

## **F** Mounting parts

# Mounting Parts

## Products overview



### Mounting Parts

#### 382 PSPE Series

##### Small and Light Level Compensator

- ◇ Connection thread: M5 M8
- ◇ Buffer stroke: 6~50mm



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#### 398 PSPF Series

##### Compact Level Compensator

- ◇ Connection thread: M5 M8 G1/8
- ◇ Buffer stroke: 10~50mm



ELECTRONICS



#### 386 PSPL Series

##### Retractive Level Compensator

- ◇ Connection thread: M5
- ◇ Buffer stroke: 10~20mm



ELECTRONICS



#### 401 PJS Series

##### Fitting For Suction Cup

- ◇ Connection thread: M5 G1/8  
G1/4 G3/8
- ◇ Special specification: EW EH



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#### 388 PSPT Series

##### Universal Level Compensator

- ◇ Connection thread: G1/8  
G1/4 G3/8
- ◇ Buffer stroke: 10~110mm



UNIVERSAL



#### 405 PJT Series

##### Universal Mounting Parts-Adapter

- ◇ Connection thread: M5 M8  
G1/8 G1/4 G3/8 G1/2



UNIVERSAL



#### 392 PSPH Series

##### Heavy-duty Level Compensator

- ◇ Connection thread: G1/4  
G3/8 G1/2
- ◇ Buffer stroke: 25~90mm



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HEAVY LOAD



#### 407 PJF Series

##### Universal Mounting Parts-Locking Fitting

- ◇ Connection thread: M5 M8 G1/8



UNIVERSAL



#### 395 PSPD Series

##### Double Springs Heavy-duty Compensator

- ◇ Connection thread: G1/4  
G3/8 G1/2
- ◇ Buffer stroke: 25~90mm



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HEAVY LOAD



#### 409 PJB Series

##### Universal Mounting Parts-Ball Joint

- ◇ Connection thread: M10 G1/8  
G1/2 G1/4



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# Mounting Parts

## Products overview

### Mounting Parts

#### 410 PJE Series

##### Universal Mounting Parts-Flexible Joint

- ◇ Vacuum connection thread:  
G1/4 G1/2
- ◇ Max.deflection angle: 12°



UNIVERSAL



#### 418 PDA Series

##### Universal Block Plug

- ◇ Sealing specification:  
Countersunk, Horizontal



UNIVERSAL



#### 411 PJH Series

##### Universal Mounting Parts-Flexible Joint

- ◇ Connection thread: G1/4 G3/8
- ◇ Max.deflection angle: 15°



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#### 420 PDR Series

##### Positive Pressure/Vacuum Shunt

- ◇ Branching port: 5,9
- ◇ Main port: G1/4 G3/8



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#### 413 PJP Series

##### Universal One-touch Fitting

- ◇ Hose specification:  $\phi 4 \sim \phi 14 \text{mm}$



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#### 422 PTS Series

##### PVC Transparent Wired Hose

- ◇ Operating pressure range: 0.2~7.0bar
- ◇ Min.inner diameter: 19mm



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#### 416 PJJ Series

##### Universal Pagoda Fitting

- ◇ Hose specification:  $\phi 6 \sim \phi 32 \text{mm}$



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#### 423 PTK Series

##### Stainless Steel Hose Clamp

- ◇ Width: 12mm
- ◇ Thickness: 0.68mm



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# PSPE Series

## Small and Light Level Compensator



ELECTRONICS

### Features

- ◇ Level compensator with built-in spring, small elasticity
- ◇ Small size and light weight
- ◇ The guide rod is made of stainless steel
- ◇ Oilless wear-resistant bushing is built in the guide sleeve

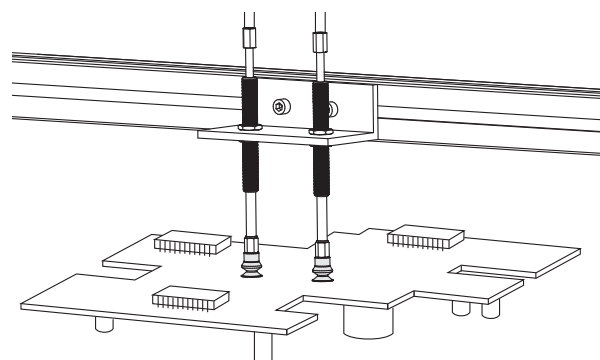
### Advantages

- ◇ Avoid pollution and external mechanical force, flexible contact
- ◇ Suitable for fast handling in small space
- ◇ Resistant to environment, corrosion and abrasion
- ◇ Improve the life time of the products and reduce the noise of the products
- ◇ Ensure the accurate positioning of the workpieces



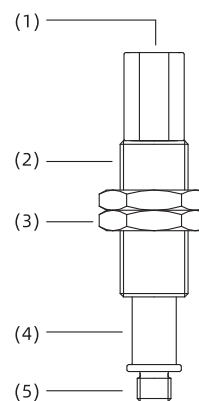
### Applications

- ◇ Suitable for electronic industry
- ◇ Suitable for handling light and small workpieces with flexible contact
- ◇ Suitable for handling workpieces with height difference
- ◇ The non-rotating level compensator is suitable for the working condition requiring accurate positioning



### Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Guide rod
- ◇ (5) Suction cup connection



# PSPE Series

## Small and Light Level Compensator



### How to order

## PSPE - I 10 L A4 M5M - M10

①      ②      ③      ④      ⑤      ⑥      ⑦

① Series	② Buffer style	③ Buffer stroke	④ Rotary type	⑤ Vacuum port connection	⑥ Suction cup connection	⑦ Mounting thread
PSPE	I - Built-in spring	6    25	Nil - Vertical rotating	Nil - Default	M5F - M5×0.8 female thread	M8 - M8×1
		10   30	R - Vertical non-rotating	A4 - One-touch fitting, φ4 hose	M5M - M5×0.8 male thread	M10 - M10×1
		15   40	L - Lateral rotating	A6 - One-touch fitting, φ6 hose	M8F - M8×1.25 female thread	M14 - M14×1
		20   50	B - Lateral non-rotating		M8M - M8×1.25 male thread	

### Selection-Vertical direction

Model/Connection thread M5M	RM5M	M5F	M8M	M8F
PSPE-I10M5M-M10	PSPE-I10RM5M-M10	PSPE-I10M5F-M10	PSPE-I10M8M-M14	PSPE-I10M8F-M14
PSPE-I20M5M-M10	PSPE-I20RM5M-M10	PSPE-I20M5F-M10	PSPE-I20M8M-M14	PSPE-I20M8F-M14
PSPE-I30M5M-M10	PSPE-I30RM5M-M10	PSPE-I30M5F-M10	PSPE-I30M8M-M14	PSPE-I30M8F-M14
PSPE-I40M5M-M10	PSPE-I40RM5M-M10	PSPE-I40M5F-M10	-	-
PSPE-I50M5M-M10	PSPE-I50RM5M-M10	PSPE-I50M5F-M10	PSPE-I50M8M-M14	PSPE-I50M8F-M14

### Selection-Lateral direction

Model/Connection thread LA4M5M	LA6M5M	BA4M5M	BA6M5M
PSPE-I6LA4M5M-M8	PSPE-I6LA6M5M-M8	PSPE-I6BA4M5M-M8	PSPE-I6BA6M5M-M8
PSPE-I10LA4M5M-M8	PSPE-I10LA6M5M-M8	PSPE-I10BA4M5M-M8	PSPE-I10BA6M5M-M8
PSPE-I15LA4M5M-M8	PSPE-I15LA6M5M-M8	PSPE-I15BA4M5M-M8	PSPE-I15BA6M5M-M8
PSPE-I25LA4M5M-M8	PSPE-I25LA6M5M-M8	PSPE-I25BA4M5M-M8	PSPE-I25BA6M5M-M8
PSPE-I10LA4M5M-M10	PSPE-I10LA6M5M-M10	PSPE-I10BA4M5M-M10	PSPE-I10BA6M5M-M10
PSPE-I20LA4M5M-M10	PSPE-I20LA6M5M-M10	PSPE-I20BA4M5M-M10	PSPE-I20BA6M5M-M10
PSPE-I30LA4M5M-M10	PSPE-I30LA6M5M-M10	PSPE-I30BA4M5M-M10	PSPE-I30BA6M5M-M10
PSPE-I40LA4M5M-M10	PSPE-I40LA6M5M-M10	PSPE-I40BA4M5M-M10	PSPE-I40BA6M5M-M10
PSPE-I50LA4M5M-M10	PSPE-I50LA6M5M-M10	PSPE-I50BA4M5M-M10	PSPE-I50BA6M5M-M10

Mounting Parts

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

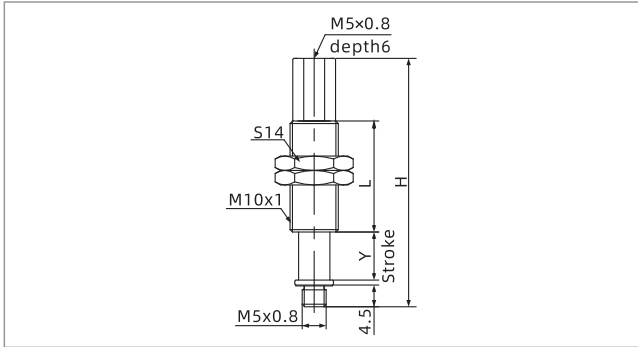
PTK

# PSPE Series

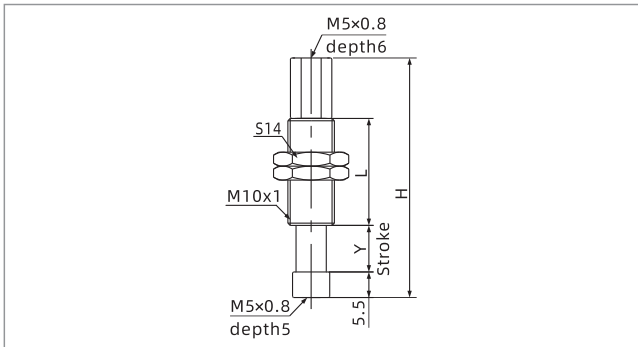
## Small and Light Level Compensator



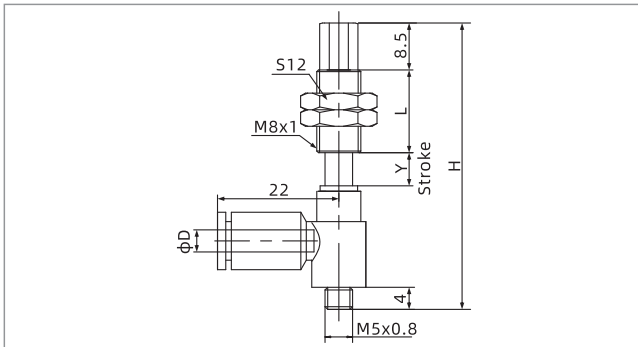
### Dimensions(mm)



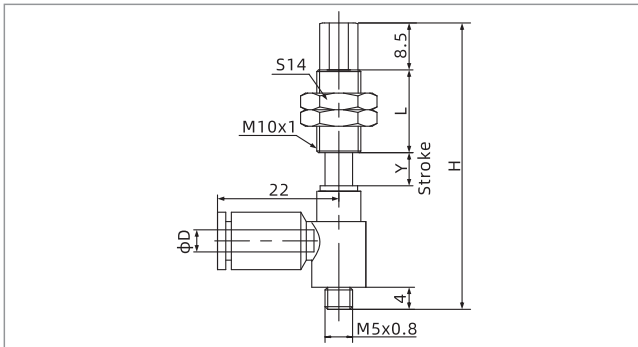
M5M-Vertical male thread connection



M5F-Vertical female thread connection



M5M-Lateral male thread connection



M5M-Lateral male thread connection

Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPE-I10(R)M5M-M10	51.5	23	10	22	1.0	3.0
PSPE-I20(R)M5M-M10	89.5	51	20	34	1.0	3.0
PSPE-I30(R)M5M-M10	99.5	51	30	36	1.0	3.0
PSPE-I40(R)M5M-M10	135.5	77	40	47	1.0	3.0
PSPE-I50(R)M5M-M10	145.5	77	50	50	1.0	3.0

Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPE-I10M5F-M10	51.5	23	10	23	1.0	3.0
PSPE-I20M5F-M10	89.5	51	20	36	1.0	3.0
PSPE-I30M5F-M10	99.5	51	30	38	1.0	3.0
PSPE-I40M5F-M10	135.5	77	40	49	1.0	3.0
PSPE-I50M5F-M10	145.5	77	50	51	1.0	3.0

Model/Size	H	L	Y	D	Weight g	F1 N	F2 N
PSPE-I6L(B)A4M5M-M8	52	15	6	4	19	0.8	1.2
PSPE-I6L(B)A6M5M-M8	52	15	6	6	20	0.8	1.2
PSPE-I10L(B)A4M5M-M8	84	43	10	4	26	0.8	1.2
PSPE-I10L(B)A6M5M-M8	84	43	10	6	28	0.8	1.2
PSPE-I15L(B)A4M5M-M8	89	43	15	4	27	0.8	1.2
PSPE-I15L(B)A6M5M-M8	89	43	15	6	29	0.8	1.2
PSPE-I25L(B)A4M5M-M8	99	43	25	4	29	0.8	1.2
PSPE-I25L(B)A6M5M-M8	99	43	25	6	30	0.8	1.2

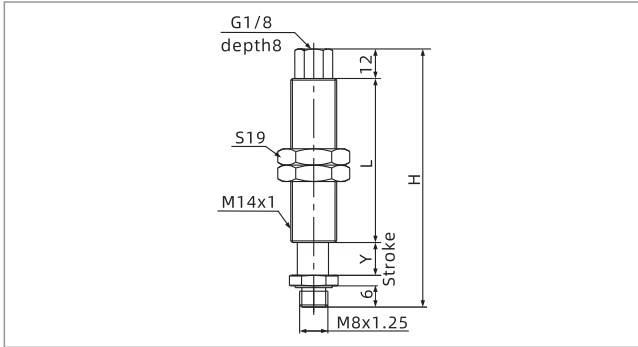
Model/Size	H	L	Y	D	Weight g	F1 N	F2 N
PSPE-I10L(B)A4M5M-M10	64	23	10	4	26	1.0	3.0
PSPE-I10L(B)A6M5M-M10	64	23	10	6	28	1.0	3.0
PSPE-I20L(B)A4M5M-M10	102	51	20	4	44	1.0	3.0
PSPE-I20L(B)A6M5M-M10	102	51	20	6	46	1.0	3.0
PSPE-I30L(B)A4M5M-M10	112	51	30	4	46	1.0	3.0
PSPE-I30L(B)A6M5M-M10	112	51	30	6	48	1.0	3.0
PSPE-I40L(B)A4M5M-M10	148	77	40	4	59	1.0	3.0
PSPE-I40L(B)A6M5M-M10	148	77	40	6	62	1.0	3.0
PSPE-I50L(B)A4M5M-M10	158	77	50	4	62	1.0	3.0
PSPE-I50L(B)A6M5M-M10	158	77	50	6	65	1.0	3.0

# PSPE Series

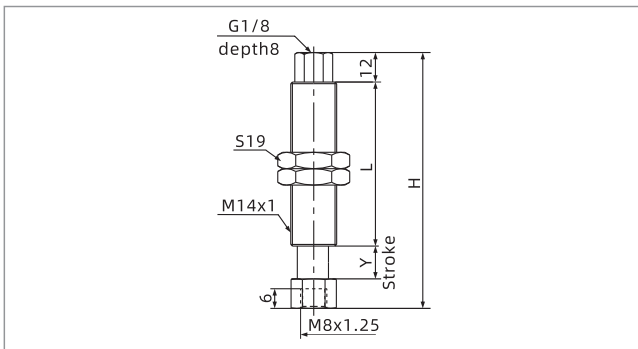
## Small and Light Level Compensator



### Dimensions(mm)



M8M-Vertical male thread connection



M8F-Vertical female thread connection

Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPE-I10M8M-M14	84.5	50	10	68	2.0	5.5
PSPE-I20M8M-M14	90	50	20	71	2.0	5.5
PSPE-I30M8M-M14	100	50	30	76	2.0	5.5
PSPE-I50M8M-M14	145	50	50	102	2.0	5.5

Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPE-I10M8F-M14	75	44	10	70	2.0	5.5
PSPE-I20M8F-M14	85	44	20	73	2.0	5.5
PSPE-I30M8F-M14	95	44	30	80	2.0	5.5
PSPE-I50M8F-M14	146	75	50	106	2.0	5.5

◇ Note: "F1" means spring force at 0 stroke  
 "F2" means spring force at max. stroke

Mounting Parts

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

# PSPL Series

## Retractive Level Compensator



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### Features

- ◇ Level compensator with built-in spring, small elasticity
- ◇ Small size and light weight
- ◇ special surface treatment for guide rod
- ◇ Guide sleeve with built-in resin bushing
- ◇ Retractive structure design

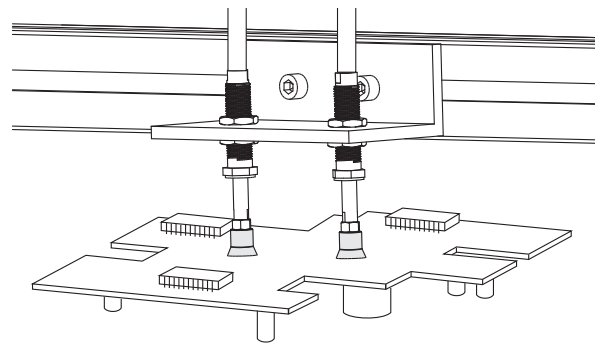
### Advantages

- ◇ Avoid pollution and external mechanical force, flexible contact
- ◇ Suitable for fast handling in small space
- ◇ Resistant to environment, corrosion and abrasion
- ◇ Reduce metal dust, special for dust-free working condition
- ◇ During the operation, the hose is static and without transverse load



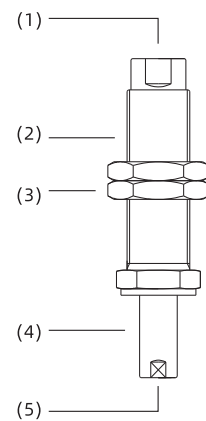
### Applications

- ◇ Suitable for electronic industry
- ◇ Suitable for handling light and small workpieces with flexible contact
- ◇ Suitable for handling workpieces with height difference
- ◇ Suitable for dust-free working condition



### Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Guide rod
- ◇ (5) Suction cup connection





# PSPL Series

## Retractive Level Compensator



### How to order

PSPL - I 10 M5F - M10

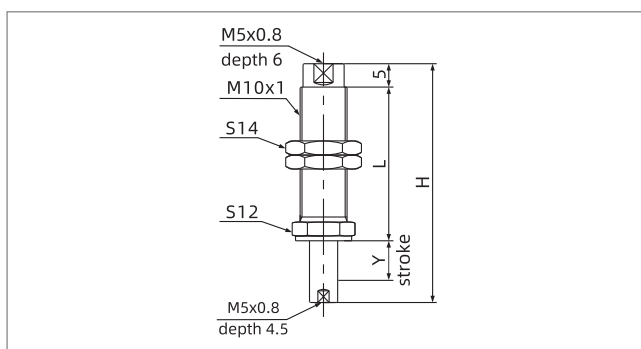
①      ②   ③      ④      ⑤

① Series	② Buffer style	③ Buffer stroke	④ Vacuum port connection	⑤ Mounting thread
PSPL	I - Built-in spring	10   15   20	M5F - M5x0.8 female thread	M10 - M10x1

### Selection

Model/Buffer stroke	10	15	20
PSPL-I□M5F-M10	PSPL-I10M5F-M10	PSPL-I15M5F-M10	PSPL-I20M5F-M10

### Dimensions(mm)



M5F - Vertical female thread connection

Model/Size	H	L	Y	F1 N	F2 N
PSPL-I10M5F-M10	51	31.8	10	1.0	1.4
PSPL-I15M5F-M10	61	36.8	15	1.0	1.4
PSPL-I20M5F-M10	71	41.8	20	1.0	1.4

- ◇ Note: 1. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke  
 2. The locking torque of M10 nut is 2.5 ~ 3.5N.M, please work within the specified torque range

Mounting Parts

- PSPE
- PSPL
- PSPT
- PSPH
- PSPD
- PSPF
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP
- PJQ
- PDA
- PDR
- PTS
- PTK

# PSPT Series

## Universal Level Compensator



### Features

- ◇ Oilless, wear-resistant bushing is built in the guide sleeve
- ◇ Built-in buffer spring and external buffer spring
- ◇ Various buffer stroke specifications are available
- ◇ Light duty and heavy duty can be selected

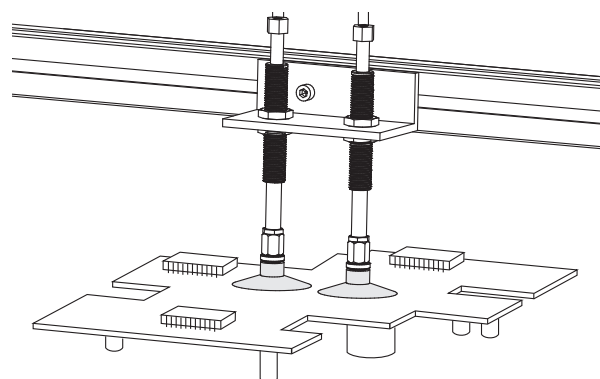
### Advantages

- ◇ Improve the lifetime of the products and reduce the noise of the products
- ◇ Flexible contact with fragile workpieces, compensate the height difference of workpieces
- ◇ Suitable for various working conditions



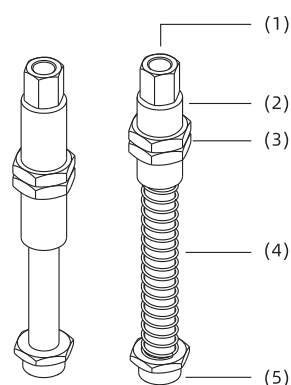
### Applications

- ◇ Suitable for handling workpieces with height difference
- ◇ Handle parts sensitive to pressure with flexible contact
- ◇ All kinds of connection specifications, universal type, suitable for various industries



### Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Spring
- ◇ (5) Suction cup connection



# PSPT Series

## Universal Level Compensator



### How to order

PSPT - I 10 LM5 G1M - M16 - H

①      ②      ③      ④      ⑤      ⑥      ⑦

① Series	② Buffer type	③ Buffer stroke	④ Rotary type	⑤ Suction cup connection	⑥ Mounting thread	⑦ Heavy load
PSPT	I - Built-in spring	10 60	Nil - Vertical rotating	G1F - G1/8 female thread	M16 - M16x1	Nil - Standard
	E - External spring	20 75	R - Vertical non-rotating	G2F - G1/4 female thread	M18 - M18x1	H - Heavy load
		30 90	LM5 - Lateral rotating	G1M - G1/8 male thread		
		50 110		G2M - G1/4 male thread		
			G3M - G3/8 male thread			

### Selection

Model/Connection thread G1M	LM5G1M	G1F	G2F
PSPT-I10G1M-M16	PSPT-I10LM5G1M-M16	PSPT-I10G1F-M16	PSPT-I10G2F-M18 PSPT-I10G2F-M18-H
PSPT-I20G1M-M16	PSPT-I20LM5G1M-M16	PSPT-I20G1F-M16	PSPT-I20G2F-M18 PSPT-I20G2F-M18-H
PSPT-I30G1M-M16	PSPT-I30LM5G1M-M16	PSPT-I30G1F-M16	PSPT-I30G2F-M18 PSPT-I30G2F-M18-H
PSPT-I50G1M-M16	PSPT-I50LM5G1M-M16	PSPT-I50G1F-M16	PSPT-I50G2F-M18 PSPT-I50G2F-M18-H

Model/Connection thread G2M	RG2M	RG3M
PSPT-I10G2M-M18 PSPT-E60G2M-M18	PSPT-I10G2M-M18-H	PSPT-I10RG2M-M18 PSPT-I10RG3M-M18
PSPT-I20G2M-M18 PSPT-E75G2M-M18	PSPT-I20G2M-M18-H	PSPT-I20RG2M-M18 PSPT-I20RG3M-M18
PSPT-I30G2M-M18 PSPT-E90G2M-M18	PSPT-I30G2M-M18-H	PSPT-I30RG2M-M18 PSPT-I30RG3M-M18
PSPT-I50G2M-M18 PSPT-E110G2M-M18	PSPT-I50G2M-M18-H	PSPT-I50RG2M-M18 PSPT-I50RG3M-M18

Model/Connection thread G3M	PSPT-E60G3M-M18	PSPT-I10G3M-M18-H
PSPT-I10G3M-M18	PSPT-E60G3M-M18	PSPT-I10G3M-M18-H
PSPT-I20G3M-M18	PSPT-E75G3M-M18	PSPT-I20G3M-M18-H
PSPT-I30G3M-M18	PSPT-E90G3M-M18	PSPT-I30G3M-M18-H
PSPT-I50G3M-M18	PSPT-E110G3M-M18	PSPT-I50G3M-M18-H

Mounting Parts

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

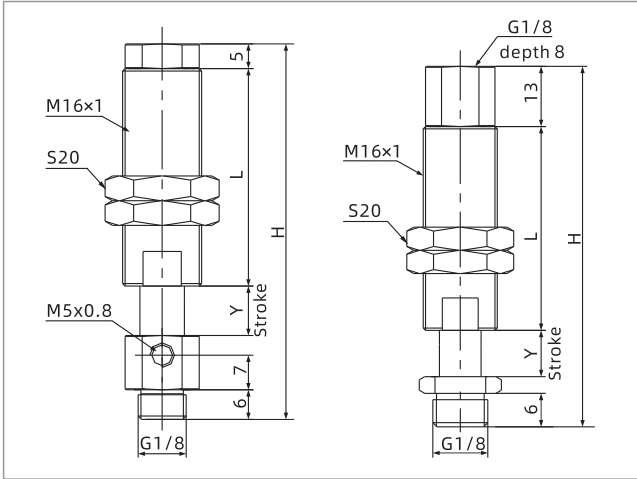
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# PSPT Series

## Universal Level Compensator

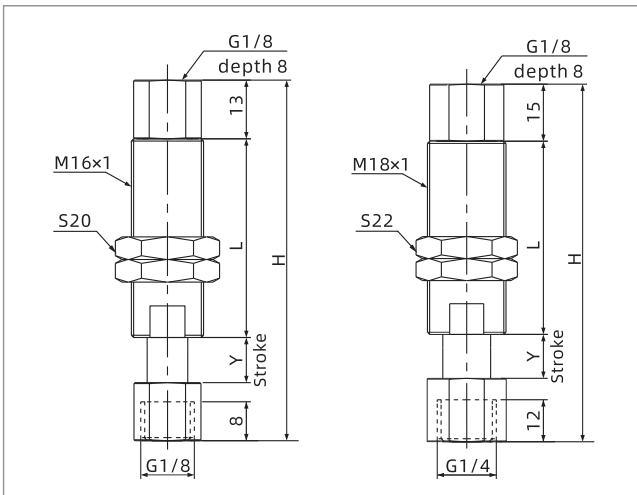


### Dimensions(mm)



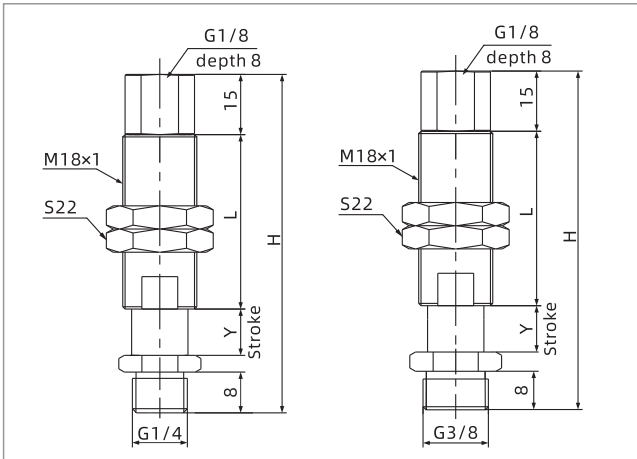
PSPT-I□LM5G1M-M16

PSPT-I□G1M-M16



PSPT -I□G1F-M16

PSPT -I□G2F-M18



PSPT -I□G2M-M18

PSPT -I□G3M-M18

Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPT-I10LM5G1M-M16	76	44	10	71	2.0	5.5
PSPT-I20LM5G1M-M16	86	44	20	89	2.0	5.5
PSPT-I30LM5G1M-M16	96	44	30	102	2.0	5.5
PSPT-I50LM5G1M-M16	147	75	50	135	2.0	5.5
PSPT-I10G1M-M16	76	44	10	80	2.0	5.5
PSPT-I20G1M-M16	86	44	20	85	2.0	5.5
PSPT-I30G1M-M16	96	44	30	107	2.0	5.5
PSPT-I50G1M-M16	147	75	50	132	2.0	5.5

◇ Note: "F1" means spring force at 0 stroke  
"F2" means spring force at max. stroke

Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPT-I10G1F-M16	80	44	10	85	2.0	5.5
PSPT-I20G1F-M16	90	44	20	90	2.0	5.5
PSPT-I30G1F-M16	100	44	30	108	2.0	5.5
PSPT-I50G1F-M16	151	75	50	135	2.0	5.5
PSPT-I10G2F-M18	70.5	28	10	93	4.0	7.0
PSPT-I20G2F-M18	90.5	38	20	108	4.0	7.0
PSPT-I30G2F-M18	110.5	48	30	121	4.0	7.0
PSPT-I50G2F-M18	150.5	68	50	151	4.0	7.0
PSPT-I10G2F-M18-H	70.5	28	10	93	9.0	27.0
PSPT-I20G2F-M18-H	90.5	38	20	108	9.0	27.0
PSPT-I30G2F-M18-H	110.5	48	30	121	9.0	27.0
PSPT-I50G2F-M18-H	150.5	68	50	151	9.0	27.0

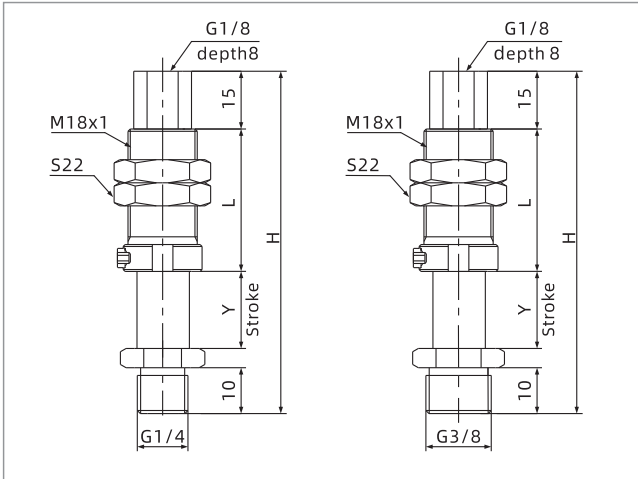
Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPT-I10G2M-M18	65	28	10	103	4.0	7.0
PSPT-I20G2M-M18	85	38	20	117	4.0	7.0
PSPT-I30G2M-M18	105	48	30	135	4.0	7.0
PSPT-I50G2M-M18	145	68	50	169	4.0	7.0
PSPT-I10G3M-M18	65	28	10	105	4.0	7.0
PSPT-I20G3M-M18	85	38	20	123	4.0	7.0
PSPT-I30G3M-M18	105	48	30	142	4.0	7.0
PSPT-I50G3M-M18	145	68	50	177	4.0	7.0

# PSPT Series

## Universal Level Compensator

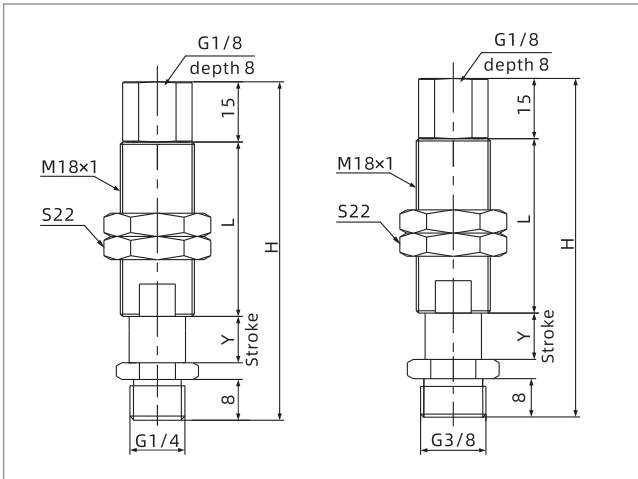


### Dimensions(mm)



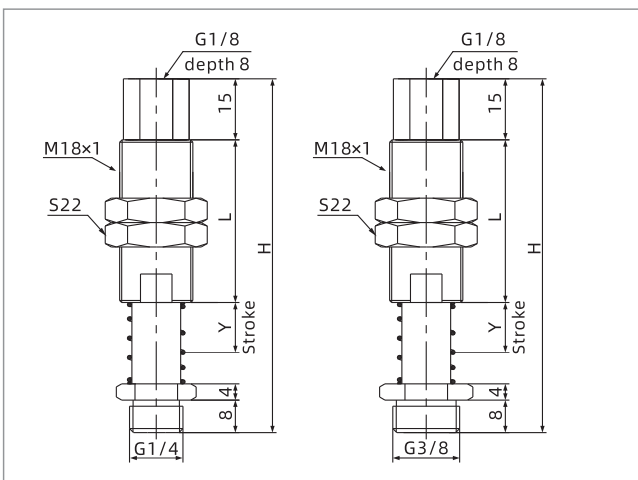
PSPT -I□RG2M-M18

PSPT -I□RG3M-M18



PSPT -I□G2M-M18-H

PSPT -I□G3M-M18-H



PSPT -E□G2M-M18

PSPT -E□G3M-M18

Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPT-I10RG2M-M18	70	30	10	103	4.0	7.0
PSPT-I20RG2M-M18	90	40	20	117	4.0	7.0
PSPT-I30RG2M-M18	110	50	30	135	4.0	7.0
PSPT-I50RG2M-M18	150	70	50	169	4.0	7.0
PSPT-I10RG3M-M18	70	30	10	105	4.0	7.0
PSPT-I20RG3M-M18	90	40	20	123	4.0	7.0
PSPT-I30RG3M-M18	110	50	30	142	4.0	7.0
PSPT-I50RG3M-M18	150	70	50	177	4.0	7.0

◇ Note: "F1" means spring force at 0 stroke  
"F2" means spring force at max. stroke

Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPT-I10G2M-M18-H	65	28	10	103	9.0	27.0
PSPT-I20G2M-M18-H	85	38	20	117	9.0	27.0
PSPT-I30G2M-M18-H	105	48	30	135	9.0	27.0
PSPT-I50G2M-M18-H	145	68	50	169	9.0	27.0
PSPT-I10G3M-M18-H	65	28	10	105	9.0	27.0
PSPT-I20G3M-M18-H	85	38	20	123	9.0	27.0
PSPT-I30G3M-M18-H	105	48	30	142	9.0	27.0
PSPT-I50G3M-M18-H	145	68	50	177	9.0	27.0

Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPT-E60G2M-M18	150	40	60	171	4.5	17.0
PSPT-E75G2M-M18	170	40	75	185	4.5	17.0
PSPT-E90G2M-M18	185	40	90	196	4.5	17.0
PSPT-E110G2M-M18	205	40	110	216	4.5	17.0
PSPT-E60G3M-M18	150	40	60	176	4.5	17.0
PSPT-E75G3M-M18	170	40	75	192	4.5	17.0
PSPT-E90G3M-M18	185	40	90	205	4.5	17.0
PSPT-E110G3M-M18	205	40	110	221	4.5	17.0

◇ Note: "F1" means spring force at 0 stroke,  
"F2" means spring force at max. stroke

Mounting Parts

PSPE

PSPL

**PSPT**

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

# PSPH Series

## Heavy-duty Level Compensator



UNIVERSAL



HEAVY LOAD

### Features

- ◇ Oilless, wear-resistant bushing is built in the guide sleeve
- ◇ Heavy duty external buffer spring
- ◇ Non-rotating type can be selected
- ◇ Various buffer stroke specifications are available
- ◇ Suitable for heavy duty working condition

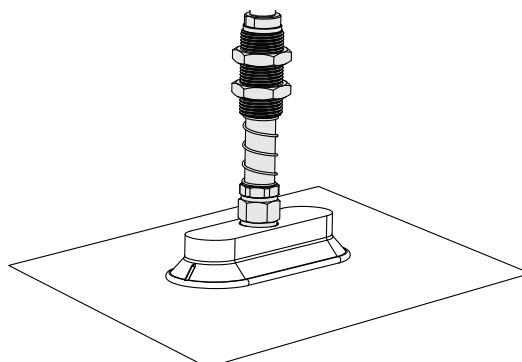
### Advantages

- ◇ Reduce product wear, improve the lifetime of the products and reduce the noise
- ◇ Suitable for the workpieces with uneven surface and working conditions which need height compensation
- ◇ Suitable for precise positioning of oval suction cup
- ◇ Suitable for various working conditions



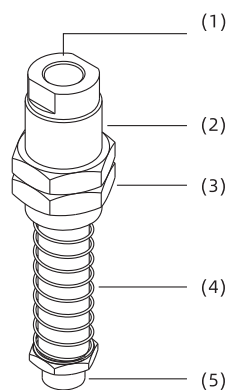
### Applications

- ◇ Suitable for handling workpieces with height difference
- ◇ Suitable for working condition which needs shock absorption when handling objects
- ◇ Suitable for working condition that is with short working period and fast handling
- ◇ Non-rotating level compensator is suitable for oval suction cup
- ◇ Especially suitable for handling in automotive industry



### Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Guide rod
- ◇ (5) Suction cup connection



# PSPH Series

## Heavy-duty Level Compensator



### How to order

**PSPH - E 25 R G3M - M30**

①                    ②    ③    ④    ⑤                    ⑥

① Series	② Buffer type	③ Buffer stroke	④ Rotary type	⑤ Suction cup connection	⑥ Mounting thread
PSPH	E - External spring	25	Nil - Vertical rotating	G2M - G1/4 male thread	M20 - M20×1.5
		50	R - Vertical non-rotating	G3M - G3/8 male thread	M30 - M30×1.5
		75		G4M - G1/2 male thread	
		90			

### Selection

Model/Connection thread		G2M	RG2M	G3M	RG3M	G4M	RG4M
PSPH-E25G2M-M20	PSPH-E25RG2M-M20	PSPH-E25G3M-M30	PSPH-E25RG3M-M30	PSPH-E25G4M-M30	PSPH-E25RG4M-M30		
PSPH-E50G2M-M20	PSPH-E50RG2M-M20	PSPH-E50G3M-M30	PSPH-E50RG3M-M30	PSPH-E50G4M-M30	PSPH-E50RG4M-M30		
PSPH-E75G2M-M20	PSPH-E75RG2M-M20	PSPH-E75G3M-M30	PSPH-E75RG3M-M30	PSPH-E75G4M-M30	PSPH-E75RG4M-M30		
PSPH-E90G2M-M20	PSPH-E90RG2M-M20	PSPH-E90G3M-M30	PSPH-E90RG3M-M30	PSPH-E90G4M-M30	PSPH-E90RG4M-M30		

### Technical parameters

Model	Pretightening force(1) N	Elastic force(2) N	Vertical load(3) N	Working temperature °C	Weight g
PSPH-E25(R)G2M-M20	7.5	15.8	2,400	0~80	148
PSPH-E50(R)G2M-M20	14.4	20	2,400	0~80	174
PSPH-E75(R)G2M-M20	6	16	2,400	0~80	198
PSPH-E90(R)G2M-M20	6	15.7	1,500	0~80	210
PSPH-E25(R)G3M-M30	19.4	73	4,800	0~80	408
PSPH-E50(R)G3M-M30	24.7	78.5	4,800	0~80	483
PSPH-E75(R)G3M-M30	39	79.6	4,800	0~80	561
PSPH-E90(R)G3M-M30	26.4	74.5	4,800	0~80	580
PSPH-E25(R)G4M-M30	19.4	73	4,800	0~80	408
PSPH-E50(R)G4M-M30	24.7	78.5	4,800	0~80	483
PSPH-E75(R)G4M-M30	39	79.6	4,800	0~80	561
PSPH-E90(R)G4M-M30	26.4	74.5	4,800	0~80	580

- ◇ Note: 1. Pretightening force is spring elastic force when spring is compressed in nature state
- 2. Elastic force is spring elastic force when level compensator is compressed in 50% stroke, it is suggested that the actual working compressed stroke of level compensator should not exceed 50% of its max. compressed stroke
- 3. Vertical load refers to the max. vertical tension that the level compensator can bear in static state
- 4. When the level compensator is installed horizontally, the workpiece will produce gravity perpendicular to the direction of the level compensator, If the gravity is larger than the horizontal load range, the spring may get stuck

Mounting Parts

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

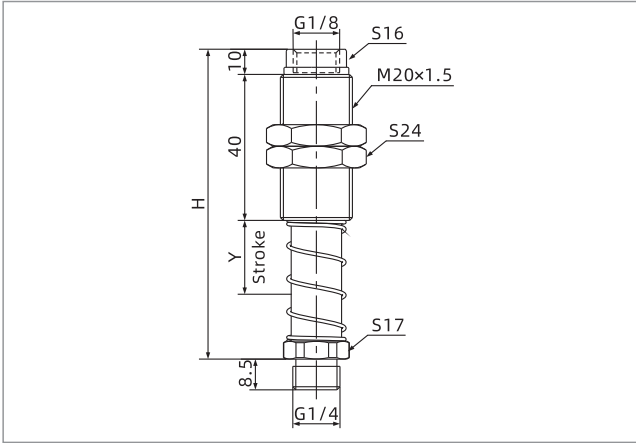
PTK

# PSPH Series

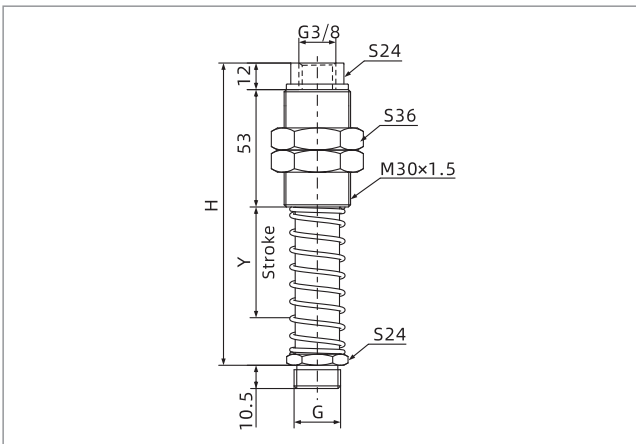
## Heavy-duty Level Compensator



### Dimensions(mm)



PSPH-E□(R)G2M-M20



PSPH-E□(R)G3M-M30    PSPH-E□(R)G4M-M30

Model/Size	H	Y
PSPH-E25(R)G2M-M20	86	25
PSPH-E50(R)G2M-M20	114.5	50
PSPH-E75(R)G2M-M20	145	75
PSPH-E90(R)G2M-M20	160	90

Model/Size	H	G	Y
PSPH-E25(R)G3M-M30	105.5	G3/8	25
PSPH-E50(R)G3M-M30	135.5	G3/8	50
PSPH-E75(R)G3M-M30	176.5	G3/8	75
PSPH-E90(R)G3M-M30	188.5	G3/8	90
PSPH-E25(R)G4M-M30	105.5	G1/2	25
PSPH-E50(R)G4M-M30	135.5	G1/2	50
PSPH-E75(R)G4M-M30	176.5	G1/2	75
PSPH-E90(R)G4M-M30	188.5	G1/2	90



# PSPD Series

## Double Springs Heavy-duty Level Compensator



UNIVERSAL



HEAVY LOAD

### Features

- ◇ Oilless, wear-resistant bushing is built in the guide sleeve
- ◇ With double buffer springs
- ◇ Non-rotating type can be selected
- ◇ Various buffer stroke specifications are available

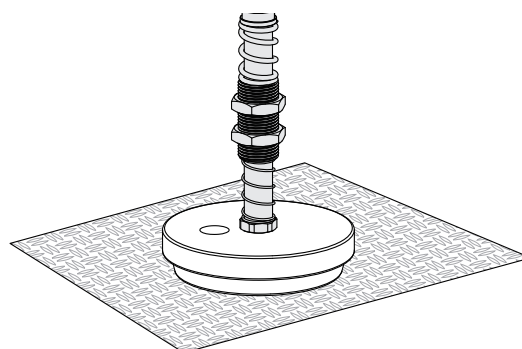
### Advantages

- ◇ Reduce product wear, improve the lifetime of the products and reduce the noise
- ◇ Flexible contact with fragile workpieces, compensate the height difference of workpieces
- ◇ Suitable for precise positioning of oval suction cup
- ◇ Suitable for various working conditions



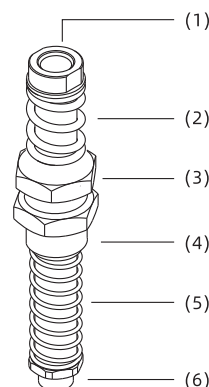
### Applications

- ◇ Suitable for handling heavy workpieces, such as steel plate
- ◇ Suitable for the working conditions that need flexible contact and shock absorption when carrying objects, such as glass
- ◇ Suitable for use in harsh environment
- ◇ Non-rotating level compensator is suitable for oval suction cup
- ◇ Double spring buffer structure can prevent the impact on the support rod end when handling the workpiece and turning it over



### Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Spring
- ◇ (3) Mounting nut
- ◇ (4) Guide sleeve
- ◇ (5) Spring
- ◇ (6) Suction cup connection



PSPE

PSPL

PSPT

**PSPH**

**PSPD**

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

# PSPD Series



## Double Springs Heavy-duty Level Compensator

### How to order

PSPD - E 25 R G3M - M30  
 ①            ②    ③    ④            ⑤            ⑥

① Series	② Buffer type	③ Buffer stroke	④ Rotary type	⑤ Suction cup connection	⑥ Mounting thread
PSPD	E - External spring	25	Nil - Vertical rotating	G2M - G1/4 male thread	M20 - M20×1.5
		50	R - Vertical non-rotating	G3M - G3/8 male thread	M30 - M30×1.5
		90		G4M - G1/2 male thread	

### Selection

Model/Connection thread G2M	RG2M	G3M	RG3M	G4M	RG4M
PSPD-E25G2M-M20	PSPH-E25RG2M-M20	PSPD-E25G3M-M30	PSPD-E25RG3M-M30	PSPD-E25G4M-M30	PSPD-E25RG4M-M30
PSPD-E50G2M-M20	PSPH-E50RG2M-M20	PSPD-E50G3M-M30	PSPD-E50RG3M-M30	PSPD-E50G4M-M30	PSPD-E50RG4M-M30
-	-	PSPD-E90G3M-M30	PSPD-E90RG3M-M30	PSPD-E90G4M-M30	PSPD-E90RG4M-M30

### Technical parameters

Model	Pretightening force(1) N	Elastic force(2) N	Vertical load(3) N	Working temperature °C	Weight g
PSPD-E25(R)G2M-M20	8.6	16.8	2,400	0~80	181
PSPD-E50(R)G2M-M20	14.4	21	2,400	0~80	207
PSPD-E25(R)G3M-M30	24	74.5	4,800	0~80	507
PSPD-E50(R)G3M-M30	7.5	61	4,800	0~80	600
PSPD-E90(R)G3M-M30	25.2	73.7	4,800	0~80	754
PSPD-E25(R)G4M-M30	24	74.5	4,800	0~80	515
PSPD-E50(R)G4M-M30	7.5	61	4,800	0~80	608
PSPD-E90(R)G4M-M30	25.2	73.7	4,800	0~80	762

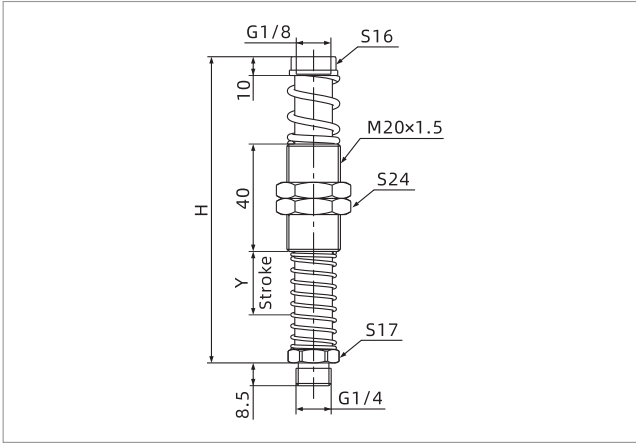
- ◇ Note: 1. Pretightening force is spring elastic force when spring is compressed in nature state  
 2. Elastic force is spring elastic force when level compensator is compressed in 50% stroke, it is suggested that the actual working compressed stroke of level compensator does not exceed 50% of its max. compressed stroke  
 3. Vertical load refers to the max. vertical tension that the level compensator can bear in static state  
 4. When the level compensator is installed horizontally, the workpiece will produce gravity perpendicular to the direction of the level compensator, If the gravity is bigger than the horizontal load range, the spring may get stuck

# PSPD Series

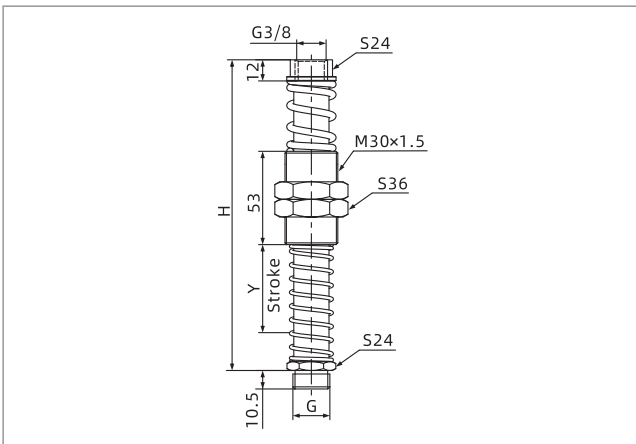


## Double Springs Heavy-duty Level Compensator

### Dimensions(mm)



PSPD-E□(R)G2M-M20



PSPD-E□(R)G3M-M30    PSPD-E□(R)G4M-M30

Model/Size	H	Y
PSPD-E25(R)G2M-M20	114.5	25
PSPD-E50(R)G2M-M20	144	50

Model/Size	H	G	Y
PSPD-E25(R)G3M-M30	146.5	G3/8	25
PSPD-E50(R)G3M-M30	176.5	G3/8	50
PSPD-E90(R)G3M-M30	229.5	G3/8	90
PSPD-E25(R)G4M-M30	146.5	G1/2	25
PSPD-E50(R)G4M-M30	176.5	G1/2	50
PSPD-E90(R)G4M-M30	229.5	G1/2	90

Mounting Parts

- PSPE
- PSPL
- PSPT
- PSPH
- PSPD**
- PSPF
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP
- PJQ
- PDA
- PDR
- PTS
- PTK

# PSPF Series

## Compact Level Compensator



ELECTRONICS

### Features

- ◇ Small size and light weight
- ◇ External buffer spring
- ◇ Different buffer stroke can be selected

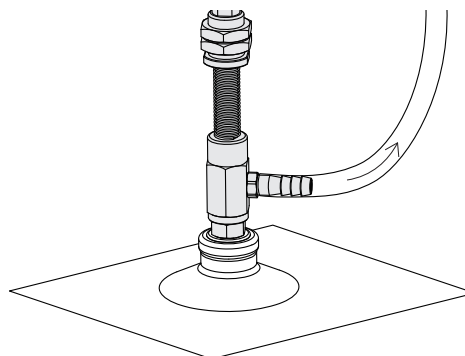
### Advantages

- ◇ Especially suitable for electronic industry
- ◇ Flexible contact with fragile workpieces, compensate the height difference of workpieces
- ◇ Suitable for various working conditions



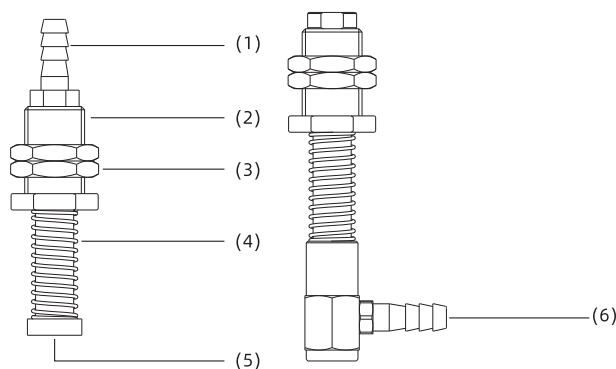
### Applications

- ◇ Suitable for handling workpieces with height difference
- ◇ Handle parts sensitive to pressure with flexible contact
- ◇ Suitable for electronic industry



### Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Spring
- ◇ (5) Suction cup connection
- ◇ (6) Vacuum generator connection



# PSPF Series

## Compact Level Compensator

### How to order

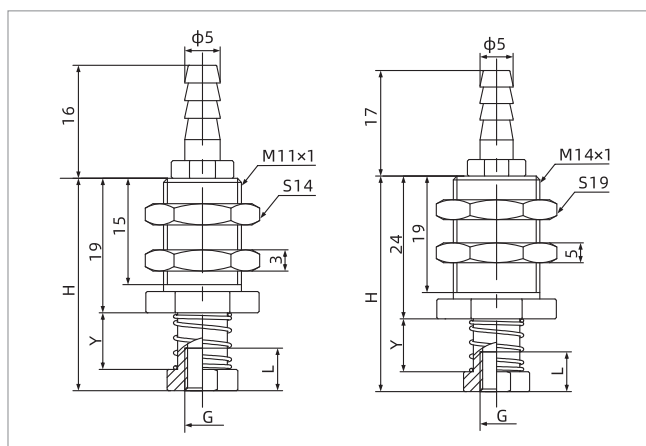
**PSPF - E 6 LB6 M5F - M14**  
 ①      ② ③ ④      ⑤      ⑥

① Series	② Buffer style	③ Buffer stroke	④ Rotary type
PSPF	E - External spring	4    15	B6 - Vertical rotating, pagoda fitting $\phi 6$ hose
		6    30	LB6 - Lateral rotating, pagoda fitting $\phi 6$ hose
		10	LR1 - Lateral rotating, Rc1/8 inside tapered thread
⑤ Connection thread		⑥ Mounting thread	
M5F - M5x0.8 female thread		M11 - M11x1	
M8F - M8x1.25 female thread		M14 - M14x1	
M10M - M10x1.25 male thread		M16 - M16x1.5	

### Selection

Model/Connection thread				
B6M5F	LB6M5F	B6M8F	LB6M8F	LR1M10M
PSPF-E4B6M5F-M11	PSPF-E4LB6M5F-M11	-	-	-
PSPF-E10B6M5F-M11	PSPF-E10LB6M5F-M11	-	-	-
PSPF-E6B6M5F-M14	PSPF-E6LB6M5F-M14	PSPF-E6B6M8F-M14	PSPF-E6LB6M8F-M14	-
PSPF-E15B6M5F-M14	PSPF-E15LB6M5F-M14	PSPF-E6B6M8F-M14	PSPF-E15LB6M8F-M14	-
-	-	-	-	PSPF-E10LR1M10M-M16
-	-	-	-	PSPF-E30LR1M10M-M16

### Dimensions(mm)



PSPF-E□B6M5F-M11

PSPF-E□B6M5F(M8F)-M14

Model/Size	H	G	L	Y	Stroke	Weight
						g
PSPF-E4B6M5F-M11	30	M5x0.8	6	8	4	26
PSPF-E10B6M5F-M11	42	M5x0.8	6	20	10	29.5
PSPF-E6B6M5F-M14	40	M5x0.8	6	13	6	53
PSPF-E15B6M5F-M14	57	M5x0.8	6	30	15	64.5
PSPF-E6B6M8F-M14	40	M8x1.25	8	13	6	55
PSPF-E15B6M8F-M14	57	M8x1.25	8	30	15	65

Mounting Parts

PSPE

PSPL

PSPT

PSPH

PSPD

**PSPF**

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

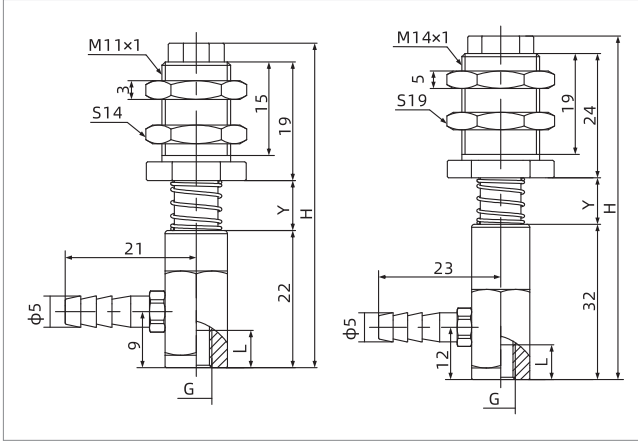
PTK

# PSPF Series

## Compact Level Compensator

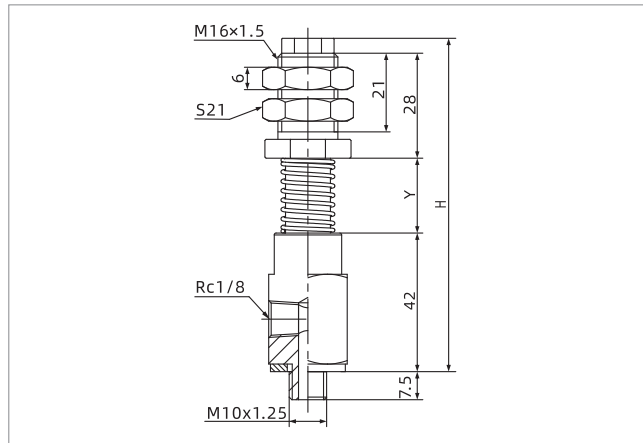


### Dimensions(mm)



PSPF-E□LB6M5F-M11

PSPF-E□LB6M5F(M8F)-M14



PSPF-E□LR1M10M-M16

Model/Size	H	G	L	Y	Stroke	Weight g
PSPF-E4LB6M5F-M11	52	M5×0.8	6	8	4	42
PSPF-E10LB6M5F-M11	64	M5×0.8	6	20	10	61
PSPF-E6LB6M5F-M14	73	M5×0.8	6	13	6	98
PSPF-E15LB6M5F-M14	90	M5×0.8	6	30	15	112
PSPF-E6LB6M8F-M14	73	M8×1.25	8	13	6	96
PSPF-E15LB6M8F-M14	90	M8×1.25	8	30	15	108

Model/Size	H	Y	Stroke	Weight g
PSPF-E10LR1M10M-M16	94	20	10	213
PSPF-E30LR1M10M-M16	134	60	30	256

# PJS Series

## Fitting for Suction Cup



UNIVERSAL

### Features

- ◇ Standard fitting for suction cup, easy to selection
- ◇ Split stucture design, reusable and cost saving



### How to order

**PJS - G1F - SF1 - EW**  
 ①                      ②                      ③                      ④

① Series	② Connection thread	③ Suction cup connection	④ Special specification
<b>PJS</b>	M3M - M3×0.5 male thread	M5F - M5×0.8 female thread	SF(1-3)
	M5M - M5×0.8 male thread	G1F - G1/8 female thread	SC(1-6)
	M8M - M8×1.25 male thread	G2F - G1/4 female thread	ST(1-8)
	G1M - G1/8 male thread	G3F - G3/8 female thread	
	G2M - G1/4 male thread		
	G3M - G3/8 male thread		
			Nil - Default,without special specification EW - Built-in mesh filter EH - Built-in mesh filter+ throttle valve

### Selection - SF

Model/Special specification		EW - Built-in mesh filter		EH - Built-in mesh filter + throttle valve	
Basic type					
PJS-G1M-SF1	PJS-G1F-SF1	PJS-G1M-SF1-EW	PJS-G1F-SF1-EW	PJS-G1M-SF1-EH	PJS-G1F-SF1-EH
PJS-G1M-SF2	PJS-G1F-SF2	PJS-G1M-SF2-EW	PJS-G1F-SF2-EW	PJS-G1M-SF2-EH	PJS-G1F-SF2-EH
PJS-G2M-SF3	PJS-G2F-SF3	PJS-G2M-SF3-EW	PJS-G2F-SF3-EW	PJS-G2M-SF3-EH	PJS-G2F-SF3-EH
PJS-G3M-SF3	PJS-G3F-SF3	PJS-G3M-SF3-EW	PJS-G3F-SF3-EW	PJS-G3M-SF3-EH	PJS-G3F-SF3-EH

### Selection - SC

Model/Connection thread	F - female thread
M - male thread	
PJS-M5M-SC2	PJS-M5F-SC1
PJS-M5M-SC3	PJS-M5F-SC4
-	PJS-M5F-SC5
-	PJS-M8F-SC6

### Selection - ST

Model/Connection thread	M - male thread
M - male thread	
PJS-M3M-ST1	PJS-M8M-ST5
PJS-M5M-ST2	PJS-M8M-ST6
PJS-M5M-ST3	PJS-M6M-ST7
PJS-M5M-ST4	PJS-G1M-ST8

# PJS Series

## Fitting for Suction Cup

### Dimensions(mm) - SF

Applicable suction cup:  
 SU20, 25, 30  
 SF20, 25, 30  
 SB17, 20  
 SBL20  
 SBP20  
 SXP20, 25, 30  
 SFP20, 30  
 SGP25, 35

PJS-G1F-SF1

Applicable suction cup:  
 SU20, 25, 30  
 SF20, 25, 30  
 SB17, 20  
 SBL20  
 SBP20  
 SXP20, 25, 30  
 SFP20, 30  
 SGP25, 35

PJS-G1M-SF1

Applicable suction cup:  
 SU40  
 SF40  
 SB30, 40  
 SBL30, 40  
 SBP30, 40  
 SXP35, 40  
 SFP40  
 SGP45

PJS-G1F-SF2

Applicable suction cup:  
 SU40  
 SF40  
 SB30, 40  
 SBL30, 40  
 SBP30, 40  
 SXP35, 40  
 SFP40  
 SGP45

PJS-G1M-SF2

Applicable suction cup:  
 SU50  
 SF50  
 SB50  
 SBL50  
 SBP50  
 SXP50  
 SGP55

PJS-G2F-SF3

Applicable suction cup:  
 SU50  
 SF50  
 SB50  
 SBL50  
 SBP50  
 SXP50  
 SGP55

PJS-G2M-SF3

Applicable suction cup:  
 SU50  
 SF50  
 SB50  
 SBL50  
 SBP50  
 SXP50  
 SGP55

PJS-G3F-SF3

Applicable suction cup:  
 SU50  
 SF50  
 SB50  
 SBL50  
 SBP50  
 SXP50  
 SGP55

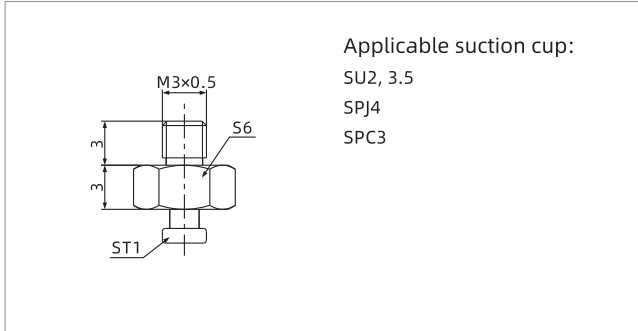
PJS-G3M-SF3



# PJS Series

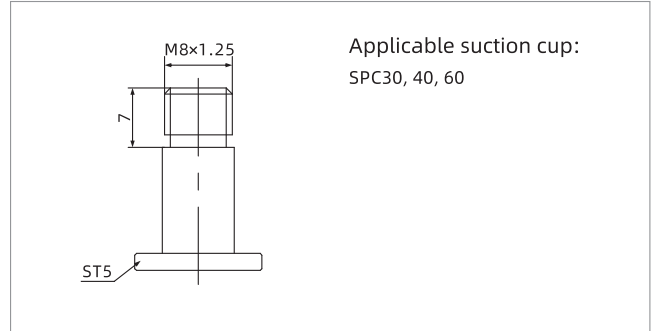
## Fitting for Suction Cup

### Dimensions(mm)-ST



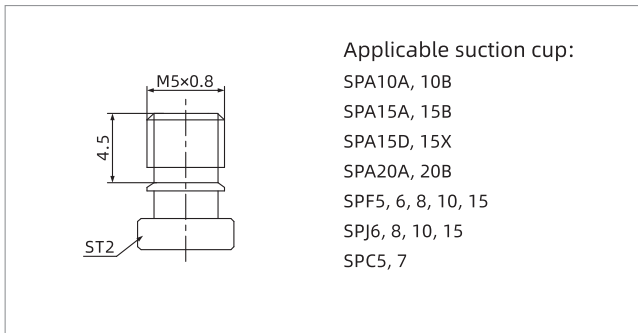
Applicable suction cup:  
 SU2, 3.5  
 SPJ4  
 SPC3

PJS-M3M-ST1



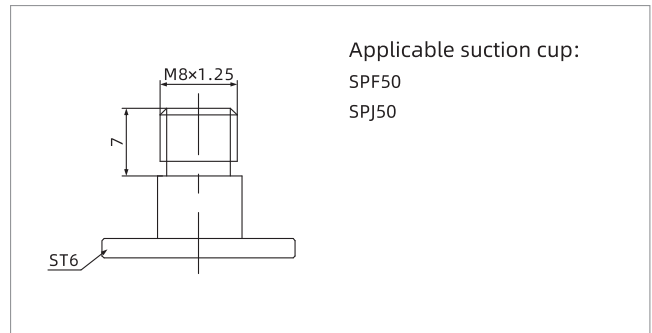
Applicable suction cup:  
 SPC30, 40, 60

PJS-M8M-ST5



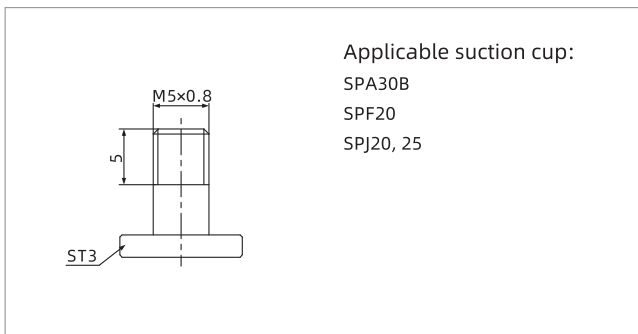
Applicable suction cup:  
 SPA10A, 10B  
 SPA15A, 15B  
 SPA15D, 15X  
 SPA20A, 20B  
 SPF5, 6, 8, 10, 15  
 SPJ6, 8, 10, 15  
 SPC5, 7

PJS-M5M-ST2



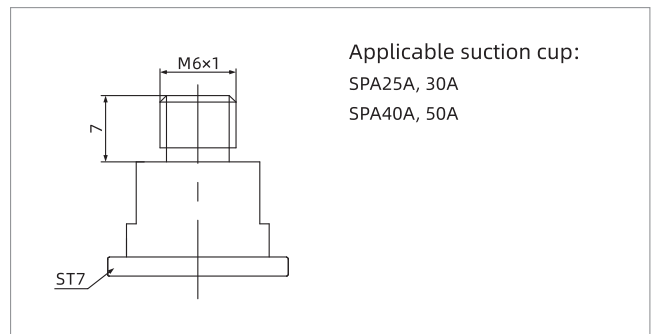
Applicable suction cup:  
 SPF50  
 SPJ50

PJS-M8M-ST6



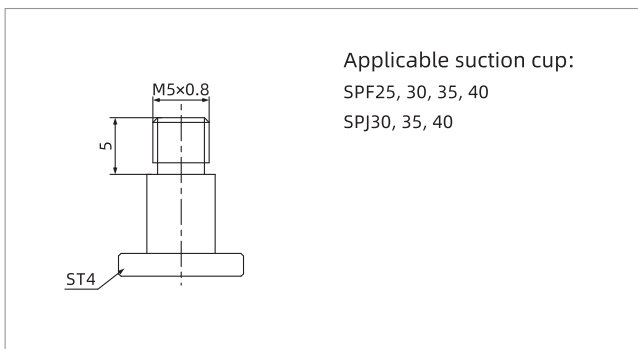
Applicable suction cup:  
 SPA30B  
 SPF20  
 SPJ20, 25

PJS-M5M-ST3



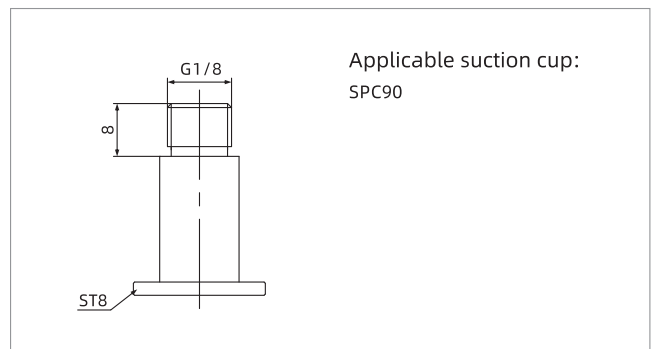
Applicable suction cup:  
 SPA25A, 30A  
 SPA40A, 50A

PJS-M6M-ST7



Applicable suction cup:  
 SPF25, 30, 35, 40  
 SPJ30, 35, 40

PJS-M5M-ST4



Applicable suction cup:  
 SPC90

PJS-G1M-ST8

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

**PJS**

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

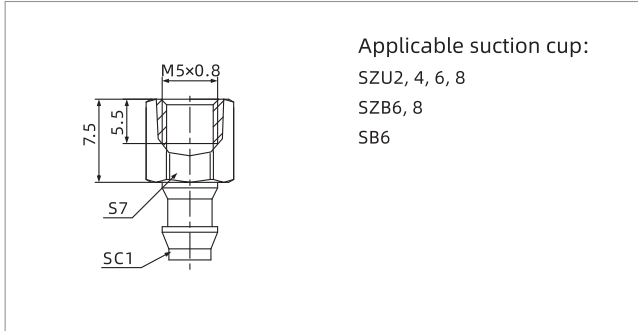
PTK

# PJS Series

## Fitting for Suction Cup

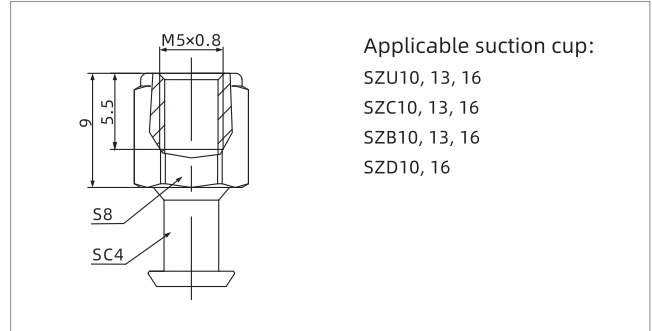


### Dimensions(mm) - SC



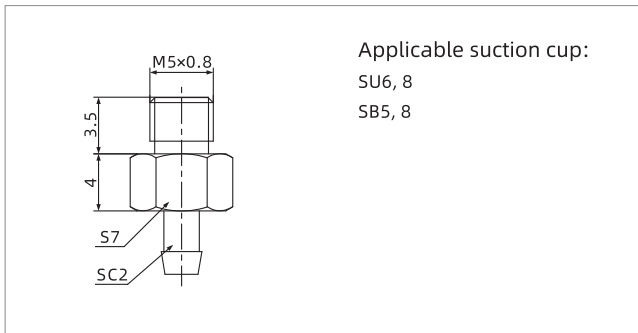
Applicable suction cup:  
 SZU2, 4, 6, 8  
 SZB6, 8  
 SB6

PJS-M5F-SC1



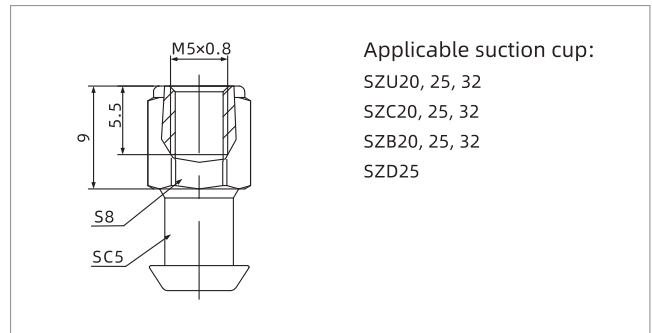
Applicable suction cup:  
 SZU10, 13, 16  
 SZC10, 13, 16  
 SZB10, 13, 16  
 SZD10, 16

PJS-M5F-SC4



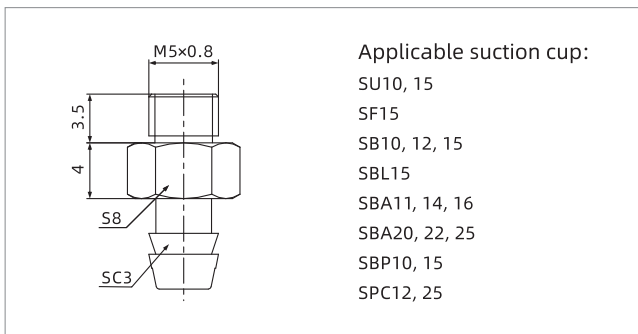
Applicable suction cup:  
 SU6, 8  
 SB5, 8

PJS-M5M-SC2



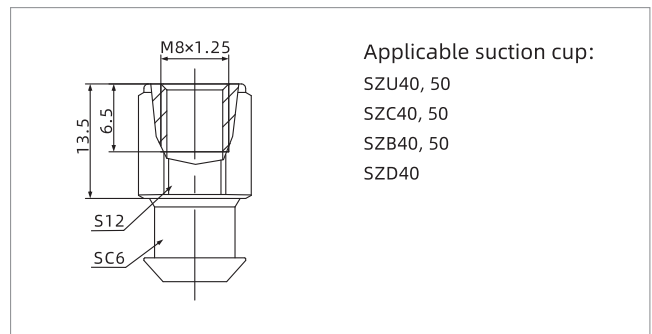
Applicable suction cup:  
 SZU20, 25, 32  
 SZC20, 25, 32  
 SZB20, 25, 32  
 SZD25

PJS-M5F-SC5



Applicable suction cup:  
 SU10, 15  
 SF15  
 SB10, 12, 15  
 SBL15  
 SBA11, 14, 16  
 SBA20, 22, 25  
 SBP10, 15  
 SPC12, 25

PJS-M5M-SC3



Applicable suction cup:  
 SZU40, 50  
 SZC40, 50  
 SZB40, 50  
 SZD40

PJS-M8F-SC6

# PJT Series

## Universal Mounting Parts-Adapter



UNIVERSAL

### Features

- ◇ Various specifications to achieve conversion between different threads
- ◇ Made of copper alloy and plated with electroless nickel



### How to order

**PJT - M5M - M8F**  
 ①                      ②                      ③

① Series	② Connection thread(1)	③ Connection thread(2)
PJT	M5M - M5×0.8 male thread M8M - M8×1.25 male thread G1M - G1/8 male thread G2M - G1/4 male thread G3M - G3/8 male thread M5F - M5×0.8 female thread M8F - M8×1.25 female thread G1F - G1/8 female thread G2F - G1/4 female thread G3F - G3/8 female thread	Nil - Same as connection thread(1) M5M - M5×0.8 male thread M8M - M8×1.25 male thread G1M - G1/8 male thread G2M - G1/4 male thread G3M - G3/8 male thread G4M - G1/2 male thread M5F - M5×0.8 female thread M8F - M8×1.25 female thread G1F - G1/8 female thread G2F - G1/4 female thread G3F - G3/8 female thread G4F - G1/2 female thread

### Selection - SF

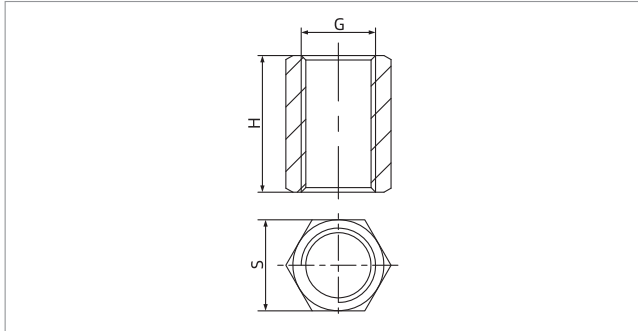
Model/Type Equal diameter female-female thread	Equal diameter male-male thread	Different diameter male-male thread	Different diameter female-male thread
PJT-M5F	PJT-M5M	PJT-M5M-M8M	PJT-M5M-M8F
PJT-M8F	PJT-M8M	PJT-M8M-G1M	PJT-M8M-G1F
PJT-G1F	PJT-G1M	PJT-G1M-G2M	PJT-G1M-G2F
PJT-G2F	PJT-G2M	PJT-G2M-G3M	PJT-G2M-G3F
PJT-G3F	PJT-G3M	PJT-G3M-G4M	PJT-G3M-G4F

# PJT Series

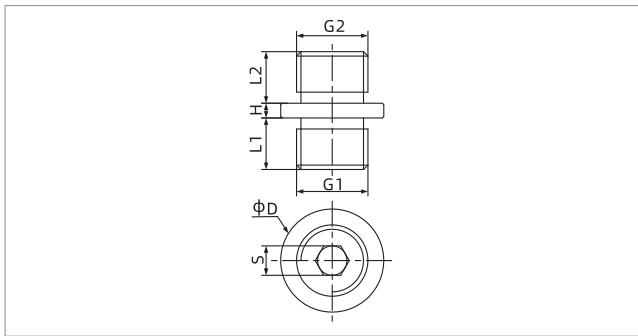
## Universal Mounting Parts-Adapter



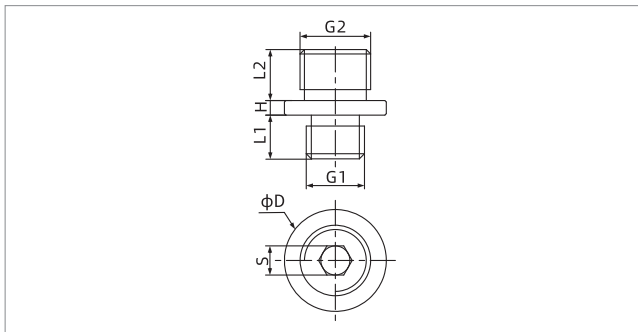
### Dimensions(mm)



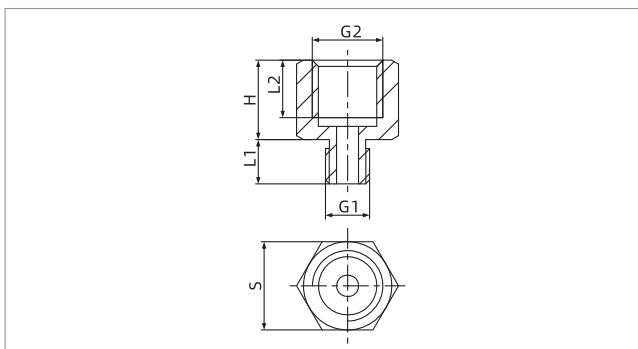
Equal diameter female-female thread



Equal diameter male-male thread



Different diameter male-male thread



Different diameter female-male thread

Model/Size	G	H	S	Weight g
PJT-M5F	M5×0.8	11	8	4
PJT-M8F	M8×1.25	15	10	6.6
PJT-G1F	G1/8	18	12	10
PJT-G2F	G1/4	22	16	22
PJT-G3F	G3/8	24	19	27

Model/Size	G1	L1	G2	L2	H	D	S	Weight g
PJT-M5M	M5×0.8	5	M5×0.8	5	1.5	8	2.5	3
PJT-M8M	M8×1.25	7	M8×1.25	7	1.5	12	3	7
PJT-G1M	G1/8	7	G1/8	7	1.5	14	4	11.5
PJT-G2M	G1/4	9	G1/4	9	2	17	5	23
PJT-G3M	G3/8	10	G3/8	10	2	21	5	33

Model/Size	G1	L1	G2	L2	H	D	S	Weight g
PJT-M5M-M8M	M5×0.8	5	M8×1.25	7	1.5	12	2.5	6
PJT-M8M-G1M	M8×1.25	7	G1/8	7	1.5	14	4	11.5
PJT-G1M-G2M	G1/8	7	G1/4	9	2	17	5	20
PJT-G2M-G3M	G1/4	9	G3/8	10	2	21	5	30
PJT-G3M-G4M	G3/8	10	G1/2	12	2	24	6	37

Model/Size	G1	L1	G2	L2	H	S	Weight g
PJT-M5M-M8F	M5×0.8	5	M8×1.25	7	9	10	5
PJT-M8M-G1F	M8×1.25	7	G1/8	8	10	12	8
PJT-G1M-G2F	G1/8	7	G1/4	10	13	16	16.2
PJT-G2M-G3F	G1/4	9	G3/8	10	13	19	25
PJT-G3M-G4F	G3/8	10	G1/2	12	15	24	48

# PJF Series

## Universal Mounting Parts-Locking Fitting



UNIVERSAL

### Features

- ◇ Match the connection thread of suction cup, variety of connection and mounting thread are available
- ◇ Small size and simple structure, especially suitable for electronic industry



### How to order

PJF - LB6 - M4F - M5F

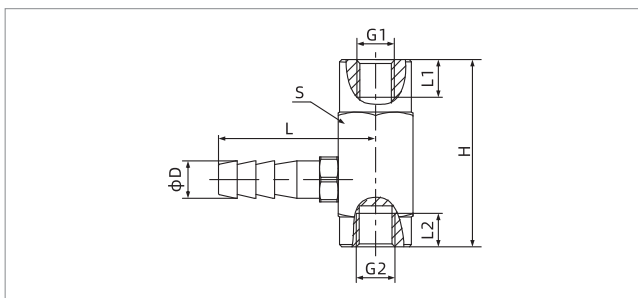
①                      ②                      ③                      ④

① Series	② Vacuum port connection	③ Mounting thread		④ Suction cup connection
<b>PJF</b>	A4 - Vertical, one-touch fittingφ4 A6 - Vertical, one-touch fittingφ6 A8 - Vertical, one-touch fittingφ8 R1 - Vertical, Rc1/8 inside tapered thread LB6 - Lateral, pagoda fittingφ6 LR1 - Lateral, Rc1/8 inside tapered thread	M4F - M4×0.7 female thread M5F - M5×0.8 female thread M6F - M6×1 female thread M8F - M8×1.25 female thread M10F - M10×1.5 female thread	M8M - M8×1 male thread M10M - M10×1 male thread M12M - M12×1 male thread M14M - M14×1 male thread M16M - M16×1.5 male thread	M5F - M5×0.8 female thread M8F - M8×1.25 female thread G1F - G1/8 female thread G2F - G1/4 female thread G3F - G3/8 female thread

### Selection

Model/Vacuum port connection	Vertical one-touch fitting	Vertical pagoda fitting	Vertical female thread	Lateral female thread
Lateral pagoda fitting				
PJF-LB6-M4F-M5F	PJF-A4-M12M-M5F	PJF-B6-M8M-M5F	PJF-R1-M16M-G2F	PJF-LR1-M10F-G2F
PJF-LB6-M6F-M5F	PJF-A6-M14M-M5F	PJF-B6-M10M-M5F	PJF-R1-M16M-G3F	PJF-LR1-M10F-G3F
PJF-LB6-M6F-M8F	PJF-A6-M14M-M8F	PJF-B6-M10M-M8F	-	-
PJF-LB6-M8F-G1F	PJF-A6-M14M-G1F	PJF-B6-M14M-G1F	-	-
-	PJF-A8-M16M-G2F	-	-	-

### Dimensions(mm)



Lateral pagoda fitting

Model/size	H	G1	L1	G2	L2	S	D	L	Weight g
PJF-LB6-M4F-M5F	22	M4	6	M5	6	10	5	21	15.5
PJF-LB6-M6F-M5F	32	M6	8	M5	6	14	5	23	40
PJF-LB6-M6F-M8F	32	M6	8	M8	8	14	5	23	39
PJF-LB6-M8F-G1F	32	M8	6.5	G1/8	6	14	5	23	39

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

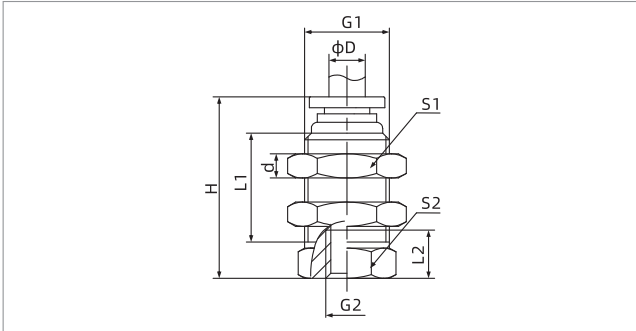
PTK

# PJF Series

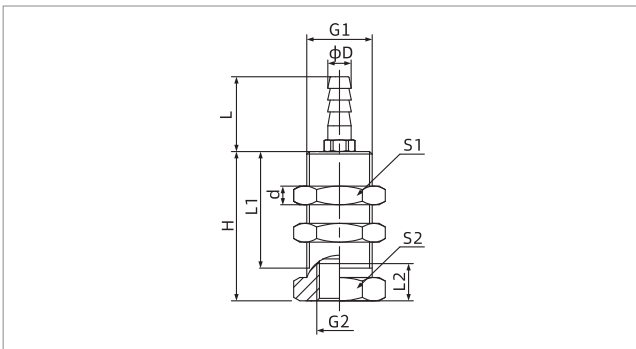


## Universal Mounting Parts-Locking Fitting

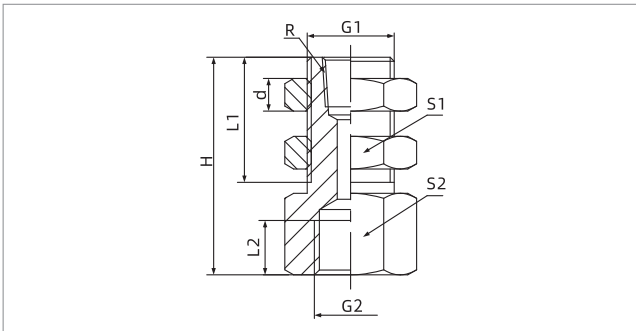
### Dimensions(mm)



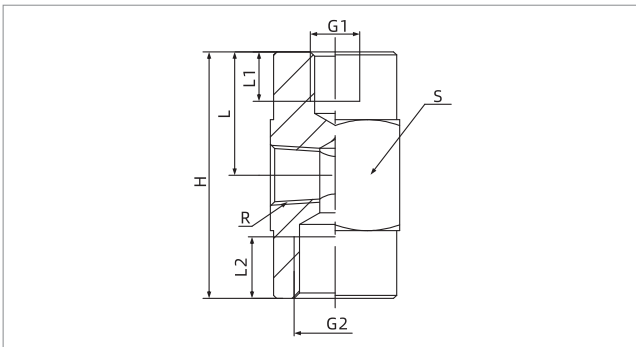
Vertical one-touch fitting



Vertical pagoda fitting



Vertical female thread



Lateral female thread

Model/Size	H	G1	L1	G2	L2	S1	S2	d	D	Weight g
PJF-A4-M12M-M5F	27.5	M12x1	17.5	M5	6	14	12	4	4	22.5
PJF-A6-M14M-M5F	30	M14x1	18	M5	6	19	14	5	6	30
PJF-A6-M14M-M8F	30	M14x1	18	M8	6	19	14	5	6	38
PJF-A6-M14M-G1F	30	M14x1	18	G1/8	6	19	14	5	6	27
PJF-A8-M16M-G2F	40	M16x1.5	23	G1/4	8	21	17	6	8	63.5

Model/Size	H	G1	L1	G2	L2	S1	S2	L	d	D	Weight g
PJF-B6-M8M-M5F	22	M8x1	17	M5	5	12	12	16	3	5	27
PJF-B6-M10M-M5F	32	M10x1	22	M5	6	14	14	16	3	5	30
PJF-B6-M10M-M8F	32	M10x1	22	M8	8	14	14	16	3	5	28
PJF-B6-M14M-G1F	32	M14x1	22	G1/8	8	19	17	16	5	5	33

Model/Size	H	G1	L1	G2	L2	S1	S2	d	R	Weight g
PJF-R1-M16M-G2F	40	M16x1.5	23	G1/4	10	22	21	6	Rc1/8	86.5
PJF-R1-M16M-G3F	40	M16x1.5	23	G3/8	11	22	21	6	Rc1/8	78

Model/Size	H	G1	L1	G2	L2	S	L	R	Weight g
PJF-LR1-M10F-G2F	40	M10	8	G1/4	10	21	20	Rc1/8	88.5
PJF-LR1-M10F-G3F	40	M10	8	G3/8	11	21	20	Rc1/8	79

# PJB Series

## Universal Mounting Parts-Ball Joint



UNIVERSAL

### Features

- ◇ Flexible connection for deflection in any direction with a maximum deflection angle of 12°
- ◇ The ball and socket are equipped with sealing rings to prevent vacuum leakage during rotation
- ◇ It is made of high strength steel and has good stability
- ◇ Suitable for large suction cup to handle workpiece with inclined surface



### How to order

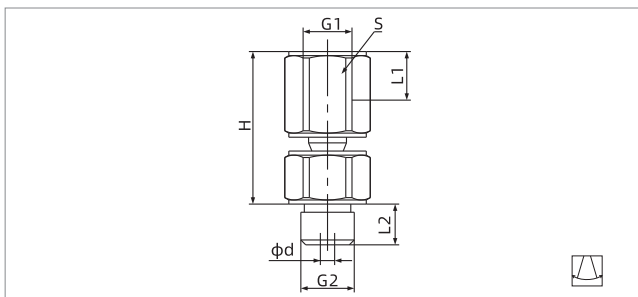
PJB - G4M - S  
 ①                      ②                      ③

① Series	② Suction cup connection		③ External sealing device
PJB	G1M - G1/8 male thread M10M - M10×1.25 male thread	G2M - G1/4 male thread G4M - G1/2 male thread	Nil - Standard type S - With external sealing suction cup

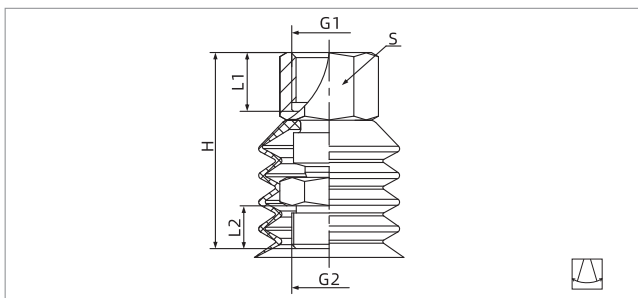
### Selection

Model/Suction cup connection G1M		M10M	G2M	G4M	
PJB-G1M	PJB-G1M-S	PJB-M10M	PJB-G2M	PJB-G4M	PJB-G4M-S

### Dimensions(mm)



PJB-□



PJB-□-S

Model/Size	H	G1	L1	G2	L2	S	d	Deflection angle	Weight g
PJB-G1M	26.5	G1/8	8	G1/8	7	12	2	12°	20
PJB-M10M	37.5	G1/4	12	M10×1.25	10	19	3.5	12°	82
PJB-G2M	37.5	G1/4	12	G1/4	10	19	3.5	12°	75
PJB-G4M	40	G1/2	15	G1/2	12	24	4	12°	113

Model/Size	H	G1	L1	G2	L2	S	Deflection angle	Weight g
PJB-G1M-S	33	G1/8	8	G1/8	7	12	12°	21
PJB-G4M-S	52	G1/2	15	G1/2	12	24	12°	133

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

# PJE Series



## Universal mounting parts-flexible joint



UNIVERSAL

### Features

- ◇ Flexible connection for deflection in any direction with a maximum deflection angle 12°
- ◇ The rotating joints are vulcanized by high-strength metal and high-performance rubber, which guarantees strength, elasticity and sealability, and can be automatically reset
- ◇ Suitable for large suction cup to handle workpiece with inclined surface



### How to order

## PJE - G2F - G2M

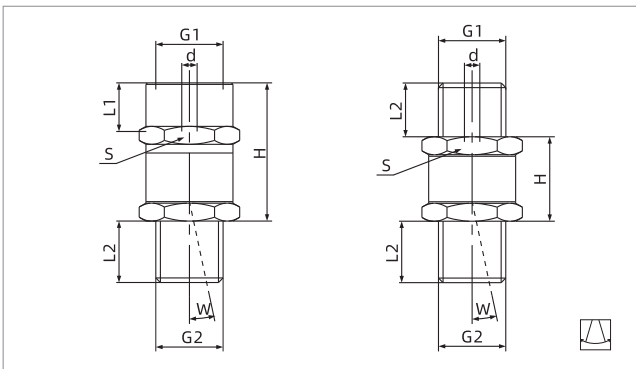
①                      ②                      ③

① series	② Vacuum port connection	③ Suction cup connection
PJE	G2M - G1/4 male thread G4M - G1/2 male thread G2F - G1/4 female thread G4F - G1/2 female thread	M10M - M10×1.25 male thread G2M - G1/4 male thread G4M - G1/2 male thread

### Selection

Model/Vacuum port connection G2M	G2F	G4M	G4F
PJE-G2M-G2M	PJE-G2F-M10M    PJE-G2F-G2M	PJE-G4M-G4M	PJE-G4F-G4M

### Dimensions(mm)



PJE-F-M

PJE-M-M

Model/Size	H	G1	L1	G2	L2	d	S	W	Weight g
PJE-G2F-M10M	27	G1/4	12	M10×1.25	8	3	17	12°	33.5
PJE-G2F-G2M	27	G1/4	12	G1/4	12	3	17	12°	39
PJE-G2M-G2M	16.5	G1/4	10.5	G1/4	12	3	17	12°	32.5
PJE-G4F-G4M	33.5	G1/2	14	G1/2	14	6	27	12°	105.5
PJE-G4M-G4M	21	G1/2	14	G1/2	14	6	27	12°	94.5



# PJH Series

## Universal Mounting Parts-Flexible Joint



UNIVERSAL

### Features

- ◇ Ball clamp structure , which can adjust height and angle.  
It is suitable for workpiece with irregular surface
- ◇ Made of high-strength aluminum alloy and light weight



### How to order

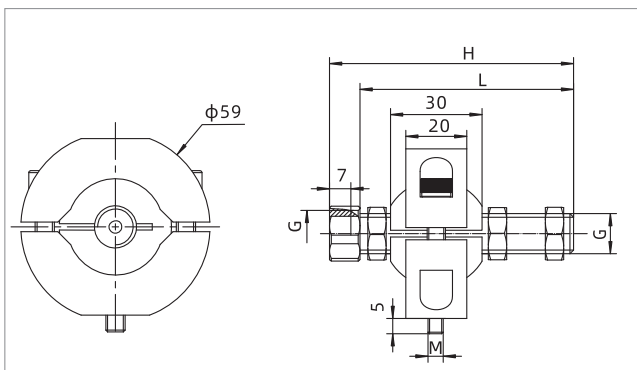
PJH - 1 A 80  
① ② ③ ④

① Series	② Mounting Specification	③ Connection thread	④ Length of connecting rod	
PJH	1 - 1×M5 Fixed screw	A - G1/4	80 - 80mm	140 - 140mm
	2 - 2×M6 Fixed screw	B - G3/8	100 - 100mm	200 - 200mm

### Selection

Model/Mounting specification 1A	1B	2A	2B
PJH-1A80	PJH-1B80	PJH-2A80	PJH-2B80
PJH-1A100	PJH-1B100	PJH-2A100	PJH-2B100
PJH-1A140	PJH-1B140	PJH-2A140	PJH-2B140
PJH-1A200	PJH-1B200	PJH-2A200	PJH-2B200

### Dimensions(mm)



PJH-1□□

Model/Size	G	M	H	L	Setting angle	Weight g
PJH-1A80	G1/4	M5×0.8	80	70	15°	293
PJH-1A100	G1/4	M5×0.8	100	90	15°	299.5
PJH-1A140	G1/4	M5×0.8	140	130	15°	314
PJH-1A200	G1/4	M5×0.8	200	190	15°	335
PJH-1B80	G3/8	M5×0.8	80	70	15°	325
PJH-1B100	G3/8	M5×0.8	100	90	15°	331
PJH-1B140	G3/8	M5×0.8	140	130	15°	352
PJH-1B200	G3/8	M5×0.8	200	190	15°	385

Mounting Parts

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

[PJE](#)

[PJH](#)

PJP

PJQ

PDA

PDR

PTS

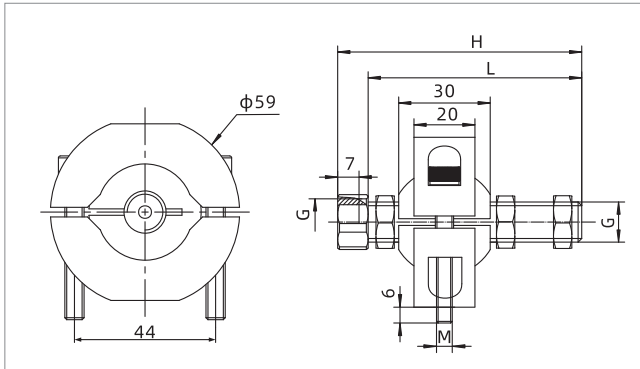
PTK

# PJH Series

## Universal Mounting Parts-Flexible Joint



### Dimensions(mm)



PJH-2□□

Model/Size	G	M	H	L	Setting angle	Weight g
PJH-2A80	G1/4	2-M6×1	80	70	15°	216
PJH-2A100	G1/4	2-M6×1	100	90	15°	222.5
PJH-2A140	G1/4	2-M6×1	140	130	15°	237
PJH-2A200	G1/4	2-M6×1	200	190	15°	257.5
PJH-2B80	G3/8	2-M6×1	80	70	15°	192.5
PJH-2B100	G3/8	2-M6×1	100	90	15°	203.5
PJH-2B140	G3/8	2-M6×1	140	130	15°	239.5
PJH-2B200	G3/8	2-M6×1	200	190	15°	286.5

# PJP Series

## Universal One-touch Fitting



UNIVERSAL

### Features

- ◇ Copper alloy body, suitable for harsh environment, long lifetime
- ◇ Work as connecting components in vacuum system
- ◇ Various types to be selected



### How to order

**PJP - I - A4 - M5M**

① Series	② Hose direction	③ Hose specification	④ Connection thread	
PJP	I - Straight	A4 - $\phi 4$ hose	M5M - M5x0.8 male thread	
	L - Elbow	A6 - $\phi 6$ hose	G1M - G1/8 male thread	
	LT - Universal male elbow	A8 - $\phi 8$ hose	G2M - G1/4 male thread	
	T - Male branch T	A10 - $\phi 10$ hose	G3M - G3/8 male thread	
	QT - Union T		A12 - $\phi 12$ hose	G4M - G1/2 male thread
			A14 - $\phi 14$ hose	

### Selection

Model/Type Straight	Elbow		Universal male elbow	Male branch T	Union T	
PJP-I-A4-M5M	PJP-I-A8-G3M	PJP-L-A4-M5M	PJP-L-A12-G2M	PJP-LT-A4-M5M	PJP-T-A4-M5M	PJP-QT-A4
PJP-I-A4-G1M	PJP-I-A10-G3M	PJP-L-A4-G1M	PJP-L-A8-G3M	PJP-LT-A6-G1M	PJP-T-A4-G1M	PJP-QT-A6
PJP-I-A6-G1M	PJP-I-A12-G3M	PJP-L-A6-G1M	PJP-L-A10-G3M	PJP-LT-A8-G2M	PJP-T-A6-G1M	PJP-QT-A8
PJP-I-A8-G1M	PJP-I-A14-G3M	PJP-L-A8-G1M	PJP-L-A12-G3M		PJP-T-A8-G1M	PJP-QT-A10
PJP-I-A6-G2M	PJP-I-A10-G4M	PJP-L-A4-G2M	PJP-L-A10-G4M		PJP-T-A6-G2M	PJP-QT-A12
PJP-I-A8-G2M	PJP-I-A12-G4M	PJP-L-A6-G2M	PJP-L-A12-G4M		PJP-T-A8-G2M	PJP-QT-A14
PJP-I-A10-G2M	PJP-I-A14-G4M	PJP-L-A8-G2M			PJP-T-A10-G2M	
PJP-I-A12-G2M		PJP-L-A10-G2M			PJP-T-A12-G2M	

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

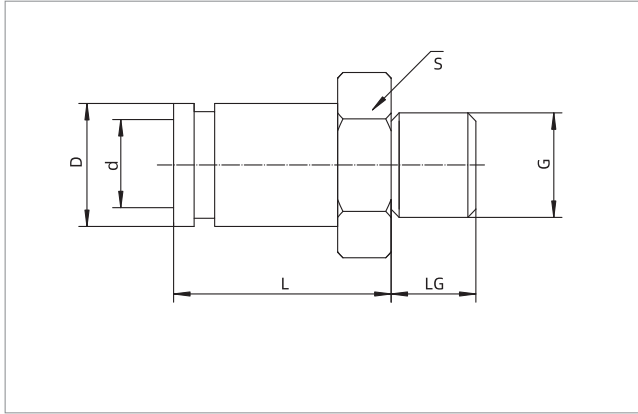
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# PJP Series

## Universal One-touch Fitting

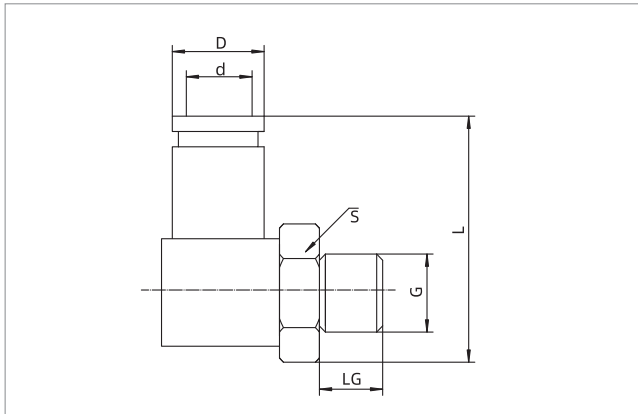


### Dimensions(mm)



PJP-I-A8-□

Model/Size	d	D	L	LG	G	S
PJP-I-A4-M5M	4	9	16	5	M5	9
PJP-I-A4-G1M	4	9	12	7	G1/8	10
PJP-I-A6-G1M	6	12	17	7	G1/8	12
PJP-I-A8-G1M	8	14	22	7	G1/8	14
PJP-I-A6-G2M	6	12	13	9	G1/4	14
PJP-I-A8-G2M	8	14	20	7	G1/4	14
PJP-I-A10-G2M	10	16	24	9	G1/4	16
PJP-I-A12-G2M	12	18	21	9	G1/4	19
PJP-I-A8-G3M	8	14	13	10	G3/8	17
PJP-I-A10-G3M	10	16	20	10	G3/8	17
PJP-I-A12-G3M	12	18	20	10	G3/8	19
PJP-I-A14-G3M	14	20	20	10	G3/8	21
PJP-I-A10-G4M	10	16	13	12	G1/2	21
PJP-I-A12-G4M	12	18	20	12	G1/2	21
PJP-I-A14-G4M	14	20	20	12	G1/2	21



PJP-L-A8-□

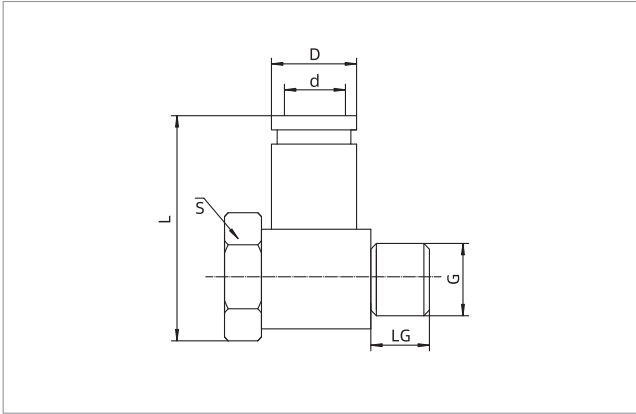
Model/Size	d	D	L	LG	G	S
PJP-L-A4-M5M	4	9	24	5	M5	10
PJP-L-A4-G1M	4	9	24	7	G1/8	10
PJP-L-A6-G1M	6	12	28.5	7	G1/8	10
PJP-L-A8-G1M	8	14	32	7	G1/8	12
PJP-L-A4-G2M	4	9	26	9	G1/4	14
PJP-L-A6-G2M	6	12	30.5	9	G1/4	14
PJP-L-A8-G2M	8	14	33	9	G1/4	14
PJP-L-A10-G2M	10	16	36	9	G1/4	14
PJP-L-A12-G2M	12	18	39	9	G1/4	16
PJP-L-A8-G3M	8	14	34.5	10	G3/8	17
PJP-L-A10-G3M	10	16	36.5	10	G3/8	17
PJP-L-A12-G3M	12	18	37.5	10	G3/8	17
PJP-L-A10-G4M	10	16	39.5	12	G1/2	21
PJP-L-A12-G4M	12	18	41.5	12	G1/2	21

# PJP Series

## Universal One-touch Fitting

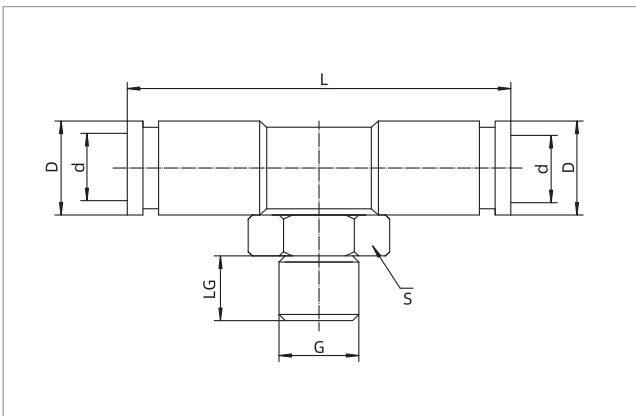


### Dimensions(mm)



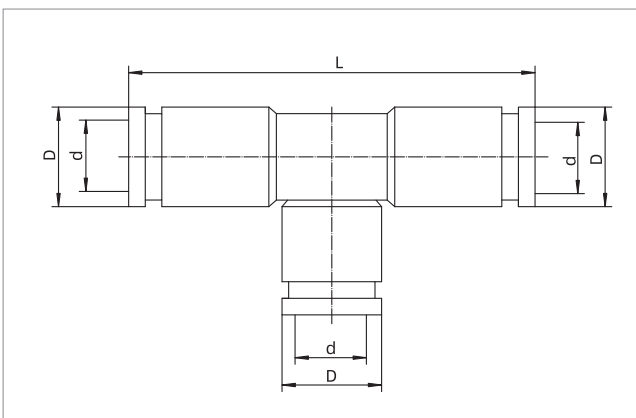
PJP-LT-A8-□

Model/Size	d	D	L	LG	G	S
PJP-LT-A4-M5M	4	9	24	5	M5	8
PJP-LT-A6-G1M	6	12	31	7	G1/8	12
PJP-LT-A8-G2M	8	14	34	9	G1/4	14



PJP-T-A8-□

Model/Size	d	D	L	LG	G	S
PJP-T-A4-M5M	4	9	37	5	M5	10
PJP-T-A4-G1M	4	9	37	5	G1/8	10
PJP-T-A6-G1M	6	12	48	7	G1/8	10
PJP-T-A8-G1M	8	14	53	7	G1/8	12
PJP-T-A6-G2M	6	12	48	9	G1/4	14
PJP-T-A8-G2M	8	14	53	9	G1/4	14
PJP-T-A10-G2M	10	16	59	9	G1/4	14
PJP-T-A12-G2M	12	18	53	9	G1/4	17



PJP-QT-□

Model/Size	d	D	L
PJP-QT-A4	4	9	38
PJP-QT-A6	6	12	46
PJP-QT-A8	8	14	50
PJP-QT-A10	10	16	60
PJP-QT-A12	12	18	60
PJP-QT-A14	14	20	62

Mounting Parts

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

**PJP**

PJQ

PDA

PDR

PTS

PTK

# PJQ Series

## Universal Pagoda Fitting

**AIRBEST**



UNIVERSAL

### Features

- ◇ Made of all metal, suitable for harsh environment and long lifetime
- ◇ can be used with standard hose and steel hose on the market
- ◇ Various types to be selected



### How to order

PJQ - B6 - M5M  
 ①            ②            ③

① Series	② Hose diameter	③ Connection thread
PJQ	B6 - $\phi$ 6	M5M - M5x0.8 male thread
	B8 - $\phi$ 8	G1M - G1/8 male thread
	B10 - $\phi$ 10	G2M - G1/4 male thread
	B12 - $\phi$ 12	G3M - G3/8 male thread
	B19 - $\phi$ 19	G4M - G1/2 male thread
	B25 - $\phi$ 25	G6M - G3/4 male thread
	B32 - $\phi$ 32	G8M - G1 male thread

### Selection

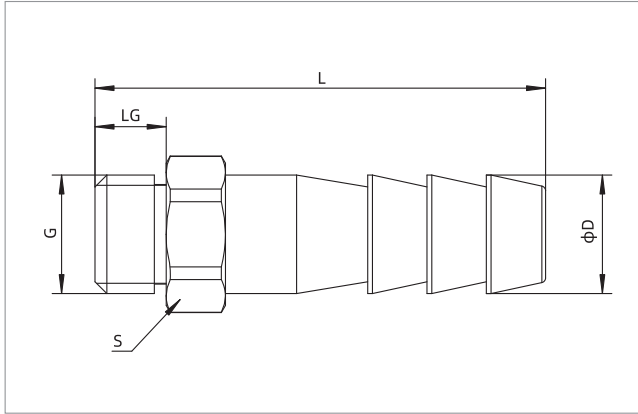
Model/Type		
PJQ-B6-M5M	PJQ-B12-G3M	PJQ-B25-G6M
PJQ-B8-G1M	PJQ-B19-G4M	PJQ-B25-G8M
PJQ-B10-G2M	PJQ-B19-G6M	PJQ-B32-G8M

# PJQ Series

## Universal Pagoda Fitting



### Dimensions(mm)



PJQ-□-□

Model/Size	G	LG	L	D	S
PJQ-B6-M5M	M5	3	19	5	6
PJQ-B8-G1M	G1/8	8	34	6.5	14
PJQ-B10-G2M	G1/4	10	42	8	17
PJQ-B12-G3M	G3/8	10	43	9	19
PJQ-B19-G4M	G1/2	10	58	19	24
PJQ-B19-G6M	G3/4	12	60	19	32
PJQ-B25-G6M	G3/4	12	60	25	32
PJQ-B25-G8M	G1	15	63	25	36
PJQ-B32-G8M	G1	15	63	32	36

Mounting Parts

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

**PJQ**

PDA

PDR

PTS

PTK

# PDA Series

## Universal Block Plug



UNIVERSAL

### Features

- ◇ Copper alloy body, suitable for harsh environment, long lifetime
- ◇ Suitable for various working conditions in vacuum industry
- ◇ Various types to be selected



### How to order

**PDA - I - M5M**

①      ②      ③

① Series	② Sealing specification	③ Connection thread
<b>PDA</b>	I - Countersunk head sealing L - Horizontal sealing	M5M - M5x0.8 male thread G1M - G1/8 male thread G2M - G1/4 male thread G3M - G3/8 male thread G4M - G1/2 male thread

### Selection

Model/Type Countersunk head sealing	Horizontal sealing
PDA-I-M5M	PDA-L-M5M
PDA-I-G1M	PDA-L-G1M
PDA-I-G2M	PDA-L-G2M
PDA-I-G3M	PDA-L-G3M
PDA-I-G4M	PDA-L-G4M

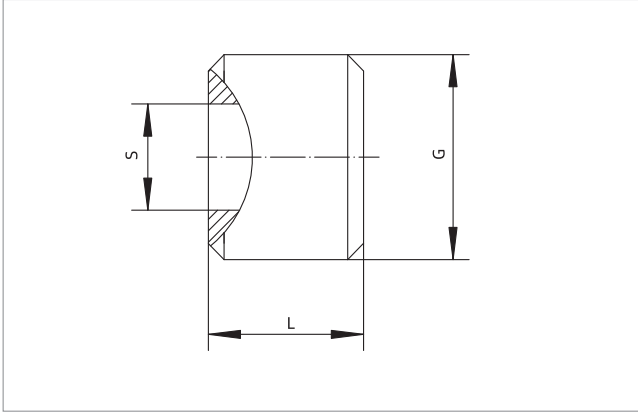


# PDA Series

## Universal Block Plug

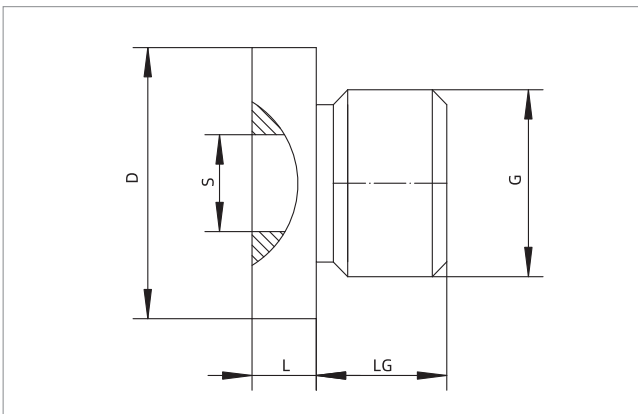


### Dimensions(mm)



PDA-I-□

Model/Size	G	L	S
PDA-I-M5M	M5	5	2.5
PDA-I-G1M	G1/8	6	4
PDA-I-G2M	G1/4	9	6
PDA-I-G3M	G3/8	10	8
PDA-I-G4M	G1/2	12	10



PDA-L-□

Model/Size	D	L	LG	G	S
PDA-L-M5M	8	2	3.9	M5	2.5
PDA-L-G1M	14	3.5	5.5	G1/8	4
PDA-L-G2M	18	4.5	7.5	G1/4	6
PDA-L-G3M	22	4.5	7.5	G3/8	8
PDA-L-G4M	27	5	14	G1/2	10

Mounting Parts

- PSPE
- PSPL
- PSPT
- PSPH
- PSPD
- PSPF
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP
- PJQ
- PDA**
- PDR
- PTS
- PTK

# PDR Series

## Positive Pressure/Vacuum Shunt



UNIVERSAL

### Features

- ◇ One vacuum generator can be connected to multiple suction cups through the shunt
- ◇ The compressed air is supplied to multiple vacuum generators through the shunt

### Advantages

- ◇ Large diameter inlet and outlet are optional
- ◇ Low flow resistance
- ◇ Solution of hose diversion



### How to order

**PDR - G2F - 5 - G1F**  
 ①            ②            ③            ④

① series	② Connection thread	③ Branching port quantity	④ Branching port connection thread
PDR	G2F - G1/4 female	5-5 branching ports	G1F - G1/8 female
	G3F - G3/8 female	9-9 branching ports	G2F - G1/4 female

### Selection

	5 branching ports	9 branching ports
Main port G1/4	PDR-G2F-5-G1F	PDR-G2F-9-G1F
Main port G3/8	PDR-G3F-5-G2F	PDR-G3F-9-G2F

### Selection

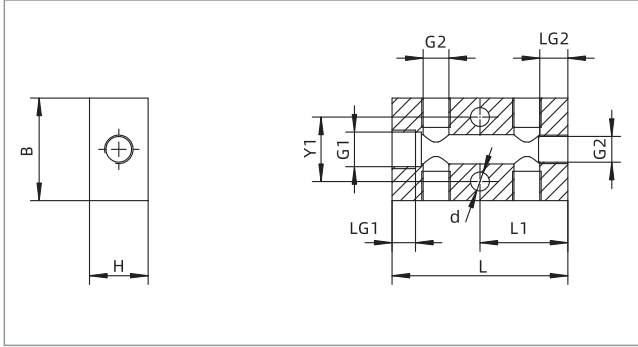
Model	Branching port connection thread	weight(g)
PDR-G2F-5-G1F	5 x G1/8 female	90
PDR-G3F-5-G2F	5 x G1/4 female	110
PDR-G2F-9-G1F	9 x G1/8 female	120
PDR-G3F-9-G2F	9 x G1/4 female	240

# PDR Series

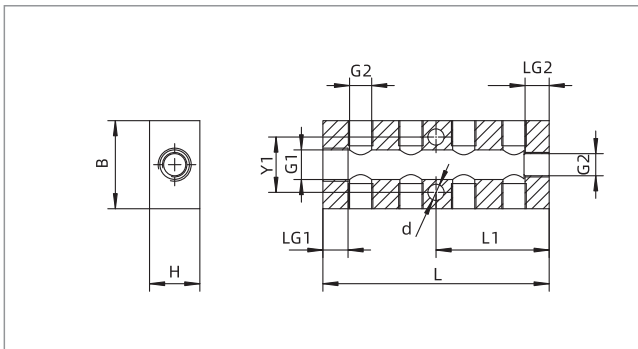
## Positive Pressure/Vacuum Shunt



### Dimensions(mm)



5 branching ports



9 branching ports

Model/Size	B	d	G1	G2	H	L	L1	LG1	LG2	Y1
PDR-G2F-5-G1F	35	6.5	G1/4	G1/8	20	60	30	10	9	22
PDR-G3F-5-G2F	40	6.5	G3/8	G1/4	25	72	36	13	11	27

Model/Size	B	d	G1	G2	H	L	L1	LG1	LG2	Y1
PDR-G2F-9-G1F	35	6.5	G1/4	G1/8	20	90	45	13	9	22
PDR-G3F-9-G2F	40	6.5	G3/8	G1/4	25	116	58	13	11	27

### Mounting Parts

- PSPE
- PSPL
- PSPT
- PSPH
- PSPD
- PSPF
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP
- PJQ
- PDA
- PDR**
- PTS
- PTK

# PTS Series

## PVC Transparent Stainless Steel Hose

AIRBEST



UNIVERSAL

### Features

- ◇ The spiral high elastic steel wire is implanted into the hose wall, which makes the product has high axial strength. The inner and outer walls of the product are smooth and can withstand high pressure and vacuum compression. The product has good chemical resistance, acid resistance and alkali resistance



### Applications

- ◇ Usually used as suction and delivery hoses, such as solid powder, debris, particles, gas, liquid and so on

### How to order

PTS - D19 - 2  
①            ②            ③

① Series	② Specification	③ Length
PTS	D19, D25, D32, D40, D45, D50, D60, D65, D70, D75	2, 5, 10, 20m

### Technical parameters

Model	Operating pressure range bar	Inner diameter mm	Outer diameter mm	Bending radius(Hose center line) mm	Weight kg/m
PTS-D19-□	0.2~7.0	19	25	100	0.32
PTS-D25-□	0.2~7.0	25	32	128	0.50
PTS-D32-□	0.2~7.0	32	41	164	0.65
PTS-D40-□	0.2~7.0	40	50	200	0.87
PTS-D45-□	0.2~7.0	45	55	220	1.1
PTS-D50-□	0.2~7.0	50	60	256	1.24
PTS-D60-□	0.2~7.0	60	72	288	1.7
PTS-D65-□	0.2~7.0	65	77	308	1.86
PTS-D70-□	0.2~7.0	70	83	332	2.0
PTS-D75-□	0.2~7.0	75	89	356	2.15

# PTK Series

## Stainless Steel Hose Clamp



UNIVERSAL

### Features

- ◇ It is made of high quality stainless steel with through-hole technology. It has the advantages of firm and tight locking, large adjustment range, good torsion resistance and wear resistance

### Applications

- ◇ Suitable for all kinds of soft and hard tubes connection and fastening with the advantages of locking firmly, beautiful and durable installation



### How to order

PTK - 18-32  
①                      ②

① Series	② Specification
PTK	18-32, 21-38, 21-44, 27-51, 33-57, 40-64, 44-67, 46-70, 52-76

### Technical parameters

Model	Width(mm)	Thickness(mm)	Applicable tube dia.(OD) mm	MOQ(pcs)
PTK-18-32	12	0.68	18~32	100
PTK-21-38	12	0.68	21~38	100
PTK-21-44	12	0.68	21~44	100
PTK-27-51	12	0.68	27~51	100
PTK-33-57	12	0.68	33~57	100
PTK-40-64	12	0.68	40~64	100
PTK-44-67	12	0.68	44~67	100
PTK-46-70	12	0.68	46~70	100
PTK-52-76	12	0.68	52~76	100

PSPE

PSPL

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

[PTS](#)

[PTK](#)



## **G** Vacuum Accessories

# Vacuum Accessories

## Products overview



### Vacuum Accessories

#### 424 ZFA Series

##### Universal Vacuum Filter

- ◇ Nominal flow: 40-370NL/min
- ◇ Removal efficiency: 5µm



#### 433 ZFP Series

##### Large-Flow Vacuum Filter

- ◇ Nominal flow: 32-300m<sup>3</sup>/h
- ◇ Removal efficiency: 10µm



#### 427 ZFE Series

##### Universal Vacuum Filter

- ◇ Nominal flow: 2-10NL/min
- ◇ Removal efficiency: 10µm



#### 435 ZVAB Series

##### Pneumatic Control Valve

- ◇ Pressure range: 1.5-8.0bar
- ◇ Control mode: Pneumatic control - NO NC



#### 429 ZFD Series

##### Mini Type Vacuum Filter

- ◇ Nominal flow: 27-49NL/min
- ◇ Removal efficiency: 10µm



#### 436 ZVAC Series

##### Pneumatic Control Valve

- ◇ Pressure range: 1.0-8.0bar
- ◇ Control mode: Pneumatic control - NO



#### 430 ZFB Series

##### Universal Vacuum Filter

- ◇ Nominal flow: 150-510NL/min
- ◇ Removal efficiency: 10µm



#### 437 ZVAA Series

##### Pneumatic Control Valve

- ◇ Pressure range: 3.5-7.0bar
- ◇ Control mode: Pneumatic control - NO



#### 432 ZFL Series

##### Inline Vacuum Filter

- ◇ Nominal flow: 25-220NL/min
- ◇ Removal efficiency: 20-25µm



#### 438 ZVEA Series

##### Electric Control Valve

- ◇ Pressure range: 3.5-7.0bar
- ◇ Control mode: Electric Control - NC



# Vacuum Accessories

## Products overview

### Vacuum Accessories

#### 439 ZVR Series

##### Check Valve

- ◇ Max. blow-off flow: 80-790NL/min
- ◇ Connection thread: M5-G1/2



UNIVERSAL



#### 445 ZVS Series

##### Fast Blow-off Valve

- ◇ Max. blow-off flow: 160NL/min
- ◇ Connection thread: G1/8 G1/4



UNIVERSAL



#### 440 ZVRM Series

##### Check Valve

- ◇ Min. action flow: 2-16NL/min
- ◇ Connection thread: M5 G1/8



UNIVERSAL



#### 447 ZPDT Series

##### High-precision Digital Pressure Switch

- ◇ Pressure range: -100.0~100.0kPa
- ◇ Output type: 1NPN+1Analog voltage output  
1PNP+1Analog voltage output



UNIVERSAL



#### 442 ZVCM Series

##### Non-return Valve

- ◇ Pressure range: -100~0kPa
- ◇ Connection thread: M5 G1/8



UNIVERSAL



#### 451 ZPDE Series

##### High-precision Digital Pressure Switch

- ◇ Pressure range: -100.0~100.0kPa
- ◇ Output type: 1NPN output



UNIVERSAL



#### 443 ZVD Series

##### Contact Inductive Valve

- ◇ Connection thread: G1/2 G1/4



UNIVERSAL



#### 455 ZPMR Series

##### Mechanical Pressure Gauge

- ◇ Pressure range: P type 0-1MPa
- ◇ Pressure range: V type -100-0kPa



UNIVERSAL



#### 444 ZVT Series

##### Throttle Valve

- ◇ Overflow port dia.: 0.25-2.0mm
- ◇ Connection thread: G1/8 G1/4



UNIVERSAL



#### 456 ZSA Series

##### Silencer

- ◇ Connection thread: G1/8 G1/4 G3/8  
G1/2 G3/4 G1"



UNIVERSAL





# ZFA Series

## Universal Vacuum Filter

**AIRBEST**



UNIVERSAL



### Features

- ◇ Straight through design, one-touch fitting, with bracket, easy to mount
- ◇ Small size and light weight
- ◇ Filter elements could be replaced
- ◇ Suitable for vacuum and positive pressure systems with light or medium pollution level



Vacuum Accessories

### How to order

**ZFA 5 4 B**  
 ① ② ③ ④

① Series	② Filter area	③ Hose diameter	④ Bracket
ZFA	5 - Filter area 790mm <sup>2</sup> 7 - Filter area 1,280mm <sup>2</sup>	4 - $\phi$ 4 hose 6 - $\phi$ 6 hose 8 - $\phi$ 8 hose 10 - $\phi$ 10 hose 12 - $\phi$ 12 hose	B - Default, with bracket

### Selection

Model/Hose diameter 4 - $\phi$ 4hose	6 - $\phi$ 6hose	8 - $\phi$ 8hose	10 - $\phi$ 10hose	12 - $\phi$ 12hose
ZFA54B	ZFA56B	-	-	-
-	ZFA76B	ZFA78B	ZFA710B	ZFA712B

### Technical parameters

Model	Hose diameter mm	Fluid	Rated operating pressure range MPa	Max. pressure resistance MPa	Positive pressure flow NL/min	Vacuum flow NL/min	Removal efficiency $\mu$ m	Operating temperature $^{\circ}$ C	Weight g
ZFA54B	$\phi$ 4	Air,Nitrogen	-0.1~0.8	1.0	40	10	5	0~60	14
ZFA56B	$\phi$ 6	Air,Nitrogen	-0.1~0.8	1.0	130	75	5	0~60	13
ZFA76B	$\phi$ 6	Air,Nitrogen	-0.1~0.8	1.0	140	80	5	0~60	24
ZFA78B	$\phi$ 8	Air,Nitrogen	-0.1~0.8	1.0	280	110	5	0~60	24
ZFA710B	$\phi$ 10	Air,Nitrogen	-0.1~0.8	1.0	320	120	5	0~60	30
ZFA712B	$\phi$ 12	Air,Nitrogen	-0.1~0.8	1.0	370	140	5	0~60	31

◇ Note: Positive pressure flow is tested at air supply pressure 0.1MPa

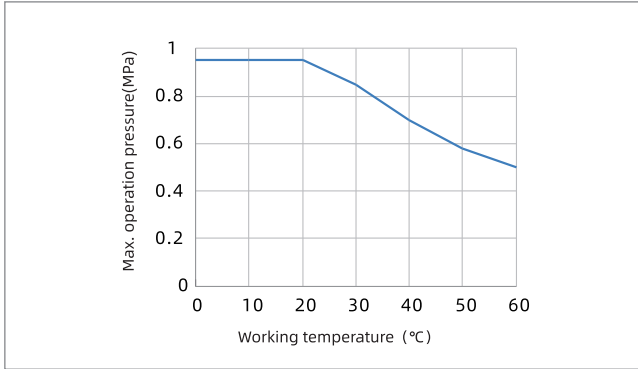
ZFA  
ZFE  
ZFD  
ZFB  
ZFL  
ZFP  
ZVAB  
ZVAC  
ZVAA  
ZVEA  
ZVR  
ZVRM  
ZVCM  
ZVD  
ZVT  
ZVS  
ZPDT  
ZPDE  
ZPMR  
ZSA

# ZFA Series

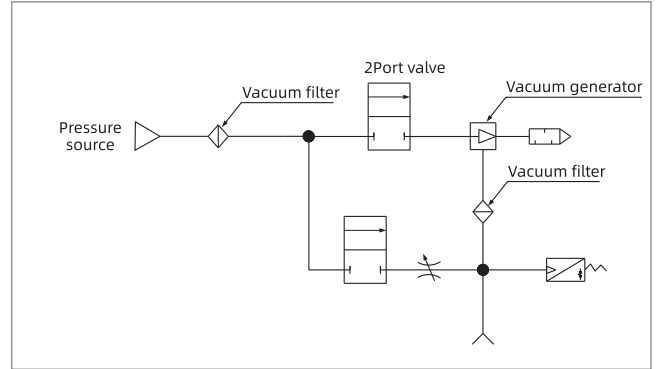
## Universal Vacuum Filter



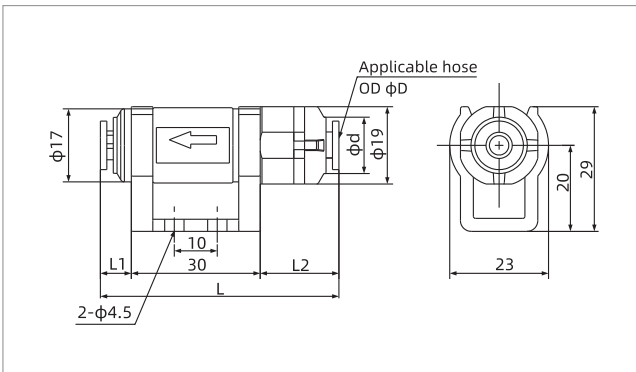
### Max. operating pressure and temperature



### Application diagram

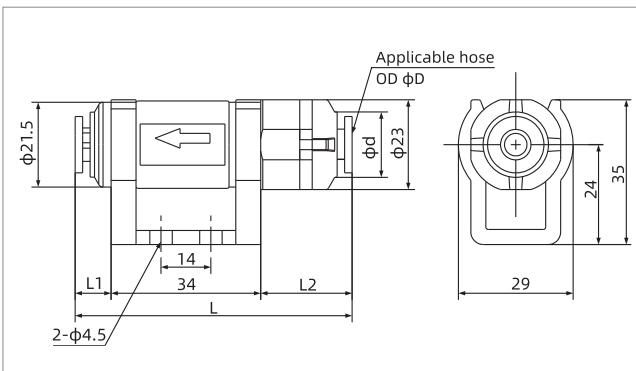


### Dimensions (mm)



ZFA5□B

Model/Size	L	L1	D	d
ZFA54B	55.5	8	4	13
ZFA56B	55.5	8	6	13



ZFA7□B

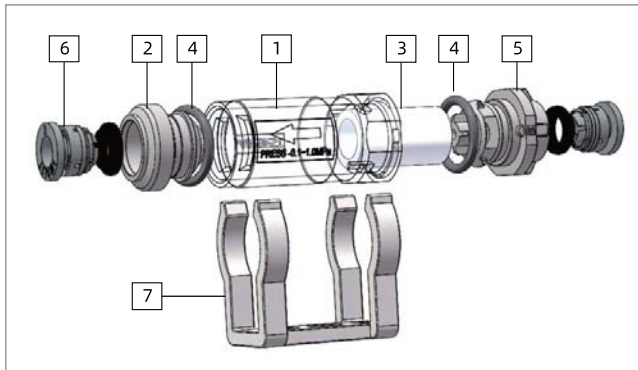
Model/Size	L	L1	D	d
ZFA76B	67	10.5	6	15.5
ZFA78B	69.5	12	8	16
ZFA710B	78.5	17	10	19.5
ZFA712B	78.5	17	12	21

# ZFA Series

## Universal Vacuum Filter



### Structural diagram



NO.	Item	Material	Q'ty
1	Housing	PC	1
2	Rear cap	PBT	1
3	Filter element	PE	1
4	O-ring	NBR	2
5	Front cap	PBT	1
6	One-touch fitting	-	2
7	Bracket	PBT	1

### Repair kits



Item	Model	Dimension	Applicable vacuum filter
Tool	ZFA5-SP	-	ZFA54, 56
	ZFA7-SP	-	ZFA76, 78, 710, 712
Filter element	ZFA5-FE	8×12×L20	ZFA54, 56
	ZFA7-FE	12×16×L25	ZFA76, 78, 710, 712

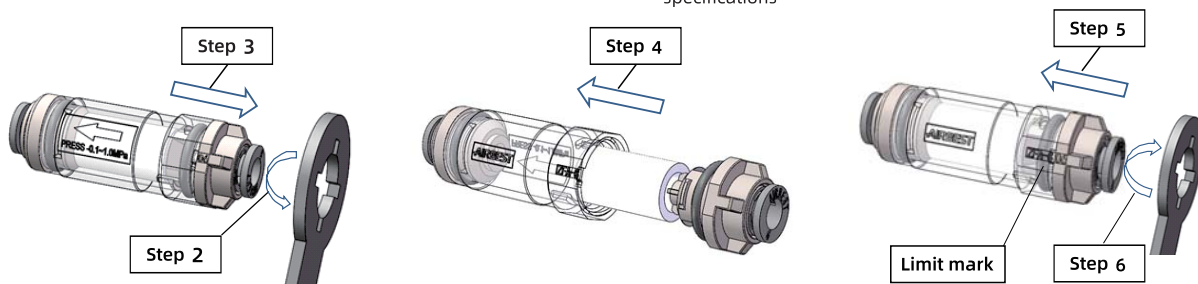
◇ Note: The minimum packing quantity of filter element is 10pcs/bag.

### Filter element replacement

1. Stop supplying air and reduce the pressure in the vacuum filter to atmospheric pressure
2. Put tool on the front cap and turn it 90° anti-clockwise
3. Pull out the front cap, remove the filter element, and if there is dust inside the housing, clean it with an air gun (make sure that it does not damage the O-ring)
4. Install new filter element on the front cap and insert it into the housing.
5. Align the side without number of front cap at the limit mark, and push it until touching the housing
6. Rotate clockwise with the tool until it stops (align the number at the limit mark)

#### Cautions:

1. When connecting the hose, check the arrow indicating the flow direction. If reverse connecting, airtightness of the filter element cannot be ensured
2. In one air line, positive and negative pressure should not be used at the same time
3. Please make sure not to damage the O-ring during assembling and disassembling. And please confirm that there is no air leakage after the filter element is replaced
4. The vacuum filter and hose shall not withstand external force such as torsion, pull, load, vibration, impact, etc., and external force may cause danger at high positive pressure
5. There is anti-rotating structure at the limit mark. After replacing the filter element, please confirm the position of the limit mark
6. Please use vacuum filter at rated working pressure
7. Compressed air operation may cause danger. Therefore, filter replacement and other maintenance should be operated by a person who has sufficient knowledge and experience in air mechanics while complying with product specifications



# ZFE Series

## Small Vacuum Filter



UNIVERSAL

### Features

- ◇ Straight through design, one-touch fitting, with bracket, easy to mount
- ◇ Small size and light weight
- ◇ Transparent housing, easy to indicate the degree of contamination
- ◇ Filter element could be replaced
- ◇ Suitable for vacuum system with light and medium pollution level



### How to order

ZFE - 04 B

①                      ②                      ③

① Series	② Hose diameter	③ Bracket
ZFE	02 - $\phi$ 2hose 03 - $\phi$ 3.2hose 04 - $\phi$ 4hose	B - Default, with bracket

### Selection

Model/Hose diameter 02 - $\phi$ 2hose	03 - $\phi$ 3.2hose	04 - $\phi$ 4hose
ZFE-02B	ZFE-03B	ZFE-04B

### Technical parameters

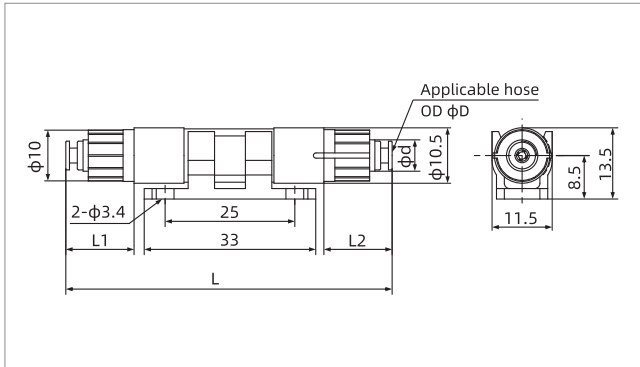
Model	Applicable hose dia. mm	Fluid	Rated operating pressure range kPa	Max. pressure difference bar	Nominal flow NL/min	Removal efficiency $\mu$ m	Working temperature $^{\circ}$ C	Applicable hose material	Weight g
ZFE-02B	$\phi$ 2	Air	-100~0	1.5	2	10	0~60	Nylon,PU	6
ZFE-03B	$\phi$ 3.2	Air	-100~0	1.5	7	10	0~60	Nylon,PU	6
ZFE-04B	$\phi$ 4	Air	-100~0	1.5	10	10	0~60	Nylon,PU	6

# ZFE Series

## Small Vacuum Filter



### Dimensions (mm)



ZFE-□B

Model/Size	L	L1	L2	D	d
ZFE-02B	59.5	13	13	2	6
ZFE-03B	59.5	11.5	11.5	3.2	-
ZFE-04B	59.5	12.8	12.8	4	-

### Repair kits



Item	Model	Size	Applicable vacuum filter
Filter element	ZFE-FE	6×4×L25.3	ZFE-02、-03、-04

◇ Note: The minimum packing quantity of filter element is 10pcs/bag

Vacuum Accessories

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

# ZFD Series

## Mini Type Vacuum Filter



UNIVERSAL

### Features

- ◇ Filter dust and other particles from the vacuum port
- ◇ Transparent housing, easy to check the degree of contamination
- ◇ Directly connect to vacuum port of vacuum generator, eg. AZR series
- ◇ Pipe type design, connect to hose directly
- ◇ Compact structure and small size, light weight, economy and environmental protection



### How to order

## ZFD 06

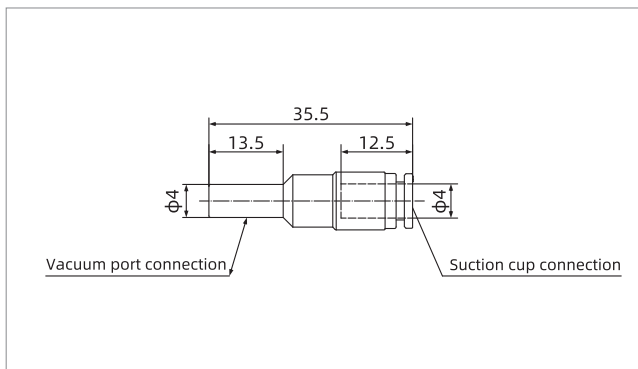
① ②

① Series	② Connection specification
ZFD	04 - $\phi 4$ hose 06 - $\phi 6$ hose

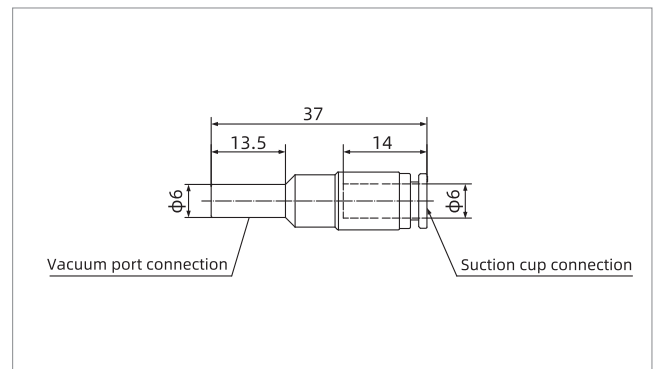
### Technical parameters

Model	Rated operating pressure range kPa	Material	Nominal flow NL/min	Removal efficiency $\mu\text{m}$	Working temperature $^{\circ}\text{C}$	Weight g
ZFD04	-100~0	PP、PE	27	10	0~60	1.5
ZFD06	-100~0	PP、PE	49	10	0~60	2.5

### Dimensions (mm)



ZFD04



ZFD06

# ZFB Series

## Universal Vacuum Filter



UNIVERSAL

### Features

- ◇ Filter dust and other particles from the vacuum port
- ◇ Transparent housing, easy to check the degree of contamination
- ◇ Filter elements could be replaced
- ◇ Different nominal flow for option
- ◇ Suitable for vacuum system with light and medium pollution level
- ◇ Could be used for as prefilter, it can effectively filter dust with different degrees



### How to order

**ZFB 15 B**  
①      ②      ③

① Series	② Connection thread	③ Bracket
ZFB	10 - G3/8 female thread 15 - G1/2 female thread 20 - G3/4 female thread 25 - G1" female thread 40 - G1"1/2 female thread	B - Default, with bracket

### Selection

Model/Connection thread		20 - G3/4	25 - G1"	40 - G1"1/2
10 - G3/8	15 - G1/2			
ZFB10B	ZFB15B	ZFB20B	ZFB25B	ZFB40B

### Technical parameters

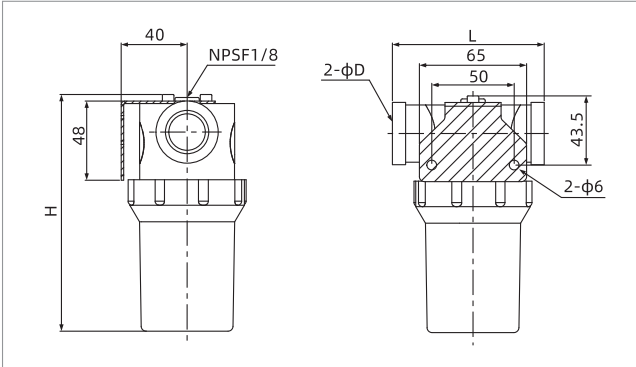
Model	Rated operating pressure range kPa	Material	Nominal flow NL/min	Internal volume cm <sup>3</sup>	Filter area m <sup>2</sup>	Removal efficiency μm	Working temperature °C	Weight g
ZFB10B	-100~0	PA, PC, PE	150	45	0.003	10	-20~80	70
ZFB15B	-100~0	PA, PC, PE	900	195	0.010	10	-20~80	168
ZFB20B	-100~0	PA, PC, PE	900	205	0.010	10	-20~80	170
ZFB25B	-100~0	PA, PC, PE	2,520	495	0.019	10	-20~80	424
ZFB40B	-100~0	PA, PC, PE	5,100	675	0.023	10	-20~80	550

# ZFB Series

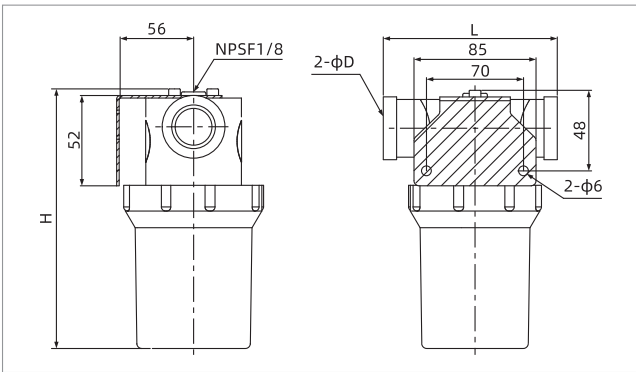
## Universal Vacuum Filter



### Dimensions (mm)



ZFB10(15-20)B



ZFB25B ZFB40B

Model/Size	H	L	D
ZFB10B	74.5	76.5	2-G3/8
ZFB15B	134.5	91.5	2-G1/2
ZFB20B	143.5	92	2-G3/4

Model/Size	H	L	D
ZFB25B	169.5	127	2-G1"
ZFB40B	212.5	127	2-G1"1/2

### Repair kits



Item	Model	Size	Applicable vacuum filter
Filter element	ZFB10-FE	15×26×L35	ZFB10
	ZFB20-FE	27.5×39×L90	ZFB15、20
	ZFB25-FE	45×57×L104	ZFB25
	ZFB40-FE	45×57×L136	ZFB40

◇ Note: The minimum packing quantity of filter element is 10pcs/bag



# ZFL Series

## Inline Vacuum Filter



UNIVERSAL

### Features

- ◇ Filter dust and other small particles from the vacuum port
- ◇ Transparent housing, easy to indicate degree of contamination
- ◇ It can be connected directly to the vacuum port of the vacuum generator, such as ABM and ABX, etc.
- ◇ Compact structure and small size, light weight, economic and environmental protective



### How to order

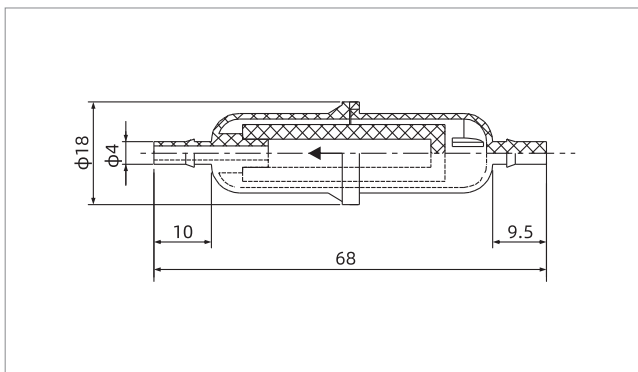
**ZFL 06**  
① ②

① Series	② Port size
ZFL	06 - $\phi 6$ hose(Direct-insert type) 10 - G3/8 male thread

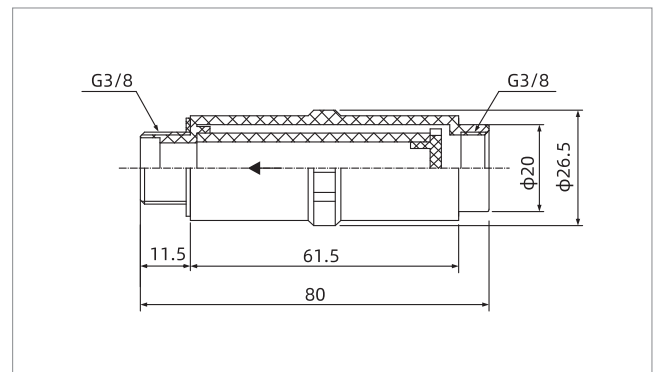
### Technical parameters

Model	Rated operating pressure range kPa	Material	Nominal flow NL/min	Internal volume $\text{cm}^3$	Removal efficiency $\mu\text{m}$	Working temperature $^{\circ}\text{C}$	Weight g
ZFL06	-100~0	PP、PE	25	4	20~25	0~80	3.5
ZFL10	-100~0	PP、PE	220	20	20~25	0~80	13

### Dimensions (mm)



ZFL06



ZFL10

# ZFP Series

## Large-flow Vacuum Filter



UNIVERSAL

### Features

- ◇ It can effectively prevent solid particles or dust from being sucked into the vacuum generator or system, reduce wear, improve operation reliability, extend the lifetime of the vacuum generator, and also effectively protect components of vacuum system (such as vacuum valve, vacuum gauge, etc.)
- ◇ All-steel structure, sturdy and durable, suitable for heavy load requirements of industrial use, adopts seamless tensile metal housing with copper welding joint, which has the advantages of high air tightness, large space for dirt, easy cleaning, easy replacement of filter element, and quick inlet and outlet with threaded connection
- ◇ Various nominal flow rates for option



### How to order

## ZFP 30

① ②

① Series	② Nominal flow
ZFP	30 - 32m <sup>3</sup> /h
	40 - 42m <sup>3</sup> /h
	100 - 100m <sup>3</sup> /h
	120 - 120m <sup>3</sup> /h
	300 - 300m <sup>3</sup> /h

### Selection

Model/Nominal flow 30 - 32m <sup>3</sup> /h	40 - 42m <sup>3</sup> /h	100 - 100m <sup>3</sup> /h	120 - 120m <sup>3</sup> /h	300 - 300m <sup>3</sup> /h
ZFP30	ZFP40	ZFP100	ZFP120	ZFP300

### Technical parameters

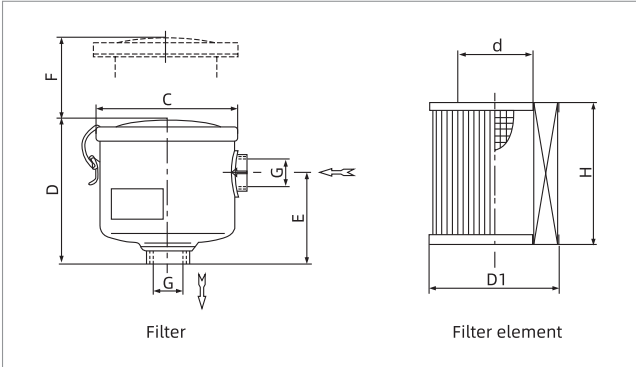
Model	Rated operating pressure range kPa	Body material	Nominal flow m <sup>3</sup> /h	Internal volume cm <sup>3</sup>	Filter area cm <sup>2</sup>	Removal efficiency μm	Working temperature °C	Weight kg
ZFP30	-100~0	Steel	32	45	30	10	-15~90	1
ZFP40	-100~0	Steel	42	195	100	10	-15~90	1
ZFP100	-100~0	Steel	100	205	100	10	-15~90	1.4
ZFP120	-100~0	Steel	120	495	190	10	-15~90	2.3
ZFP300	-100~0	Steel	300	675	230	10	-15~90	6.9

# ZFP Series

## Large-flow Vacuum Filter



### Dimensions (mm)



Model/Size	G	C	D	E	F	D1	d	D
ZFP30	G1/2	101	90	53	70	65	38	69
ZFP40	G3/4	101	90	53	70	65	38	69
ZFP100	G1"1/4	146	110	70	75	98	60	70
ZFP120	G1"1/4	185	170	115	130	128	64	125
ZFP300	G2"	222	258	125	140	150	88	222

ZFP

### Repair kits



Filter element

Item	Model	Applicable vacuum filter
Filter element	ZFP30-FE	ZFP30、40
	ZFP100-FE	ZFP100
	ZFP120-FE	ZFP120
	ZFP300-FE	ZFP300

Vacuum Accessories

ZFA

ZFE

ZFD

ZFB

ZFL

**ZFP**

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

# ZVAB Series

## Pneumatic Control Valve



UNIVERSAL

### Features

- ◇ Converts vacuum signal into pneumatic signal
- ◇ Different vacuum ranges are set by adjusting the screws on the valve
- ◇ There are two different valves for option: normally open valve and normally closed valve



### How to order

## ZVAB - NC

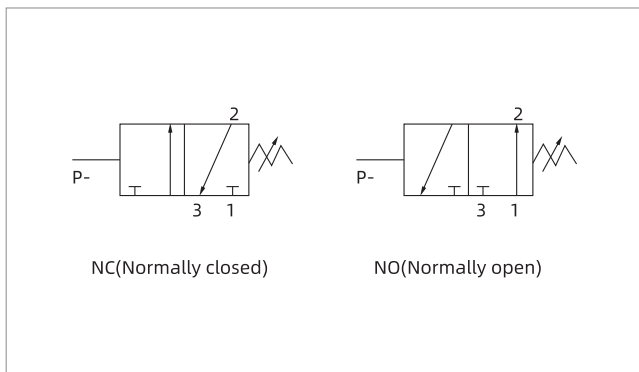
① ②

① Series	② Function	Connection thread
ZVAB	NC - Normally closed NO - Normally open	Default, G1/8 male thread

### Technical parameters

Model	Output function	Air supply pressure bar	Signal range -kPa	Hysteresis -kPa	Working temperature °C	Weight g
ZVAB-NC	NC	1.5~8	15~95	12	-10~60	44
ZVAB-NO	NO	1.5~8	10~95	3	-10~60	44

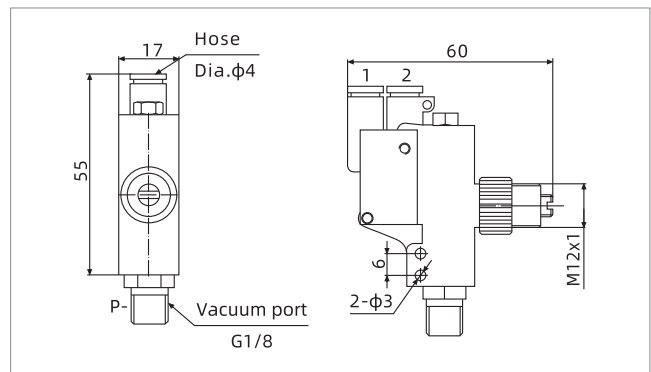
### Symbol



ZVAB-NC

ZVAB-NO

### Dimensions (mm)



ZVAB

# ZVAC Series

## Pneumatic Control Valve



UNIVERSAL

### Features

- ◇ Be used with ZVAB-NC
- ◇ ZVAB-NC provides the air control signal to realize the opening and closing of the control valve and save energy



### How to order

## ZVAC - NO

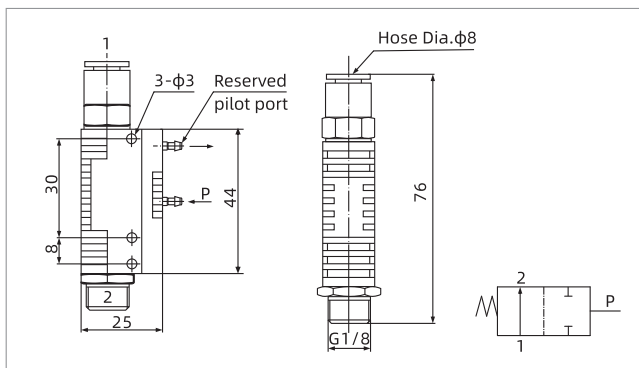
①                      ②

① Series	② Function	Connection thread
ZVAC	NO - Normally open	Default, G1/8 male thread

### Technical parameters

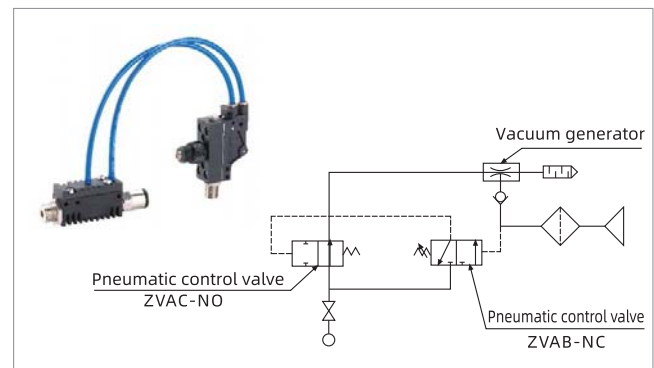
Model	Air supply pressure bar	Control mode	Action mode	Working temperature °C	Weight g
ZVAC-NO	1.0~8.0	Pneumatic control	NO	0~60	55

### Dimensions (mm)



ZVAC-NO

### Energy-saving system



ZVU-ES

# ZVAA Series

## Pneumatic Control Valve



UNIVERSAL

### Features

- ◇ 2 position 2 port reversing valve (normally open) with G1/8 and G1/4 air supply ports returns the air signal through the vacuum switch to realize the air supply opening and closing to save energy
- ◇ The small valve can control high flow compressed air



### How to order

## ZVAA - G1F

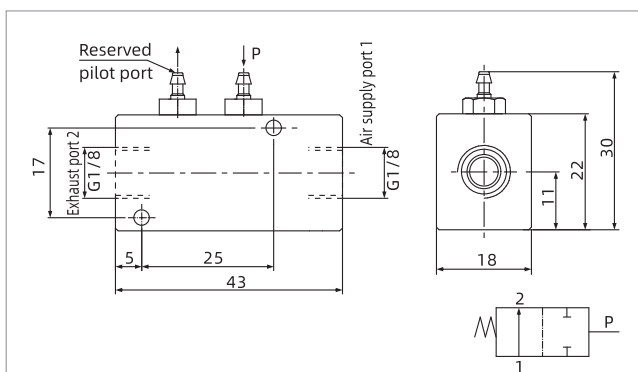
① ②

① Series	② Connection thread
ZVAA	G1F - G1/8 female thread G2F - G1/4 female thread

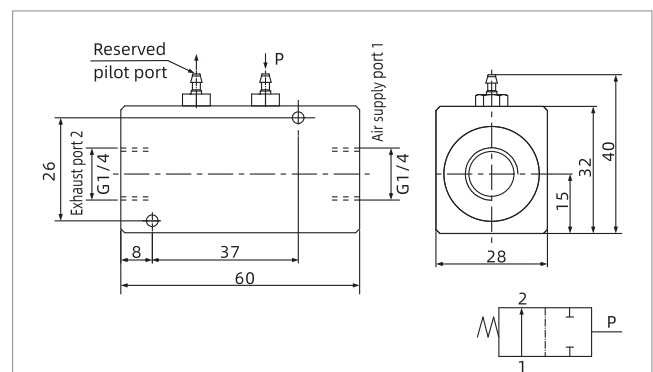
### Technical parameters

Model	Air supply pressure bar	Valve body material	Output function	Working temperature °C	Weight g
ZVAA-G1F	3.5~7.0	Aluminum alloy	NO	0~60	45
ZVAA-G2F	3.5~7.0	Aluminum alloy	NO	0~60	125

### Dimensions (mm)



ZVAA-G1F



ZVAA-G2F

# ZVEA Series

## Electric Control Valve



UNIVERSAL

### Features

- ◇ The small valve (normally closed) can realize remote control of high flow compressed air and can supply compressed air when the current is switched



### How to order

## ZVEA - G1F

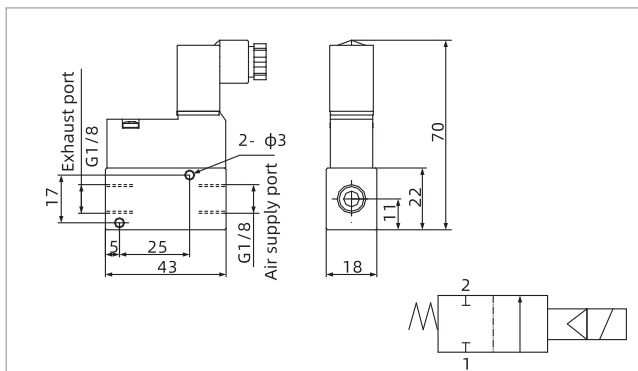
①                      ②

① Series	② Connection thread
ZVEA	G1F - G1/8 female thread G2F - G1/4 female thread

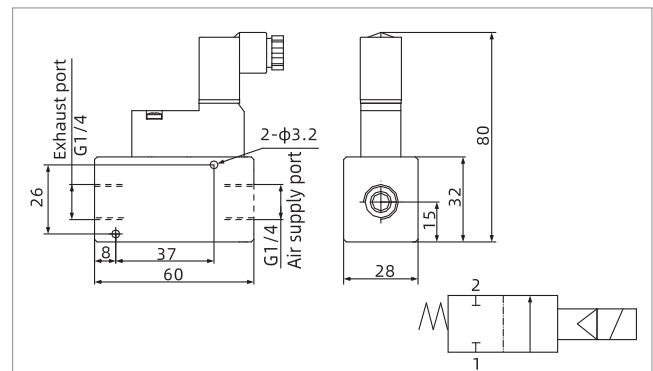
### Technical parameters

Model	Air supply pressure bar	Valve body material	Output function	Operating voltage V	Consumed power W	Working temperature °C	Weight g
ZVEA-G1F	3.5~7.0	Aluminum alloy	NC	DC24	0.85	0~60	84
ZVEA-G2F	3.5~7.0	Aluminum alloy	NC	DC24	0.85	0~60	165

### Dimensions (mm)



ZVEA-G1F



ZVEA-G2F

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

# ZVR Series

## Check Valve



UNIVERSAL

### Features

- ◇ In the process of grabbing the workpiece, it will not affect the whole vacuum system once suction cups failed to adsorb the workpiece or the workpiece falls off suddenly after adsorption
- ◇ In the above case, the suction cups are isolated from vacuum system to make sure that the vacuum level and vacuum flow in the whole vacuum system are maintained. It is specific for repeatedly gripping workpieces with various sizes and shapes in a vacuum system



### How to order

## ZVR 05 - G1M

① ② ③

① Series	② Overflow port diameter	③ Suction cup connection thread
ZVR	04 - $\phi$ 0.4mm	M5M - M5x0.8 male thread M5F - M5x0.8 female thread
	05 - $\phi$ 0.5mm	G1M - G1/8 male thread G1F - G1/8 female thread
	06 - $\phi$ 0.6mm	G2M - G1/4 male thread G2F - G1/4 female thread
	10 - $\phi$ 1.0mm	G3M - G3/8 male thread G3F - G3/8 female thread
	12 - $\phi$ 1.2mm	G4M - G1/2 male thread G4F - G1/2 female thread

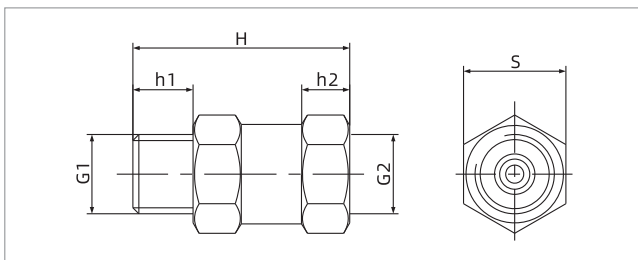
### Selection

Model/ Connection thread M - Male thread	F - Female thread
ZVR04-M5M	ZVR04-M5F
ZVR05-G1M	ZVR05-G1F
ZVR06-G2M	ZVR06-G2F
ZVR10-G3M	ZVR10-G3F
ZVR12-G4M	ZVR12-G4F

### Technical parameters

Model	Suction flow NL/min(-30kPa)	Suction flow NL/min(-60kPa)	Max. blow flow NL/min	Weight g
ZVR04-M5□	1.2	1.3	80	2
ZVR05-G1□	2.3	2.5	310	8.3
ZVR06-G2□	2.9	3.4	340	15.6
ZVR10-G3□	7.3	8	590	28.6
ZVR12-G4□	8.1	9	790	46

### Dimensions (mm)



ZVR

Model/Size	H	G1	h1	G2	h2	S
ZVR04-M5□	20	M5x0.8	4.5	M5x0.8	5	8
ZVR05-G1□	28	G1/8	8	G1/8	6	14
ZVR06-G2□	36	G1/4	10	G1/4	8	17
ZVR10-G3□	39	G3/8	10	G3/8	8	22
ZVR12-G4□	41	G1/2	12	G1/2	9	27



# ZVRM Series

## Check Valve



UNIVERSAL

### Features

- ◇ Effectively avoid the influence to the whole vacuum system when the suction cup failed to adsorb the workpiece
- ◇ In the same vacuum system, workpieces of different sizes can be repeatedly grasped
- ◇ Spring type check valve helps to prevent workpiece from dropping in turnover movement



### How to order

## ZVRM 07 - M5M

①                      ②                      ③

① Series	② Overflow port diameter	③ Suction cup connection thread
ZVRM	03 - $\phi$ 0.3mm 05 - $\phi$ 0.5mm 07 - $\phi$ 0.7mm 10 - $\phi$ 1.0mm	M5M - M5x0.8 male thread G1M - G1/8 male thread

### Selection

Model/Thread M5M	G1M
ZVRM03-M5M	-
ZVRM05-M5M	ZVRM05-G1M
ZVRM07-M5M	ZVRM07-G1M
-	ZVRM10-G1M

### Technical parameters

Model	Overflow port diameter mm	Valve core works Effective cross-sectional area mm <sup>2</sup>	Valve core doesn't work Effective cross-sectional area mm <sup>2</sup>	Fluid	Max. pressure range kPa	Removal efficiency $\mu$ m	Minimum action flow NL/min	Weight g
ZVRM03-M5M	0.3	0.07	1.64	Air	-100~0	40	2	6
ZVRM05-M5M	0.5	0.19	1.76	Air	-100~0	40	4	6
ZVRM07-M5M	0.7	0.38	1.95	Air	-100~0	40	5.5	6
ZVRM05-G1M	0.5	0.19	1.76	Air	-100~0	40	5	22
ZVRM07-G1M	0.7	0.38	2.64	Air	-100~0	40	8	22
ZVRM10-G1M	1.0	0.78	3.04	Air	-100~0	40	16	22

Vacuum Accessories

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

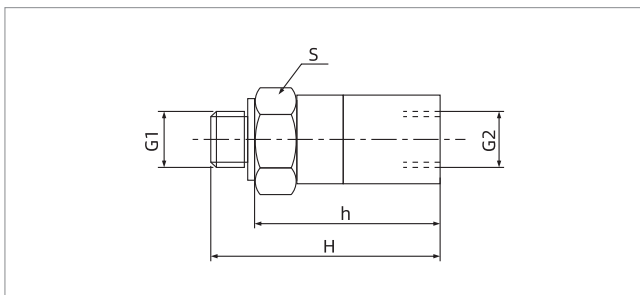
ZSA

# ZVRM Series

## Check Valve



### Dimensions (mm)



ZVRM

Model/Size	H	h	G1	G2	S
ZVRM03-M5M	20	16	M5×0.8depth3.5	M5×0.8depth6	8
ZVRM05-M5M	20	16	M5×0.8depth3.5	M5×0.8depth6	8
ZVRM07-M5M	20	16	M5×0.8depth3.5	M5×0.8depth6	8
ZVRM05-G1M	28.5	23	G1/8depth5	G1/8depth8.5	13
ZVRM07-G1M	28.5	23	G1/8depth5	G1/8depth8.5	13
ZVRM10-G1M	28.5	23	G1/8depth5	G1/8depth8.5	13

# ZVCM Series

## Non-Return Valve



UNIVERSAL

### Features

- ◇ It can keep vacuum level of the system in case of power failure when vacuum line is closed
- ◇ Small size, can be used in narrow space



### Selection

## ZVCM - M5F

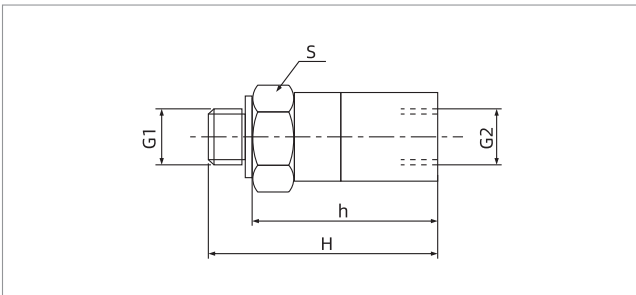
① ②

① Series	② Vacuum generator connection thread
ZVCM	M5F- M5×0.8 female thread G1F - G1/8 female thread

### Technical parameters

Model	Valve core works Effective cross-sectional area mm <sup>2</sup>	Fluid	Max. pressure range kPa	Removal efficiency μm	Weight g
ZVCM-M5F	2.0	Air	-100~0	40	6
ZVCM-G1F	5.0	Air	-100~0	40	22

### Dimensions(mm)



Model/Size	H	h	G1	G2	S
ZVCM-M5F	20	16	M5×0.8	M5×0.8	8
ZVCM-G1F	28.5	23	G1/8	G1/8	13

ZVCM

Vacuum Accessories

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

# ZVD Series

## Touch Valve



UNIVERSAL

### Features

- ◇ It is used to induct whether the suction cup touches the workpiece, the vacuum system cannot be established without touch



### How to order

## ZVD - G2M

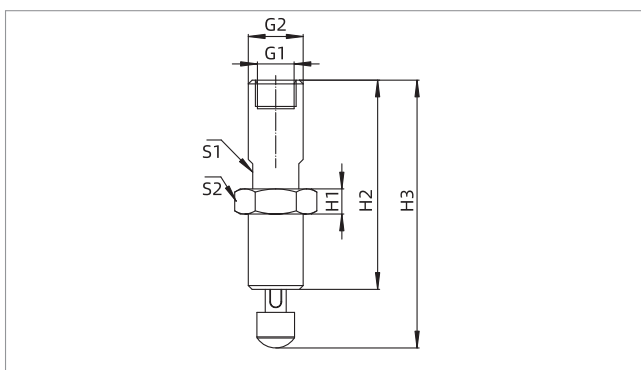
① ②

① Series	② Specification
ZVD	G2M - Mounting thread G1/4 G4M - Mounting thread G1/2

### Selection

Model	Mounting thread	Starting elastic force	Weight g
ZVD-G2M	G1/4	5	41.5
ZVD-G4M	G1/2	6.6	96.5

### Dimensions(mm)



Model/Size	G1	G2	S1	S2	H1	H2	H3
ZVD-G2M	G1/8	G1/4	11	17	6	50	64
ZVD-G4M	G3/8	G1/2	18	27	8	54.5	68.5

# ZVT Series

## Throttle Valve



UNIVERSAL

### Features

- ◇ Compact size, simple structure, suitable for vacuum handling system in narrow space
- ◇ For suction cup loop which does not cover the working surface, it can reduce vacuum leakage efficiently and ensure the stability of the system



### How to order

## ZVT 60 - G1M

①      ②      ③

① Series	② Overflow port diameter			③ Connection thread
ZVT	25 - $\phi$ 0.25mm	80 - $\phi$ 0.8mm	150 - $\phi$ 1.5mm	G1M - G1/8 male thread
	40 - $\phi$ 0.4mm	100 - $\phi$ 1.0mm	200 - $\phi$ 2.0mm	G2M - G1/4 male thread
	60 - $\phi$ 0.6mm	120 - $\phi$ 1.2mm		

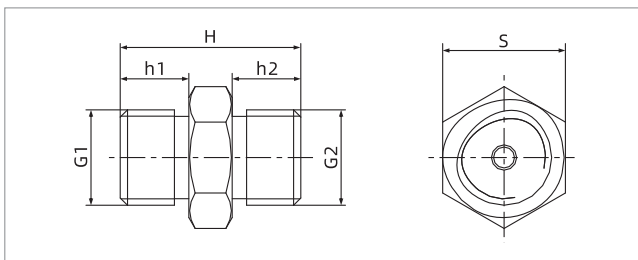
### Selection

Model/Thread G1M	G2M
ZVT25-G1M	-
ZVT40-G1M	ZVT40-G2M
ZVT60-G1M	ZVT60-G2M
ZVT80-G1M	ZVT80-G2M
ZVT100-G1M	ZVT100-G2M
ZVT120-G1M	ZVT120-G2M
-	ZVT150-G2M
-	ZVT200-G2M

### Technical parameters

Model	Vacuum flow NL/min (-30kPa)	Vacuum flow NL/min (-60kPa)	Weight g	
			G1M	G2M
ZVT25	0.2	0.3	6	-
ZVT40	1	1.3	6	8
ZVT60	3.1	3.2	6	8
ZVT80	5	5.2	6	8
ZVT100	7.7	8.5	6	8
ZVT120	12.5	12.8	6	8
ZVT150	22.2	23.5	-	8
ZVT200	34	36.5	-	8

### Dimensions(mm)



Model/Size	H	G1	h1	G2	h2	S
ZVT□-G1M	25	G1/8	9.5	G1/8	9.5	14
ZVT□-G2M	25	G1/4	9.5	G1/4	9.5	17

ZVT

# ZVS Series

## Fast Blow-off Valve

**AIRBEST**



UNIVERSAL

### Features

- ◇ It is connected with the suction cup, can effectively seal the vacuum and break the vacuum under the condition of positive pressure input

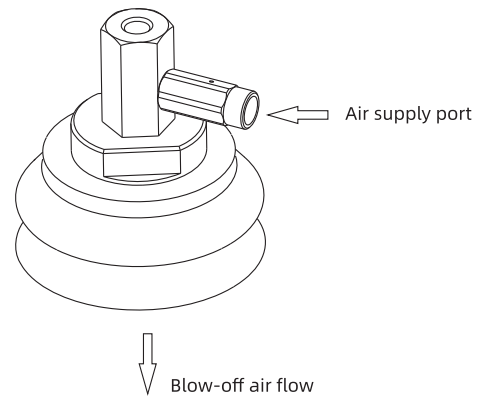
### Advantages

- ◇ Low startig pressure with stable and fast blow-off even if there are multiple suction cups working at the same time
- ◇ Fast vacuum break as it is mounted directly on the suction cup



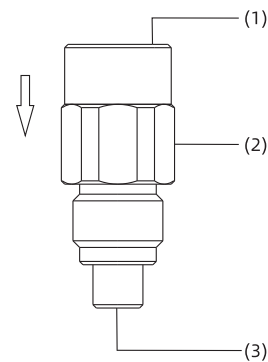
### Application

- ◇ Fast blow-off to break vacuum
- ◇ The blow-off air flow can clean the suction cup as it is mounted directly on the suction cup



### Structure

- ◇ (1) Air supply port
- ◇ (2) Main body
- ◇ (3) Exhaust port



# ZVS Series

## Fast Blow-off Valve



### How to order

## ZVS - G1F

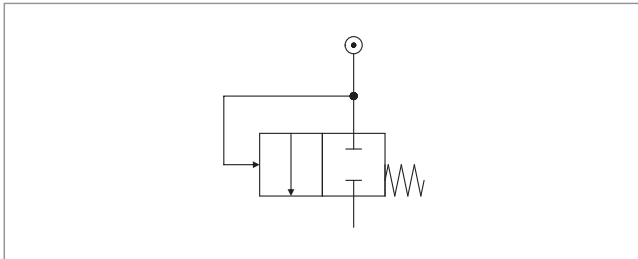
①                      ②

① Series	② Air supply port connection thread	Exhaust port connection thread
ZVS	G1F - G1/8 female thread G2F - G1/4 female thread	G1/8 male thread G1/4 male thread

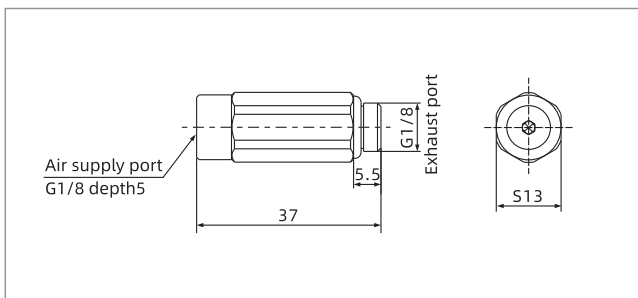
### Technical parameters

Model	Air supply pressure range bar	Max. blow flow NL/min	Working temperature °C	Weight g	Recommended hose dia. mm
ZVS-G1F	3.0~7.0	90~160	-10~80	12.9	φ8
ZVS-G2F	3.0~7.0	90~160	-10~80	15.1	φ8

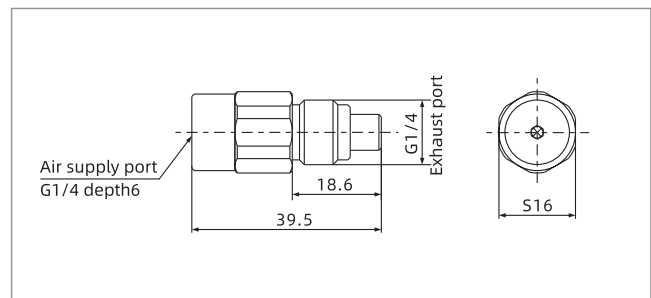
### Pneumatic schematic diagram



### Dimensions (mm)



ZVS-G1F



ZVS-G2F

# ZPDT Series

## High-precision Digital Pressure Switch



UNIVERSAL

### Features

- ◇ Digital display electronic pressure switch, optional two-color display
- ◇ 4-digit seven-segment LED display
- ◇ Pressure units can be converted and displayed on the screen
- ◇ Parameter values can be displayed directly on the screen

### Advantages

- ◇ Monitor the system action clearly and visually, could change the setting content and backlight display mode
- ◇ The pressure is displayed on the screen, easy to read
- ◇ Main and sub display can set parameter directly, setting steps could be reduced by 3/4
- ◇ Easy to operate with the clear display



### Application

- ◇ Monitor the vacuum system, optimize the working cycle
- ◇ Adjust the system circuit, improve economic benefit of vacuum system
- ◇ Square shape is more suitable for installing panel
- ◇ Suitable for all automation handling industries

### Structure

- ◇ Electronic vacuum switch, solid polycarbonate case
- ◇ Vacuum connection is Rc1/8 Male thread
- ◇ 2m connecting cable
- ◇ Optional mounting bracket and panel type mounting frame

### How to order

ZPDT - C NV - R1M - AB  
 ①                      ②                      ③                      ④                      ⑤

① Series	② Pressure range	③ Output specification	④ Connection thread	⑤ Accessories
ZPDT	C - Compound P - Positive	NV - 1NPN+1 Analog(Voltage) output (1-5V) PV - 1PNP+1 Analog(Voltage) output(1-5V)	R1M - Rc1/8 male thread	Nil - Without accessory AB - A type mounting bracket BB - B type mounting bracket PS - Panel adapter PC - Panel adapter + front protective lid

### Selection

Model Nil	Accessories AB	BB	PS	PC
ZPDT-CNV-R1M	ZPDT-CNV-R1M-AB	ZPDT-CNV-R1M-BB	ZPDT-CNV-R1M-PS	ZPDT-CNV-R1M-PC
ZPDT-CPV-R1M	ZPDT-CPV-R1M-AB	ZPDT-CPV-R1M-BB	ZPDT-CPV-R1M-PS	ZPDT-CPV-R1M-PC
ZPDT-PNV-R1M	ZPDT-PNV-R1M-AB	ZPDT-PNV-R1M-BB	ZPDT-PNV-R1M-PS	ZPDT-PNV-R1M-PC
ZPDT-PPV-R1M	ZPDT-PPV-R1M-AB	ZPDT-PPV-R1M-BB	ZPDT-PPV-R1M-PS	ZPDT-PPV-R1M-PC



# ZPDT Series

## High-precision Digital Pressure Switch



### Technical parameters

Model		ZPDT-C (Compound)	ZPDT-P (Positive)
Rated pressure range		-100.0~100.0kPa	-0.100~1.000MPa
Setting pressure range		-103.0~103.0kPa	-0.103~1.030MPa
Withstand pressure		500kPa	1.5MPa
Fluid		Air, Non-corrosive gas/Non-flammable gas	Air, Non-corrosive gas/Non-flammable gas
Pressure unit	kPa	0.1	-
Set pressure resolution	MPa	-	0.001
	kgf/cm <sup>2</sup>	0.001	0.01
	bar	0.001	0.01
	psi	0.01	0.1
	inHg	0.1	-
	mmHg	1	-
Power supply voltage	12 to 24V DC±10%, ripple(P-P)10% or less		
Current consumption	≤40mA (Without load)		
Switch output	Output type	Open collector (NPN or PNP)	
	load current	Max.125mA	
	Residual voltage	≤1.0V	
	Response time	≤2.5ms (Chattering-proof function: 25ms,100ms,250ms, 500ms, 1000ms, 1500ms selectable)	
Analog output	Output Voltage	1-5V ±2.5%F.S (within rated pressure range)	0.6-5V ±2.5%F.S (within rated pressure range)
	Output impedance	1kΩ	
	Linearity	±1% F.S.	
Display	Display	Three colors (Red/ Green/ Orange)display(sampling rate:5 times/sec,2 times/sec,1 time/sec for choice.)	
	Indicator accuracy	±1%F.S.±1 digit (ambient temperature: 25±3°C)	
	Repeatability	±0.3%F.S.±1 digit	
	Switch ON indicator	Orange (1 indicator)OUT1	
Environment	Enclosure	IP40	
	Ambient temp.range	0~50°C	
	Temperature characteristic	±3% F.S.of rated ambient temperature 25°C (at temp. range of 0~50°C)	
	Storage temperature	Storage: -10-60°C (No condensation or freezing)	
	Ambient humidity	Operation/ storage:35-85%HR (No condensation)	
	Withstand voltage	1000VAC in 1-min (between case and lead wire)	
	Insulation resistance	50MΩ min (500V DC) (between case and lead wire)	
	Vibration	Total amplitude 1.5mm Or 10G, 10Hz~150Hz~10Hz for 1 minute, two hours each direction of X, Y and Z	
	Shock	100m/s <sup>2</sup> (10G) 3 times each in direction of X, Y and Z	
Port size	Rc1/8, M5		
Lead wire	Oil-resistance cable (0.15mm <sup>2</sup> )		
Weight	67g (with 2-meter lead wire)		

Vacuum Accessories

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

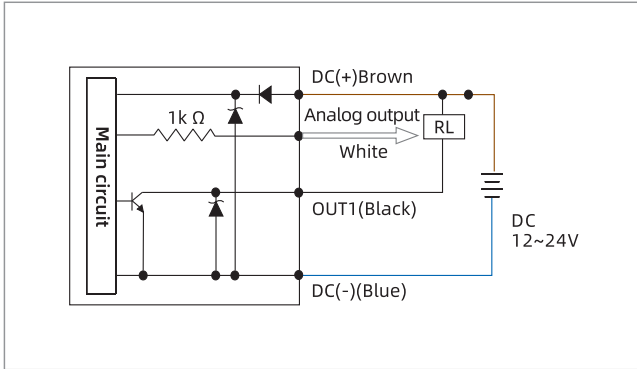
ZSA

# ZPDT Series

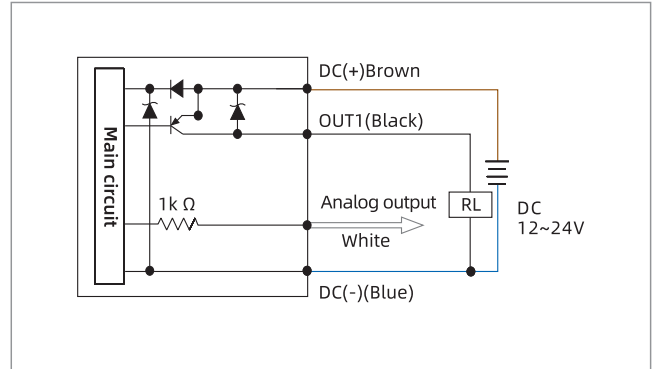


## High-precision Digital Pressure Switch

### Output circuit wiring diagrams

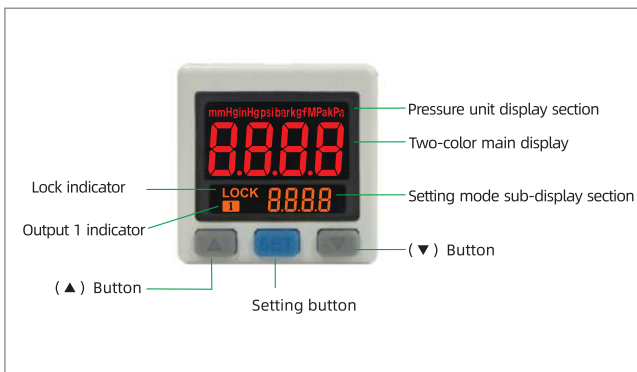


ZPDT-□NV-R1M 1NPN+Analog voltage output (1-5V)

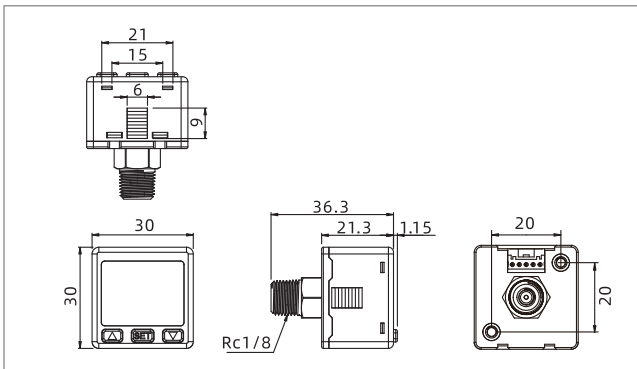


ZPDT-□PV-R1M 1PNP+Analog voltage output (1-5V)

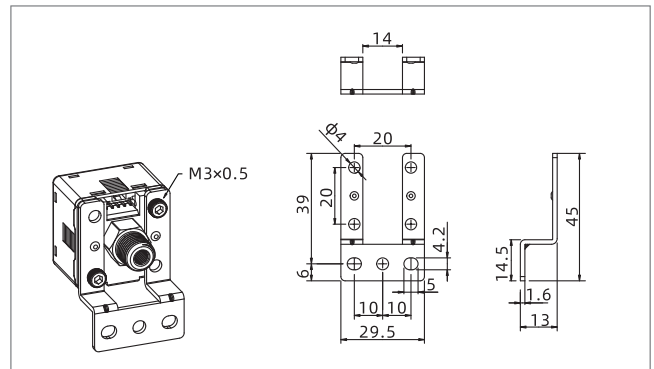
### Panel instructions



### Dimensions(mm)



ZPDT-□□-R1M



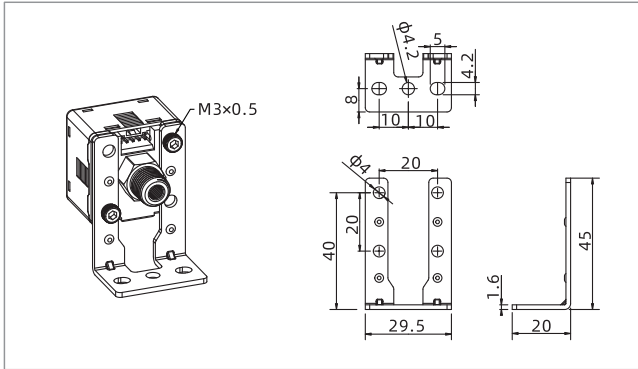
ZPDT-□□-R1M-AB Mounting bracket A type

# ZPDT Series

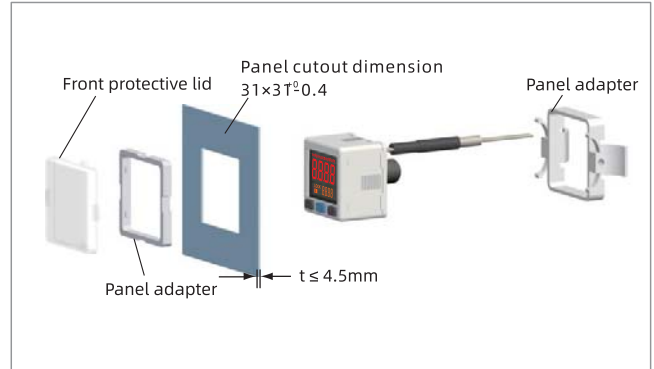
## High-precision Digital Pressure Switch



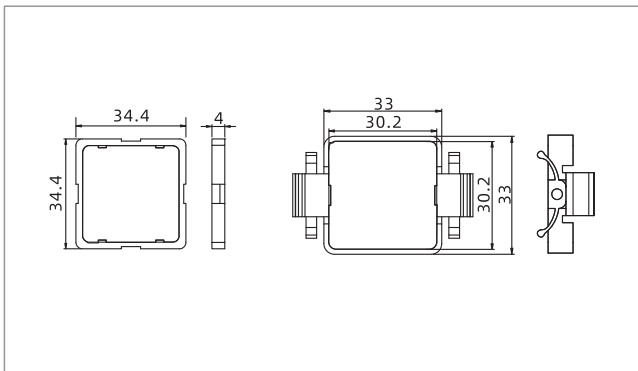
### Dimensions (mm)



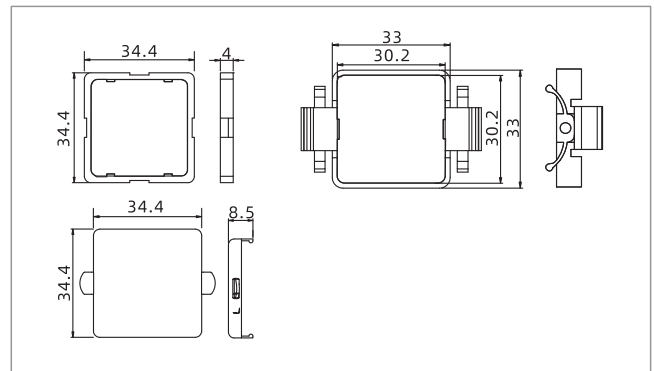
ZPDT-□□-R1M-BB Mounting bracket B type



Panel type



ZPDT-□□-R1M-PS Panel adapter



ZPDT-□□-R1M-PC Front protective lid + panel adapter

### Accessories

Item	Model
Mounting bracket A type	ZPDT-A-MB
Mounting bracket B type	ZPDT-B-MB
Panel adapter	ZPDT-PS
Front protective lid + panel adapter	ZPDT-PC

Vacuum Accessories

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

# ZPDE Series

## High-precision Digital Pressure Switch



UNIVERSAL

### Features

- ◇ Digital display electronic pressure switch, optional two-color display
- ◇ 4-digit seven-segment LED display
- ◇ Pressure units can be converted and displayed on the screen
- ◇ Parameter values can be displayed directly on the screen

### Advantages

- ◇ Monitor the system action clearly and visually, could change the setting content and backlight display mode
- ◇ The pressure is displayed on the screen, easy to read
- ◇ Easy to operate with the clear display



### Application

- ◇ Monitor the vacuum system, optimize the working cycle
- ◇ Adjust the system circuit, improve economic benefit of vacuum system
- ◇ Square shape is more suitable for installing panel
- ◇ Suitable for all automation handling industries

### Structure

- ◇ Electronic vacuum switch, solid polycarbonate case
- ◇ 2m connecting cable
- ◇ Optional mounting bracket and panel type mounting frame

### How to order

ZPDE - C N - R1M - AB  
 ①            ②   ③            ④            ⑤

① Series	② Pressure range	③ Output specification	④ Connection thread	⑤ Accessories
ZPDE	C - Compound P - Positive	N - 1NPN output	R1M - Rc1/8 male thread	Nil - Without accessory AB - A type mounting bracket BB - B type mounting bracket PS - Panel adapter PC - Panel adapter + front protective lid

### Selection

Model	Accessories AB	BB	PS	PC
ZPDE-CN-R1M	ZPDE-CN-R1M-AB	ZPDE-CN-R1M-BB	ZPDE-CN-R1M-PS	ZPDE-CN-R1M-PC
ZPDE-PN-R1M	ZPDE-PN-R1M-AB	ZPDE-PN-R1M-BB	ZPDE-PN-R1M-PS	ZPDE-PN-R1M-PC

# ZPDE Series

## High-precision Digital Pressure Switch



### Technical parameters

Model		ZPDE-C (Compound)	ZPDE-P (Positive)
Rated pressure range		-100.0~100.0kPa	-0.100~1.000MPa
Setting pressure range		-103.0~103.0kPa	-0.103~1.030MPa
Withstand pressure		500kPa	1.5MPa
Fluid		Air, Non-corrosive gas/Non-flammable gas	Air, Non-corrosive gas/Non-flammable gas
Pressure unit	kPa	0.1	1
Set pressure resolution	MPa	-	-
	kgf/cm <sup>2</sup>	0.001	0.01
	bar	0.001	0.01
	psi	0.01	0.1
	inHg	0.1	-
	mmHg	1	-
Power supply voltage		12to24V DC±10%,ripple(P-P)10% or less	
Current consumption		≤40mA (Without load)	
Switch output	Output type	Open collector (NPN)	
	Load current	Max.125mA	
	Residual voltage	≤1.0V	
	Response time	≤2.5ms(Chattering-proof function:25ms,100ms,250ms,500ms,1000ms,1500ms selectable)	
Display	Display	White (Sampling rate:0.2 time/sec,0.5 time/sec,1 time/sec for choice)	
	Indicator accuracy	±1%F.S.±1 digit (ambient temperature:25±3°C)	
	Repeatability	±0.3%F.S.±1 digit	
	Switch ON Indicator	White (1 indicator) OUT1	
Environment	Enclosure	IP40	
	Ambient temp. range	0~50°C	
	Temperature characteristic	±2% F.S.of rated ambient temperature 25°C (at temp. range of 0~50°C)	
	Storage temperature	Storage:-10-60°C (No condensation or freezing)	
	Ambient humidity	Operation/ storage:35-85%HR (No condensation)	
	Withstand voltage	1000V AC in 1-min (between case and lead wire)	
	Insulation resistance	50MΩ above (500V DC) (between case and lead wire)	
	Vibration	Total amplitude 1.5mm Or 10G,10Hz~150Hz~10Hz for 1 minute,two hours each direction of X,Y and Z	
	Shock	100m/s <sup>2</sup> (10G)3 times each in direction of X,Y and Z	
Port size		Rc1/8, M5	
Lead wire		φ4 oil-resistance PVC cable- 3 core	
Weight		67g(with 2-meter lead wire)	

Vacuum Accessories

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

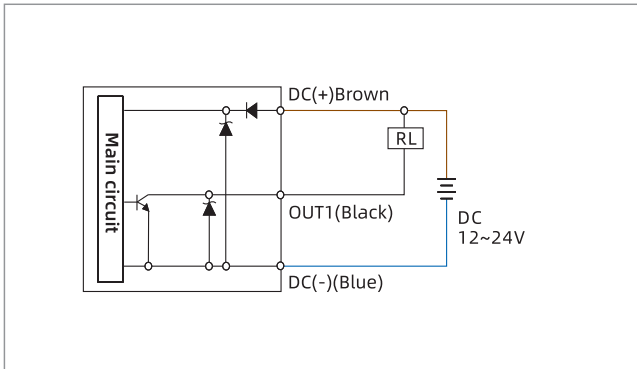
ZSA

# ZPDE Series

## High-precision Digital Pressure Switch

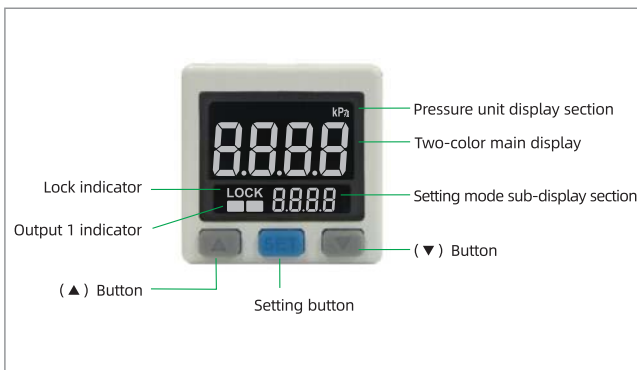


### Output circuit wiring diagrams

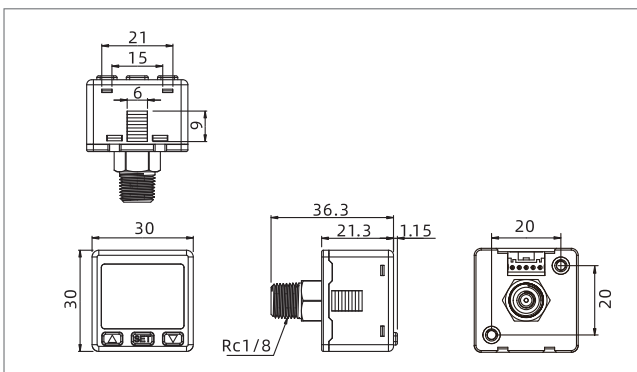


ZPDE-□N-R1M 1NPN output

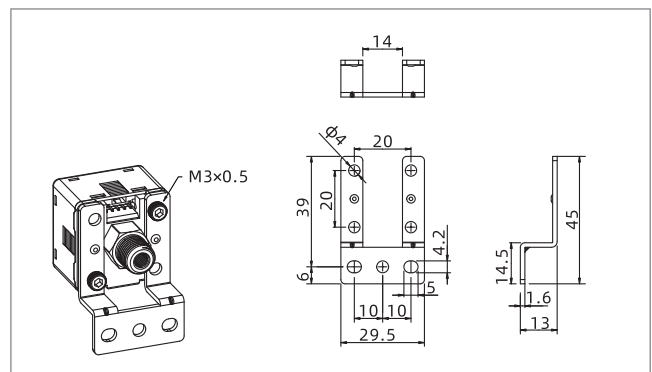
### Panel instructions



### Dimensions (mm)



ZPDE-□N-R1M



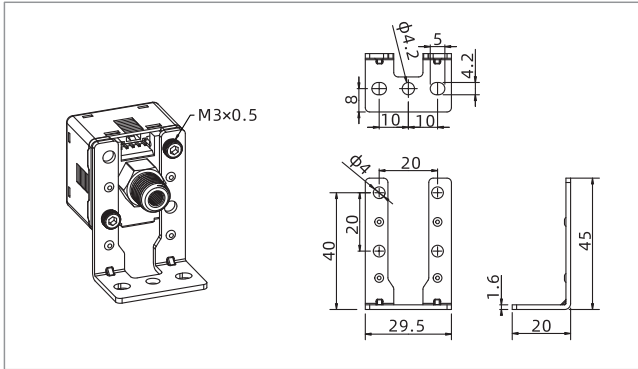
ZPDE-□N-R1M-AB Mounting bracket A type

# ZPDE Series

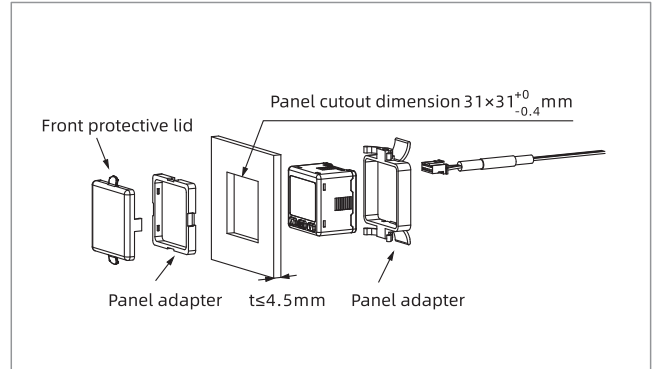
## High-precision Digital Pressure Switch



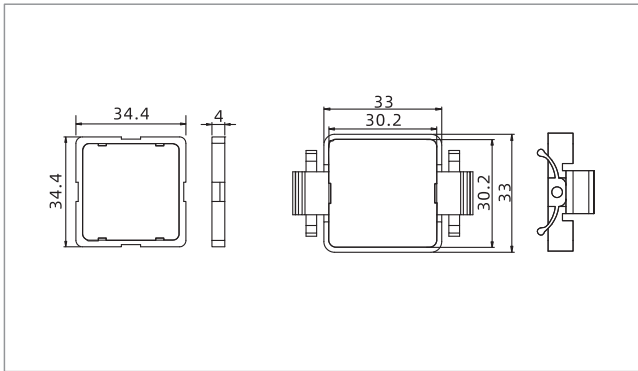
### Dimensions (mm)



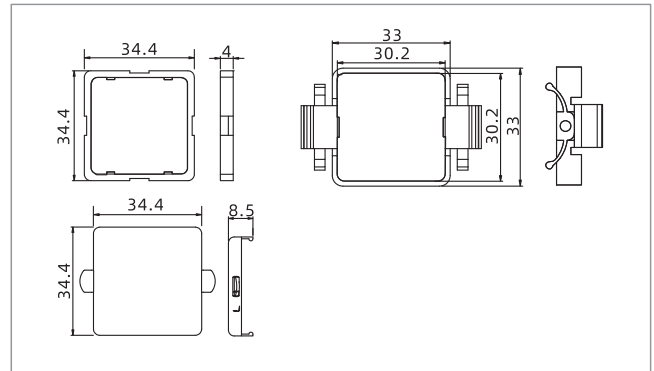
ZPDE-□N-R1M-BB Mounting bracket B type



Panel type



ZPDE-□N-R1M-PS Panel adapter



ZPDE-□N-R1M-PC Front protective lid + panel adapter

### Accessories

Item	Model
Mounting bracket A type	ZPDT-A-MB
Mounting bracket B type	ZPDT-B-MB
Panel adapter	ZPDT-PS
Front protective lid + panel adapter	ZPDT-PC

Vacuum Accessories

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

# ZPMR Series

## Mechanical Pressure Gauge



UNIVERSAL

### Features

- ◇ Mechanical pressure gauge, panel is made of acrylic, and ABS black plastic for housing
- ◇ Back entry type mounting, universal specifications, easy to use



### How to order

## ZPMR - P

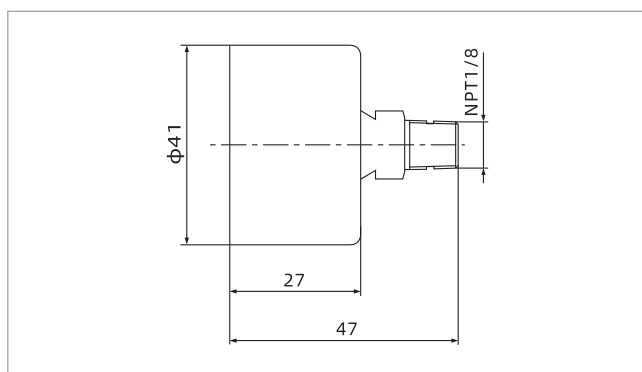
①      ②

① Series	② Pressure type	Connection thread
ZPMR	P - Positive V - Negative	NPT1/8 male thread G1/8 male thread

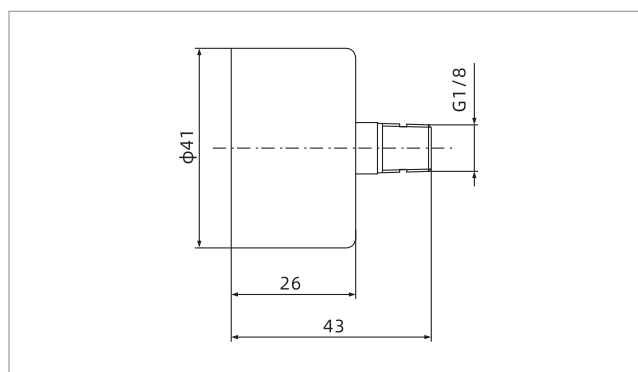
### Technical parameters

Model	Pressure range	Dial size	Material of connector	Connection thread	Weight g
ZPMR-P	0~1MPa	1.5 inch	Copper alloy	NPT1/8	63.5
ZPMR-V	-100~0kPa	1.5 inch	Copper alloy	G1/8	57

### Dimensions (mm)



ZPMR-P



ZPMR-V



# ZSA Series Silencer



UNIVERSAL

## Features

- ◇ The silencers which are fitted to various standard vacuum generators can be ordered separately as replacements. They significantly reduce noise level on all exhaust applications



Vacuum Accessories

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

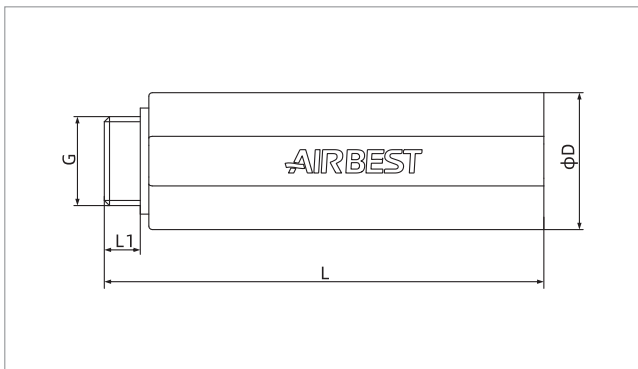
## How to order

### ZSA - G1M

① ②

① Series	② Connection thread
ZSA	G1M - G1/8 male thread G2M - G1/4 male thread G3M - G3/8 male thread G4M - G1/2 male thread G6M - G3/4 male thread G8M - G1" male thread

## Dimensions (mm)



Model/Size	L	D	G	L1	Weight g	Denoise dB(A)
ZSA-G1M	46	14	G1/8	5	3	10
ZSA-G2M	73	20	G1/4	8	20	10
ZSA-G3M	72	24	G3/8	8	25	10
ZSA-G4M	128	30	G1/2	7	35	10
ZSA-G6M	126	40	G3/4	7	55	10
ZSA-G8M	121.5	53	G1"	10	82	10

ZSA