

Air Cylinder: Standard Double Acting, Single/Double Rod Series *NCM*

How to Order

NC **M** **B** **056** **01** **00** **M9BW**

Built-in magnet

Nil	None
D	Built-in magnet with auto switch

Mounting

B	Front nose mount
C	Rear pivot mount
E	Double end mount
R	Block mount Note 2, 10, 11
W	Double rod Note 3, 10

Bore size

044	7/16"
056	9/16"
075	3/4"
088	7/8"
106	1-1/16"
125	1-1/4"
150	1-1/2"
200	2" Note 3, 4

Standard stroke
Inches Note 5

Stroke
Hundredths of an inch
(i.e. 06 = 0.06")

Bumper

Nil	Without bumper
C Note 6	Bumper

Rod boot Note 10, 11

Nil	None
J	Nylon tarpaulin
K	Heat resistant tarpaulin

Option Note 10
When ordering multiple options, refer to options compatibility page to ensure options availability.

Nil	None
XB6	High temperature Note 10, 11
XB7	Low temperature Note 10, 11
XB9	Low speed Note 10, 11
XC4	Heavy duty wiper Note 10
XC6	Stainless steel rod Note 9
X103US	Rotated ports Note 7, 10
X114US	Rear clevis mount without pin and with rear clevis bronze bushing Note 10, 11
X142US	Long stroke Note 10, 11
X155US	Rear pivot mount (C) without clevis pin Note 10, 11
X163US	Heavy duty spring Note 12
X169US	Dimensional interchange to other manufacturer's magnetic reed switch cylinders Note 1, 8, 10
X6002	Air tank Note 10
X6005	Spring assist Note 12

Number of auto switches

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

Auto switch

Nil	Without auto switch
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* For applicable auto switch models, refer to the table on page 2.

Note 1) $\phi 3/4"$, $\phi 1-1/16"$, $\phi 1-1/2"$ and $\phi 2"$ only.

Note 2) Not offered in $\phi 7/8"$, $\phi 1-1/4"$, or with rod boot.

Note 3) Double acting only.

Note 4) Not available as standard with C, R mount, with rod boot.

Note 5) See specifications for standard and maximum stroke lengths.

Note 6) Bumper is offered at no additional cost on $\phi 7/8"$ and $\phi 1-1/4"$. They are options on the other bore sizes. The "C" after the bore size must be included in either case. Bumper affects cylinder overall length of some models. Refer to the dimensional data.

Note 7) Available only with B or C mounting. Not available on 2" bore.

Note 8) Not available with $\phi 7/8"$ bore, or with C, R mount, or non-rotating rod (K).

Note 9) Stainless steel rod standard on $\phi 7/16"$, $\phi 9/16"$, $\phi 3/4"$ and $\phi 7/8"$.

Note 10) Exclude $\phi 7/16"$ and $\phi 9/16"$.

Note 11) Exclude $\phi 2"$.

Note 12) $\phi 3/4"$, $\phi 1-1/16"$ and $\phi 1-1/2"$ only.

Auto Switch Specifications

Applicable Auto Switches

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model	Lead wire length (m)					Pre-wired connector	Applicable load					
					DC	AC		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)							
Solid state switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9N	●	●	●	○	—	○	IC circuit	Relay, PLC				
	Connector	3-wire (PNP)		M9P			●	●	●	○	—	○							
		2-wire		12 V	M9B		●	●	●	○	—	○							
				Grommet	3-wire (NPN)		24 V	5 V, 12 V	H7C	●	—	●	●	●		—	IC circuit		
	3-wire (PNP)	5 V, 12 V			M9NW		●	●	●	○	—	○							
	2-wire	12 V			M9PW		●	●	●	○	—	○							
		Water resistant (2-color indication)			12 V		M9BW	●	●	●	○	—	○	—					
	With diagnostic output (2-color indication)			4-wire (NPN)	5 V, 12 V		H7BA	—	—	●	○	—	○						
	Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)		—	5 V	—	A96	●	—	●	—		—	—	IC circuit	Relay, PLC
					2-wire		24 V	12 V	100 V	A93	●	—	●	—		—	—	—	
100 V or less						A90			●	—	●	—	—	—					
100 V, 200 V						B54			●	—	●	●	—	—					
200 V or less			B64	●		—			●	—	—	—							
—			C73C	●		—			●	●	●	—							
Connector			None	24 V or less	C80C	●	—	●	●	●	—								
				Diagnostic indication (2-color indication)	Grommet	Yes	—	—	B59W	●	—	●	—	—	—				

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
 1 m M (Example) M9NWM
 3 m L (Example) M9NWL
 5 m Z (Example) M9NWZ
 None N (Example) H7CN

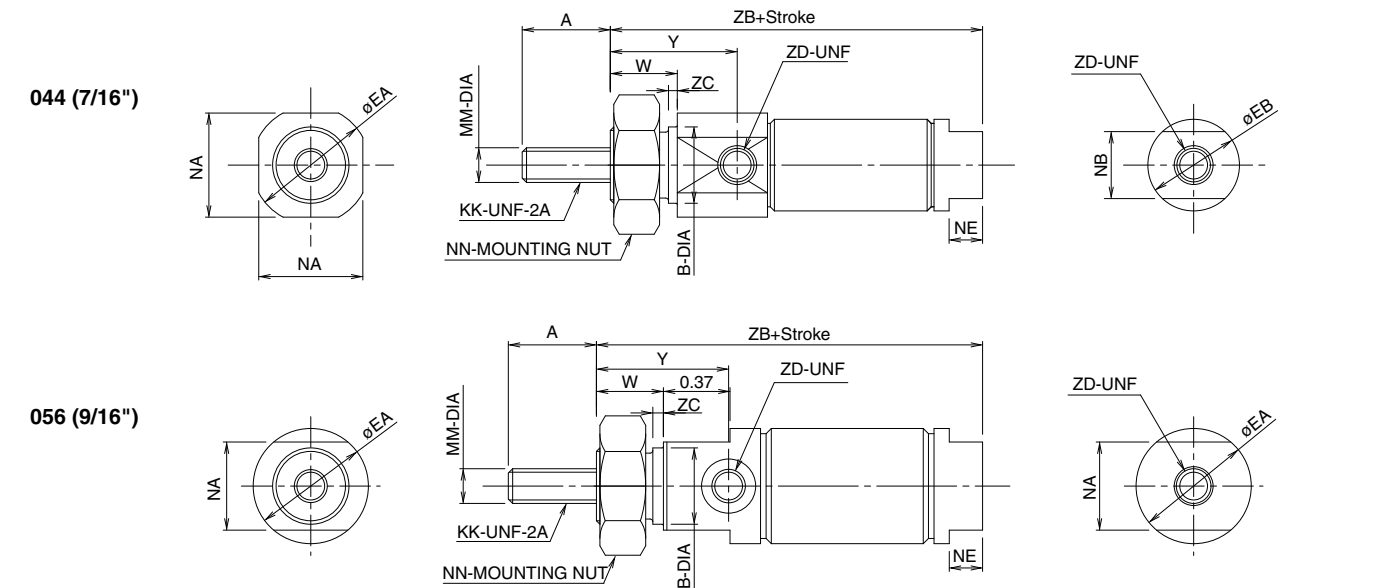
* Solid state switches marked with "○" are produced upon receipt of order.
 * D-B54, B64, and B59W cannot be mounted for bore size 044 and 056.

* For details about auto switches with pre-wired connector, refer to Best Pneumatics catalog.
 * D-A9□, M9□, M9□W are shipped together.
 (Only switch mounting bracket is assembled at the time of shipment.)
 * D-M9□M and M9□VM which lead wire length is 1 m are available from July, 2008.

Series **NCM**

Dimensions: Double Acting, Single Rod

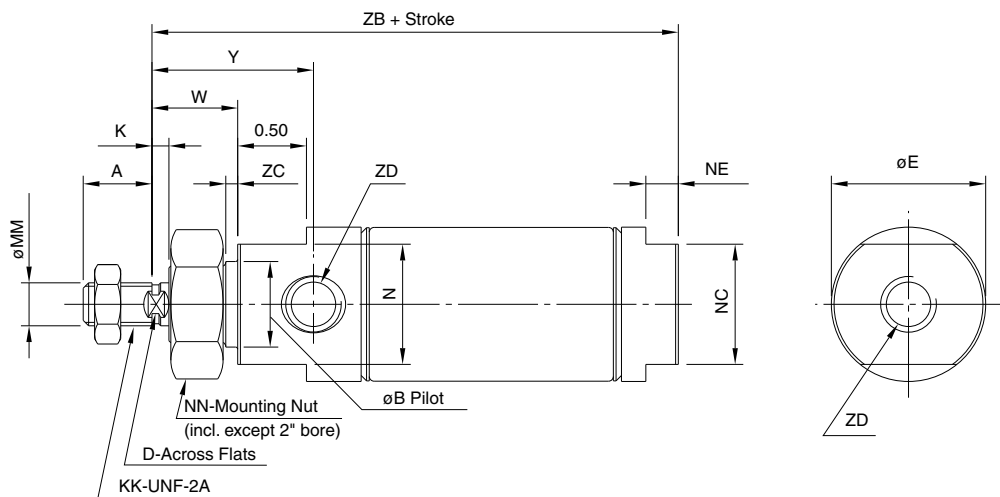
Front nose mount: NC(D)MB



(inch)

Bore size (inch)	A	B	EA	EB	KK	MM	NA	NB	NE	NN	W	Y	ZC	ZD	ZB No bumper, No magnet	ZB With bumper, No magnet	ZB No bumper, With magnet	ZB With bumper, With magnet
044 (7/16")	0.50	0.437 ⁰ _{-0.004}	0.669	0.520	No.10-32	0.197	0.59	0.38	0.19	7/16-20	0.38	0.72	0.05	No.10-32	2.11	2.30	2.36	2.55
056 (9/16")	0.50	0.437 ⁰ _{-0.004}	0.654	—	No.10-32	0.197	0.50	—	0.19	7/16-20	0.38	0.75	0.06	No.10-32	2.19	2.32	2.19	2.32

075 (3/4"), 088 (7/8"), 106 (1-1/16"), 125 (1-1/4"), 150 (1-1/2"), 200 (2")



(inch)

Bore size (inch)	MM	KK	A	B	D	E	K	N	NC	NE	NN	W	Y	ZC	ZD	ZB No bumper	ZB With bumper
075 (3/4")	0.250	1/4-28	0.50	0.624 ⁰ _{-0.003}	—	0.86	—	0.75	0.62	0.12	5/8-18	0.50	0.95	0.09	1/8 NPT	2.97	2.97
088 (7/8")	0.250	1/4-28	0.50	0.624 ⁰ _{-0.003}	—	0.93	—	0.75	0.75	0.18	5/8-18	0.50	0.95	0.09	1/8 NPT	2.69	2.94
106 (1-1/16")	0.312	5/16-24	0.50	0.624 ⁰ _{-0.003}	0.25	1.12	0.12	0.88	0.88	0.24	5/8-18	0.62	1.17	0.09	1/8 NPT	3.25	3.38
125 (1-1/4")	0.437	7/16-20	0.75	0.749 ⁰ _{-0.003}	0.38	1.32	0.25	1.06	1.06	0.25	3/4-16	0.88	1.62	0.09	1/8 NPT	3.75	4.00
150 (1-1/2")	0.437	7/16-20	0.75	0.749 ⁰ _{-0.003}	0.38	1.56	0.25	1.25	1.25	0.25	3/4-16	0.88	1.50	0.09	1/8 NPT	3.69	3.82
200 (2")	0.625	1/2-20	0.75	1.375 ⁰ _{-0.003}	0.50	2.06	0.38	1.75	1.75	0.31	1-1/4-12	1.31	2.03	0.12	1/4 NPT	4.69	4.95