

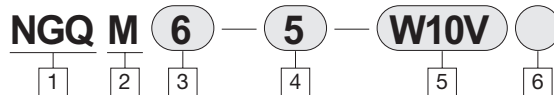
NGQ(Mini) Series

Miniature guide rod cylinder



- Lateral load and precise non-rotation cylinder
- Compact and simple design
- Horizontal and vertical mounting available
- Auto-switches attachable on 5mm stroke
- Superior operation performance and high precision

How to order



1 NGQ : New Guide Compact Cylinder (Mini)

2 Bearing type : Slide bearing

3 Bore size

Spec.	6	10
Bore (mm)	6mm	10mm

4 Cylinder Stroke

Bore Size(mm)	Standard Stroke (mm)
6	5, 10, 15
10	5, 10, 15, 20

5 Auto-switch

Blank : None
 W10V : Micro solid state auto-switch (10mm vertical type)

6 Number of auto-switches

Blank : 2 pcs
 S : 1 pc

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Standard Specification

Tube (mm)	6	10
Fluid	Compressed Air	
Operation	Double Acting	
Proof Pressure	1.05MPa(10.7kgf/cm ²)	
Max. Pressure	0.7MPa(7.1kgf/cm ²)	
Min. Pressure	0.15MPa(1.5kgf/cm ²)	
Ambient fluid temperature	5-60°C	
Cushion	RUBBER Cushion	
Lubrication	Non Lubrication	
Piston Speed	50-500mm/s	
Stroke Tolerance	+1.0 mm 0	
Port Size	M3x0.5	
Installation Method	Horizontal / Vertical	

Theory Output

(Unit : kgf)

Bore Size (mm)	Rod Diameter (mm)	Operating Direction	Projected area (cm ²)	Pressure Applied (kgf/cm ²)					
				2	3	4	5	6	7
6	3	OUT	0.3	0.6	0.8	1.1	1.4	1.7	2.0
		IN	0.2	0.4	0.6	0.8	1.1	1.3	1.5
10	5	OUT	0.8	1.6	2.4	3.2	4.0	4.7	5.5
		IN	0.6	1.2	1.8	2.4	3.0	3.5	4.1

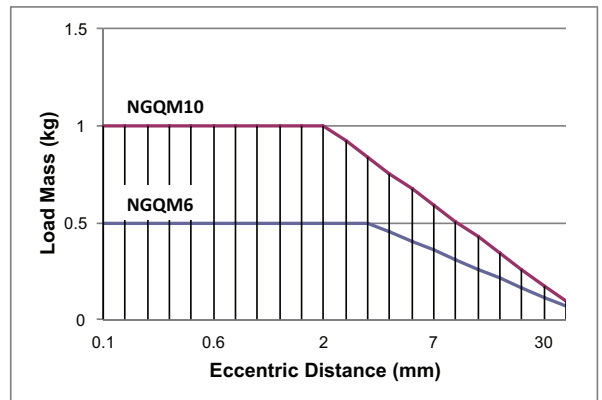
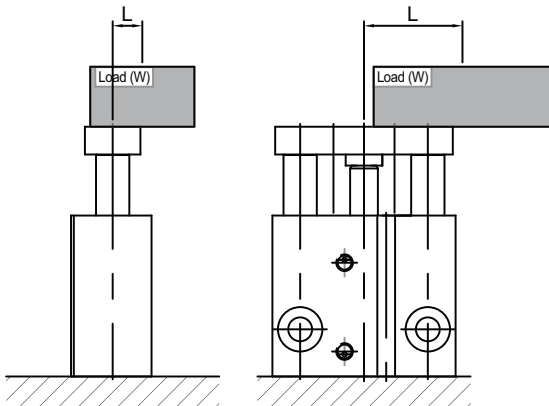
Note) Theory output(kgf) = Pressure (kgf/cm²) X Pison projected area(cm²) 1kgf/cm² 9.8N, 1kgf/cm² ≒ 0.098MPa

Weight Table

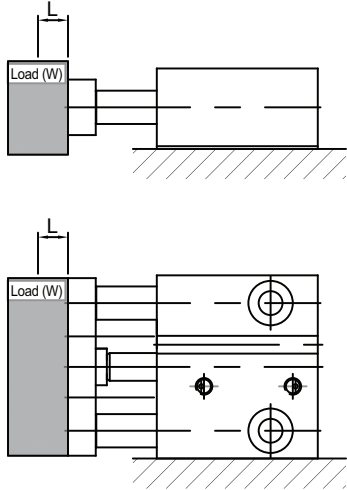
(Unit : g)

Bore Size (mm)	5	10	15	20
6	28	35	42	-
10	42	50	58	66

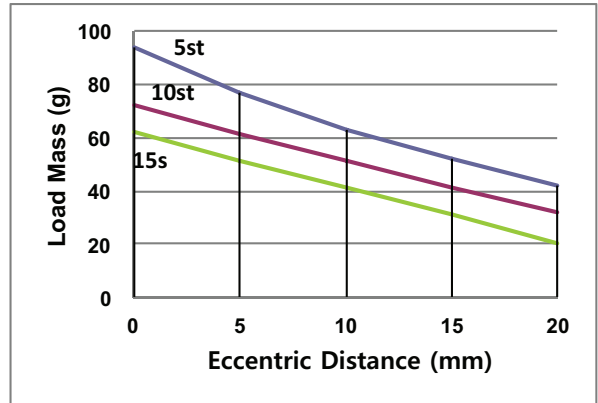
Allowable Lateral Load



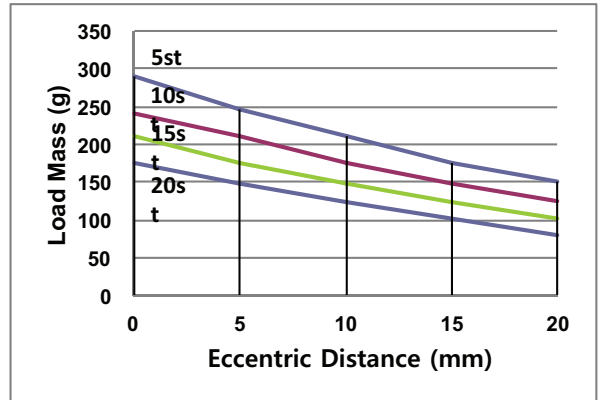
Allowable Lateral Load



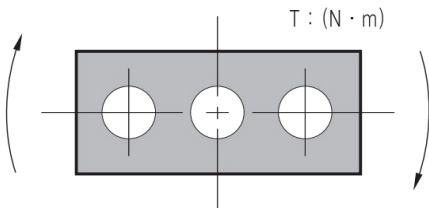
Ø6



Ø10



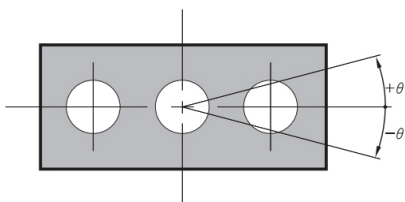
Allowable Rotation Torque(T)



Bore Size (mm)	Stroke (mm)			
	5	10	15	20
NGQM6	0.27	0.33	0.38	-
NGQM10	0.41	0.48	0.56	0.63

Maximum Rotation Angle

No load: Theoretical rotation angle due to the clearance of the guide rod and bearing in the reverse state.

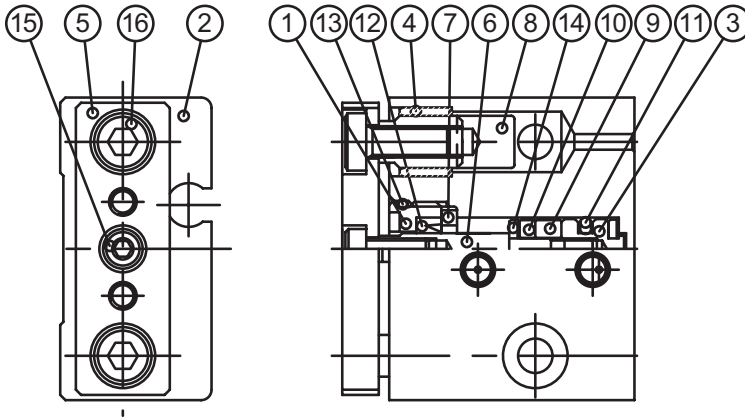


Bore Size (mm)	Max. Rotation Angle
NGQM6	±0.1°
NGQM10	

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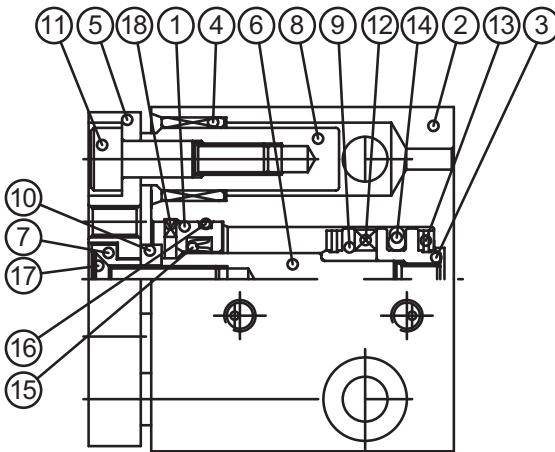
Structural Drawing / Part List

NGQM6



NO	Item name	Material
1	Rod cover	Alluminum alloy
2	Cylinder tube	Alluminum alloy
3	Piston	Alluminum alloy
4	Guide bush	Copper alloy
5	Plate	Alluminum alloy
6	Piston rod	Stainless steel
7	Cover spacer	Alluminum alloy
8	Guide rod	Stainless steel
9	Magnet	-
10	Piston spacer	Copper alloy
11	Piston packing	NBR
12	Rod packing	NBR
13	Tube gasket	NBR
14	Bumper	Urethane
15	Allen wrench bolt	Carbon steel
16	Low-head hexagon wrench bolt	Carbon steel

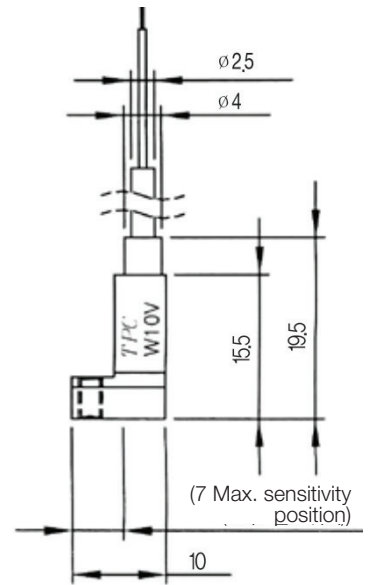
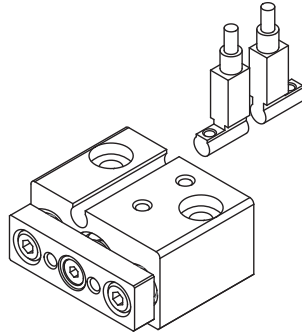
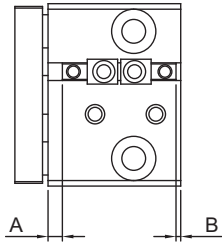
NGQM10



NO	Item name	Material
1	Rod cover	Aluminum alloy
2	Cylinder tube	Aluminum alloy
3	Piston	Aluminum alloy
4	Guide bush	Copper alloy
5	Plate	Aluminum alloy
6	Piston rod	Stainless steel
7	Retainer	Free cutting steel
8	Guide rod	Stainless steel
9	Magnet seat	Aluminum alloy
10	Retainer washer	Stainless steel
11	Guide rod bolt	Carbon steel
12	Magnet	-
13	Bumper	Urethane
14	Piston packing	NBR
15	Rod packing	NBR
16	Cover gasket	NBR
17	Plate mounting bolt	Carbon steel
18	Snap Ring	Carbon tool steel

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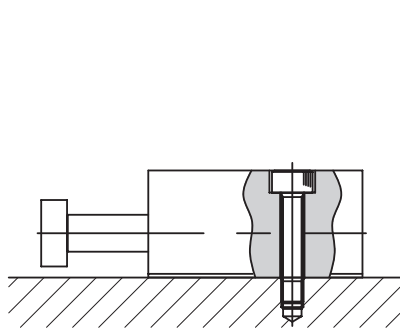
Proper Position to Attach Auto-switch



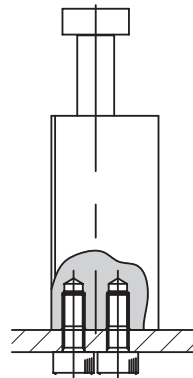
<W10V AUTO S/W>

Bore Size (mm)	A	B
$\phi 6$	1.2	1.2
$\phi 10$	3	1

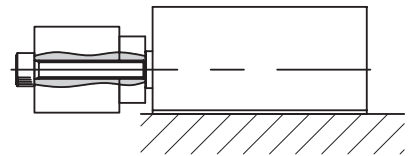
Tightening Bolt Torque Value



◎ Horizontal Installation



◎ Vertical Installation



◎ Load Installation

<During Cylinder Installation>

Bore Size	Applied Bolt	Max. Tightening Torque (N·m)	
		Horizontal	Vertical
$\phi 6$	M3x0.5	1.2	0.3
$\phi 10$	M4x0.7	2.7	0.7

<During Load Installation>

Bore Size	Applied Bolt	Max. Tightening Torque (N·m)
$\phi 6$	M2.5x0.45	0.5
$\phi 10$	M3x0.5	1

※ Make sure that the max. tightening torque is less than or equal to the max. tightening torque when installing the cylinder and installing the load.
(It depends on the material of the other side of installation.)