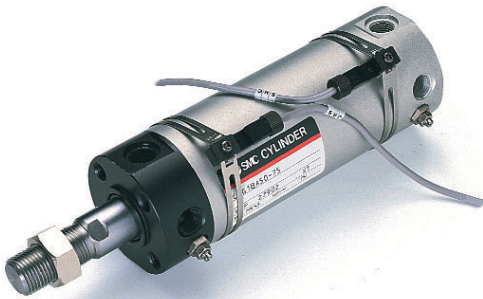




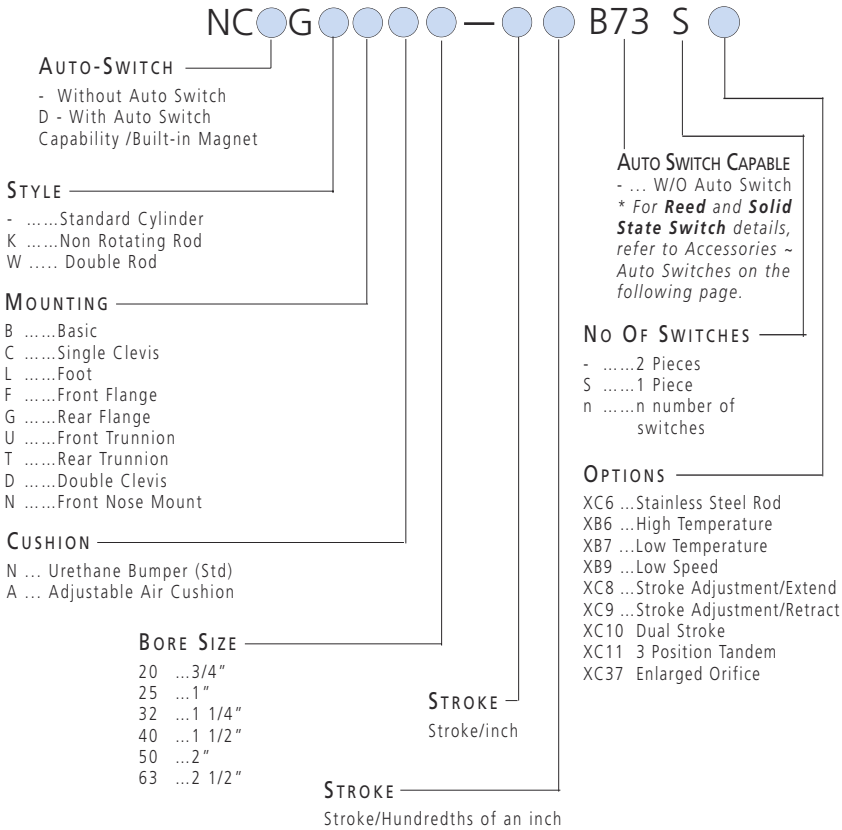
AIR CYLINDER SERIES NCG
BORE SIZES 3/4"~2 1/2"

- ✓ Double acting
- ✓ Clean line
- ✓ A substantial reduction in overall length compared to tie-rod designed cylinders
- ✓ High velocity
- ✓ Magnetic piston for auto switch sensing as an option
- ✓ Non-rotate option available



How To
ORDER

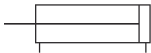
AIR CYLINDER SERIES NCG



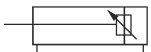
CONSTRUCTION
SPECIFICATIONS

Rod cover	Aluminum alloy (Black Anodizing)
Body	Aluminum alloy (Hard Alumite)
Piston rod	Carbon steel (Hard Chrome Plated)

SYMBOLS
RUBBER CUSHIONED



AIR CUSHIONED



STOCK STROKE LIST FOR ALL STYLES
SERIES NCG

BORE SIZE	STANDARD STOCKED STROKE	MAXIMUM STANDARD STROKE
20	1, 2, 3, 4, 5, 6, 8	20
25	1, 2, 3, 4, 5, 6, 8, 10, 12	25
32	1, 2, 3, 4, 5, 6, 8, 10, 12	40
40	1, 2, 3, 4, 5, 6, 8, 10, 12	45
50	1, 2, 3, 4, 5, 6, 8, 10, 12	55
63	1, 2, 3, 4, 5, 6, 8, 10, 12	55

ACCESSORIES

MOUNTING BRACKET SERIES NCG

Bore Size Inches Mounting Accessory	3/4	1	1 1/4	1 1/2	2	2 1/2
Foot (2 pcs)	NCG-L020	NCG-L025	NCG-L032	NCG-L040	NCG-L050	NCG-L063
Flange	NCG-F020	NCG-F025	NCG-F032	NCG-F040	NCG-F050	NCG-F063
Trunnion	NCG-T020	CG-T025	CG-T032	NCG-T040	NCG-T050	NCG-T063
Double Clevis	NCG-D020	NCG-D025	NCG-D032	NCG-D040	NCG-D050	NCG-D063
Trunnion Bracket	NCG-P020	NCG-P025	NCG-P032	NCG-P040	NCG-P050	NCG-P063
Single Clevis	NCG-C020	NCG-C025	NCG-C032	NCG-C040	NCG-C050	NCG-C063

ACCESSORIES

AUTO SWITCHES

Note: Pre-wired Switches with 3/4 Pin Connectors available, please consult SMC Customer Service

MODEL NUMBER	OPERATING VOLTAGE	MAXIMUM CURRENT OR OPERATING CURRENT RANGE (mA)	INDICATOR LIGHT/ WIRE
D-B54	24VDC 110VAC 220VAC	5~50mA 5~25mA 5~12.5mA	Yes/2 Wire
D-B53	24VDC	5~50mA	Yes/2 Wire
D-B64	24VDC 110VAC 220VAC	50mA 25mA 12.5mA	No/2 Wire
D-B73 D-C73 D-C73C	24VDC 110VAC	5~40mA 5~20mA	Yes/2 Wire
D-B76 D-C76	4~8VDC	20mA	Yes/2 Wire
D-B80 D-C80 D-C80C	24V 48V 110V	50mA 40mA 20mA	No/2 Wire

SOLID STATE SWITCHES MODEL NUMBER	OPERATING VOLTAGE	MAXIMUM CURRENT OR OPERATING CURRENT RANGE (mA)	INDICATOR LIGHT/ WIRE
D-G59	24VDC (10~28VDC)	40mA	Yes/3 Wire (NPN)
D-G5P	-	80mA or less	Yes/3 Wire (PNP)
D-K59	24VDC (10~28VDC)	5~40mA	Yes/2 Wire
D-5NTL	24VDC (10~28VDC)	80mA or less	Yes/3 Wire (NPN)
D-H7A1	24VDC (10~28VDC)	40mA	Yes/3 Wire (NPN)
D-H7A2	-	80mA or less	Yes/3 Wire (PNP)
D-H7B	24VDC (10~28VDC)	5~40mA	Yes/2 Wire
D-H7C	24VDC (10~28VDC)	5~40mA	Yes/2 Wire
D-G59W	24VDC (10~28VDC)	40mA or less	Yes/3 Wire (NPN)
D-G5PW	-	80mA or less	Yes/3 Wire (PNP)
D-K59W	24VDC (10~28VDC)	5~40mA	Yes/2 Wire
D-G59F	-	40mA or less	Yes/4 Wire (NPN)
D-G79	24VDC (10~28VDC)	150mA or less	Yes/3 Wire (NPN)
D-H7PW	-	80mA or less	Yes/3 Wire (PNP)
D-H7BAL	24VDC (10~28VDC)	5~40mA or less	Yes/2 Wire
D-H7LF	26VDC or less	40mA or less	Yes/4 Wire (NPN)
D-H7NF	28VDC or less	40mA or less	Yes/4 Wire (NPN)
D-G5BAL	24VDC (10~28VDC)	5~40mA or less	Yes/2 Wire
D-H7PW	-	80mA or less	No/3 Wire (NPN)
D-H7BW	24VDC (10~28VDC)	5~40mA	Yes/2 Wire

ACCESSORIES

SWITCH BANDS

FOR SWITCHES D-B7, D-B8, D-G7

BM1-01	3/4"
BM1-02	1"
BM1-32	1 1/4"
BM1-04	1 1/2"
BM1-05	2"
BM1-06	2 1/2"

ACCESSORIES

SWITCH BANDS

FOR SWITCHES D-B5, D-B6, D-G5, D-K5

BA-01	3/4"
BA-02	1"
BA-32	1 1/4"
BA-04	1 1/2"
BA-05	2"
BA-06	2 1/2"

ACCESSORIES

SWITCH BANDS

FOR SWITCHES D-C75, D-C8, D-H7

BMA1-020	3/4"
BMA2-025	1"
BMA2-032	1 1/4"
BMA2-040	1 1/2"
BMA2-050	2"
BMA2-063	2 1/2"

TECHNICAL SPECIFICATIONS

STANDARD SERIES NCG

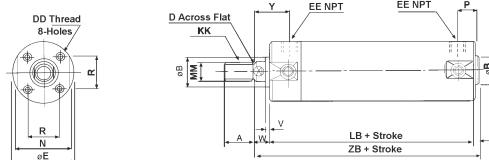
Fluid	Air
Proof Pressure	1.5MPa / 215 PSI
Max Operating Pressure	1MPa / 145 PSI
Min Operating Pressure	0.05MPa / 7 PSI
Ambient and Fluid Temperature	10~60°C / 40~140°F
Piston Velocity	50~1000mm/s / 2 ~ 40 in/sec
Cushion	Urethane Bumper or Adjustable Air Cushion
Lubrication	Non-Lube
Mounting	Basic, Foot, Front & Rear Flange, Front & Rear Trunnion, Double & Single Clevis, Front Nose

REPAIR KIT

STANDARD SERIES NCG

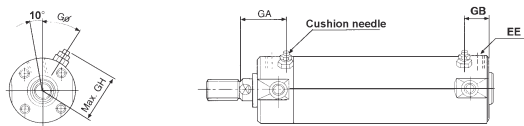
Bore Size	Bumper Design	Air Cushion Design
20	CG1N20-PS	CG1A20-PS
25	CG1N25-PS	CG1A25-PS
32	CG1N32-PS	CG1A32-PS
40	CG1N40-PS	CG1A40-PS
50	CG1N50-PS	CG1A50-PS
63	CG1N63-PS	CG1A63-PS

BASIC MODEL SERIES NCG
RUBBER CUSHION TYPE NC(D)GBN



BORE	MAX STD																	
SIZE	STROKE	A	B	D	DD	E	EE	KK	LB	MM	N	P	R	V	W	Y	ZB	
20	8	0.50	0.472 ^{0 -0.0011}	0.24	8-32x0.28	1.02	1/8	1/4-28 UNF	2.70	0.315	0.94	0.47	0.55	0.08	0.50	0.97	3.28	
25	12	0.50	0.551 ^{0 -0.0011}	0.31	10-32x0.30	1.22	1/8	5/16-24 UNF	2.70	0.394	1.14	0.47	0.65	0.08	0.62	1.09	3.40	
32	12	0.75	0.709 ^{0 -0.0011}	0.39	10-32x0.30	1.50	1/8	7/16-20 UNF	2.78	0.472	1.42	0.43	0.79	0.08	0.88	1.35	3.74	
40	12	0.75	0.984 ^{0 -0.0013}	0.55	1/4-28x0.47	1.85	1/8	7/16-20 UNF	3.06	0.630	1.73	0.47	1.02	0.08	0.88	1.39	4.02	
50	12	0.88	1.181 ^{0 -0.0013}	0.71	5/16-24x0.63	2.28	1/4	1/2-20 UNF	3.53	0.787	2.17	0.51	1.26	0.08	1.19	1.74	4.80	
63	12	0.88	1.260 ^{0 -0.0015}	0.71	3/8-24x0.63	2.83	1/4	1/2-20 UNF	3.53	0.787	2.72	0.51	1.50	0.08	1.19	1.74	4.80	

AIR CUSHION TYPE NC(D)GBA



ADJUSTABLE AIR CUSHION MODEL (INCH)

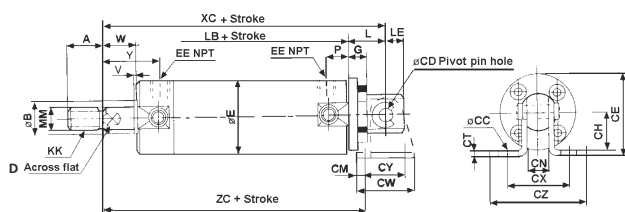
Size	GA	GB	GH	Gø	EE
20	1.05	0.55	0.90	30°	10-32 UN
25	1.17	0.55	0.98	30°	10-32 UN
32	1.43	0.51	1.12	25°	1/8 NPT
40	1.47	0.55	1.30	20°	1/8 NPT
50	1.82	0.59	1.60	20°	1/4 NPT
63	1.82	0.59	1.87	20°	1/4 NPT

LONG STROKE (INCH)

BORE			
SIZE	STROKE RANGE	LB	ZB
20	8.01~20	3.02	3.60
25	12.01~25	3.02	3.72
32	12.01~40	3.09	4.05
40	12.01~45	3.41	4.37
50	12.01~55	4.00	5.27
63	12.01~55	4.00	5.27

Note: Long Stroke design is a three piece construction: Rod Cover, Head Cover and Tube Body

SINGLE CLEVIS TYPE NC(D)GCN_ _ AND NC(D)GCA_ _



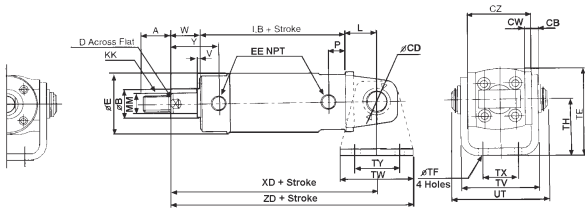
Size	Bore	CC	Single Clevis (inch)								
			CE	CH	CM	CN	CT	CW	CX	CY	CZ
20		0.27	1.39	0.87	0.18	0.38	0.12	1.10	1.25	0.75	1.95
25		0.27	1.49	0.87	0.18	0.38	0.12	1.10	1.25	0.75	1.95
32		0.27	1.63	0.87	0.10	0.50	0.12	1.10	1.38	0.75	2.07
40		0.27	2.31	1.38	0.25	0.62	0.18	1.50	1.86	1.00	2.60
50		0.26	2.52	1.38	0.25	0.75	0.25	1.50	2.12	1.00	3.00
63		0.26	3.17	1.75	0.25	0.75	0.25	1.50	2.12	1.00	3.00

Note: Single Clevis Bracket must be ordered separately

BORE	MAX STD																			
SIZE	STROKE	A	øB	øCD	CN	D	øE	EE	G		KK	LB	LE	MM	P	V	W	Y	XC	ZC
20	8	0.50	0.472 ^{0 -0.0011}	0.25	0.38	0.24	1.02	1/8	0.31		1/4-28 UNF	2.70	0.28	0.315	0.47	0.08	0.50	0.97	3.91	3.63
25	12	0.50	0.551 ^{0 -0.0011}	0.25	0.38	0.31	1.22	1/8	0.33		5/16-24 UNF	2.70	0.28	0.394	0.47	0.08	0.62	1.09	4.00	3.72
32	12	0.75	0.709 ^{0 -0.0011}	0.25	0.50	0.39	1.50	1/8	0.61		7/16-20 UNF	2.78	0.39	0.472	0.43	0.08	0.88	1.35	4.72	4.59
40	12	0.75	0.984 ^{0 -0.0013}	0.375	0.62	0.55	1.85	1/8	0.39		7/16-20 UNF	3.06	0.38	0.630	0.47	0.08	0.88	1.39	4.81	4.25
50	12	0.88	1.181 ^{0 -0.0013}	0.375	0.75	0.71	2.28	1/4	0.47		1/2-20 UNF	3.53	0.44	0.787	0.51	0.08	1.19	1.74	5.63	5.50
63	12	0.88	1.260 ^{0 -0.0015}	0.375	0.75	0.71	2.83	1/4	0.47		1/2-20 UNF	3.53	0.44	0.787	0.51	0.08	1.19	1.74	5.63	5.50

DIMENSIONS

DOUBLE CLEVIS TYPE NC(D)GDN_- AND NC(D)GDA_-



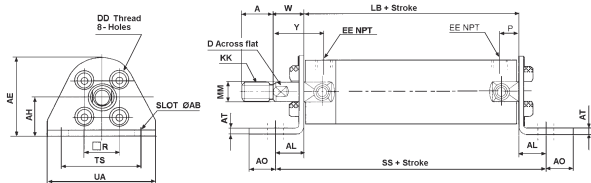
BORE	DOUBLE CLEVIS (INCH)							
SIZE	TY	TF	TV	TE	TH	TX	TW	UT
20	1.10	0.22	1.39	1.50	0.98	0.63	1.66	1.71
25	1.10	0.22	1.55	1.79	1.18	0.79	1.66	1.89
32	1.10	0.28	1.93	2.13	1.38	0.87	1.88	2.34
40	1.18	0.28	2.28	2.50	1.57	1.18	2.20	2.81
50	1.42	0.35	2.83	3.11	1.97	1.42	2.52	3.39
63	1.81	0.43	3.54	3.78	2.36	1.81	2.92	4.15

BORE	MAX STD	A	øB	CB	øCD	CW	CZ	D	øE	EE	KK	L	LB	MM	P	V	W	XD	Y	ZD
SIZE	STROKE																			
20	8	0.50	0.472 ⁰ _{-0.0011}	0.12	0.31	0.12	1.14	0.24	1.02	1/8	1/4-28 UNF	0.55	2.70	0.315	0.47	0.08	0.50	3.75	0.97	4.58
25	12	0.50	0.551 ⁰ _{-0.0011}	0.12	0.39	0.12	1.30	0.31	1.22	1/8	5/16-24 UNF	0.63	2.70	0.394	0.47	0.08	0.62	3.95	1.09	4.78
32	12	0.75	0.709 ⁰ _{-0.0011}	0.18	0.47	0.18	1.57	0.39	1.50	1/8	7/16-20 UNF	0.79	2.78	0.472	0.43	0.08	0.88	4.45	1.35	5.39
40	12	0.75	0.984 ⁰ _{-0.0013}	0.18	0.55	0.18	1.93	0.55	1.85	1/8	7/16-20 UNF	0.87	3.06	0.630	0.47	0.08	0.88	4.81	1.39	5.91
50	12	0.88	1.181 ⁰ _{-0.0013}	0.24	0.63	0.24	2.36	0.71	2.28	1/4	1/2-20 UNF	0.98	3.53	0.787	0.51	0.08	1.19	5.70	1.74	6.96
63	12	0.88	1.260 ⁰ _{-0.0015}	0.31	0.71	0.31	2.91	0.71	2.83	1/4	1/2-20 UNF	1.18	3.53	0.787	0.51	0.08	1.19	5.90	1.74	7.38

Note: Double Clevis Bracket and Double Bracket Pin must be ordered separately

DIMENSIONS

FOOT TYPE NC(D)GLN_- AND NC(D)GLA_-



LONG STROKE (INCH)

BORE	STROKE RANGE	LB	ZB
SIZE			
20	8.01~20	3.02	3.60
25	12.01~25	3.02	3.72
32	12.01~40	3.09	4.05
40	12.01~45	3.41	4.37
50	12.01~55	4.00	5.27
63	12.01~55	4.00	5.27

Note: Long Stroke design is a three piece construction: Rod Cover, Head Cover and Tube Body

BORE	MAX STD	A	AB	AE	AH	AL	AO	AT	D	DD	EE	KK	LB	MM	P	R	SS	TS	UA	W	Y
SIZE	STROKE																				
20	8	0.50	0.27	1.44	0.81	0.56	0.44	0.12	0.24	8-32x0.28	1/8	1/4-28 UNF	2.70	0.315	0.47	0.55	3.82	1.50	1.88	0.50	0.97
25	12	0.50	0.27	1.52	0.81	0.56	0.44	0.12	0.31	10-32x0.30	1/8	5/16-24 UNF	2.70	0.394	0.47	0.65	3.82	1.50	1.88	0.62	1.09
32	12	0.75	0.28	1.83	1.00	0.75	0.75	0.12	0.39	10-32x0.30	1/8	7/16-20 UNF	2.78	0.472	0.43	0.79	4.28	1.88	2.50	0.88	1.35
40	12	0.75	0.28	2.02	1.00	0.72	0.78	0.12	0.55	1/4-28x0.47	1/8	7/16-20 UNF	3.06	0.630	0.47	1.02	4.50	1.88	2.50	0.88	1.39
50	12	0.88	0.34	2.84	1.50	1.00	0.62	0.25	0.71	5/16-24x0.63	1/4	1/2-20 UNF	3.53	0.787	0.51	1.26	5.53	2.24	3.12	1.19	1.74
63	12	0.88	0.34	3.29	1.75	1.00	0.62	0.25	0.71	3/8-24x0.63	1/4	1/2-20 UNF	3.53	0.787	0.51	1.50	5.53	2.88	3.75	1.19	1.74