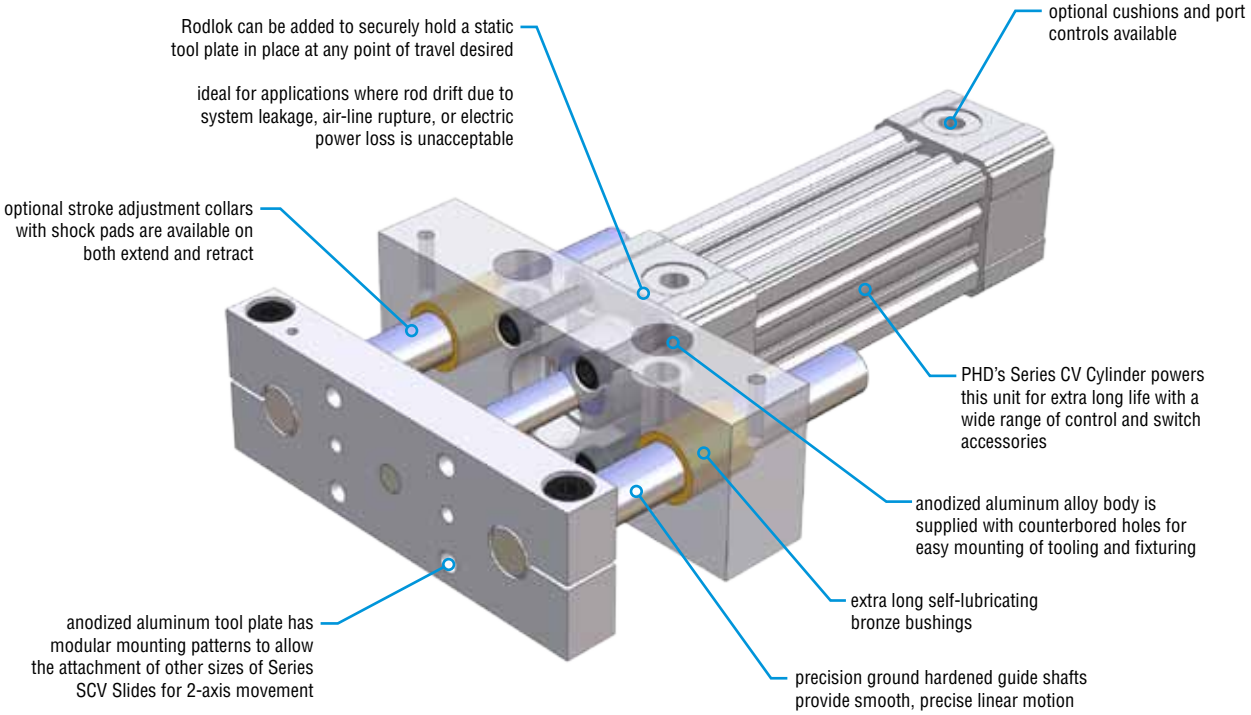
SCV

VERTICAL THRUSTER PNEUMATIC SLIDE

Major Benefits

- Oversize guide rods
- Simple design
- Ideal for non-rotating applications
- Easy tooling mounting to tool plate
- 8 bore sizes
- Units are powered by PHD's rugged Series CV Cylinder, now with improved seal & bearing support



ORDERING DATA: SERIES SCV SLIDES

TO ORDER, SPECIFY:
Product, Cylinder, Type, Design No., Slide Size, Slide Travel, Tool Plate Extension, and Options.

SLIDE TRAVEL

SIZE	TRAVEL in	TRAVEL mm
2	1-6	25-150
3	1-6	25-150
4	1-8	25-200
5	1-8	25-200
6	1-10	25-250
7	1-10	25-250
8	1-12	25-300
9	1-12	25-300

Available in 1" [25 mm] increments. Minimum travel required for all Series SCV Slides is 1" [25 mm]. Consult PHD for other stroke lengths.

SLIDE OPTIONS
AE - Travel adjustment and shock pads on extension**
AR - Travel adjustment and shock pads on retraction**
Z1 - Corrosion resistant; guide shafts are hard chrome plated stainless steel or specially coated hardened steel, and appropriate coating on ferrous parts.

PRODUCT
S - Slide

DESIGN NO.
2 - Imperial
6 - Metric

TOOL PLATE EXTENSION
Additional distance between tool plate and bearing body in 1" [25 mm] increments. Leave blank if additional extension is not required.

S C V 6 3 x 25 x 25 - DB-M - AR-Z1

CYLINDER
C - CV Series Compatible

SLIDES WITH LIGHT DUTY BUSHINGS

TYPE	SLIDE SIZE	BORE in	BORE mm	SHAFT SIZE in	SHAFT SIZE mm
V	2	0.787	20	0.394	10
V	3	0.984	25	0.472	12
V	4	1.260	32	0.630	16
V	5	1.575	40	0.787	20
V	6	1.969	50	0.984	25
V	7	2.480	63	0.984	25
V	8	3.150	80	1.181	30
V	9	3.937	100	1.181	30

WITH CYLINDER OPTIONS
*DB - Cushion controls on both ends (locations 1 & 5)
*DE - Cushion controls on extend only (location 1)
*DR - Cushion control retract only (location 5)
H4 - Slide ready cylinder (CVxS cylinder only) replacement (see note 5)
H47 - Rodlok unit includes Rodlok, adaptor, cylinder, and slide preassembled (see note 5)
L7 - BSPP Ports-standard on imperial units.
L9 - NPT Ports. BSPP-standard on metric units
M - Magnetic piston for use with PHD Reed and Switches
*PB - Port Controls® on both ends (locations 1 & 5)
*PE - Port Control® on extend only (location 1)
*PR - Port Control® on retract only (location 5)
UBxx - Optional port location

WITHOUT CYLINDER OPTIONS
H1 - No cylinder, slide section only
Sizes 2 and 3 require a Series CVB Cylinder only.
Sizes 4 through 9 use an ISO 6432/VDMA 24562 compliant cylinder.

NOTES:
1) **Affects unit length. See option drawings for complete details. Options may decrease effective cushion length depending on position of stop collars.
2) -Z1 option may have reduced cylinder performance due to chrome-plated stainless steel rod in place of chrome-plated alloy steel.
3) -H4 and -H47 are not available in -Z1.
4) ***Rodlok locking device is not available with -Z1.
5) Rodlok must be ordered separately when a replacement cylinder (-H4) is ordered with -H47 unit.
6) *Standard ports, cushion controls, and port controls are in locations 1 & 5. See diagram above. Sizes 2 and3 use 10-32 [M5] ports when combined with port controls on the same surface.

Options may affect unit length. See dimensional pages and option information details.

Refer to this product's online catalog in the product section for complete information including related dimensions and additional specifications. See link at bottom of this page.

SERIES 6250 SOLID STATE SWITCHES

PART NO.	DESCRIPTION	COLOR
62505-1-02	NPN (Sink) DC Solid State, 2 m cable	Brown
62506-1-02	PNP (Source) DC Solid State, 2 m cable	Tan
62515-1	NPN (Sink) DC Solid State, Quick Connect	Brown
62516-1	PNP (Source) DC Solid State, Quick Connect	Tan

SERIES 6250 REED SWITCHES

PART NO.	DESCRIPTION	COLOR
62507-1-02	AC/DC Reed, 2 m cable	Silver
62517-1	AC/DC Reed, Quick Connect	Silver

SPECIFICATIONS	SERIES SCV
OPERATING PRESSURE	35 psi min to 150 psi max [2.4 bar min to 10 bar max] air
OPERATING TEMPERATURE	-20° to +180°F [-29° to +82°C]
TRAVEL TOLERANCE	See table below
REPEATABILITY	±0.001 in [±.025 mm] of original position
VELOCITY	80 in/sec [2 m/sec] max., zero load at 87 psi [6.9 bar]
LUBRICATION	Factory lubricated for rated life
MAINTENANCE	Field repairable

UNIT SIZE	GUIDE SHAFT DIAMETER in	GUIDE SHAFT DIAMETER mm	BORE DIAMETER in	BORE DIAMETER mm	CYLINDER ROD DIAMETER in	CYLINDER ROD DIAMETER mm	SLIDE DIRECTION	EFFECTIVE AREA in²	EFFECTIVE AREA mm²	BASE WEIGHT lb	BASE WEIGHT kg	TYPICAL DYNAMIC LOAD lb	TYPICAL DYNAMIC LOAD N
2	0.394	10	0.787	20	0.315	8	EXTEND	0.49	314	1.75 + (.17 x T)	0.80 + (.003 x T)	8	36
							RETRACT	0.41	264				
3	0.472	12	0.984	25	0.394	10	EXTEND	0.76	491	2.38 + (.22 x T)	1.08 + (.004 x T)	15	67
							RETRACT	0.64	412				
4	0.630	16	1.260	32	0.472	12	EXTEND	1.25	804	3.95 + (.35 x T)	1.79 + (.006 x T)	25	111
							RETRACT	1.07	691				
5	0.787	20	1.575	40	0.630	16	EXTEND	1.95	1257	6.26 + (.50 x T)	2.84 + (.009 x T)	35	156
							RETRACT	1.64	1056				
6	0.984	25	1.969	50	0.787	20	EXTEND	3.04	1963	11.37 + (.75 x T)	5.16 + (.013 x T)	50	222
							RETRACT	2.56	1649				
7	0.984	25	2.480	63	0.787	20	EXTEND	4.83	3117	14.30 + (.79 x T)	6.49 + (.014 x T)	75	334
							RETRACT	4.34	2803				
8	1.181	30	3.150	80	0.984	25	EXTEND	7.79	5027	26.67 + (1.14 x T)	12.11 + (.020 x T)	100	445
							RETRACT	7.03	4536				
9	1.181	30	3.937	100	0.984	25	EXTEND	12.17	7854	35.83 + (1.22 x T)	16.27 + (.022 x T)	150	667
							RETRACT	11.41	7363				

NOTES: 1) T=Travel length inches [mm].
2) Thrust capacity, allowable mass and dynamic moment capacity must be considered when selecting a slide.
3) For additional speed information, consult PHD's Series CV Cylinder pages.

TOTAL TRAVEL TOLERANCES

Tolerance on nominal travel length is shown in the following table:

UNIT SIZE	NOMINAL TRAVEL in	NOMINAL TRAVEL mm	NOMINAL TRAVEL TOLERANCE* in	NOMINAL TRAVEL TOLERANCE* mm
2 & 3	L ≤ 4	L ≤ 100	+0.059/-0.000	+1.50/-0.000
	L > 4	L > 100	+0.079/-0.000	+2.00/-0.000
4, 5, & 6	L ≤ 20	L ≤ 500	+0.079/-0.000	+2.00/-0.000
	L > 20	L > 500	+0.126/-0.000	+3.20/-0.000
7,8, & 9	L ≤ 20	L ≤ 500	+0.098/-0.000	+2.50/-0.000
	L > 20	L > 500	+0.157/-0.000	+4.00/-0.000

***NOTE:** Travel tolerance values measured at 60 ±4 psi, due to impact seal design.

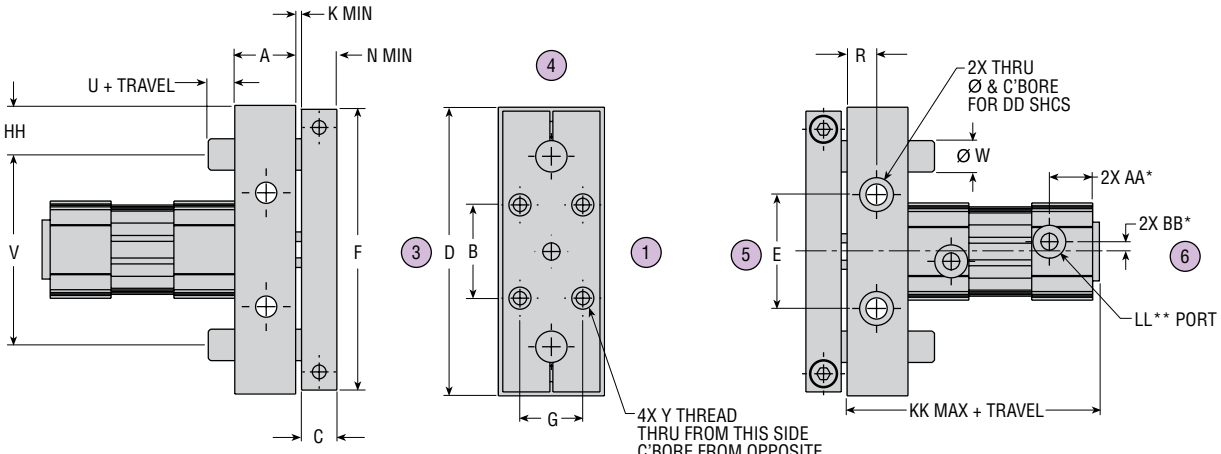
CYLINDER FORCE CALCULATIONS

		IMPERIAL F = P x A	METRIC F = 0.1 x P x A
F =	Cylinder Force	lbs	N
P =	Operating Pressure	psi	bar
A =	Effective Area (Extend or Retract)	in²	mm²

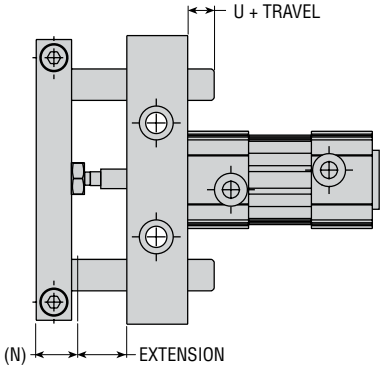
Sizing & Application Assistance

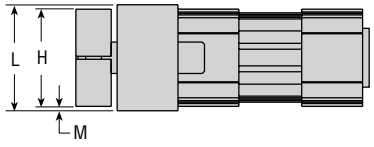
Use PHD's free online Product Sizing Application or view the Product Sizing Catalog at: www.phdinc.com/apps/sizing

DIMENSIONS: SERIES SCV SLIDES



TOOL PLATE EXTENSION





NOTES:
1) FOR OPTION DIMENSIONS AND DETAILS, SEE OPTION PAGES
2) ALL DIMENSIONS ARE CENTERED ON CENTERLINE OF UNIT UNLESS OTHERWISE SPECIFIED
3) UNIT TRAVEL = STROKE + TOOL PLATE EXTENSION. THE TOTAL UNIT TRAVEL SHOULD NOT EXCEED THE MAXIMUM RECOMMENDED TRAVEL.
4) *PORTS MAY APPEAR ON EITHER SIDE OF THE SLIDE CENTERLINE BASED ON OPTION COMBINATIONS.
5) **ALL UNITS, EXCEPT PORT WITH PORT CONTROL ON SAME SIDE, COMPLY WITH DIN 3852 PART 2 PORT SPECIFICATIONS FOR SHORT STUD AND LARGE SEALING SURFACE.

LETTER DIM	MODEL NUMBER															
	SCVx2		SCVx3		SCVx4		SCVx5		SCVx6		SCVx7		SCVx8		SCVx9	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
PHD CYL. BORE	0.787	20.0	0.984	25.0	1.260	32.0	1.575	40.0	1.969	50.0	2.480	63.0	3.150	80.0	3.937	100.0
A	1.102	28.0	1.299	33.0	1.220	31.0	1.417	36.0	1.772	45.0	1.772	45.0	2.205	56.0	2.402	61.0
B	1.516	38.5	1.969	50.0	1.870	47.5	2.283	58.0	2.559	65.0	3.150	80.0	3.543	90.0	4.724	120.0
C	0.630	16.0	0.669	17.0	0.709	18.0	0.906	23.0	1.220	31.0	1.220	31.0	1.732	44.0	1.732	44.0
D	4.409	112.0	4.783	121.5	5.787	147.0	6.929	176.0	8.563	217.5	8.563	217.5	10.748	273.0	11.339	288.0
E	1.969	50.0	1.870	47.5	2.283	58.0	2.559	65.0	3.150	80.0	3.543	90.0	4.724	120.0	5.315	135.0
F	4.252	108.0	4.626	117.5	5.630	143.0	6.772	172.0	8.406	213.5	8.406	213.5	10.591	269.0	11.181	284.0
G	0.906	23.0	1.181	30.0	1.260	32.0	1.417	36.0	1.772	45.0	1.417	36.0	1.496	38.0	1.969	50.0
H	1.417	36.0	1.614	41.0	1.890	48.0	2.283	58.0	2.717	69.0	3.386	86.0	3.937	100.0	4.921	125.0
K MIN	0.098	2.5	0.098	2.5	0.118	3.0	0.118	3.0	0.118	3.0	0.118	3.0	0.118	3.0	0.118	3.0
L	1.575	40.0	1.772	45.0	2.047	52.0	2.441	62.0	2.874	73.0	3.543	90.0	4.331	110.0	5.315	135.0
M	0.079	2.0	0.079	2.0	0.079	2.0	0.079	2.0	0.079	2.0	0.079	2.0	0.197	5.0	0.197	5.0
N MIN	0.728	18.5	0.768	19.5	0.827	21.0	1.024	26.0	1.339	34.0	1.339	34.0	1.850	47.0	1.850	47.0
P	#8	M4	#10	M5	1/4	M6	5/16	M8	3/8	M10	3/8	M10	7/16	M12	7/16	M12
R	0.630	16.0	0.709	18.0	0.709	18.0	0.906	23.0	1.063	27.0	1.063	27.0	1.299	33.0	1.299	33.0
U	0.394	10.0	0.394	10.0	0.394	10.0	0.394	10.0	0.394	10.0	0.394	10.0	0.394	10.0	0.394	10.0
V	2.992	76.0	3.189	81.0	3.819	97.0	4.606	117.0	5.630	143.0	5.630	143.0	7.283	185.0	7.874	200.0
W	0.394	10.0	0.472	12.0	0.630	16.0	0.787	20.0	0.984	25.0	0.984	25.0	1.181	30.0	1.181	30.0
Y	10-32	M5 x 0.8	1/4-20	M6 x 1	5/16-24	M8 x 1.25	3/8-24	M10 x 1.5	7/16-20	M12 x 1.75	7/16-20	M12 x 1.75	5/8-18	M16 x 2.0	5/8-18	M16 x 2.0
AA*	0.354	9.0	0.354	9.0	0.630	16.0	0.728	18.5	.728	18.5	0.787	20.0	0.709	18.0	0.866	22.0
BB*	0.167	4.2	0.177	4.5	0.197	5.0	0.236	6.0	0.236	6.0	0.394	10.0	0.394	10.0	0.472	12.0
DD	1/4	M6	5/16	M8	3/8	M10	7/16	M12	7/16	M12	5/8	M16	3/4	M20	3/4	M20
HH	0.709	18.0	0.797	20.25	0.984	25.0	1.161	29.5	1.467	37.3	1.467	37.3	1.732	44.0	1.732	44.0
KK	3.819	97.0	4.134	105.0	5.079	129.0	5.709	145.00	6.102	155.0	6.693	170.0	7.402	188.0	7.992	203.0
LL**	1/8	G 1/8	1/8	G 1/8	1/8	G 1/8	1/4	G 1/4	1/4	G1/4	3/8	G 3/8	3/8	G 3/8	1/2	G 1/2

All dimensions are reference only unless specifically toleranced.

AE TRAVEL ADJUSTMENT AND SHOCK PADS ON EXTENSION

Two travel adjustment stop collars with polyurethane shock pads are used for adjustment of slide extension. The travel adjustment stop collars allow precise adjustment while the shock pads eliminate metal to metal contact, thereby reducing noise levels.

DB CUSHION CONTROL IN BOTH DIRECTIONS

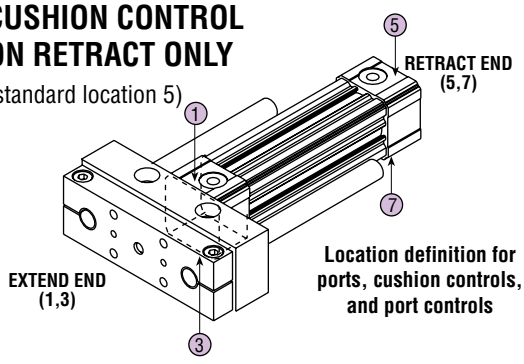
(standard location 1 & 5)

DE CUSHION CONTROL ON EXTEND ONLY

(standard location 1)

DR CUSHION CONTROL ON RETRACT ONLY

(standard location 5)



PHD cushions are designed for smooth deceleration at the ends of cylinder stroke. When the cushion is activated, the remaining volume in the cylinder must exhaust past an adjustable needle valve which controls the amount of deceleration. The effective cushion length for each bore size is shown in the table below. To specify alternative cushion control locations on the head or cap, see the option code below right.

AR TRAVEL ADJUSTMENT AND SHOCK PADS ON RETRACTION

Two travel adjustment stop collars with polyurethane shock pads are used for adjustment of slide retraction. The travel adjustment stop collars allow precise adjustment while the shock pads eliminate metal to metal contact, thereby reducing noise levels.

L9 NPT PORTS (Metric Units)

This option provides NPT ports on metric (SCV6x) units instead of the standard BSPP ports. The NPT ports are located in the same location as the BSPP ports.

L7 BSPP PORTS (Imperial Units)

This option provides G (BSPP) ports instead of the standard NPT ports. The G (BSPP) ports are located in the same location as the NPT ports.

PB PORT CONTROLS® ON BOTH ENDS

(standard location 1 & 5)

PE PORT CONTROLS® ON EXTEND ONLY (standard location 1)

PR PORT CONTROLS® ON RETRACT ONLY (standard location 5)

PHD's Port Control® is a built-in flow control for regulating the speed of the slide through its entire stroke. The Port Control operates on the "meter-out" principle and features an adjustable needle in a cartridge with a check seal. The self-locking needle has micrometer threads and is adjustable under pressure. The needle determines the orifice size which controls the exhaust flow rate of the actuator. The check seal expands while air is exhausting from the actuator, forcing the air to exhaust past the adjustable needle. The check seal collapses to allow a free flow of incoming air. The PHD Port Control saves space and eliminates the cost of fittings and installation for external flow control valves. Refer to option code below left to specify port control locations.

UB ALTERNATE PORT LOCATION

With this option, alternate port locations can be specified, providing increased flexibility and customer convenience.

PORT CONTROL OPTIONS

-P x x x

- Port Control Locations: B - Both ends; E - Extend end only; R - Retract end only
- Retract Location (5 & 7) **Omit if -PEx**
- Extend Location (1 & 3) **Omit if -PRx**

PORT LOCATION OPTIONS

-UB x x

- Extend Location (Head) (1 & 3)
- Retract Location (Cap) (5 & 7)

CUSHION CONTROL OPTIONS

-D x x x

- Cushion Control Locations: B - Both ends; E - Extend end only; R - Retract end only
- Retract Location (5 & 7) **Omit if -DEx**
- Extend Location (1 & 3) **Omit if -DRx**

Options may affect unit length. See dimensional pages and option information details.

Refer to this product's online catalog in the product section for complete information including related dimensions and additional specifications. See link at bottom of this page.

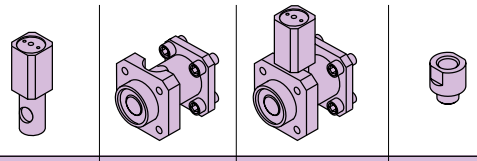
H47 RODLOK SLIDE & RODLOK

PHD's Rodlok is ideal for locking the tool plate while in a static/ stationary position. When the pressure is removed from the port of the Rodlok, the mechanism will grip the piston rod of the cylinder and prevent it from moving. The loads are held indefinitely without power. Rodlok performance is application and environment sensitive (Cleanliness of rod or Rodlok will also affect performance). THE RODLOK IS NOT DESIGNED TO BE USED AS A PERSONNEL SAFETY DEVICE.

SIZE	STATIC LOCKING FORCE* lb	N
2	79	350
3	90	400
4	135	600
5	225	1000
6	337	1500
7	495	2200
8	674	3000
9	1124	5000

NOTE: *Locking force indicated above is the actual locking force with a dry clean rod and does not include any safety factor.

RODLOK KITS



SIZE	LOCKING DEVICE KIT	ADAPTOR KIT*	COMPLETE RODLOK*	IMPERIAL PORT ADAPTOR
2	63459-07-1	63460-07-1	63461-07-1	—
3	63459-08-1	63460-08-1	63461-08-1	—
4	63459-01-1	63460-01-1	63461-01-1	—
5	63459-02-1	63460-02-1	63461-02-1	63465-1
6	63459-03-1	63460-03-1	63461-03-1	63465-1
7	63459-04-1	63460-04-1	63461-04-1	63465-1
8	63459-05-1	63460-05-1	63461-05-1	63465-1
9	63459-06-1	63460-06-1	63461-06-1	63465-1

NOTES:
1) *Kits ship with cylinder mounting hardware.
2) Part numbers listed above are intended for replacement purposes only and are to be used specifically on slides with the -H47 option.
3) Imperial port adaptor converts port from G 1/8 to 1/8 NPT.
4) When ordering a replacement cylinder (-H4), Rodlok must be ordered separately.

SIZE	DEVICE WEIGHT lb	kg	ADAPTOR WEIGHT lb	kg	TOTAL WEIGHT lb	kg
2	0.14	0.06	0.14	0.06	0.31	0.14
3	0.14	0.06	0.16	0.07	0.36	0.16
4	0.20	0.09	0.28	0.13	0.57	0.26
5	0.30	0.14	0.44	0.20	0.93	0.42
6	0.54	0.24	0.84	0.38	1.76	0.80
7	0.88	0.40	1.3	0.59	2.56	1.16
8	1.40	0.64	2.88	1.31	5.04	2.29
9	2.12	0.96	4.76	2.16	7.66	3.47

NOTE: Total weight includes rod adder for -H46/-H47 cylinder.

Z1 CORROSION RESISTANT

This option provides a stainless steel piston rod with hard chrome plating in place of the standard hard chrome plated steel material. Guide shafts are hard chrome plated stainless steel or coated hardened steel in place of the standard material. An appropriate corrosion resistant treatment is applied to ferrous parts.

M MAGNET FOR PHD REED AND SOLID STATE SWITCHES

This option equips the cylinder with a magnetic band on the piston for use with PHD Reed and Solid State Switches listed below. These switches mount easily to the cylinder using "T" slots in the body. See the Switch section for complete switch information.

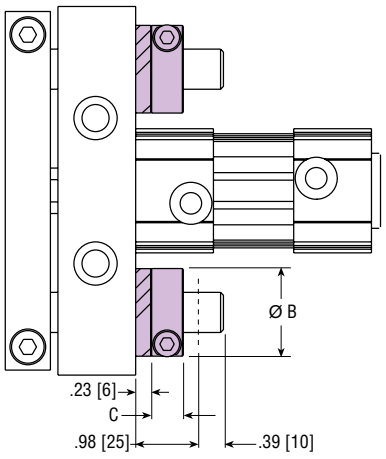
Options may affect unit length. See dimensional pages and option information details.

Refer to this product's online catalog in the product section for complete information including related dimensions and additional specifications. See link at bottom of this page.

AE TRAVEL ADJUSTMENT AND SHOCK PADS ON EXTENSION

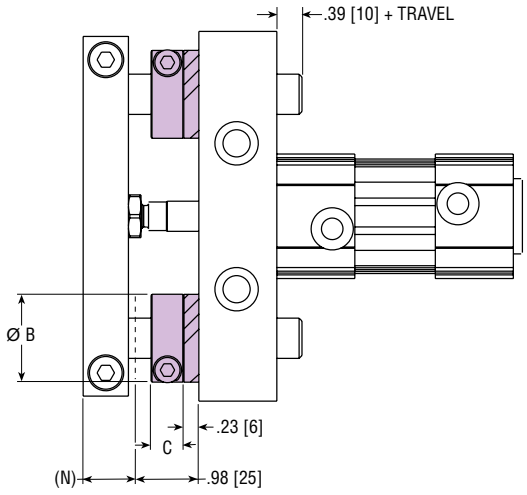
Two travel adjustment stop collars with polyurethane shock pads are used for adjustment of slide extension. The travel adjustment stop collars allow precise adjustment while the shock pads eliminate metal to metal contact, thereby reducing noise levels.

(SHOWN WITH ZERO TRAVEL)



AR TRAVEL ADJUSTMENT AND SHOCK PADS ON RETRACTION

Two travel adjustment stop collars with polyurethane shock pads are used for adjustment of slide retraction. The travel adjustment stop collars allow precise adjustment while the shock pads eliminate metal to metal contact, thereby reducing noise levels.



LETTER DIM	MODEL NUMBER															
	SCVx2		SCVx3		SCVx4		SCVx5		SCVx6		SCVx7		SCVx8		SCVx9	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Ø B	0.984	25	1.102	28	1.378	35	1.654	42	1.890	48	1.890	48	2.165	55	2.165	55
C	0.394	10	0.433	11	0.512	13	0.591	15	0.591	15	0.591	15	0.591	15	0.591	15
N	0.728	18.5	0.768	19.5	0.827	21	1.024	26	1.339	34	1.339	34	1.850	47	1.850	47

NOTE: -AE and -AR options may decrease effective cushion length depending on position of stop collars.

Z1 CORROSION RESISTANT

This option provides a stainless steel piston rod with hard chrome plating in place of the standard hard chrome plated steel material. Guide shafts are hard chrome plated stainless steel or coated hardened steel in place of the standard material. An appropriate corrosion resistant treatment is applied to ferrous parts.

L9 NPT PORTS (Metric Units)

This option provides NPT ports on metric (SCV6x) units instead of the standard BSPP ports. The NPT ports are located in the same location as the BSPP ports.

L7 BSPP PORTS (Imperial Units)

This option provides G (BSPP) ports instead of the standard NPT ports. The G (BSPP) ports are located in the same location as the NPT ports.

MODEL	OPTIONAL NPT PORT	STANDARD BSPP PORT
SCVx2	1/8*	G 1/8*
SCVx3	1/8*	G 1/8*
SCVx4	1/8	G 1/8
SCVx5	1/4	G 1/4
SCVx6	1/4	G 1/4
SCVx7	3/8	G 3/8
SCVx8	3/8	G 3/8
SCVx9	1/2	G 1/2

*When port controls are specified on the same face as ports, the standard metric port is M5 and the -L9 option provides a 10-32 port.

All dimensions are reference only unless specifically toleranced.

DB CUSHION CONTROL IN BOTH DIRECTIONS

(standard location 1 & 5)

DE CUSHION CONTROL ON EXTEND ONLY

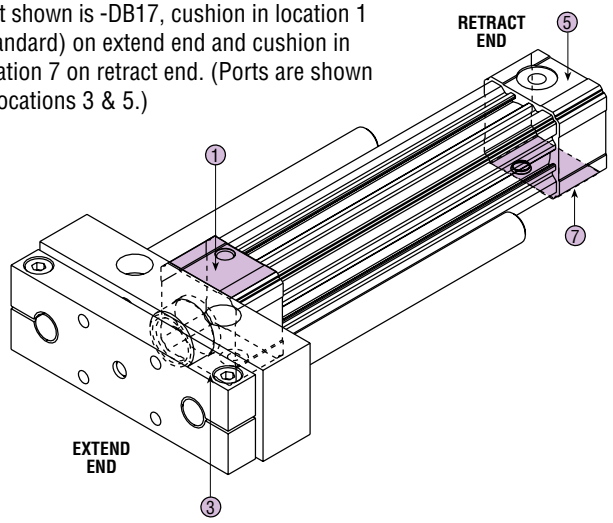
(standard location 1)

DR CUSHION CONTROL ON RETRACT ONLY

(standard location 5)

PHD cushions are designed for smooth deceleration at the ends of cylinder stroke. When the cushion is activated, the remaining volume in the cylinder must exhaust past an adjustable needle valve which controls the amount of deceleration. The effective cushion length for each bore size is shown in the table below. To specify alternative cushion control locations on the head or cap, see the option code below right.

Unit shown is -DB17, cushion in location 1 (standard) on extend end and cushion in location 7 on retract end. (Ports are shown in locations 3 & 5.)



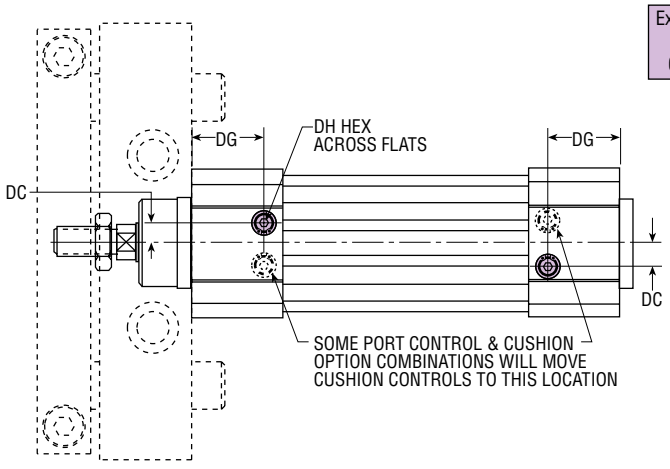
CUSHION CONTROL OPTIONS

-D x x x

Cushion Control Locations
B - Both ends
E - Extend end only
R - Retract end only

Retract Location
(5, 7)
Omit if -DEx

Extend Location
(1, 3)
Omit if -DRx



LETTER DIM	MODEL NUMBER															
	SCVx2		SCVx3		SCVx4		SCVx5		SCVx6		SCVx7		SCVx8		SCVx9	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
DC	.190	4.8	.226	5.7	.276	7.0	.374	9.5	.394	10.0	.354	9.0	.591	15.0	.630	16.0
DG	.581	14.8	.561	14.2	.965	24.5	1.083	27.5	1.043	26.5	1.201	30.5	1.181	30.0	1.339	34.0
DH	—	2.5	—	2.5	—	2.5	—	2.5	—	2.5	—	2.5	—	3.0	—	3.0
EFFECTIVE CUSHION LENGTH*	.441	11.2	.468	11.9	.599	15.2	.808	20.5	.871	22.1	.805	20.4	.892	22.7	1.190	30.2

*-AE and -AR options may decrease effective cushion length depending on position of stop collars.

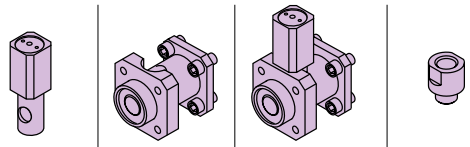
H47 RODLOK SLIDE & RODLOK

PHD's Rodlok is ideal for locking the tool plate while in a static/stationary position. When the pressure is removed from the port of the Rodlok, the mechanism will grip the piston rod of the cylinder and prevent it from moving. The loads are held indefinitely without power. Rodlok performance is application and environment sensitive (Cleanliness of rod or Rodlok will also affect performance). THE RODLOK IS NOT DESIGNED TO BE USED AS A PERSONNEL SAFETY DEVICE.

SIZE	STATIC LOCKING FORCE* lb	N
2	79	350
3	90	400
4	135	600
5	225	1000
6	337	1500
7	495	2200
8	674	3000
9	1124	5000

NOTE: *Locking force indicated above is the actual locking force with a dry clean rod and does not include any safety factor.

RODLOK KITS



SIZE	LOCKING DEVICE KIT	ADAPTOR KIT*	COMPLETE RODLOK*	IMPERIAL PORT ADAPTOR
2	63459-07-1	63460-07-1	63461-07-1	—
3	63459-08-1	63460-08-1	63461-08-1	—
4	63459-01-1	63460-01-1	63461-01-1	—
5	63459-02-1	63460-02-1	63461-02-1	63465-1
6	63459-03-1	63460-03-1	63461-03-1	63465-1
7	63459-04-1	63460-04-1	63461-04-1	63465-1
8	63459-05-1	63460-05-1	63461-05-1	63465-1
9	63459-06-1	63460-06-1	63461-06-1	63465-1

NOTES:
1) *Kits ship with cylinder mounting hardware.
2) Part numbers listed above are intended for replacement purposes only and are to be used specifically on slides with the -H47 option.
3) Imperial port adaptor converts port from G 1/8 to 1/8 NPT.
4) When ordering a replacement cylinder (-H4), Rodlok must be ordered separately.

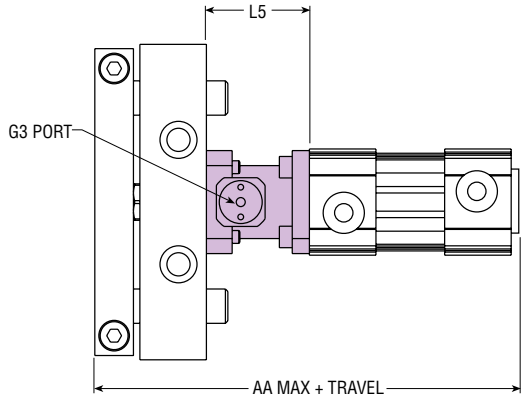
SIZE	DEVICE WEIGHT lb	kg	ADAPTOR WEIGHT lb	kg	TOTAL WEIGHT lb	kg
2	0.14	0.06	0.14	0.06	0.31	0.14
3	0.14	0.06	0.16	0.07	0.36	0.16
4	0.20	0.09	0.28	0.13	0.57	0.26
5	0.30	0.14	0.44	0.20	0.93	0.42
6	0.54	0.24	0.84	0.38	1.76	0.80
7	0.88	0.40	1.3	0.59	2.56	1.16
8	1.40	0.64	2.88	1.31	5.04	2.29
9	2.12	0.96	4.76	2.16	7.66	3.47

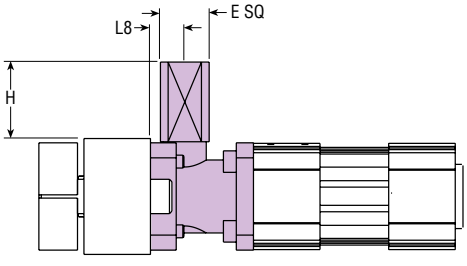
NOTE: Total weight includes rod adder for -H46/-H47 cylinder.

OPERATING PRESSURE

The operating pressure for the locking device is different than the operating pressure for the slide to which it is attached. The locking device of the Rodlok is designed with an operating pressure range of 60 psi minimum to 150 psi maximum [4 to 10 bar]. The Series SCV Slide with a Rodlok attached has an operating pressure range of 45 psi minimum to 150 psi maximum [3 to 10 bar].

The Rodlok locking device and adaptor can be purchased separately as kits. See chart above. The locking device and adaptor are not available with a corrosion resistant (-Z1 option) finish.





LETTER DIM	MODEL NUMBER SCVx2 in	mm	SCVx3 in	mm	SCVx4 in	mm	SCVx5 in	mm	SCVx6 in	mm	SCVx7 in	mm	SCVx8 in	mm	SCVx9 in	mm
H	1.280	32.5	1.181	30.0	1.339	34.0	1.476	37.5	1.811	46.0	1.811	46.0	2.520	64.0	2.224	56.5
E	.807	20.5	.807	20.5	.984	25.0	1.083	27.5	1.280	32.5	1.614	41.0	1.929	49.0	2.087	53.0
G3	M5	M5	M5	M5	1/8	G 1/8	1/8	G 1/8	1/8	G 1/8	1/8	G 1/8	1/8	G 1/8	1/8	G 1/8
L5	1.575	40	1.732	44	1.890	48	2.165	55	2.756	70	2.756	70	3.543	90	3.622	92
L8	0.512	13	0.512	13	0.630	16	0.768	19.5	0.827	21	0.827	21	1.102	28	1.063	27
AA	5.394	137	5.866	149	6.969	177	7.874	200	8.858	225	9.449	240	10.945	278	11.614	295

All dimensions are reference only unless specifically toleranced.

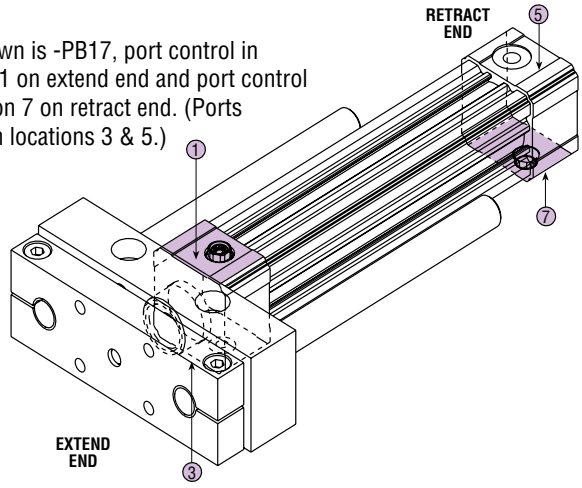
PB PORT CONTROLS® ON BOTH ENDS
(standard location 1 & 5)

PE PORT CONTROLS® ON EXTEND ONLY (standard location 1)

PR PORT CONTROLS® ON RETRACT ONLY (standard location 5)

PHD's Port Control® is a built-in flow control for regulating the speed of the slide through its entire stroke. The Port Control operates on the "meter-out" principle and features an adjustable needle in a cartridge with a check seal. The self-locking needle has micrometer threads and is adjustable under pressure. The needle determines the orifice size which controls the exhaust flow rate of the actuator. The check seal expands while air is exhausting from the actuator, forcing the air to exhaust past the adjustable needle. The check seal collapses to allow a free flow of incoming air. The PHD Port Control saves space and eliminates the cost of fittings and installation for external flow control valves. Refer to option code below left to specify port control locations.

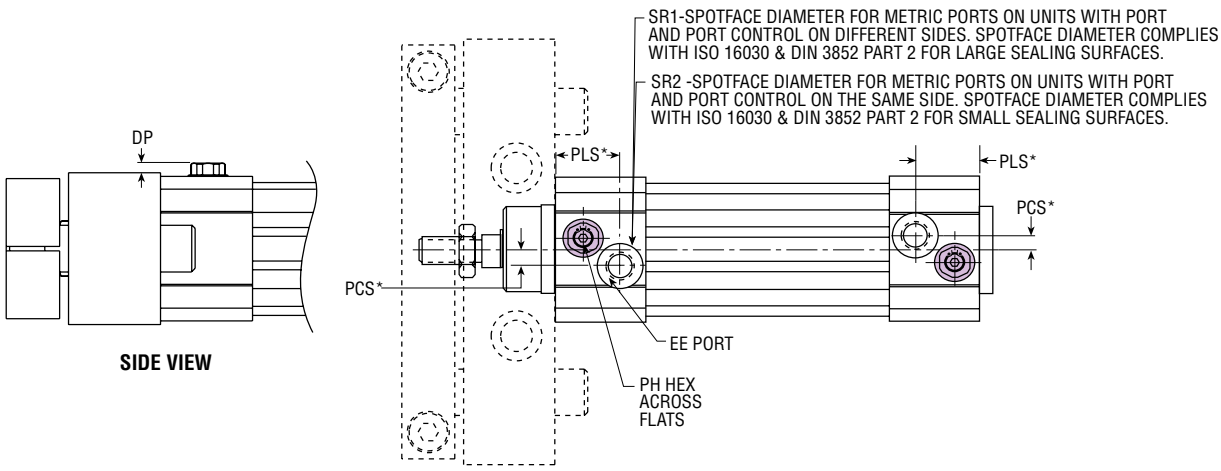
Unit shown is -PB17, port control in location 1 on extend end and port control in location 7 on retract end. (Ports shown in locations 3 & 5.)



PORT CONTROL OPTIONS

-P x x x

- Port Control Locations: B - Both ends; E - Extend end only; R - Retract end only
- Retract Location (5, 7) **Omit if -PEx**
- Extend Location (1, 3) **Omit if -PRx**



LETTER DIM	MODEL NUMBER															
	SCVx2		SCVx3		SCVx4		SCVx5		SCVx6		SCVx7		SCVx8		SCVx9	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
EE*	10-32	M5	10-32	M5	1/8 NPT	G 1/8	1/4 NPT	G 1/4	1/4 NPT	G 1/4	3/8 NPT	G 3/8	3/8 NPT	G 3/8	1/2 NPT	G 1/2
PCS*	.276	7.0	.276	7.0	.197	5.0	.236	6.0	.236	6.0	.450	11.4	.512	13.0	.906	23.0
PH	—	2.5	—	2.5	—	2.5	—	2.5	—	2.5	—	3.0	—	3.0	—	6.0
PLS*	.571	14.5	.571	14.5	.867	22.0	.925	23.5	.905	23.0	.984	25.0	1.024	26.0	1.142	29.0
SR1*	—	16.5	—	16.5	—	19.0	—	25.0	—	25.0	—	28.0	—	28.0	—	34.0
SR2	.354	9.0	.354	9.0	—	16.5	—	19.0	—	19.0	—	23.0	—	23.0	—	27.0
DP*	.066	1.7	.026	0.7	.209	5.3	.122	3.1	.024	0.6	.004	0.1	-.201	-5.1	-.189	-4.8

*Dimensions shown are for units with port and port control in the same location. For units with other port and port control combinations, standard port location dimensions apply. Ports may be located on either side of the slide centerline depending on port control and cushion option combinations.
in = Table information for imperial units mm = Table information for metric units

All dimensions are reference only unless specifically toleranced.

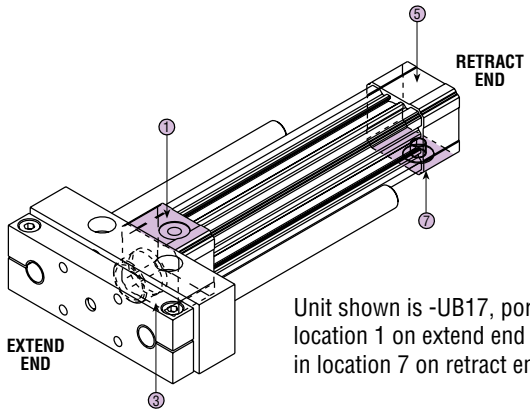
UB ALTERNATE PORT LOCATION

With this option, alternate port locations can be specified, providing increased flexibility and customer convenience. See option code below to specify port locations.

PORT LOCATION OPTIONS

-UB x x

- x: Extend Location (Head) (1, 3)
- x: Retract Location (Cap) (5, 7)



Unit shown is -UB17, port in location 1 on extend end and port in location 7 on retract end.

M MAGNET FOR PHD REED AND SOLID STATE SWITCHES

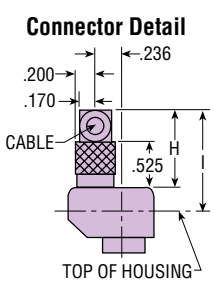
This option equips the cylinder with a magnetic band on the piston for use with PHD Reed and Solid State Switches listed below. These switches mount easily to the cylinder using "T" slots in the body. See the Switch section for complete switch information.

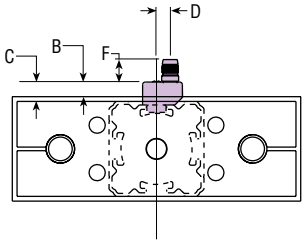
SERIES 6250 SOLID STATE SWITCHES

PART NO.	DESCRIPTION	COLOR
62505-1-02	NPN (Sink) DC Solid State, 2 m cable	Brown
62506-1-02	PNP (Source) DC Solid State, 2 m cable	Tan
62515-1	NPN (Sink) DC Solid State, Quick Connect	Brown
62516-1	PNP (Source) DC Solid State, Quick Connect	Tan

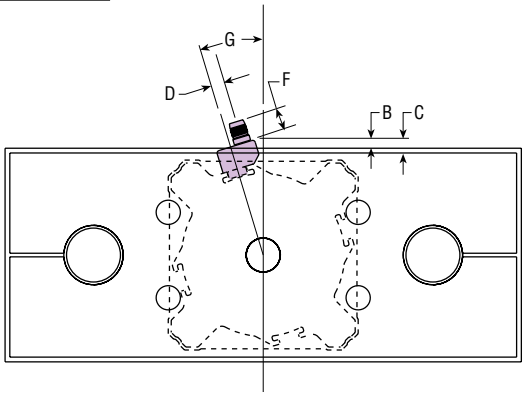
SERIES 6250 REED SWITCHES

PART NO.	DESCRIPTION	COLOR
62507-1-02	AC/DC Reed, 2 m cable	Silver
62517-1	AC/DC Reed, Quick Connect	Silver

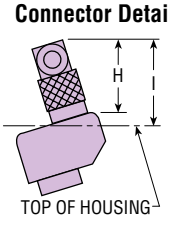




SIZES 2, 3, 4, 5, & 6 ONLY



SIZES 7, 8, & 9 ONLY

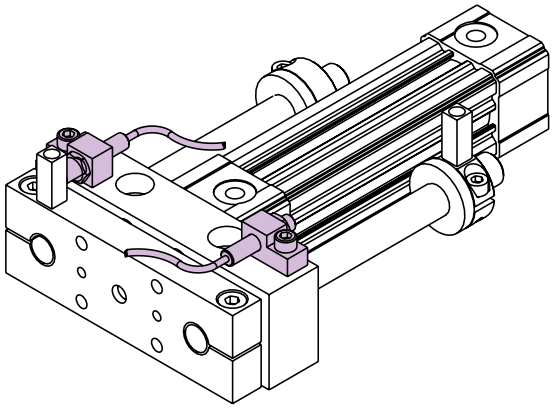


LETTER DIM	MODEL NUMBER															
	SCVx2		SCVx3		SCVx4		SCVx5		SCVx6		SCVx7		SCVx8		SCVx9	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
B	.223	5.7	.223	5.7	.187	4.8	.138	3.5	.187	4.8	.138	3.5	.059	1.5	-.079*	-2.0*
C	.302	7.7	.302	7.7	.266	6.8	.217	5.5	.266	6.8	.217	5.5	.256	6.5	.000	0.0
D	.228	5.8	.228	5.8	.228	5.8	.228	5.8	.228	5.8	.228	5.8	.228	5.8	.228	5.8
F	.373	9.5	.373	9.5	.373	9.5	.373	9.5	.373	9.5	.373	9.5	.373	9.5	.373	9.5
G	—	—	—	—	—	—	—	—	—	—	17°	17°	20°	20°	24°	24°
H	.870	22.1	.870	22.1	.870	22.1	.870	22.1	.870	22.1	.831	21.1	.819	20.8	.795	20.2
I	1.113	28.3	1.113	28.3	1.077	27.3	1.008	25.6	1.037	26.3	.969	24.6	.878	22.3	.717	18.2

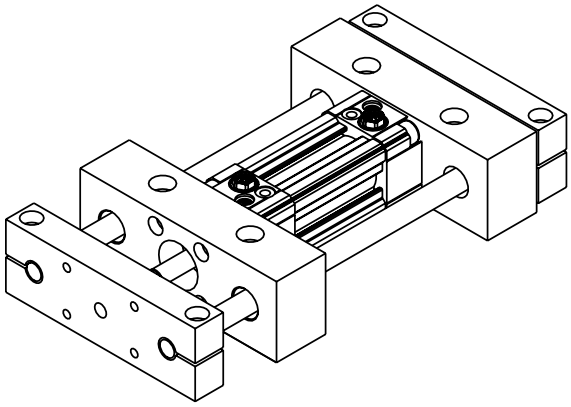
*Dimension is below the indicated surface.

All dimensions are reference only unless specifically toleranced.

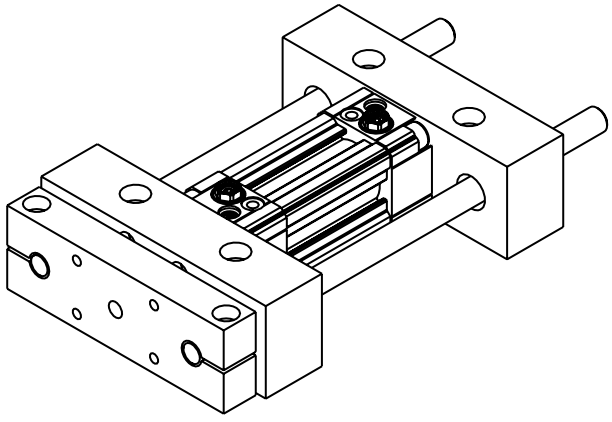
The following are examples of Series SCV Slide variations which can be easily configured. Contact PHD for additional information on these or other configurations.



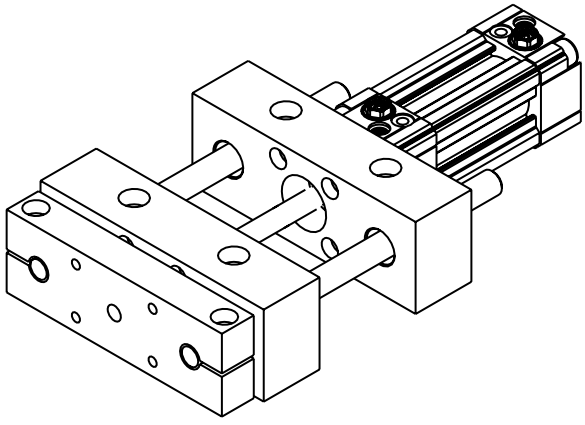
This Series SCV Slide is fitted with travel adjustment on extend and metal sensing proximity switches in both directions of travel. These switches can easily be adapted to the SCV Slide in place of PHD's Series 6250 Switches.



Shown is a version that produces a base type slide. The cylinder, bearing housings, and base plate move and the two tool plates remain fixed.



This Series SCV Slide has extended guide shafts and a second bearing housing attached to the cylinder cap. This configuration provides a higher load carrying capability while reducing wear.



This is another variation where a second bearing housing is combined with a tool plate extension. This also provides a more rigid bearing base for higher load carrying capability.