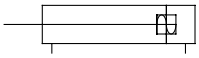
JIS Symbol



Standard Specifications

Action	Double acting, Single rod
Fluid	Air
Proof pressure	1.5 MPa
Maximum operating pressure	1.0 MPa
Minimum operating pressure	0.2 MPa
Ambient and fluid temperature	–10 to 60°C
Piston speed	50 to 500 mm/s
Cushion	Air cushion
Lubrication	Not required (Non-lube)
Thread tolerance	JIS Class 2
Stroke length tolerance	0 to 250 st: $^{+1.0}_{0}$, 251 to 100 st: $^{+1.4}_{0}$, 1001 to 1500 st: $^{+1.8}_{0}$

Standard Stroke

Bore size (mm)	Minimum stroke (Recommended)	Standard (2) stroke (mm)	Maximum manufacturable stroke (mm)
20	150	Up to 700	1500
25	150	Up to 700	
32	150	Up to 1000	
40	200	Up to 1000	

Effective Cushioning Stroke

Bore size (mm)	Effective cushioning stroke (mm)
20	45
25	45
32	50
40	60

Note 1) The cylinder performance may not as expected when stroke is shorter than recommended stroke even they are available.
Note 2) When exceeding the standard strokes, it will be out of warranty.

Mounting Bracket Part No.

Bore size (mm)	20	25	32	40
Axial foot *	CM-L020B	CM-L032B		CM-L040B
Flange	CM-F020B	CM-F032B		CM-F040B
Single clevis	CM-C020B	CM-C032B		CM-C040B
Double clevis (With pin)**	CM-D020B	CM-D032B		CM-D040B
Trunnion (With nut)	CM-T020B	CM-T032B		CM-T040B

* When ordering foot bracket, order 2 pieces per cylinder.
** Clevis pin and snap ring (cotter pin for ø40) are packaged together.

Accessory Bracket

Part numbers of single knuckle joint, double knuckle joint, double clevis pin, double knuckle joint pin, rod end nut, mounting nut and trunnion nut are the same as Series CM2. Refer to page Best Pneumatics Vol. 6.

Weight

(kg)

Bore size (mm)		20	25	32	40
Basic weight	Basic style	0.32	0.47	0.74	1.25
	Axial foot style	0.47	0.63	0.90	1.52
	Flange style	0.38	0.56	0.83	1.37
	Single clevis style	0.36	0.51	0.78	1.34
	Double clevis style	0.37	0.53	0.79	1.38
	Trunnion style	0.36	0.54	0.81	1.35
Additional weight per each 50 mm of stroke		0.05	0.07	0.09	0.13
Mounting bracket	Pivot bracket for clevis (With pin)	0.07	0.07	0.14	0.14
	Single knuckle joint	0.06	0.06	0.06	0.23
	Double knuckle joint (With pin)	0.07	0.07	0.07	0.20

* Calculation: (Example) REC32-200
Basic weight ····· 0.90 (kg)(Foot style ø32)
Additional Weight ····· 0.09 (kg/50 st)
Cylinder stroke····· 200 (st)
0.90 + 0.09 x 200 ÷ 50 = 1.26 kg

Auto Switch Mounting Bracket Part No. (Including band and screw)

Applicable auto switch		Bore size (mm)			
		20	25	32	40
Reed	**D-C7□, D-C80 D-C73C, D-C80C**	BMA2-020	BMA2-025	BMA2-032	BMA2-040
Solid state	**D-H7□, D-H7C D-H7□W, D-H7NF,D-H7BAL**				
Reed	**D-B5□, D-B64, D-B59W**	BA-01	BA-02	BA-32	BA-04
Solid state	**D-G5NTL**				
Reed	**D-A3□, D-A44**	BD1-01M	BD1-02M	BD1-02	BD1-04M
Solid state	**D-G39, D-K39**				

* Mounting screws set made of stainless steel
The following set of mounting screws made of stainless steel is also available. Use it in accordance with the operating environment.
(Please order the mounting band separately, since it is not included.)
BBA3: For D-B5/B6/G5/K5
BBA4: For D-C7/C8/H7
"D-H7BAL" switch is set on the cylinder with the stainless steel screws above when shipped. When the switches are shipped as individual parts, the BBA4 is included.

Clean Series

10 – REC | Mounting style | Bore size | – Stroke

Clean Series

10	Relief type
11	Vacuum type

The type which is applicable for using inside the clean room graded Class 100 by making an actuator's rod section a double seal construction and discharging by relief port directly to the outside of clean room.

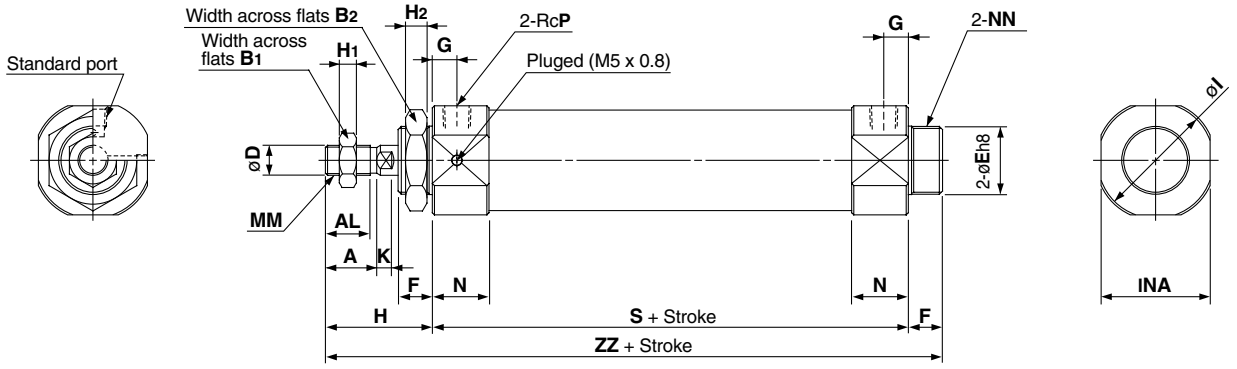
Specifications

Action	Double acting, Single rod
Bore size (mm)	ø20, ø25, ø32, ø40
Maximum operating pressure	1.0 MPa
Minimum operating pressure	0.2 MPa
Cushion	Air cushion
Piping	Screw-in type
Relief port size	M5 x 0.8
Piston speed	50 to 400 mm/s
Mounting	Basic style, Axial foot style, Rod side flange style Head side flange style

∗ Auto switch can be mounted.

Dimensions

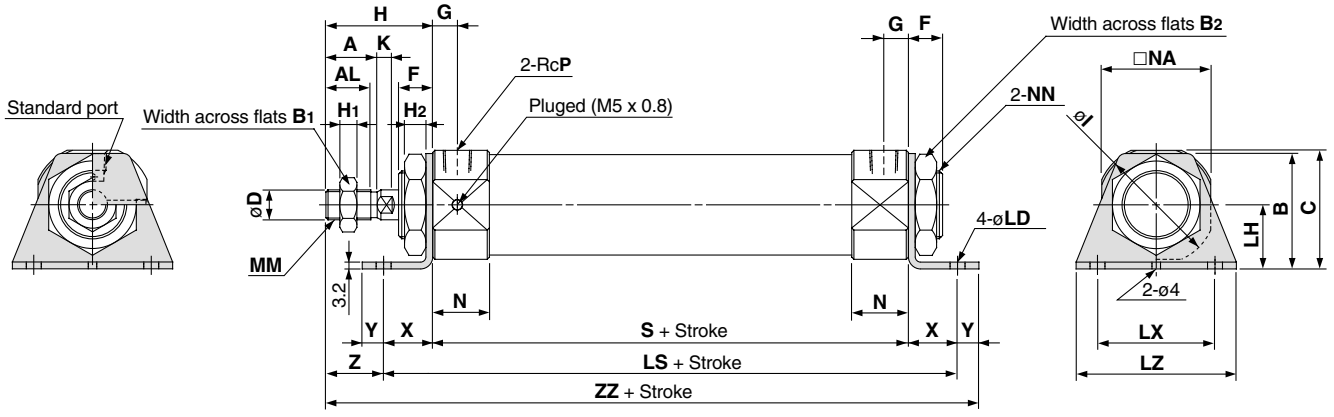
Basic style: RECB



(mm)

Bore (mm)	Stroke range	A	AL	B1	B2	D	E	F	G	H	H1	H2	I	K	MM	N	NA	NN	P	S	ZZ
20	Up 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	Up 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	Up 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	Up 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: RECL

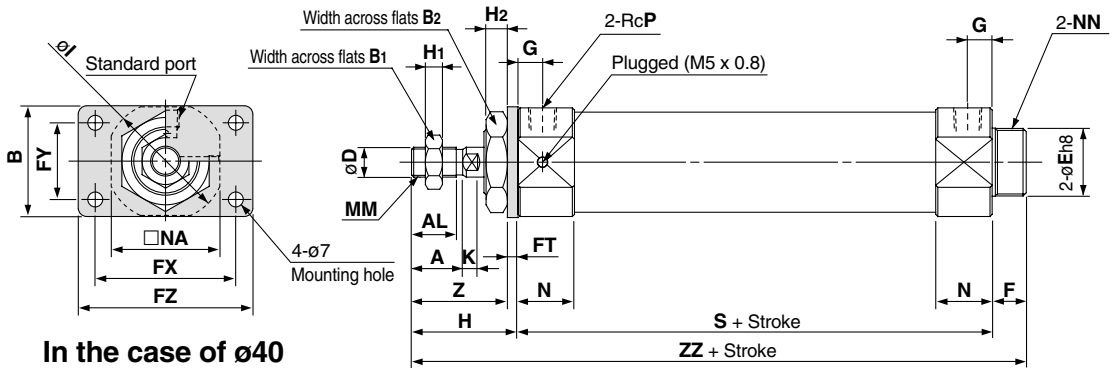


(mm)

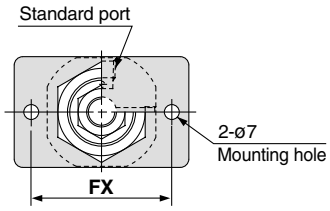
Bore (mm)	Stroke range	A	AL	B	B1	B2	C	D	F	G	H	H1	H2	I	K	LD	LH	LS	LX	LZ	MM	N	NA
20	Up to 700	18	15.5	40	13	26	40	8	13	10	41	5	8	33.5	5	6.8	25	186	40	55	M8 x 1.25	20	30
25	Up to 700	22	19.5	47	17	32	45.5	10	13	10	45	6	8	37.5	5.5	6.8	28	186	40	55	M10 x 1.25	20	34.5
32	Up to 1000	22	19.5	47	17	32	49.5	12	13	11	45	6	8	46.5	5.5	6.8	28	199	40	55	M10 x 1.25	22	42.5
40	Up 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 (mm)	Stroke range	NN	P	S	X	Y	Z	ZZ
20	Up to 700	M20 x 1.5	1/8	146	20	8	21	215
25	Up to 700	M26 x 1.5	1/8	146	20	8	25	219
32	Up to 1000	M26 x 1.5	1/8	159	20	8	25	232
40	Up to 1000	M32 x 2	1/4	181	23	10	27	264

Rod side flange style: RECF



In the case of ø40



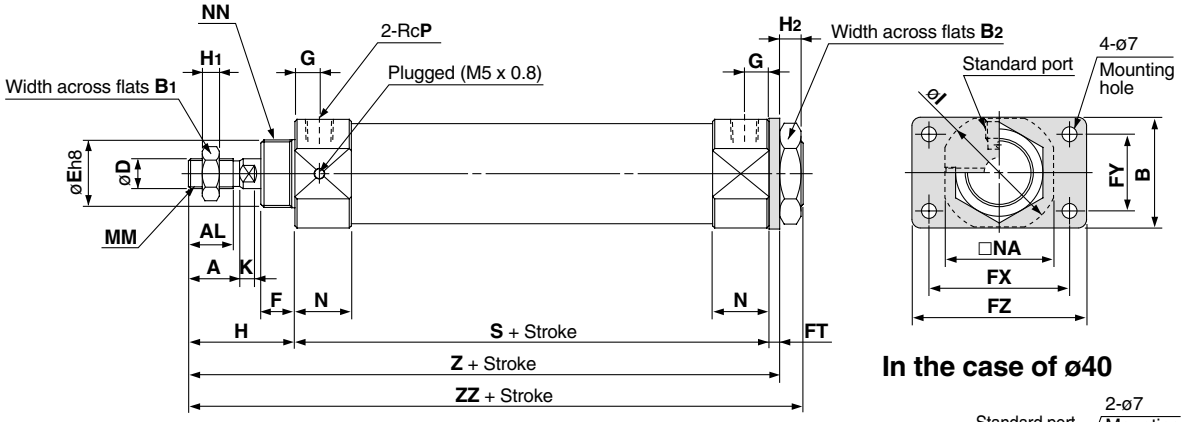
ø20, ø25, ø32

(mm)

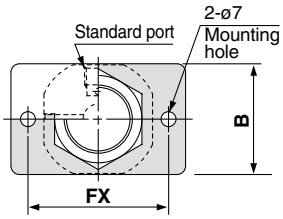
Bore (mm)	Stroke range	A	AL	B	B1	B2	D	E	F	FT	FX	FY	FZ	G	H
20	Up to 700	18	15.5	34	13	26	8	$20^{0}_{-0.033}$	13	4	60	—	75	10	41
25	Up to 700	22	19.5	40	17	32	10	$26^{0}_{-0.033}$	13	4	60	—	75	10	45
32	Up to 1000	22	19.5	40	17	32	12	$26^{0}_{-0.033}$	13	4	60	—	75	11	45
40	Up to 1000	24	21	52	22	41	14	$32^{0}_{-0.039}$	16	5	66	36	82	12.5	50

Bore (mm)	Stroke range	H1	H2	I	K	MM	N	NA	NN	P	S	Z	ZZ
20	Up to 700	5	8	33.5	5	M8 x 1.25	20	30	M20 x 1.5	1/8	146	37	200
25	Up 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	Up 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	Up to 1000	8	10	56.2	7	M14 x 1.5	26.5	51	M32 x 2	1/4	181	45	247

Rear flange style: RECG



In the case of ø40



ø20, ø25, ø32

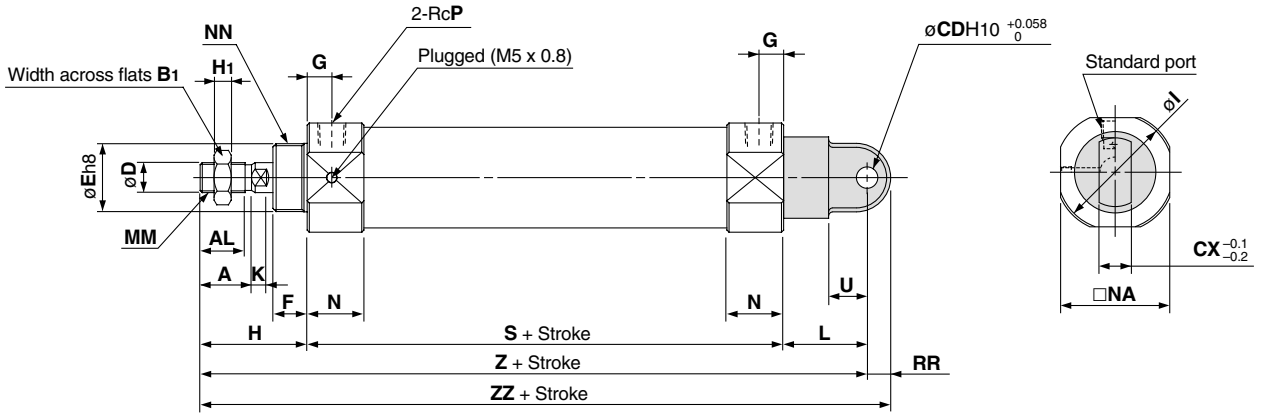
(mm)

Bore (mm)	Stroke range	A	AL	B	B1	B2	D	E	F	FT	FX	FY	FZ	G	H
20	Up to 700	18	15.5	34	13	26	8	$20^{0}_{-0.033}$	13	4	60	—	75	10	41
25	Up to 700	22	19.5	40	17	32	10	$26^{0}_{-0.033}$	13	4	60	—	75	10	45
32	Up to 1000	22	19.5	40	17	32	12	$26^{0}_{-0.033}$	13	4	60	—	75	11	45
40	Up to 1000	24	21	52	22	41	14	$32^{0}_{-0.039}$	16	5	66	36	82	12.5	50

Bore (mm)	Stroke range	H1	H2	I	K	MM	N	NA	NN	P	S	Z	ZZ
20	Up to 700	5	8	33.5	5	M8 x 1.25	20	30	M20 x 1.5	1/8	146	191	200
25	Up 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	Up 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	Up to 1000	8	10	56.2	7	M14 x 1.5	26.5	51	M32 x 2	1/4	181	236	247

Dimensions

Single clevis style: RECC

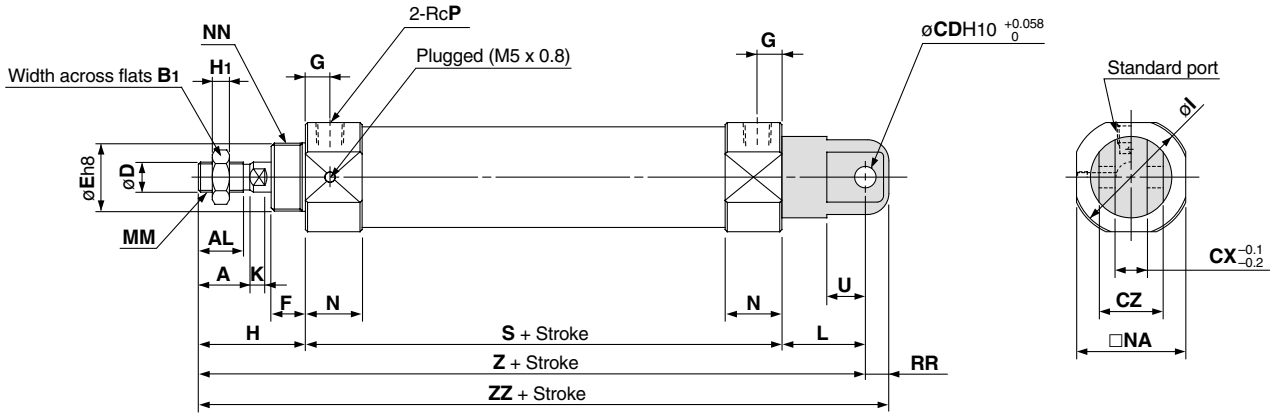


(mm)

Bore (mm)	Stroke range	A	AL	B1	CD	CX	D	E	F	G	H	H1	I	K	L	MM	N	NA
20	Up to 700	18	15.5	13	9	10	8	$20^{0}_{-0.033}$	13	10	41	5	33.5	5	30	M8 x 1.25	20	30
25	Up to 700	22	19.5	17	9	10	10	$26^{0}_{-0.033}$	13	10	45	6	37.5	5.5	30	M10 x 1.25	20	34.5
32	Up to 1000	22	19.5	17	9	10	12	$26^{0}_{-0.033}$	13	11	45	6	46.5	5.5	30	M10 x 1.25	22	42.5
40	Up to 1000	24	21	22	10	15	14	$32^{0}_{-0.039}$	16	12.5	50	8	56.2	7	39	M14 x 1.5	26.5	51

Bore (mm)	Stroke range	NN	P	RR	S	U	Z	ZZ
20	Up to 700	M20 x 1.5	1/8	9	146	14	217	226
25	Up to 700	M26 x 1.5	1/8	9	146	14	221	230
32	Up to 1000	M26 x 1.5	1/8	9	159	14	234	243
40	Up to 1000	M32 x 2	1/4	11	181	18	270	281

Double clevis style: RECD

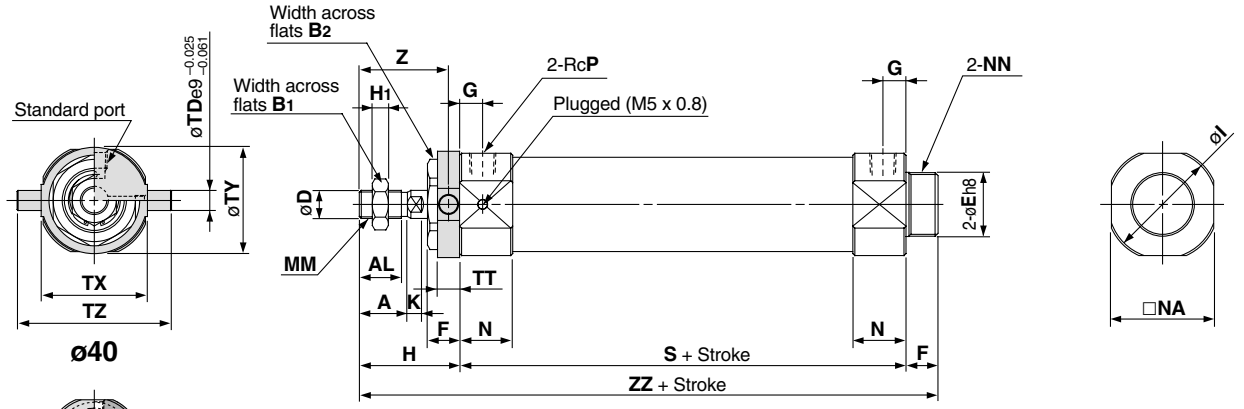


(mm)

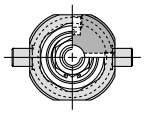
Bore (mm)	Stroke range	A	AL	B1	CD	CX	CZ	D	E	F	G	H	H1	I	K	L	MM	N
20	Up to 700	18	15.5	13	9	10	19	8	$20^{0}_{-0.033}$	13	10	41	5	33.5	5	30	M8 x 1.25	20
25	Up to 700	22	19.5	17	9	10	19	10	$26^{0}_{-0.033}$	13	10	45	6	37.5	5.5	30	M10 x 1.25	20
32	Up to 1000	22	19.5	17	9	10	19	12	$26^{0}_{-0.033}$	13	11	45	6	46.5	5.5	30	M10 x 1.25	22
40	Up to 1000	24	21	22	10	15	30	14	$32^{0}_{-0.039}$	16	12.5	50	8	56.2	7	39	M14 x 1.5	26.5

Bore (mm)	Stroke range	NA	NN	P	RR	S	U	Z	ZZ
20	Up to 700	30	M20 x 1.5	1/8	9	146	14	217	226
25	Up to 700	34.5	M26 x 1.5	1/8	9	146	14	221	230
32	Up to 1000	42.5	M26 x 1.5	1/8	9	159	14	234	243
40	Up to 1000	51	M32 x 2	1/4	11	181	18	270	281

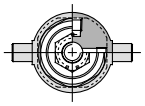
Rod side trunnion style: RECU



ø40



ø32



ø20, ø25

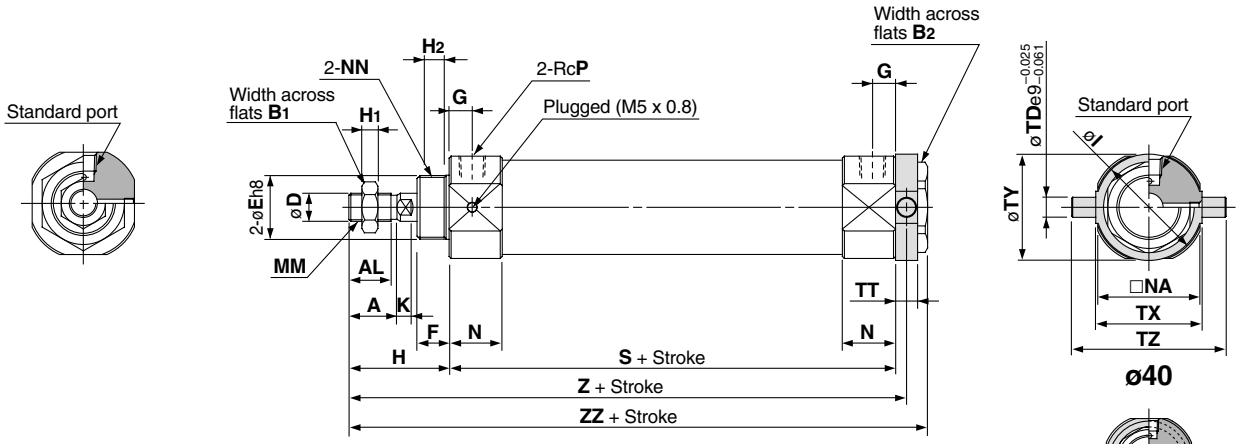
(mm)

Bore (mm)	Stroke range	A	AL	B1	B2	D	E	F	G	H	H1	I	K	MM
20	Up to 700	18	15.5	13	26	8	$20^{0}_{-0.033}$	13	10	41	5	33.5	5	M8 x 1.25
25	Up to 700	22	19.5	17	32	10	$26^{0}_{-0.033}$	13	10	45	6	37.5	5.5	M10 x 1.25
32	Up to 1000	22	19.5	17	32	12	$26^{0}_{-0.033}$	13	11	45	6	46.5	5.5	M10 x 1.25
40	Up to 1000	24	21	22	41	14	$32^{0}_{-0.039}$	16	12.5	50	8	56.2	7	M14 x 1.5

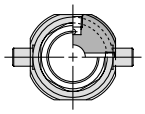
Bore (mm)	Stroke range	N	NA	NN	P	S	TD	TT	TX	TY	TZ	Z	ZZ
20	Up to 700	20	30	M20 x 1.5	1/8	146	8	10	32	32	52	36	200
25	Up to 700	20	34.5	M26 x 1.5	1/8	146	9	10	40	40	60	40	204
32	Up to 1000	22	42.5*	M26 x 1.5	1/8	159	9	10	40*	40	60	40	217
40	Up to 1000	26.5	51	M32 x 2	1/4	181	10	11	53	53	77	44.5	247

* The dimension □NA(42.5) is wider than dimension TX(40). Use □NA when design pivot bracket.

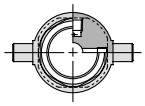
Head side trunnion style: RECT



ø40



ø32



ø20, ø25

(mm)

Bore (mm)	Stroke range	A	AL	B1	B2	D	E	F	G	H	H1	H2	I	K	MM
20	Up to 700	18	15.5	13	26	8	$20^{0}_{-0.033}$	13	10	41	5	8	33.5	5	M8 x 1.25
25	Up 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
32	Up 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
40	Up to 1000	24	21	22	41	14	$32^{0}_{-0.039}$	16	12.5	50	8	10	56.2	7	M14 x 1.5

Bore (mm)	Stroke range	N	NA	NN	P	S	TD	TT	TX	TY	TZ	Z	ZZ
20	Up to 700	20	30	M20 x 1.5	1/8	146	8	10	32	32	52	192	202
25	Up to 700	20	34.5	M26 x 1.5	1/8	146	9	10	40	40	60	196	206
32	Up to 1000	22	42.5*	M26 x 1.5	1/8	159	9	10	40*	40	60	209	219
40	Up to 1000	26.5	51	M32 x 2	1/4	181	10	11	53	53	77	236.5	247

* The dimension □NA(42.5) is wider than dimension TX(40). Use □NA when design pivot bracket.