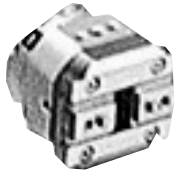


Series 11-22-MHR2

2 finger rotary actuated air gripper
Size: 10, 15, 20, 30

How to Order



Clean series
11 Vacuum suction type

11 — M D HR 2 — 10 R — M9B S

22 — M D HR 2 — 10 R — M9B S

Copper, fluorine and silicon-free + Low particle generation
22 Vacuum suction type

Number of fingers
2 2 fingers

Nominal size
10
15
20
30

Number of auto switches
Nil 2 pcs.
S 1 pc.

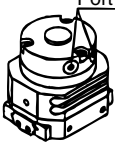
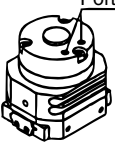
Auto switch
M9B
M9N

Built-in magnet

Nil	No
D	With magnet (For auto switch)

Connecting port

R: Body side	E: Axial side
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Model

Vacuum suction type	Model	Nominal size	Port size	Lubrication	Action	Gripping force N (Effective value at 0.5 MPa) *		Opening / Closing stroke (Both sides)		
						External gripping force	Internal gripping force	Finger opening width (mm)	Finger closing width (mm)	Stroke (mm)
	11- MHR2-10 22- MDHR2-10	10	M3 x 0.5	Non-lube	Double acting	12	12	10	16	6
	11- MHR2-15 22- MDHR2-15	15				24	25	14	22	8
	11- MHR2-20 22- MDHR2-20	20	M5 x 0.8			33	34	16	28	12
	11- MHR2-30 22- MDHR2-30	30				58	59	19	37	18

* Refer to our catalog Best Pneumatics vol. 12 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	15,20,30
Operating pressure	0.2 to 0.6 MPa	0.15 to 0.6 MPa
Ambient and fluid temperature	0 to 60°C	
Repeatability	±0.01 mm	
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
20/30	2

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

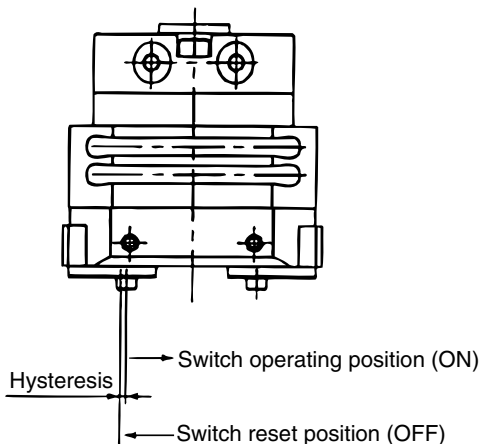
Type	Auto switch model	Load voltage	Load current range	Indicator light	Applicable load
Solid state switch	2-wire D-M9B(V)	24 VDC (10 to 28 VDC)	5 to 40 mA	Yes	24 VDC relay, PLC
	3-wire D-M9N(V)	28 VDC or less	40 mA or less	Yes	

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

PLC: Programmable Logic Controller

Auto switch hysteresis

¹¹⁻₂₂₋**MDHR2**



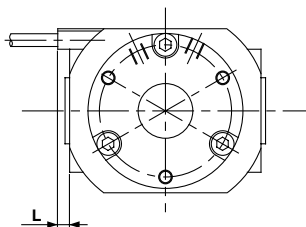
Please refer to the table as a guide when setting auto switch positions.

Model	Hysteresis (Max. value) (mm)
¹¹⁻ ₂₂₋ MDHR2-10	0.4
¹¹⁻ ₂₂₋ MDHR2-15	
¹¹⁻ ₂₂₋ MDHR2-20	0.5
¹¹⁻ ₂₂₋ MDHR2-30	

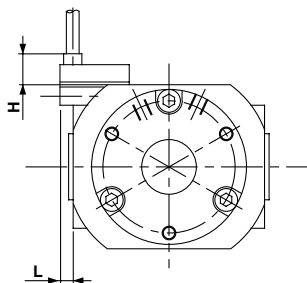
Protrusion of auto switch from edge of body

- The maximum protrusion of an 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₋**MDHR2-10,15**



When auto switch **D-M9N**, **D-M9P**, **D-M9B** is used

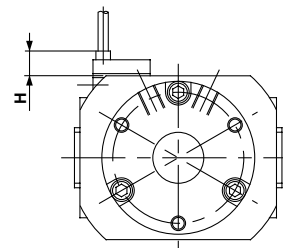


When auto switch **D-M9NV**, **D-M9PV**, **D-M9BV** is used

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

Auto switch model		D-M9□	D-M9□V
Air gripper model	MDHR2-10	L: 2.6 H: -	0.6 6.8
	MDHR2-15	L: - H: -	- 6.8

¹¹⁻₂₂₋**MDHR2-20,30**



When auto switch **D-M9NV**, **D-M9PV**, **D-M9BV** is used

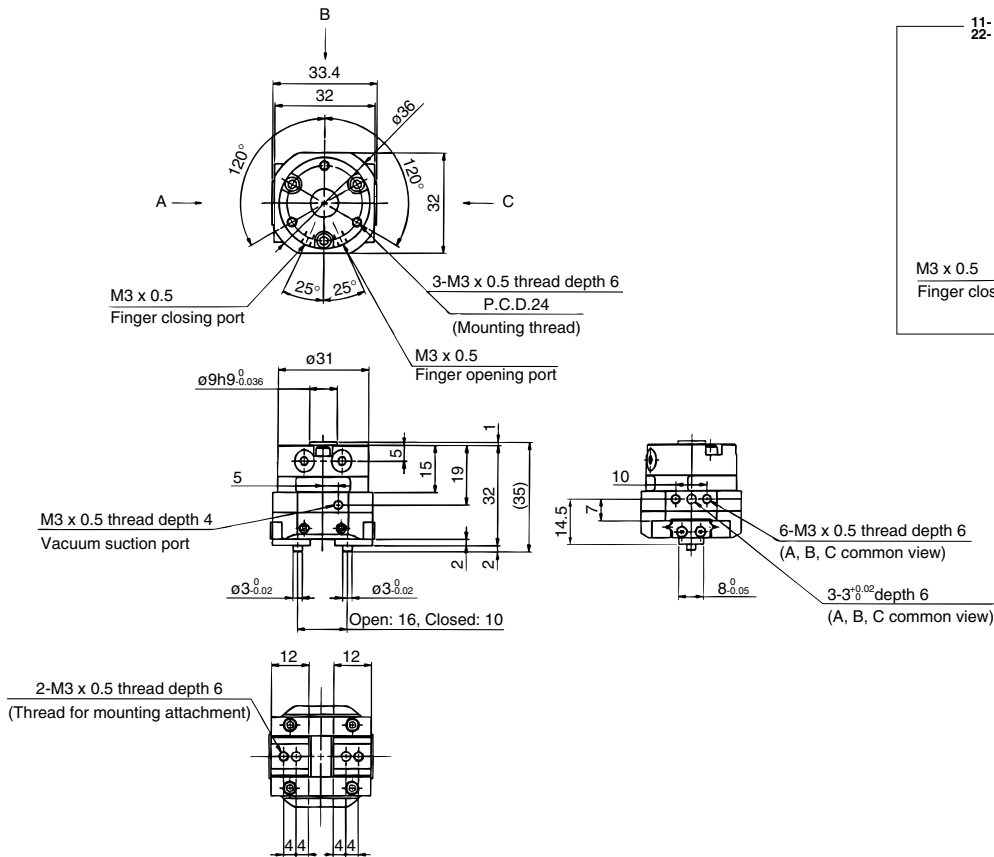
Max. protrusion of auto switch from edge of body: H (mm)

Auto switch model	D-M9□V
Air gripper model MDHR2-20	6.8
MDHR2-30	6.8

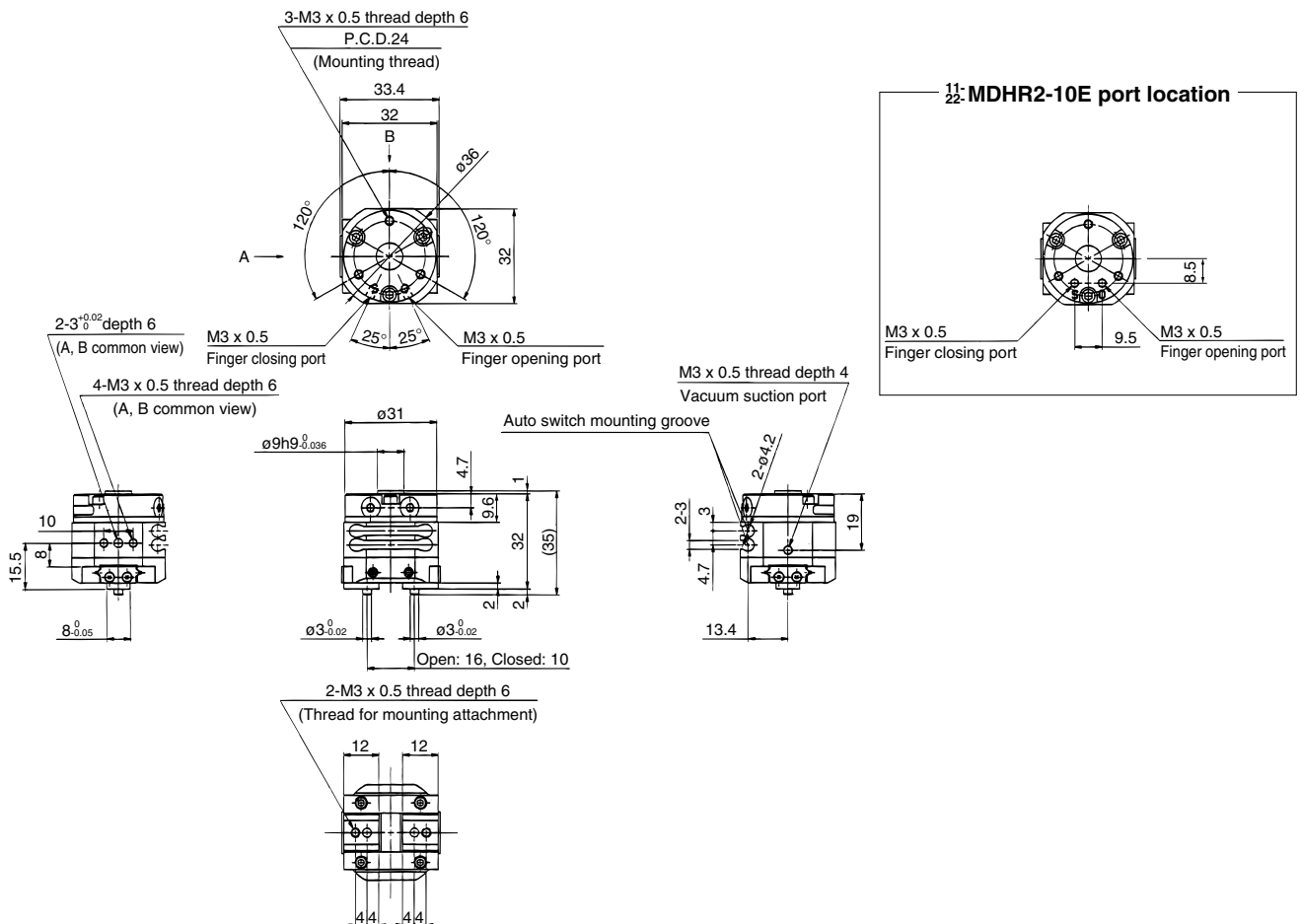
The auto switch will not protrude in the case of D-M9□.

Rotary actuated air gripper **11-22-MHR2**

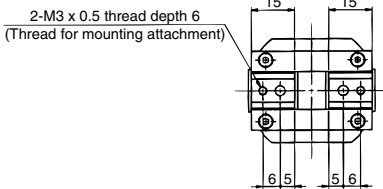
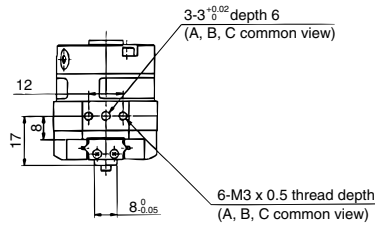
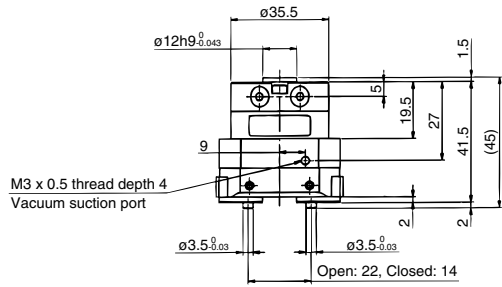
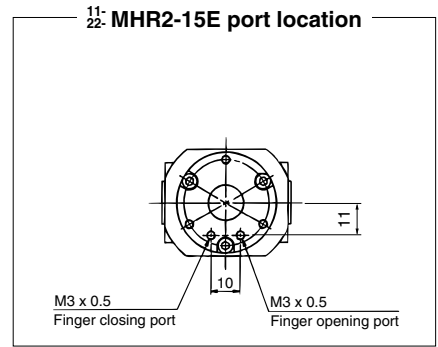
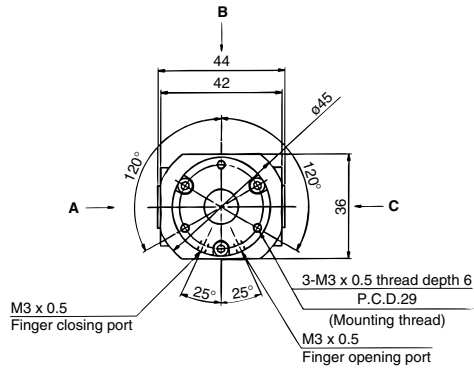
Without auto switch: **11-22-MHR2-10R**



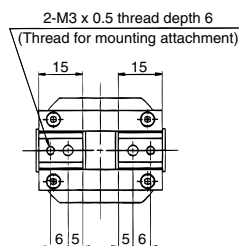
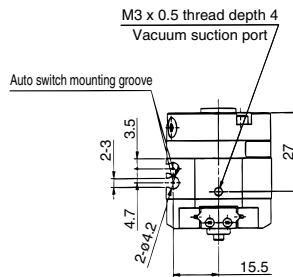
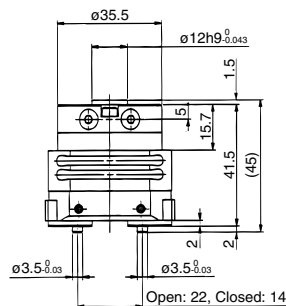
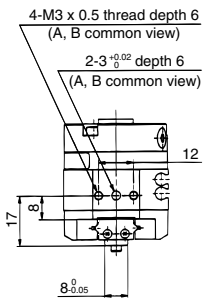
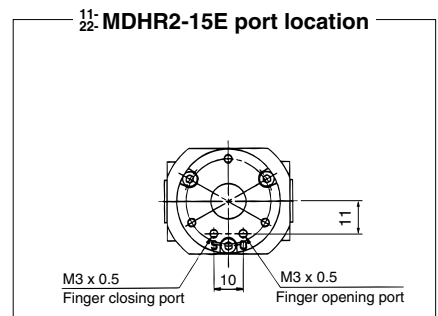
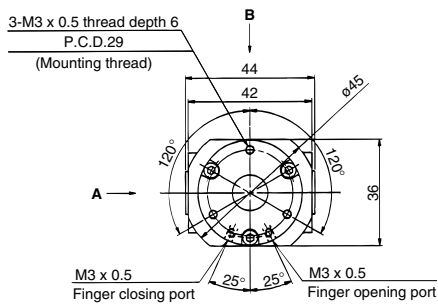
With auto switch: **11-22-MDHR2-10R**



Without auto switch: 11-22-**MHR2-15R**



With auto switch: 11-22-**MDHR2-15R**



Air cylinder

Rotary actuator

Air gripper

Directional control valve

Flow control equipment

Filter, Pressure control equipment

Fittings & Tubing

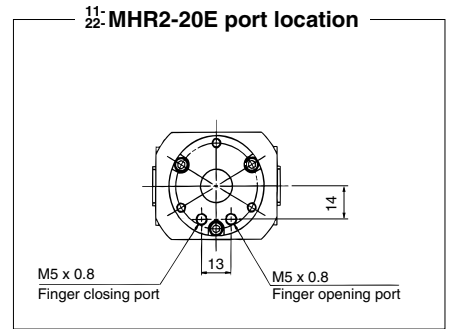
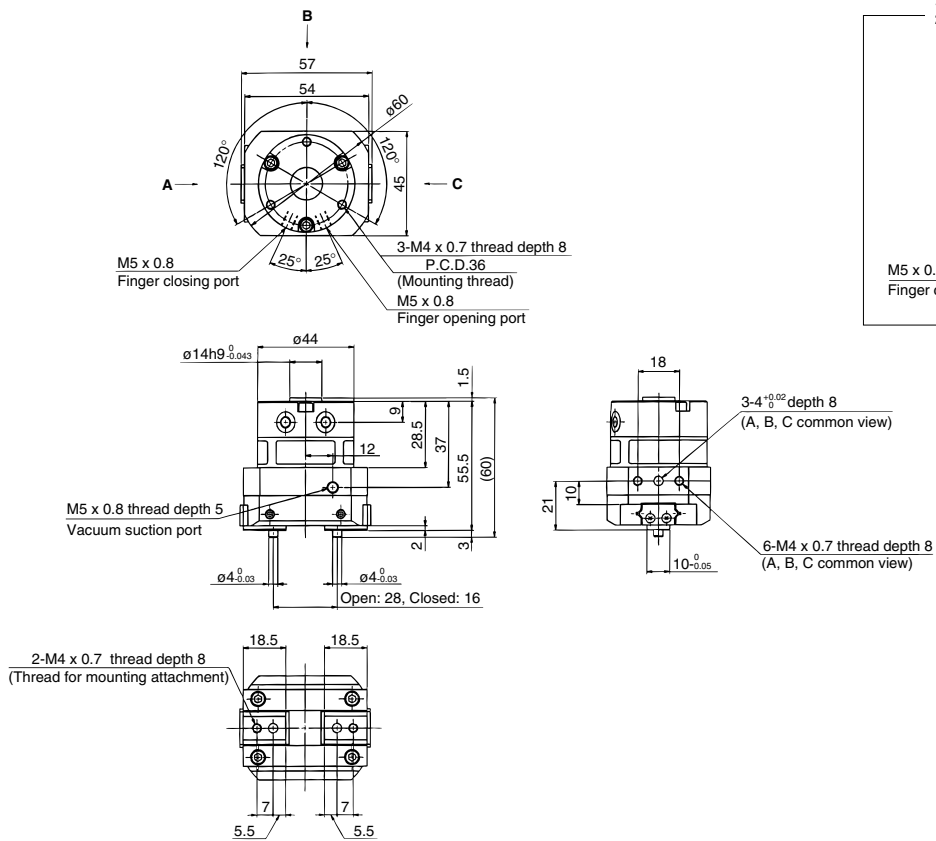
Air preparation equipment

Pressure switch

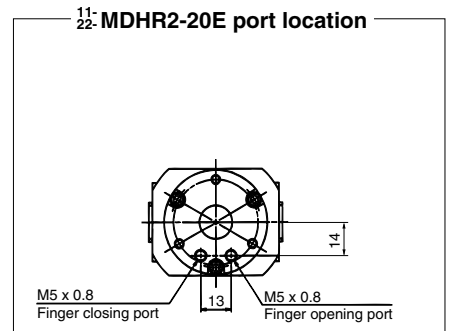
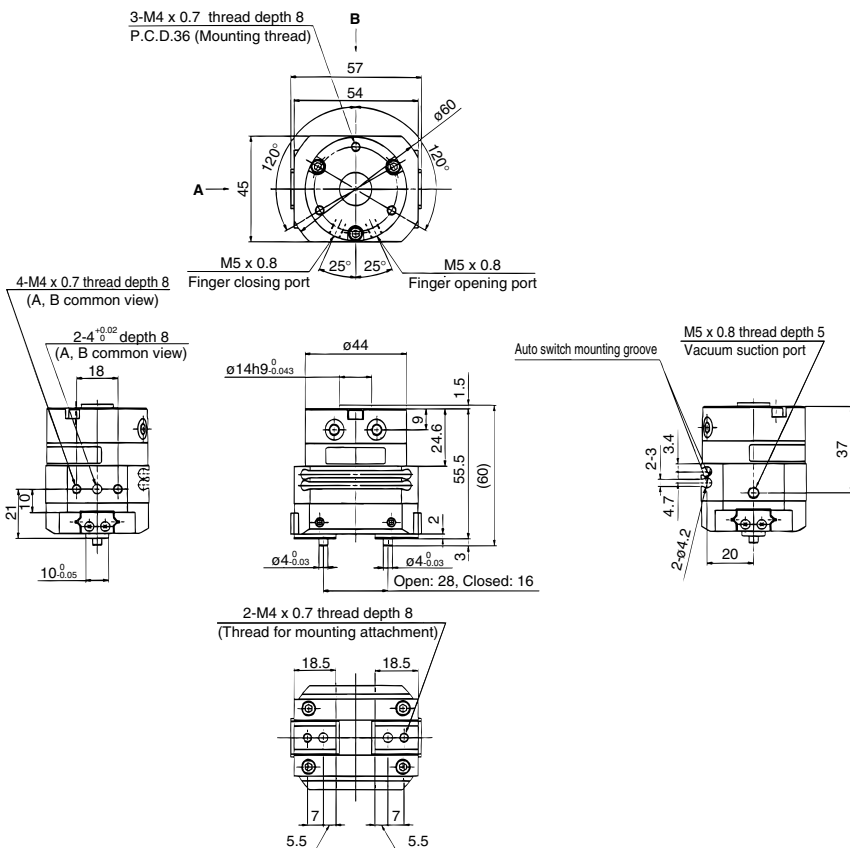
Clean gas filter

Rotary actuated air gripper 11-22-MHR2

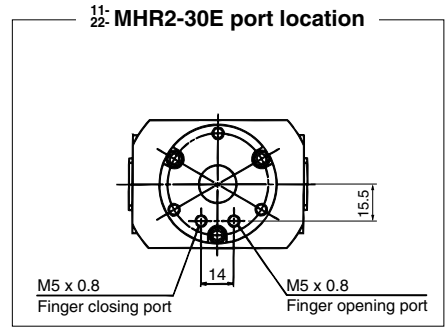
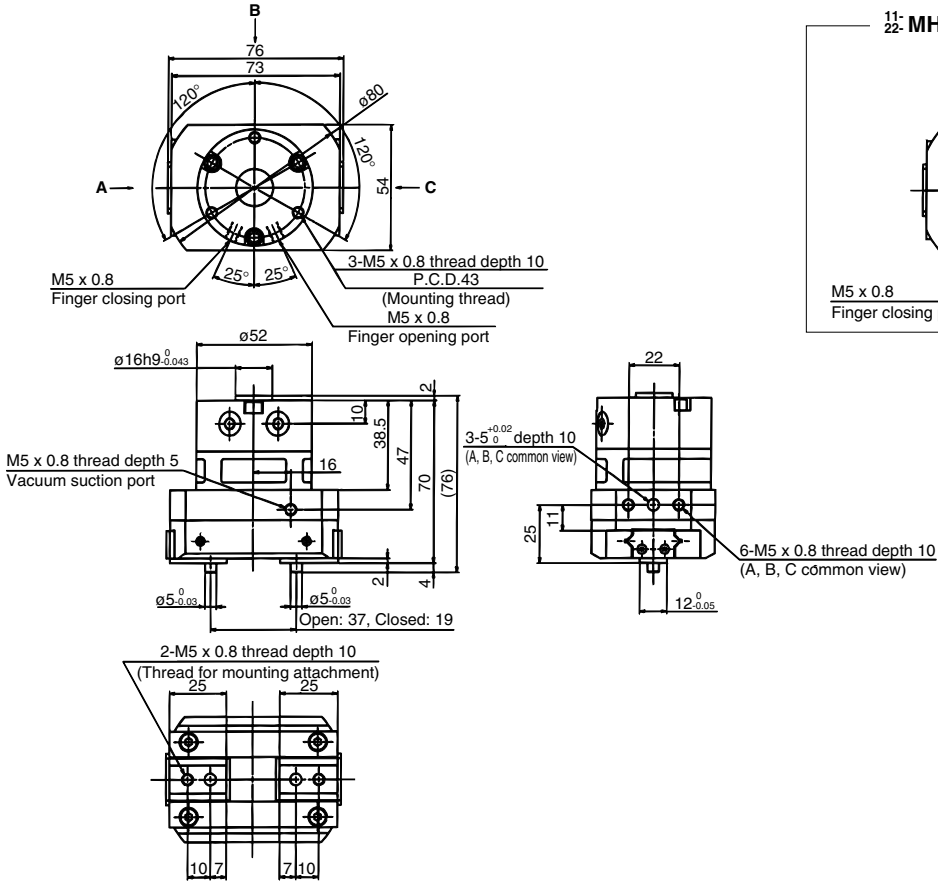
Without auto switch: 11-22-MHR2-20R



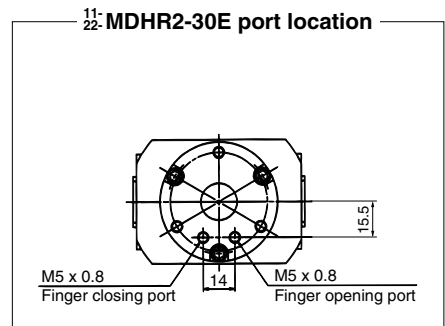
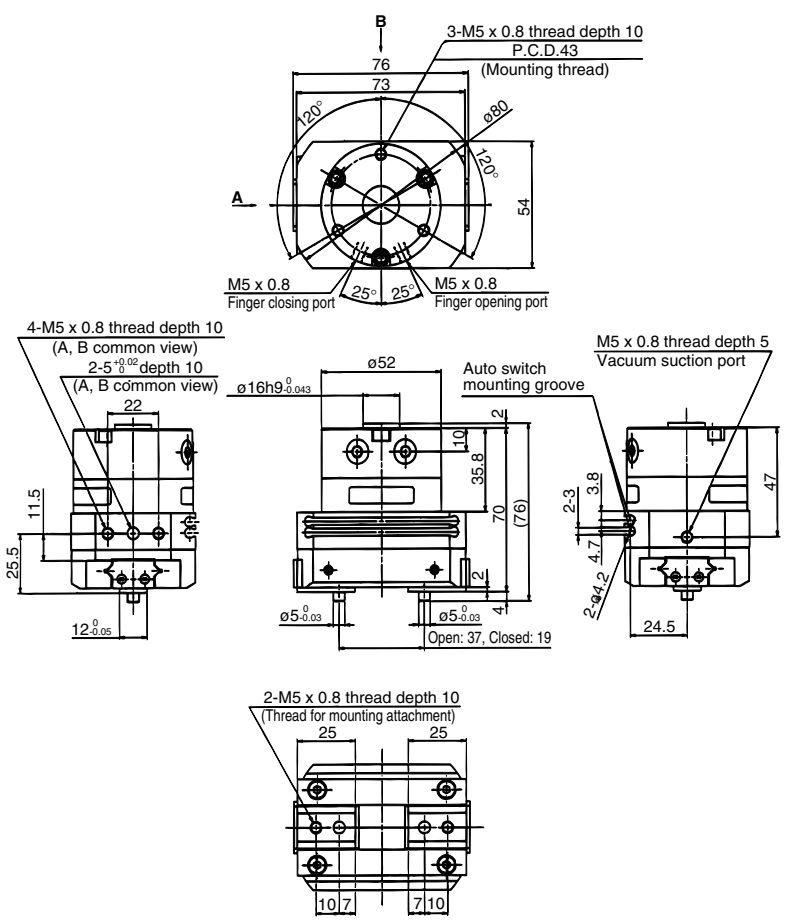
With auto switch: 11-22-MDHR2-20R



Without auto switch: 11-22-MHR2-30R



With auto switch: 11-22-MDHR2-30R



- 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