

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 silicone-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

Nil | Without auto switch (without magnet)

● Built-in magnet

Nil | No
D | With magnet (For auto switch)

● Connecting port

R: Body side | E: Axial side

Port

Port



Model

Model		Nominal size	Port size	Lubrication	Action	Gripping force N (Effective value at 0.5 MPa) Note 1)		Open/Close stroke (Both sides)			Note 2)	
						External	Internal	Finger opening width (mm)	Finger closing width (mm)	Stroke (mm)	Weight g	
Vacuum suction type	11-22 MHR2-10 11-22 MDHR2-10	10	M3 x 0.5	Non-lube	Double acting	12	12	10	16	6	105 (100)	
	11-22 MHR2-15 11-22 MDHR2-15	15				24	25	14	22	8	185 (180)	
	11-22 MHR2-20 11-22 MDHR2-20	20	M5 x 0.8			33	34	16	28	12	400 (390)	
	11-22 MHR2-30 11-22 MDHR2-30	30				58	59	19	37	18	780 (760)	

Note 1) Refer to the Best Pneumatics No. 4 for details of gripping force at each gripping point.
Value of effective gripping force is measured at the middle of open/close stroke.
Note 2) Values in () show MDHR weight, but it does not include auto switch weight.

Specifications

Nominal size		10	15, 20, 30
Item			
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	
Cleanliness class (ISO class)		11-/22-: Class 3	

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 the **WEB catalog** for further information on auto switches.)

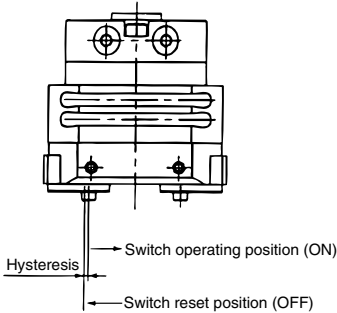
Type	Auto switch model	Load voltage	Load current range	Indicator light	Applicable load
Solid state auto switch	2-wire D-M9B(V)	24 VDC (10 to 28 VDC)	5 to 40 mA	Yes	24 VDC relay, PLC
	3-wire D-M9N(V)	28 VDC or less	40 mA or less	Yes	

Refer to page 946 for the applicable auto switches list.

PLC: Programmable Logic Controller

Auto Switch Hysteresis

¹¹⁻²²⁻**MDHR2**



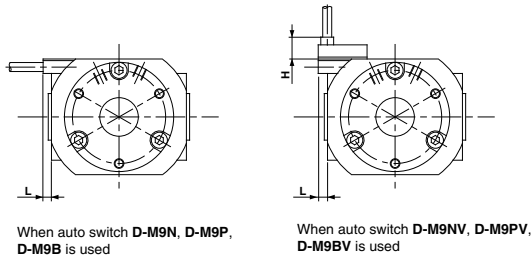
Please refer to the table as a guide when setting auto switch positions.

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

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.

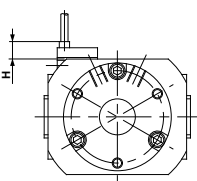
¹¹⁻²²⁻**MDHR2-10,15**



Max. protrusion of auto switch from edge of body: L, H (mm)			
Auto switch model		D-M9□	D-M9□V
Air gripper model	L	2.6	0.6
	H	-	6.8
MDHR2-10	L	-	-
	H	-	6.8

Air gripper model	Auto switch model	D-M9□	D-M9□V
		2.6	0.6

¹¹⁻²²⁻**MDHR2-20,30**



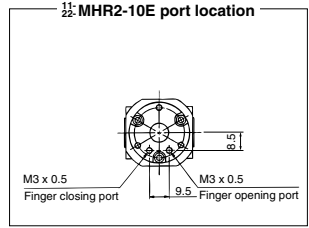
When auto switch **D-M9NV, D-M9PV, D-M9BV** is used

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

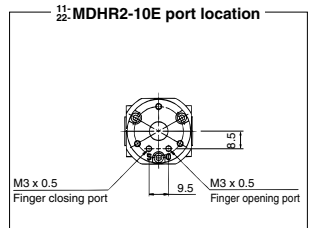
Auto switch model	D-M9□V
Air gripper model	
MDHR2-20	6.8
MDHR2-30	6.8

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

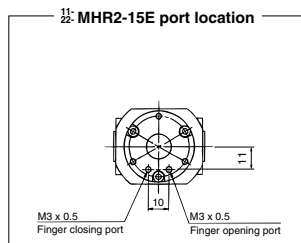
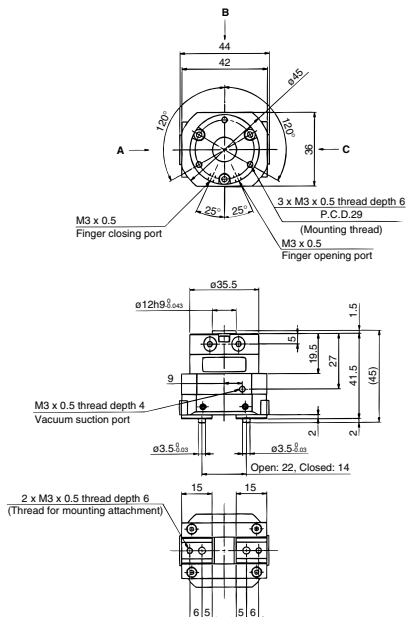
**11-
22-MHR2-10R**



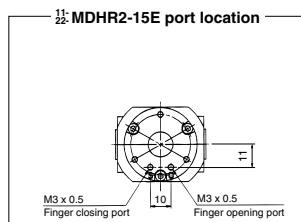
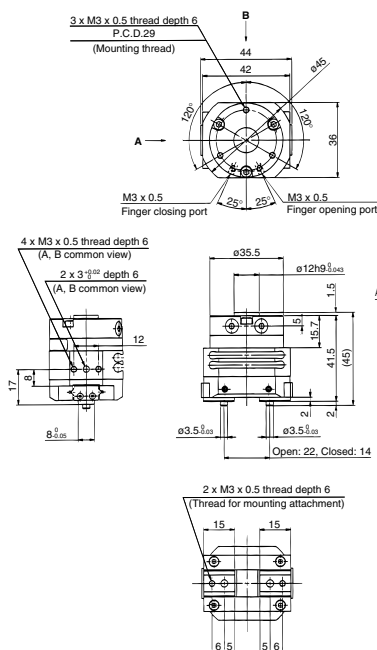
**11-
22-MDHR2-10R**



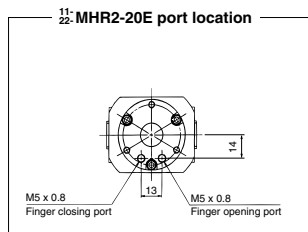
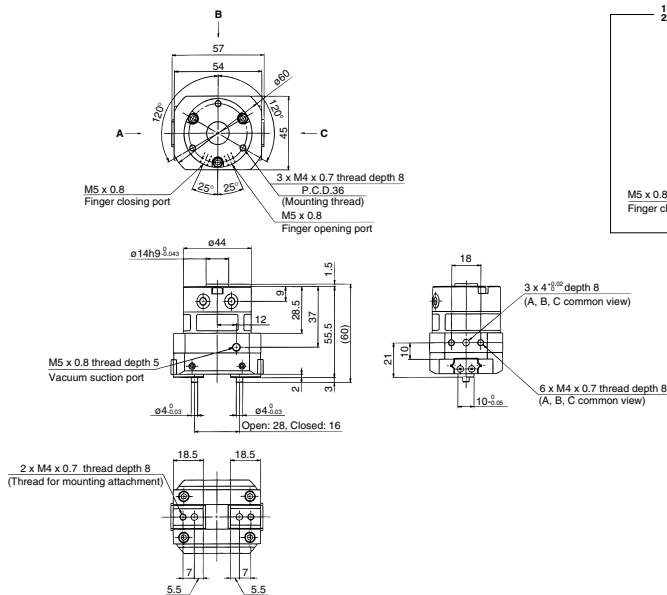
Without Auto Switch: 11-22-MHR2-15R



With Auto Switch: 11-22-MDHR2-15R

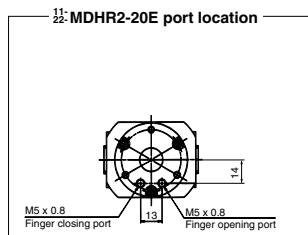
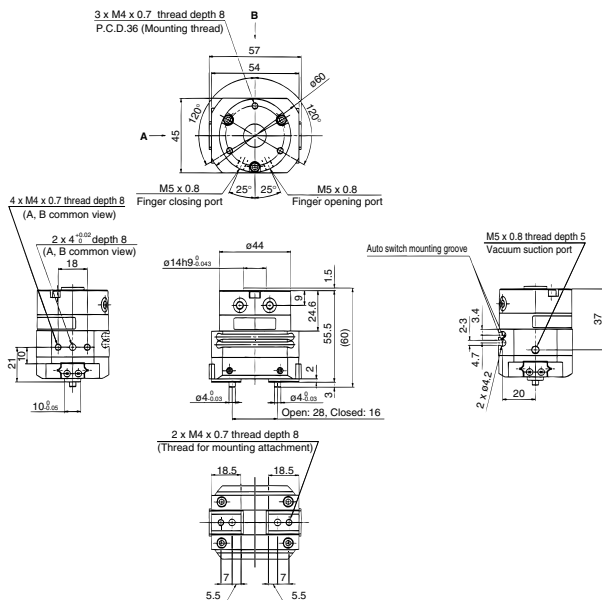


Without Auto Switch: ¹¹⁻~~22-~~MHR2-20R

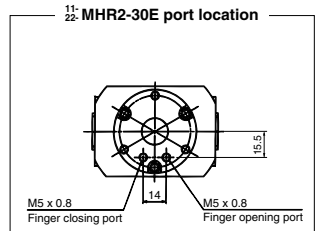


Air Preparation Equipment

With Auto Switch: ¹¹⁻₂₂₋MDHR2-20R

Pressure Switches/
Pressure Sensors

Without Auto Switch: ¹¹⁻₂₂₋ MHR2-30R



With Auto Switch: ¹¹⁻₂₂₋MDHR2-30R

