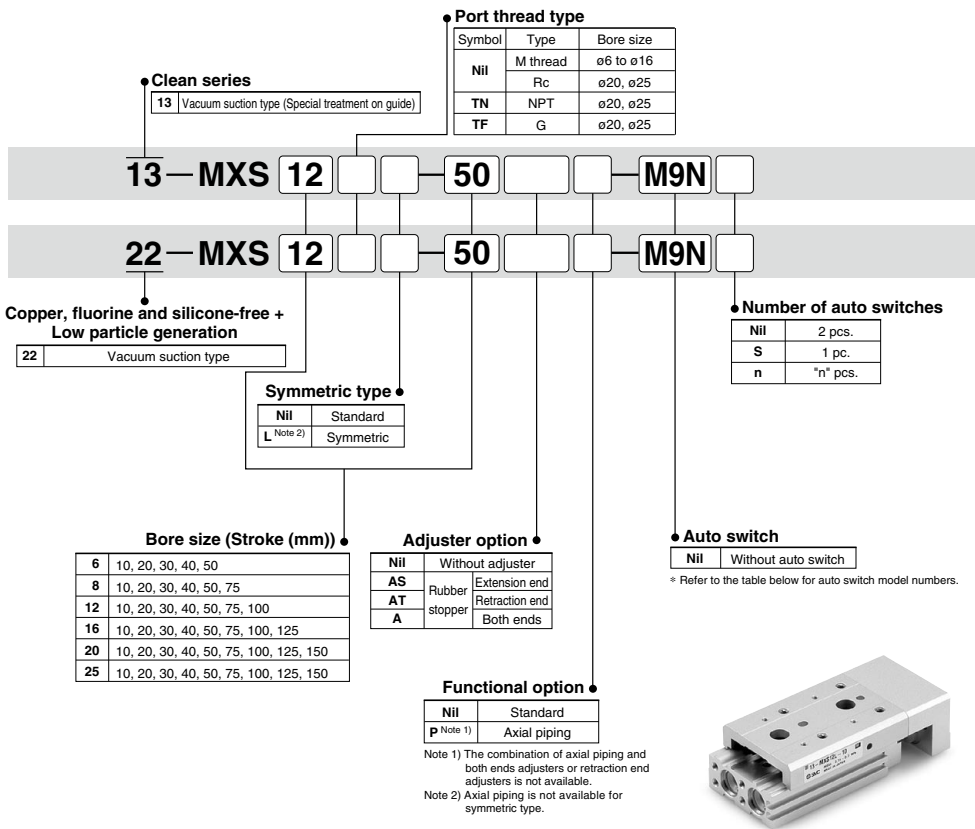


Series 13-22-MXS $\varnothing 6, \varnothing 8, \varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25$ Air Side Table



How to Order



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		Auto switch model	Lead wire length (m) *		Applicable load		
					DC	AC		Electrical entry direction				
							In-line	0.5 (Nil)	3 (L)			
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) 2-wire	24 V	12 V	—	M9N	●	●	—	Relay, PLC
						12 V	—	M9B	●	●	—	Relay, PLC

* 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.

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors

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	± 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)	9.9 (7.4)	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)	6.4 (3.9)	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)	33.6 (31.1)	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.

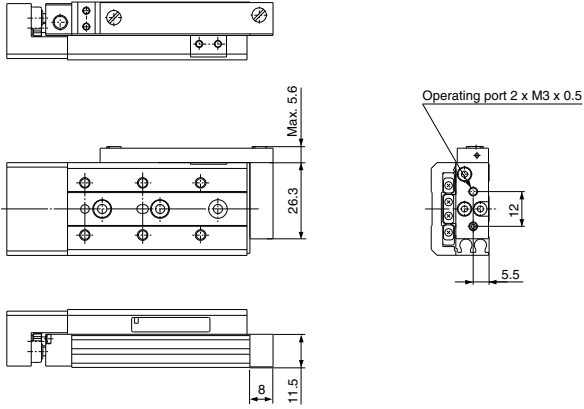
Solid state auto switch: D-M9B, D-M9N

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	—	—	2.4	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

Air Slide Table ¹³⁻/₂₂₋**MXS**

Dimensions: ¹³⁻/₂₂₋**MXS6**

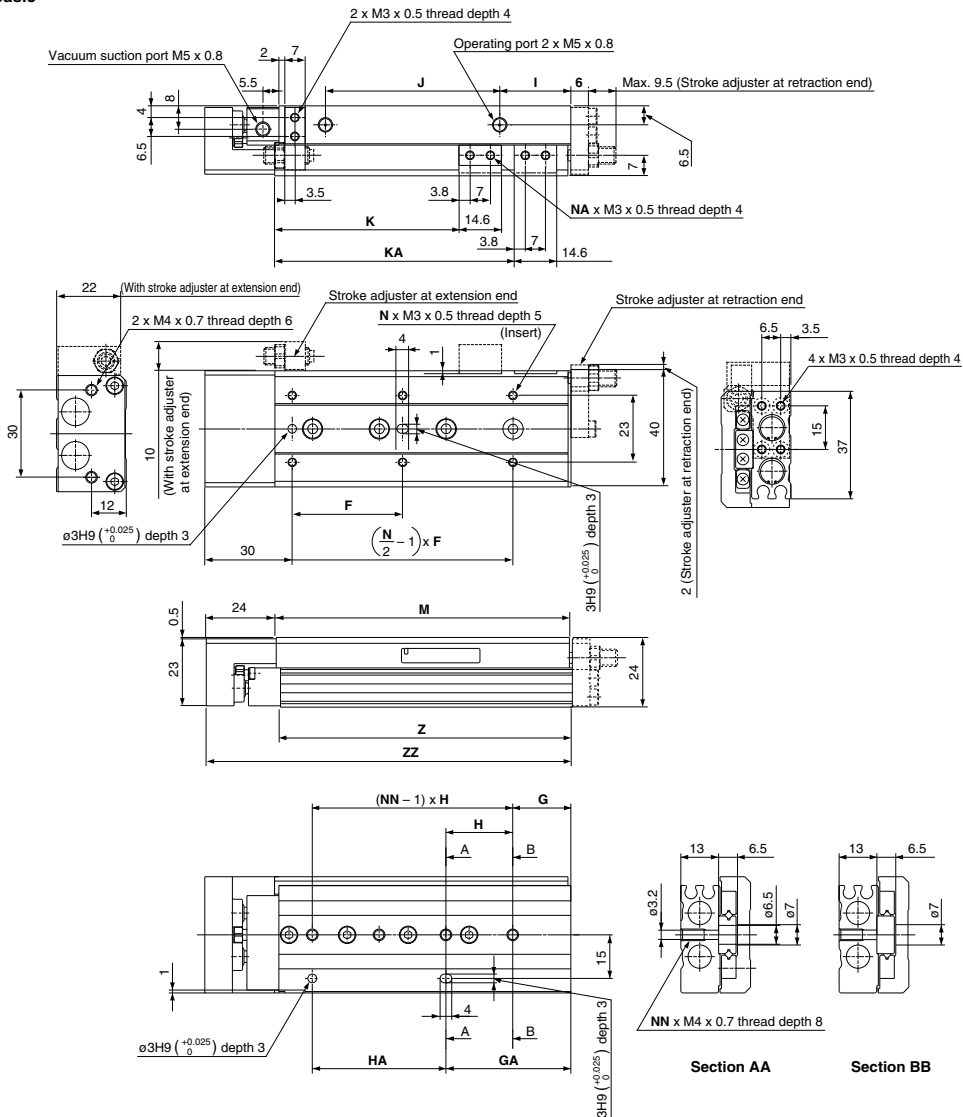
Axial piping (ø6): ¹³⁻/₂₂₋**MXS6-□□P**



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

Dimensions: 13-22-MXS8

Basic

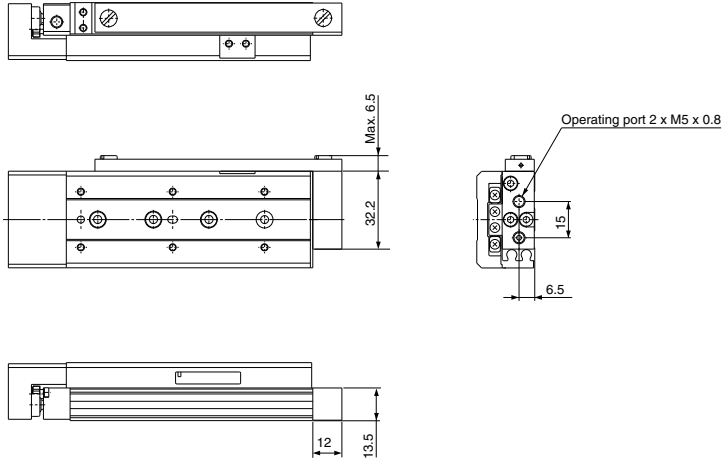


(mm)

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.

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

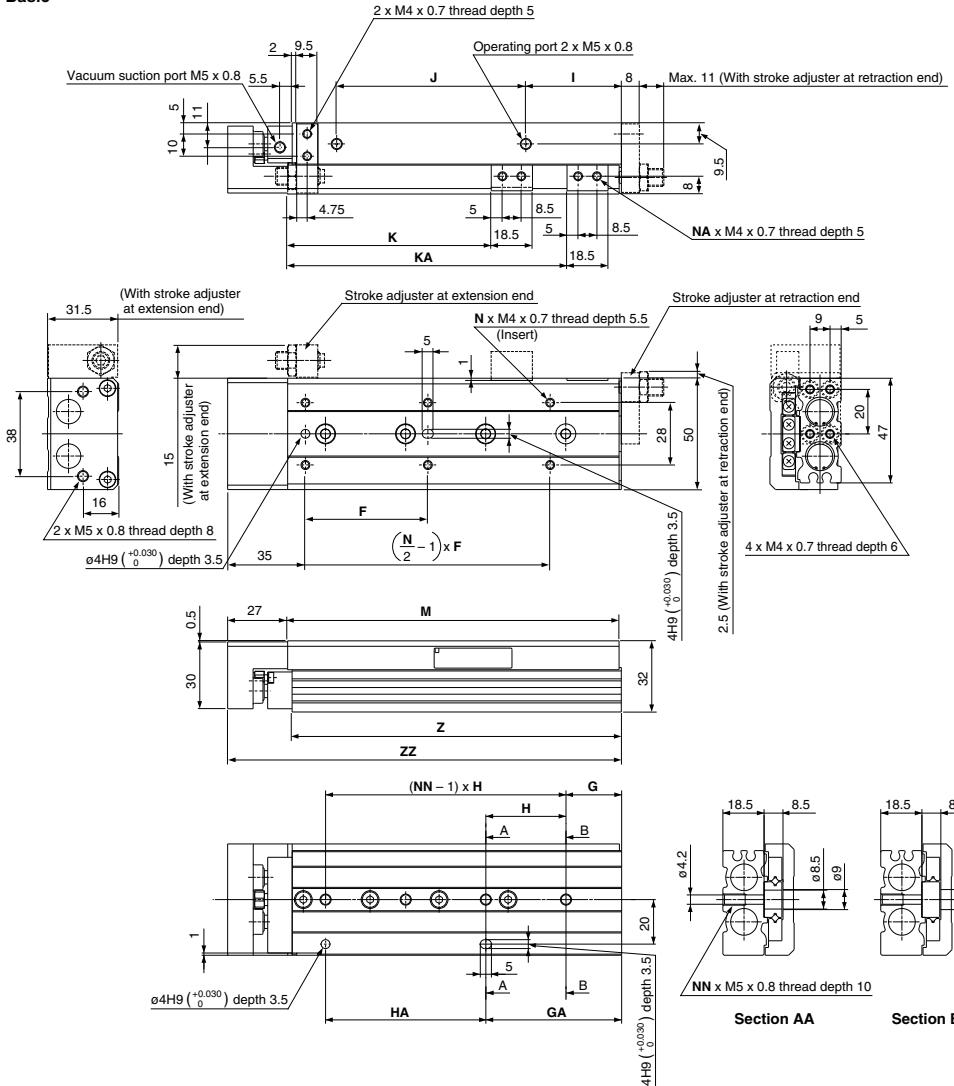
Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors

Dimensions: 13-22-MXS12

Basic



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

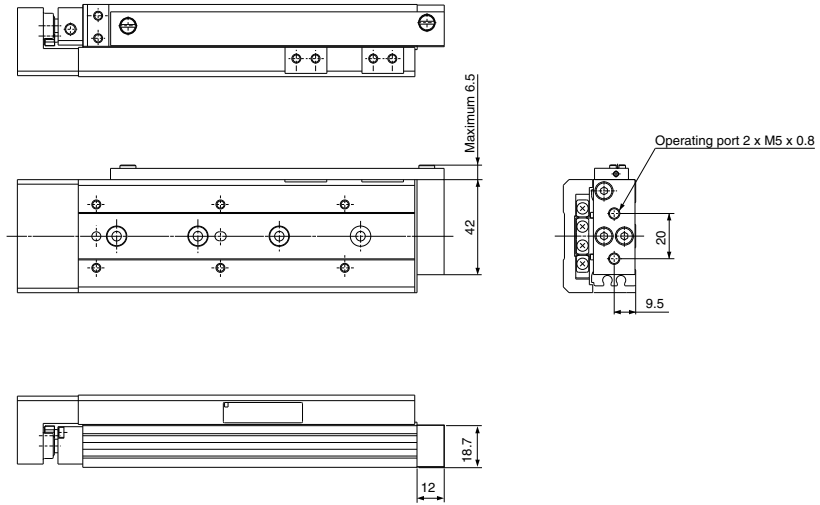
(mm)

- Directional Control Valves
- Air Cylinders
- Rotary Actuators
- Air Grippers
- Air Preparation Equipment
- Modular F. R.
- Pressure Control Equipment
- Fittings & Tubing
- Flow Control Equipment
- Pressure Switches/ Pressure Sensors

Air Slide Table ¹³⁻/₂₂₋MXS

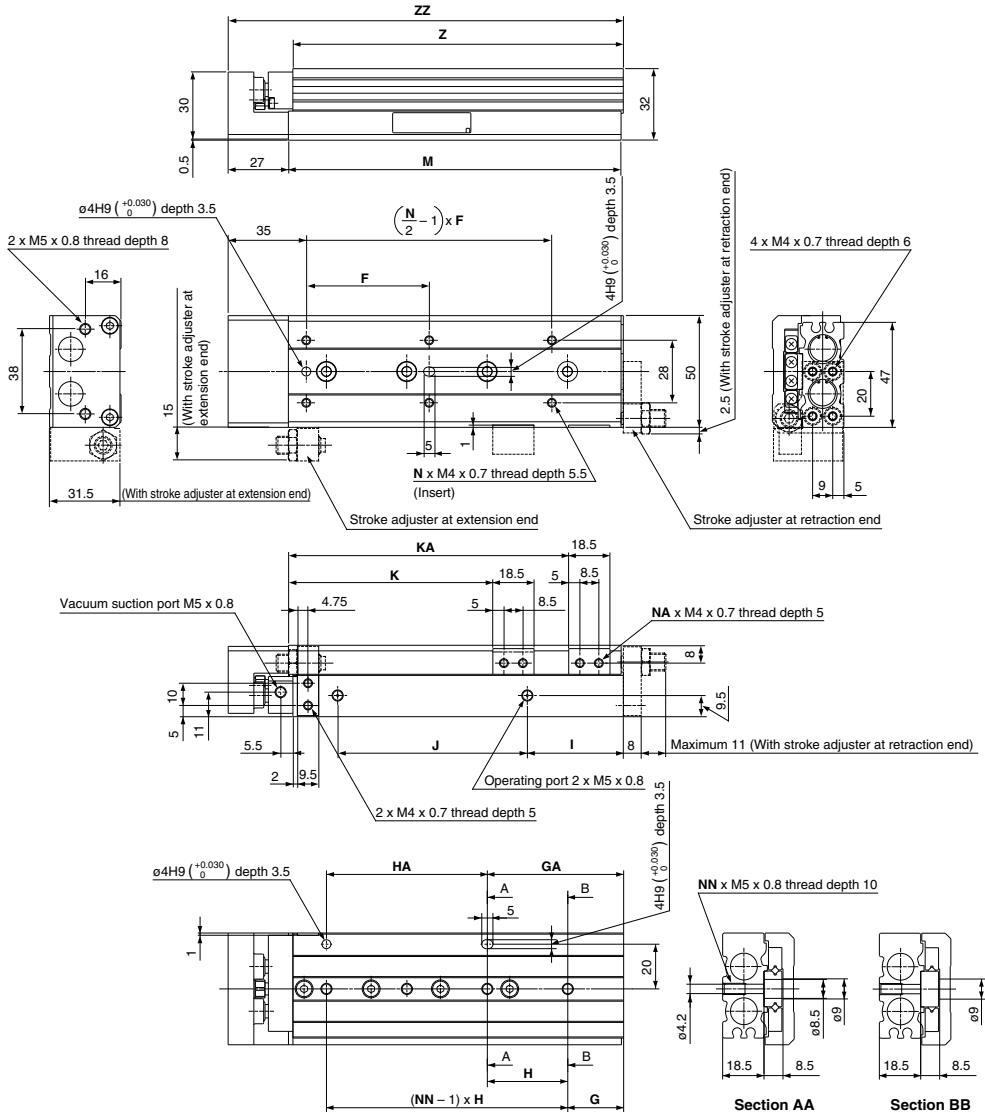
Dimensions: ¹³⁻/₂₂₋MXS12

Axial piping (ø12) ¹³⁻/₂₂₋MXS12-□□P



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

Dimensions: 13-22-MXS12L / Symmetric Type



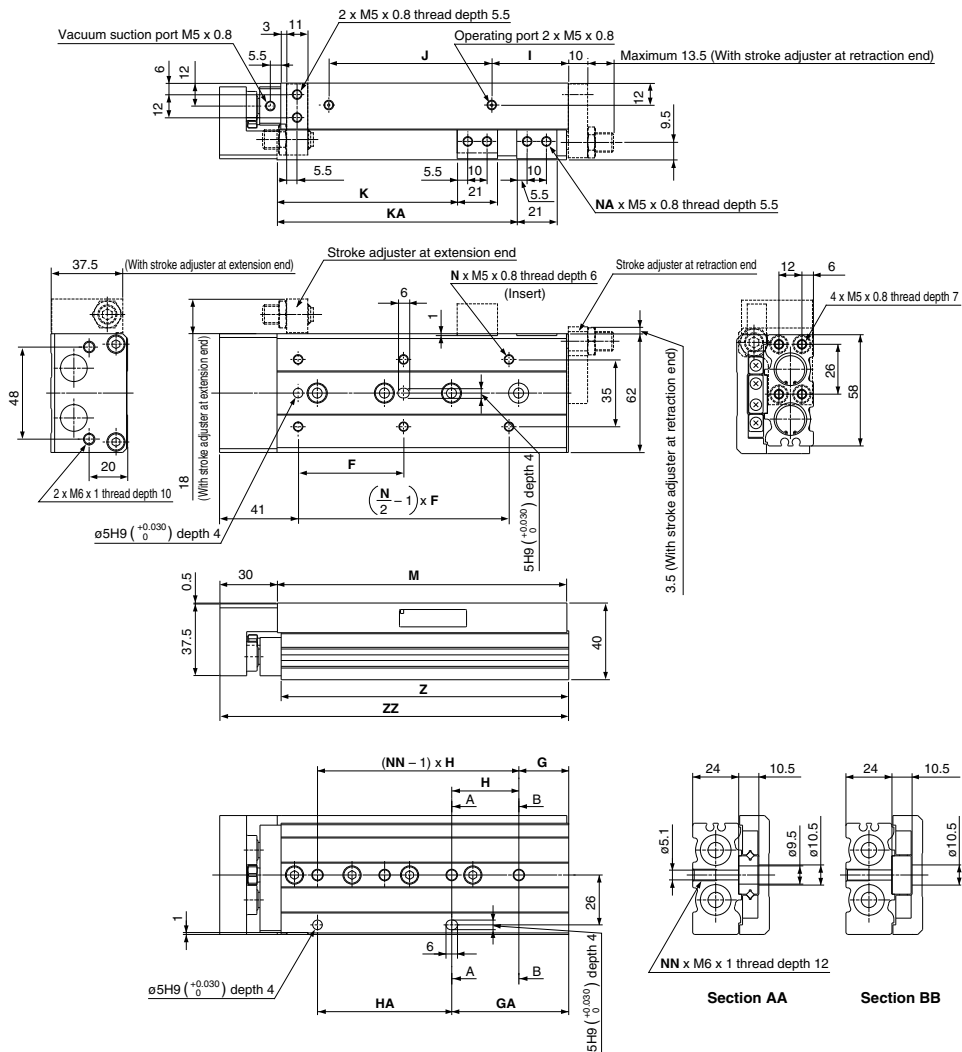
Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS12L-10	35	4	15	40	2	15	40	10	40	26.5	—	2	71	70	99
13-/22-MXS12L-20	35	4	15	40	2	15	40	10	40	36.5	—	2	71	70	99
13-/22-MXS12L-30	35	4	15	40	2	15	40	10	40	46.5	—	2	71	70	99
13-/22-MXS12L-40	50	4	17	25	3	42	25	10	52	56.5	—	2	83	82	111
13-/22-MXS12L-50	35	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

(mm)

- Directional Control Valves
- Air Cylinders
- Rotary Actuators
- Air Grippers
- Air Preparation Equipment
- Modular F. R.
- Pressure Control Equipment
- Fittings & Tubing
- Flow Control Equipment
- Pressure Switches/ Pressure Sensors

Dimensions: 13-22-MXS16

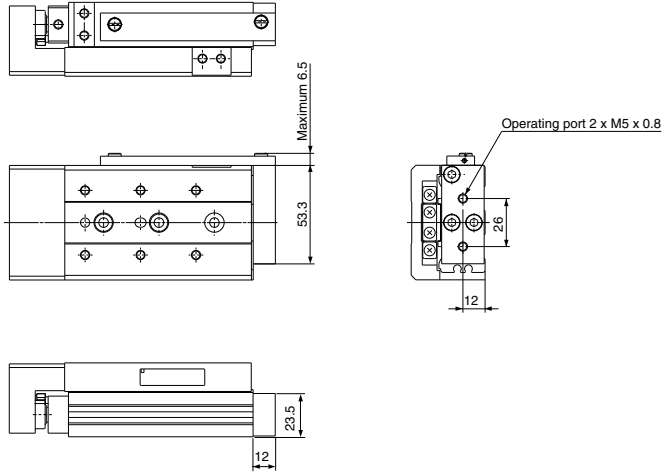
Basic



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.

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

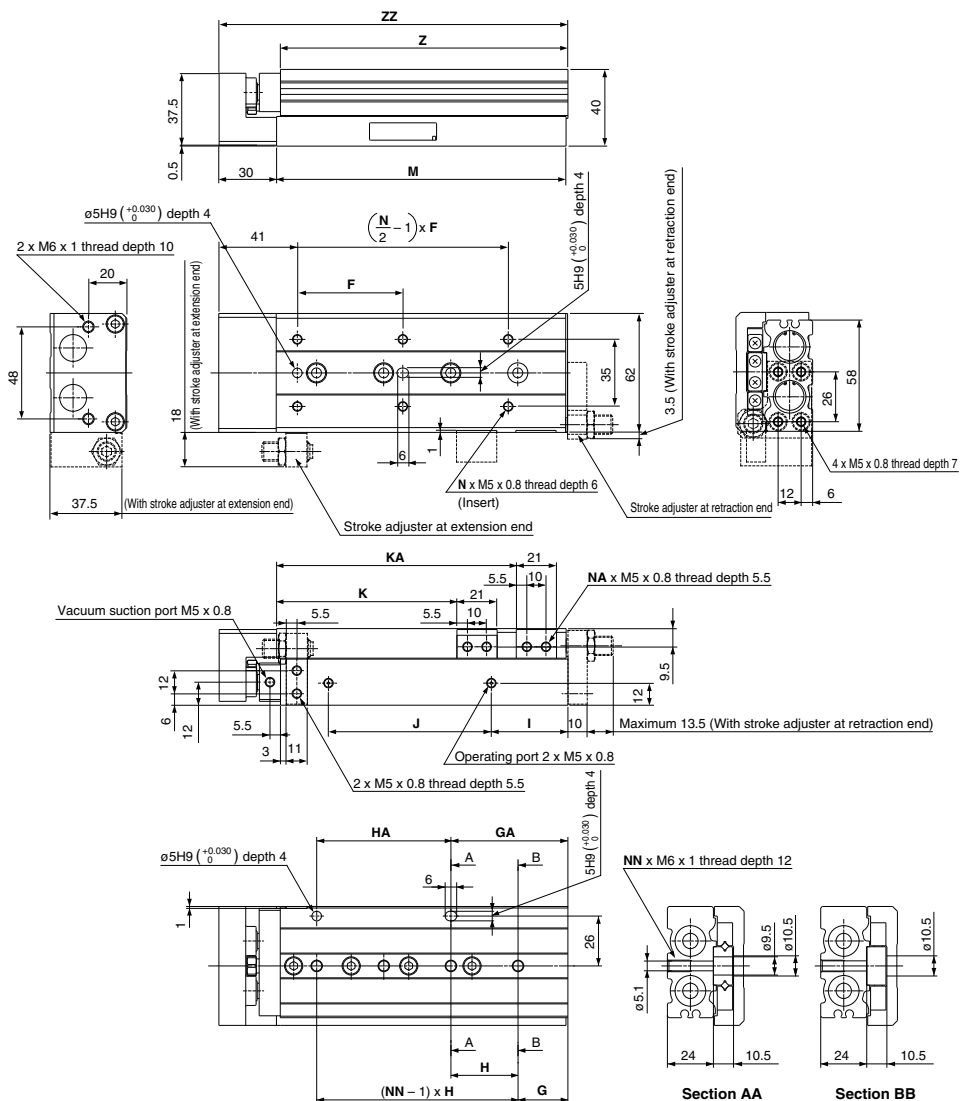
Pressure Control Equipment

Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors

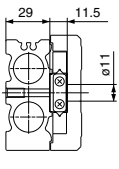
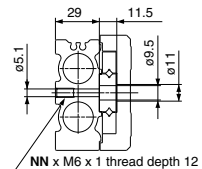
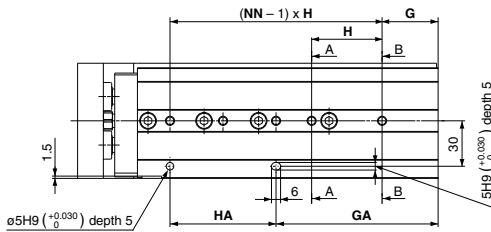
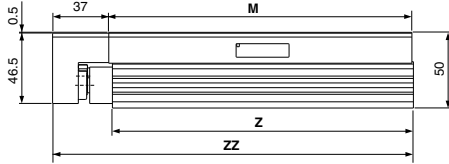
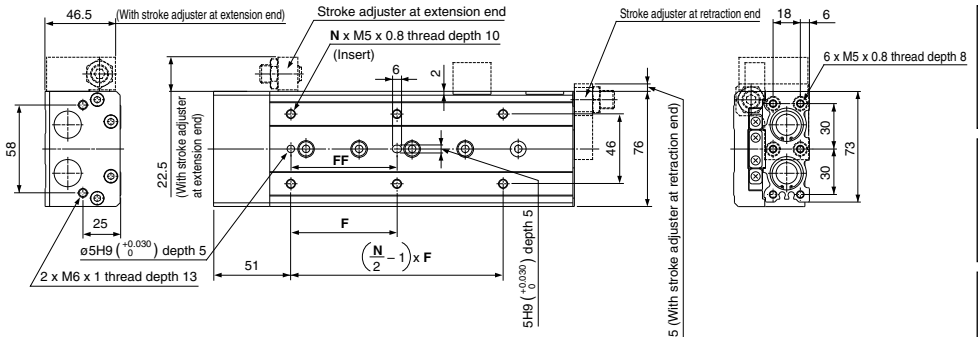
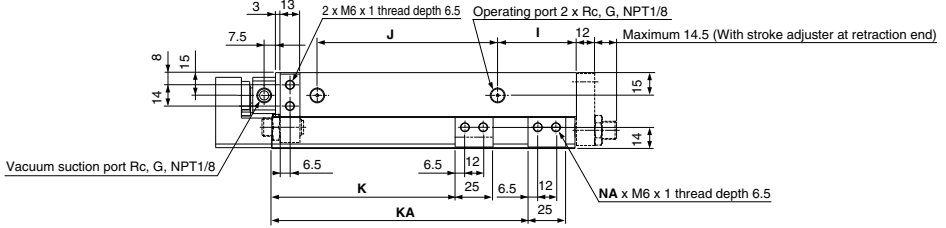
Dimensions: **13-22-MXS16L / Symmetric Type**



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



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

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

Fittings & Tubing

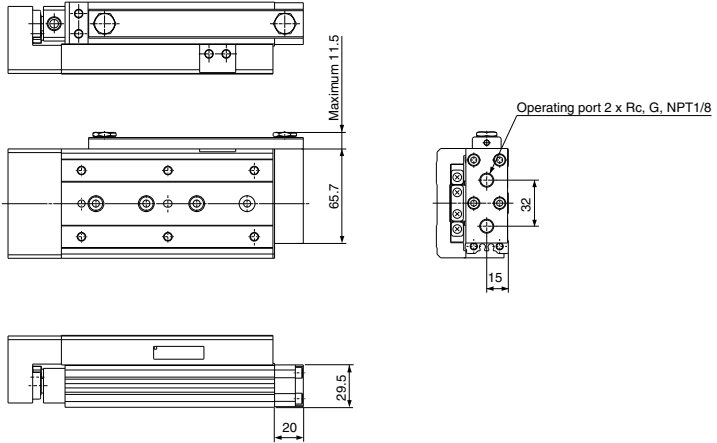
Flow Control Equipment

Pressure Switches/ Pressure Sensors

Air Slide Table ¹³⁻₂₂₋**MXS**

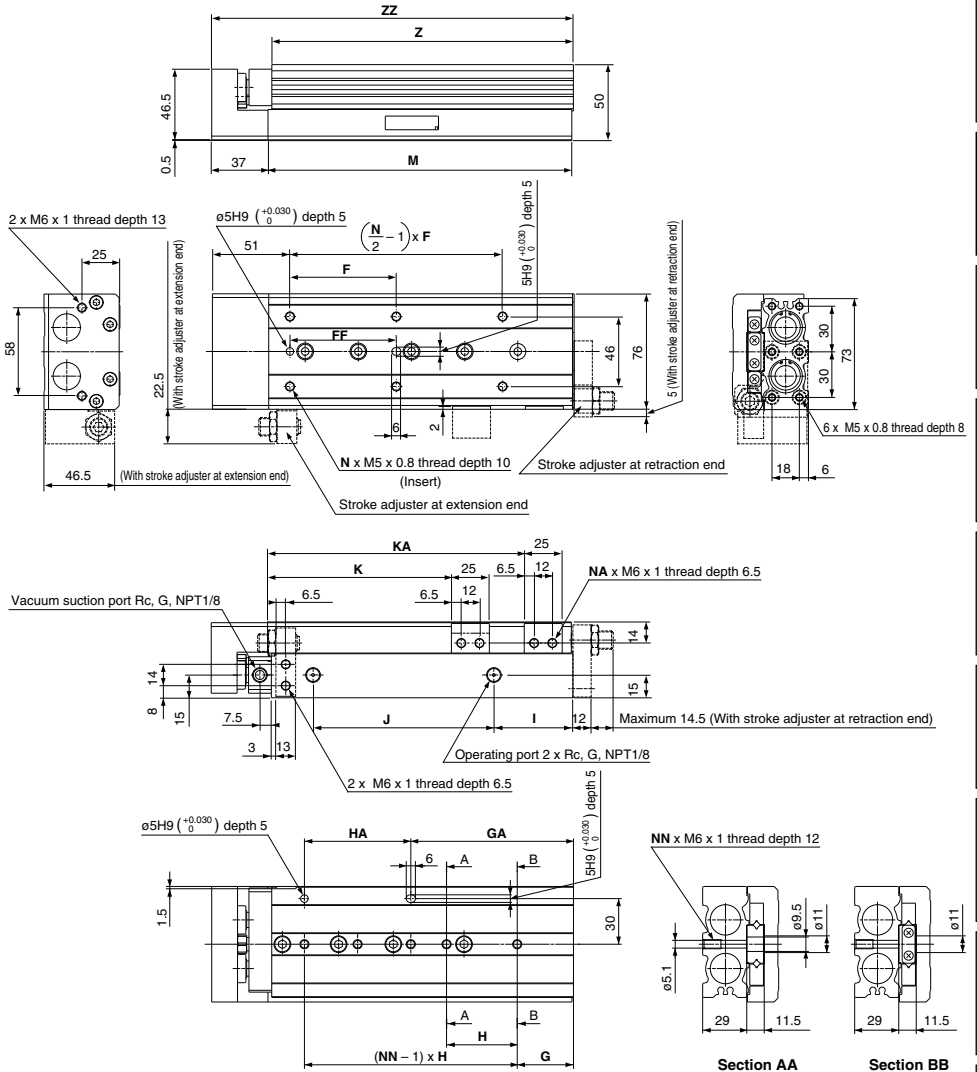
Dimensions: ¹³⁻₂₂₋**MXS20**

Axial piping (ø20) ¹³⁻₂₂₋MXS20-□□P



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

Dimensions: 13-22-MXS20L / Symmetric Type

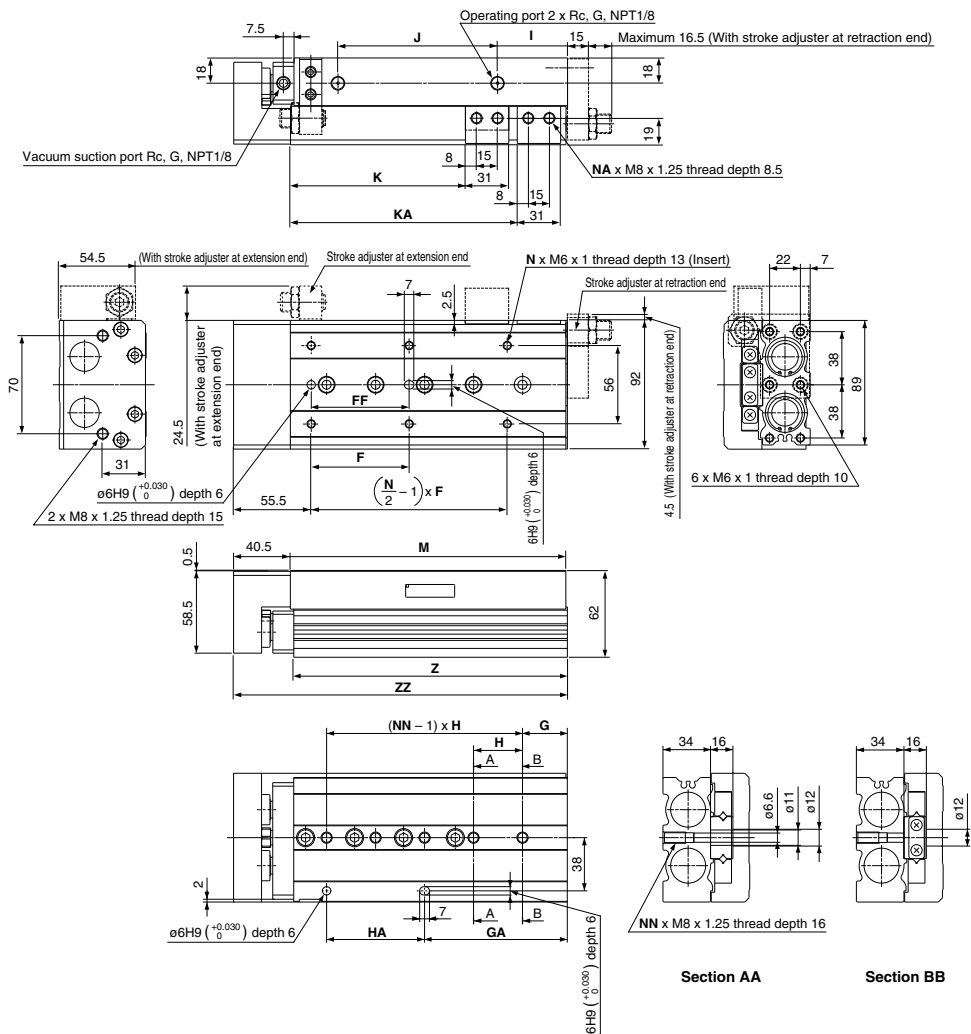


Model	F	FF	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
13-/22-MXS20L-10	50	40	4	15	45	2	25	35	10	44	31	—	2	83	81.5	121
13-/22-MXS20L-20	50	40	4	15	45	2	25	35	10	44	41	—	2	83	81.5	121
13-/22-MXS20L-30	50	40	4	15	45	2	25	35	10	44	51	—	2	83	81.5	121
13-/22-MXS20L-40	60	50	4	15	55	2	35	35	10	54	61	—	2	93	91.5	131
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

Directional Control Valves
 Air Cylinders
 Rotary Actuators
 Air Grippers
 Air Preparation Equipment
 Modular F. R.
 Pressure Control Equipment
 Fittings & Tubing
 Flow Control Equipment
 Pressure Switches/ Pressure Sensors

Dimensions: 13-22-MXS25

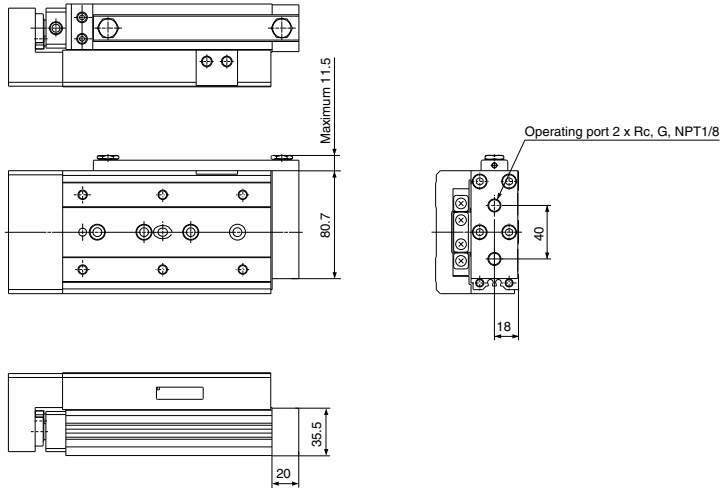
Basic



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.

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

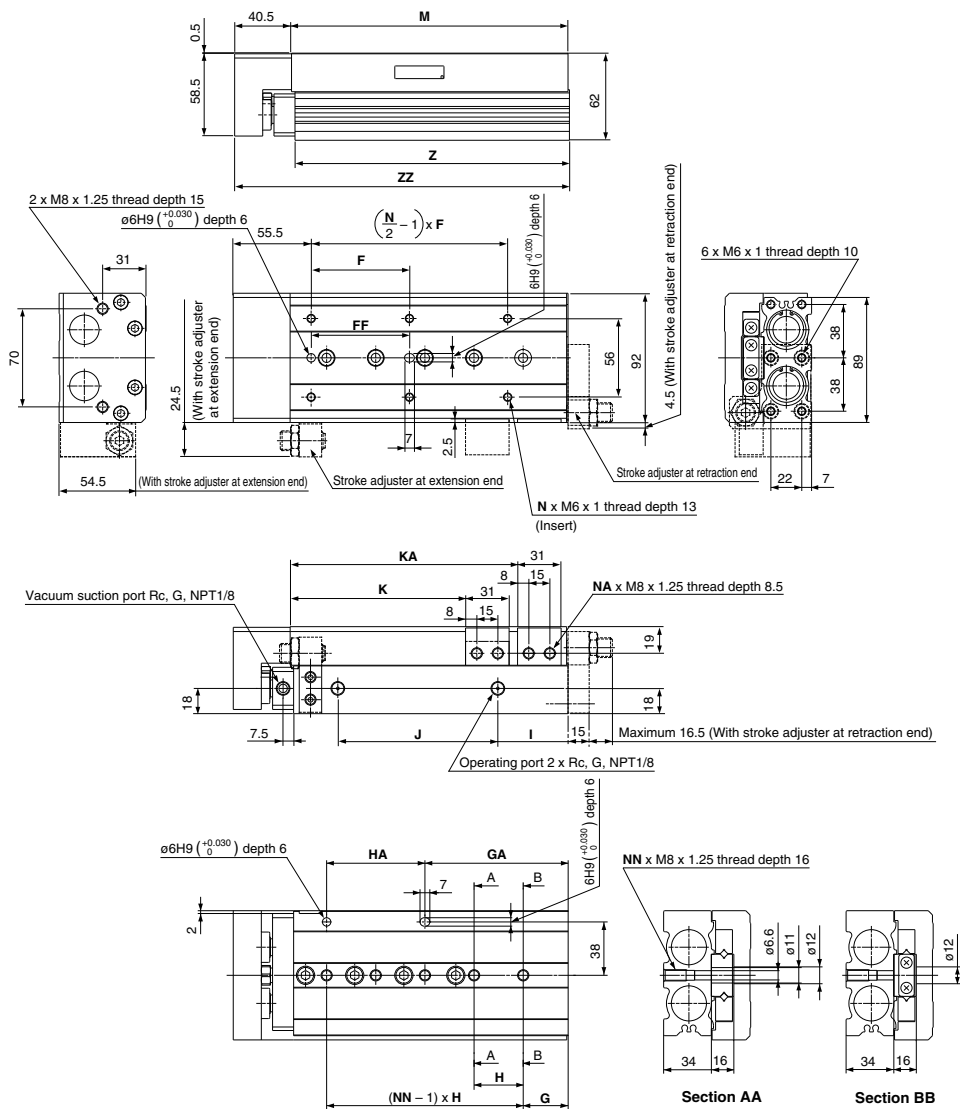
Pressure Control Equipment

Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors

Dimensions: **13-¹³/₂₂-MXS25L / Symmetric Type**



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

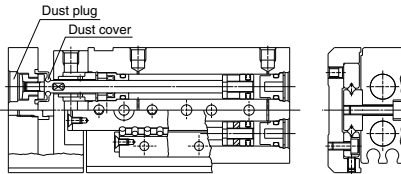
Made to Order

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

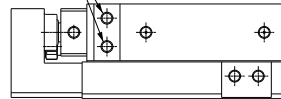
⚠ Caution

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

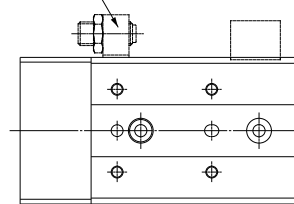
Otherwise particle generation may occur because the prepared hole of the mounting screw penetrates the body. Contact SMC for more information.

Cylinder bore size (mm)	25
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Extension end stroke adjuster mounting screw
(Generates particles because it penetrates to the body.)

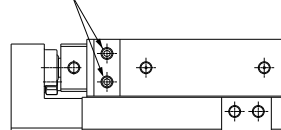


Stroke adjuster at extension end



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

Hexagon socket set screw



Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors