

Series 10-11-REC

Sine Cylinder / ø20, ø25, ø32, ø40

How to Order



10 - R E C L 25 - 150 - H7B

Clean series

10	Relief type
11	Vacuum suction type

Mounting style

B	Basic style
L	Axial foot style
F	Rod side flange style
G	Head side flange style

Port type

Nil	Rc
TN	NPT
TF	G

Cylinder stroke (mm)

Bore size (mm)

Number of auto switches

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

Type of auto switch

Reed switch	C73
Solid state switch	H7B, H7NW

Model

Model		Bore size (mm)	Port size	Lubrication	Action	Standard stroke (mm)	Auto switch mounting	Cushion	Effective cushioning stroke (mm)										
Relief type	10-REC□20	20	1/8	Non-lube	Double acting single rod	150 to 700	○	Air cushion (Both sides)	45										
	10-REC□25	25				150 to 1000			50										
	10-REC□32	32							200 to 1000	60									
	10-REC□40	40	1/4			1/8				150 to 700	150 to 1000	200 to 1000	45						
Vacuum suction type	11-REC□20	20	1/8						150 to 700				150 to 1000	200 to 1000	50				
	11-REC□25	25													1/4	150 to 700	150 to 1000	200 to 1000	60
	11-REC□32	32																	1/8
	11-REC□40	40	1/4			150 to 700				150 to 1000	200 to 1000	50							

Specifications

Item	Bore size (mm)
	20/25/32/40
Proof pressure	1.5MPa
Maximum operating pressure	1.0MPa
Minimum operating pressure	0.2MPa
Ambient and fluid temperature	-10°C to 60°C (With no freezing)
Piston speed	50 to 400mm/s
Cushion	Air cushion
Stroke length tolerance	to 250ST: $+1.0_0$, 251 to 1,000ST: $+1.4_0$
Mounting style	Basic style / Axial foot style / Rod side flange style / Head side flange style
Grease	Fluorine grease
Particle generation grade	10-: Grade 2
(Refer to front matter pages 13 to 22 for details.)	11-: Grade 1

Suction flow rate of vacuum suction type (Reference values)

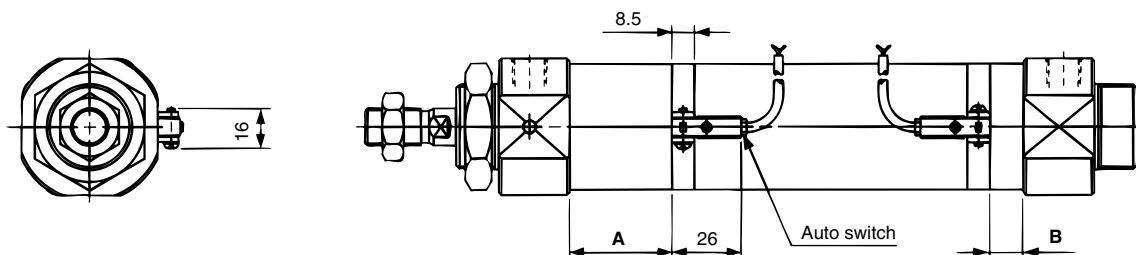
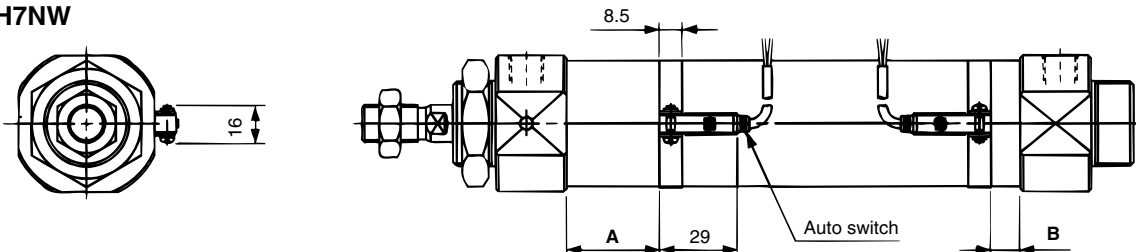
Size	Suction flow rate l/min (ANR)
20	1
25/32/40	2

Auto switch specifications (Refer to Best Pneumatics catalog for detailed specifications and auto switches not in the following table.)

Style	Auto switch part no.	Load voltage	Load current range	Indicator light	Application
Reed switch	D-C73	24 VDC, 100 VAC	5 to 40mA, 5 to 20mA	○	Relay, PLC
Solid state switch	2-wire type D-H7B	24 VDC (10 to 28 VDC)	5 to 40mA	○	24 VDC, PLC
	3-wire type D-H7NW	28 VDC or less	40mA or less	○	IC circuit, Relay, PLC

Refer to applicable auto switch list — Page 182.

PLC: Programmable Logic Controller

Auto switches / Proper mounting position for stroke end detection**D-C73****D-H7B / H7NW**

(mm)

Bore size	D-C73		D-H7B, D-H7NW	
	A	B	A	B
20	56.0	31.0	55.0	30.0
25	56.0	31.0	55.0	30.0
32	59.5	36.5	58.5	35.5
40	70.0	39.0	69.0	38.0

Note) The above-mentioned values are indicated as a guide for auto switch mounting position for stroke end detection. When actually mounting an autoswitch, adjust the position after confirming the operating state of the auto switch.

**Specific Product Precautions**

Be sure to read before handling.

Speed adjustment**Caution**

- Throttle speed controller, such as Series AS, is recommended for speed adjustment.

Recommended speed controllers

Model	Model		
	Elbow type	Straight type	In-line type
10-REC20	10-AS2201F-01-06-X214	10-AS2301F-01-06-X214	10-AS2001F-06-X214
10-REC25	10-AS2201F-01-06-X214	10-AS2301F-01-06-X214	10-AS2001F-06-X214
10-REC32	10-AS2201F-01-06-X214	10-AS2301F-01-06-X214	10-AS3001F-08-X214
10-REC40	10-AS3201F-02-08-X214	10-AS3301F-02-08-X214	10-AS3001F-08-X214

- Speed control is possible with meter-in and meter-out styles of speed controllers. However, smooth acceleration and deceleration may not be obtained by these speed controllers.
- For installation other than horizontal mounting, it is recommended to use a system with reduced pressure supply circuit on the downward side. (This system is also effective for a start delay at rise and air reduction.)

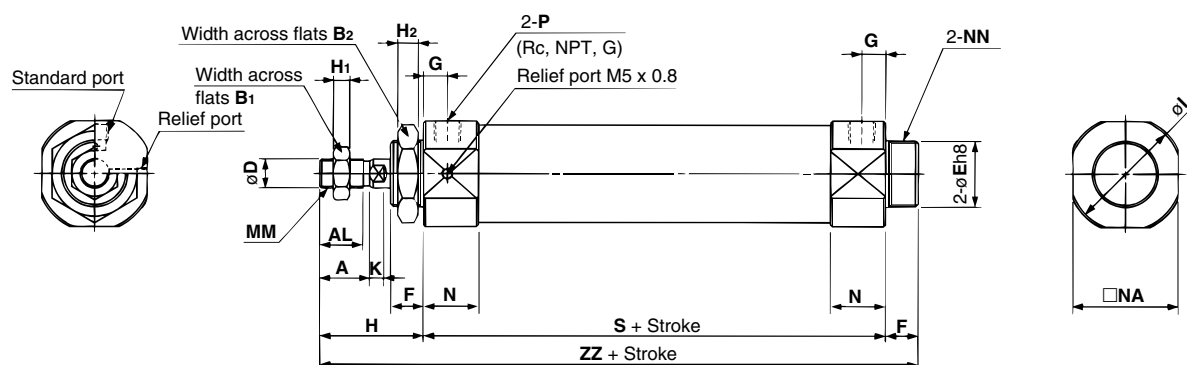
Cushion adjustment**Caution**

- Cushion adjustment mechanism is not provided. Cushion adjustment is not necessary because the model can perform smooth acceleration and deceleration in a wide range of strokes without an adjusting cushion.

Relief Port**Caution**

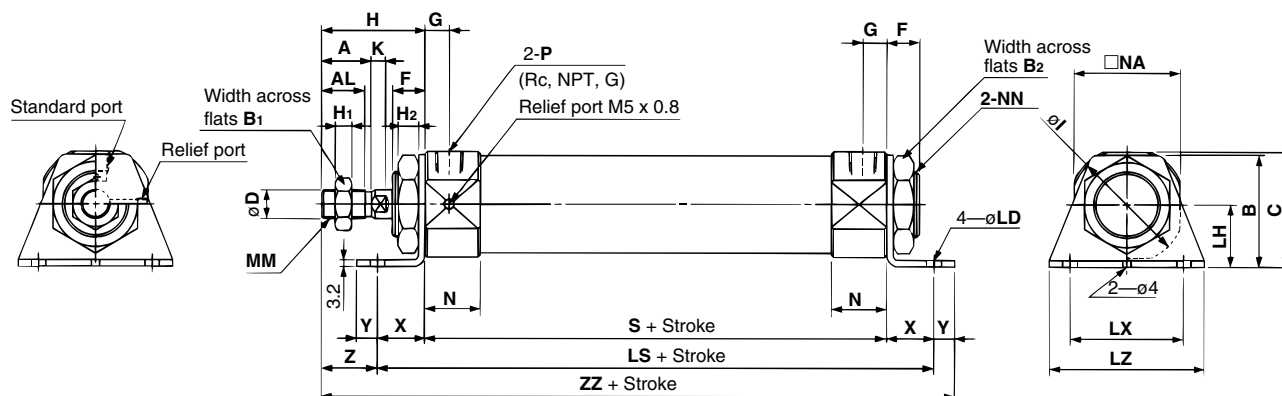
- Hexagon socket set screw is not prepared for clean room specifications, and use it as relieving port accordingly.

Dimensions

Basic style (B) / ¹⁰⁻₁₁₋RECB

(mm)

Bore size	Stroke range	A	AL	B ₁	B ₂	D	E	F	G	H	H ₁	H ₂	I	K	MM	N	NA	NN	P	S	ZZ
20	150 to 700	18	15.5	13	26	8	20 ⁰ _{-0.033}	13	10	41	5	8	33.5	5	M8 x 1.25	20	30	M20 x 1.5	1/8	146	200
25	150 to 700	22	19.5	17	32	10	26 ⁰ _{-0.033}	13	10	45	6	8	37.5	5.5	M10 x 1.25	20	34.5	M26 x 1.5	1/8	146	204
32	150 to 1000	22	19.5	17	32	12	26 ⁰ _{-0.033}	13	11	45	6	8	46.5	5.5	M10 x 1.25	22	42.5	M26 x 1.5	1/8	159	217
40	200 to 1000	24	21	22	41	14	32 ⁰ _{-0.039}	16	12.5	50	8	10	56.2	7	M14 x 1.5	26.5	51	M32 x 2	1/4	181	247

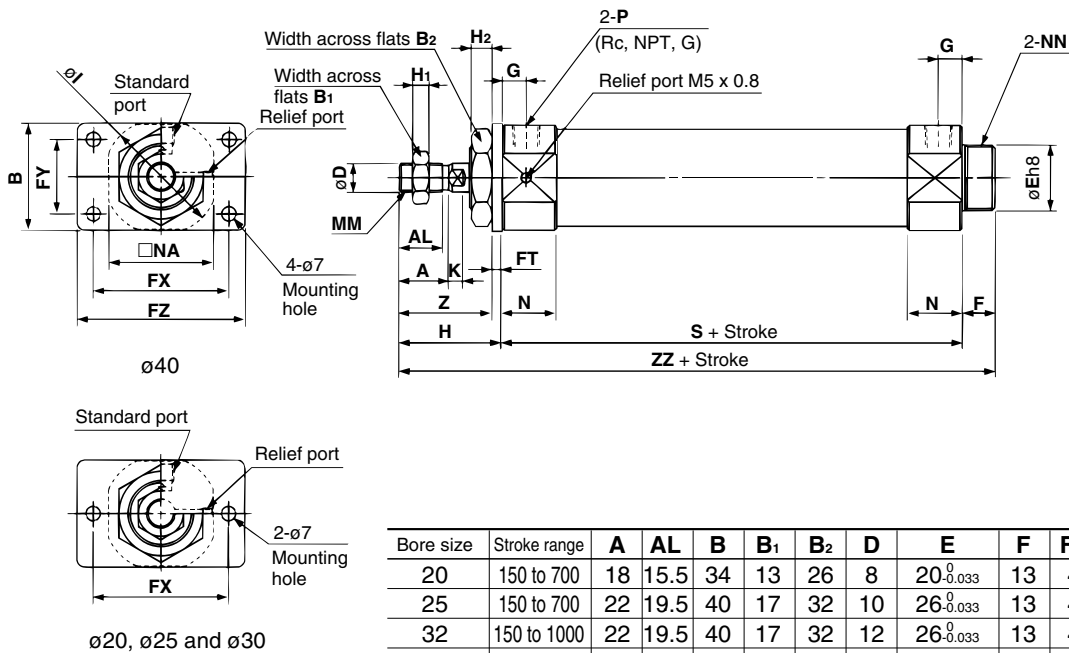
Axial foot style (L): ¹⁰⁻₁₁₋RECL

(mm)

Bore size	Stroke range	A	AL	B	B ₁	B ₂	C	D	F	G	H	H ₁	H ₂	I	K	LD	LH	LS	LX	LZ	MM	N	NA
20	150 to 700	18	15.5	40	13	26	40	8	13	10	41	5	8	33.5	5	6.8	25	186	40	55	M8 x 1.25	20	30
25	150 to 700	22	19.5	47	17	32	45.5	10	13	10	45	6	8	37.5	5.5	6.8	28	186	40	55	M10 x 1.25	20	34.5
32	150 to 1000	22	19.5	47	17	32	49.5	12	13	11	45	6	8	46.5	5.5	6.8	28	199	40	55	M10 x 1.25	22	42.5
40	200 to 1000	24	21	54	22	41	55.5	14	16	12.5	50	8	10	56.2	7	7	30	227	55	75	M14 x 1.5	26.5	51

Bore size	Stroke range	NN	P	S	X	Y	Z	ZZ
20	150 to 700	M20 x 1.5	1/8	146	20	8	21	215
25	150 to 700	M26 x 1.5	1/8	146	20	8	25	219
32	150 to 1000	M26 x 1.5	1/8	159	20	8	25	232
40	200 to 1000	M32 x 2	1/4	181	23	10	27	264

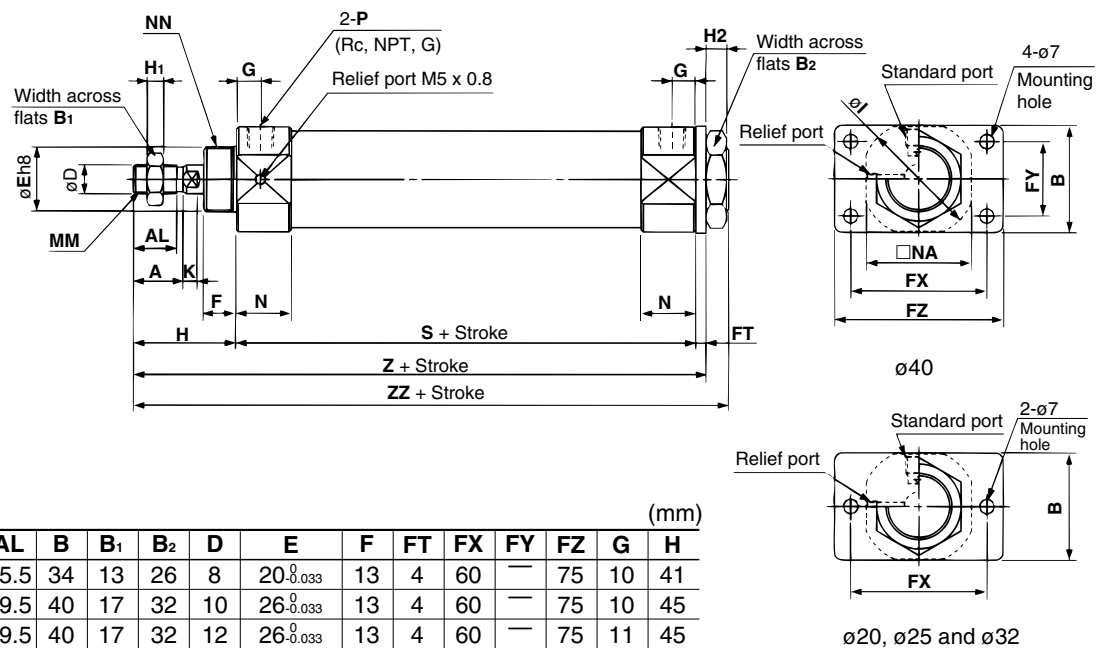
Rod side flange style (F) / 10-11-RECF



Bore size	Stroke range	A	AL	B	B ₁	B ₂	D	E	F	FT	FX	FY	FZ	G	H
20	150 to 700	18	15.5	34	13	26	8	20 ⁰ _{-0.033}	13	4	60	—	75	10	41
25	150 to 700	22	19.5	40	17	32	10	26 ⁰ _{-0.033}	13	4	60	—	75	10	45
32	150 to 1000	22	19.5	40	17	32	12	26 ⁰ _{-0.033}	13	4	60	—	75	11	45
40	200 to 1000	24	21	52	22	41	14	32 ⁰ _{-0.039}	16	5	66	36	82	12.5	50

Bore size	Stroke range	H ₁	H ₂	I	K	MM	N	NA	NN	P	S	Z	ZZ
20	150 to 700	5	8	33.5	5	M8 x 1.25	20	30	M20 x 1.5	1/8	146	37	200
25	150 to 700	6	8	37.5	5.5	M10 x 1.25	20	34.5	M26 x 1.5	1/8	146	41	204
32	150 to 1000	6	8	46.5	5.5	M10 x 1.25	22	42.5	M26 x 1.5	1/8	159	41	217
40	200 to 1000	8	10	56.2	7	M14 x 1.5	26.5	51	M32 x 2	1/4	181	45	247

Head side flange style (G) / 10-11-RECG



Bore size	Stroke range	A	AL	B	B ₁	B ₂	D	E	F	FT	FX	FY	FZ	G	H
20	15 to 700	18	15.5	34	13	26	8	20 ⁰ _{-0.033}	13	4	60	—	75	10	41
25	150 to 700	22	19.5	40	17	32	10	26 ⁰ _{-0.033}	13	4	60	—	75	10	45
32	150 to 1000	22	19.5	40	17	32	12	26 ⁰ _{-0.033}	13	4	60	—	75	11	45
40	200 to 1000	24	21	52	22	41	14	32 ⁰ _{-0.039}	16	5	66	36	82	12.5	50

Bore size	Stroke range	H ₁	H ₂	I	K	MM	N	NA	NN	P	S	Z	ZZ
20	150 to 700	5	8	33.5	5	M8 x 1.25	20	30	M20 x 1.5	1/8	146	191	200
25	150 to 700	6	8	37.5	5.5	M10 x 1.25	20	34.5	M26 x 1.5	1/8	146	195	204
32	150 to 1000	6	8	46.5	5.5	M10 x 1.25	22	42.5	M26 x 1.5	1/8	159	208	217
40	200 to 1000	8	10	56.2	7	M14 x 1.5	26.5	51	M32 x 2	1/4	181	236	247