

# ZC(ZA) Series Compact Guide Rod Cylinder

## Compact Guide Rod Cylinder with Built-In 2 Guide Rods

### Key Features

■ **Position confirmation switch can be mounted (option)**

LED non-contact switch for large load open & close capacity that can be mounted on the top and bottom of the body

■ **Air port position change (option)**

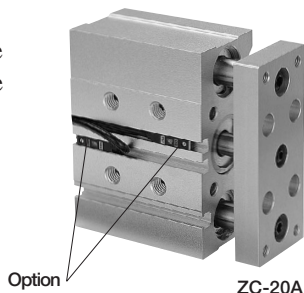
Air port can be mounted on the side

■ **Rail slots for wires and pipes**

Multiple cables & pipes can be lined in the rail slot

■ **Front and back urethane dampers as standard**

Absorbs impact at the front and back-end



### How To Order

Standard ----- **ZC-20A**

Option ----- **ZC** - **20A** - **20** - **ET3S2** - **P** ----- ZC-20A (20mm Stroke) with 2 of ET3 non-contact reed switches, that has air port location changed

Model	
Symbol	Name
ZC	Bearing Type
ZA	Bush Type

Size	
Symbol	Symbol   Specification
20A	20   20mm
32A	30   30mm
40A	40   40mm
50A	50   50mm
63A	75   75mm
	100   100mm

Sensor, Quantity			
Symbol	Name	Symbol	Name
ET3	Non-Contact 3-Lead	E25	Contact 2-Lead
ET3L	Non-Contact 3-Lead	E25L	Contact 2-Lead
ET2	Non-Contact 2-Lead	S1	1 Sensor
ET2L	Non-Contact 2-Lead	S2	2 Sensors
E24	Contact 2-Lead		
E24L	Contact 2-Lead		

Option	
Symbol	Name
P	Air Port Position Change
KF	Front Stopper
KW	Front & Rear Stoppers
Z	Special Type (Custom)

For sensor detail ▶ 277P

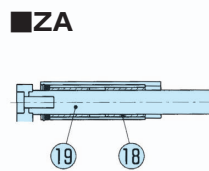
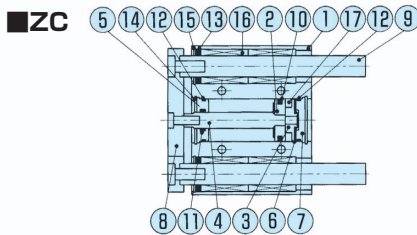
For option detail ▶ 36P

# ZC(ZA)-20A/25A/32A/40A/50A/63A

## Specification

Model		ZC (ZA) -20A <small>For Layout Drawing ▶461P</small>	ZC (ZA) -25A <small>For Layout Drawing ▶461P</small>	ZC (ZA) -32A <small>For Layout Drawing ▶462P</small>	ZC (ZA) -40A <small>For Layout Drawing ▶462P</small>	ZC (ZA) -50A <small>For Layout Drawing ▶463P</small>	ZC (ZA) -63A <small>For Layout Drawing ▶463P</small>		
Working Pressure		Pneumatic: 0.2 to 0.7MPa							
Lubrication		Not Required or Turbine Oil Class 1 (ISOVG32)							
Ambient Temperature (°C)		5 to 60							
Operating Piston Speed		50 to 500mm/s							
Cylinder Diameter (mm)		dia.20	dia.25	dia.32	dia.40	dia.50	dia.63		
Rod Diameter (mm)		dia.8	dia.10	dia.12	dia.16	dia.16	dia.16		
Total Jaw Stroke (mm)		20·30·40·50·75·100							
Theoretical Thrust (N)		Advance	310P	490P	800P	1250P	1960P	3110P	
		Return	260P	410P	690P	1050P	1760P	2910P	
Weight (kg)	ZC	Stroke	20	0.41+0.007st	0.57+0.009st	0.73+0.012st	1.10+0.015st	1.71+0.022st	2.11+0.025st
			30						
			40						
			50						
			75						
	ZA	Stroke	20	0.41+0.008st	0.60+0.010st	0.79+0.013st	1.16+0.016st	1.77+0.024st	2.16+0.027st
			30						
			40						
			50						
			75						
100	0.55+0.008st	0.78+0.010st	1.12+0.013st	1.48+0.016st	2.26+0.024st	2.65+0.027st			

## Internal Structure / Parts & Seals



### Parts List

No.	Name	Material	No.	Name	Material	No.	Name	Material
1	Body	Aluminum	8	Front Plate	Aluminum	15	Snap Ring B	
2	Piston A	Aluminum	9	Guide Rod	High-Carbon Chromium Bearing Steel	16	Linear Bearing	
3	Piston B	Stainless Steel	10	Piston Seal		17	Magnet	
4	Piston Rod	Stainless Steel	11	Rod Seal		18	Bush	
5	Rod Cover	Aluminum	12	Cylinder Seal		19	Guide Rod	Carbon Steel
6	Cushion	Urethane	13	Needle Bearing Seal				
7	Cylinder Cover	Aluminum	14	Snap Ring A				

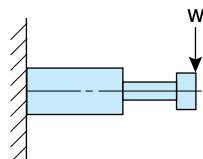
### Seals List

No.	ZC (ZA) -20A	ZC (ZA) -25A	ZC (ZA) -32A	ZC (ZA) -40A	ZC (ZA) -50A	ZC (ZA) -63A
10	PSD-20	PSD-25	PSD-32	PSD-40	PSD-50	PSD-63
11	PDU-8Z	PDU-10Z	PDU-12Z	PDU-16Z	PDU-16Z	PDU-16Z
12	S-18	P-21	S-29	S-36	G-45	S-60

# ZC(ZA) Series Compact Guide Rod Cylinder

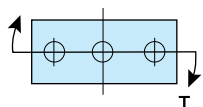
## Performance Data

Unit: N



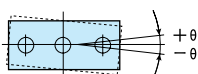
Cylinder I.D.	Model	Type of Bearing	Stroke (mm)					
			20	30	40	50	75	100
dia.20	ZC-20A	Bearing	25	21	130	120	100	80
	ZA-20A	Bush Bearing	140	120	110	100	76	63
dia.25	ZC-25A	Bearing	73	62	270	240	200	160
	ZA-25A	Bush Bearing	200	180	160	140	120	100
dia.32	ZC-32A	Bearing	95	81	350	310	250	220
	ZA-32A	Bush Bearing	270	240	220	200	160	130
dia.40	ZC-40A	Bearing	95	81	350	310	250	220
	ZA-40A	Bush Bearing	270	240	220	200	160	130
dia.50	ZC-50A	Bearing	120	110	95	470	400	330
	ZA-50A	Bush Bearing	460	410	370	340	280	240
dia.63	ZC-63A	Bearing	120	110	95	470	400	330
	ZA-63A	Bush Bearing	460	410	370	340	280	240

Unit: N · cm



Cylinder I.D.	Model	Type of Bearing	Stroke (mm)					
			20	30	40	50	75	100
dia.20	ZC-20A	Bearing	39	33	210	190	150	120
	ZA-20A	Bush Bearing	430	370	330	300	240	200
dia.25	ZC-25A	Bearing	120	100	440	400	320	270
	ZA-25A	Bush Bearing	660	580	520	470	370	310
dia.32	ZC-32A	Bearing	190	160	710	640	520	440
	ZA-32A	Bush Bearing	1090	970	870	790	640	540
dia.40	ZC-40A	Bearing	210	180	770	700	570	480
	ZA-40A	Bush Bearing	1190	1060	950	860	700	590
dia.50	ZC-50A	Bearing	350	300	270	1300	1070	910
	ZA-50A	Bush Bearing	2550	2280	2060	1880	1540	1300
dia.63	ZC-63A	Bearing	390	340	300	1470	1200	1020
	ZA-63A	Bush Bearing	2870	2560	2320	2110	1730	1470

Cylinder I.D.	Model	Type of Bearing	Non-rotational accuracy ( $\theta$ )
dia.20	ZC-20A	Bearing	$\pm 0.04$
	ZA-20A	Bush Bearing	$\pm 0.08$
dia.25	ZC-25A	Bearing	$\pm 0.04$
	ZA-25A	Bush Bearing	$\pm 0.07$
dia.32	ZC-32A	Bearing	$\pm 0.03$
	ZA-32A	Bush Bearing	$\pm 0.06$
dia.40	ZC-40A	Bearing	$\pm 0.03$
	ZA-40A	Bush Bearing	$\pm 0.05$
dia.50	ZC-50A	Bearing	$\pm 0.03$
	ZA-50A	Bush Bearing	$\pm 0.06$
dia.63	ZC-63A	Bearing	$\pm 0.03$
	ZA-63A	Bush Bearing	$\pm 0.05$

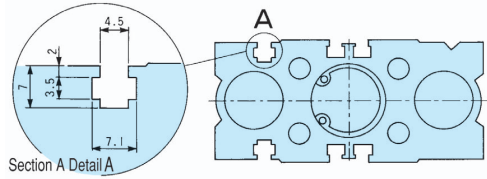


Note) Excluding deflection of the guide rod

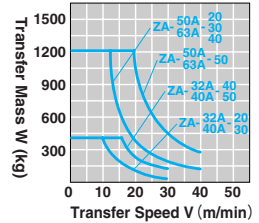
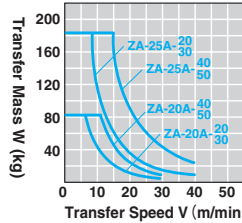
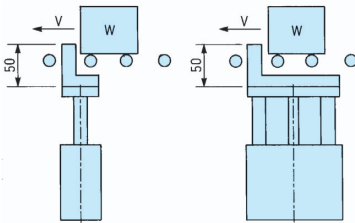
# ZC(ZA)-20A/25A/32A/40A/50A/63A

## ZC (ZA) Slot for Mounting

■ A section slot can be used for connecting lead wires, nylon tubes, or mounting small objects such as terminal blocks to the body. (M4)

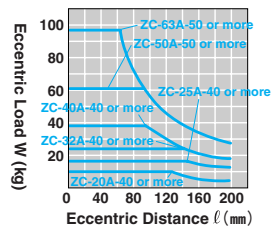
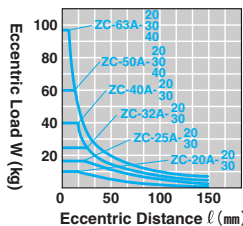
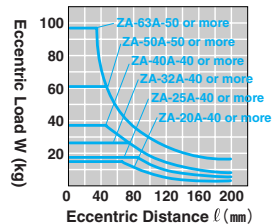
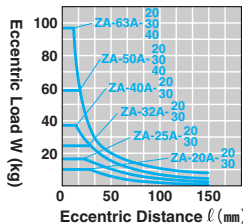
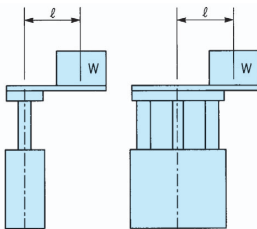


## ZA Stopper Allowable Capacity



\* When using it as a stopper, please use it less than stroke, 50.  
\* ZC series bearings cannot be used as a stopper.

## ZC (ZA) Lift Eccentric Load

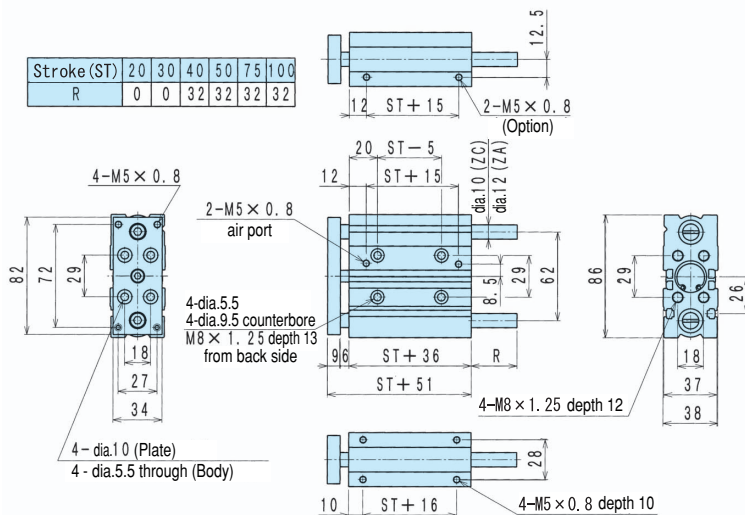


# ZC(ZA) Series Compact Guide Rod Cylinder

## Layout Drawing

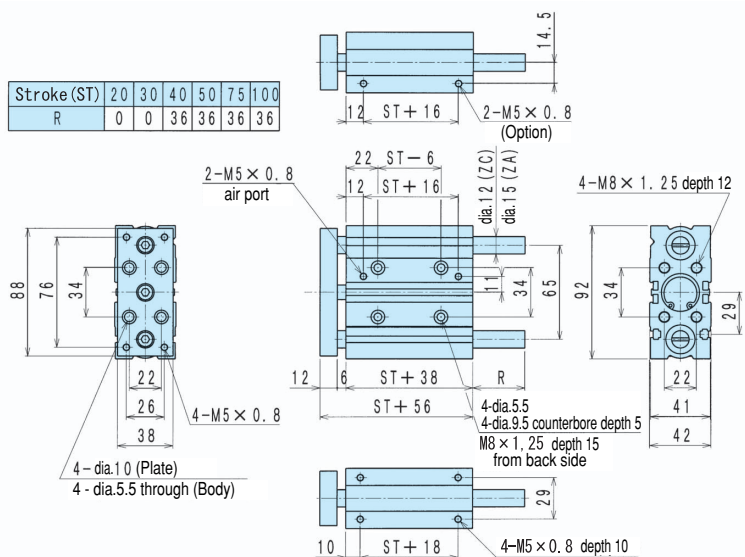
### ■ ZC(ZA)-20A (Thrust 130N)

#### ZC(ZA)-20A Standard



### ■ ZC(ZA)-25A (Thrust 205N)

#### ZC(ZA)-25A Standard

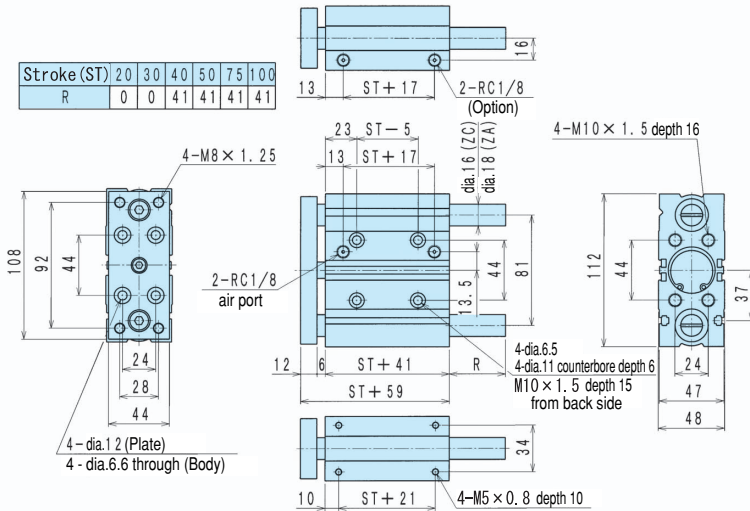


# ZC(ZA)-20A/25A/32A/40A/50A/63A

For CAD data, please go to **▶518P**

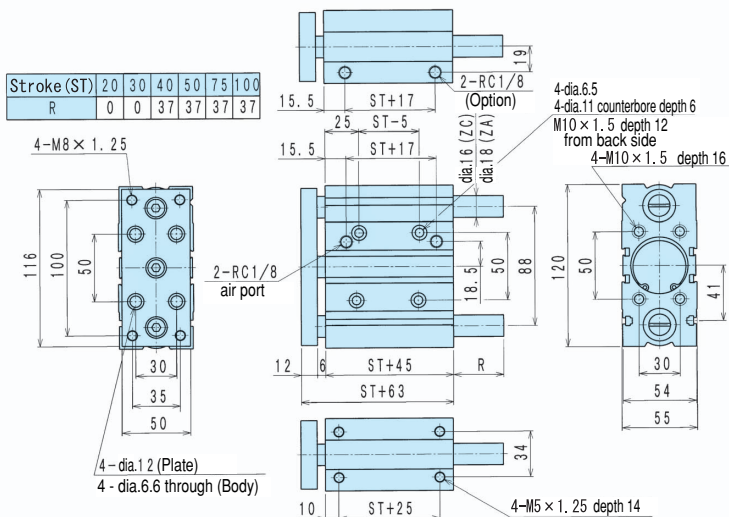
## ■ZC(ZA)-32A (Thrust 345N)

### ZC(ZA)-32A Standard



## ■ZC(ZA)-40A (Thrust 525N)

### ZC(ZA)-40A Standard



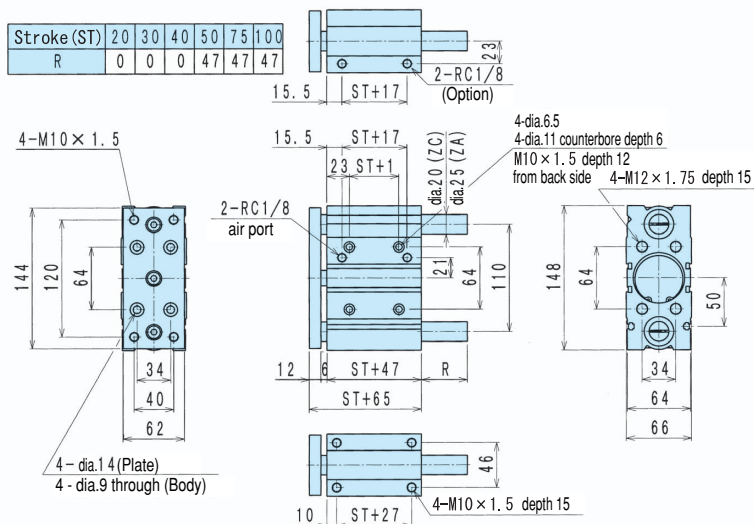
Robotic Peripheral Devices

# ZC(ZA) Series Compact Guide Rod Cylinder

## Layout Drawing

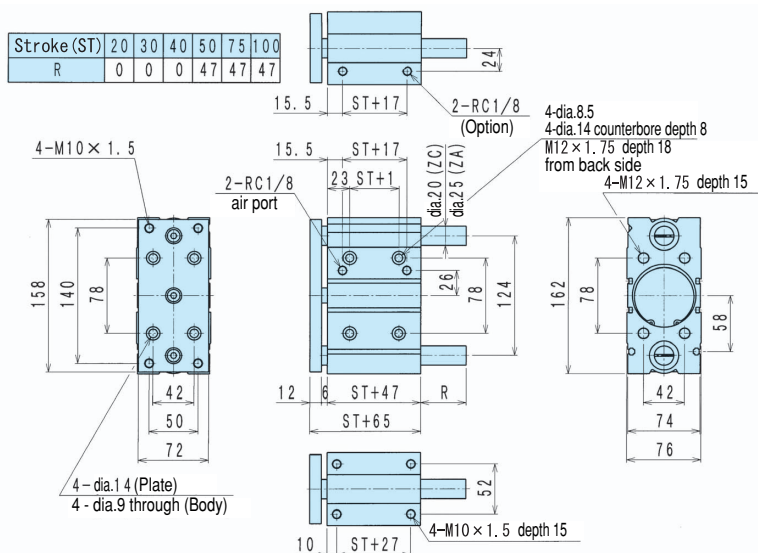
### ■ ZC(ZA)-50A (Thrust 880N)

#### ZC(ZA)-50A Standard




### ■ ZC(ZA)-63A (Thrust 1455N)

#### ZC(ZA)-63A Standard



# ZC(ZA)-20A/25A/32A/40A/50A/63A

 For CAD data, please go to **▶518P**