Series 13-/22-MXS

ø6, ø8, ø12, ø16, ø20, ø25 Air Slide Table

RoHS

How to Order

13—MXS 12 [ ] [ ]—50 [ ] [ ]—M9N [ ]

22—MXS 12 [ ] [ ]—50 [ ] [ ]—M9N [ ]

Clean series

13	Vacuum suction type (Special treatment on guide)

Copper, fluorine and silicone-free + Low particle generation

22	Vacuum suction type

Port thread type

Symbol	Type	Bore size
Nil	M thread	ø6 to ø16
	Rc	ø20, ø25
TN	NPT	ø20, ø25
TF	G	ø20, ø25

Symmetric type

Nil	Standard
L Note 2)	Symmetric

Bore size (Stroke (mm))

6	10, 20, 30, 40, 50
8	10, 20, 30, 40, 50, 75
12	10, 20, 30, 40, 50, 75, 100
16	10, 20, 30, 40, 50, 75, 100, 125
20	10, 20, 30, 40, 50, 75, 100, 125, 150
25	10, 20, 30, 40, 50, 75, 100, 125, 150

Adjuster option

Nil	Without adjuster	
AS	Rubber stopper	Extension end
AT		Retraction end
A		Both ends

Functional option

Nil	Standard
P Note 1)	Axial piping

Note 1) The combination of axial piping and both ends adjusters or retraction end adjusters is not available.
Note 2) Axial piping is not available for symmetric type.

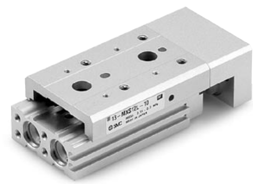
Auto switch

Nil	Without auto switch

∗ Refer to the table below for auto switch model numbers.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.



Auto Switch Specifications (Refer to the WEB catalog for detailed specifications and auto switches not in the following table.)

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage DC		Load voltage AC	Auto switch model Electrical entry direction In-line	Lead wire length (m) ∗ 0.5 (Nil)	Lead wire length (m) ∗ 3 (L)	Applicable load	
Reed auto switch	—	Grommet	Yes	2-wire	24 V	12 V	100 V	A93	●	●	—	Relay, PLC
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	12 V	—	M9N	●	●	—	Relay, PLC
				2-wire		12 V		M9B	●	●	—	

∗ Lead wire length symbols: 0.5 m······Nil (Example) A93
3 m········· L (Example) A93L

PLC: Programmable Logic Controller

Refer to page 889 for the applicable auto switch list.

Specifications

Bore size (mm)		6	8	12	16	20	25
Fluid		Air					
Action		Double acting					
Operating pressure		0.15 to 0.7 MPa					
Proof pressure		1.05 MPa					
Ambient and fluid temperature		–10 to 60°C (No freezing)					
Piston speed		50 to 300 mm/s					
Cushion		Rubber bumper (Standard, With stroke adjuster)					
Lubrication		Non-lube					
Stroke length tolerance		$^{+1}_{0}$ mm					
Grease		13-: Fluorine grease 22-: Lithium soap based grease					
Cleanliness class (ISO class)	Without adjuster	13-/22-: Class 5					
	Rubber stopper						

Suction Flow Rate of Vacuum Suction Type (Reference values)

Bore size	Suction flow rate L/min (ANR)
6, 8, 12	1
16	2
20	3
25	5

Adjuster Option Stroke Adjustment Range

With stroke adjuster	Extension end (AS)	Stroke adjustment range 0 to 5 mm
	Retraction end (AT)	
	Both ends (A)	

Auto Switch Proper Mounting Position (Detection at Stroke End)

Reed auto switch: D-A93

Model	A	B									E									Auto switch operating range
		Stroke									Stroke									
		10	20	30	40	50	75	100	125	150	10	20	30	40	50	75	100	125	150	
13-/22-MXS6	5.9	5.6	5.6	5.6	17.6	23.6	—	—	—	—	3.6 (1.1)	3.6 (1.1)	3.6 (1.1)	15.6 (13.1)	21.6 (19.1)	—	—	—	—	4.5
13-/22-MXS8	7.6	10.9	5.9	6.9	14.9	22.9	47.9	—	—	—	8.9 (6.4)	3.9 (1.4)	4.9 (2.4)	12.9 (10.4)	20.9 (18.4)	45.9 (43.4)	—	—	—	5
13-/22-MXS12	11.6	28.4	18.4	8.4	10.4	20.4	41.4	70.4	—	—	26.4 (23.9)	16.4 (13.9)	6.4 (3.9)	8.4 (5.9)	18.4 (15.9)	39.4 (36.9)	68.4 (65.9)	—	—	6
13-/22-MXS16	16.3	28.7	18.7	8.7	8.7	13.7	38.7	61.7	86.7	—	26.7 (24.2)	16.7 (14.2)	6.7 (4.2)	6.7 (4.2)	11.7 (9.2)	36.7 (34.2)	59.7 (57.2)	84.7 (82.2)	—	7
13-/22-MXS20	18.9	32.6	22.6	12.6	12.6	17.6	31.6	59.6	88.6	115.6	30.6 (28.1)	20.6 (18.1)	10.6 (8.1)	10.6 (8.1)	15.6 (13.1)	29.6 (27.1)	57.6 (55.1)	86.6 (84.1)	113.6 (111.1)	8
13-/22-MXS25	23	37.5	27.5	17.5	17.5	20.5	36.5	52.5	85.5	100.5	35.5 (33)	25.5 (23)	15.5 (13)	15.5 (13)	18.5 (16)	34.5 (32)	50.5 (48)	83.5 (81)	98.5 (96)	8

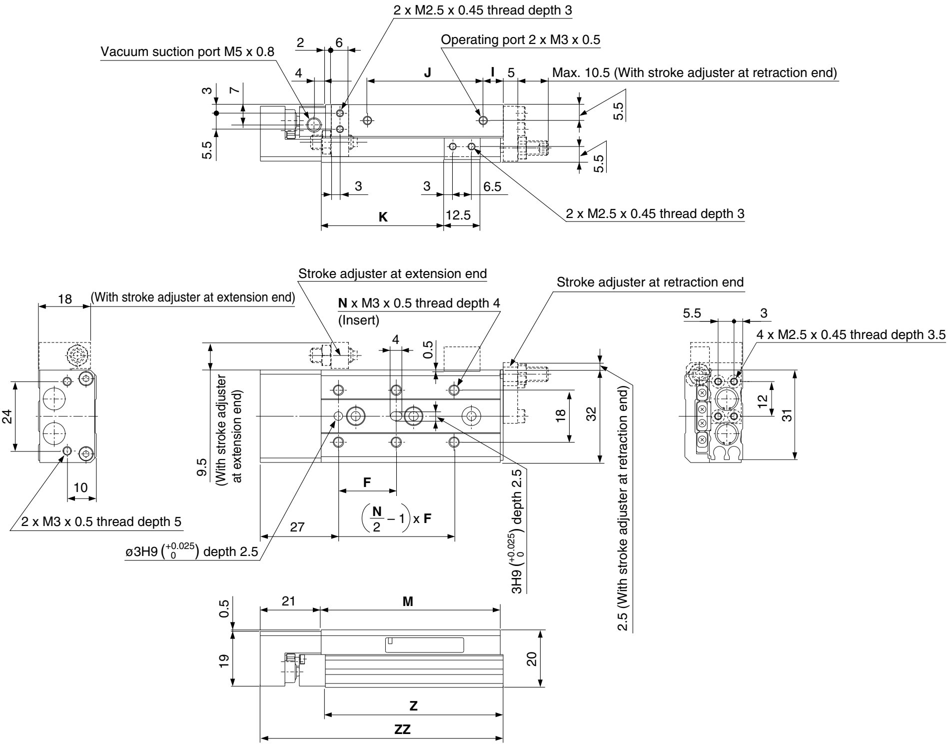
( ): denotes D-A93.

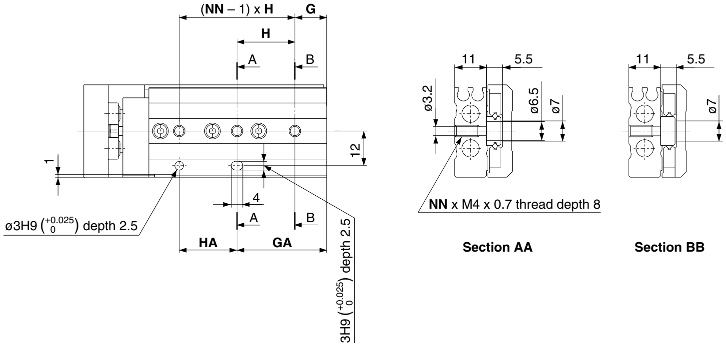
Solid state auto switch: D-M9B, D-M9N

Model	A	B									E									Auto switch operating range
		Stroke									Stroke									
		10	20	30	40	50	75	100	125	150	10	20	30	40	50	75	100	125	150	
13-/22-MXS6	10	9.6	9.6	9.6	21.6	27.6	—	—	—	—	–0.4	–0.4	–0.4	11.6	17.5	—	—	—	—	1.5
13-/22-MXS8	11.6	14.9	9.9	10.9	18.9	26.9	51.9	—	—	—	4.9	–0.1	0.9	8.9	16.9	41.9	—	—	—	1.5
13-/22-MXS12	15.6	32.4	22.4	12.4	14.4	24.4	45.4	74.4	—	—	22.4	12.4	2.4	4.4	14.4	35.4	64.4	—	—	2.5
13-/22-MXS16	20.3	32.7	22.7	12.7	12.7	17.7	42.7	65.7	90.7	—	22.7	12.7	2.7	2.7	7.7	32.7	55.7	80.7	—	3
13-/22-MXS20	22.9	36.6	26.6	16.6	16.6	21.6	35.6	63.6	92.6	119.6	26.6	16.6	6.6	6.6	11.6	25.6	53.6	82.6	109.6	3
13-/22-MXS25	27	41.5	31.5	21.5	21.5	24.5	40.5	56.5	89.5	104.5	31.5	21.5	11.5	11.5	14.5	30.5	46.5	79.5	94.5	3

Dimensions: 13-/22-MXS6

Basic



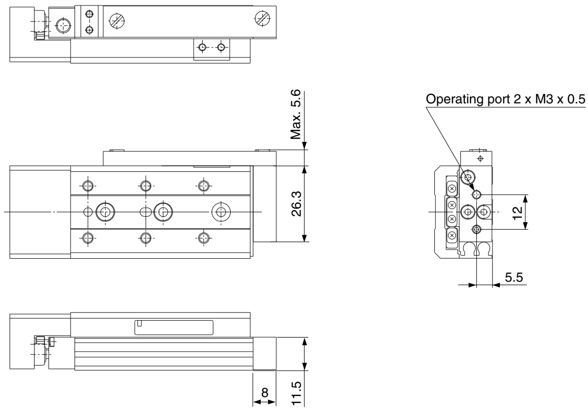


(mm)

Model	F	N	G	H	NN	GA	HA	I	J	K	M	Z	ZZ
13-/22-MXS6-10	20	4	6	25	2	11	20	10	17	22.5	42	41.5	64
13-/22-MXS6-20	30	4	6	35	2	21	20	10	27	32.5	52	51.5	74
13-/22-MXS6-30	20	6	11	20	3	31	20	7	40	42.5	62	61.5	84
13-/22-MXS6-40	28	6	13	30	3	43	30	19	50	52.5	84	83.5	106
13-/22-MXS6-50	38	6	17	24	4	41	48	25	60	62.5	100	99.5	122

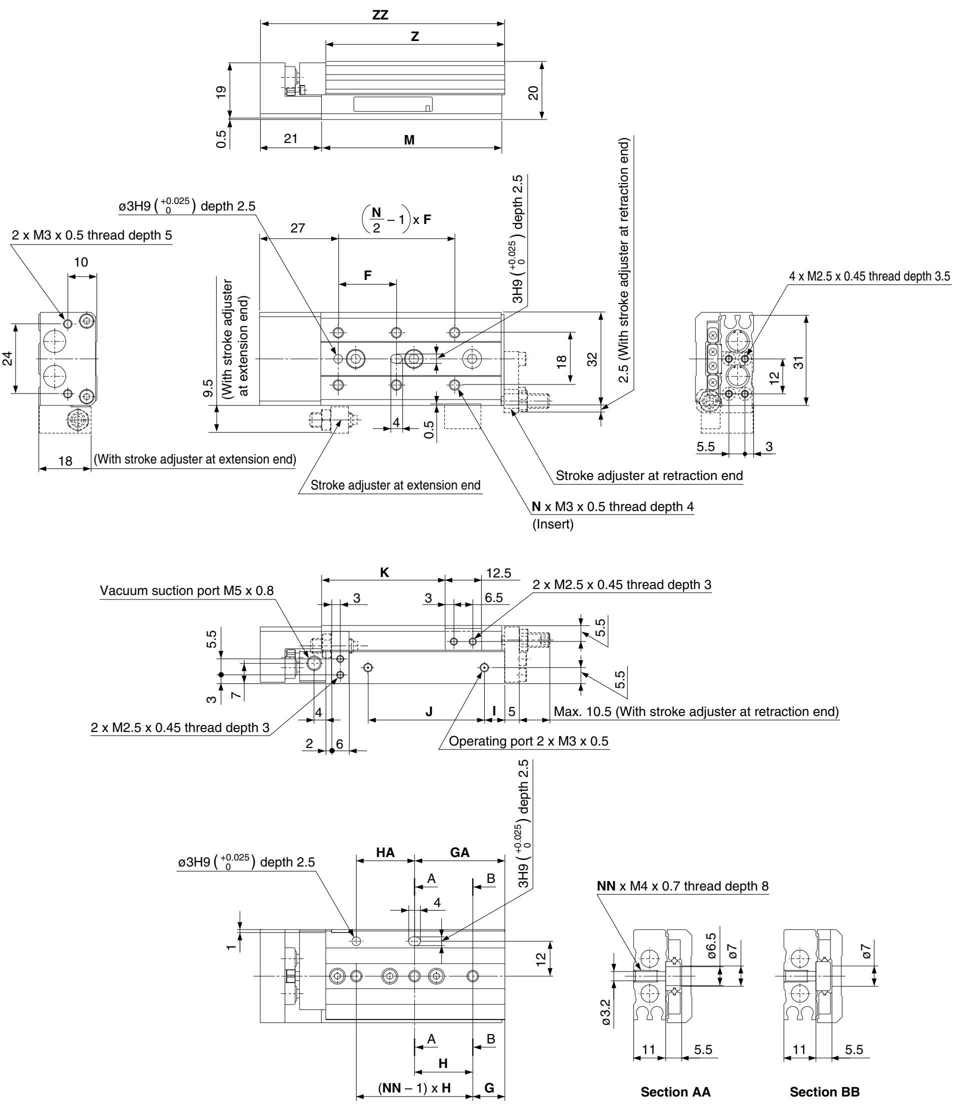
Dimensions: 13-/22-MXS6

Axial piping (⌀6): 13-/22-MXS6-□□P



∗ Other dimensions are the same as those of basic type.

Dimensions: 13-/22-MXS6L / Symmetric Type

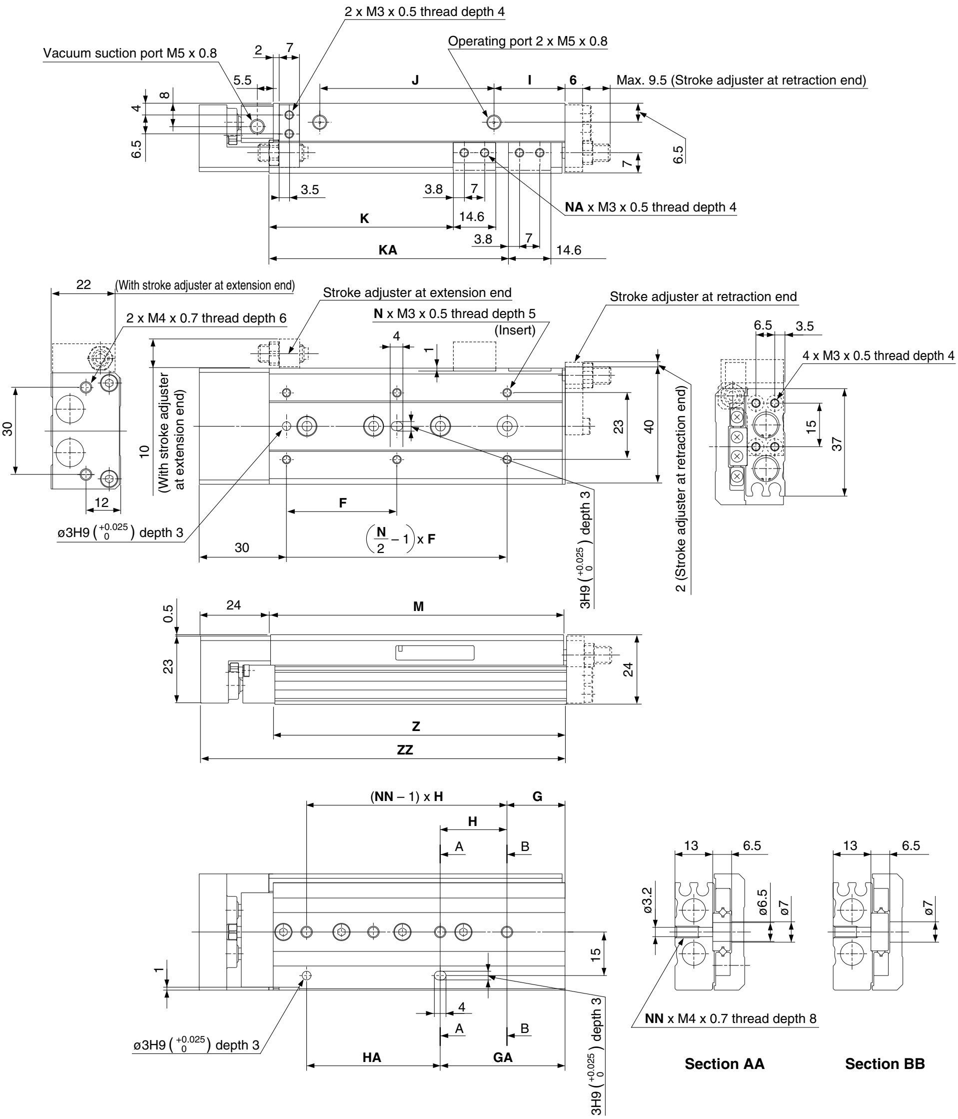


(mm)

Model	F	N	G	H	NN	GA	HA	I	J	K	M	Z	ZZ
13-/22-MXS6L-10	20	4	6	25	2	11	20	10	17	22.5	42	41.5	64
13-/22-MXS6L-20	30	4	6	35	2	21	20	10	27	32.5	52	51.5	74
13-/22-MXS6L-30	20	6	11	20	3	31	20	7	40	42.5	62	61.5	84
13-/22-MXS6L-40	28	6	13	30	3	43	30	19	50	52.5	84	83.5	106
13-/22-MXS6L-50	38	6	17	24	4	41	48	25	60	62.5	100	99.5	122

Dimensions: $^{13-}_{22-}$MXS8

Basic

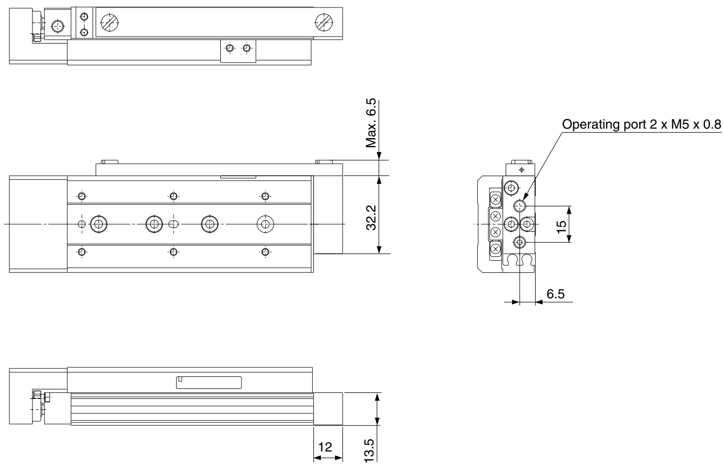


(mm)

Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS8-10	25	4	9	28	2	17	20	13	19.5	23.5	—	2	49	48.5	74
13-/22-MXS8-20	25	4	12	30	2	12	30	8.5	29	33.5	—	2	54	53.5	79
13-/22-MXS8-30	40	4	13	20	3	33	20	9.5	39	43.5	—	2	65	64.5	90
13-/22-MXS8-40	50	4	15	28	3	43	28	10.5	56	53.5	—	2	83	82.5	108
13-/22-MXS8-50	38	6	20	23	4	43	46	24.5	60	63.5	82.5	4	101	100.5	126
13-/22-MXS8-75	50	6	27	28	5	83	56	38.5	96	88.5	132.5	4	151	150.5	176

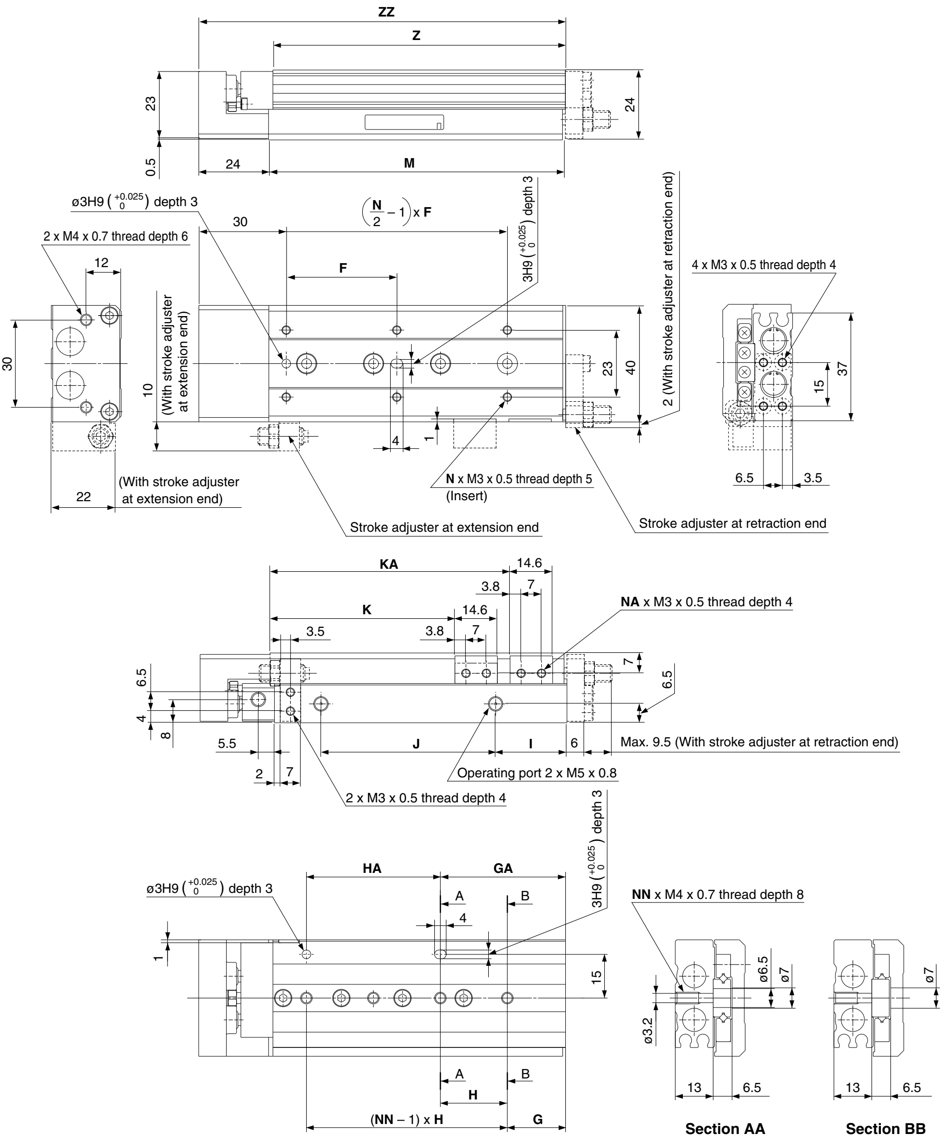
Dimensions: 13-22-MXS8

Axial piping (ø8): 13-22-MXS8-□□P



∗ Other dimensions are the same as those of basic type.

Dimensions: 13-/22-MXS8L / Symmetric Type

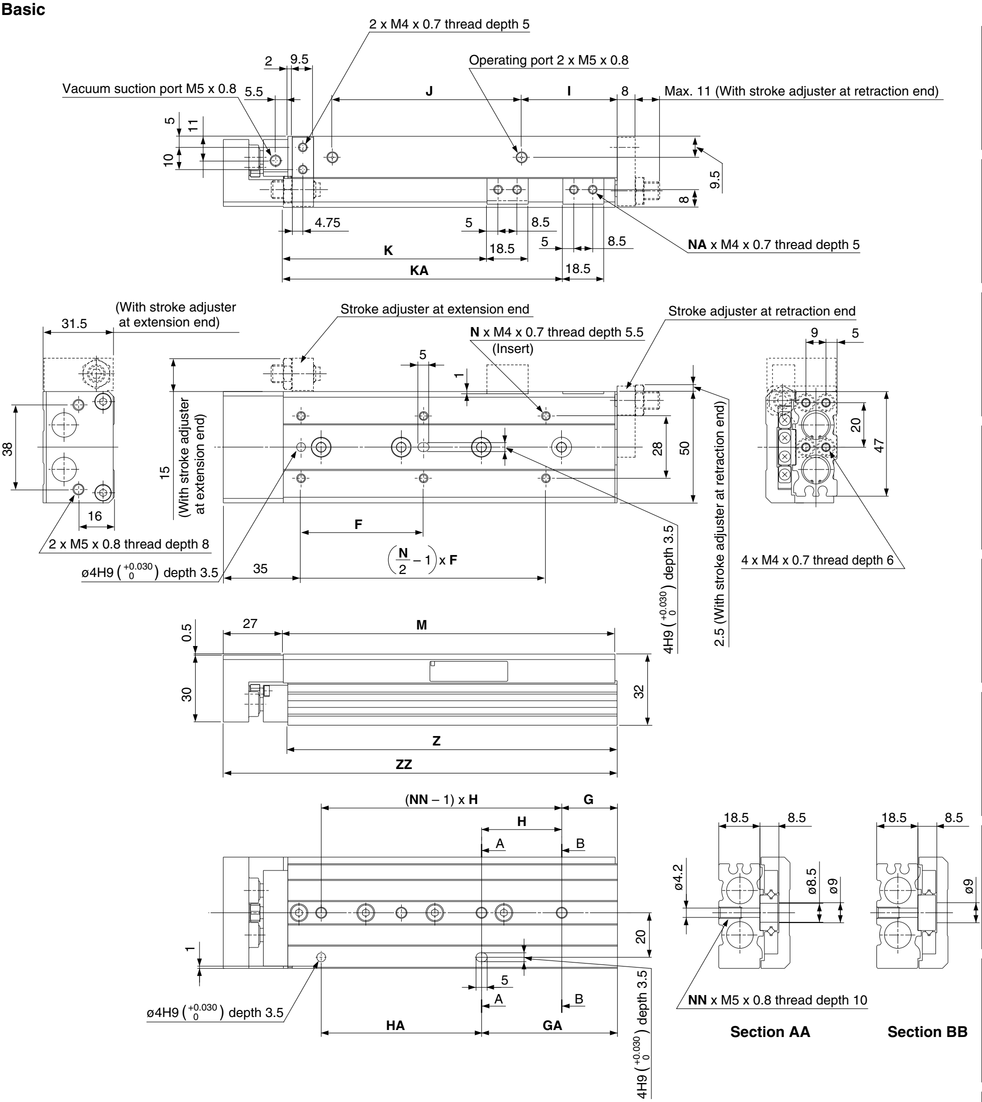


(mm)

Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS8L-10	25	4	9	28	2	17	20	13	19.5	23.5	—	2	49	48.5	74
13-/22-MXS8L-20	25	4	12	30	2	12	30	8.5	29	33.5	—	2	54	53.5	79
13-/22-MXS8L-30	40	4	13	20	3	33	20	9.5	39	43.5	—	2	65	64.5	90
13-/22-MXS8L-40	50	4	15	28	3	43	28	10.5	56	53.5	—	2	83	82.5	108
13-/22-MXS8L-50	38	6	20	23	4	43	46	24.5	60	63.5	82.5	4	101	100.5	126
13-/22-MXS8L-75	50	6	27	28	5	83	56	38.5	96	88.5	132.5	4	151	150.5	176

Dimensions: 13-/22-MXS12

Basic

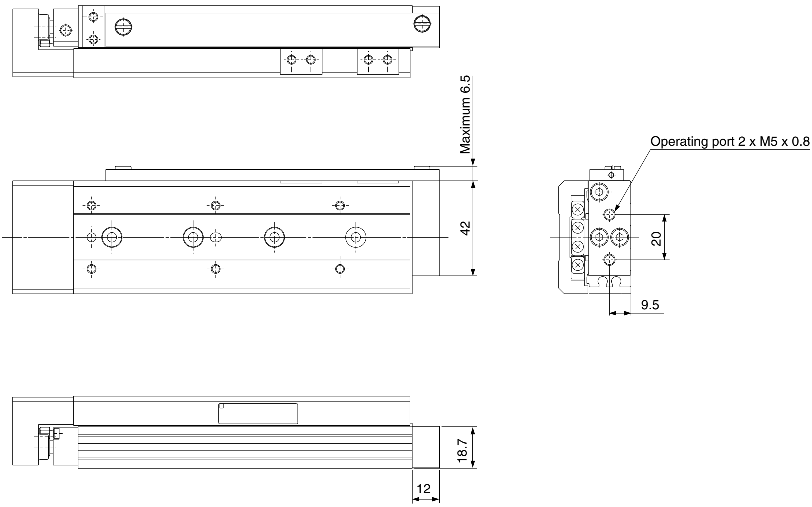


(mm)

Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS12-10	35	4	15	40	2	15	40	10	40	26.5	—	2	71	70	99
13-/22-MXS12-20	35	4	15	40	2	15	40	10	40	36.5	—	2	71	70	99
13-/22-MXS12-30	35	4	15	40	2	15	40	10	40	46.5	—	2	71	70	99
13-/22-MXS12-40	50	4	17	25	3	42	25	10	52	56.5	—	2	83	82	111
13-/22-MXS12-50	35	6	15	36	3	51	36	22	60	66.5	—	2	103	102	131
13-/22-MXS12-75	55	6	25	36	4	61	72	43	85	91.5	125.5	4	149	148	177
13-/22-MXS12-100	65	6	35	38	5	111	76	52	130	116.5	179.5	4	203	202	231

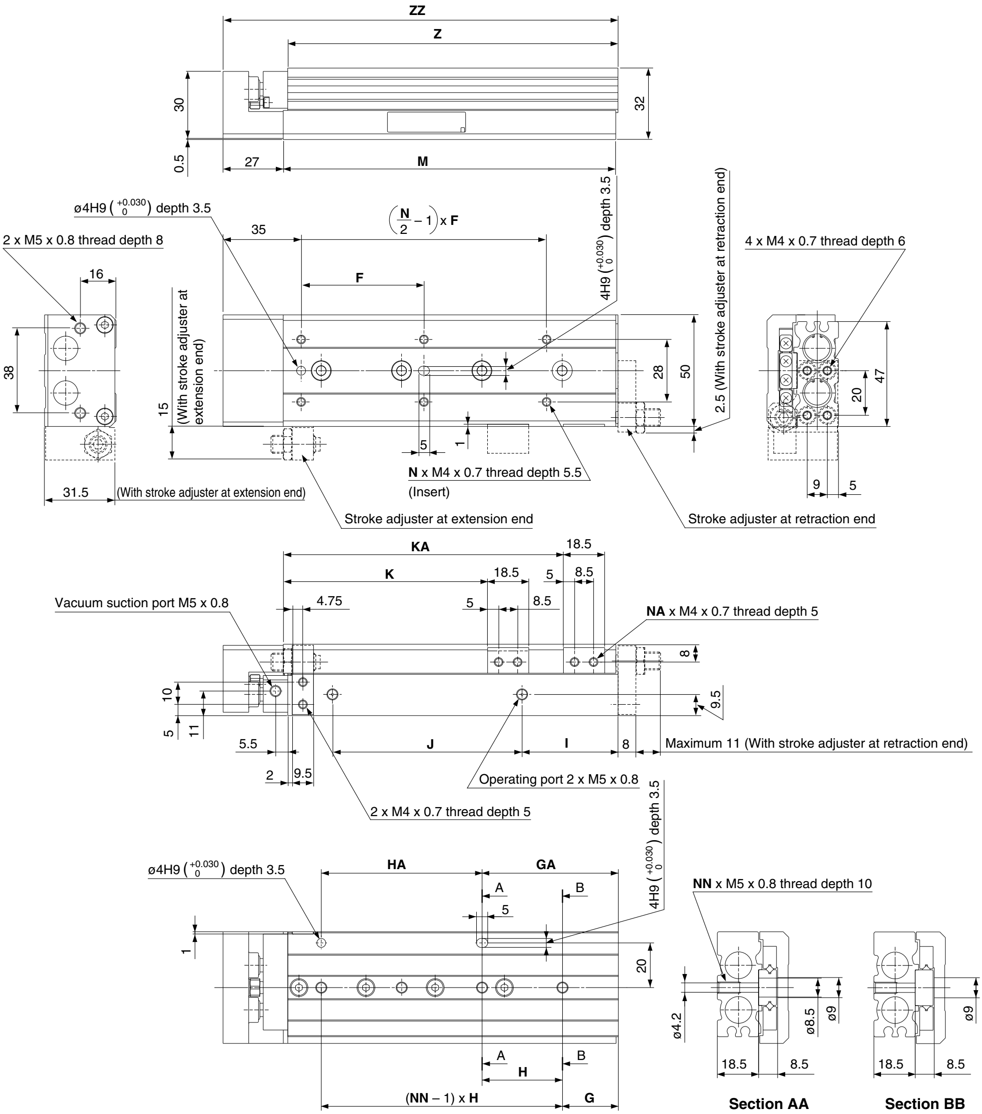
Dimensions: $^{13\text{-}}_{22\text{-}}$MXS12

Axial piping (ø12) $^{13\text{-}}_{22\text{-}}$MXS12-□□P



∗ Other dimensions are the same as those of basic type.

Dimensions: 13-/22-MXS12L / Symmetric Type

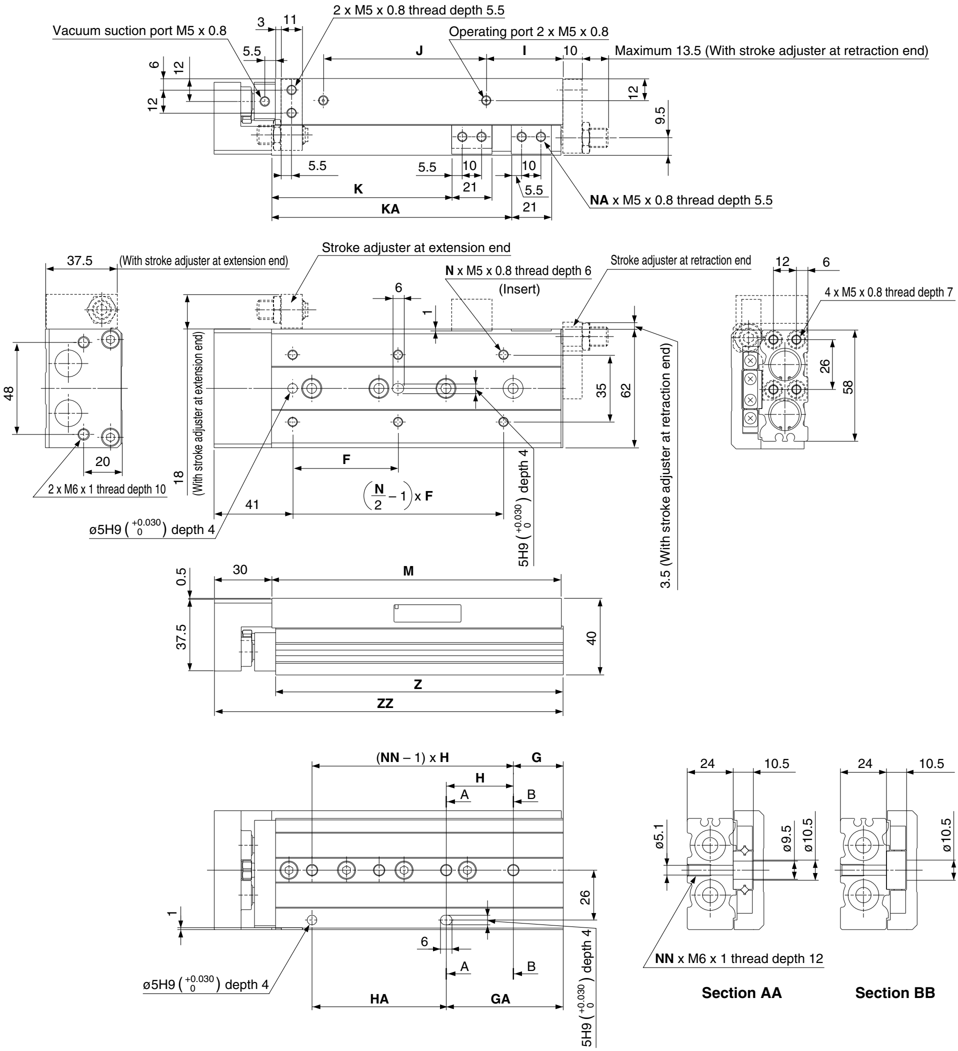


(mm)

Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS12L-10	35	4	15	40	2	15	40	10	40	26.5	—	2	71	70	99
13-/22-MXS12L-20	35	4	15	40	2	15	40	10	40	36.5	—	2	71	70	99
13-/22-MXS12L-30	35	4	15	40	2	15	40	10	40	46.5	—	2	71	70	99
13-/22-MXS12L-40	50	4	17	25	3	42	25	10	52	56.5	—	2	83	82	111
13-/22-MXS12L-50	35	6	15	36	3	51	36	22	60	66.5	—	2	103	102	131
13-/22-MXS12L-75	55	6	25	36	4	61	72	43	85	91.5	125.5	4	149	148	177
13-/22-MXS12L-100	65	6	35	38	5	111	76	52	130	116.5	179.5	4	203	202	231

Dimensions: $^{13-}_{22-}$MXS16

Basic

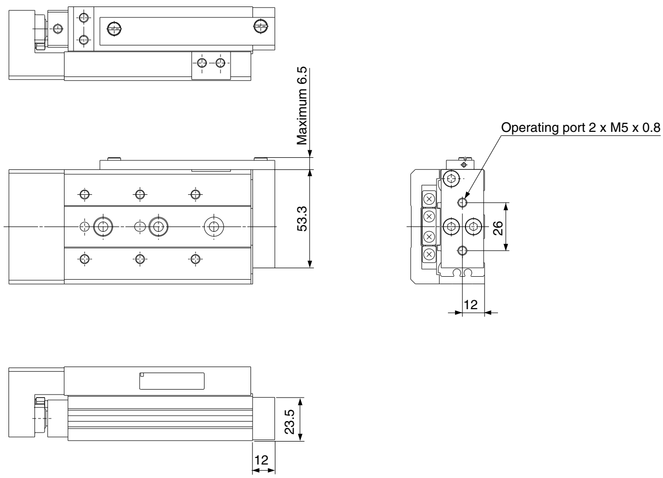


(mm)

Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS16-10	35	4	16	40	2	16	40	10	40	29	—	2	76	75	107
13-/22-MXS16-20	35	4	16	40	2	16	40	10	40	39	—	2	76	75	107
13-/22-MXS16-30	35	4	16	40	2	16	40	10	40	49	—	2	76	75	107
13-/22-MXS16-40	40	4	16	50	2	16	50	10	50	59	—	2	86	85	117
13-/22-MXS16-50	30	6	21	30	3	51	30	15	60	69	—	2	101	100	132
13-/22-MXS16-75	55	6	26	35	4	61	70	40	85	94	125	4	151	150	182
13-/22-MXS16-100	65	6	39	35	5	109	70	55	118	119	173	4	199	198	230
13-/22-MXS16-125	70	8	19	35	7	159	70	68	155	144	223	4	249	248	280

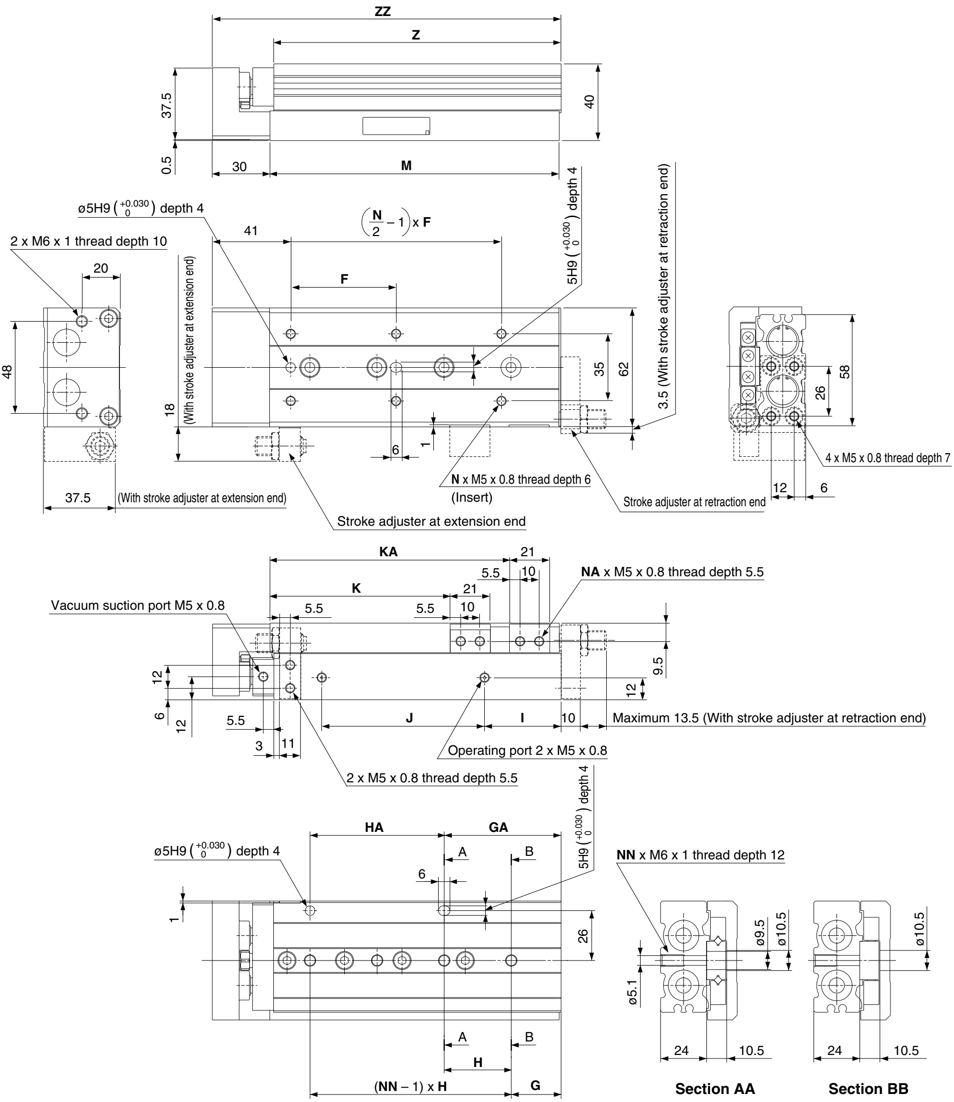
Dimensions: 13-22-MXS16

Axial piping (ø16) 13-22-MXS16-□□P



∗ Other dimensions are the same as those of basic type.

Dimensions: 13-/22-MXS16L / Symmetric Type

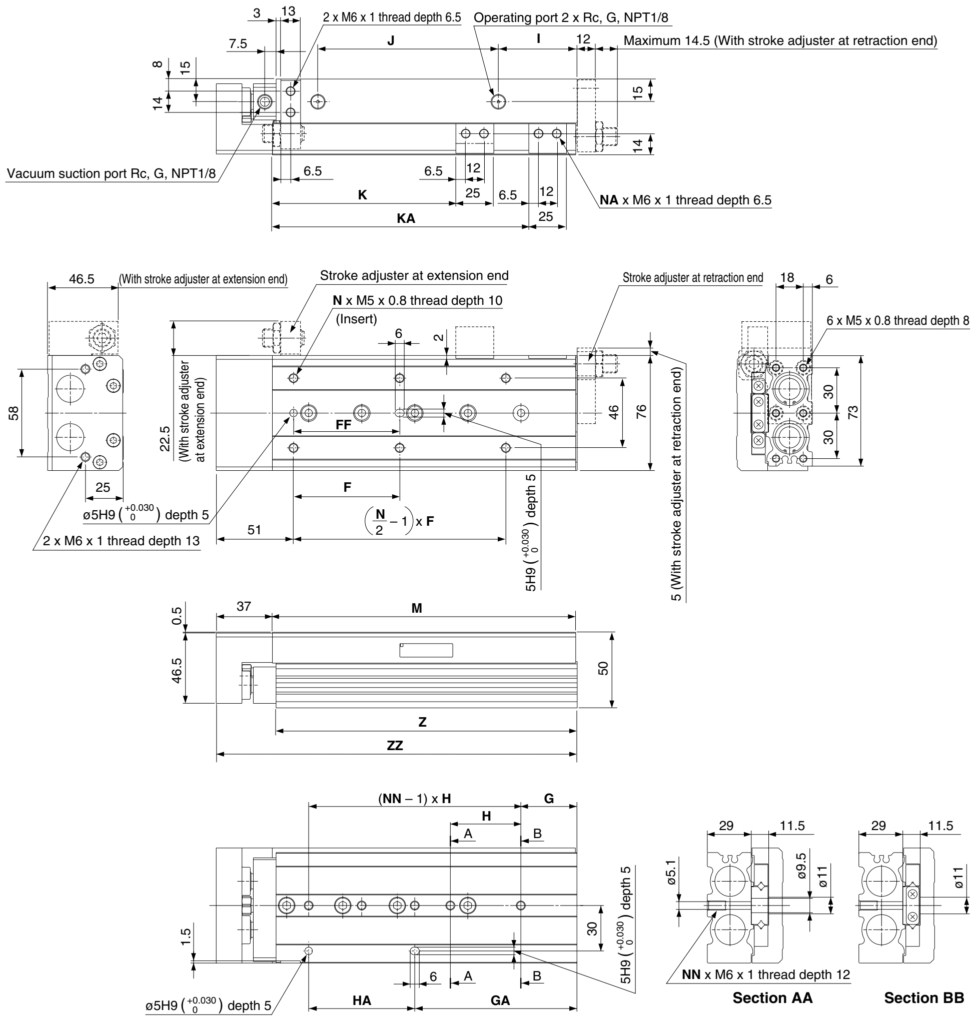


(mm)

Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS16L-10	35	4	16	40	2	16	40	10	40	29	—	2	76	75	107
13-/22-MXS16L-20	35	4	16	40	2	16	40	10	40	39	—	2	76	75	107
13-/22-MXS16L-30	35	4	16	40	2	16	40	10	40	49	—	2	76	75	107
13-/22-MXS16L-40	40	4	16	50	2	16	50	10	50	59	—	2	86	85	117
13-/22-MXS16L-50	30	6	21	30	3	51	30	15	60	69	—	2	101	100	132
13-/22-MXS16L-75	55	6	26	35	4	61	70	40	85	94	125	4	151	150	182
13-/22-MXS16L-100	65	6	39	35	5	109	70	55	118	119	173	4	199	198	230
13-/22-MXS16L-125	70	8	19	35	7	159	70	68	155	144	223	4	249	248	280

Dimensions: 13-/22-MXS20

Basic

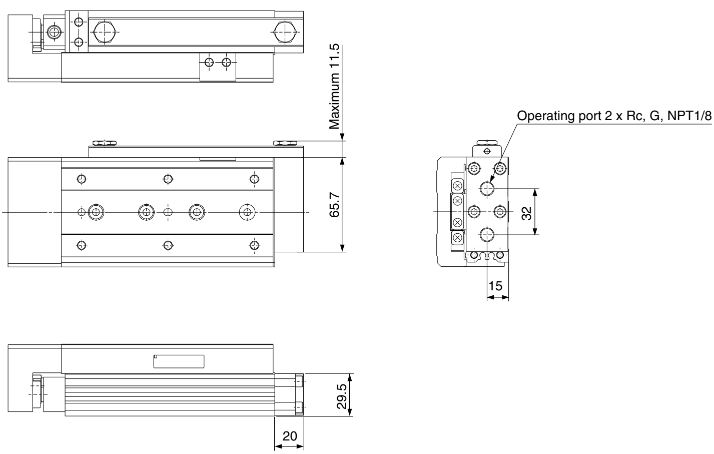


(mm)

Model	F	FF	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS20-10	50	40	4	15	45	2	25	35	10	44	31	—	2	83	81.5	121
13-/22-MXS20-20	50	40	4	15	45	2	25	35	10	44	41	—	2	83	81.5	121
13-/22-MXS20-30	50	40	4	15	45	2	25	35	10	44	51	—	2	83	81.5	121
13-/22-MXS20-40	60	50	4	15	55	2	35	35	10	54	61	—	2	93	91.5	131
13-/22-MXS20-50	35	35	6	15	35	3	50	35	10	69	71	—	2	108	106.5	146
13-/22-MXS20-75	60	60	6	19	35	4	54	70	10	108	96	—	2	147	145.5	185
13-/22-MXS20-100	70	70	6	37	35	5	107	70	58	113	121	169	4	200	198.5	238
13-/22-MXS20-125	70	70	8	41	38	6	155	76	70	155	146	223	4	254	252.5	292
13-/22-MXS20-150	80	80	8	19	44	7	195	88	87	190	171	275	4	306	304.5	344

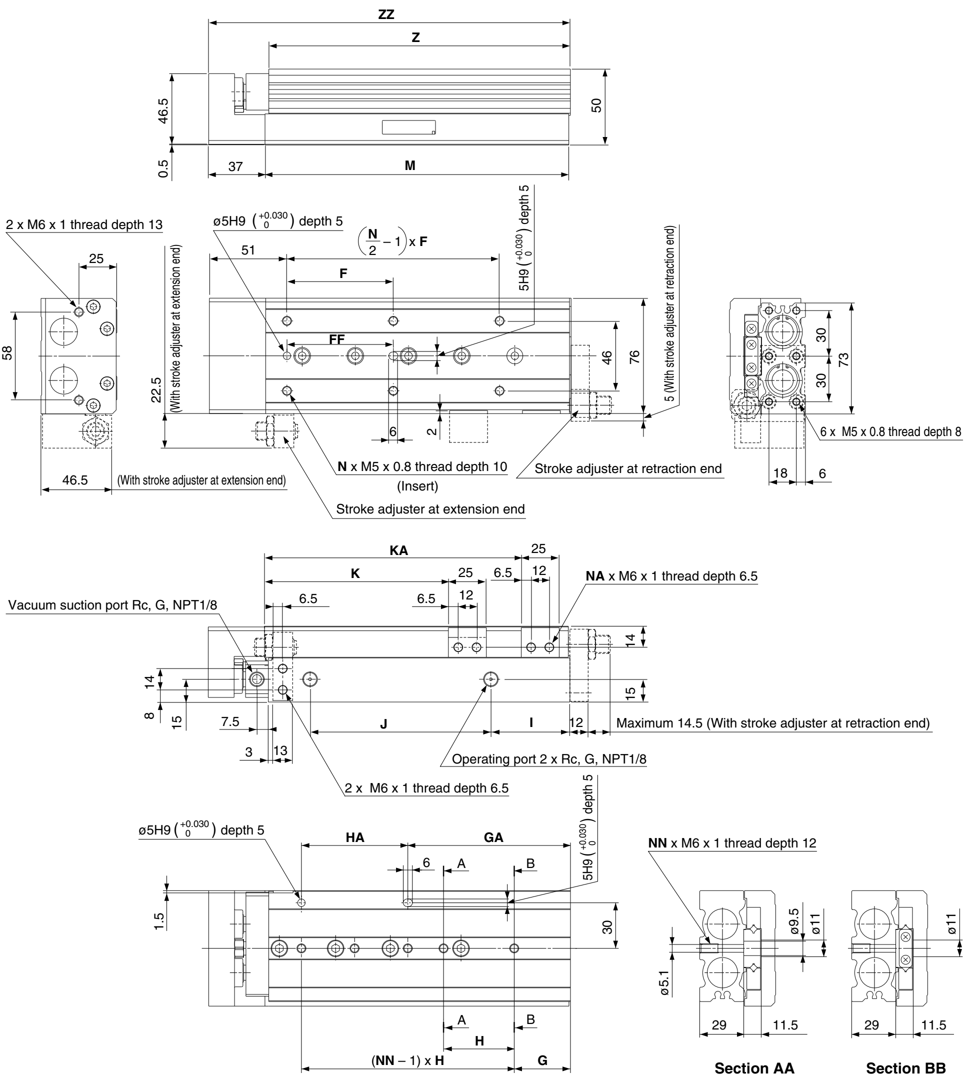
Dimensions: 13-/22-MXS 20

Axial piping (ø20) 13-/22-MXS20-□□P



∗ Other dimensions are the same as those of basic type.

Dimensions: 13-/22-MXS20L / Symmetric Type

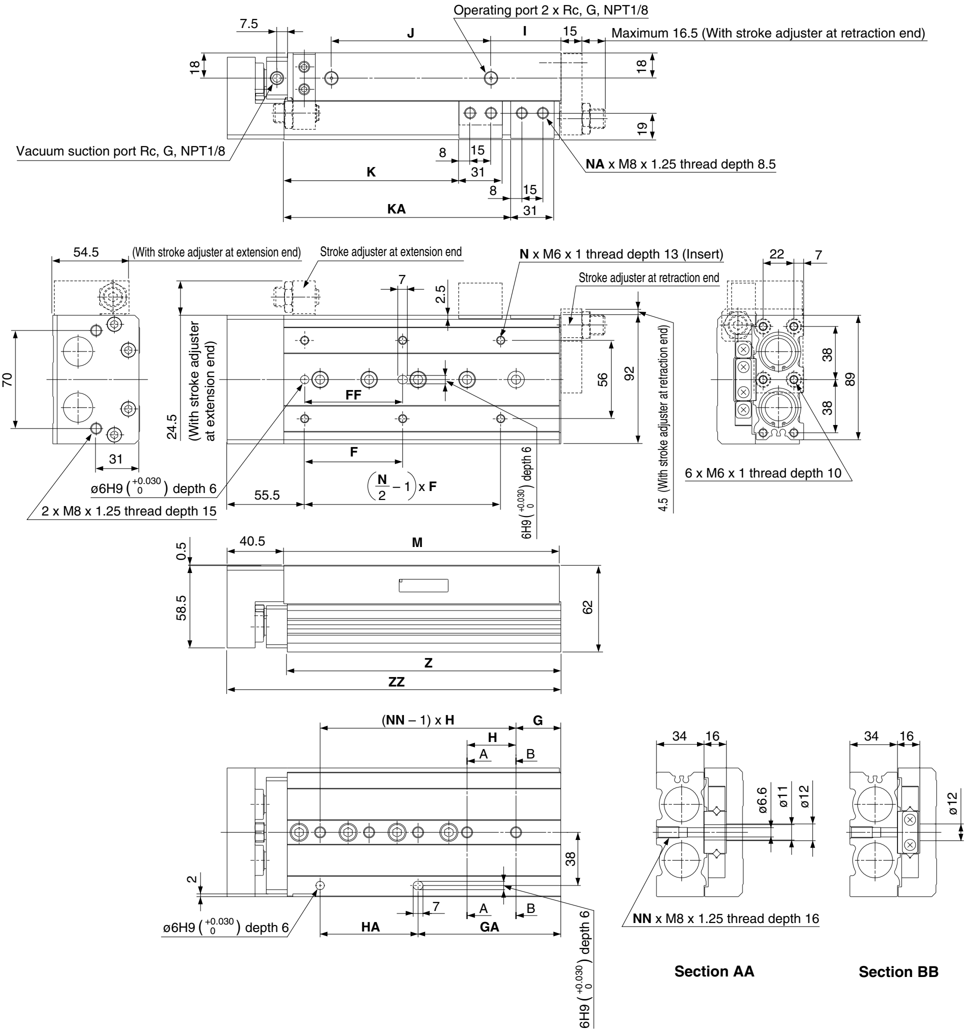


(mm)

Model	F	FF	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS20L-10	50	40	4	15	45	2	25	35	10	44	31	—	2	83	81.5	121
13-/22-MXS20L-20	50	40	4	15	45	2	25	35	10	44	41	—	2	83	81.5	121
13-/22-MXS20L-30	50	40	4	15	45	2	25	35	10	44	51	—	2	83	81.5	121
13-/22-MXS20L-40	60	50	4	15	55	2	35	35	10	54	61	—	2	93	91.5	131
13-/22-MXS20L-50	35	35	6	15	35	3	50	35	10	69	71	—	2	108	106.5	146
13-/22-MXS20L-75	60	60	6	19	35	4	54	70	10	108	96	—	2	147	145.5	185
13-/22-MXS20L-100	70	70	6	37	35	5	107	70	58	113	121	169	4	200	198.5	238
13-/22-MXS20L-125	70	70	8	41	38	6	155	76	70	155	146	223	4	254	252.5	292
13-/22-MXS20L-150	80	80	8	19	44	7	195	88	87	190	171	275	4	306	304.5	344

Dimensions: 13-/22-MXS25

Basic

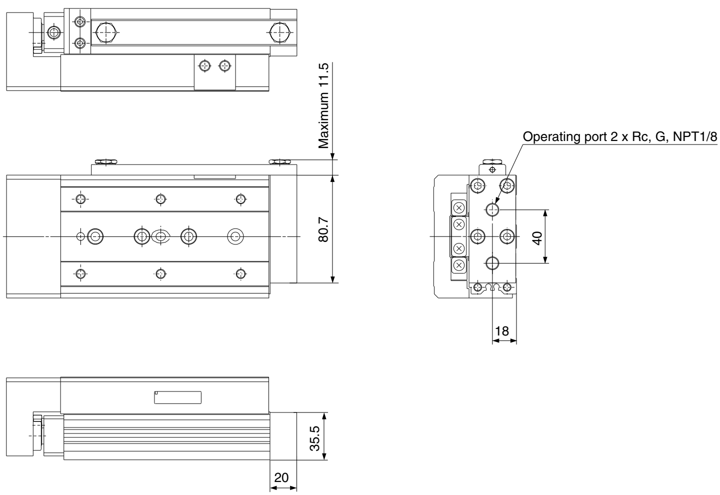


(mm)

Model	F	FF	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS25-10	50	40	4	22	45	2	22	45	12	47	35	—	2	92	90.5	133.5
13-/22-MXS25-20	50	40	4	22	45	2	22	45	12	47	45	—	2	92	90.5	133.5
13-/22-MXS25-30	50	40	4	22	45	2	22	45	12	47	55	—	2	92	90.5	133.5
13-/22-MXS25-40	60	50	4	22	55	2	22	55	12	57	65	—	2	102	100.5	143.5
13-/22-MXS25-50	35	35	6	20	35	3	55	35	12	70	75	—	2	115	113.5	156.5
13-/22-MXS25-75	60	60	6	26	35	4	61	70	33	90	100	—	2	156	154.5	197.5
13-/22-MXS25-100	70	70	6	32	35	5	102	70	50	114	125	162	4	197	195.5	238.5
13-/22-MXS25-125	75	75	8	40	38	6	154	76	67	155	150	218	4	255	253.5	296.5
13-/22-MXS25-150	80	80	8	30	40	7	190	80	82	180	175	258	4	295	293.5	336.5

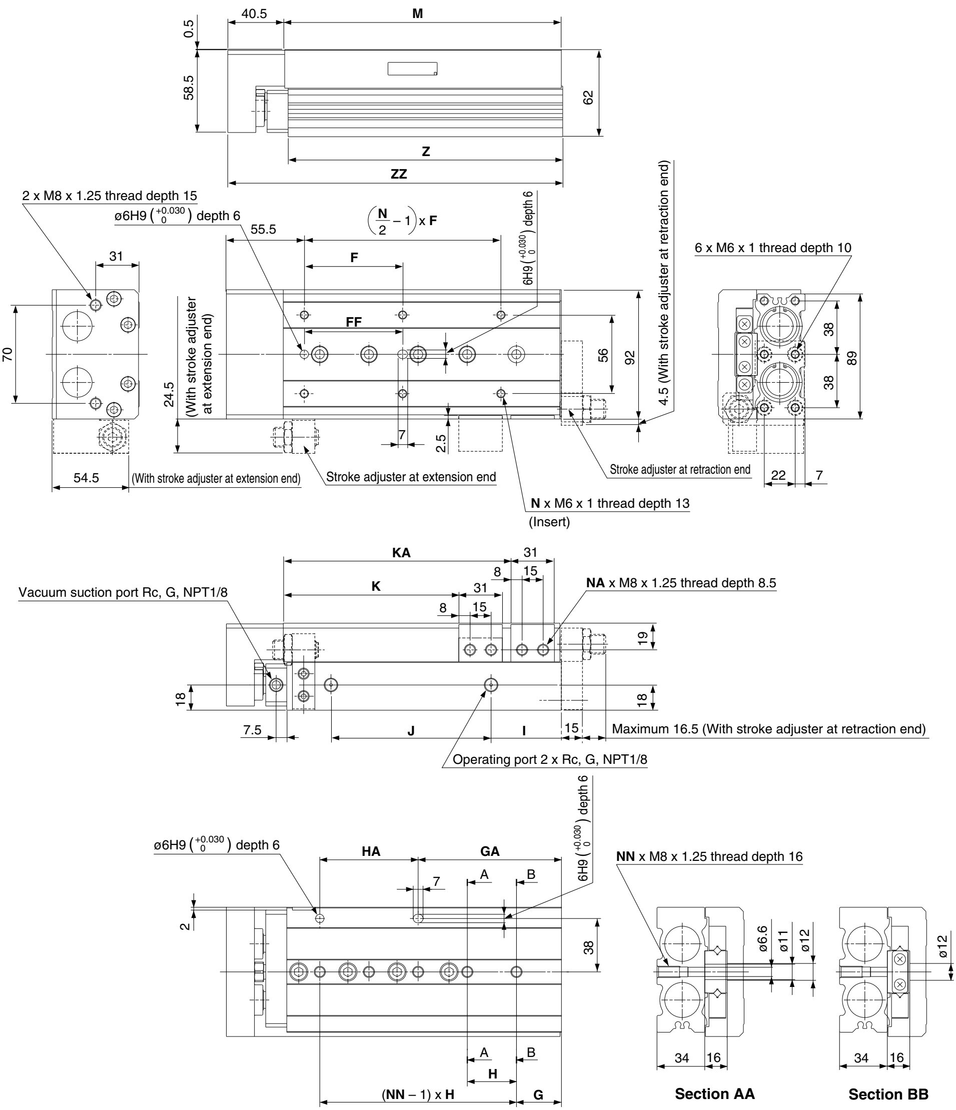
Dimensions: 13-/22-MXS25

Axial piping (ø25) 13-/22-MXS25-□□P



∗ Other dimensions are the same as those of basic type.

Dimensions: 13-/22-MXS25L / Symmetric Type



(mm)

Model	F	FF	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS25L-10	50	40	4	22	45	2	22	45	12	47	35	—	2	92	90.5	133.5
13-/22-MXS25L-20	50	40	4	22	45	2	22	45	12	47	45	—	2	92	90.5	133.5
13-/22-MXS25L-30	50	40	4	22	45	2	22	45	12	47	55	—	2	92	90.5	133.5
13-/22-MXS25L-40	60	50	4	22	55	2	22	55	12	57	65	—	2	102	100.5	143.5
13-/22-MXS25L-50	35	35	6	20	35	3	55	35	12	70	75	—	2	115	113.5	156.5
13-/22-MXS25L-75	60	60	6	26	35	4	61	70	33	90	100	—	2	156	154.5	197.5
13-/22-MXS25L-100	70	70	6	32	35	5	102	70	50	114	125	162	4	197	195.5	238.5
13-/22-MXS25L-125	75	75	8	40	38	6	154	76	67	155	150	218	4	255	253.5	296.5
13-/22-MXS25L-150	80	80	8	30	40	7	190	80	82	180	175	258	4	295	293.5	336.5

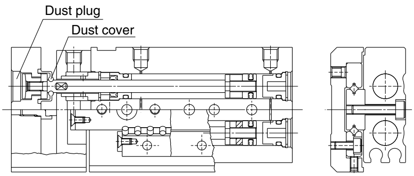
Made to Order

Dust cover and dust plug made by fluororubber | **-X52**

13-MXS | **Standard model no.** | **-X52**

Material used for the dust cover and dust plug has been changed from silicone rubber to fluororubber.

Note 1) Dimensions are the same as those of standard type.



⚠ Specific Product Precautions

Be sure to read this before handling.

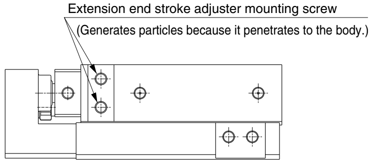
Handling

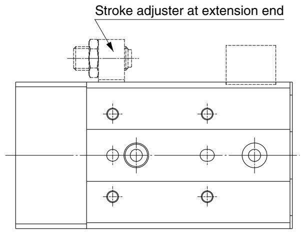
⚠ Caution

Plug the port after removing the stroke adjuster at the extension end.

Otherwise particle generation may occur because the prepared hole of the mounting screw penetrates the body.

Cylinder bore size (mm)	25





In case of without extension end adjuster type, port is plugged with a hexagon socket set screw at the time of shipment.