

**Features**

**Series S**

Silverair round cylinders are designed for application in OEM and

MRO applications where a disposable, light duty cylinder is preferred. Prelubed, they're suitable for operations without externally applied lubrication. Constructed of stainless steel and aluminum, they stand up to the attack of corrosive environments.

- Silverair cylinders feature stainless steel (Series 304) barrels. Drawn and polished internal diameters have superior lube-holding characteristics for a low friction surface that gives smooth performance and outstanding cycle life.
- Piston rods are centerless ground and polished Series 303 stainless steel, providing smooth rod movement.
- Lightweight aluminum heads feature full flow ports for maximum air flow and smooth response.
- Piston rod threads are roll formed to provide superior strength and durability.
- U-cup design on piston seals provides continuous cylinder barrel contact, minimizes blow-by and offers longer seal life than O-ring piston seals.
- The oil-permeated bronze rod bushing is precision ball sized for reduced friction and increased cylinder life.
- Return springs on single-acting cylinders are made from a high tensile alloy for exceptional performance and long service life.
- Silverair cylinders are prelubricated, so they're ideal in applications where external lubrication can't be supplied.



**Performance Specifications**

Bore Sizes:	1/2", 3/4", 1-1/16", 1-1/4", 1-1/2", 2" and 2-1/2"
Air Pressure:	to 200 p.s.i. (14 bar)
Operating Temperature Range:	-40° to 160° F (18° to 82° C)
Maximum Output Force:	982 pounds (2-1/2-inch bore cylinder)
Viton Seals Models:	<u>For high heat applications. Consult factory.</u>

Range of mounting styles and attachable mounts/accessories covers wide range of application requirements.

Magnetic pistons available for use with Hall Effect or Reed Switches.

**Ordering**

See following page.

# Pneumatic Cylinders

## Silverair™

### Ordering

Include dashes. Dashes are significant.

**S X XX - X X X X - XXX**

#### SERIES

**S** Stainless Steel

#### CYLINDER TYPE

**S** Single Acting, Spring Return (Not available on 25 bore size)  
**D** Double Acting  
**R** Single Acting, Spring Extend (Not available on 25 bore size)  
**H** Single Acting, Hex Rod (Non-rotating rod)  
 (Spring return only) Not available on 14, 17, 20  
 or 25 bore sizes)

#### BORE SIZE

**05** 1/2 in.  
**07** 3/4 in.  
**11** 1-1/16 in. (Not available on type SH)  
**14** 1-1/4 in.  
**15** 1-1/2 in. (Not available on type SH)  
**17** 1-3/4 in.  
**20** 2 in. (Not available on type SH)  
**25** 2-1/2 in. (Not available on type SS, SR or SH)

#### MOUNTING STYLE

**B** Block Mount (Available on 05, 07, 11 and 15 bore size only)  
 (Not available on type SH)  
**D** Double Rod End (Double Acting Only)  
**N** Nose Mount  
**P** Universal Mount (Pivot or Double End)

*Silverair attachable mounts must be ordered separately.  
 See page 14.*

#### Note A:

- Bumpers
- Not available with magnetic piston option.
  - Standard on double rod ends.
  - Do not affect external dimensions.

**Note B:** Wearstrip is standard on double-acting nose mount, universal mount and block front mount of 5" or more of stroke. Also on single acting, spring extend cylinders with 3" or more of stroke. Not available on 1/2" bore cylinders. Not available on single acting, hex rod (non-rotating rod)

**Note:** Highlighted selections denote most popular models.

#### STROKE LENGTH

WHOLE INCHES	FRACTIONS
<b>00</b> = 0 in	<b>0</b> = None
<b>01</b> = 1 in	<b>1</b> = 1/8 in
<b>02</b> = 2 in	<b>2</b> = 1/4 in
<b>03</b> = 3 in	<b>3</b> = 3/8 in
<b>04</b> = 4 in	<b>4</b> = 1/2 in
<b>05</b> = 5 in	<b>5</b> = 5/8 in
<b>06</b> = 6 in	<b>6</b> = 3/4 in
<b>10</b> = 10 in	<b>7</b> = 7/8 in

etc.

For recommended maximum stroke lengths, per type, see pages 16 through 21.

(1/2" Increments, 1/2" through 6")

#### WEARSTRIP (Note B)

**4** None (standard)  
**W** Wearstrip

#### PACKING

**B** Buna N  
**V** Viton

#### MAGNET/ BUMPERS (Note A)

**4** No Bumpers, no magnet

**B** Bumpers

**M** Magnetic Piston (Not available in 1/2" bore or for single-acting cylinders).  
 For switch information, see page 23.

## Ordering

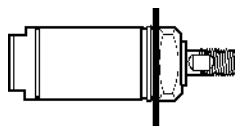
### Series S (Mounting Kits)

CYLINDER BORE (INCHES)							
1/2	3/4	1-1/16	1-1/4	1-1/2	1-3/4	2	2-1/2
<b>L-MOUNT (Single Acting)</b>							
Order Mounting Nut below.							
118108-5	118108-7	118108-11	118108-14	118108-14	118108-17	118108-20	118108-25
<b>L-MOUNT (Double Acting)</b>							
Order Mounting Nut below.							
118108-50	118108-11	118108-11	118108-14	118108-14	118108-17	118108-20	118108-25
<b>MOUNTING NUT (Single Acting*)</b>							
118109-5	118109-7	118109-11	118109-14	118109-14	118109-17	118109-20	118109-25
<b>MOUNTING NUT (Double Acting)</b>							
118109-50	118109-11	118109-11	118109-14	118109-14	118109-17	118109-20	118109-25
<b>PIVOT BRACKET (Pivot Pin Included)</b>							
117523-5	117523-7	117523-7	117523-14	117523-15	117523-15	117523-20	117523-20
<b>ROD CLEVIS (Pivot Pin Included)</b>							
117555-5	117555-7	117555-11	117555-14	117555-14	117555-17	117555-17	117555-17
<b>PIVOT PINS (Standard Equipment)</b>							
<b>Pin</b>							
118119-5	118119-7	118119-7	118119-14	-	-	118119-20	-
<b>Retainer</b>							
118592-5	118592-5	118592-5	118592-5	118592-15	118592-15	118592-15	-
<b>Optional Press Fit Pin</b>							
118121-5	118121-7	118121-7	118121-14	118121-15	118121-15	-	-
<b>FOR DOUBLE END MOUNTING OF SINGLE-ACTING CYLINDERS, ORDER THE FOLLOWING:</b>							
1/2-inch bore	One 118108-5 L-Mount and one 118109-5 Nut for rear mounting thread. One 118108-50 L-Mount and one 118109-50 Nut for front mounting thread.						
3/4-inch bore	Two 118108-7 L-Mounts, one 118109-7 Nut for rear mounting thread and one 118109-11 Nut for front mounting thread.						

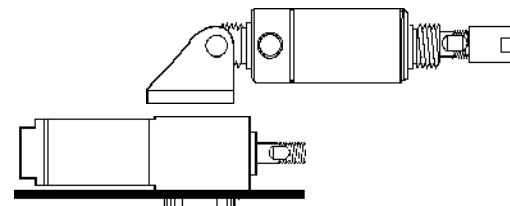
**NOTE:** Silverair accessories are bright zinc plated steel.



**L-Mount**



**Mounting Nut**



**Block Front Mount**

## Dimensional Data

### Series S (Mounting Kit)

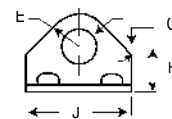
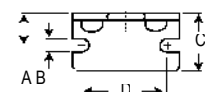
Dim Ref	CYLINDER BORE (INCHES)									
	1/2 Single Acting	1/2 Double Acting	3/4 Single Acting	3/4 Double Acting	1-1/16 AI Types	1-1/4 AI Types	1-1/2 AI Types	1-3/4 AI Types	2 AI Types	2-1/2 AI Types

#### L-Mount Bracket

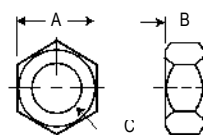
A	.31	.31	.44	.56	.56	.75	.75	.94	1.00	1.00
B	.19	.19	.19	.27	.27	.28	.28	.34	.34	.34
C	.62	.62	.75	1.00	1.00	1.50	1.50	1.50	1.62	1.62
D	1.00	1.00	1.25	1.50	1.50	1.89	1.89	2.25	2.25	2.88
E	.37	.37	.40	.56	.56	.75	.75	.88	1.00	1.25
F	.38	.44	.50	.63	.63	.76	.76	1.04	1.38	1.50
G	56°	56°	45°	45°	45°	49°	49°	52°	60°	63°
H	.57	.57	.69	.81	.81	1.00	1.00	1.25	1.50	1.75
J	1.38	1.38	1.63	1.88	1.88	2.50	2.50	3.00	3.00	3.75

#### Mounting Nut

A	.56	.68	.75	.93	.93	1.12	1.12	1.50	1.85	2.06
B	.22	.25	.31	.37	.37	.42	.42	.56	.50	.50
C	3/8-24	7/16-20	1/2-20	5/8-18	5/8-18	3/4-16	3/4-16	1-14	1-1/4-12	1-3/8-12



L-Mount



Mounting Nut

CYLINDER BORE (INCHES)								
Dim	1/2	3/4	1-1/16	1-1/4	1-1/2	1-3/4	2	2-1/2
Ref	All	All	All	All	All	All	All	All
	Types	Types	Types	Types	Types	Types	Types	Types

#### Pivot Bracket

A	.20	.26	.26	.32	.39	.39	.45	.45
B	.52	.65	.65	.77	.96	.96	1.20	1.20
C	.43	.75	.75	.75	1.00	1.00	1.00	1.00
D	.54	.87	.87	.94	1.25	1.25	1.43	1.43
E	.22	.31	.31	.31	.38	.38	.38	.38
F	.16	.26	.26	.26	.38	.38	.38	.38
G	50°	53°	53°	53°	52°	52°	48°	48°
H	.64	.87	.87	1.06	1.37	1.37	1.68	1.68
J	.75	1.19	1.19	1.25	1.63	1.63	1.81	1.81

#### Rod Clevis

A	.38	.50	.50	.75	.75	.75	.75	.75
B	.19	.25	.25	.38	.38	.38	.38	.38
C	.75	.94	.94	1.30	1.30	1.30	1.30	1.30
D	.38	.50	.50	.75	.75	.75	.75	.75
E	10-32	1/4-28	5/16-24	7/16-20	7/16-20	1/2-20	1/2-20	1/2-20
F	.19	.25	.25	.38	.38	.38	.38	.38
G	.94	1.20	1.20	1.70	1.70	1.70	1.70	1.70
H	.12	.16	.16	.25	.25	.31	.31	.31

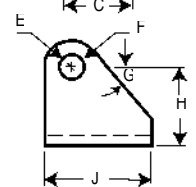
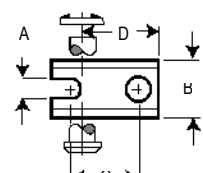
#### Pivot Pin

As supplied with Pivot Bracket:

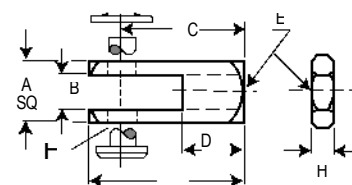
A	.69	.81	.81	.94	1.13	1.13	1.44	1.44
B	.15	.25	.25	.25	.37	.37	.37	.37

For press fit into pivot hole:

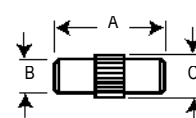
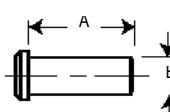
A	.50	.75	.75	.87	1.12	1.12	—	—
B	.15	.24	.24	.24	.37	.37	—	—
C	.17	.26	.26	.26	.39	.39	—	—



Pivot Bracket



Rod Clevis



Pivot Pins



Performance Specifications

Series S (Spring Return, Nose Mount)

Model SSXX-N4B4-XXX - (Max. Stroke - 4 inches)	
Bore sizes:	1/2", 3/4", 1-1/16", 1-1/4", 1-1/2" 1-3/4", 2"
Hex Mounting Nut:	Standard (except on 2-inch models).
Options:	Wearstrip (except on 1/2-inch bore), bumper, Viton
Accessories:	L-mount, rod clevis
Notes:	No rod bushing on 1/2-inch models - front head is hard anodized.

Model SHXX-N4B4-XXX - (Max. Stroke - 4 inches)	
Nonrotating	
Bore sizes:	1/2", 3/4", 1-1/16", 1-1/2"
Hex Mounting Nut:	Standard
Options:	Wearstrip (except on 1/2-inch bore),
Accessories:	L-mount, rod clevis
Notes:	No rod bushing - front head is hard anodized.

Series S (Spring Return, Universal Mount)

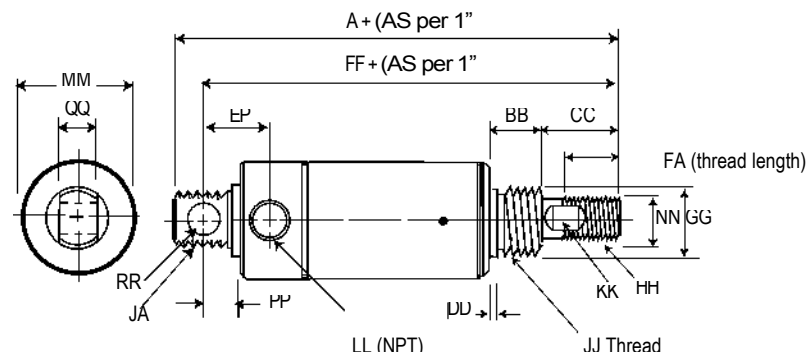
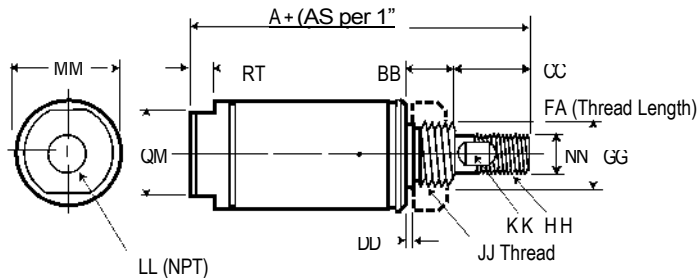
Model SSXX-P4B4-XXX - (Max. Stroke - 4 inches)	
Bore sizes:	1/2", 3/4", 1-1/16", 1-1/4", 1-1/2" 1-3/4", 2"
Options:	Wearstrip (except on 1/2-inch bore), bumper, Viton
Accessories:	Pivot bracket, rod clevis, L-mount, mounting nut. Order mounting nuts as required.
Notes:	No rod bushing on 1/2-inch models - front head is hard anodized.

Model SHXX-P4B4-XXX - (Max. Stroke - 4 inches)	
Nonrotating	
Bore sizes:	1/2", 3/4", 1-1/16", 1-1/2"
Options:	Wearstrip (except on 1/2-inch bore), bumper, Viton
Accessories:	Pivot bracket, rod clevis, L-mount, mounting nut. Order mounting nuts as required.
Notes:	No rod bushing - front head is hard anodized.

Dimensional Data

Series S (Spring Return, Universal Mount)

Series S (Spring Return, Nose Mount)



Spring Forces

Bore Size	Spring Force (lbs.)	
	Normal	Actuated
1/2"	1	2
3/4"	1.5	5
1-1/16"	4	8
1-1/4"	7	14
1-1/2"	6	12
1-3/4"	12	24
2"	15	30

## Pneumatic Cylinders

### Dimensional Data

#### Series S

Dim Code	Cylinder Description	CYLINDER BORE (INCHES)						L
		1/2	3/4	1-1/16	1-1/4	1-1/2	1-3/4	
Single Acting								
A	SSXX-N4B4-XXX	1.81	2.00	2.56	3.41	3.19	3.85	4.17
A	SHXX-N4B4-XXX	2.06	2.25	2.68	—	3.44	—	—
A	SSXX-P4B4-XXX	2.50	3.06	3.44	4.50	4.25	5.41	5.54
A	SHXX-P4B4-XXX	2.75	3.31	3.56	—	4.50	—	—
AS	SSXX-N4B4-XXX	1.88	1.69	1.56	1.81	1.69	2.00	2.00
AS	SHXX-N4B4-XXX	1.88	1.69	1.56	—	1.69	—	—
AS	SSXX-P4B4-XXX	1.88	1.69	1.56	1.81	1.69	2.00	2.00
AS	SHXX-P4B4-XXX	1.88	1.69	1.56	—	1.69	—	—
BB	SSXX-N4B4-XXX	.31	.44	.50	.62	.62	.75	.81
BB	SHXX-N4B4-XXX	.31	.44	.50	—	.62	—	—
BB	SSXX-P4B4-XXX	.31	.44	.50	.62	.62	.75	.81
BB	SHXX-P4B4-XXX	.31	.44	.50	—	.62	.75	.81
CC	SSXX-XXXX-XXX	.50	.50	.62	1.00	1.00	1.19	—
CC	SHXX-XXXX-XXX	.75	.75	.75	—	1.25	—	—
DD	All Types	.04	.07	.07	.07	.07	.09	.12
EP	All Types	.42	.66	.62	.91	.81	.98	1.00
FA	All Types	.50	.50	.50	.50	.75	.88	.88
FF	SSXX-X4B4-XXX	2.25	2.77	3.16	4.14	3.88	4.91	5.11
GG	All Types	.375	.500	.625	.750	.750	1.03	1.375
HH	All Types	10-32	1/4-28	5/16-24	7/16-20	7/16-20	1/2-20	1/2-20
JA	SSXX-N4B4-XXX	7/16-20	5/8-18	5/8-18	3/4-16	3/4-16	1-14	1-1/4-12
JA	SHXX-N4B4-XXX	3/8-24	5/8-18	5/8-18	—	3/4-16	—	—
JJ	All Types	3/8-24	1/2-20	5/8-18	3/4-16	3/4-16	1-14	1-1/4-12
KK	Wrench Flat	None	None	.25	.38	.38	.44	.50
LL	All Types	10-32	1/8	1/8	1/8	1/8	1/4	1/4
MM	All Types	.56	.81	1.12	1.31	1.55	1.81	2.07
NN	Standard Rod	.187	.250	.312	.437	.437	.500	.625
NN	Hex Flats	.187	.250	.375	—	.437	—	—
PP	All Types	.25	.34	.34	.41	.50	.50	.57
QM	All Types	.37	.62	.87	.87	.82	1.25	1.25
QQ	All Types	.31	.38	.38	.50	.62	.62	.75
RR	All Types	.16	.25	.25	.25	.38	.38	.38
RT	All Types	.12	.16	.25	.18	.25	.25	

Performance Specifications

Series S (Spring Extend, Nose Mount)

Model SRXX-N4B4-XXX - (Max. Stroke - 4 inches)	
Bore sizes:	1/2", 3/4", 1-1/16", 1-1/4", 1-1/2" 1-3/4", 2"
Hex Mounting Nut:	Standard
Options:	Bumper, Viton
Accessories:	Rod clevis, L-mount
Wearstrip:	Not available on 1/2-inch bore. Standard with 3 inches of stroke, or more (optional on shorter strokes).
Notes:	No rod bushing on 1/2-inch models - front head is hard anodized.

Series S (Spring Extend, Universal Mount)

Model SRXX-P4B4-XXX - (Max. Stroke - 4 inches)	
Bore sizes:	1/2", 3/4", 1-1/16", 1-1/4", 1-1/2" 1-3/4", 2"
Options:	Bumper, Viton
Accessories:	Pivot bracket, rod clevis, L-mount, mounting nut.
Wearstrip:	Not available on 1/2-inch bore. Standard with 3 inches of stroke, or more (optional on shorter strokes).
Notes:	No rod bushing on 1/2-inch models - front head is hard anodized.

Series S (Block Front Mount - Spring Extend or Spring Return)

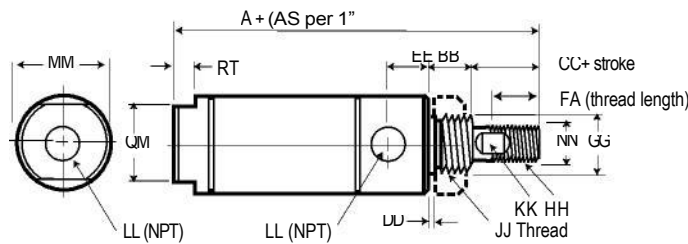
Model SSXX-B4B4-XXX - (Max. Stroke - 4 inches) (Spring Return)	
Bore sizes:	1/2", 3/4", 1-1/16"
Options:	Wearstrip (except on 1/2-inch bore), bumper, Viton
Accessories:	Rod clevis
Notes:	No rod bushing on 1/2-inch models - front head is hard anodized. Head is hard anodized.

Model SRXX-B4B4-XXX (Spring Extend, Illustrated)  
(Max. Stroke - 4 inches)

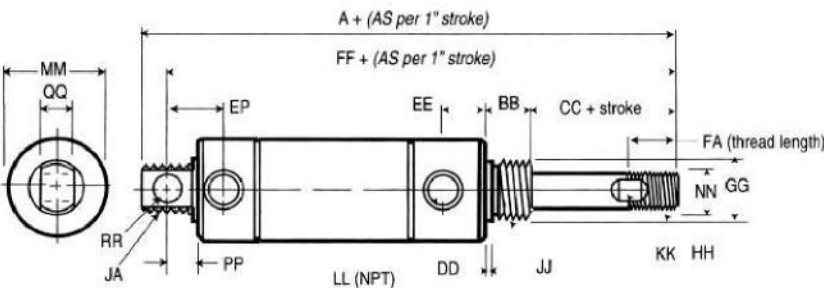
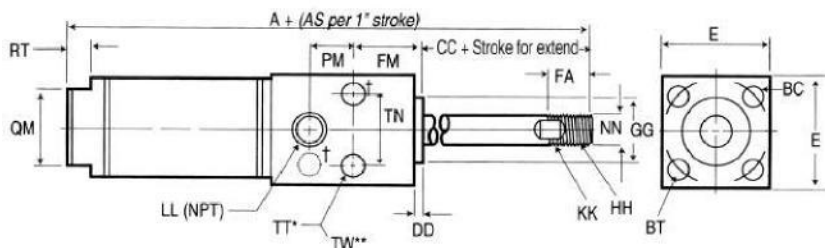
Bore sizes:	1/2", 3/4", 1-1/16"
Options:	Bumper, Viton
Accessories:	Rod clevis
Wearstrip:	Not available on 1/2-inch bore. Standard with 3 inches of stroke, or more (optional on shorter strokes).
Notes:	No rod bushing on 1/2-inch models - front head is hard anodized.

Dimensional Data

Series S (Spring Extend, Nose Mount)



Series S (Block Front Mount - Spring Extend or Spring Return)



Spring Forces

Bore Size	Spring Force (lbs.) Normal	Spring Force (lbs.) Actuated
1/2"	1	2
3/4"	1.5	5
1-1/16"	4	8
1-1/4"	7	14
1-1/2"	6	12
1-3/4"	12	24
2"	15	30

\* TT - Two thru holes drilled and counterbored on port side for cap screw size listed.  
\*\* TW - Above thru holes tapped on opposite side for additional mounting option.  
† Mounting hole locations for 1/2-inch models.

Series S (Spring Extend, Universal Mount)



# Pneumatic Cylinders

## Silverair™

### Dimensional Data

#### Series S

Dim Code	Cylinder Description	CYLINDER BORE (INCHES)						
		1/2	3/4	1-1/16	1-1/4	1-1/2	1-3/4	2
Single Acting								
A	SRXX-N4B4-XXX	2.42	2.78	3.28	4.25	4.00	5.03	5.11
A	SRXX-P4B4-XXX	3.12	3.84	4.15	5.33	5.06	6.59	6.48
A	SSXX-B4B4-XXX	2.42	3.34	4.28	—	5.00	—	—
A	SRXX-B4B4-XXX	2.42	3.34	4.28	—	5.18	—	—
AS	SRXX-N4B4-XXX	1.44	2.69	2.56	2.81	2.69	3.00	3.00
AS	SRXX-P4B4-XXX	1.44	2.69	2.56	2.81	2.69	3.00	3.00
AS	SSXX-B4B4-XXX	1.88	1.69	1.56	—	1.69	—	—
AS	SRXX-B4B4-XXX	2.88	2.69	2.56	—	2.69	—	—
BB	All Types	.41	.50	.50	.62	.62	.75	.81
BC	Bolt Circle Dia.	.75	1.00	1.25	—	1.75	—	—
BT	Threaded Hole	8-32(2)	10-32(2)	10-32(2)	—	1/4-20	—	—
CC	SRXX-N4B4-XXX	.50	.50	.62	1.00	1.00	1.19	1.25
CC	SRXX-P4B4-XXX	.50	.50	.62	1.00	1.00	1.19	1.25
CC	SRXX-B4B4-XXX	.50	1.06	1.12	—	1.50	—	—
CC	SSXX-B4B4-XXX	.50	1.06	1.12	—	1.50	—	—
DD	Block Front Mount	.06	.09	.09	—	.12	—	—
DD	All Others	.04	.07	.07	.07	.07	.09	.12
E	Block Front Mount	.75	1.00	1.25	—	1.75	—	—
EE	All Types	.37	.48	.52	.69	.62	.72	.69
EP	SRXX-P4B4-XXX	.42	.66	.62	.91	.81	.98	1.00
FA	Block Front	.50	.75	.75	—	1.25	—	—
FA	All Others	.50	.50	.50	.50	.75	.88	.88
FF	SRXX-P4B4-XXX	5.76	3.55	3.87	4.97	4.69	6.09	6.05
FM	Block Front Mount	.31	.48	.72	—	1.00	—	—
GG	Block Front Mount	.437	.625	.750	—	1.00	—	—
GG	SRXX-XXXX-XXX	.437	.625	.625	.750	.750	1.03	1.375
HH	All Types	10-32	1/4-28	5/16-24	7/16-20	7/16-20	1/2-20	1/2-20
JA	SRXX-P4B4-XXX	7/16-20	5/8-18	5/8-18	3/4-16	3/4-16	1-14	1-1/4-12
JJ	All Types	7/16-20	5/8-18	5/8-18	3/4-16	3/4-16	1-14	1-1/4-12
KK	Wrench Flat	None	None	.25	.38	.38	.44	.50
LL	Block Front Mount	10-32	1/8	1/8	1/8	1/4	—	—
LL	All Others	10-32	1/8	1/8	1/8	1/8	1/4	1/4
MM	All Types	.62	.88	1.12	1.31	1.55	1.81	2.07
NN	All Types	.187	.250	.312	.437	.437	.500	.625
PM	Block Front Mount	.44	.51	.54	—	.66	—	—
PP	SRXX-P4B4-XXX	.25	.34	.34	.41	.50	.50	.57
QM	All Types	.37	.62	.87	.87	.82	1.25	1.25
QQ	SRXX-P4B4-XXX	.31	.38	.38	.50	.62	.62	.75
RR	SRXX-P4B4-XXX	.16	.25	.25	.25	.38	.38	.38
RT	All Types	.12	.16	.25	.18	.25	.25	.31
TN	Block Front Mount	.44	.62	.81	—	1.12	—	—
TT	Block Front Mount	8-32	10-32	10-32	—	1/4-20	—	—
TW	Block Front Mount	—	1/4-20	1/4-20	—	5/16-18	—	—

## Performance Specifications

### Series S (Nose Mount)

Model SDXX-N4B4-XXX - (Max. Stroke - 12 inches)	
<b>Bore sizes:</b>	1/2", 3/4", 1-1/16", 1-1/4", 1-1/2" 1-3/4", 2", 2-1/2"
<b>Hex Mounting Nut:</b>	Standard (Except on 2 and 2-1/2"-inch models).
<b>Options:</b>	Bumper, Viton, Internal Magnet
<b>Accessories:</b>	Rod clevis, L-mount
<b>Wearstrip:</b>	Not available on 1/2-inch bore. Standard with 5 inches of stroke, or more (optional on shorter strokes).
<b>Notes:</b>	No rod bushing on 1/2-inch models - front head is hard anodized.

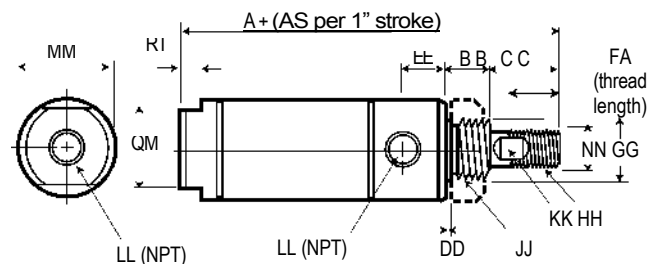
### Series S (Universal Mount)

Model SDXX-P4B4-XXX - (Max. Stroke - 12 inches)	
<b>Bore sizes:</b>	1/2", 3/4", 1-1/16", 1-1/4", 1-1/2" 1-3/4", 2", 2-1/2"
<b>Options:</b>	Bumper, Viton, Internal Magnet
<b>Accessories:</b>	Pivot bracket, rod clevis, L-mount, mounting nut.
<b>Wearstrip:</b>	Not available on 1/2-inch bore. Standard with 5 inches of stroke, or more (optional on shorter strokes).
<b>Notes:</b>	No rod bushing on 1/2-inch models - front head is hard anodized.

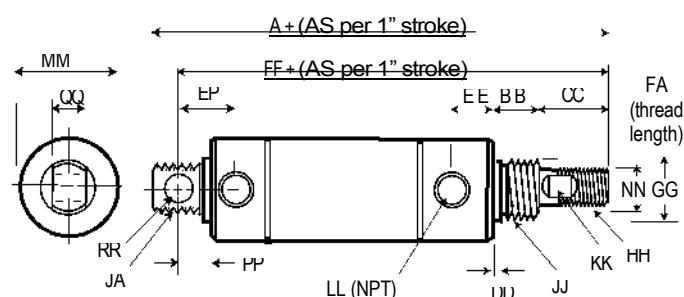
## Dimensional Data

### Double Acting

#### Series S (Nose Mount)



#### Series S (Universal Mount)



Dim Code	Cylinder Description	CYLINDER BORE (INCHES)							
		1/2	3/4	1-1/16	1-1/4	1-1/2	1-3/4	2	2-1/2
A	SDXX-N4B4-XXX	2.62	3.47	3.75	4.75	4.44	5.57	5.56	5.56
A	SDXX-P4B4-XXX	3.31	4.54	4.62	5.83	5.50	7.13	6.93	6.93
AS	All Types	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BB	All Types	.41	.50	.50	.62	.62	.75	.81	.81
CC	All Types	.50	.50	.62	1.00	1.00	1.19	1.25	1.25
DD	All Types	.04	.07	.07	.07	.07	.09	.12	.12
EE	All Types	.37	.48	.52	.69	.62	.72	.69	.69
EP	SDXX-P4B4-XXX	.42	.66	.62	.91	.81	.98	1.0	1.0
FA	All Types	.50	.50	.50	.75	.75	.88	.88	.88
FF	SDXX-P4B4-XXX	6.12	4.25	4.34	5.47	5.12	6.63	6.50	6.50
GG	All Types	.437	.625	.625	.750	.750	1.030	1.50	1.50
HH	All Types	10-32	1/4-28	5/16-24	7/16-20	7/16-20	1/2-20	1/2-20	1/2-20
JJ	All Types	7/16-20	5/8-18	5/8-18	3/4-16	3/4-16	1-14	1-1/4-12	1-3/8-12
KK	All Types	None	None	.25	.38	.38	.44	.50	.50
LL	All Types	10-32	1/8	1/8	1/8	1/8	1/4	1/4	1/4
MM	All Types	.62	.88	1.12	1.31	1.55	1.81	2.07	2.62
NN	All Types	.187	.250	.312	.437	.437	.500	.625	.625
PP	SDXX-P4B4-XXX	.25	.34	.34	.41	.50	.50	.57	.57
QM	SDXX-N4B4-XXX	.37	.62	.87	.87	.87	1.25	1.25	1.75
QQ	SDXX-P4B4-XXX	.31	.38	.38	.50	.62	.62	.75	.75
RR	SDXX-P4B4-XXX	.16	.25	.25	.25	.38	.38	.38	.38
RT	SDXX-N4B4-XXX	.12	.16	.25	.18	.25	.25	.31	.31

## Performance Specifications

### Series S (Double Rod End, Double End Mount)

#### Model SDXX-D4B4-XXX - (Max. Stroke - 12 inches)

**Bore sizes:** 1/2", 3/4", 1-1/16", 1-1/4", 1-1/2", 1-3/4", 2", 2-1/2"

**Hex Mounting Nut:** Standard (Except on 2 and 2-1/2-inch models) and bumpers.

**Options:** Viton, wearstrip.

**Accessories:** L-mount, rod clevis, mounting nut (2, 2-1/2-inch models)

**Notes:** No rod bushing on 1/2-inch models - heads are hard anodized.

### Series S (Block Front Mount)

#### Model SDXX-B4B4-XXX - (Max. Stroke - 12 inches)

**Bore sizes:** 1/2", 3/4", 1-1/16"

**Options:** Wearstrip, Bumpers, Viton, Internal Magnet

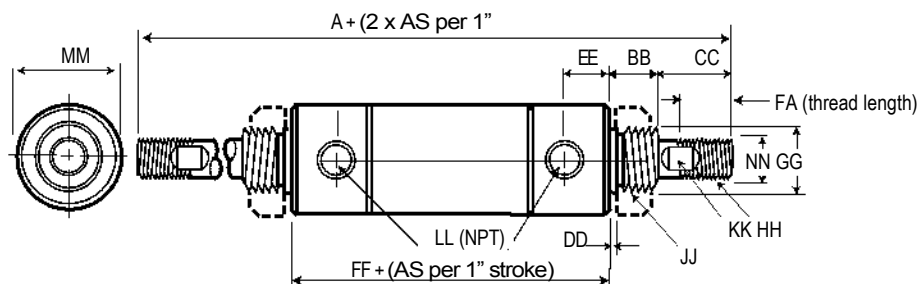
**Accessories:** Rod clevis

**Wearstrip:** Not available on 1/2-inch bore.  
 Standard with 5 inches of stroke, or more  
 (optional on shorter strokes).

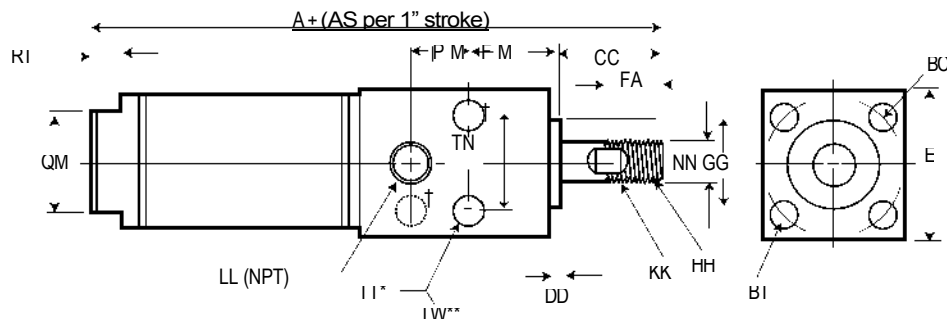
**Notes:** No rod bushing on 1/2-inch models - front head is hard anodized.  
 Wearstrip not available on 1/2-inch bore.  
 Wearstrip is standard with 5 inches of stroke, or more  
 (optional on shorter strokes).

## Dimensional Data

### Series S (Double Rod End, Double End Mount)



### Series S (Block Front Mount)



\* TT - Two thru holes drilled and counterbored on port side for cap screw size listed.

\*\* TW - Above thru holes tapped on opposite side for additional mounting option.

† Mounting hole locations for 1/2-inch models.

## Dimensional Data

### Series S

Dim		Cylinder				CYLINDER BORE (INCHES)			
Code	Description	1/2	3/4	1-1/16	1-1/4	1-1/2	1-3/4	2	2-1/2
Double Acting									
A	SDXX-D4B4-XXX	3.88	5.03	5.32	6.83	6.63	8.57	8.31	8.31
A	Block Front Mount	2.62	4.03	4.75	—	5.44	—	—	—
AS	Block Front Mount	1.00	1.00	1.00	—	1.00	—	—	—
AS	SDXX-D4B4-XXX	.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BB	SDXX-D4B4-XXX	.41	.50	.50	.62	.62	.75	.81	.81
BC	Bolt Circle Dia.	.75	1.00	1.25	—	1.75	—	—	—
BT	Threaded Hole	8-32	10-32	10-32	—	1/4-20	—	—	—
CC	Block Front Mount	.50	1.06	1.12	—	1.50	—	—	—
CC	SDXX-D4B4-XXX	.50	.50	.62	1.00	1.00	1.19	1.25	1.25
DD	Block Front Mount	.06	.09	.09	—	.12	—	—	—
DD	SDXX-D4B4-XXX	.04	.07	.07	.07	.07	.09	.12	.12
E	Block Front Mount	.75	1.00	1.25	—	1.75	—	—	—
EE	SDXX-D4B4-XXX	.37	.48	.52	.69	.62	.72	.69	.69
FA	Block Front Mount	.50	.75	.75	—	1.25	—	—	—
FA	SDXX-D4B4-XXX	.50	.50	.50	.75	.75	.88	.88	.88
FF	SDXX-D4B4-XXX	2.07	3.03	3.07	3.58	3.39	4.69	4.19	4.19
FM	Block Front Mount	.31	.48	.72	—	1.00	—	—	—
GG	Block Front Mount	.437	.625	.750	—	1.00	—	—	—
GG	SDXX-D4B4-XXX	.437	.625	.625	.750	.750	1.030	1.50	1.50
HH	All Types	10-32	1/4-28	5/16-24	7/16-20	7/16-20	1/2-20	1/2-20	1/2-20
JJ	SDXX-D4B4-XXX	7/16-20	5/8-18	5/8-18	3/4-16	3/4-16	1-14	1-1/4-12	1-3/8-12
KK	All Types	None	None	.25	.38	.38	.44	.50	.50
LL	All Types	10-32	1/8	1/8	1/8	1/8	1/4	1/4	1/4
MM	SDXX-D4B4-XXX	.62	.88	1.12	1.31	1.55	1.81	2.07	2.62
NN	All Types	.187	.250	.312	.437	.437	.500	.625	.625
PM	Block Front Mount	.44	.51	.54	—	.66	—	—	—
QM	Block Front Mount	.37	.62	.87	—	.87	—	—	—
RT	Block Front Mount	.12	.16	.25	—	.25	—	—	—
TN	Block Front Mount	.44	.62	.81	—	1.12	—	—	—
TT	Block Front Mount	8-32	10-32	10-32	—	1/4-20	—	—	—
TW	Block Front Mount	—	1/4-20	1/4-20	—	5/16-18	—	—	—

## Pneumatic Cylinders

# Silverair™

---

### Features

#### Series S (Hall Effect Switches)

Hall Effect Sensors are typically used in conjunction with computers, programmable controllers or other solid state devices to sense and process cylinder rod proximity. The solid state circuitry in this sinking switch (NPN) provides clean, fast output without "bounce." The 300 mW power capability restricts its use to low power loads. One switch kit fits all Silverair cylinders for reduced and simplified inventory. 3/8 inch effective area per switch. For two switches, a minimum of 1-inch stroke is recommended.



### Performance Specifications

#### Series S (Hall Effect Switches)

Input Voltage:	5 to 24 VDC
Input Current:	25 mA maximum
Output Voltage Drop:	0.4 VDC maximum
Output Current:	330 mA maximum
Power Dissipation:	300 mW maximum
Temperature Range:	-20° to 185°F (-29° to 85°C)

#### Technical Information:

1. Do not exceed specification, permanent damage to the sensor may occur.
2. For reed switch type sensors, polarity must be observed for the proper functioning of LED. Connect the brown wire in series with load positive (+) and the blue wire to negative (-) or power source space. If the polarity is reversed, reed switch remains functional but LED will remain in "OFF" state.
3. For solid-state type sensors, polarity must also be observed. Connect brown wire to the positive (+) and the blue to the negative (-) of DC power source. The black wire must connect to the load ONLY. If the black wire is accidentally connected to the power source, permanent damage to the sensor may occur.
4. An external protection circuit may be required if the reed switch is used with inductive load, such as relay or solenoid. For DC inductive load, attach an external diode parallel to the load and use R-C circuit parallel with AC inductive load.
5. Keep sensors away from stray magnetic field to prevent malfunctions.
6. When using reed switch with capacitive load or if the lead wire length exceeds 10-meter, and inductor must be installed in series with the sensor to prevent damage (Sticking effect).

### Ordering

#### Series S (Hall Effect Switches)

Model No.	Description
118123-100	w/LED, 5-24 VDC, 24 inch leads (includes 118124 Mounting Kit)
118123-200	w/LED, 5-24 VDC, 144 inch leads (includes 118124 Mounting Kit)

### Features

#### Series S (Reed Switches)

Epoxy encapsulated reed switches are ideal for harsh environments. One switch kit fits all Silverair cylinders for reduced and simplified inventory. 50 watt reed is common in all sensors. Model 117045-300 lights up during reed engagement in low voltage applications. Model 117045-500 lights up over wide voltage range. Model 117045-100 is a basic sensor with no LED.



### Performance Specifications

#### Series S (Reed Switches)

<b>Contacts:</b>	Normally open
<b>Contact Rating:</b>	50 W maximum
<b>Switching Current:</b>	1 A maximum
<b>Initial Contact Resistance:</b>	1 Ohm
<b>Minimum Break Down Voltage:</b>	225 VDC, 275 VAC
<b>Temperature Range:</b>	-40° to 200°F (-40° to 93°C)

#### Technical Information:

1. Do not exceed specification, permanent damage to the sensor may occur.
2. For reed switch type sensors, polarity must be observed for the proper functioning of LED. Connect the brown wire in series with load positive (+) and the blue wire to negative (-) or power source space. If the polarity is reversed, reed switch remains functional but LED will remain in "OFF" state.
3. For solid-state type sensors, polarity must also be observed. Connect brown wire to the positive (+) and the blue to the negative (-) of DC power source. The black wire must connect to the load ONLY. If the black wire is accidentally connected to the power source, permanent damage to the sensor may occur.
4. An external protection circuit may be required if the reed switch is used with inductive load, such as relay or solenoid. For DC inductive load, attach an external diode parallel to the load and use R-C circuit parallel with AC inductive load.
5. Keep sensors away from stray magnetic field to prevent malfunctions.
6. When using reed switch with capacitive load or if the lead wire length exceeds 10-meter, and inductor must be installed in series with the sensor to prevent damage (Sticking effect).

### Ordering

#### Series S (Reed Switches)

One 118124 Mounting Kit is included with each Reed Switch

Model No.	Description
117045-100	No LED, 120 VAC or 200 VDC max., 24 inch leads
117045-200	No LED, 120 VAC or 200 VDC max., 144 inch leads
117045-500	w/LED, 120 VAC or 200 VDC max., 24 inch leads
117045-600	w/LED, 120 VAC or 200 VDC max., 144 inch leads

# Pneumatic Cylinders

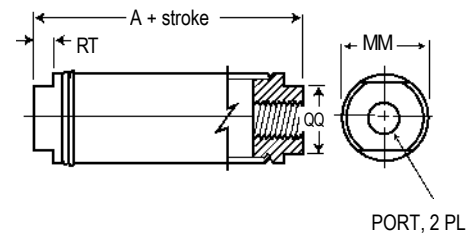
## Silverair™ Volume Chambers

### Features

#### Series S (Stainless Steel Volume Chambers)

Volume chambers are used wherever there is the need to accumulate or store a volume of air or vacuum, such as a time delay in a circuit.

- Stainless steel body and aluminum endcaps offer excellent corrosion resistance in adverse environments.
- Available in lengths up to 24 inches, at 1/8-inch increments, providing a capability to meet very specific pneumatic accumulator applications.



### Performance Specifications

Temperatures Ranges: -40° to 160°F, ambient (-40° to 71°C)

### Ordering

Reference	Cylinder Bore (Inches)			
	3/4	1-1/16	1-1/2	2
A	1.91	2.18	2.26	2.81
QQ	.62	.88	.88	1.25
PORT	.125	.125	.125	.25

Volume (ci)	Cylinder Bore (Inches)			
	3/4	1-1/16	1-1/2	2
Add per 1.0 inch of length	.44	.89	1.77	3.14
Basic Volume (add to total)	.41	.92	1.80	4.44

11811X- X X X

#### BORE SIZE

5 3/4 inch

6 1-1/16 inch

7 1-1/2 inch

8 2 inch

#### CHAMBER LENGTH

(1" Increments, 1" through 4")

#### WHOLE INCHES FRACTIONS

00 = 0 in

0 = None

01 = 1 in

1 = 1/8 in

02 = 2 in

2 = 1/4 in

03 = 3 in

3 = 3/8 in

04 = 4 in

4 = 1/2 in

05 = 5 in

5 = 5/8 in

06 = 6 in

6 = 3/4 in

10 = 10 in

7 = 7/8 in

etc.

- Under 1" stroke, use 00 and fraction designation.

Example: 1/2" stroke = 004

**Note:** Highlighted selections denotes most popular models

