

# Vacuum Pad: Ball Joint Type

## Lateral Vacuum Entry

### With Buffer

# Series ZPR

### How to Order

**ZPR 10 F GN J 30 06 A10**

Pad diameter (mm)

10	ø10
13	ø13
16	ø16
20	ø20
25	ø25
32	ø32
40	ø40
50	ø50

Pad type

F	Ball joint type
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Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluoro rubber
GN*	Conductive NBR
GS*	Conductive silicon rubber

\* ø20 and larger are manufactured upon a receipt of order.

Buffer type

J	Rotating
K	Non-rotating

Mounting thread diameter/Male thread  
(Refer to "Table (1)" for applications.)

Vacuum entry port  
(Refer to "Table (1)" for applications.)

Table (1) Vacuum entry/Mounting Thread Diameter

		Mounting thread diameter (Male thread)			
		Pad dia. (mm)			
		ø10 to ø16	ø20 to ø50		
Connection		Thread dia./ Port size	M10 x 1	M14 x 1	
Vacuum entry	One-touch fitting	Symbol	A10	A14	
		ø4 tube	04	●	—
		ø6 tube	06	●	●
	ø8 tube	08	—	●	

Buffer stroke

Symbol	Stroke	Pad dia. (mm)	
		ø10 to ø16	ø20 to ø50
10	10 mm	●	●
20	20 mm	●	●
30	30 mm	●	●
40	40 mm	●	—
50	50 mm	●	●

### Buffer Spring Reactive Force

Pad dia. (mm)	0 stroke	Stroke end
ø10 to ø16	1.0 N	3.0 N
ø20 to ø50	2.0 N	5.0 N

Note) Pads are exclusively ball joint type and are not interchangeable with other pads.

### Pad Type

Pad form	Ball joint type					
Pad dia. (mm)	ø10, ø13, ø16, ø20, ø25, ø32, ø40, ø50					
Material	NBR	Silicon rubber	Urethane rubber	Fluoro rubber	Conductive NBR	Conductive silicon rubber
Color	Black	White	Brown	Black with green mark	Black with 1 white mark	Black with 2 white mark
Durometer	50°	40°	60°	60°	50°	50°

ZX

ZR

ZM

ZH

ZU

ZL

ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

# Series ZPR



## Specifications

Vacuum entry direction		Lateral	
Connection		Mounting	Vacuum entry port
		Male thread	One-touch fitting
Pad dia. (mm)	ø10 to ø16	M10 x 1	ø4 tube
	ø20 to ø50	M14 x 1	ø6 tube
Ball joint rotation		±15°	

## Buffer Type

Pad dia. (mm)	ø10 to ø16		ø20 to ø50	
Mounting	M10 x 1		M14 x 1	
Stroke (mm)	10, 20, 30, 40, 50		10, 20, 30, 50	
Spring reactive force	0 stroke	1.0 N	0 stroke	2.0 N
	Stroke end	3.0 N	Stroke end	5.0 N
Non-rotating specification	With no non-rotating (J), With non-rotating (K)			

## Weight

(g)

Pad dia. (mm)	Vacuum entry port		
	One-touch fitting		
	ø4 tube	ø6 tube	ø8 tubing
ø10 to ø16	34	35	—
ø20 to ø32	—	38	39
ø40, ø50	—	134	136

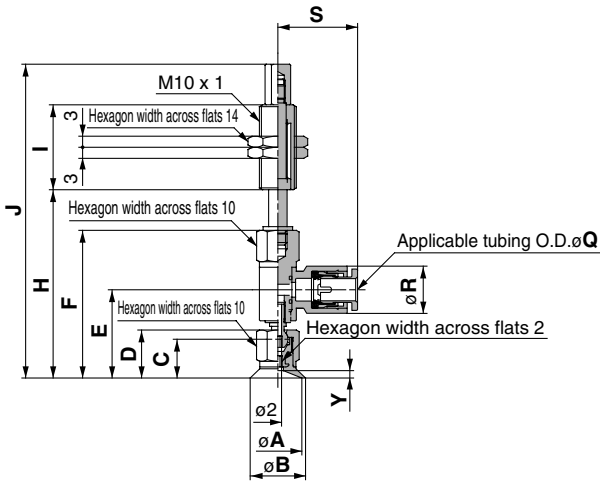
## Weight by Stroke

(g)

Pad dia. (mm)	Stroke (mm)			
	20	30	40	50
ø10 to ø16	+10.5	+12.5	+22.5	+24
ø20 to ø50	+37.5	+40	—	+66.5

# Vacuum Pad: Ball Joint Type Lateral Vacuum Entry with Buffer **Series ZPR**

**ZPR<sup>10</sup><sub>13</sub><sup>16</sup>F□□□<sup>J</sup><sub>K</sub>10-0□-A10 (With buffer)**



**Dimensions: 10 mm Stroke** (mm)

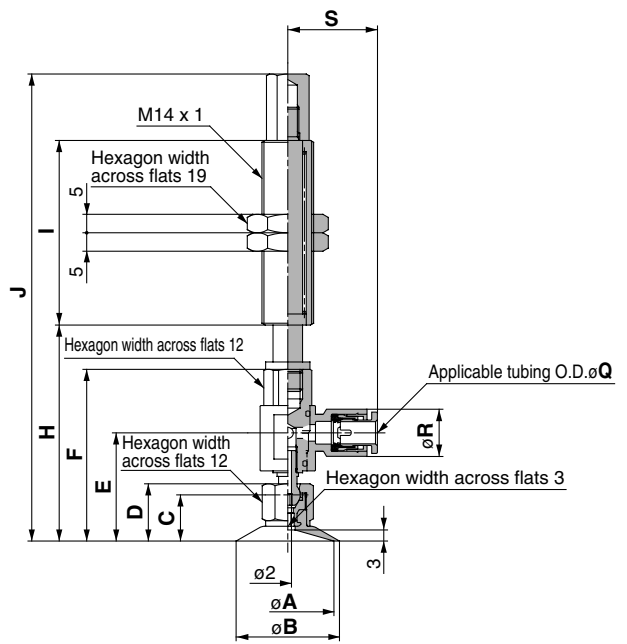
Model	A	B	C	D	E	F	H	I	J
ZPR10F□□□10-0□-A10	10	12	10	12.5	23.4	39.5	50.5	23	84.5
ZPR13F□□□10-0□-A10	13	15	10.5	13	23.9	40	51		85
ZPR16F□□□10-0□-A10	16	18							

Model	Q: 4		Q: 6		Y
	R	S	R	S	
ZPR10F□□□10-0□-A10					1.5
ZPR13F□□□10-0□-A10	10.4	20.6	12.8	21.6	2
ZPR16F□□□10-0□-A10					

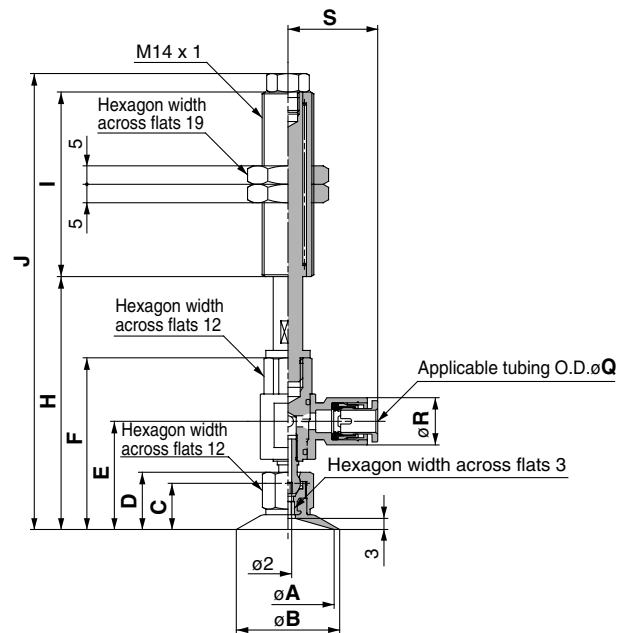
**Additional Dimensions by Stroke** (mm)

Stroke	H	I	J
20	+10	+28	+38
30	+20		+48
40	+30	+54	+84
50	+40		+94

**ZPR<sup>20</sup><sub>25</sub><sup>32</sup>F□□□<sup>J</sup><sub>K</sub>10-0□-A14 (With buffer)**



**With a stroke of 10 mm**



**Stroke 20 to 50 mm**

**Dimensions: 10 mm Stroke** (mm)

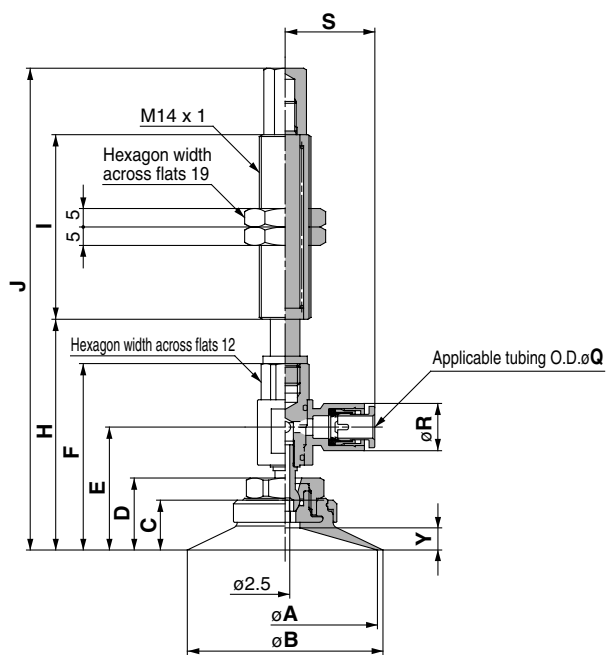
Model	A	B	C	D	E	F	H	I	J
ZPR20F□□□10-0□-A14	20	22	12.5	15.5	29.3	46.5	58.5	50	126.5
ZPR25F□□□10-0□-A14	25	28	13	16	29.8	47	59		127
ZPR32F□□□10-0□-A14	32	35							

Model	Q: 6		Q: 8		Stroke	H	I	J
	R	S	R	S				
ZPR20F□□□10-0□-A14					20	+10		-3
ZPR25F□□□10-0□-A14	12.8	24.3	15.2	26.2	30	+20	±0	+7
ZPR32F□□□10-0□-A14					50	+40	+25	+52

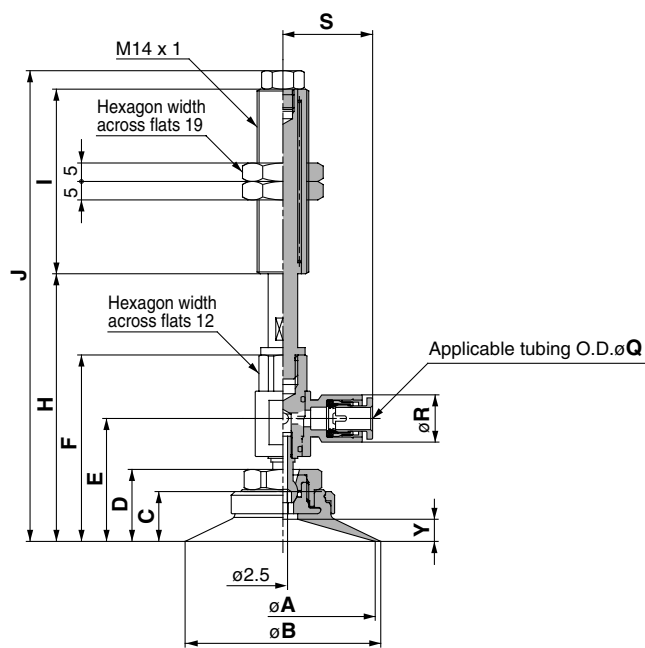
- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

# Series ZPR

ZPR<sub>40</sub><sup>40</sup>F□□□<sub>50</sub><sup>J</sup>k0-0□-A14 (With buffer)



With a stroke of 10 mm



Stroke 20 to 50 mm

## Dimensions: 10 mm Stroke

(mm)

Model	A	B	C	D	E	F	H	I	J	Q: 6		Q: 8		Y
										R	S	R	S	
ZPR40F□□□10-0□-A14	40	43	12.5	18.5	32.3	49.5	61.5	50	129.5	12.8	24.3	15.2	26.2	5
ZPR50F□□□10-0□-A14	50	53	13.5	19.5	33.3	50.5	62.5		130.5					6

## Additional Dimensions by Stroke

(mm)

Stroke	H	I	J
20	+10		-3
30	+20	±0	+7
50	+40	+25	+52