Air Gripper Unit
for Collaborative Robots

RoHS

MELFA ASSISTA Series
Mitsubishi Electric Corporation
collaborative robot compliant

MELFA assista

JMHZ2-X7400B-ASSISTA Series

NC452-A
(P-E20-20)

Air Gripper Unit
for Collaborative Robots

Mitsubishi Electric Corporation collaborative robot

MELFA ASSISTA Series compliant

- **Compact, lightweight product with high gripping force due to air operation**
- **An air gripper that realizes high rigidity and high precision due to its guide-integrated construction**

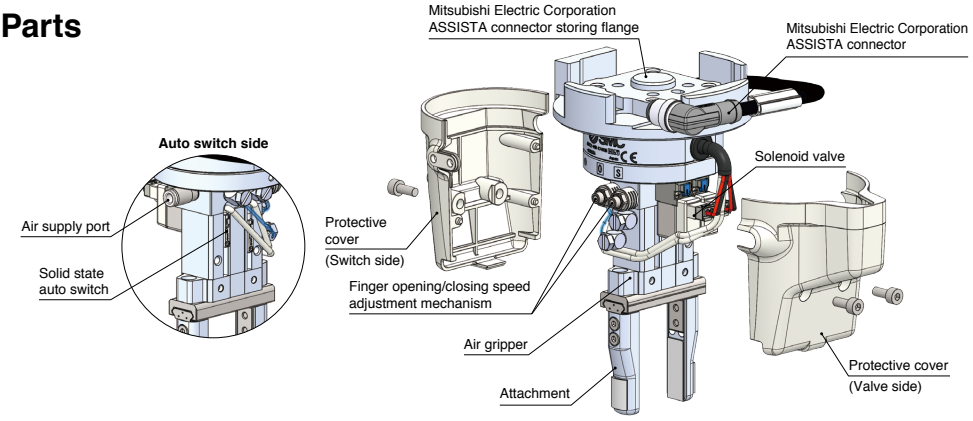
With high-precision linear guide
Repeatability: ±0.01 mm

Linear guide of the higher rigidity and precision is used.
Higher rigidity (Compared with the same size of the existing MHZ2)

- **Operate by simply connecting 1 air supply tube and an electrical wiring M12 connector.**
- **Integrated solenoid valve, speed adjustment mechanism, and auto switch**
- **A split protective cover for easy air gripper maintenance**

  Allows you to maintain the air gripper without removing the user-specific attachment

- **Component Parts**



How to Order

JMHZ2 – 16 D – X7400 B – ASSISTA – P

Auto switch output type

Symbol	Auto switch model	Output type
Nil	D-M9N-5	NPN
P	D-M9P-5	PNP

CE RoHS

UNIT CONVERSIONS

	unit	conversion	result		unit	conversion	result
length	m	x 3.28	ft	pressure	MPa	x 145	psi
	mm	x 0.04	in		kPa	÷ 6.895	psi
mass	g	x 0.04	oz	temperature	°C	x1.8 then add 32	°F
volume	cm^3	÷ 16.387	in^3	torque	N·m	x 0.738	ft-lb
	L	x 61.024	in^3	force	N	÷ 4.448	lbf
speed	mm/s	÷ 25.4	in/s	flow	L/min	÷ 28.317	cfm

Specifications

Bore size [mm]		16
Fluid		Air
Action		Double acting
Operating pressure [MPa]		0.1 to 0.7
Repeatability [mm]		±0.01
Number of fingers		2
Gripping force Effective value per finger [N]	External	32.7
	Internal	43.5
Opening/Closing stroke (Both sides) [mm]		10
Weight [g]		680
Standards		ISO 9409-1-31.5-4-M5
Connector type		M12 8-pin connector (Plug)

Included parts: Coil tube for piping, fitting

SMC

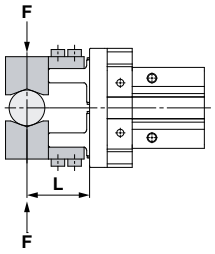
Model Selection

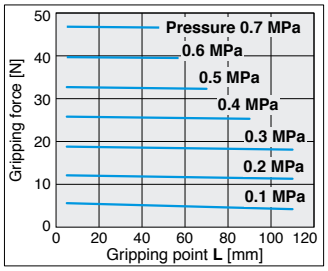
Gripping force

● **Indication of effective gripping force**

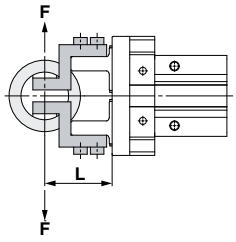
The gripping force shown in the graphs below represents the gripping force of one finger when all fingers and attachments are in contact with the workpiece. **F** = One finger thrust

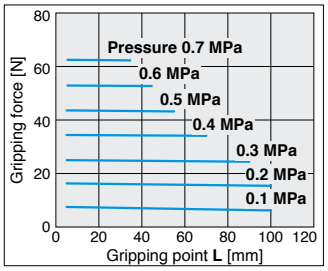
External gripping force





Internal gripping force



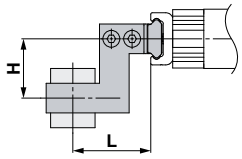


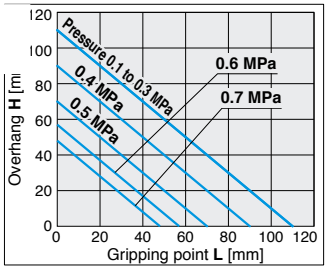
Gripping point

● The air gripper should be operated so that the workpiece gripping point “L” and the amount of overhang “H” stay within the range shown for each operating pressure given in the graphs below.

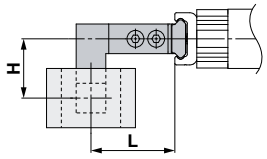
● If the workpiece gripping point goes beyond the range limits, this will have an adverse effect on the life of the air gripper.

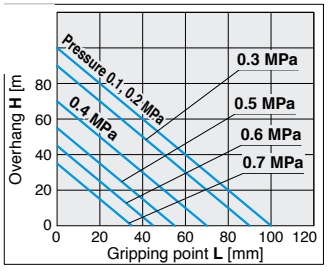
External grip



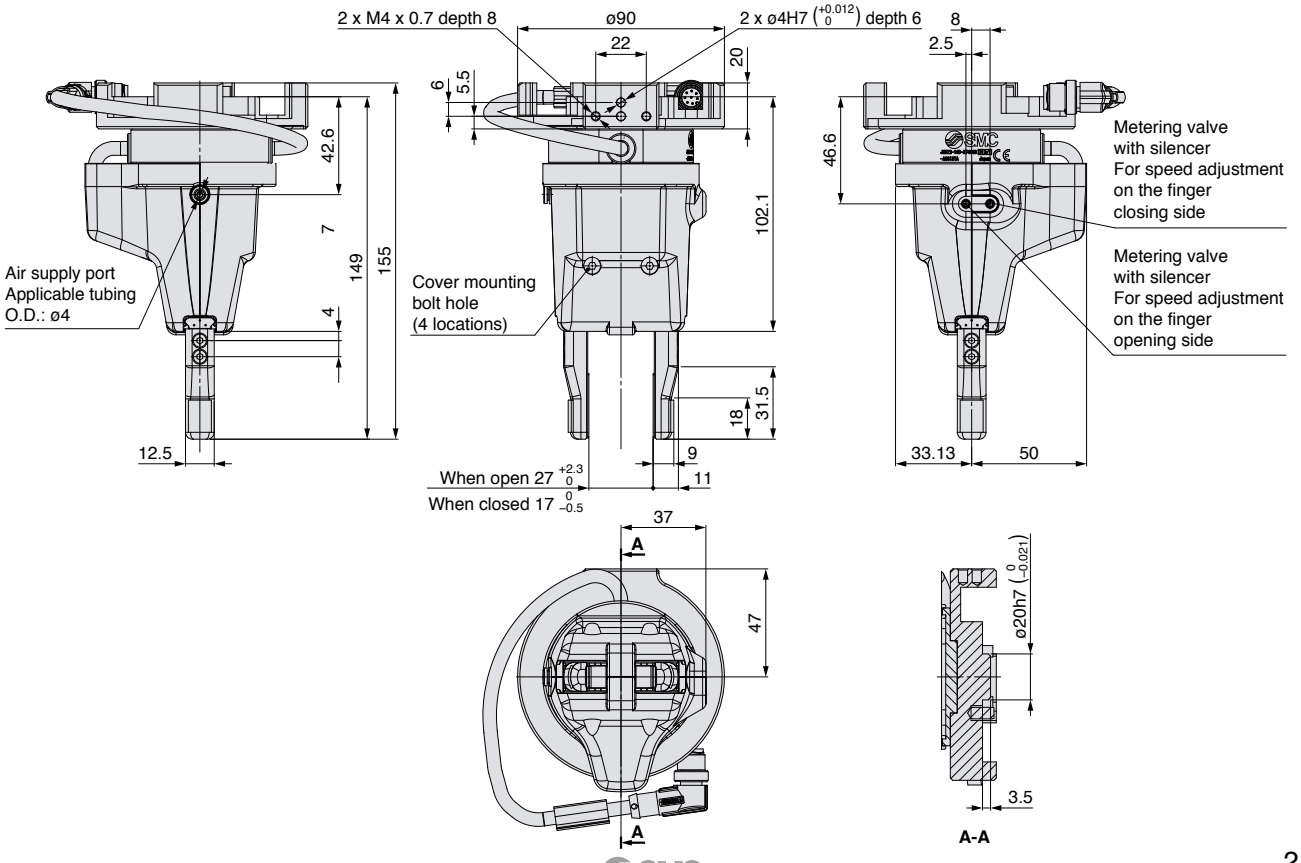


Internal grip





Dimensions



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⚠ Safety Instructions	Be sure to read the “Handling Precautions for SMC Products” (M-E03-3) and “Operation Manual” before use.

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