Standard Specifications

Bore size(mm)	8	12	16	20
Acting	Double acting			
Fluid	Air			
Operating pressure(MPa)	0.15~0.7	0.1~0.7		
Ambient and fluid temperature	10-60℃(Not frozen)			
Repeatability(mm)	±0.05*			
Maximum operating frequency(c.p.m)	Short stroke, Medium stroke: 120, Long stroke: 60			
Auto switch — Contactless — 2-wire	ND-M9BL			
Auto switch — Contactless — 3-wire	ND-M9PL(PNP),ND-M9NL(NPN)			

*When there is no unbalanced load, if there is an unbalanced load on the finger, the maximum is ±0.05mm due to the influence of the tooth gap

Standard Specifications

NMHF 2 -12 D □

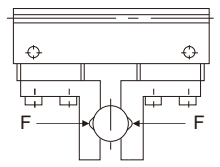
- 2: 2 finger
- 12: Bore size (mm)
- D: Double acting
- □: Stroke

Nil	Short stroke
1	Medium stroke
2	Long stroke

Action	Model	Cylinder bore (mm)	Gripping force* Effective gripping force per finger(N)	Opening /closing stroke (Both sides) (mm)	Weight (g)	Unobstructed capacity (cm³) Finger open side	Finger close side
Double acting	NMHF2-8D	8	19	8	65	0.7	0.6
	NMHF2-8D1			16	85	1.1	1.0
	NMHF2-8D2			32	120	2.0	1.9
	NMHF2-12D	12	48	12	155	1.9	1.6
	NMHF2-12D1			24	190	3.3	3.0
	NMHF2-12D2			48	275	6.1	5.8
	NMHF2-16D	16	90	16	350	4.9	4.1
	NMHF2-16D1			32	445	8.2	7.4
	NMHF2-16D2			64	650	14.9	14.0
	NMHF2-20D	20	141	20	645	8.7	7.3
	NMHF2-20D1			40	850	15.1	13.7
	NMHF2-20D2			80	1,225	28.0	26.6

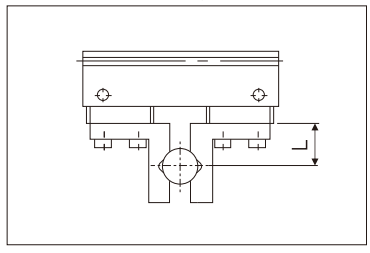
* At the pressure of 0.5 MPa, when gripping point L is 20 mm.

Effective Gripping Force

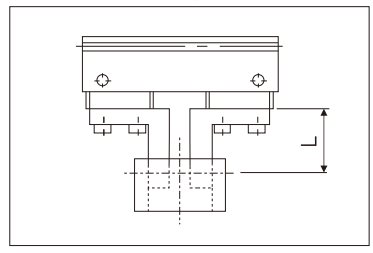


Effective Gripping Force

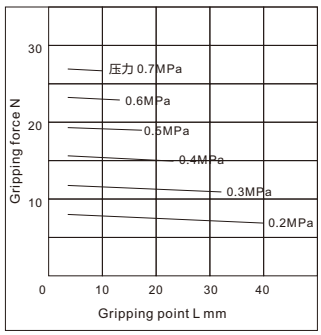
External Gripping



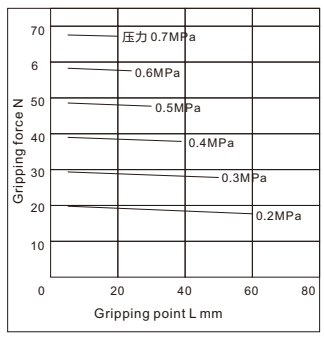
Internal Gripping



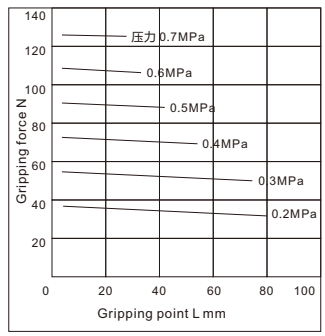
NMHF2-8D□



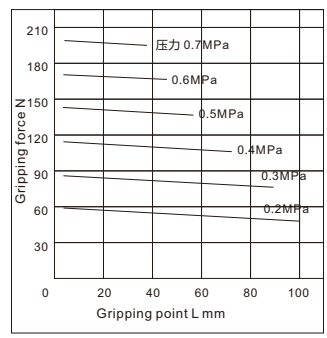
NMHF2-12D□



NMHF2-16D□



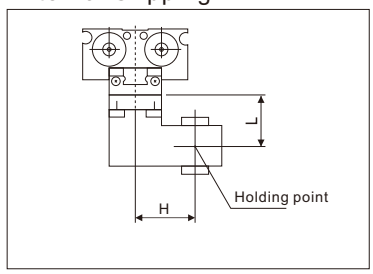
NMHF2-20D□



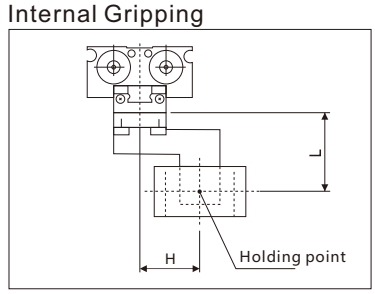
Effective Gripping Force (2)

Effective Gripping Force

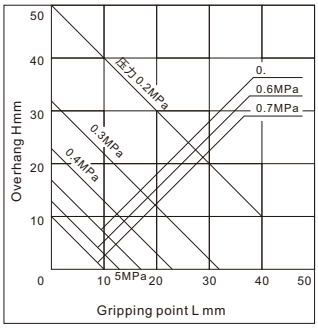
External Gripping



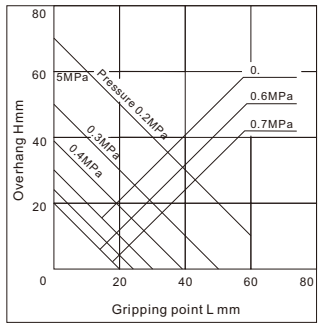
Internal Gripping



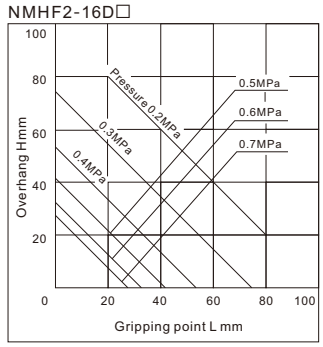
NMHF2-8D□



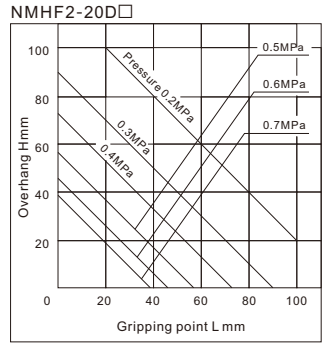
NMHF2-12D□



NMHF2-16D□

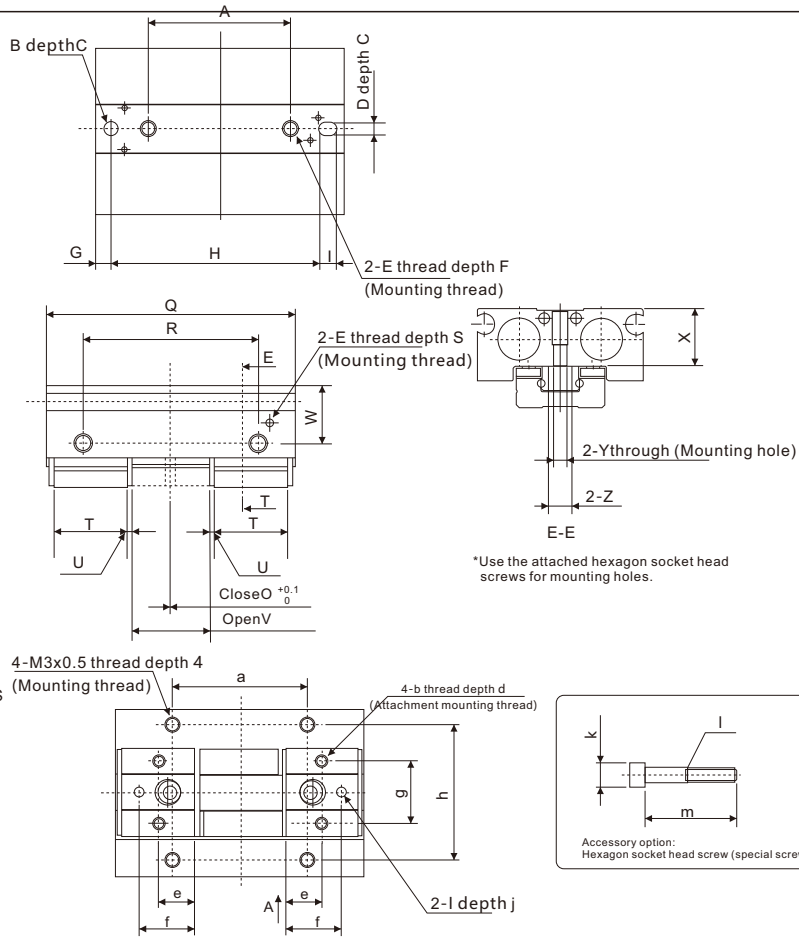


NMHF2-20D□



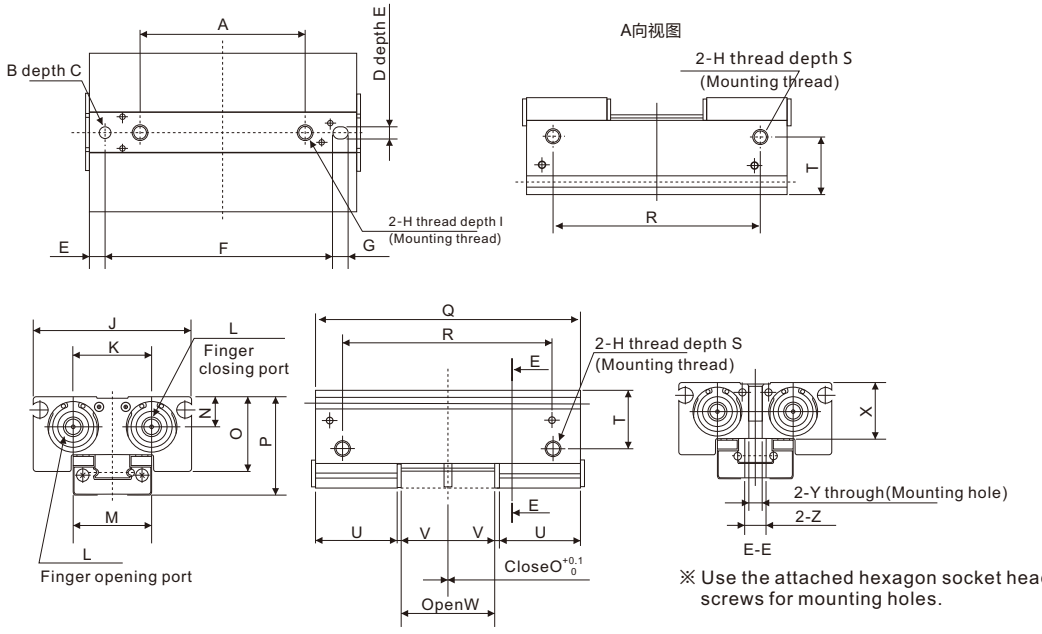
Dimensions

NMHF2-8D • 8D1 • 12D

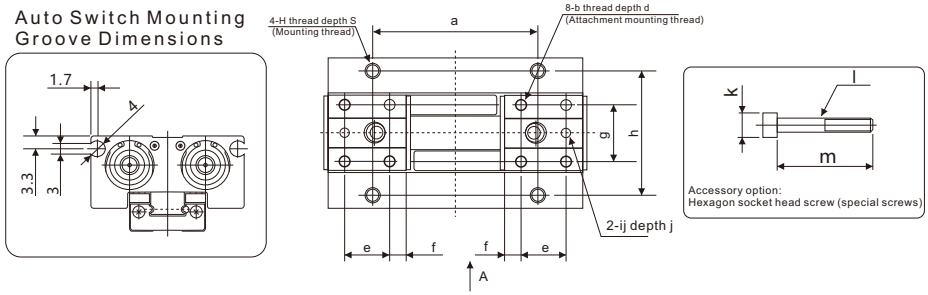


Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	d	e	f	g	h	i	j	k	l	m
NMHF2-8D	16	ϕ25H9 +0.025 0	2.5	ϕ25H9 +0.025 0	M3x0. 5	7	3	28.3	3.4	32	15.8	M3x0.5	17 0 -0.01	5.9	14	19	36	22	4	12	0.8	8±1	11	11	ϕ2.6	ϕ4.5	14	M2.5x0.45	3	6	10	12	26	ϕ2H9 +0.025 0	2	ϕ4	M2.5x0.45	15
NMHF2-8D1	28	ϕ25H9 +0.025 0	2.5	ϕ25H9 +0.025 0	M3x0. 5	7	3	40.3	3.4	32	15.8	M3x0.5	17 0 -0.01	5.9	14	19	48	34	4	14	0.8	16±1	11	11	ϕ2.6	ϕ4.5	26	M2.5x0.45	3	7	11	12	26	ϕ2H9 +0.025 0	2	ϕ4	M2.5x0.45	15
NMHF2-12D	26	ϕ3H9 +0.030 0	3	ϕ3H9 +0.025 0	M4x0. 7	10	4	42	4	40	20	M5x0.8	20 0 -0.01	7.7	19	25	52	38	5	18	1	12±1	15	14. 8	ϕ3.4	ϕ5.5	28	M3x0.5	4	9	14	15	33	ϕ2.5H9 +0.025 0	2.5	ϕ 5	M3x0.5	20

NMHF2-12D1 · 16D · 16D1 · 20D · 20D1



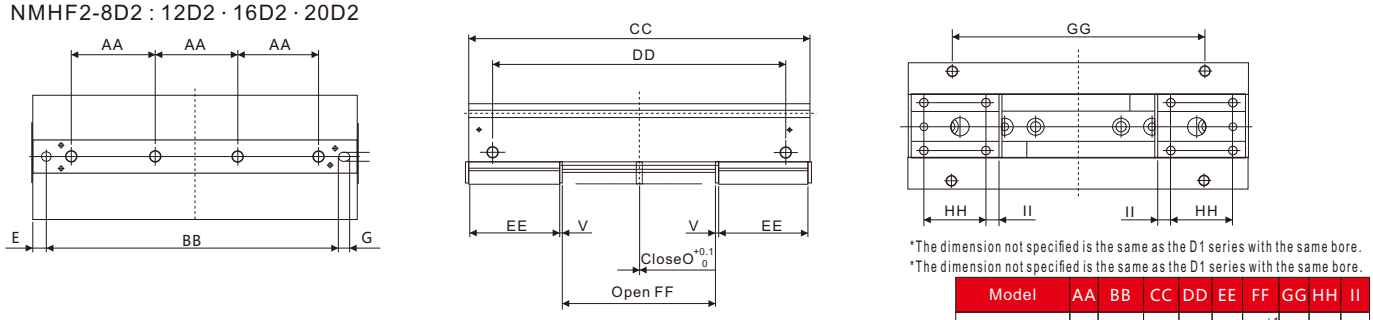
Auto Switch Mounting Groove Dimensions



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
NMHF2-12D1	42	$\phi 3H9^{+0.030}_{0}$	3	$\phi 3H9^{+0.025}_{0}$	4	58	4	M4x0.7	10	40	20	M5x0.8	$20^{0}_{-0.1}$	7.7	19	25	68	54	5	15	21	1
NMHF2-16D	38	$\phi 4H9^{+0.030}_{0}$	3	$\phi 4H9^{+0.030}_{0}$	6	57.5	5	M5x0.8	12	50	26	M5x0.8	$27^{0}_{-0.1}$	10.6	24	33	72	52	5.5	20	25	1.2
NMHF2-16D1	60	$\phi 4H9^{+0.030}_{0}$	3	$\phi 4H9^{+0.030}_{0}$	6	79.5	5	M5x0.8	12	50	26	M5x0.8	$27^{0}_{-0.1}$	10.6	24	33	94	74	5.5	20	29	1.2
NMHF2-20D	38	$\phi 5H9^{+0.030}_{0}$	4	$\phi 5H9^{+0.030}_{0}$	6	71	6	M6x1	15	62	33	M5x0.8	$32^{0}_{-0.1}$	13	30	41	86	56	6	25	31	1.2
NMHF2-20D1	66	$\phi 5H9^{+0.030}_{0}$	4	$\phi 5H9^{+0.030}_{0}$	6	99	6	M6x1	15	62	33	M5x0.8	$32^{0}_{-0.1}$	13	30	41	114	84	6	25	36	1.2

Model	W	X	Y	Z	a	b	d	e	f	g	h	i	j	k	l	m
NMHF2-12D1	$24^{\pm 1}$	14.8	ϕ3.4	ϕ5.5	44	M3x0.5	4	12	4.5	15	33	$\phi 2.5H9^{+0.025}_{0}$	2.5	ϕ5	M3x0.5	20
NMHF2-16D	$16^{\pm 1}$	20	ϕ4.3	ϕ7.5	36	M4x0.7	4	15	5	20	43	$\phi 3H9^{+0.025}_{0}$	3	ϕ5	M3x0.5	20
NMHF2-16D1	$32^{\pm 1}$	20	ϕ4.3	ϕ7.5	58	M4x0.7	4	18	5.5	20	43	$\phi 3H9^{+0.025}_{0}$	3	ϕ5	M3x0.5	20
NMHF2-20D	$20^{\pm 1}$	25	ϕ5.2	ϕ10	40	M4x0.7	4	16	7.5	24	52	$\phi 3H9^{+0.025}_{0}$	3	ϕ5	M3x0.5	20
NMHF2-20D1	$40^{\pm 1}$	25	ϕ5.2	ϕ10	68	M4x0.7	4	20	8	24	52	$\phi 3H9^{+0.025}_{0}$	3	ϕ5	M3x0.5	20

NMHF2-8D2 : 12D2 · 16D2 · 20D2



*The dimension not specified is the same as the D1 series with the same bore.
*The dimension not specified is the same as the D1 series with the same bore.

Model	AA	BB	CC	DD	EE	FF	GG	HH	II
NMHF2-8D2	17	64.3	72	58	18	$32^{\pm 1}$	50	8	5
NMHF2-12D2	26	94	104	90	27	$48^{\pm 1}$	80	18	4.5
NMHF2-16D2	36	127.5	142	122	37	$64^{\pm 1}$	106	26	5.5
NMHF2-20D2	42	159	174	144	46	$80^{\pm 1}$	128	30	8