

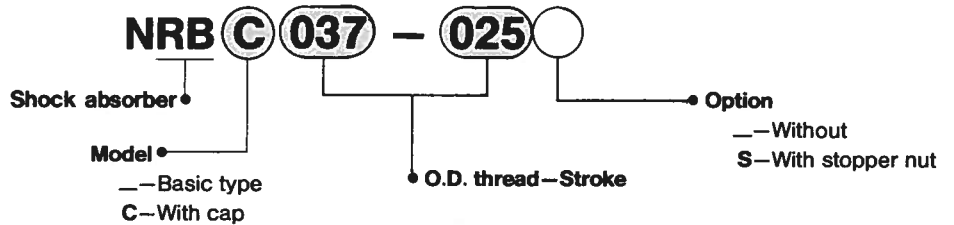
# SMC Shock Absorber Series NRB



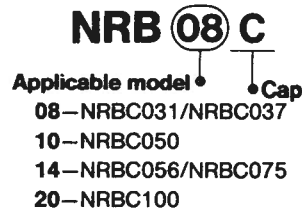
## Specifications

Spec	Model	NRB031-025	NRB037-025	NRB050-030	NRB056-045	NRB075-045	NRB100-060
Capacity in. lb/cycle(kgf·m/cycle)		25(0.3)	25(0.3)	50(0.6)	170(2)	170(2)	500(6)
Stroke in. (mm)		0.26(6)	0.25(6)	0.30(7)	0.45(12)	0.45(12)	0.50(15)
Velocity ft/s(m/s)		16(5)					
Frequency cycle/min		80	80	70	45	45	25
Temperature °F(°C)		14~176(-10~80)					
Spring force lbs (kgf)	extended	0.77(0.35)	0.77(0.35)	1.43(0.65)	1.54(0.70)	1.54(0.70)	1.87(0.85)
	compressed	1.65(0.75)	1.65(0.75)	2.12(0.96)	3.59(1.63)	3.59(1.63)	4.59(2.08)
Weight lbs (gf)		0.03(15)	0.04(20)	0.08(35)	0.13(60)	0.26(120)	0.53(240)
Optional	Stop nut	NRB031S	NRB037S	NRB050S	NRB056S	NRB075S	NRB100S
	Mounting nuts (2)	STD	STD	STD	STD	STD	STD

## How To Order

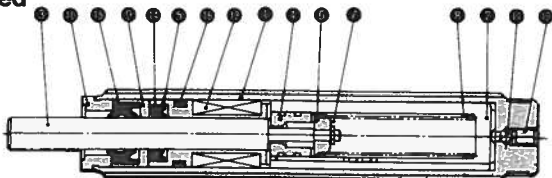


### Cap type spare part numbers (outer cap only)

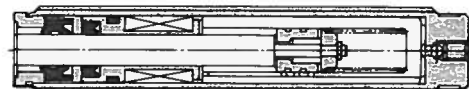


## Construction / Parts List

Extended



Compressed



### Parts List

No.	Description	Material	Note
①	Outer tube	Rolled steel	Black coating
②	Inner tube	Special steel	Heat treatment
③	Piston rod	Special steel	Hard chrome plating
④	Piston	Special steel	Heat treatment
⑤	Bearing	Special bearing material	
⑥	Spring guide	Rolled steel	Zinc chromate
⑦	Retaining ring	Stainless steel	
⑧	Return spring	Piano wire	Zinc chromate

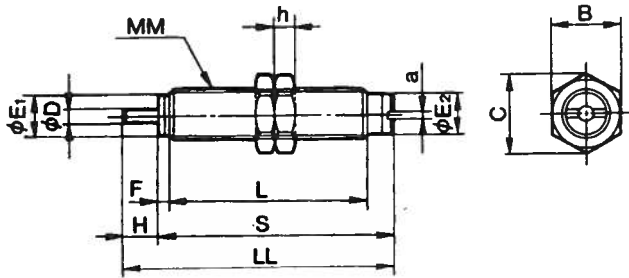
No.	Description	Material	Note
⑨	Seal holder	Copper alloy	
⑩	Stopper	Carbon steel	Zinc chromate
⑪	Steel ball	Bearing steel	
⑫	Set screw	Special steel	
⑬	Accumulator	NBR	Foam rubber
⑭	Rod seal	NBR	
⑮	Scraper	NBR	
⑯	Gasket	NBR	

# Series NRB

## Dimensions

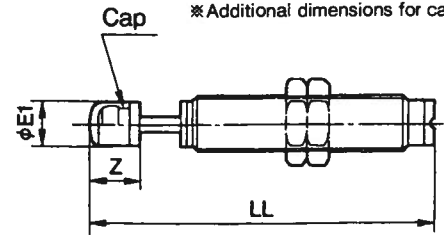
(in)

Basic type / NRB031 • NRB037



With cap / NRBC031 • NRBC037

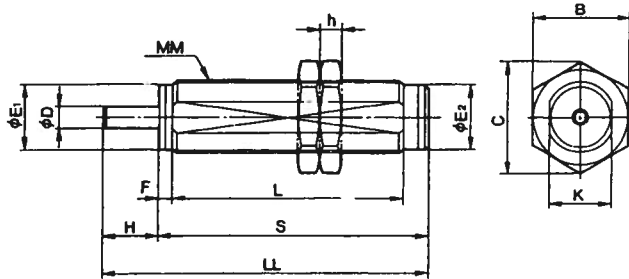
\*Additional dimensions for cap type.



Parts No.	Dimensions		
	$\phi E_1$	LL	Z
NRB031-025	.27	2.25	.41
NRB037-025	.27	2.25	.41

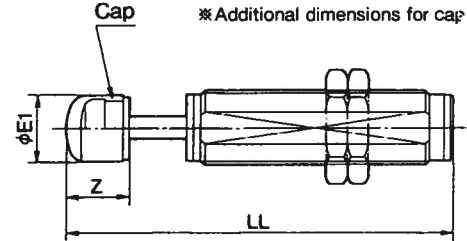
Model	Shock Absorber										Nut			
	A	$\phi D$	$\phi E_1$	$\phi E_2$	F	H	L	LL	MM	S	B	C	h	K
NRB031-025	0.06	0.11	0.27	0.27	0.09	0.25	1.31	1.85	$\frac{1}{16}$ -32 UNEF	1.60	$\frac{1}{16}$	0.55	0.09	—
NRB037-025	0.06	0.11	0.33	0.33	0.15	0.25	1.24	1.84	$\frac{3}{16}$ -32 UNEF	1.59	$\frac{1}{2}$	0.58	0.09	—

Basic type / NRB050 • NRB056



With cap / NRBC056 • NRBC075 • NRBC100

\*Additional dimensions for cap type.

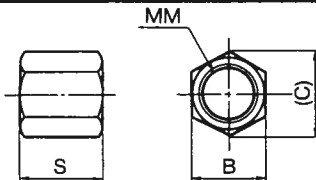


Parts No.	Dimensions		
	$\phi E_1$	LL	Z
NRB050-030	.31	2.50	.39
NRB056-045	.47	3.65	.53
NRB075-045	.47	3.65	.53
NRB100-060	.71	4.14	.67

Model	Shock Absorber									Nut				
	A	$\phi D$	$\phi E_1$	$\phi E_2$	F	H	L	LL	MM	S	B	C	h	K
NRB050-030	—	0.12	0.42	0.42	0.15	0.30	1.48	2.12	$\frac{1}{2}$ -20 UNF	1.82	$\frac{3}{4}$	0.86	0.20	0.43
NRB056-045	—	0.20	0.48	0.47	0.14	0.45	2.31	3.10	$\frac{9}{16}$ -18 UNF	2.65	$\frac{3}{4}$	0.86	0.24	0.49
NRB075-045	—	0.20	0.65	0.67	0.20	0.45	2.26	3.19	$\frac{3}{4}$ -16 UNF	2.74	$\frac{5}{16}$	1.08	0.24	0.68
NRB100-060	—	0.24	0.87	0.87	0.21	0.50	2.37	3.35	1-12 UNF	2.85	$1\frac{1}{16}$	1.51	0.31	0.87

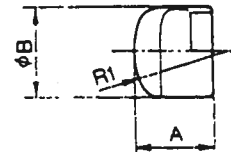
## Option

Stopper Nut



## Spare Parts

Cap



Material : Polyurethane

Part No.	Dimensions				Applicable Model
	B	C	S	MM	
NRB031S	$\frac{1}{16}$	(.51)	$\frac{1}{16}$	$\frac{1}{16}$ -32 UNEF	NRB031-025
NRB037S	$\frac{1}{2}$	(.56)	$1\frac{1}{4}$	$\frac{3}{8}$ -32 UNEF	NRB037-025
NRB050S	$\frac{3}{4}$	(.86)	$2\frac{1}{4}$	$\frac{1}{2}$ -20 UNF	NRB050-030
NRB056S	$\frac{3}{4}$	(.86)	$\frac{1}{2}$	$\frac{9}{16}$ -18 UNF	NRB056-045
NRB075S	$1\frac{1}{16}$	(1.08)	$\frac{5}{8}$	$\frac{3}{4}$ -16 UNF	NRB075-045
NRB100S	$\frac{1}{16}$	(1.51)	$\frac{3}{4}$	1-12 UNF	NRB100-060

Parts No.	Dimensions		
	A	$\phi B$	R1
RB08C	.26	.27	.24
RB10C	.35	.34	.29
RB14C	.49	.47	.39
RB20C	.63	.71	.79