

Series 11-22-MHR3

3 finger rotary actuated air gripper
Size: 10, 15

How to Order



Clean series

11	Vacuum suction type
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11 — M D H R 3 — 10 R — M9B S

22 — M D H R 3 — 10 R — M9B S

Copper, fluorine and silicon-free + Low particle generation

22	Vacuum suction type
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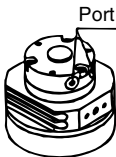
Number of fingers

3	3 fingers
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Nominal size

10	
15	

Connecting port

R: Body side	E: Axial side
	

Built-in magnet

Nil	No
D	With magnet (For auto switch)

Number of auto switches

Nil	2 pcs.
S	1 pc.

Auto switch

M9B
M9N

* Only R type is available for "Without auto switch".

Model

Model	Nominal size	Port size	Lubrication	Action	Gripping force N (Effective value at 0.5 MPa) *		Opening / Closing stroke (Diameter)		
					External gripping force	Internal gripping force	Finger closing width (mm)	Finger opening width (mm)	Stroke (mm)
11-22-MHR3-10 11-22-MDHR3-10	10	M3 x 0.5	Non-lube	Double acting	7	6.5	16	22	6
11-22-MHR3-15 11-22-MDHR3-15	15				13	12	19	27	8

* Refer to Best Pneumatics catalog for details of gripping force at each gripping point.
Value of effective gripping force is measured at the middle of opening / closing stroke.

Specifications

Item	Nominal size	
	10	15
Operating pressure	0.2 to 0.6MPa	
Ambient and fluid temperature	0 to 60°C	
Repeatability	±0.01mm	
Maximum operating frequency	180 c.p.m.	
Grease	11-: Fluorine grease 22-: Lithium soap based grease	
Particle generation grade (Refer to front matter pages 13 to 22 for details.)	11-/22-: Grade 1	

Suction flow rate of vacuum suction type (Reference values)

Size	Suction flow rate l/min (ANR)
10/15	10

Auto switch specifications (Refer to Best Pneumatics catalog for further information on auto switches.)

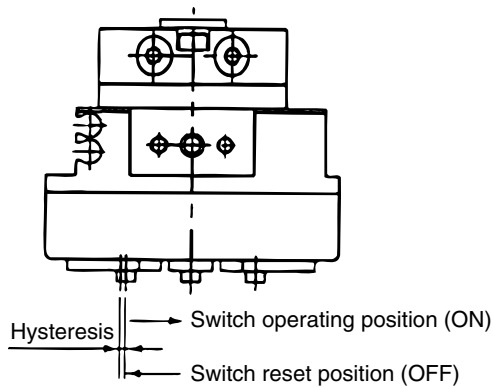
Type	Auto switch model	Load voltage	Load current range	Indicator light	Applicable load
Solid state switch	2-wire D-M9B(V)	24 VDC (10 to 28 VDC)	5 to 30 mA	Yes	24 VDC relay, PLC
	3-wire D-M9N(V)	28 VDC or less	50 mA or less	Yes	

Refer to page 235 for a list of applicable auto switches.

PLC: Programmable Logic Controller

Auto switch hysteresis

¹¹⁻²²⁻**MDHR3**



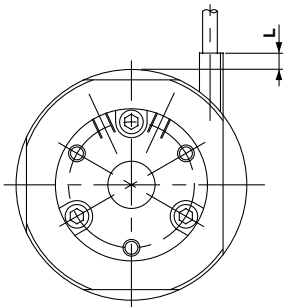
Please refer to the table as a guide when setting auto switch positions.

Model	Hysteresis (Max. value) (mm)
¹¹⁻²²⁻ MDHR3-10	0.3
¹¹⁻²²⁻ MDHR3-15	0.5

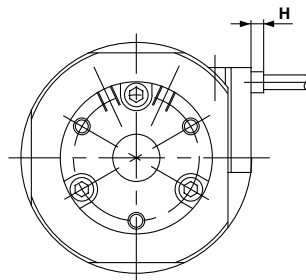
Protrusion of auto switch from edge of body

- The maximum protrusion of auto switch (when fingers are fully open) from the edge of the body is shown in the table below. Use the table as a guideline for mounting.

¹¹⁻²²⁻**MDHR3-10**



When auto switch D-M9□ is used

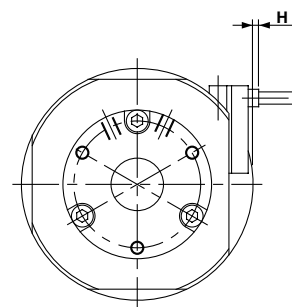


When auto switch D-M9□V is used

Max. protrusion of auto switch from edge of body: L,H (mm)

Auto switch model	D-M9□	D-M9□V
L	—	—
H	—	2.3

¹¹⁻²²⁻**MDHR3-15**



When auto switch D-M9□V is used

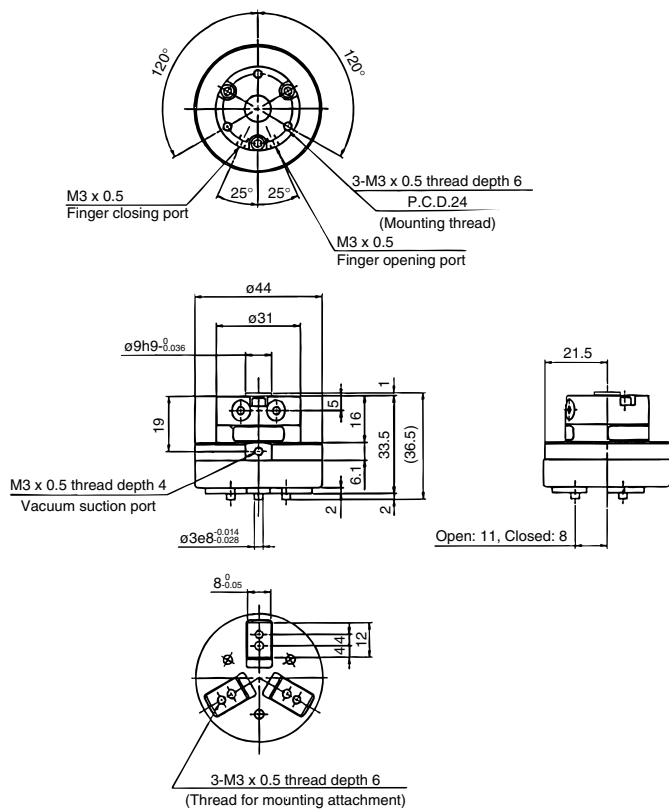
Max. protrusion of auto switch from edge of body: H (mm)

Auto switch model	D-M9□V
H	1.3

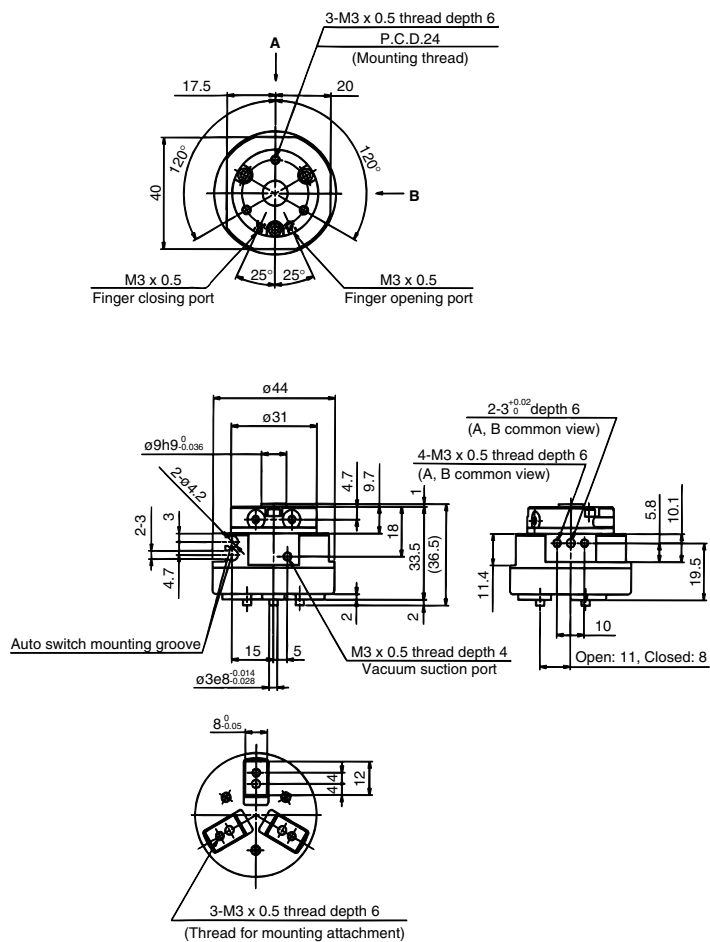
- The auto switch will not protrude in the case of D-M9□.

Rotary actuated air gripper ¹¹⁻~~22-~~ **MHR3**

Without auto switch: ¹¹⁻~~22-~~ **MHR3-10R**



With auto switch: ¹¹⁻~~22-~~ **MDHR3-10R**



¹¹⁻~~22-~~ **MDHR3-10E port location**

