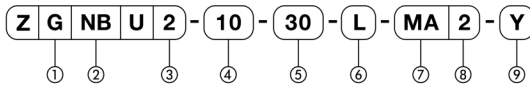


Z□U series

Air Cylinder / Non-Rotating Piston Rod Type
 Ø10, Ø16

Ordering Instructions



① Magnet

C: No magnet (switch unavailable)
 G: With built-in magnet (switch available)

② Port position

No label: At right angles to piston axis (Standard)
 NB: In direction of piston axis

③ Action

2: Double-acting, single rod
 1: Single-acting (Spring return)
 0: Single-acting (Spring extend)

④ Bore (mm)

10: Ø10
 16: Ø16

⑤ Stroke (mm)

Bore	Stroke
Ø10	15, 30, 45, 60
Ø16	15, 30, 45, 60

⑥ Mounting

N: One side nose mounting
 L: One side foot mounting
 A: Flange mounting
 W: Female clevis (Except Ø6)

⑦ Sensor switch type

No label	No switch	
MA	MA-1 (AC110V, DC24V)	M type reed switch
MB	MD-1 (DC24V)	
MC	MD-3 (DC5, 6V)	
MD	MR (AC, DC5~110V)	
ME	MA-2L (AC110V)	
MF	MA-2H (AC220V)	M type proximity switch
MG	MT-3 (DC5~30V)	
MH	MT-3U (DC5~30V)	
MJ	MT-2 (DC24V)	
MK	MT-2U (DC24V)	

⑧ Number of switches

No mark: No switch
 2: With 2 units
 1: With 1 unit

⑨ Accessories

No mark: With rod end nut
 Y: Rod end female clevis
 I: Rod end male clevis

Model No. of Switch Mounting Bracket

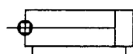
Bore (mm)	M type switch
Ø10	Z10-MJ
Ø16	Z16-MJ

Model No. of Mounting Bracket

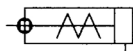
Bore (mm)	Ø10	Ø16
Foot mounting	Z10-L	Z16-L
Flange mounting	Z10-A	Z16-A
Rear hinge	Z10-BY	Z16-BY



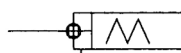
JIS Label



Double acting



Single acting(Spring return)



Single acting(Spring extend)

Value shown in this catalog is shown in SI unit. However, value within this output table is in generic unit. Use the following formula to convert to SI unit :

Pressure

$$Y(\text{MPa}) = X(\text{kgf/cm}^2) \times 9.80665 \times 10^{-2}$$

Force

$$Y(\text{N}) = X(\text{kgf}) \times 9.80665$$

Specifications

Action	Unit	Double-acting	Single-acting
Fluid		Non-lubricated air	
Pressure range	MPa (kgf/cm ²)	0.1~0.7 (1~7.1)	0.15~0.7 (1.5~7.1)
Proof pressure	MPa (kgf/cm ²)	1.05(10.7)	
Range temperature	°C	5~60	
Piston speed range	mm/s	50~500	
Cushion		Built-in gasket	
Piston stroke allowance	mm	+1.0 0	
Non-rotation accuracy for axis	°C	±2	
Mounting		Nose mounting, Foot mounting, Flange mounting, Female clevis	

Accessories

	Name	Nose mounting	Foot mounting	Mounting flange	Clevis
Standard	Nose nut	○	○	○	—
	Rod end nut	○	○	○	○
	Clevis pin	—	—	—	○
Optional	Rod end female clevis	○	○	○	○
	Rod end male clevis	○	○	○	○
	Rear hinge	—	—	—	○

Standard Stroke

(Unit: mm)

Acting	Bore	Standard Stroke	Max. Stroke
Double acting	∅10	15, 30, 45, 60	150
	∅16		
Single acting	∅6	15, 30, 45, 60	90
	∅10		

Double acting

(Unit: g)

Bore (mm)	Mounting	Stroke(mm)			
		15	30	45	60
∅10	One side nose	28	32	36	40
	Female clevis/W	42	45	49	53
∅16	One side nose	53	61	69	77
	Female clevis/W	86	93	101	109

Single acting

(Unit: g)

Bore (mm)	Mounting	Stroke(mm)			
		15	30	45	60
∅10	One side nose	27	34	41	48
	Female clevis/W	40	47	54	61
∅16	One side nose	54	68	82	96
	Female clevis/W	86	100	114	128

Model With Switch**M Type Reed Switch****Lead With Wire**

Model No.	Rated voltage(V)	Rated current range(mA)	Pilot lamp (Lights up at ON)	Application
MA-1	AC110	5~45	○	Relay / PLC
	DC24	5~45		
MD-1	DC24	25~65	○	Relay
MD-3	DC5, 6	Max.50(Inductive load) Max.300(Resistive load)	○	IC circuit
MR	AC 5~110 DC 5~110	Max.50(Inductive load) Max.300(Resistive load)	No indicator light	Relay / PLC
MA-2L	AC100/110	5~150	○	Relay
MA-2H	AC200/220	5~150	○	Relay

Note: The MA-2L is the same as the MA-1 except that MA-2L is also equipped with protective circuit SS-2L.

The MA-2H is the same as the MA-1 except that MA-2H is also equipped with protective circuit SS-2H.

Sensor switch position

Refer to Z Series.

M Type Proximity Switch**Lead With Wire**

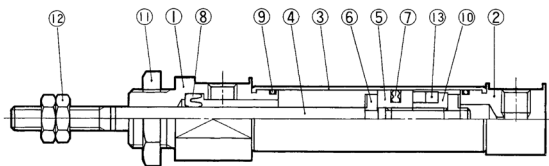
Model No.	Rated voltage (V)	Rated current range(mA)	Pilot lamp (Lights up at CN)	Application
MT-2 MT-2U	DC24 (DC10~30)	5~100	○	Relay / PLC
MT-3 MT-3U	DC5~30	5~200	○	Relay / PLC / IC circuit

Minimum Stroke with M Type Switch (Unit: mm)

Bore	Number of switches		
	With 2 units (On the same surface)	With 2 units (On different surfaces)	With 1 unit
Ø10	45	15	15
Ø16	35		

Double acting (Indecomposable)

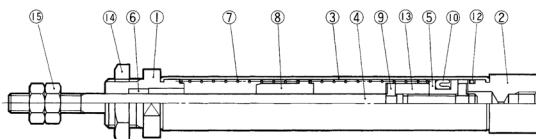
ZGU2



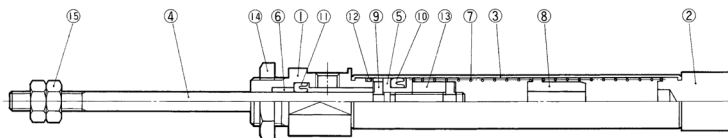
No.	Name	No.	Name	No.	Name
1	Rod cover	6	Damper cushion	11	Nose nut
2	Head cover	7	Piston parking	12	Rod end nut
3	Cylinder tube	8	Rod parking	13	Magnet
4	Piston	9	O-ring		
5	Piston rod	10	Magnet base		

Single acting (Indecomposable)

Spring return ZCU1



Spring extend ZCU0



No.	Name	No.	Name	No.	Name
1	Rod cover	6	Resetting spring	11	O-ring
2	Head cover	7	Spring base	12	Collar
3	Cylinder tube	8	Damper cushion	13	Nose nut
4	Piston	9	Piston parking	14	Rod end nut
5	Piston rod	10	Rod parking		

(Unit: mm)

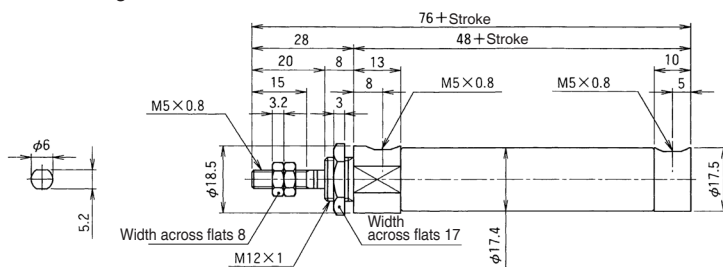
Series



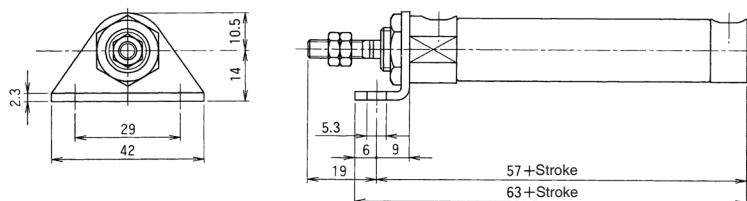
Double-acting $\varnothing 16$ / ZGU-16

(Unit: mm)

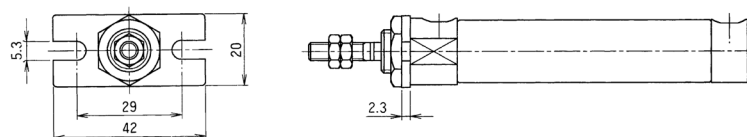
One side nose mounting / N



One side foot mounting / L

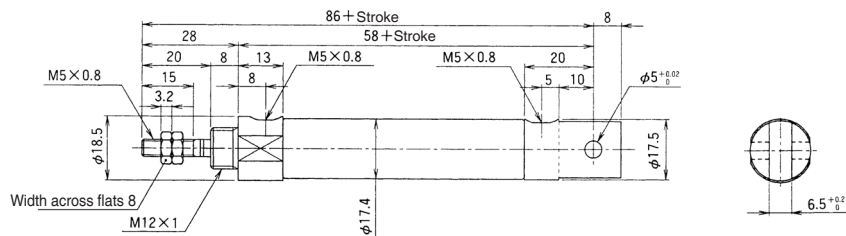


Flange mounting / A



Clevis mounting / W

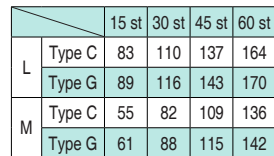
(Clevis mounting with c ring and latch)



Note: The minimum standard is 15 mm stroke.

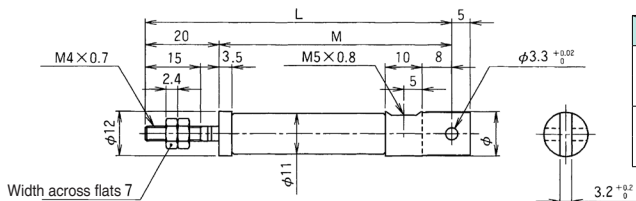
(Unit: mm)

Series



		15 st	30 st	45 st	60 st
Lg	Type C	62	89	116	143
	Type G	68	95	122	149
Li	Type C	67	94	121	148
	Type G	73	100	127	154

(Clevis mounting with c ring and latch)



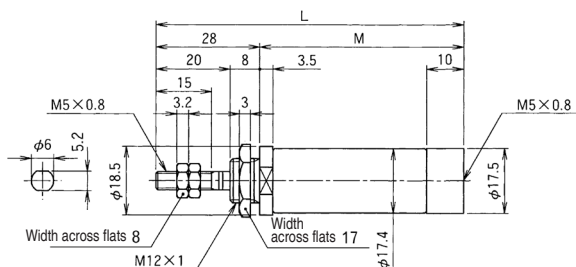
		15 st	30 st	45 st	60 st
L	Type C	83	110	137	164
	Type G	94	121	148	175
M	Type C	63	90	117	144
	Type G	69	96	123	150



Single-acting spring return type Ø16 / Z□U1-16

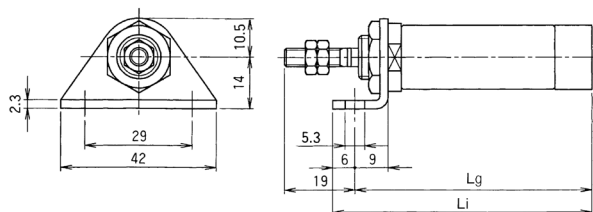
(Unit: mm)

One side nose mounting / N port position NB (Z□NBU1)



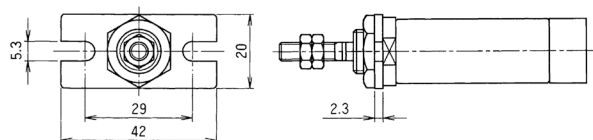
		15 st	30 st	45 st	60 st
L	Type C	83	110	137	164
	Type G	89	116	143	170
M	Type C	55	82	109	136
	Type G	61	88	115	142

One side foot mounting / L



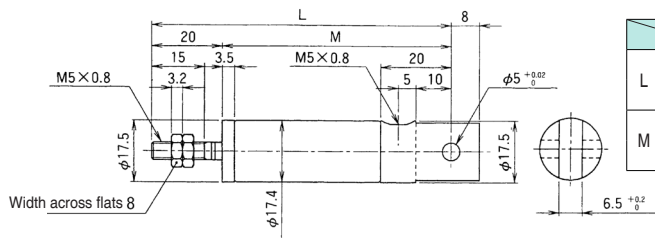
		15 st	30 st	45 st	60 st
Lg	Type C	64	91	118	145
	Type G	70	97	124	151
Li	Type C	70	97	124	151
	Type G	76	103	130	157

Flange mounting / A



Clevis mounting / W

(Clevis mounting with c ring and latch)



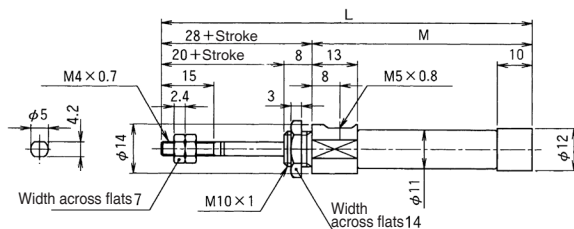
		15 st	30 st	45 st	60 st
L	Type C	85	112	139	166
	Type G	91	118	145	172
M	Type C	65	92	119	146
	Type G	71	98	125	152

Note: The minimum standard is 15 mm stroke.

Single-acting spring return type $\varnothing 10$ / ZUO-10

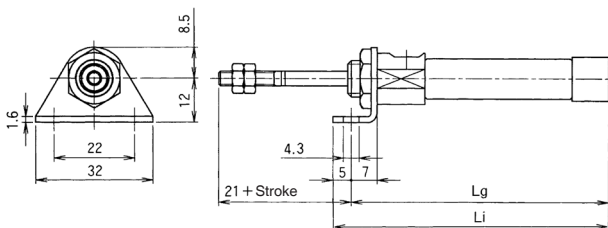
(Unit: mm)

One side nose mounting / N



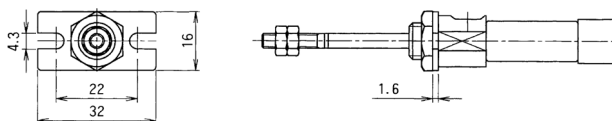
		15 st	30 st	45 st	60 st
L	Type C	92.5	119.5	146.5	173.5
	Type G	98.5	125.5	152.5	179.5
M	Type C	64.5	91.5	118.5	145.5
	Type G	70.5	97.5	124.5	151.5

One side foot mounting / L



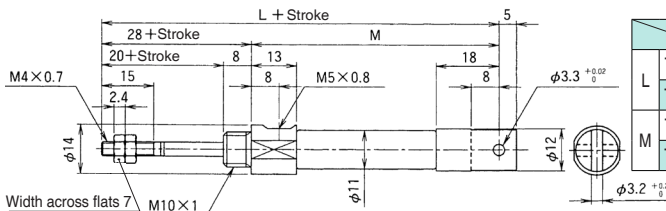
		15 st	30 st	45 st	60 st
Lg	Type C	71.5	98.5	125.5	152.5
	Type G	77.5	104.5	131.5	158.5
Li	Type C	76.5	103.5	130.5	157.5
	Type G	82.5	109.5	136.5	163.5

Flange mounting / A



Clevis mounting / W

(Clevis mounting with c ring and latch)

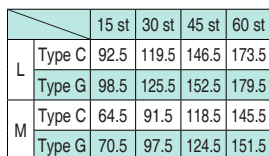


		15 st	30 st	45 st	60 st
L	Type C	100.5	127.5	154.5	181.5
	Type G	106.5	133.5	160.5	187.5
M	Type C	72.5	99.5	126.5	153.5
	Type G	78.5	105.5	132.5	159.5

Note: The minimum standard is 15 mm stroke.

(Unit: mm)

Z Series



		15 st	30 st	45 st	60 st
Lg	Type C	73.5	100.5	127.5	154.5
	Type G	79.5	106.5	133.5	160.5
Li	Type C	79.5	106.5	133.5	160.5
	Type G	85.5	112.5	139.5	166.5

[illegible]

		15 st	30 st	45 st	60 st
L	Type C	102.5	129.5	156.5	183.5
	Type G	108.5	135.5	162.5	189.5
M	Type C	74.5	101.5	128.5	155.5
	Type G	80.5	107.5	134.5	161.5