

Series 12-CY3R

Magnetic rodless cylinder (Direct mount type)
 ø6, ø10, ø15, ø20, ø25, ø32, ø40, ø50, ø63

How to Order



Clean series
 12 — Special treatment on sliding part

Bore size (mm)
 25

Standard stroke
 300

Port type

Symbol	Type	Bore size
Nil	M3 x 0.5	6
	M5 x 0.8	10, 15
TN	Rc	20, 25, 32, 40
TF	NPT	50, 63
	G	

12 - CY3R 25 - 300 N

N — Without switch rail

* Switch rail is not available for 12- series.

Model

Model	Bore size (mm)	Port size	Lubrication	Standard stroke (mm)	Maximum manufacturable stroke (mm)	Cushion	
						Rubber	Air
12-CY3R6	6	M3 x 0.5	Non-lube	50, 100, 150, 200	300	○ (Both sides)	—
12-CY3R10	10	M5 x 0.8		50, 100, 150, 200, 250, 300	500		
12-CY3R15	15			50, 100, 150, 200, 250, 300, 350, 400, 450, 500	1000		
12-CY3R20	20			Rc1/8 NPT1/8 G1/8	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800		
12-CY3R25	25						
12-CY3R32	32						
12-CY3R40	40	Rc1/4 NPT1/4 G1/4		100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000			
12-CY3R50	50						
12-CY3R63	63						

Note 1) Stroke exceeding the standard stroke will be available upon request as special product.

Note 2) Intermediate stroke is available by the 1 mm interval.

Note 3) Please contact SMC if the maximum manufacturable stroke is exceeded.

Specifications

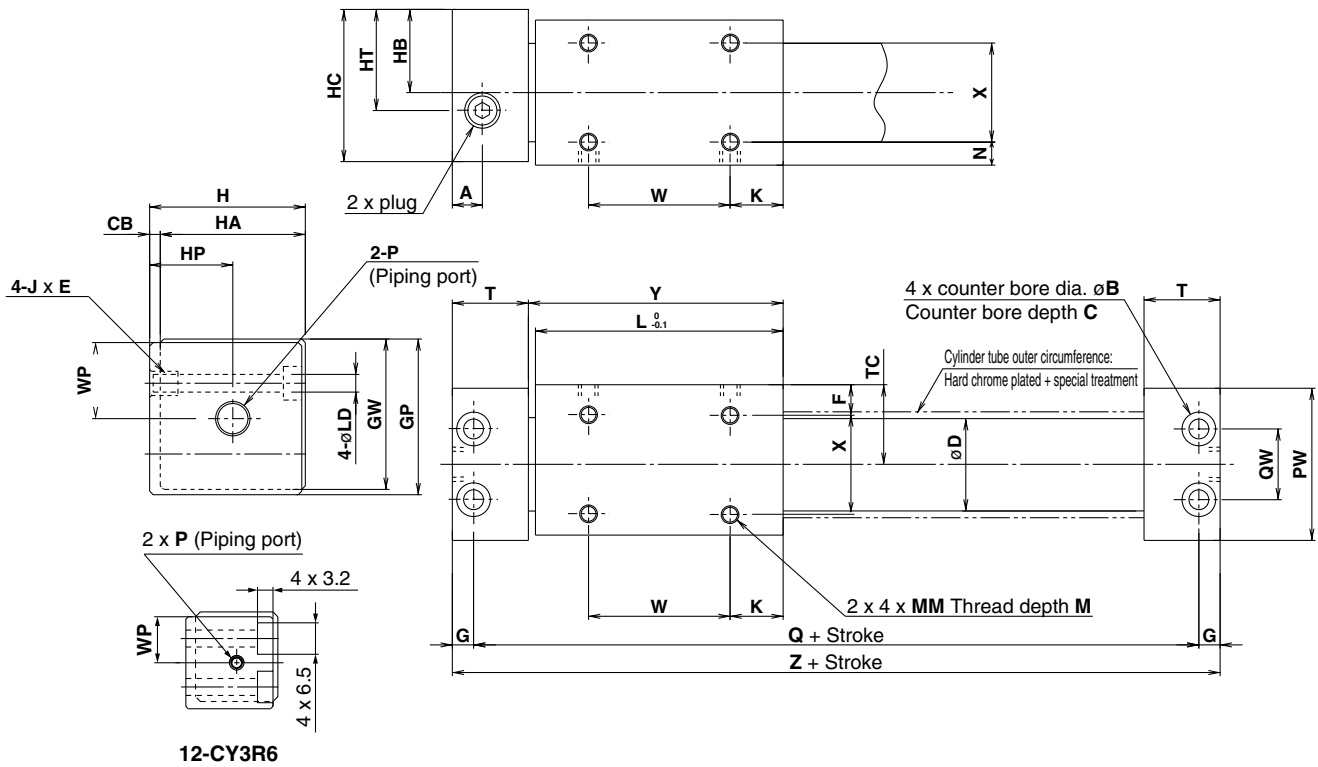
Bore size (mm)		6	10	15	20	25	32	40	50	63
Item										
Proof pressure		1.05MPa								
Max. operating pressure		0.7MPa								
Min. operating pressure		0.16MPa				0.15MPa	0.14MPa	0.12MPa		
Ambient and fluid temperature		-10°C to 60°C (With no freezing)								
Piston speed		50 to 400 mm/s								
Stroke length tolerance		0 to 250 st: ^{+1.0} ₀ , 251 to 1000 st: ^{+1.4} ₀ , 1001 st to ^{+1.8} ₀								
Mounting		Direct mount type								
Grease		Fluorine grease								
Particle generation grade (Refer to front matter pages 13 to 22 for details.)		Grade 3								

Magnetic holding force (N)

Bore size (mm)	6	10	15	20	25	32	40	50	63
Holding force	19.6	53.9	137	231	363	588	922	1471	2256

Dimensions

12-CY3R6 to 63



Model	A	B	C	CB	D	F	G	GP	GW	H	HA	HB	HC	HP	HT	J x E	K
12-CY3R6	7*	—*	—*	2	7.6	5.5	3*	20	18.5	19	17	10.5	18	10.5*	10.5*	M4 x 0.7 x 6	7
12-CY3R10	9	6.5	3.2	2	12	6.5	4	27	25.5	26	24	14	25	14	14	M4 x 0.7 x 6	9
12-CY3R15	10.5	8	4.2	2	16.6*	8	5	33	31.5	32	30	17	31	17	17	M5 x 0.8 x 7	14
12-CY3R20	9	9.5	5.2	3	21.6*	9	6	39	37.5	39	36	21	38	24	24	M6 x 1 x 8	11
12-CY3R25	8.5	9.5	5.2	3	26.4*	8.5	6	44	42.5	44	41	23.5	43	23.5	23.5	M6 x 1 x 8	15
12-CY3R32	10.5	11	6.5	3	33.6*	10.5	7	55	53.5	55	52	29	54	29	29	M8 x 1.25 x 10	13
12-CY3R40	10	11	6.5	5	41.6*	13	7	65	63.5	67	62	36	66	36	36	M8 x 1.25 x 10	15
12-CY3R50	14	14	8.2	5	52.4*	17	8.5	83	81.5	85	80	45	84	45	45	M10 x 1.5 x 15	25
12-CY3R63	15	14	8.2	5	65.4*	18	8.5	95	93.5	97	92	51	96	51	51	M10 x 1.5 x 15	24

Model	L	LD	M	MM	N	PW	Q	QW	T	TC	W	WP	X	Y	Z
12-CY3R6	34	3.5	3.5	M3 x 0.5	3.5	19	60*	10	14.5*	10.5	20	9.5	10	35.5	66*
12-CY3R10	38	3.5	4	M3 x 0.5	4.5	26	68	14	17.5	14	20	13	15	39.5	76
12-CY3R15	53	4.3	5	M4 x 0.7	6	32	84	18	19	17	25	16	18	54.5	94
12-CY3R20	62	5.4	5	M4 x 0.7	7	38	95	17	20.5	20	40	19	22	64	107
12-CY3R25	70	5.4	6	M5 x 0.8	6.5	43	105	20	21.5	22.5	40	21.5	28	72	117
12-CY3R32	76	7	7	M6 x 1	8.5	54	116	26	24	28	50	27	35	79	130
12-CY3R40	90	7	8	M6 x 1	11	64	134	34	26	33	60	32	40	93	148
12-CY3R50	110	8.6	10	M8 x 1.25	15	82	159	48	30	42	60	41	50	113	176
12-CY3R63	118	8.6	10	M8 x 1.25	16	94	171	60	32	48	70	47	60	121	188

Model	P (Piping port)		
	Nil	TN*	TF*
12-CY3R6	M3 x 0.5*	—	—
12-CY3R10	M5 x 0.8	—	—
12-CY3R15	M5 x 0.8	—	—
12-CY3R20	Rc1/8	NPT 1/8	G 1/8
12-CY3R25	Rc1/8	NPT 1/8	G 1/8
12-CY3R32	Rc1/8	NPT 1/8	G 1/8
12-CY3R40	Rc1/4	NPT 1/4	G 1/4
12-CY3R50	Rc1/4	NPT 1/4	G 1/4
12-CY3R63	Rc1/4	NPT 1/4	G 1/4

Note 2) The asterisk denotes the dimensions which are different from the 12-CY1R series.