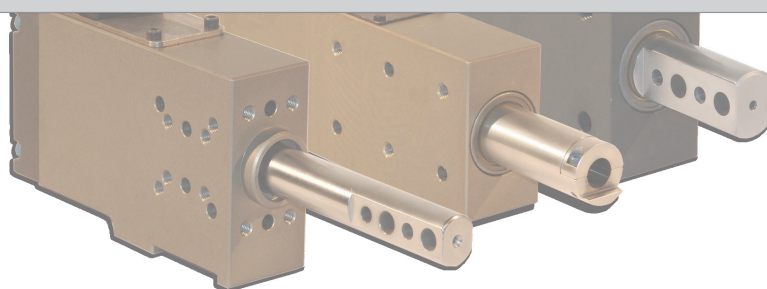


Precision Shot Pin Cylinders

For locating production material through precisely pierced holes



Sealed Mechanism - Lubricated For Life

Lightweight, compact design

Non-Rotating Rod

BTM[®]
COMPANY

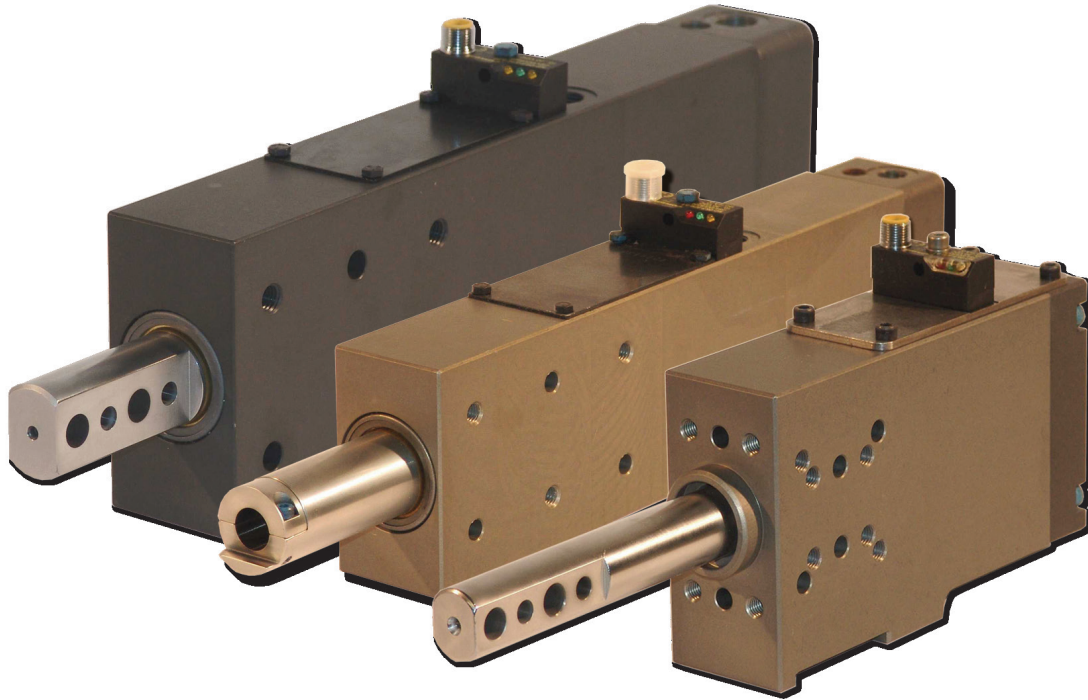
www.btmcomp.com

810-364-4567

INTRODUCTION

WHERE THEY ARE USED

BTM's Precision Shot Pin Cylinders are ideal for locating production material through precisely pierced holes. They are used in a variety of manufacturing industries including Automotive and Appliance. Our Precision Shot Pin Cylinders are commonly applied in welding applications, however, they can be used anywhere your production requires locating through precision holes - including clamping and fixturing.



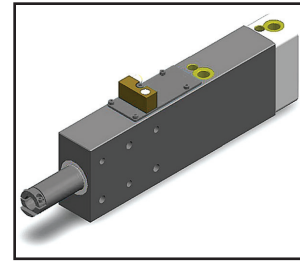
FEATURES

- Shot pin type action
- Uses standard (NAAMS) mounting (Same as BTM STC model clamps)
- One piece body including an integral cylinder with a heavy wall
- Sealed mechanism lubricated for life
- Non-rotating rod
- Optional prefitted proximity switches
- Lightweight, compact design
- Excellent side load capability
- Maximum .002" side to side movement at end of extended pin
- Maximum ¼° twist at end of extended pin
- Standard NAAMS mounting pattern on pin

TABLE OF CONTENTS

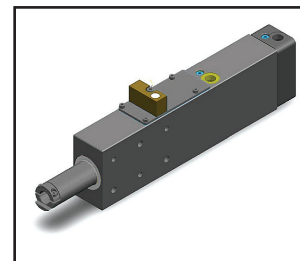
PPL-52 4-5

Bore Diameter	52mm (2.0")
Retract Force	934N (210lbs) @ 5.5 BAR (80 PSI)
Extend Force	1001N (225lbs) @ 5.5 BAR (80 PSI)
Anti-Rotation	$\pm 0^\circ 4'$
Approximate Weight	4.3 kg (9.5 lbs)



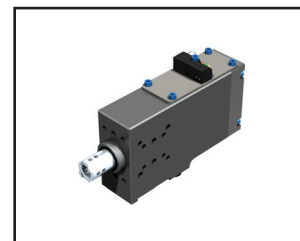
PPL-62 6-7

Bore Diameter	62mm (2.5")
Retract Force	1512N (340lbs) @ 5.5 BAR (80 PSI)
Extend Force	1557N (350lbs) @ 5.5 BAR (80 PSI)
Anti-Rotation	$\pm 0^\circ 4'$
Approximate Weight	5.5 kg (12 lbs)



PPL-62C 8-9

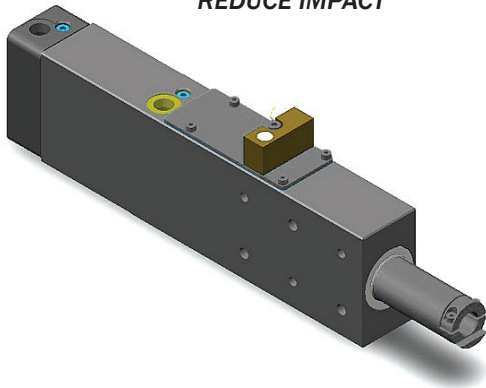
Bore Diameter	62mm (2.5")
Retract Force	1312N (295lbs) @ 5.5 BAR (80 PSI)
Extend Force	1557N (350lbs) @ 5.5 BAR (80 PSI)
Lateral Movement Tolerance	20mm Stroke = ± 0.25 mm 40mm Stroke = ± 0.51 mm 60mm Stroke = ± 0.76 mm
Anti-Rotation	$\pm 0^\circ 30'$
Approximate Weight	3.4 kg (7.5 lbs)



SPECIFICATIONS

Bore Ø	52mm (2.0in.)
Stroke	See Chart below
Recommended Operating Pressure	5.5-7 BARS (80-100 PSI)
Retract Force	934N (210 lbs) @ 5.5 BAR (80 PSI)
Extend Force	1001N (225 lbs) @ 5.5 BAR (80 PSI)
Anti-Rotation	±0° 4'
Approx. Weight	4.3 kg (9.5 lbs)

USE FLOW CONTROLS TO
REDUCE IMPACT



SENSOR OPTIONS

The two-position proximity sensors have two sensor heads: S01 and S02.

S02 normally reads the extended condition of the cylinder.

If S02 is required for the retracted position (transposed switch configuration), order the switch code with a T for Transposed.

Example TSC1.

Available Switch Codes

Turck DC or AC

SC1
SC2

SC1AC
SC2AC

Pepperl + Fuchs DC Only

SC1PDC
SC2PDC

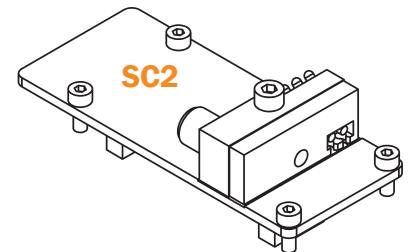
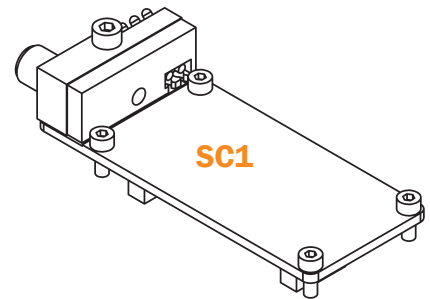
Allen Bradley DC Only

SC1ABDC
SC2ABDC

Balluff DC Only

SC1BDC
SC2BDC

The Sensor Housing can be specified to be in either the SC1 or SC2 Position



PPL 52 Model Assembly Numbers

Port Options	Cylinder Stroke	1	2	3
		Direct Mount Pin	Standard L-Block	90° L-Block
G1/4 Port	23mm	751400A	751500A	752300A
	45mm	751400B	751500B	752300B
	60mm	751400C	751500C	752300C
3/8-18 NPT Port	23mm	761000A	761100A	761200A
	45mm	761000B	761100B	761200B
	60mm	761000C	761100C	761200C

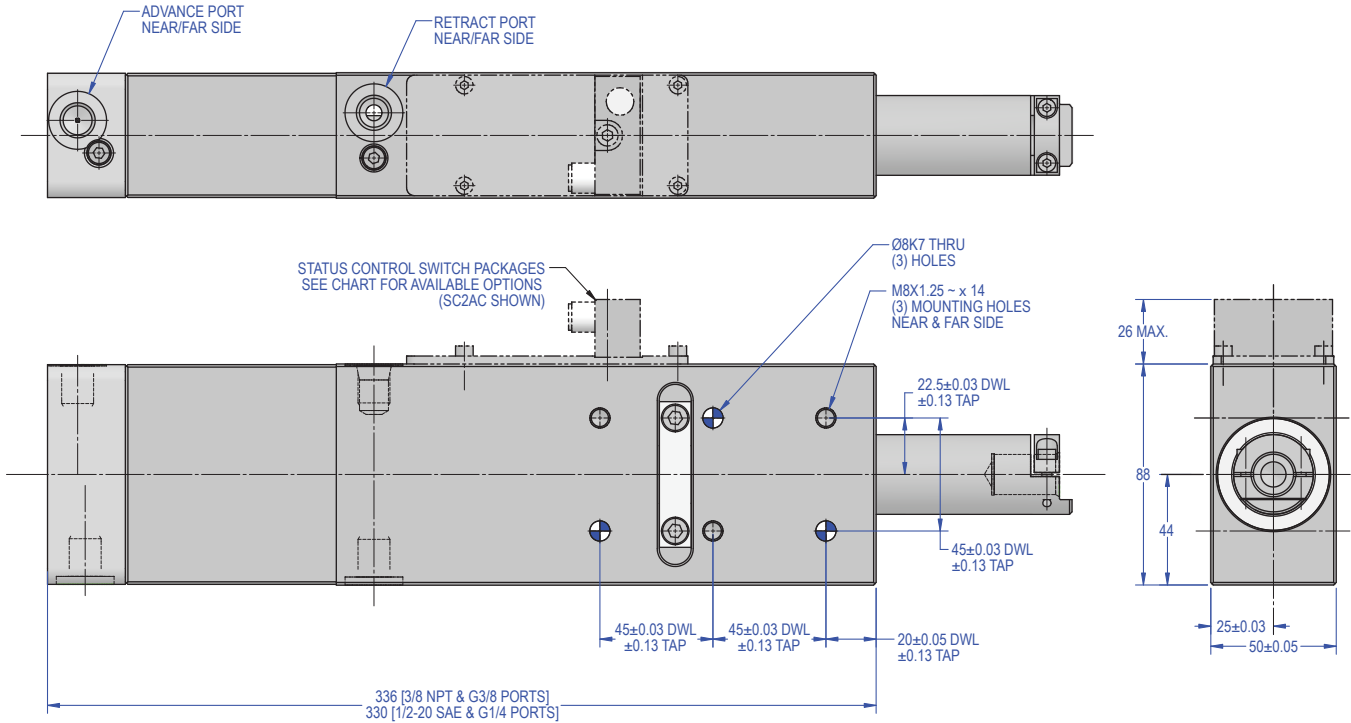
HOW TO ORDER

BTM NUMBER - SENSOR OPTION

PPL-52 Assembly No. Sensor Package Code
(See the above chart for BTM No.)

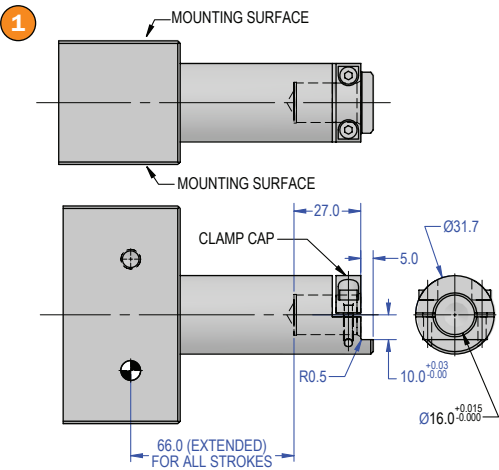


730800A - SC2AC

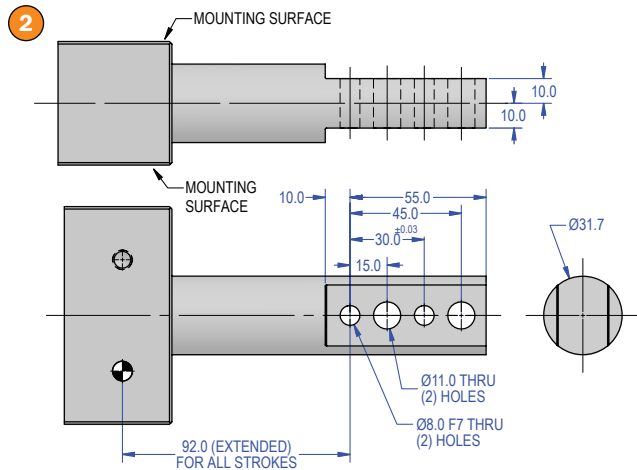


SHAFT OPTIONS

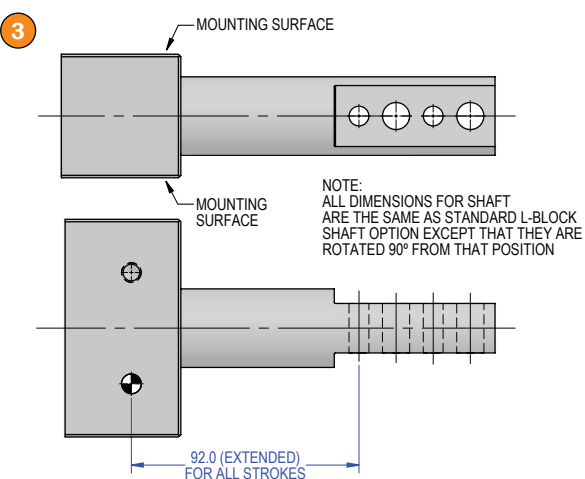
1 STANDARD DIRECT MOUNT SHAFT FOR USE WITH N.A.A.M.S. LOCATING PINS (REF. FULL METRIC No. APS193M)



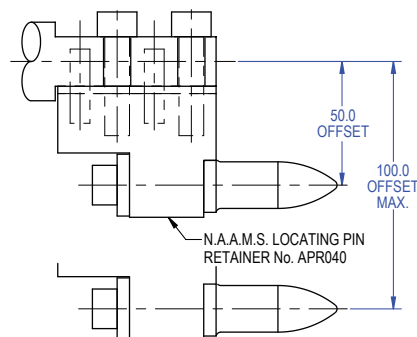
2 STANDARD L-BLOCK SHAFT OPTION FOR USE WITH N.A.A.M.S. L-BLOCKS & LOCATING PIN RETAINERS



3 90° L-BLOCK SHAFT OPTION

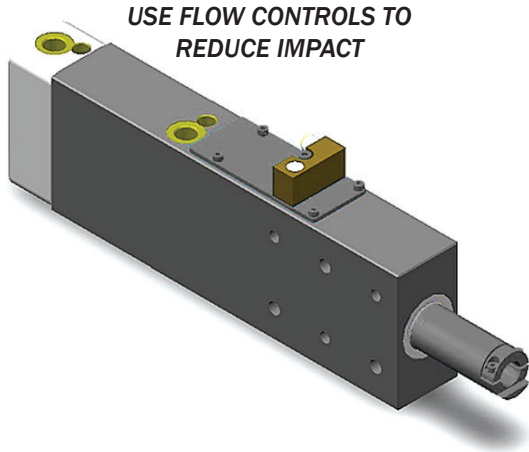


USE L-BLOCK SHAFT OPTION FOR OFFSET MOUNTING OF PINS



SPECIFICATIONS

Bore Ø	62mm (2.5in.)
Stroke	See Chart below
Recommended Operating Pressure	5.5-7 BARS (80-100 PSI)
Retract Force	1512N (340 lbs) @ 5.5 BAR (80 PSI)
Extend Force	1557N (350 lbs) @ 5.5 BAR (80 PSI)
Anti-Rotation	±0° 4'
Approx. Weight	5.5 kg (12 lbs)



SENSOR OPTIONS

The two-position proximity sensors have two sensor heads: S01 and S02.

S02 normally reads the extended condition of the cylinder.

If S02 is required for the retracted position (transposed switch configuration), order the switch code with a T for Transposed.

Example TSC1.

Available Switch Codes

Turck DC or AC

SC1
SC2

SC1AC
SC2AC

Pepperl + Fuchs DC Only

SC1PDC
SC2PDC

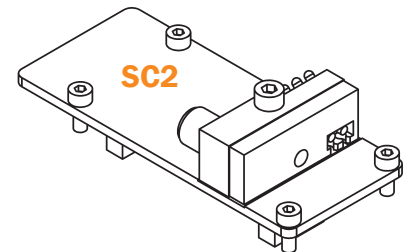
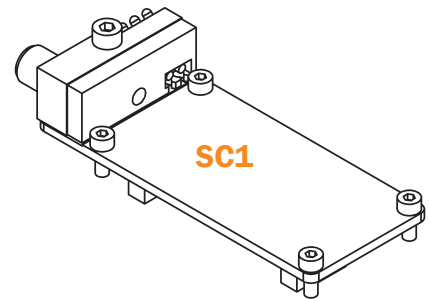
Allen Bradley DC Only

SC1ABDC
SC2ABDC

Balluff DC Only

SC1BDC
SC2BDC

The Sensor Housing can be specified to be in either the SC1 or SC2 Position



PPL 62 Model Assembly Numbers

Port Options	Cylinder Stroke	1 Direct Mount Pin	2 Standard L-Block	3 90° L-Block
G1/4 Port	20mm	751600A	751700A	752400A
	40mm	751600B	751700B	752400B
	60mm	751600C	751700C	752400C
3/8-18 NPT Port	20mm	761300A	761400A	761500A
	40mm	761300B	761400B	761500B
	60mm	761300C	761400C	761500C

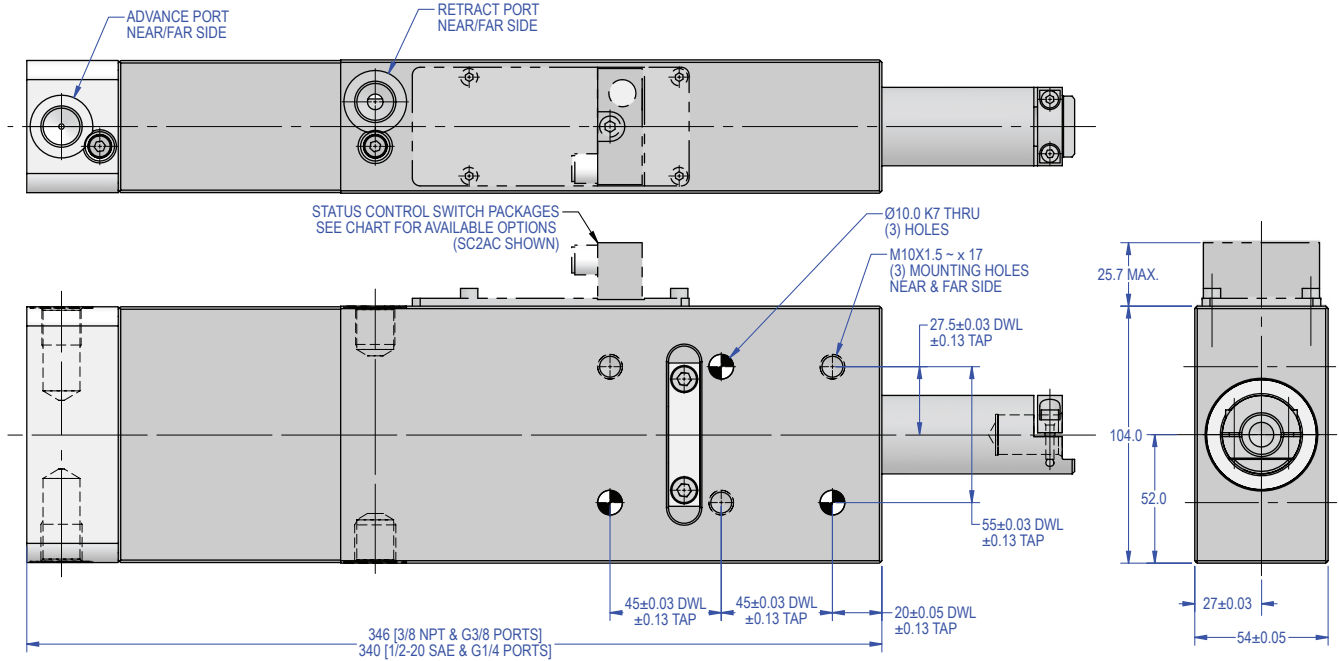
HOW TO ORDER

BTM NUMBER - SENSOR OPTION

PPL-62 Assembly No. Sensor Package Code
(See the above chart for BTM No.)

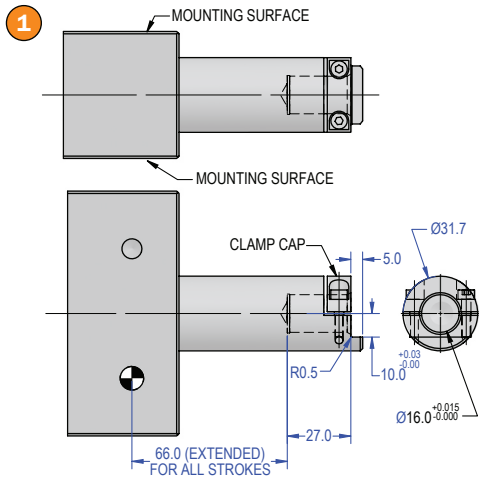


731000A - SC2AC

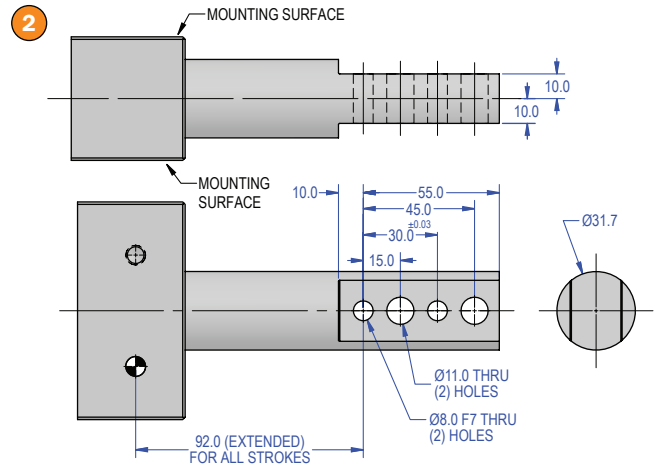


SHAFT OPTIONS

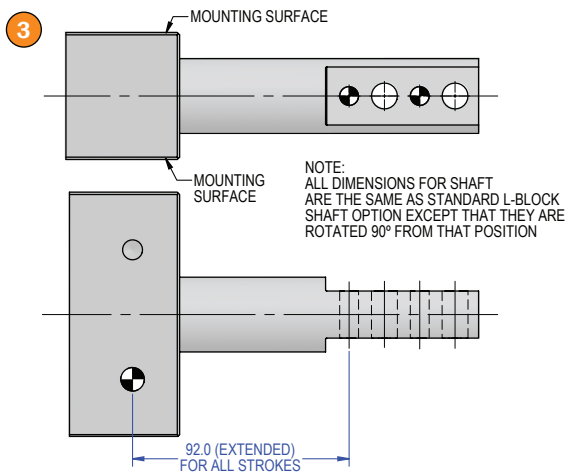
1 STANDARD DIRECT MOUNT SHAFT FOR USE WITH N.A.A.M.S. LOCATING PINS (REF. FULL METRIC No. APS193M)



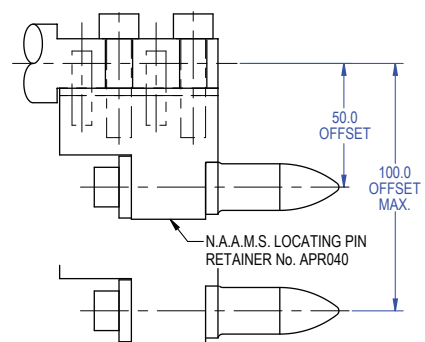
2 STANDARD L-BLOCK SHAFT OPTION FOR USE WITH N.A.A.M.S. L-BLOCKS & LOCATING PIN RETAINERS



3 90° L-BLOCK SHAFT OPTION



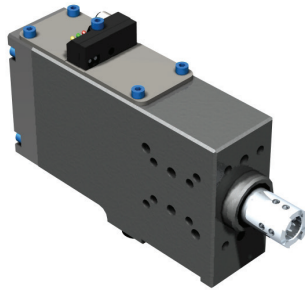
USE L-BLOCK SHAFT OPTION FOR OFFSET MOUNTING OF PINS



SPECIFICATIONS

Bore Ø	62mm (2.5in.)
Stroke	See Chart below
Recommended Operating Pressure	5.5-7 BARS (80-100 PSI)
Retract Force	1312N (295 lbs) @ 5.5 BAR (80 PSI)
Extend Force	1557N (350 lbs) @ 5.5 BAR (80 PSI)
Lateral Movement Tolerance	20mm Stroke = ±0.25mm 40mm Stroke = ±0.51mm 60mm Stroke = ±0.76mm
Anti-Rotation	±0° 30'
Approx. Weight	3.4 kg (7.5 lbs)

USE FLOW CONTROLS TO
REDUCE IMPACT



SENSOR OPTIONS

If S02 is required for the retracted position (transposed switch configuration), order the switch code with a T for Transposed.
Example TSC.

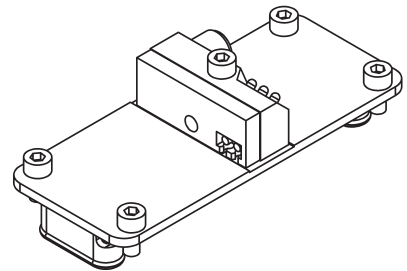
Available Switch Codes

Turck DC or AC
SC
SCAC

Pepperl + Fuchs DC Only
SCPDC

Allen Bradley DC Only
SCABDC

Balluff DC Only
SCBDC



PPL 62C Model Assembly Numbers

Port Options	Cylinder Stroke	1 Direct Mount Pin	2 Standard L-Block	3 90° L-Block
1/4 NPT & G1/4 Port	20mm	754100A	778400A	778500A
	40mm	754100E	778400B	778500B
	60mm	754100B	778400C	778500C
Manually Operated (Power Assist) 1/4 NPT & G 1/4 Port	20mm	754100C	778400D	778500D
	40mm	754100F	778400E	778500E
	60mm	754100D	778400F	778500F

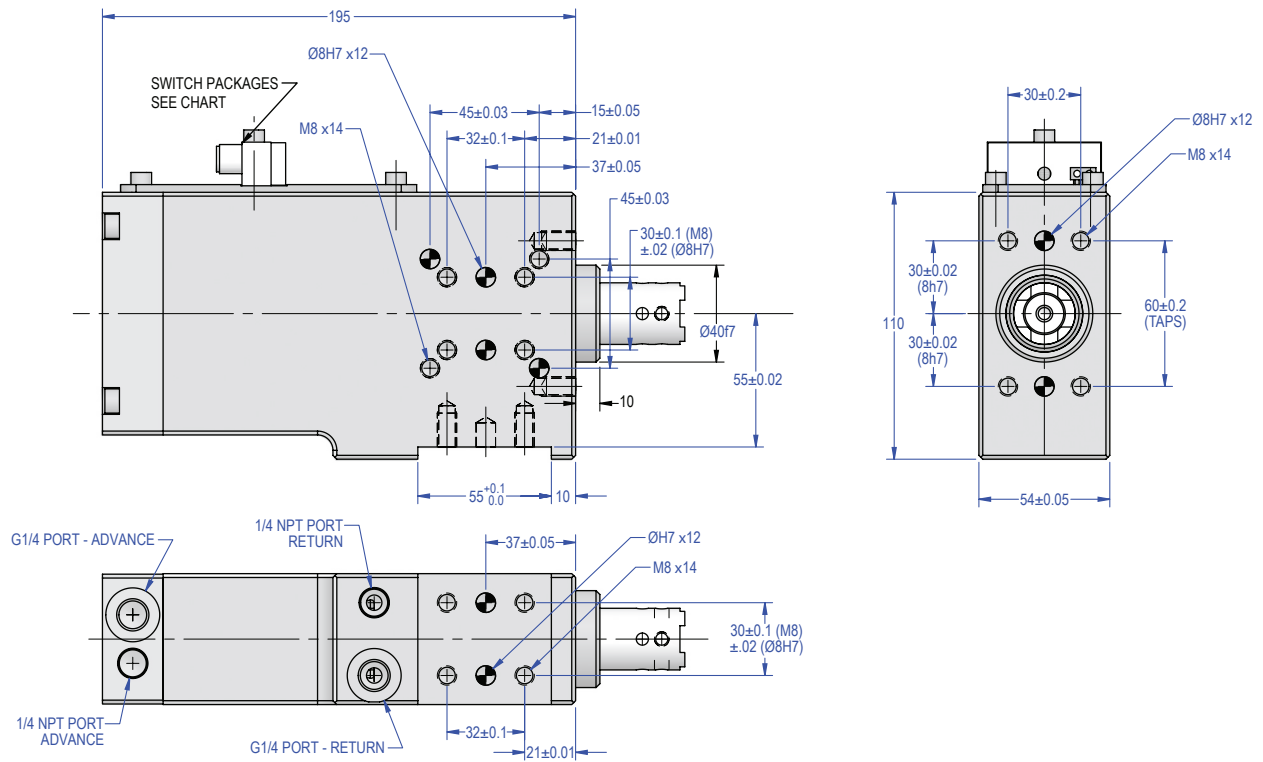
HOW TO ORDER

BTM NUMBER - **SENSOR OPTION**

PPL-62C Assembly No. Sensor Package Code
(See the above chart for BTM No.)

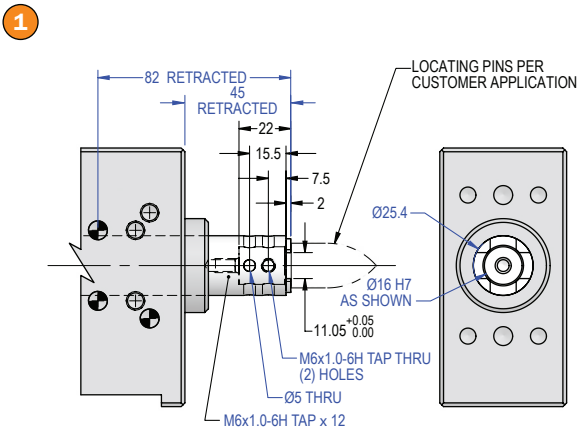


754100A - **SCAC**

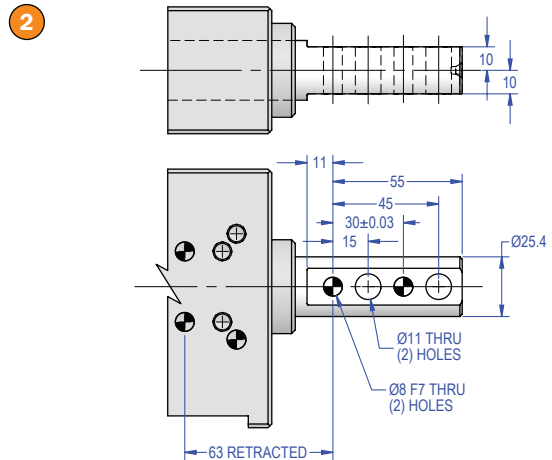


SHAFT OPTIONS

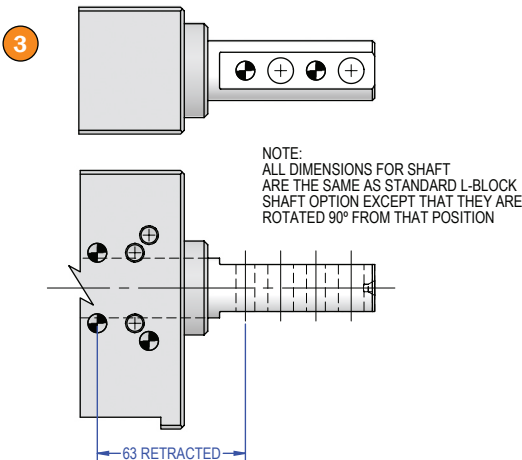
DIRECT MOUNT PIN OPTION



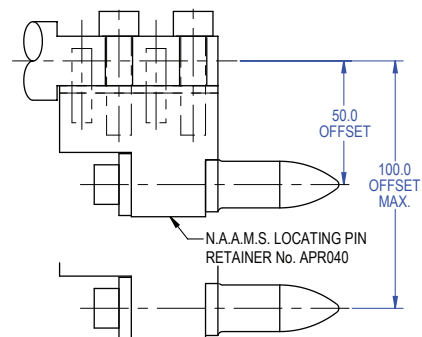
STANDARD L-BLOCK SHAFT OPTION FOR USE WITH N.A.A.M.S. L-BLOCKS & LOCATING PIN RETAINERS



90° L-BLOCK SHAFT OPTION



USE L-BLOCK SHAFT OPTION FOR OFFSET MOUNTING OF PINS



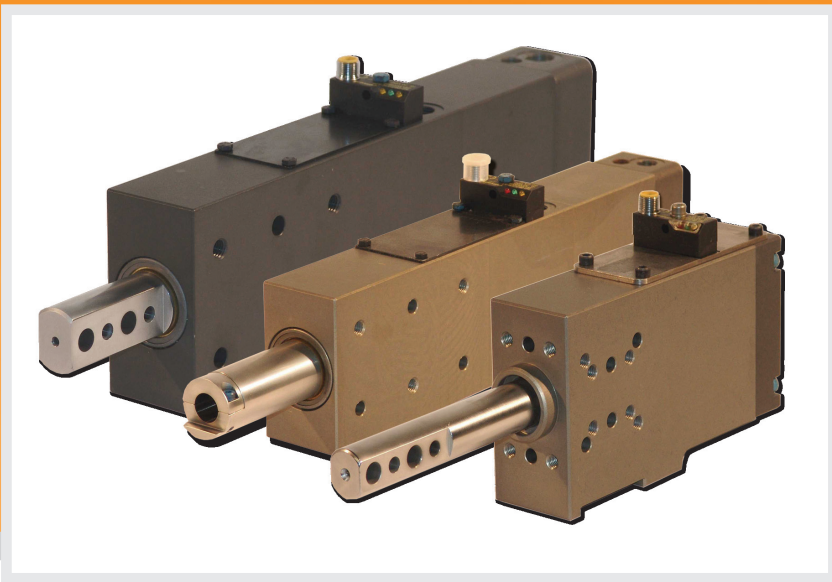
Visit us online at:

WWW.BTMCOMP.COM

BTM's website features 24/7 access to the most up to date product information.

Download:

- Catalogs
- Brochures & Flyers
- Product Information
- ...and More!

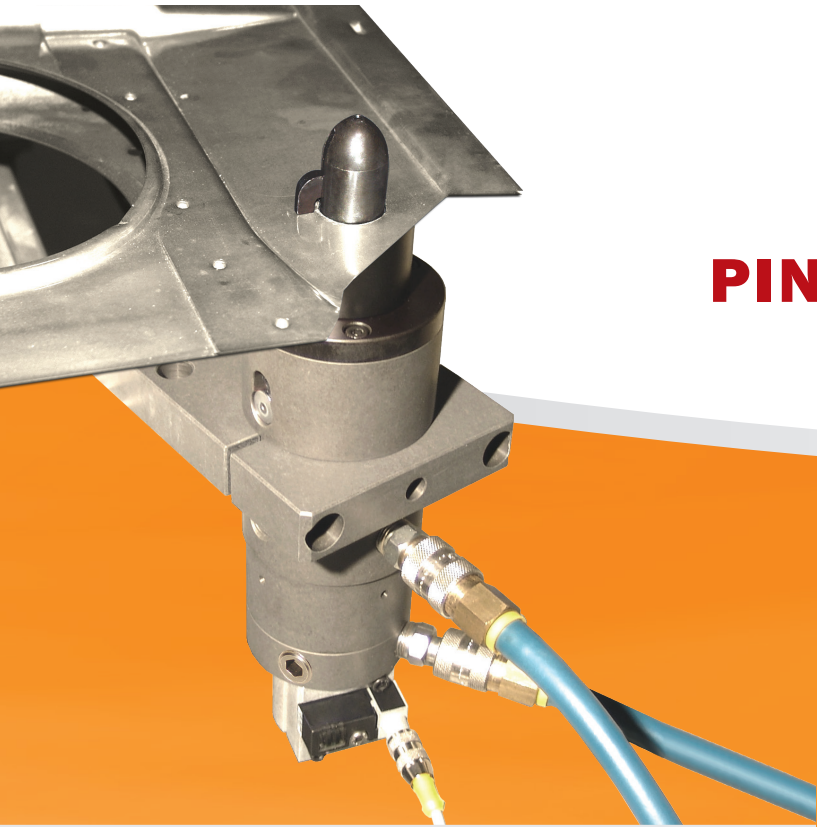


NEED TO LOCATE **AND** CLAMP THROUGH A HOLE?

Try

BTM[®]

PIN LOCATOR CLAMPS



A BTM Pin Clamp locates and holds a part inexpensively and accurately.

» Inexpensively because it combines a locating pin with a power clamp or gripper in one device that is lightweight and easy to mount.

» Accurately because it engages GD&T oriented holes already in the part.



PLC-25
Light Duty
Non-Locking

PLC-45
Non-Locking

PLC-63
Non-Locking

RLPC-45
RLPC-63
Rod-Locking

LPLC-38
Locking
(Manual LPLC-38M Version Shown)

BTM[®] COMPANY

BTM has a wide range of products to meet your needs including (but definitely not limited to):

PNEUMATIC CLAMPS & GRIPPERS

Light & Heavy Duty Clamps

Clamps range from light duty omni-directional head clamps to heavy duty precision sealed power clamps.



Light & Heavy Duty Grippers

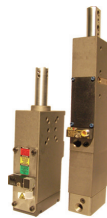
BTM's Gripper line ranges from compact light duty models to locking & non-locking heavy duty models.



PIN PRODUCTS

Precision Shot Pin cylinders

BTM's Precision Part Locators are used whenever your production needs require locating precise holes in a workpiece.



Pin Locator Clamps

BTMs' Pin Locator Clamps and Single Finger clamps are used in stationary part nests, welding fixtures, transfer systems, robot end effectors and numerous other clamping applications. These clamps locate and hold the work while other operations are performed.



Standard pin sizes range from 12.5mm - 40mm.

SHEET METAL JOINING

Tog-L-Loc[®]

BTM's Tog-L-Loc[®] sheet metal joining system is a cold forming process that quickly joins pre-painted, galvanized, coated, and dissimilar metals.



WWW.TOG-L-LOC.COM

Lance-N-Loc[®]

BTM's Lance-N-Loc[®] Joining System produces clean, strong and consistent joints in most coated or uncoated metals.



Ways to Tog-L-Loc[®]



Die Sets



Handheld Units



Hydraulic Units



Universal Presses



Specialized Units

For more information, or to see our full line of products, please visit:

WWW.BTMCOMP.COM