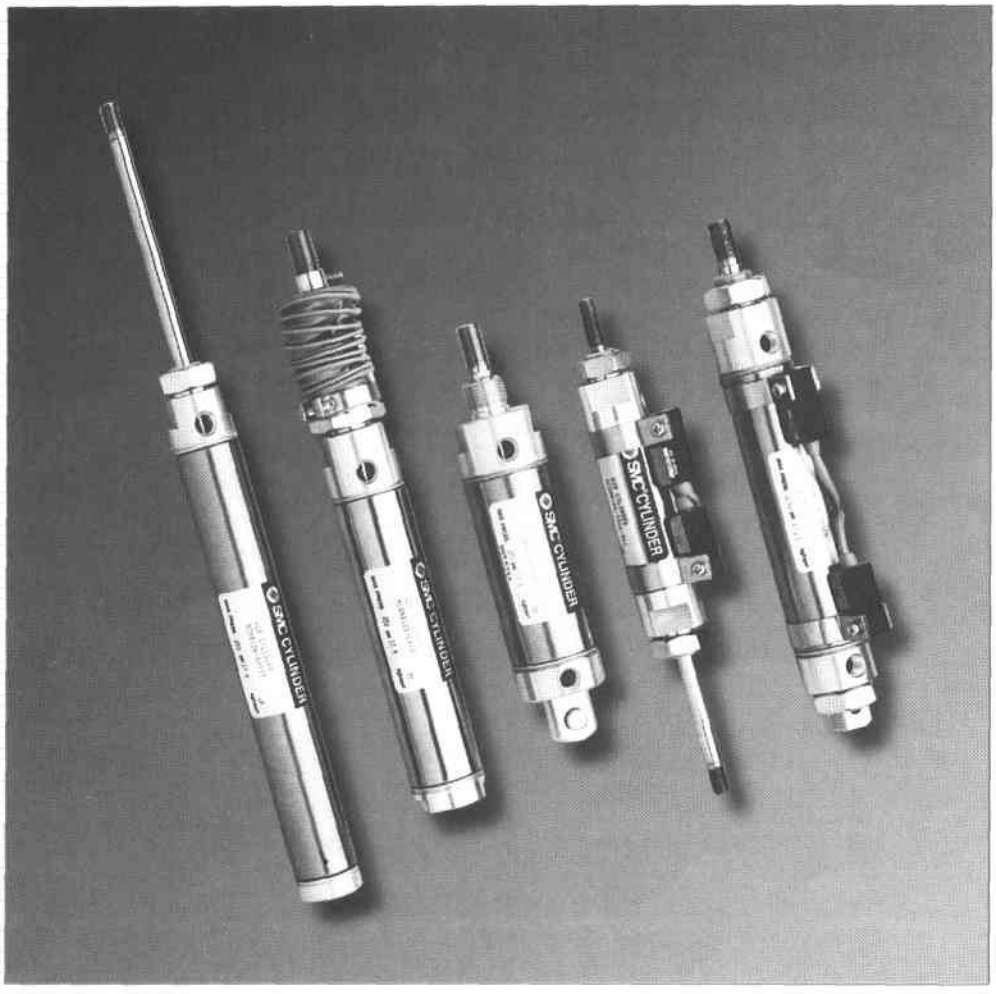
SMC

Air Cylinder

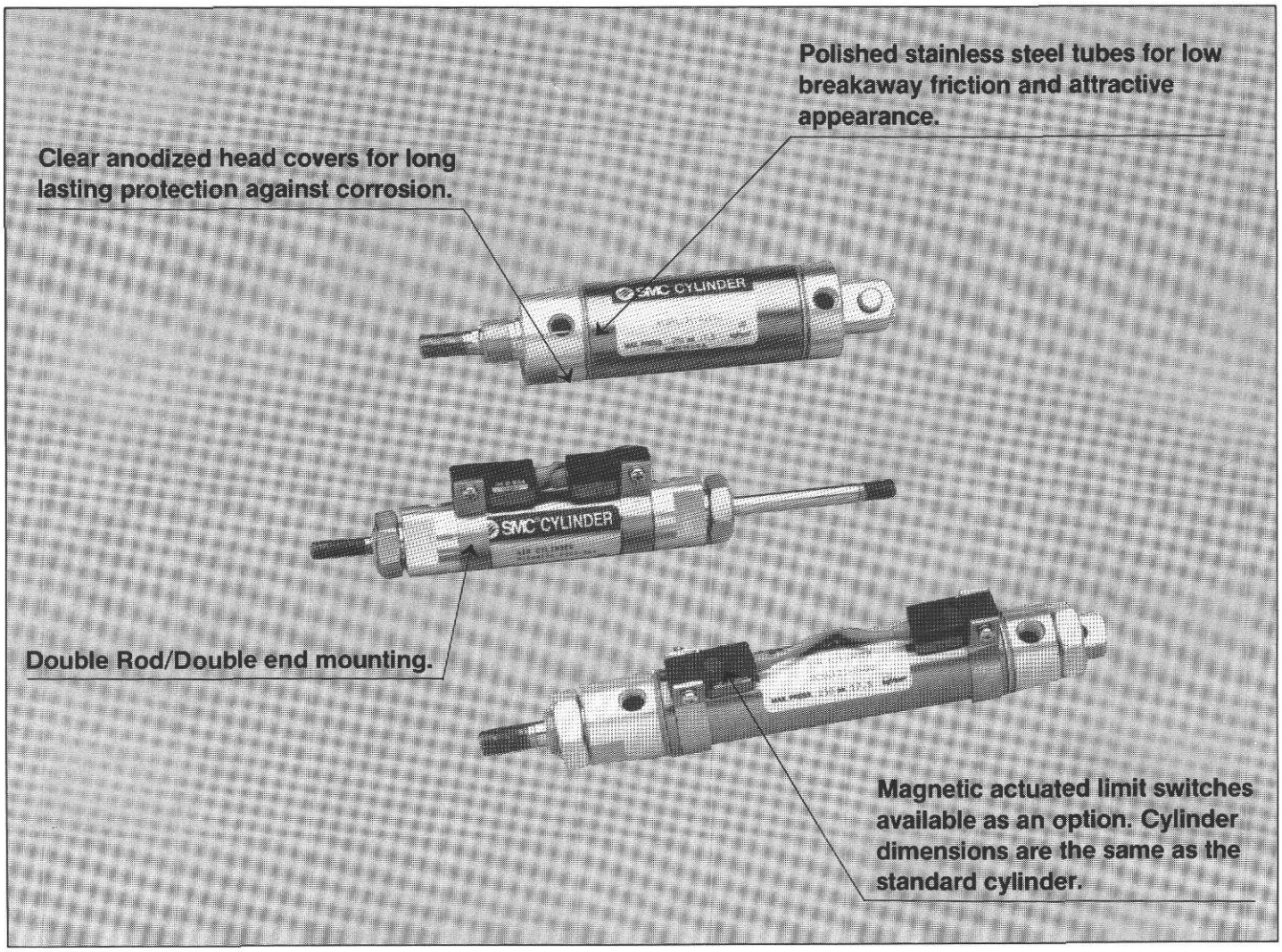
NCM Series

Stainless Steel Cylinders



Stainless Steel Body for Low Breakway Friction
Double Rod/Double End Mounting
6 Available Mounting Options
Non-Rotating Option
Auto Switch Capable

Air Cylinder: Standard Type
Series: NCM



INDEX

Series NCM

How To Order

NC D MB 075 – 02 00 C S J – B51 – XB6

Auto-Switch Capable
_ —Std. Cylinder
D —With Built-in Magnet
(Not available as std. on single acting models, XB6 & XB7)

Mounting
B —Front Nose Mount
C —Rear Pivot
E —Double End
K —Non-Rotating Rod
R —Block Mount
W —Double Rod

Bore Sizes
075 —¾"
088 —⅞"
106 —1 1/16"
125 —1¼"
150 —1½"

Stroke/Inch

Stroke/Hundreth of an Inch

Options
XB6 —High Temp.
XB7 —Low Temp.
XB9 —Low Friction
XC6 —Stainless Steel Rod

Number of Auto-Switches
_— *2 pcs.*
S — 1 pc.
n — n pcs.
L — Long leads

Auto-Switch
B53 - D-B53 **G59** - D-G59
B54 - D-B54 **K59** - D-K59
B64 - D-B64

Rod Boot
J —Nylon
K —Neoprene

Actuation
_ —Double Acting
S —Spring Return
T —Spring Extend

Cushion*
C —Rubber Bumper

Note: Min. Strokes for Auto Switch Cylinders page 5.

*Rubber Bumpers are no additional cost on ⅞" & 1¼" bore size cylinders. They are options on the other bore sizes. The "C" after the stroke must be included.

***Rubber Bumper Change in overall length**

Model \ Bore	075	088	106	125	150
NCMB-NCME NCMC	No Change	Standard	0.125	Standard	0.125

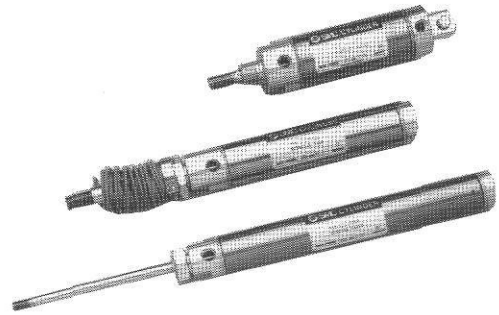
*Note: If ordered w/o rubber bumper, overall length decreases .25 inches.

Note)
Overall length of Auto Switch Cylinder is the same as standard cylinders except NCMW106 (1 1/16" Bore Double rod)—Add 0.375" to the overall cylinder length.

Model	Bore 075	088	106	125	150
NCMW	No Change	Standard	0.125	Standard	0.125
NCDMW	No Change	Standard	0.500	Standard	0.125

*Note: If ordered w/o rubber bumper, overall length decreases .25 inches.

Air Cylinder
Stainless Steel Cylinder
Series NCM



Specifications

Bore size (inch)		075 (¾")	088 (⅞")	106 (1 1/16")	125 (1¼")	150 (1½")
Fluid		Air				
Max. Operating pressure		250 PSI (17.5 kgf/cm²)				
Min. Operating pressure		8 PSI (0.5 kgf/cm²)				
Ambient and fluid temperature		40 ~ 140°F (5 ~ 60°C)				
Piston speed	No Cushion	2 ~ 20 inch/sec (50 ~ 500 mm/sec)				
	Rubber Cushion	2 ~ 30 inch/sec (50 ~ 750 mm/sec)				
Bumper		Optional	Urethane	Optional	Urethane	Optional
Lubrication		Not required (prelubricated at factory)				

Standard Stroke List

(inch)

Mounting	Standard Stroke (inch)	Max. Stroke
Front nose mounting	½·1·2·3·4·5·6	12
Double end mounting Rear pivot mounting	½·1·2·3·4·5·6·7·8·10·12	32
Double Rod	½·1·2·3·4·5·6	12

Weight

(lbs)

Bore size (inch)		¾	⅞	1 1/16	1¼	1½
Basic Weight	B-Front Nose Mounting	0.20	0.23	0.33	0.56	0.68
	E-Double End Mounting	0.28	0.30	0.41	0.71	0.82
	C-Rear Pivot Mounting	0.20	0.21	0.32	0.61	0.71
	W-Double Rod	0.30	0.32	0.40	0.81	0.93
Additional Weight for Stroke	B, E, C	0.034	0.037	0.050	0.079	0.087
	W	0.048	0.051	0.071	0.121	0.128

Example) **NCMB075-0400**

Basic Weight·····0.28 (lbs)
Additional Weight·····0.034 (lbs)
Stroke ·····4 (inch)
0.28 + 0.034 × 4 = 0.416 (lbs)

Theoretical Cylinder Force

(lbs.)

Bore	Rod Dia.	Action	Effective Area (in²)	Operating Pressures PSI					
				25	50	75	100	125	150
075 (¾")	.250	OUT	.442	11.1	22.1	33.1	44.2	55.3	66.3
		IN	.393	9.83	19.7	29.5	39.3	49.1	59.0
088 (⅞")	.250	OUT	.601	15.0	30.1	45.1	60.1	75.1	90.2
		IN	.552	13.8	27.6	41.4	55.2	69.0	82.8
106 (1 1/16")	.312	OUT	.887	22.2	44.4	66.5	88.7	111	133
		IN	.811	20.3	40.6	60.8	81.1	101	122
125 (1¼")	.437	OUT	1.227	30.7	61.4	92.0	123	153	184
		IN	1.077	26.9	53.9	80.8	108	135	162
150 (1½")	.437	OUT	1.767	44.2	88.4	133	177	221	265
		IN	1.617	40.4	80.9	121	162	202	243

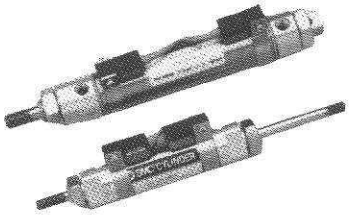
Precautions

❶When mounting, completely flush the piping and be careful that dust and chips do not enter the cylinder.

❷Load of piston rod should always be aligned parallel with the cylinder axis.

❸Avoid damaging (scratches. nicks) on the piston rod, which would lead to damage of rod seal, resulting in air leakage.

With Auto Switch:Reed Switch Type



Solid State Specifications

D-F5 • D-J5 (with indicator lamp)

Auto switch	D-G59	D-K59
Wiring method	3 wire system	2 wire system
Application	IC circuit Relay, Sequence control	24VDC Relay, Sequence control
Power source	5•12•24VDC	—
Current consumption	OFF:1mA or less ON:12mA or less	—
Load voltage	28VDC or less	24VDC (10 ~ 28 VDC)
Load current	150mA or less	5 ~ 150mA
Internal voltage drop	50mA:0.4V or less 150mA:0.8V or less	3V or less
Leak current	24VDC:10μA or less	1mA or less
Indicator lamp	ON:Red light emitting diode	

Auto Switch/Specifications: Band Mount Type

● **D-B5, B6/Grommet Type**

Built-in contact protection circuit ●: Available X: Not available

Auto-Switch Model	Operating Voltage	Max. Current or operating current range (mA)	Indicator Light	Application
D-B54	24VDC	10~50mA	●	Relay Sequencer
	110VAC	22mA		
	220VAC	11mA		
D-B53	24VDC	5~25mA	●	Sequencer
D-B64	Max. 24VDC	50mA	X	Relay Sequencer
	110VAC	22mA		
	220VAC	11mA		

Lead Length — 1.5 ft. (Standard), 10 ft. (Optional)

Min. Auto Switch Mountable Stroke

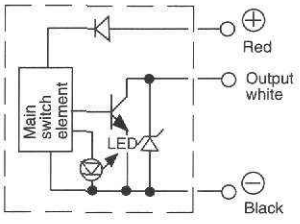
Model / No. of switches	With 2 Switches	With 1 Switch
D-G5 ● D-B5 ● D-K5 ● D-B6 ●	0.60	0.40

Parts No. of Auto Switch Mounting Band

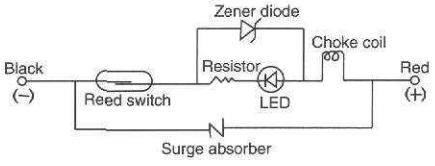
Autoswitch Part Number	Bore size				
	075	088	106	125	150
D-G59, D-B54, D-B64, D-K59, D-B53	NBA-075	NBA-088	NBA-106	NBA-125	NBA-150

Auto Switch/Circuit Diagram

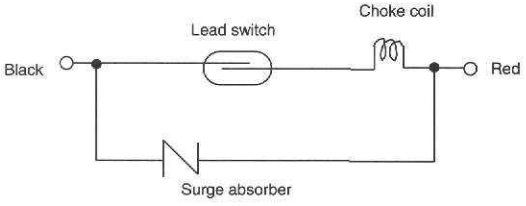
D-G59



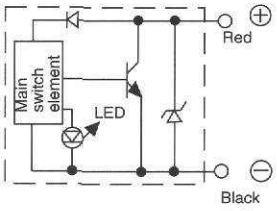
D-B54



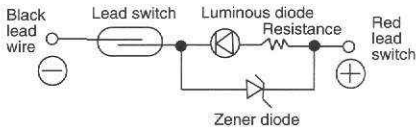
D-B64



D-K59



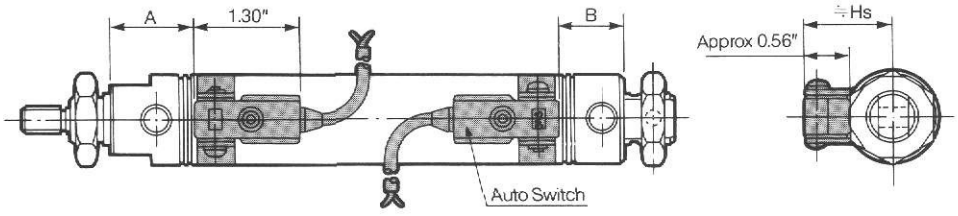
D-B53



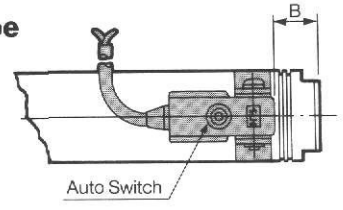
Auto Switch Mounting Position

●Auto Switch Placement dimensions

D-B5, B6 Type



Front Nose Mounting type



Proper Auto Switch Placement Dimensions

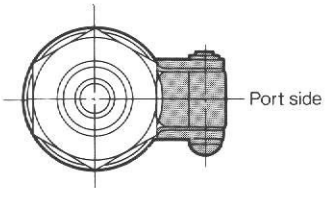
inch

Bore	A	B	Approx. ≒HS
075 (¾")	0.88	0.79 (0.36)	0.97
088 (⅞")	0.83	0.65 (0.37)	1.03
106 (1 1/16")	0.94	0.69 (0.45)	1.12
125 (1¼")	1.26	0.93 (0.60)	1.22
150 (1½")	1.06	0.69 (0.49)	1.35

( ) are for Front Nose Mounting type cylinders. (NCMB)

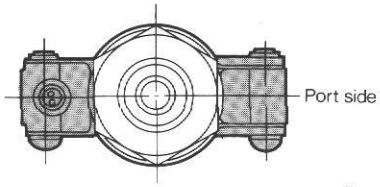
Auto Switch Mounting Position

With 1 Auto Switch (Rod cover side)



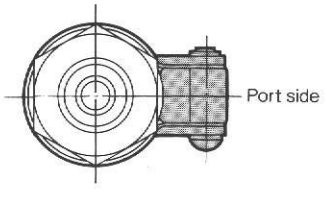
Above 0.4" Stroke

With 2 Auto Switches (Different surface)



From 0.59 ~ 2.91" Stroke

With 2 Auto Switches (Same surface)



Above 2.95" Stroke

Operational Instructions

❶ D-B54, D-B53 have indicator lights equipped with light emitting diodes. The red lead wire is (+), and the black lead wire is (—). If connection is reversed on D-B54, switch will operate, but indicator light will not go on.

❷ Electrical current should be kept within the specified operating current range. If used at less than the operating current, the indicator light will not turn on, and if operated in excess of the operating current range, the indicator light will be damaged.

❸ D-B54, D-B53 may be connected in parallel, connection in series causes large voltage drops due to the internal resistance in the LED (Approx. 2V for D-B53, Approx. 2.7V for D-B54).

Mounting

❶ Always connect switch to load before turning on power.

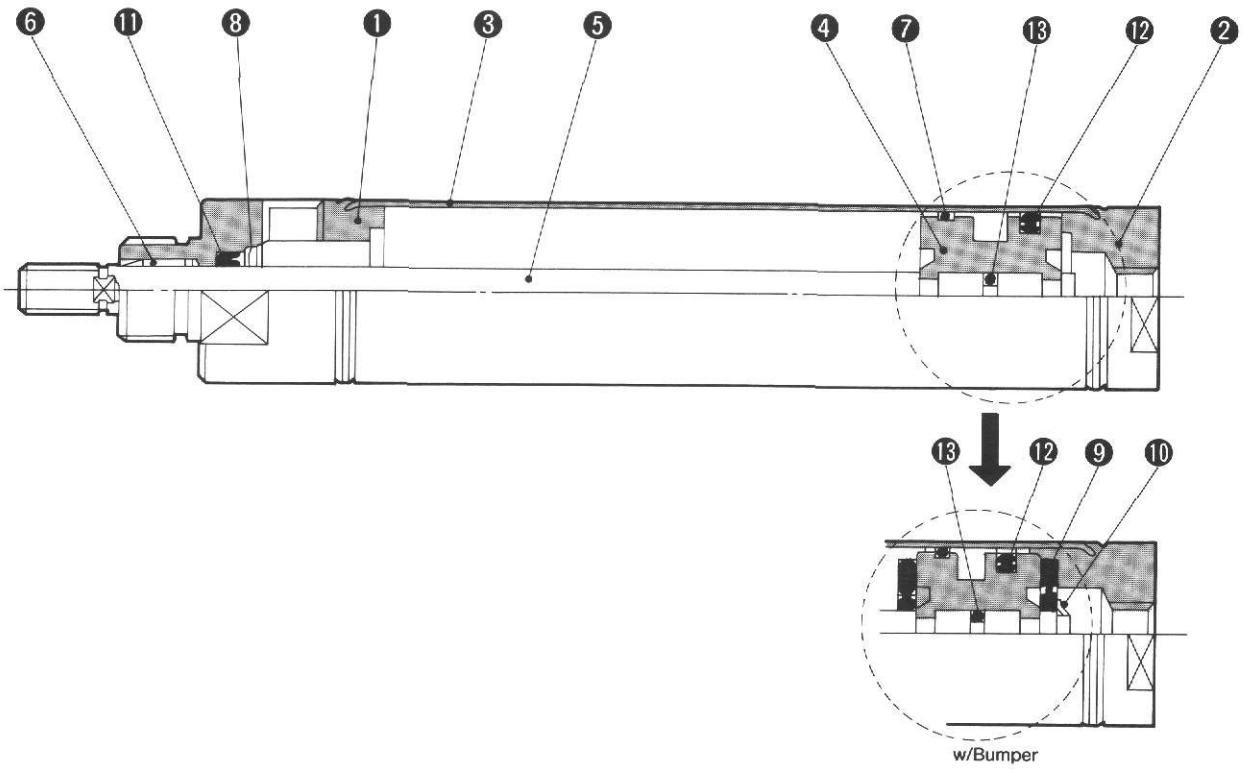
❷ When shipping, please avoid dropping, cylinder nicks, and excessive shock.

❸ Avoid use in magnetically contaiminated areas.

❹ Prevent repeated bending of switch lead wires.

❺ If auto switch cylinders are used in parallel, maintain a distance between cylinders of 1.5 inches or greater.

Construction/Parts List

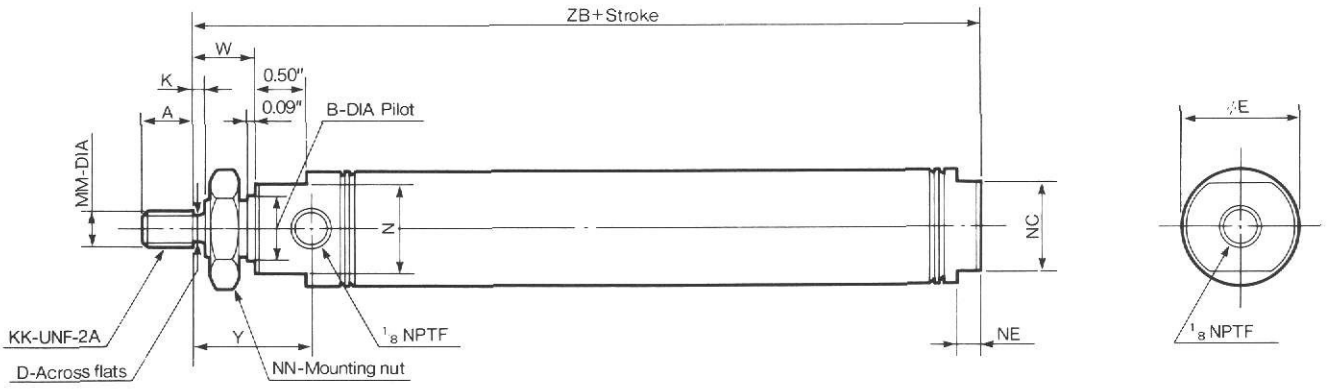


Parts List

No.	Description		Material	Remarks
1	Rod cover		Aluminum alloy	White alumite
2	Head cover		Aluminum alloy	White alumite
3	Cylinder tube		Stainless steel	–
4	Piston		Aluminum alloy	Chromate
5	Piston rod	¾"•⅞"	Stainless steel	–
		1 1/16"•1½"•1¼"	Carbon steel	Hard Chrome Plated
6	Bushing		Sintered BR	–
7	Wear ring		Phenolic Resin	–
8	Retaining ring		Spring steel	–
9	Bumper		Urethane	–
10	Retaining ring		Spring steel	–
11	Rod seal		NBR	–
12	Piston seal		NBR	–
13	Piston gasket		NBR	–

Front Nose Mounting: NCMB

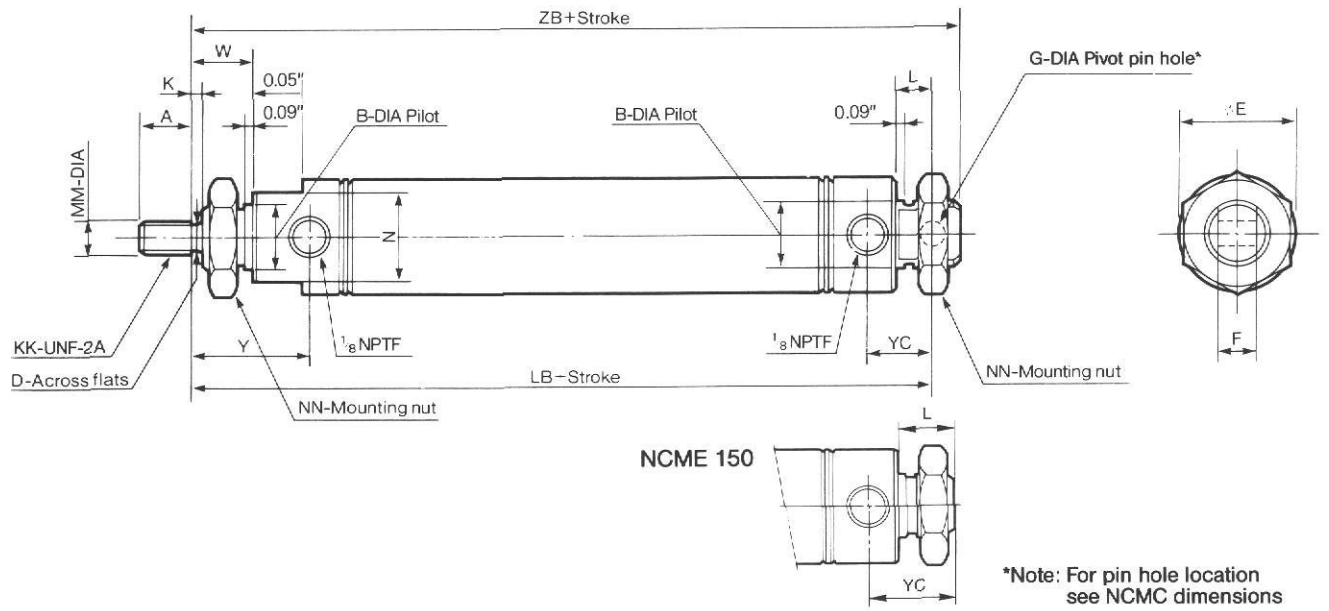
(inch)



Bore (inch)	MM	KK	A	B	D	E	K	N	NC	NE	NN	W	Y	ZB
075 (¾)	0.250	¼-28	0.50	0.624	—	0.86	—	0.75	0.62	0.12	⅝-18	0.50	0.95	2.97
088 (⅞)	0.250	¼-28	0.50	0.624	—	0.93	—	0.75	0.75	0.18	⅝-18	0.50	0.95	2.94
106 (1 1/16)	0.312	5/16-24	0.50	0.624	0.25	1.12	0.12	0.88	0.88	0.24	⅝-18	0.62	1.17	3.25
125 (1¼)	0.437	7/16-20	0.75	0.749	0.38	1.32	0.25	1.06	1.06	0.25	¾-16	0.88	1.62	4.00
150 (1½)	0.437	7/16-20	0.75	0.749	0.38	1.56	0.25	1.25	1.25	0.25	¾-16	0.88	1.50	3.69

Double End Mounting: NCME

(inch)

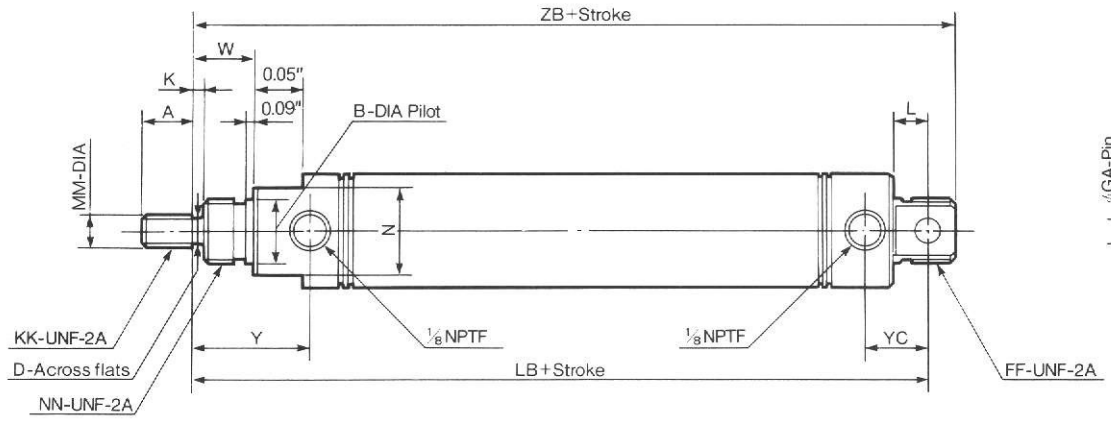


*Note: For pin hole location see NCMC dimensions

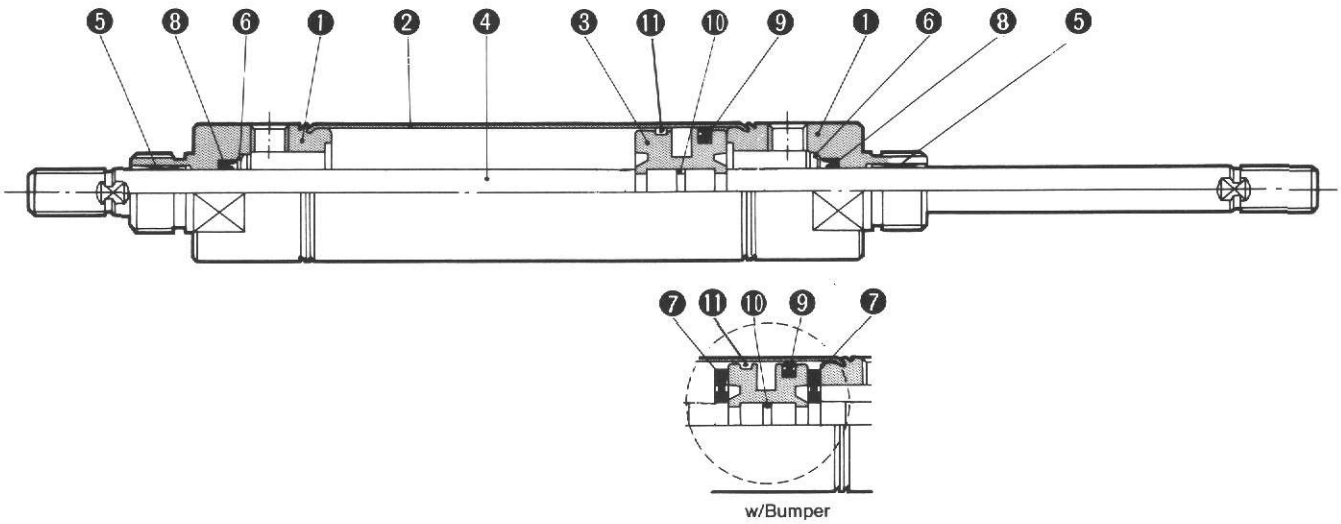
Bore (inch)	MM	KK	A	B	D	E	F	G	K	L	LB	N	NN	W	Y	YC	ZB
075 (¾)	0.250	¼-28	0.50	0.624	—	0.86	0.38	0.251	—	0.34	3.75	0.75	⅝-18	0.50	0.95	0.62	4.03
088 (⅞)	0.250	¼-28	0.50	0.624	—	0.93	0.38	0.251	—	0.34	3.56	0.75	⅝-18	0.50	0.95	0.62	3.84
106 (1 1/16)	0.312	5/16-24	0.50	0.624	0.25	1.12	0.38	0.251	0.12	0.34	3.84	0.88	⅝-18	0.62	1.17	0.62	4.12
125 (1¼)	0.437	7/16-20	0.75	0.749	0.38	1.32	0.50	0.251	0.25	0.41	4.72	1.06	¾-16	0.88	1.62	0.78	5.12
150 (1½)	0.437	7/16-20	0.75	0.749	0.38	1.56	—	—	0.25	0.63	—	1.25	¾-16	0.88	1.50	0.91	4.50

Rear Pivot Mounting: NCMC

(inch)



Bore (inch)	MM	KK	A	B	D	E	F	FF	GA	GB	K	L	LB	N	NN	W	Y	YC	ZB
075 (¾)	0.250	¼-28	0.50	0.624	–	0.86	0.38	⅝-18	0.250	0.75	0.00	0.34	3.75	0.75	⅝-18	0.50	0.95	0.62	4.03
088 (⅞)	0.250	¼-28	0.50	0.624	–	0.93	0.38	⅝-18	0.250	0.75	0.00	0.34	3.56	0.75	⅝-18	0.50	0.95	0.62	3.84
106 (1 1/16)	0.312	5/16-24	0.50	0.624	0.25	1.12	0.38	⅝-18	0.250	0.75	0.12	0.34	3.84	0.88	⅝-18	0.62	1.17	0.62	4.12
125 (1¼)	0.437	7/16-20	0.75	0.749	0.38	1.32	0.50	⅝-18	0.250	0.75	0.25	0.41	4.72	1.06	¾-16	0.88	1.62	0.78	5.12
150 (1½)	0.437	7/16-20	0.75	0.749	0.38	1.56	0.62	–	0.375	1.00	0.25	0.50	4.38	1.25	¾-16	0.88	1.50	0.78	4.75



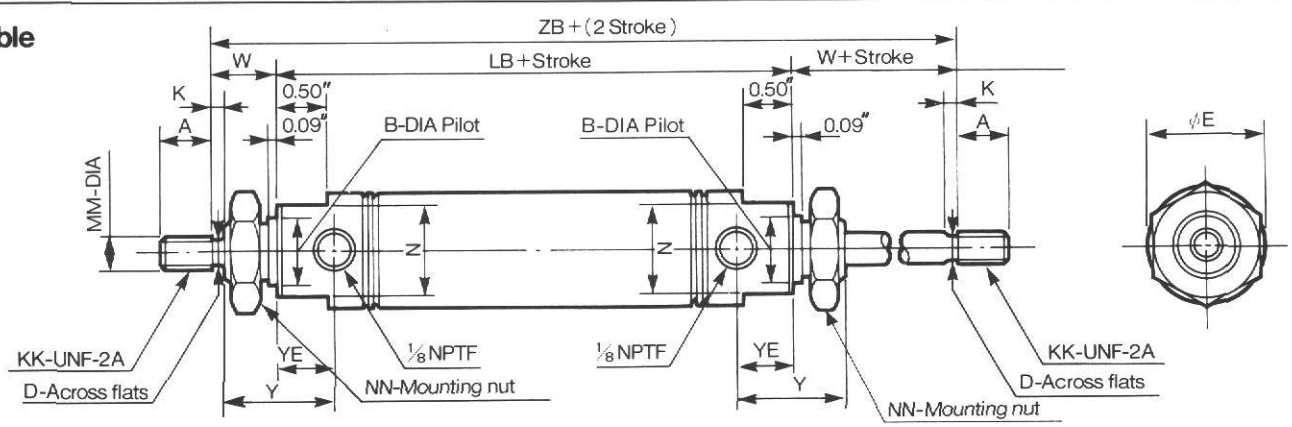
Parts List

No.	Description		Material	Remarks
❶	Rod cover		Aluminum alloy	White alumite
❷	Cylinder tube		Stainless steel	—
❸	Piston		Aluminum alloy	Chromate
❹	Piston rod	3/4"·7/8"	Stainless Steel	—
		1 1/4"·1 1/16"·1 1/2"	Carbon Steel	Hard Chrome Plated
❺	Bushing		Sinterd BR	—
❻	Retaining ring		Spring Steel	—
❼	Bumper		Uretnane	—
❽	Rod seal		NBR	—
❾	Piston seal		NBR	—
❿	Piston gasket		NBR	—
⓫	Wear ring		Phenolic Resin	—

Dimensions

(inch)

Double



Bore (inch)	MM	KK	A	B	D	E	K	LB	N	NN	W	Y	YE	ZB
075 (3/4)	0.250	1/4-28	0.50	0.624	—	0.86	—	3.00	0.75	5/8-18	0.50	0.95	0.45	4.00
088 (7/8)	0.250	1/4-28	0.50	0.624	—	0.93	—	2.91	0.75	5/8-18	0.50	0.95	0.45	3.91
106 (1 1/16)	0.312	5/16-24	0.50	0.624	0.25	1.12	0.12	2.75	0.88	5/8-18	0.62	1.05	0.55	4.00
125 (1 1/4)	0.437	7/16-20	0.75	0.749	0.38	1.32	0.25	3.81	1.06	3/4-16	0.88	1.37	0.74	5.56
150 (1 1/2)	0.437	7/16-20	0.75	0.749	0.38	1.56	0.25	3.38	1.25	3/4-16	0.88	1.25	0.62	5.12

Air Cylinder
Stainless Steel Cylinder
Series NCM
Single Acting — Spring Return/Spring Extend

Specifications

Bore size (inch)	075 (¾")	088 (⅞")	106 (1 1/16")	125 (1¼")	150 (1½")
Fluid	Air				
Max. Operating pressure	250 PSI (17.5 kgf/cm²)				
Min. Operating pressure	25 PSI (1.75 kgf/cm²)				
Ambient and fluid temperature	40~140°F (5-60°)				
Piston speed	2~20 inch/sec (50~500 mm/sec)				
Bumper	Optional	Urethane (Std.)	Optional	Urethane (Std.)	Optional
Lubrication	Not required (prelubricated at factory)				

Standard Stroke List

Mounting	Standard Stroke (inch)	Max. Stroke
Front nose mounting	½•1•1½•2•3•4	6

NCM Spring Forces of S & T Type Cylinders (Standard Strokes)

Bore	Resting	Compressed
NCM	Kgf/Lbf	Kgf/Lbf
075	1.36/3	2.72/6
088	1.36/3	2.49/5.45
106	1.36/3	2.74/6
125	3.18/7	5.67/12.4
150	3.18/7	5.67/12.4

Precautions

1. When mounting, completely flush the piping and be careful that dust and chips do not enter the cylinder.
2. Load of piston rod should always be aligned parallel with the cylinder axis.
3. Avoid damaging (scratches, nicks) on the piston rod, which would lead to damage of rod seal, resulting in air leakage.

HOW TO ORDER

NCM B 075 - 0400 C S

Cylinder
_ — Standard Cylinder

Mounting
B — Front Nose Mounting
E — Double End Mounting
C — Rear Pivot Mounting

Bore
075 — ¾ inch
088 — ⅞ inch
106 — 1 1/16 inch
125 — 1¼ inch
150 — 1½ inch

Stroke/Inch*

Stroke/Hundredths of an inch*

Cylinder Action
_ — Double Acting
S — Spring Return
T — Spring Extend

Option
C — Rubber Bumper**
(Std. on ⅞" & 1¼" bore)

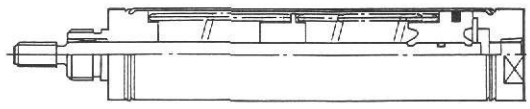
*Note) Stroke Length must be indicated as 4 digits
First and Second digit: Stroke/inch
Third and Fourth digit: Stroke/hundredths of an inch
Example) 0400=4.00 (4) inch stroke

**Rubber bumpers are standard on ⅞" & 1¼" bore.
"C" must be included at the end of this part number.

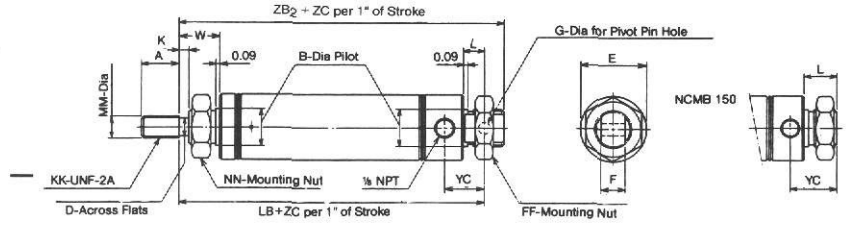
Air Cylinder
Stainless Steel Cylinder
Series NCM
Single Acting — Spring Return/Spring Extend

DIMENSIONS

NCMB○-○S



NCME○-○S



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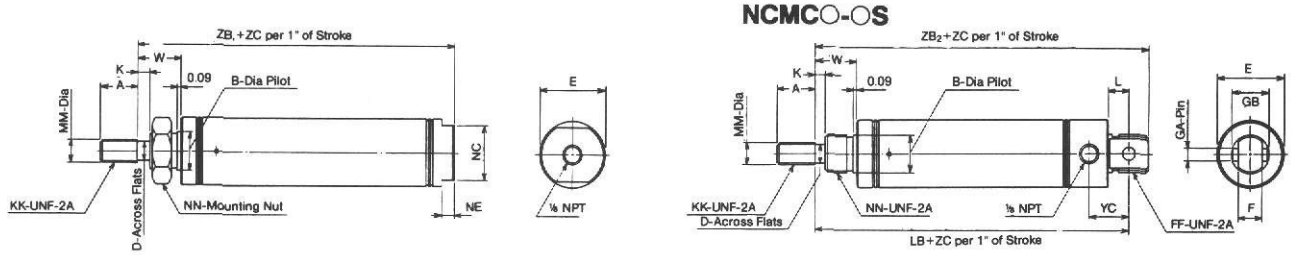
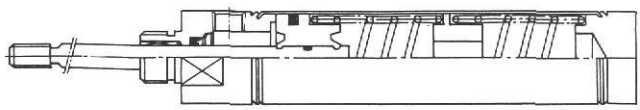
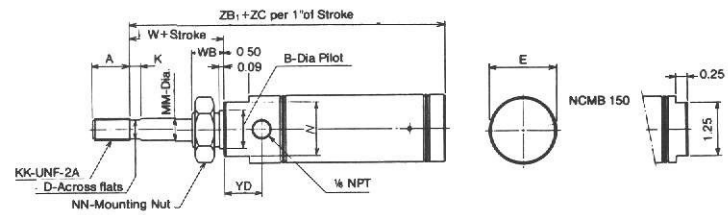


Bore (in)	MM	KK	A	B	D	E	F	FF	G	GA	GB	K	L	LB	NC	NE	NN	W	YC	ZB_1	ZB_2	ZC
075(¾)	0.250	¼-28	0.50	0.496	—	0.86	0.38	⅝-18	0.251	0.250	0.75	—	0.34	2.28	0.62	0.12	½-20	0.44	0.62	1.50	2.56	1.69
088(⅞)	0.250	¼-28	0.50	0.624	—	0.93	0.38	⅝-18	0.251	0.250	0.75	—	0.34	2.47	0.75	0.18	⅝-18	0.50	0.62	1.84	2.75	1.56
106(1 1/16)	0.312	5/16-24	0.50	0.624	0.25	1.12	0.38	⅝-18	0.251	0.250	0.75	0.12	0.34	2.66	0.88	0.24	⅝-18	0.62	0.62	2.06	2.94	1.56
125(1¼)	0.437	7/16-20	0.75	0.749	0.38	1.32	0.50	¾-16	0.251	0.250	0.75	0.25	0.41	3.38	1.06	0.25	¾-16	0.88	0.78	2.66	3.78	1.81
150(1½)	0.437	7/16-20	0.75	0.749	0.38	1.56	0.62	—	—	0.375	1.00	0.25	0.50	3.12	1.25	0.25	¾-16	0.88	0.78	2.44	3.50	1.69

NCMB○-○T





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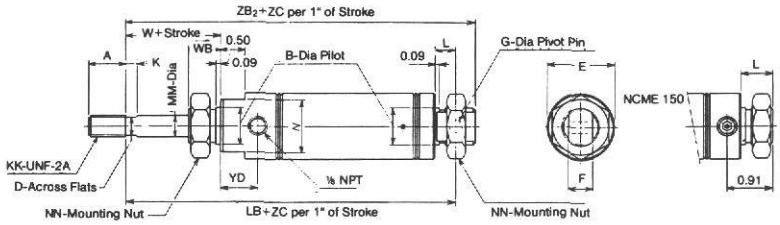
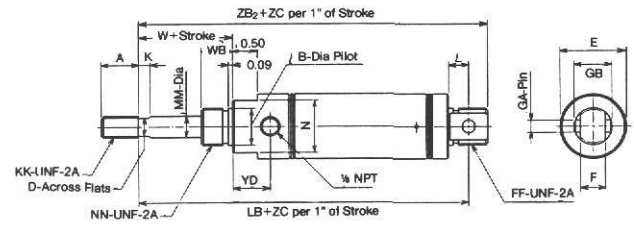


NCMC○-○T



Bore (in)	MM	KK	A	B	D	E	F	FF	G	GA	GB	K	L	LB	N	NN	W	WB	YD	ZB_1	ZB_2	ZC
075(¾)	0.250	¼-28	0.50	0.624	—	0.86	0.38	⅝-18	0.251	0.250	0.75	—	0.34	2.44	0.75	⅝-18	0.50	0.50	0.45	2.10	2.72	2.69
088(⅞)	0.250	¼-28	0.50	0.624	—	0.93	0.38	⅝-18	0.251	0.250	0.75	—	0.34	2.62	0.75	⅝-18	0.50	0.50	0.45	2.27	2.91	2.56
106(1 1/16)	0.312	5/16-24	0.50	0.624	0.25	1.12	0.38	⅝-18	0.251	0.250	0.75	0.12	0.34	2.78	0.88	⅝-18	0.62	0.50	0.55	2.42	3.06	2.81
125(1¼)	0.437	7/16-20	0.75	0.749	0.38	1.32	0.50	¾-16	0.251	0.250	0.75	0.25	0.41	3.76	1.06	¾-16	0.88	0.62	0.75	3.34	4.16	2.81
150(1½)	0.437	7/16-20	0.75	0.749	0.38	1.56	0.62	—	—	0.375	1.00	0.25	0.50	3.88	1.25	¾-16	0.88	0.62	0.63	3.16	4.26	3.00

Air Cylinder
Stainless Steel Cylinder
Series NCM
Direct Mount

Specifications

Bore size (inch)	¾	1 1/16	1½
Media	Air		
Max. Operating Pressure	250 PSI (17.5 kgf/cm²)		
Min. Operating Pressure	Double Acting 8 PSI (0.5 Kgf/cm²)		
	Single Acting 25 PSI (1.75 Kgf/cm²)		
Ambient and media temperature	40 ~ 140°F		
Piston Speed	2 ~ 20 inch/sec (50 ~ 500mm/sec)		
Cushion	None		
Mounting types	Direct mount		

- Possible to mount without bracket due to square rod cover, short overall length and mounting pitch. Saves mounting space.
- Auto switch mounting available
- Action/Double acting
- Action/single acting Spring return, Spring extend

Stock Stroke List

Mounting	Standard stroke (inch)	Max. stroke
Double acting	½, 1, 1½, 2, 3, 4, 5, 6	12
Single acting	½, 1, 1½, 2, 3, 4	6

HOW TO ORDER

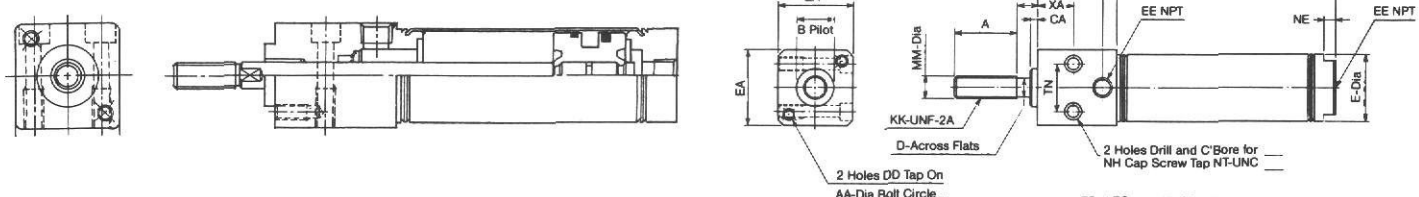
NCM **R** Bore — Stroke Action — Auto Switch

Ex.) NCDMR 075-0400

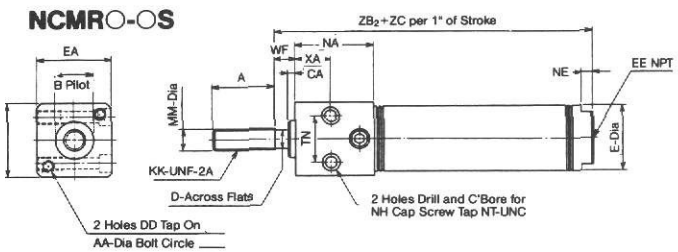
with Auto switch capability

DIMENSIONS

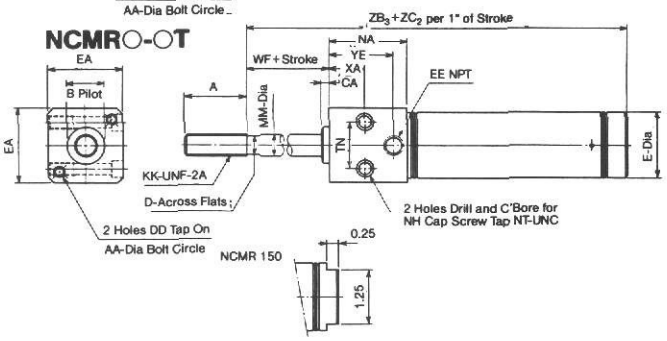
NCMR



NCMR○-○S



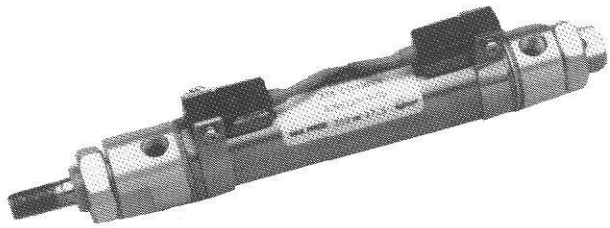
NCMR○-○T



Inch

Bore (inch)	MM	KK	A	AA	B	CA	D	DD	E	EA	EE	NA	NE	NH	NT	TN	WF	YE	XA	ZB_1	ZB_2	ZB_3	ZC_1	ZC_2
075 (¾)	0.250	¼-28	0.75	1.00	0.625	0.093	0.22	10-32 UNF	0.81	1.00	⅛	1.12	0.12	10-32 UNF	¼-20	0.62	0.34	0.88	0.38	3.22	2.66	2.35	1.69	2.69
106 (1 1/16)	0.312	5/16-24	0.75	1.25	0.750	0.093	0.25	10-32 UNF	1.12	1.25	⅛	1.47	0.24	10-32 UNF	¼-20	0.81	0.47	1.22	0.62	3.75	3.38	2.93	1.81	2.81
150 (1½)	0.437	7/16-20	1.25	1.75	1.00	0.125	0.38	¼-20 UNC	1.56	1.75	¼	1.93	0.25	¼-20 UNC	5/16-18	1.12	0.38	1.57	0.88	4.19	3.69	3.69	2.00	3.00

Air Cylinder
Stainless Steel Cylinder
Series NCM
Non-Rotating Rod



Specifications

Bore size (inch)	¾	⅞	1 1/16	1¼	1½
Media	Air				
Max. Operating Pressure	250 PSI (17.5 kgf/cm²)				
Min. Operating Pressure	8 PSI (0.5 kgf/cm²)				
Ambient and media temperature	40~140°F (5~60°C)				
Piston Speed	2~20 inch/sec (50~500mm/sec)				
Cushion	None	Urethane (Std.)	None	Urethane (Std.)	None
Mounting types	Front nose, Double end, Rear Pivot				

- Non-rotating rod accuracy
- Auto-switch mounting available.
- Action/Double acting.

Stock Stroke List

Mounting	Standard stroke (inch)	Max. stroke
Front nose	½, 1, 1½, 2, 3, 4, 5, 6	6
Double end Rear Pivot	½, 1, 1½, 2, 3, 4, 5, 6, 8, 10, 12	12

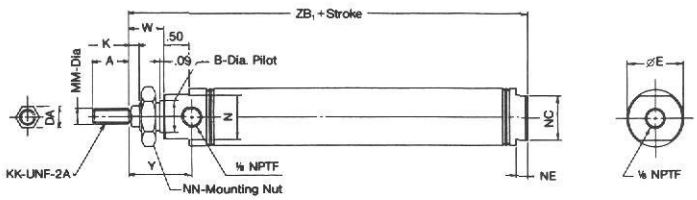
HOW TO ORDER

NCM **K** Mounting Bore Stroke C

Ex.)
Cushion standard on ⅞ and 1¼ bore only (must include C if desired on these bore sizes).

DIMENSIONS

NCMKB



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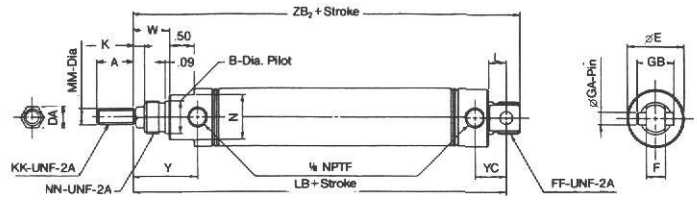

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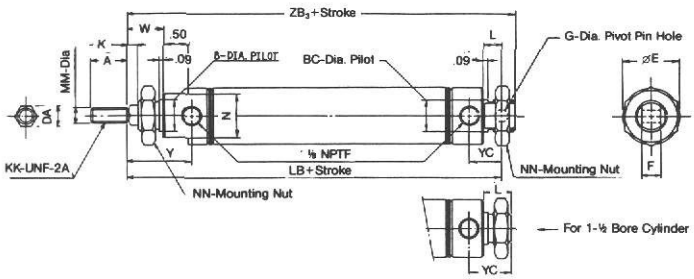
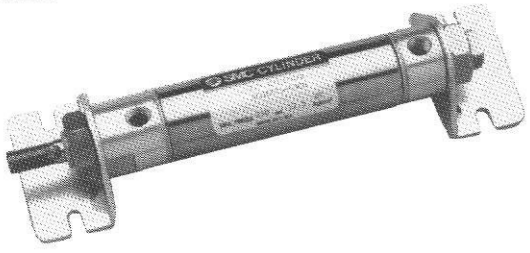


Inch

Bore (inch)	MM	KK	A	B	BC	DA	E	F	FF	G	GA	GB	K	L	LB	N	NC	NE	NN	W	Y	YC	ZB_1	ZB_2	ZB_3
075 (¾)	.250	¼-28	0.50	.624	.624	0.25	0.86	0.38	⅝-18	.251	.250	0.75	0.25	0.34	4.00	0.75	0.62	0.12	⅝-18	0.75	1.20	0.62	3.22	4.28	4.28
088 (⅞)	.250	¼-28	0.50	.624	.624	0.25	0.93	0.38	⅝-18	.251	.250	0.75	0.25	0.34	3.55	0.75	0.75	0.18	⅝-18	0.75	1.20	0.62	3.19	3.83	3.83
106 (1 1/16)	.312	5/16-24	0.50	.624	.624	0.38	1.12	0.38	⅝-18	.251	.250	0.75	0.25	0.34	3.97	0.88	0.88	0.24	⅝-18	0.75	1.30	0.62	3.38	4.25	4.25
125 (1¼)	.375	⅜-24	0.88	.749	.749	0.44	1.32	0.50	–	.251	–	–	0.25	0.41	4.46	1.06	1.06	0.25	¾-16	0.88	1.62	0.78	4.00	5.06	5.06
150 (1½)	.375	⅜-24	0.88	.874	.749	0.44	1.56	–	–	–	.375	1.00	0.38	0.63	–	1.25	1.25	0.25	⅞-14	1.12	1.81	0.91	4.00	–	4.81

Air Cylinder
Stainless Steel Cylinder
Series NCM
Stainless Steel Rod — Low Speed

Stainless Steel Rod



Specifications

Bore size (inch)	1 1/16	1 1/4	1 1/2
Media	Air		
Max. Operating Pressure	250 PSI (17.5 kgf/cm²)		
Min. Operating Pressure	8 PSI (0.5 kgf/cm²)		
Ambient and media temperature	−10 ~ 165°F		
Piston Speed	2 ~ 20 inch/sec (50 ~ 500mm/sec)		
Cushion	None	Urethane (Std.)	None
Mounting types	Double end, front nose, Rear Pivot		

- Stainless steel piston rod is used to protect in harsh or wet environments.
- Auto switch mounting available

HOW TO ORDER

NCM (Mounting) (Bore) – (Stroke) (Option) XC6

Ex.) NCDMB 0150-0400-XC6

with Auto switch capability

Stock Stroke List

Mounting	Standard stroke (inch)
Front nose	½, 1, 1½, 2, 3, 4, 5, 6
Double end Rear Pivot	½, 1, 1½, 2, 3, 4, 5, 6, 8, 10, 12

Low Friction/Low Speed

Specifications

Bore size (inch)	3/4	7/8	1 1/16	1 1/4	1 1/2
Media	Air				
Max. Operating Pressure	250 PSI (17.5 kgf/cm²)				
Min. Operating Pressure	8 PSI (0.5 kgf/cm²)				
Ambient and media temperature	40 ~ 140°F				
Piston Speed	0.4 ~ 2 inch/sec (10 ~ 50mm/sec)				
Cushion	None	Urethane (Std.)	None	Urethane (Std.)	None
Mounting types	Double end, Front nose, Rear Pivot				

- Smooth movements even at 0.4 ~ 2.0 inch/sec.
- Action/Double acting
- Auto-switch mounting available

HOW TO ORDER

NCM (Mounting) (Bore) – (Stroke) (Option) XB9

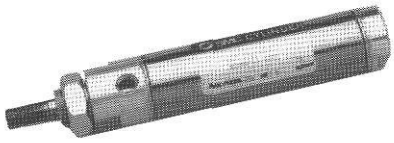
Ex.) NCDMB 075-0400-XB9

with Auto switch capability

Stock Stroke List

Mounting	Standard stroke (inch)	Max. stroke
Front nose	½, 1, 1½, 2, 3, 4, 5, 6	6
Double end Rear Pivot	½, 1, 1½, 2, 3, 4, 5, 6, 8, 10, 12	12

Air Cylinder
Stainless Steel Cylinder
Series NCM
High Temperature/Low Temperature



Specifications

Bore size (inch)	¾	⅞	1 1/16	1¼	1½
Media	Air				
Max. Operating Pressure	250 PSI (17.5 kgf/cm²)				
Min. Operating Pressure	8 PSI (0.5 kgf/cm²)				
Ambient and media temperature	−4~300°F (−20~150°C)				
Piston Speed	2~20 inch/sec (50~500mm/sec)				
Cushion	No cushion available				
Mounting types	Double end, Front nose, Rear Pivot				

- Use at high temperature up to 300°F.
- Double acting only

Stock Stroke List

Mounting	Standard stroke (inch)	Max. stroke
Front nose	½, 1, 1½, 2, 3, 4, 5, 6	6
Double End/Rear Pivot	½, 1, 1½, 2, 3, 4, 5, 6, 8, 10, 12	12

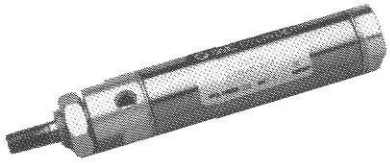
HOW TO ORDER

NCM (Mounting) (Bore) – (Stroke) (Option) **XB6**

Ex.) NCMB 075-0400-XB6

└ High temperature

Auto-switch capable not available.



Specifications

Bore size (inch)	¾	⅞	1 1/16	1¼	1½
Media	Air				
Max. Operating Pressure	250 PSI (17.5 kgf/cm²)				
Min. Operating Pressure	8 PSI (0.5 kgf/cm²)				
Ambient and media temperature	−22~158°F (−30~70°C)				
Piston Speed	2~20 inch/sec (50~500mm/sec)				
Cushion	None				
Mounting types	*Double end, Front nose, Rear Pivot*				

- Low temperature down to −22°F.
- Double acting only

Stock Stroke List

Mounting	Standard stroke (inch)	Max. stroke
Front nose	½, 1, 1½, 2, 3, 4, 5, 6	6
Double End/Rear Pivot	½, 1, 1½, 2, 3, 4, 5, 6, 8, 10, 12	12

HOW TO ORDER

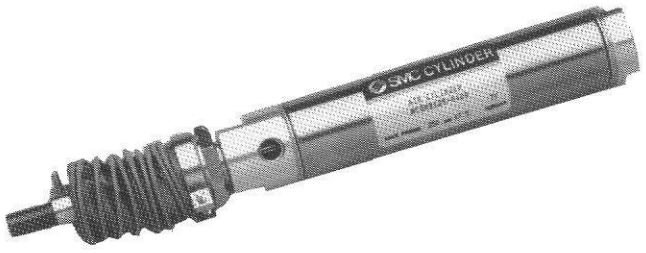
NCM (Mounting) (Bore) – (Stroke) (Option) **XB7**

Ex.) NCMB 075-0400-XB7

└ Low temperature

Auto-switch capable not available.

Air Cylinder
Stainless Steel Cylinder
Series NCM
Rod Boot



Boot Material

Code	Material	Max. Temperature
J	Nylon	140°F (60°C)
K	Neoprene	*230°F (110°C)

*Max. temperature is for boot only.

Max. Stroke

Bore size (inch)	Max. stroke (inch)
¾•⅞•1 1/16	16
1¼•1½	26

- Boots are supplied to protect the surface of piston rod and rod seals in harsh or wet environment.
- Bore size ¾•⅞•1 1/16•1¼•1½
- Action/Double acting only

HOW TO ORDER

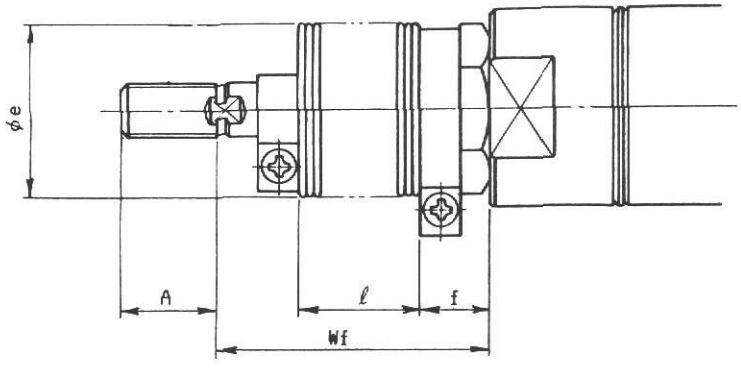
NCM (Mounting) (Bore) – (Stroke) (Option) J

Ex.) NCDMB 075-0400-J

With auto-switch capability

Rod Boot
J-Nylon
K-Neoprene

DIMENSIONS



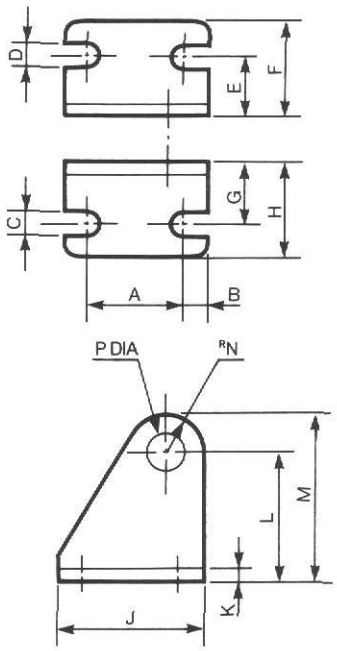
Bore Size (inch)	A	ϕe	f	Wf										
				0~2	2.1~4	4.1~6	6.1~8	8.1~1	10.1~12	12.1~14	14.1~16	16.1~20	20.1~24	24.1~28
¾	0.50	1.18	0.51	1.81	2.31	2.81	3.31	3.81	4.31	4.81	5.31	–	–	–
⅞	0.50	1.18	0.51	1.81	2.31	2.81	3.31	3.81	4.31	4.81	5.31	–	–	–
1 1/16	0.50	1.18	0.51	1.81	2.31	2.81	3.31	3.81	4.31	4.81	5.31	–	–	–
1¼	0.75	1.38	0.55	1.94	2.44	2.94	3.44	3.94	4.44	4.94	5.44	6.44	7.44	8.44
1½	0.75	1.38	0.55	1.94	2.44	2.94	3.44	3.94	4.44	4.94	5.44	6.44	7.44	8.44

Bore Size (inch)	ℓ										
	0~2	2.1~4	4.1~6	6.1~8	8.1~10	10.1~12	12.1~14	14.1~16	16.1~20	20.1~24	24.1~28
¾	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	–	–	–
⅞	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	–	–	–
1 1/16	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	–	–	–
1¼	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	5.00	6.00	7.00
1½	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	5.00	6.00	7.00

Accessories

Pivot Bracket Rear Pivot (End Mount NCMC)

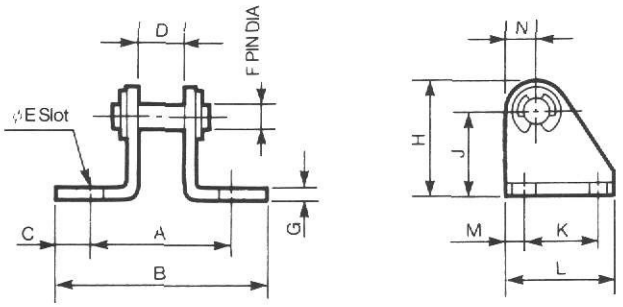
(inch)



Part No.	Applicable Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	øP
NCM-PC075	¾"•⅞"•1 1/16"•1¼"	0.75	0.18	0.27	0.27	0.44	0.79	0.44	0.79	1.10	0.12	0.88	1.18	0.31	0.255
NCM-PC150	1½"	1.00	0.25	0.27	0.27	0.62	0.98	0.62	0.98	1.50	0.12	1.38	1.75	0.38	0.38

Pivot Bracket (End Mount NCME)

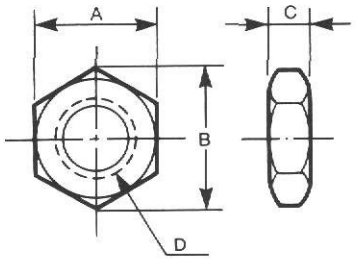
(inch)



Part No.	Applicable Bore	A	B	C	D	øE	F	G	H	J	K	L	M	N
NCM-PE075	¾"•⅞"•1 1/16"	1.25	1.95	0.35	0.38	0.27	0.250	0.12	1.18	0.88	0.75	1.10	0.18	0.31
NCM-PE125	1¼"•1½"	1.38	2.08	0.35	0.50	0.27	0.250	0.12	1.18	0.88	0.75	1.10	0.18	0.31

Mounting Nuts (Nose Mount Thread)

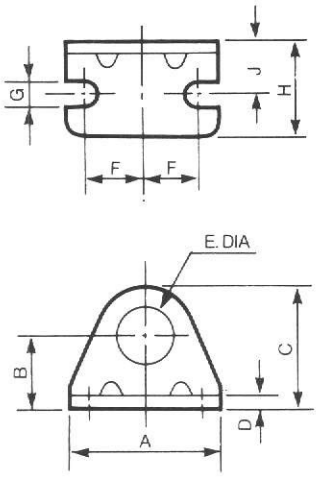
(inch)



Part No.	Applicable Bore	A	B	C	D
JM-08	¾"•⅞"•1 1/16"	0.94	1.08	0.38	⅝-18 UNF
JM-10	1¼"•1½"	1.12	1.30	0.42	¾-16 UNF

Foot Bracket

(inch)

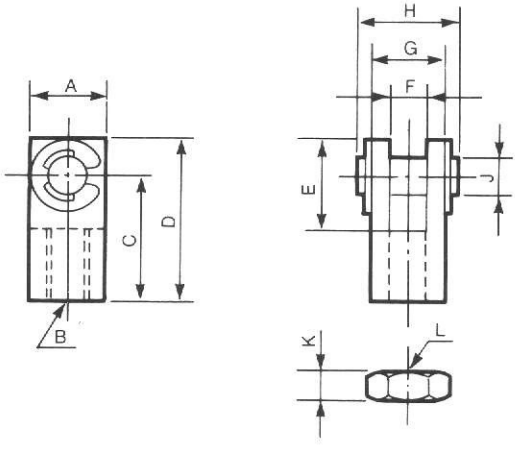


inch

Part No.	Applicable bore	A	B	C	D	E	F	G	H	J
NCM-L075	3/4"•7/8"•1 1/16"	1.89	0.81	1.36	0.12	0.63	0.75	0.27	0.98	0.56
NCM/L150	**1 1/4"•1 1/2"**	**2.52**	**1.00**	**1.75**	**0.12**	**0.75**	**0.94**	**0.27**	**1.50**	**0.75**

Rod Clevis

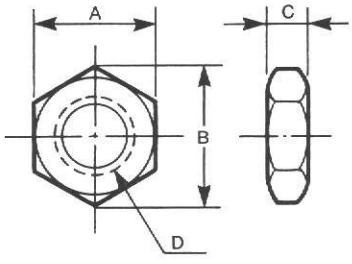
(inch)



inch

Part No.	Applicable Bore	A	B	C	D	E	F	G	H	J	K	L
NY-075	¾"•⅞"	0.51	¼-28	0.94	1.18	0.69	0.25	0.51	0.71	0.25	0.16	¼-28
NY-106	1⅛"	0.51	5/16-24	0.94	1.18	0.69	0.25	0.51	0.71	0.25	0.19	5/16-24
NY-125	1¼"•1½"	0.75	7/16-20	1.31	1.69	0.94	0.38	0.75	1.02	0.38	0.25	7/16-20

Jam Nut (Rod Thread)



inch

Part No.	Applicable Bore	A	B	C	D
JM-025	¾"•⅞"	0.44	0.51	0.16	¼-28 UNF
JM-03	1⅛"	0.50	0.50	0.19	5/16-24 UNF
JM-045	1¼"•1½"	0.69	0.79	0.26	7/16-20 UNF

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