

Parallel Style Air Gripper With Dust Cover

Series MHSJ3

Size: 16, 20, 25, 32, 40, 50, 63, 80

How to Order

With dust cover

MHSJ 3 — 32 D

Number of fingers
3 3 fingers

Bore size

16	16 mm	40	40 mm
20	20 mm	50	50 mm
25	25 mm	63	63 mm
32	32 mm	80	80 mm

Action
D Double acting

Dust cover type

Nil	Chloroprene rubber (CR)
F	Fluoro rubber (FKM)
S	Silicon rubber (Si)

Number of auto switches

Nil	2 pcs.
S	1 pc.

Auto switch

Nil	Without auto switch (Built-in magnet)
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Applicable Auto Switch/Refer to page 12-13-1 for further information on auto switches

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length (m)*			Flexible lead wire (-61)	Applicable load	Applicable model		Pre-wire connector	
					DC	AC	Electrical entry		0.5 (Nil)	3(L)	5(Z)			ø16	ø20 to ø80		
							Perpendicular	In-line									
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V	—	M9NV	M9N	●	●	○	Standard	Relay, PLC	●	●	○
				12 V		M9PV		M9P	●	●	○	●			●	○	
				3-wire (PNP)		M9BV		M9B	●	●	○	●			●	○	
	2-wire			5 V	F9NWV	F9NW	●	●	○	○	○	●	●		○		
	3-wire (NPN)				F9PWV	F9PW	●	●	○	○	○	●	●		○		
	3-wire (PNP)				F9BWV	F9BW	●	●	○	○	○	●	●		○		
	Diagnostic indication (2-color indication)			2-wire	12 V	—	F9BA	—	●	○	○	●	●		○		

* Lead wire length symbols: 0.5 m Nil (Example) M9BV
3 m L (Example) M9NL
5 m Z (Example) Y59AZ

* Auto switches marked with a "○" symbol are produced upon receipt of order.

Note) Take note of hysteresis with 2-color indication type switches. Refer to page 12-7-62 for detailed auto switch specifications.



Refer to page 12-13-25 for solid state switch with pre-wire connector.

Model/Specifications



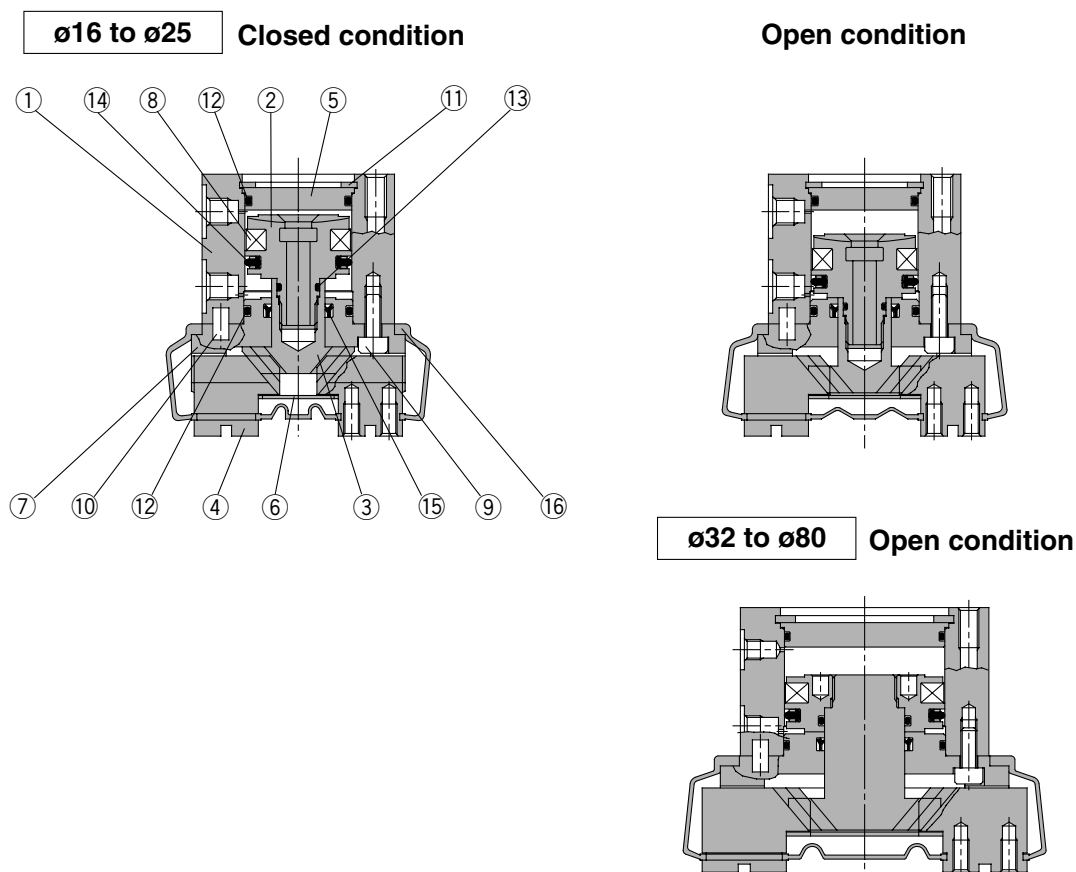
Model		MHSJ3-16D	MHSJ3-20D	MHSJ3-25D	MHSJ3-32D	MHSJ3-40D	MHSJ3-50D	MHSJ3-63D	MHSJ3-80D	
Bore size (mm)		16	20	25	32	40	50	63	80	
Fluid		Air								
Operating pressure (MPa)		0.2 to 0.6			0.1 to 0.6					
Ambient and fluid temperature (°C)		−10 to 60								
Repeatability (mm)		±0.01								
Max. operating frequency (c.p.m.)		120			60					30
Lubrication		Not required								
Action		Double acting								
Effective gripping force (N) at 0.5 MPa ⁽¹⁾	External grip	9	21	36	62	97	155	280	400	
	Internal grip	16	28	47	82	130	204	359	525	
Opening/Closing stroke (mm) (dia.)		4	4	6	8	8	12	16	20	
Weight (g)		95	150	230	440	620	1,050	1,800	3,200	

Note 1) Values for ø16 to ø25 are with gripping point L = 20 mm, and for ø32 to ø63 with gripping point L = 30 mm, and ø80 is L = 50 mm. Refer to "Effective Gripping Force" data on pages 12-7-25 through 12-7-27 for the gripping force at each gripping position.

Note 2) Open and closed diameter values apply for external gripping of workpieces.

Series MHSJ3

Construction



Component Parts

No.	Description	Material	Note
①	Body	Aluminum alloy	Hard anodized
②	Piston	ø16 to ø25: Stainless steel	Hard anodized
		ø32 to ø80: Aluminum alloy	
③	Cam (J)	Carbon steel	Heat treated, Specially treated
④	Finger	Carbon steel	Heat treated, Specially treated
⑤	Cap (J)	Aluminum alloy	Hard anodized
⑥	End plate (J)	Stainless steel	
⑦	Guide	Aluminum alloy	Hard anodized

No.	Description	Material	Note
⑧	Rubber magnet	Synthetic rubber	
⑨	Hexagon socket head bolt	Carbon steel	Nickel plated
⑩	Parallel pin	Stainless steel	
⑪	Type C snap ring	Carbon steel	Nickel plated
⑫	Gasket	NBR	
⑬	Gasket	NBR	
⑭	Piston seal	NBR	
⑮	Rod seal	NBR	

Replacement Parts

Description			MHSJ3-16D	MHSJ3-20D	MHSJ3-25D	MHSJ3-32D	Main parts
Seal kit			MHSJ16-PS	MHSJ20-PS	MHSJ25-PS	MHSJ32-PS	⑫⑬⑭⑮
Dust cover	Material	CR	MHSJ3-J16	MHSJ3-J20	MHSJ3-J25	MHSJ3-J32	⑮
		FKM	MHSJ3-J16F	MHSJ3-J20F	MHSJ3-J25F	MHSJ3-J32F	
		Si	MHSJ3-J16S	MHSJ3-J20S	MHSJ3-J25S	MHSJ3-J32S	
Finger			P3316054	P3346154	P3316254	P3316354	④
Cam (J)			P3316093	P3316193	P3316293	P3316393	③
Piston assembly			MHS-A1602	MHS-A2002	MHS-A2502	MHS-A3201	②⑧

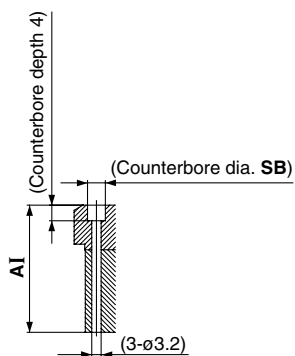
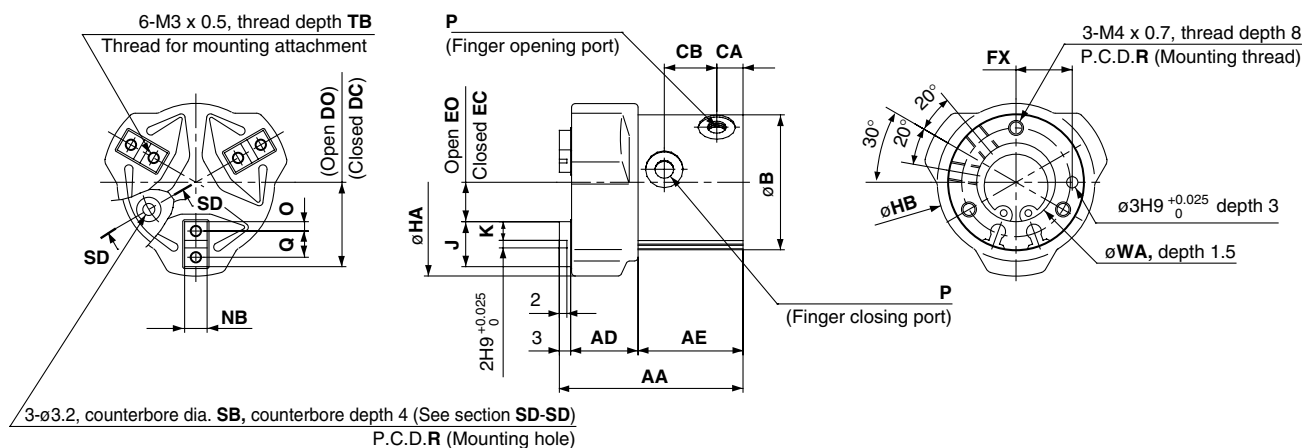
Description			MHSJ3-40D	MHSJ3-50D	MHSJ3-63D	MHSJ3-80D	Main parts
Seal kit			MHSJ40-PS	MHSJ50-PS	MHSJ63-PS	MHSJ80-PS	⑫⑬⑭⑮
Dust cover	Material	CR	MHSJ3-J40	MHSJ3-J50	MHSJ3-J63	MHSJ3-J80	⑯
		FKM	MHSJ3-J40F	MHSJ3-J50F	MHSJ3-J63F	MHSJ3-J80F	
		Si	MHSJ3-J40S	MHSJ3-J50S	MHSJ3-J63S	MHSJ3-J80S	
Finger			P3316454	P3316554	P3316654	P3316754	④
Cam (J)			P3316493	P3316593	P3316693	P3316793	③
Piston assembly			MHS-A4002	MHS-A5002	MHS-A6302	MHS-A8002	②⑧

* Order 3 pieces of fingers for one unit.

Series MHSJ3

Dimensions

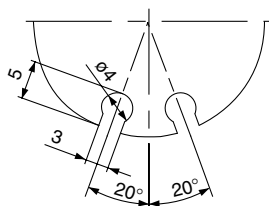
MHSJ3-16D to 25D



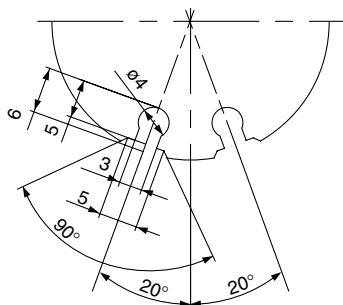
Section **SD - SD**

Auto switch mounting groove dimensions (2 locations)

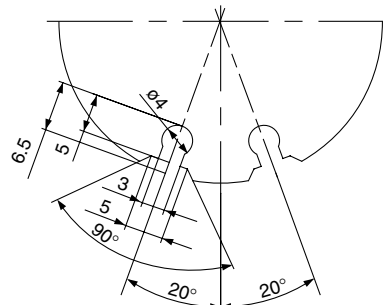
MHSJ3-16D



MHSJ3-20D



MHSJ3-25D



(mm)

Model	AA	AD	AE	AI	B	CA	CB	DC	DO	EC	EO	FX	HA	HB	J	K	NB	O	P	Q
MHSJ3-16D	46	16	27	39	30	7	14	17.5	19.5	7.5	9.5	12	44	36	10	4	$5h9^{+0.030}_0$	2	M3 x 0.5	6
MHSJ3-20D	49	18	28	42	36	7	14	20	22	8	10	15	50	42	12	5	$6h9^{+0.030}_0$	2.5	M5 x 0.8	7
MHSJ3-25D	55	20	32	47	42	7.5	17.5	23.5	26.5	9.5	12.5	18	59	50	14	6	$6h9^{+0.030}_0$	3	M5 x 0.8	8

Model	R	SB	TB	WA
MHSJ3-16D	24	6	5	$17H9^{+0.043}_0$
MHSJ3-20D	29	6.5	6	$21H9^{+0.052}_0$
MHSJ3-25D	34	6.5	6	$26H9^{+0.052}_0$