


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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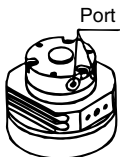
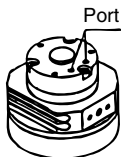
Number of fingers

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

Vacuum suction type	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	11- MHR3-10 22- MDHR3-10	10	M3 x 0.5	Non-lube	Double acting	7	6.5	16	22	6
	11-22- MHR3-15 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	0.15 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	1

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

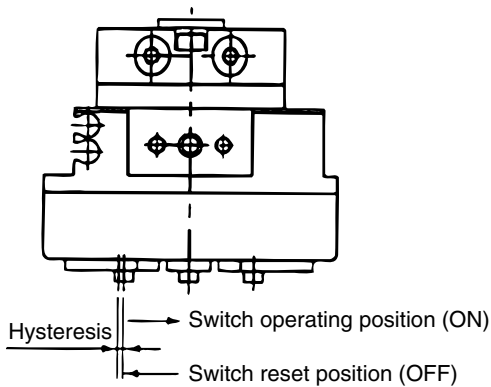
Type	Auto switch model	Load voltage	Load current range	Indicator light	Applicable load
Solid state switch	2-wire D-M9B(V)	24 VDC (10 to 28 VDC)	5 to 30 mA	Yes	24 VDC relay, PLC
	3-wire D-M9N(V)	28 VDC or less	50 mA or less	Yes	

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

PLC: Programmable Logic Controller

Auto switch hysteresis

11-22-**MDHR3**



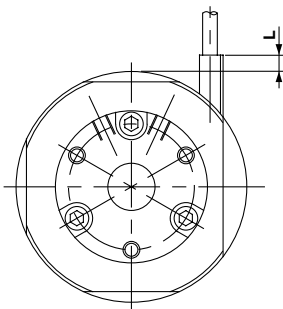
Please refer to the table as a guide when setting auto switch positions.

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

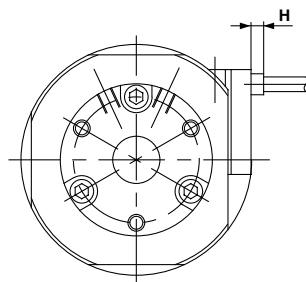
Protrusion of auto switch from edge of body

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

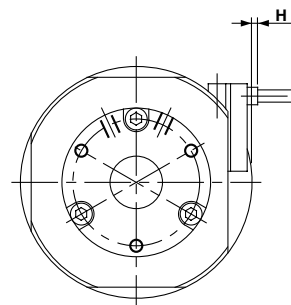


When auto switch D-M9□V is used

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

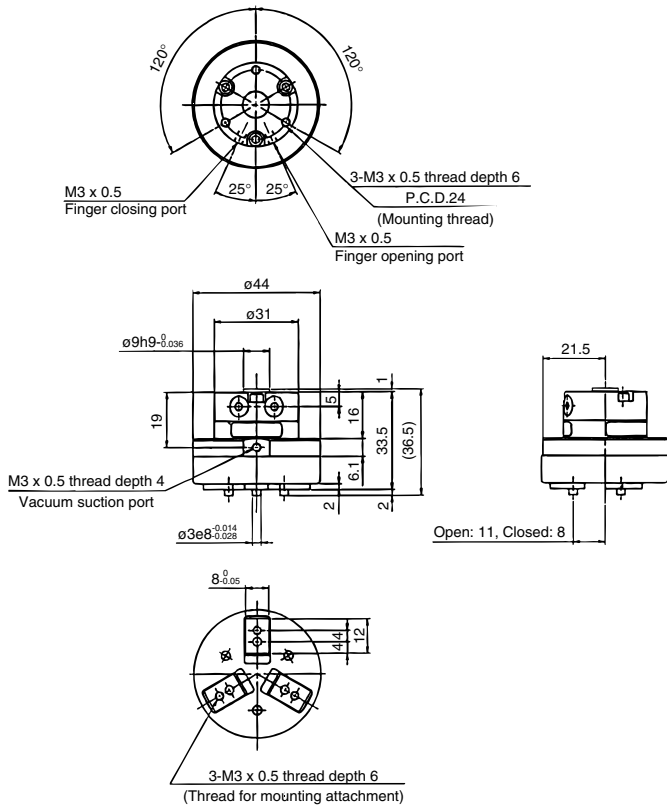
Max. protrusion of auto switch from edge of body: H (mm)

Auto switch model	D-M9□V
H	1.3

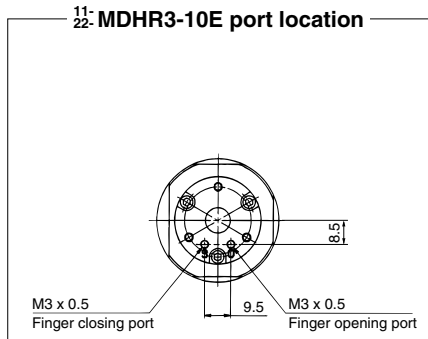
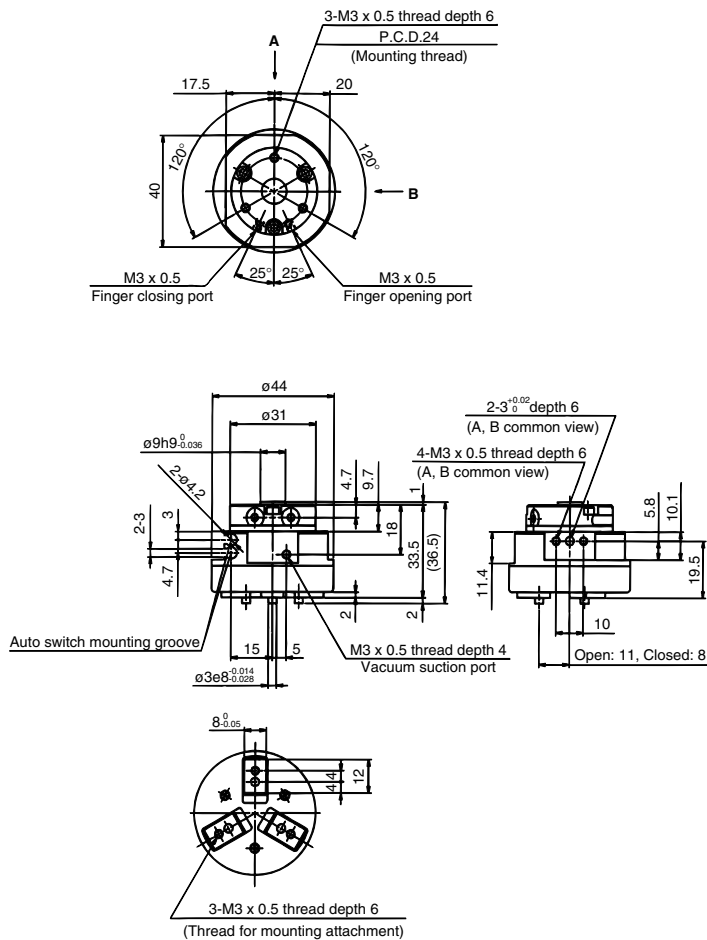
The auto switch will not protrude in the case of D-M9□.

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

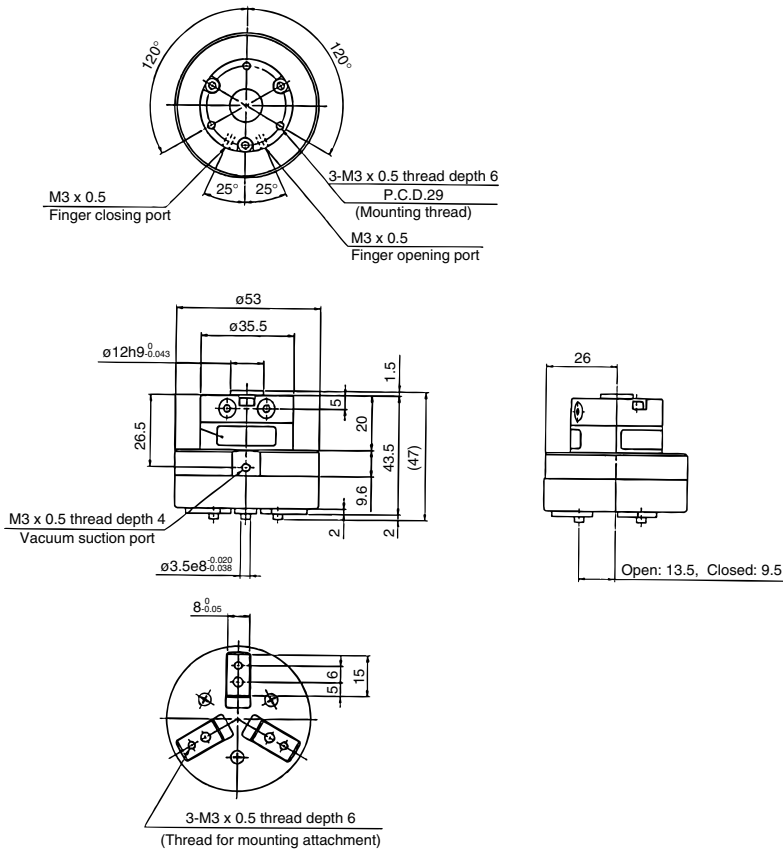
Without auto switch: **11-22-MHR3-10R**



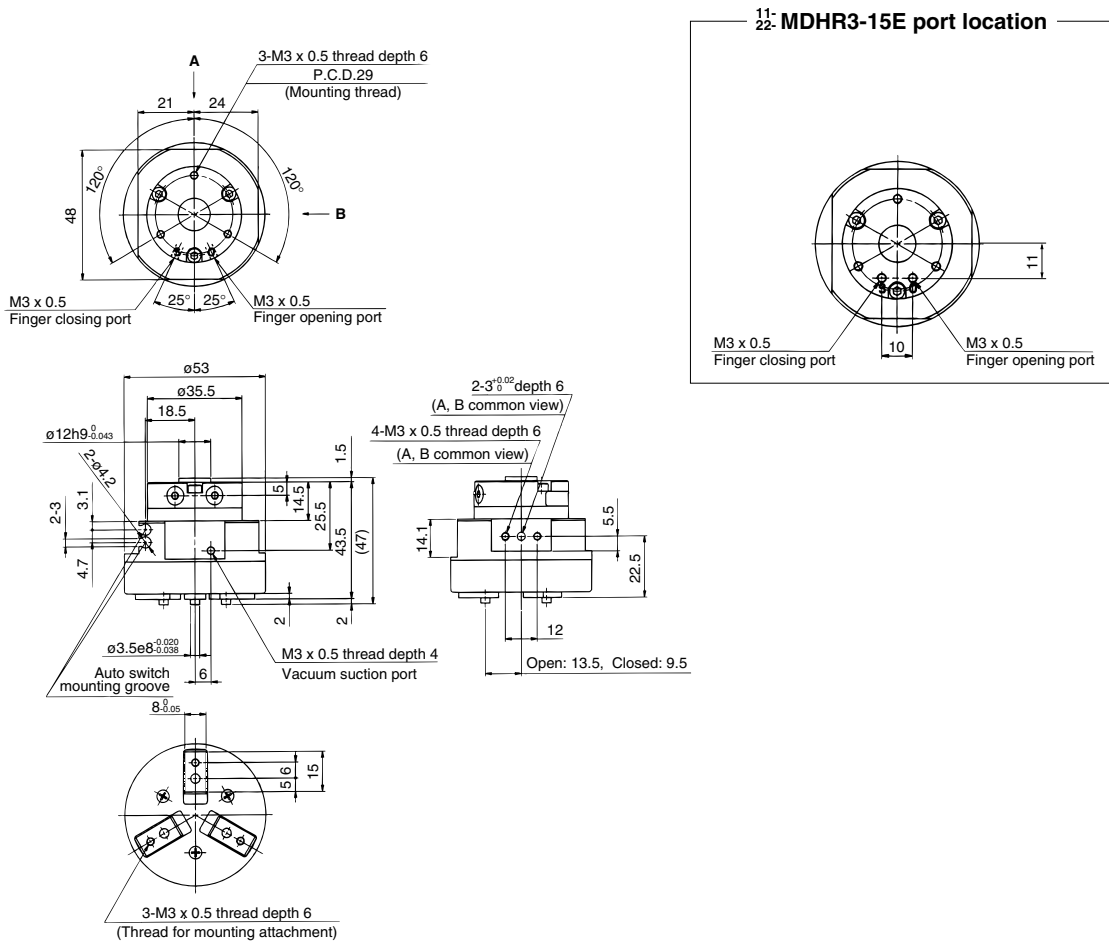
With auto switch: **11-22-MDHR3-10R**



Without auto switch: 11-22-MHR3-15R



With auto switch: 11-22-MDHR3-15R



Air cylinder

Rotary actuator

Air gripper

Directional control valve

Flow control equipment

Filter, Pressure control equipment

Fittings & Tubing

Air preparation equipment

Pressure switch

Clean gas filter