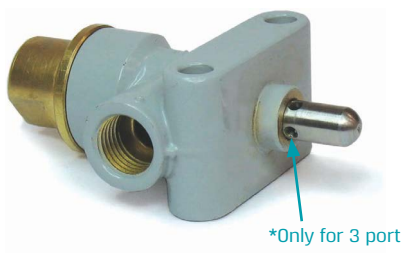
# PNEUMATIC VALVES | Brass Heavy Duty

## PE Valves | Mechanically Operated

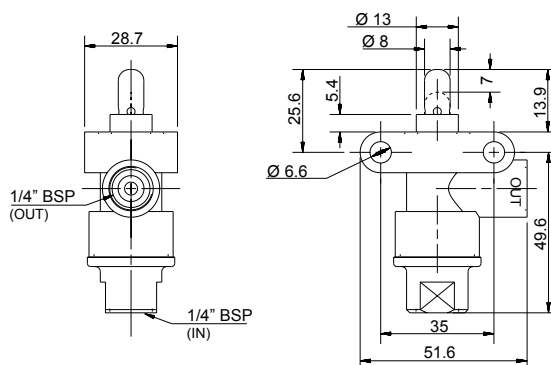
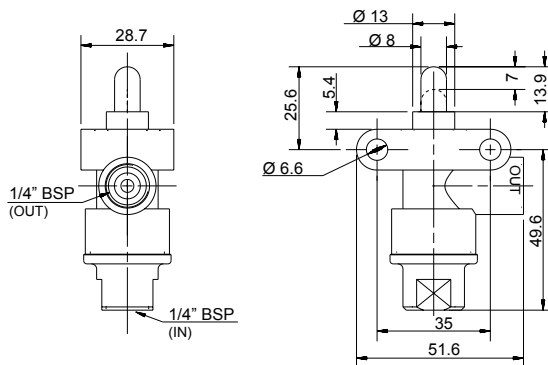
### PEM | Plunger Return Spring | 1/4", 2 & 3 port



Function : 2 port



Function : 3 port



### How to Order

PEM	-	FUNCTION	-	PLUNGER
		2 Port		2
		3 Port		3

\* Other actuator options are available