

SERIES PNC CLAMP

with Automatic Numbering Head

Automated Stamping for Part Identification

NUMBER[®]
CRUNCHER



**ISO-9001
CERTIFIED**
Quality Management
System Certified

PATENT #6,125,684

ANH01



phd[®]
SOLUTIONS FOR INDUSTRIAL AUTOMATION

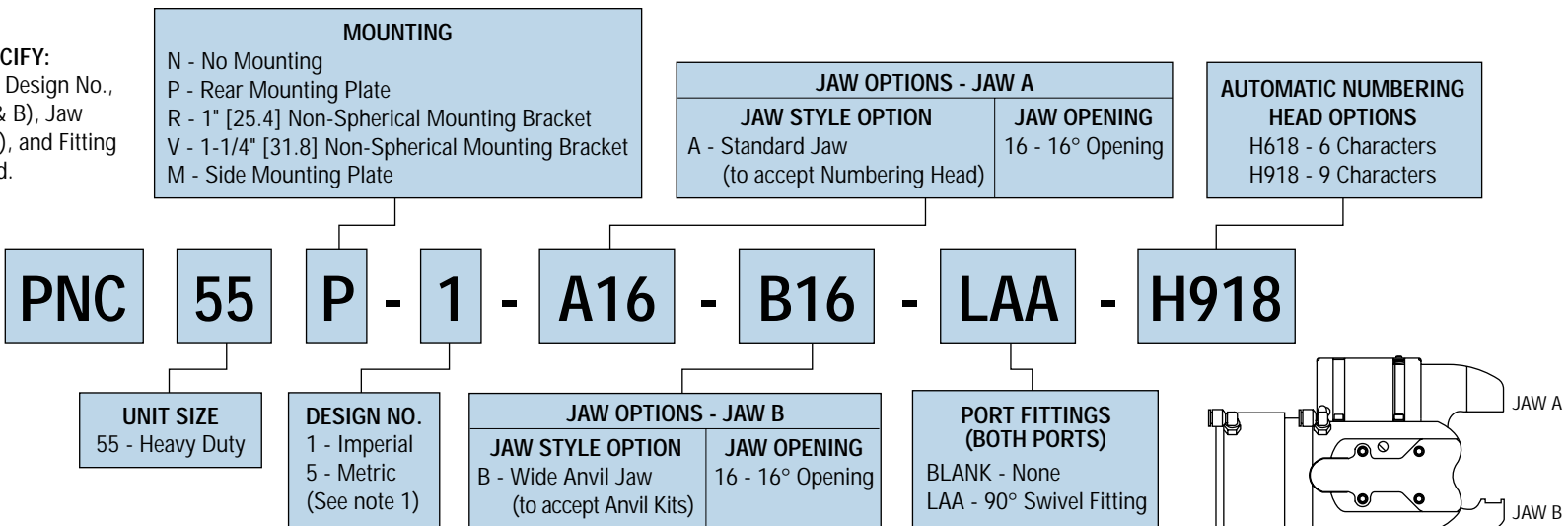
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ORDERING DATA: PNC AUTOMATIC NUMBERING CLAMP

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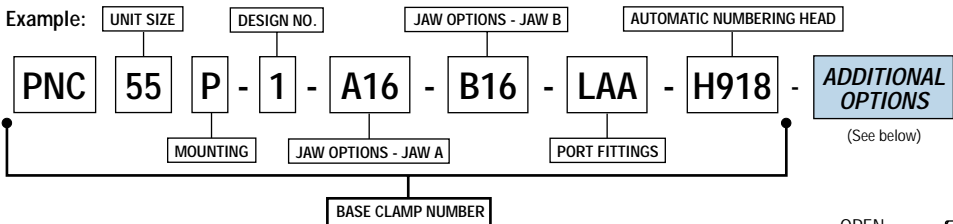
TO ORDER SPECIFY:
Size, Mounting, Design No., Jaw Option (A & B), Jaw Opening (A & B), and Fitting Option if desired.



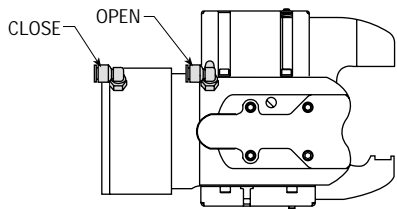
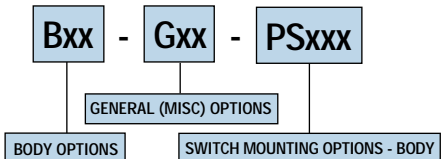
NOTES:

- 1) Metric units have metric ports and mounting.
- 2) Numbers in [] are for metric units and are in mm.

SEE PAGE 10 TO ORDER THE ANVIL REQUIRED FOR A WORKING UNIT.
(Anvils are color coded and specified for material thickness)



ADDITIONAL OPTIONS (pages 13 - 18)



BENEFITS: PNC AUTOMATIC NUMBERING CLAMP



BENEFITS

- Provides a cost effective solution for stamping identification characters into parts or material.
- High clamp force produces characters in draw quality steel at 70 psi [4.8 bar].
- Accommodates PHD's Automatic Numbering Head for rapid consecutive numbering (Option -H618 or -H918).
- Operates quietly in less than .5 seconds.
- Includes lockout pin for safety during tooling changes.
- Available with side, bayonet, or rear mounting for maximum flexibility.
- Anvils are color coded by material thickness and require no adjustment.
- Jaws and body contain locking threads. No adhesive thread locker is required.
- Two hardened steel plates eliminate damage from panel impact.
- Rugged design for millions of trouble-free cycles.
- Fully field repairable in less than 20 minutes using only 3 metric hex wrenches.
- Design provides a wide and deep throat to accommodate most applications.
- Tandem Cylinder option provides 70% increase in clamp force.
- Welding slag shield option protects internal mechanisms from flying sparks and debris.
- Optional switches allow for open and close sensing.

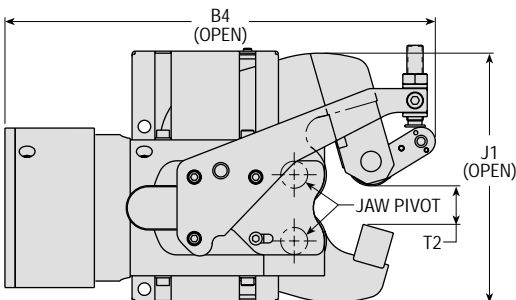
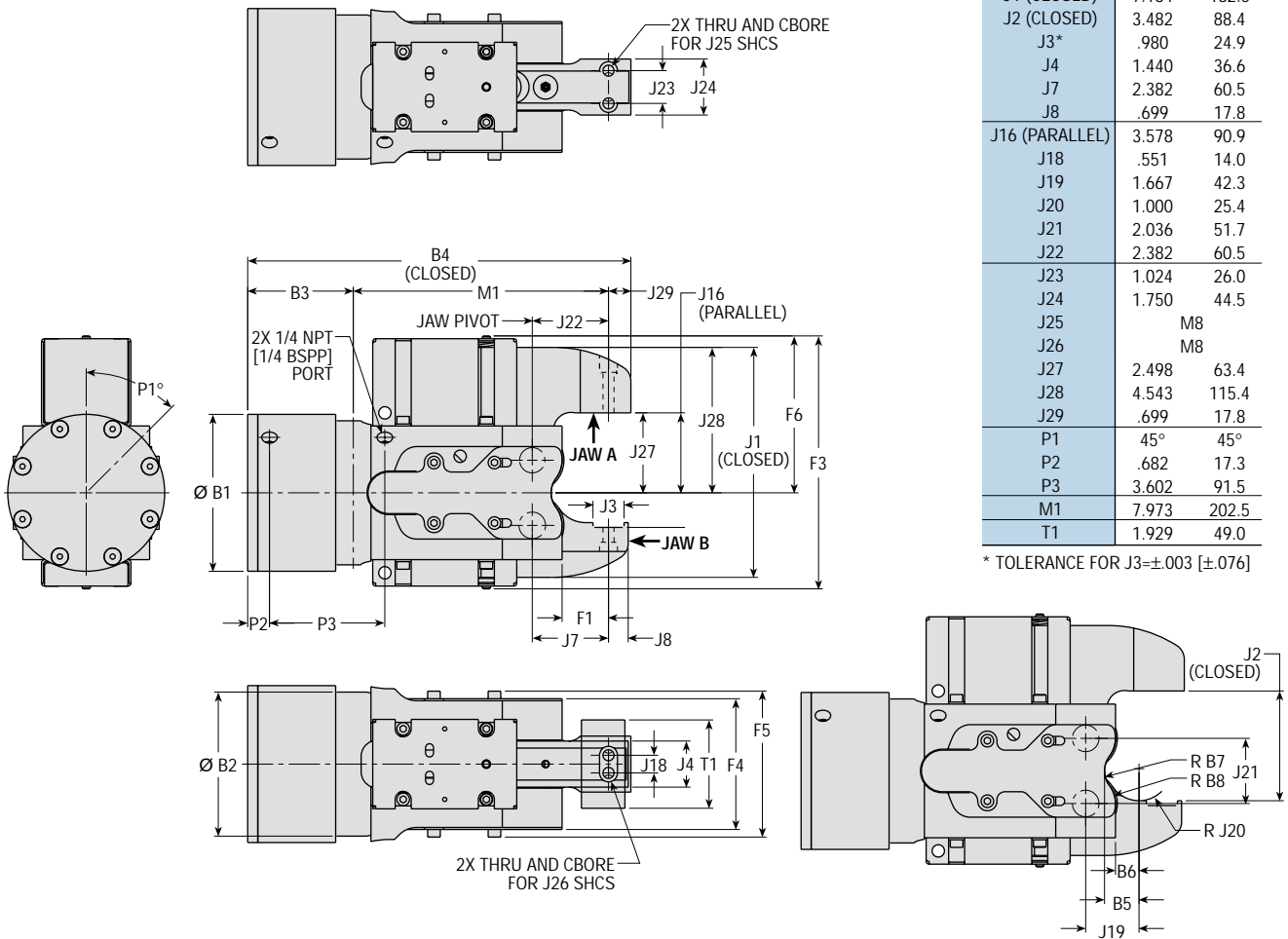
SPECIFICATIONS	SERIES PNC CLAMPS
WORKING PRESSURE	70 psi min. - 100 psi max.* [5 bar min. - 7 bar max.]
BODY	Hardcoat Aluminum
JAWS	Steel
SEALS	Bidirectional Piston Seal Lip Type Rod Seal with Integral Rod Wiper
LUBRICATION	Permanent for Non-Lube Air

*90 psi max. for B01 option

DIMENSIONS: PNC AUTOMATIC NUMBERING CLAMP

LETTER DIM	MODEL NUMBER	
	PNC55x	
	in	mm
B1	4.902	124.5
B2	4.500	114.3
B3	3.300	83.8
B4 (CLOSED)	11.972	304.1
B5	1.078	27.4
B6	.735	18.7
B7	.750	19.1
B8	.990	25.1
F1	1.450	36.8
F3	7.902	200.7
F4	4.085	103.8
F5	4.557	115.7
F6	4.902	124.5
J1 (CLOSED)	7.184	182.5
J2 (CLOSED)	3.482	88.4
J3*	.980	24.9
J4	1.440	36.6
J7	2.382	60.5
J8	.699	17.8
J16 (PARALLEL)	3.578	90.9
J18	.551	14.0
J19	1.667	42.3
J20	1.000	25.4
J21	2.036	51.7
J22	2.382	60.5
J23	1.024	26.0
J24	1.750	44.5
J25	M8	
J26	M8	
J27	2.498	63.4
J28	4.543	115.4
J29	.699	17.8
P1	45°	45°
P2	.682	17.3
P3	3.602	91.5
M1	7.973	202.5
T1	1.929	49.0

* TOLERANCE FOR J3=±.003 [±.076]



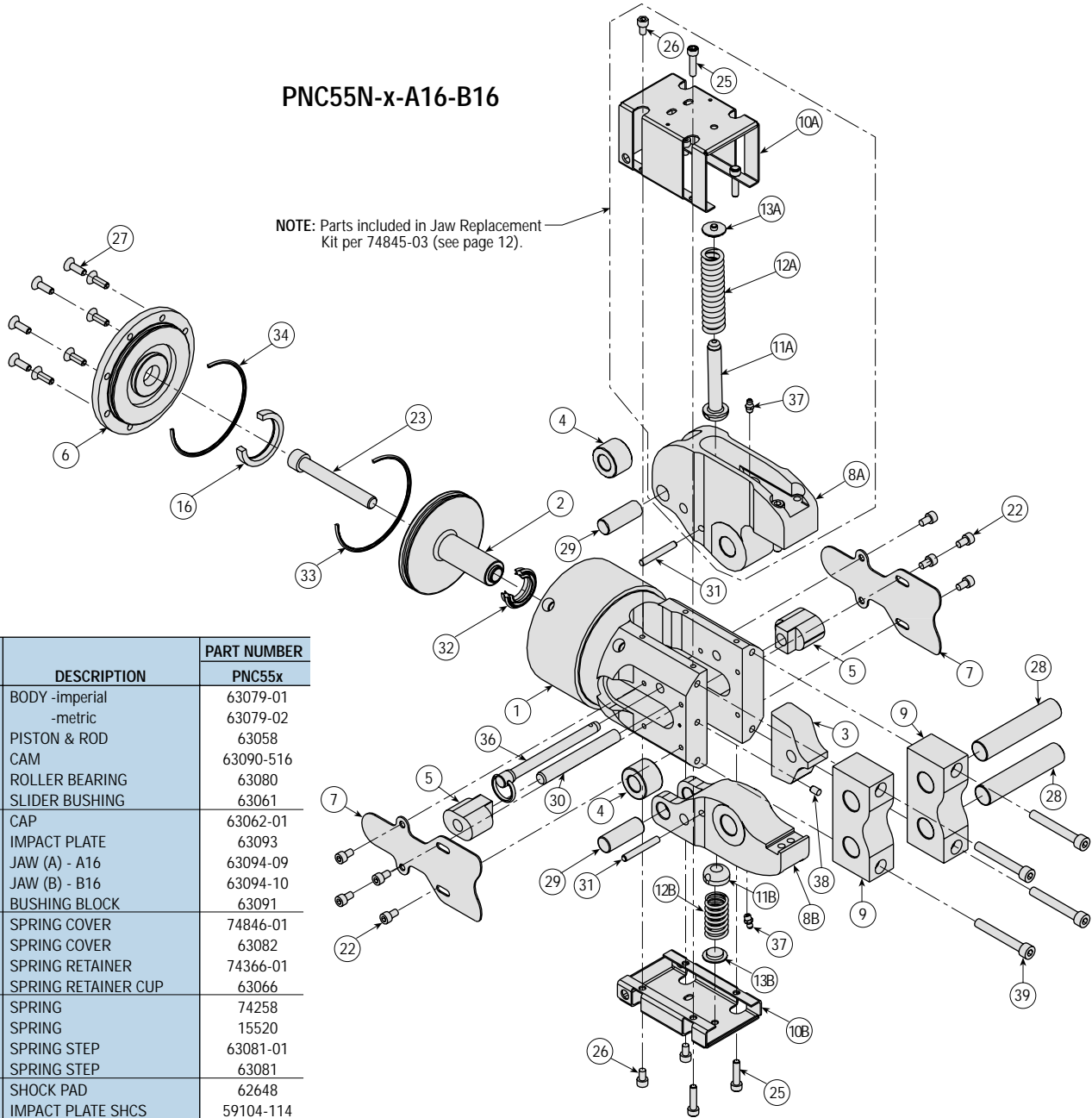
SHOWN WITH LOWER ANVIL AND -H618 OR -H918

LETTER DIM	MODEL NUMBER	
	PNC55x	
	in	mm
J1 (OPEN)	7.656	194.5
T2	1.183	30.0
B4 (OPEN)	13.228	336.0

PARTS BREAKDOWN: PNC AUTOMATIC NUMBERING CLAMP

PNC55N-x-A16-B16

NOTE: Parts included in Jaw Replacement Kit per 74845-03 (see page 12).



KEY	DESCRIPTION	PART NUMBER
		PNC55x
1	BODY -imperial -metric	63079-01 63079-02
2	PISTON & ROD	63058
3	CAM	63090-516
4	ROLLER BEARING	63080
5	SLIDER BUSHING	63061
6	CAP	63062-01
7	IMPACT PLATE	63093
8A	JAW (A) - A16	63094-09
8B	JAW (B) - B16	63094-10
9	BUSHING BLOCK	63091
10A	SPRING COVER	74846-01
10B	SPRING COVER	63082
11A	SPRING RETAINER	74366-01
11B	SPRING RETAINER CUP	63066
12A	SPRING	74258
12B	SPRING	15520
13A	SPRING STEP	63081-01
13B	SPRING STEP	63081
16	SHOCK PAD	62648
22	IMPACT PLATE SHCS	59104-114
23	PISTON & ROD SHCS	59104-205
25	SPRING COVER SHCS	59104-120
26	SPRING COVER SHCS	59104-114
27	CAP SFHCS	59104-600
28	PIVOT PIN	63101
29	ROLLER BEARING PIN	63102
30	CAM PIN	17831-058
31	SPRING RETAINER CUP PIN	17831-059
32	ROD SEAL	62827-009-1
33	PISTON SEAL	3642-051-1
34	CAP SEAL	3642-051-1
35	NAME TAG (NOT SHOWN)	6441-321
36	SAFETY LOCK-OUT PIN	63087
37	GREASE ZERK	63086
38	BUSHING BLOCK PIN	17831-162
39	BUSHING BLOCK SHCS	59104-144

	KIT NUMBER
KIT DESCRIPTION	PNC55x
SEAL KIT	63098-01
FASTENER KIT	63097-02

NOTES:

- 1) FOR ANVIL INFORMATION, SEE PAGE 10.
- 2) FOR MOUNTING BRACKET INFORMATION, SEE PAGES 7 TO 9.

ENGINEERING DATA: PNC AUTOMATIC NUMBERING CLAMP

SPECIFICATIONS

MODEL	UNIT WEIGHT		TOTAL CLAMP FORCE AT 87 psi [6 bar]		CLOSE OR OPEN TIME 87 psi [6 bar]	DISPLACEMENT				CLAMP FORCE FACTOR (C _f)	
	lb	kg	lb	kN	sec.	OPEN		CLOSE		imperial	metric
						in ³	cm ³	in ³	cm ³		
PNC55x-x-A16-B16	25.8	11.70	13746	61	0.12	19.60	321	20.87	342	158.0	10191

MOUNTING CODE	MOUNTING BRACKET DESCRIPTION	WEIGHT	
		lb	kg
P	Rear Mounting Plate	.61	0.28
R	1" [25.4] Non-Spherical Mounting Bracket	.59	0.27
V	1-1/4" [31.8] Non-Spherical Mounting Bracket	.56	0.25
M	Side Mounting Plate	.53	0.24

ANVIL KIT NO.	ANVIL COLOR	WEIGHT	
		lb	kg
74940-00	Green	0.61	0.28
74940-01	Black	0.59	0.27
74940-02	Silver	0.56	0.25
74940-03	Gold	0.53	0.24

SEALS AND FLUIDS

Buna-N and Nitrile seals are standard on all Series PNC Clamps. Piston seals are long life Nitrile and rod seals are lip type. Both are compatible with standard paraffin-based lubrication oils used for pneumatic cylinders. For compatibility with other fluids, consult PHD.

TEMPERATURE LIMITS

Seals and clamp mechanism are designed for use in temperatures from -20° to 180°F [-30° to 82°C]. For higher temperatures, consult PHD.

LIFE EXPECTANCY

All units with Buna-N and Nitrile seals have been designed for millions of cycles with minimal seal wear and minimal backlash.

LUBRICATION

Seals and clamp mechanism are prelubricated at the factory for service under normal operating conditions.

MATERIAL

Clamp body is made of hardcoated aluminum. Jaws and operating mechanism are manufactured from hardened steel.

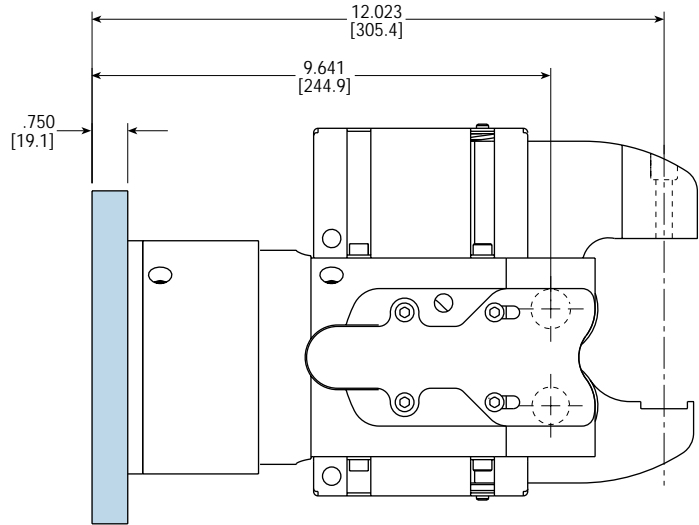
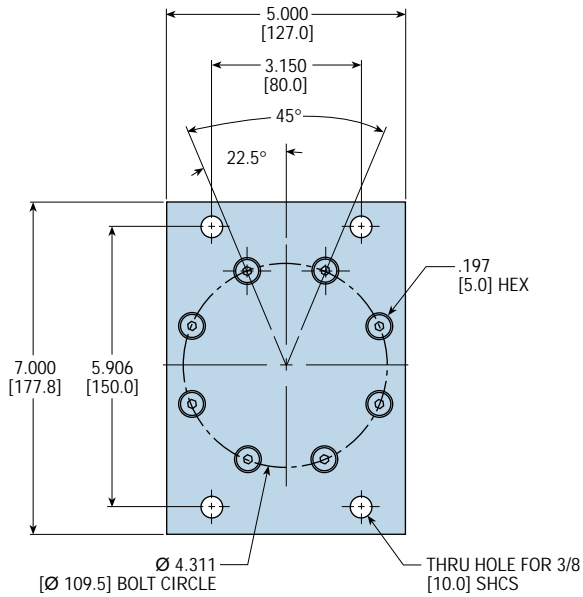
SPECIAL CLAMPS

Clamps for special applications, severe duty, or constructed of special materials are available. Consult PHD.

MOUNTING BRACKET DIMENSIONS: PNC CLAMP

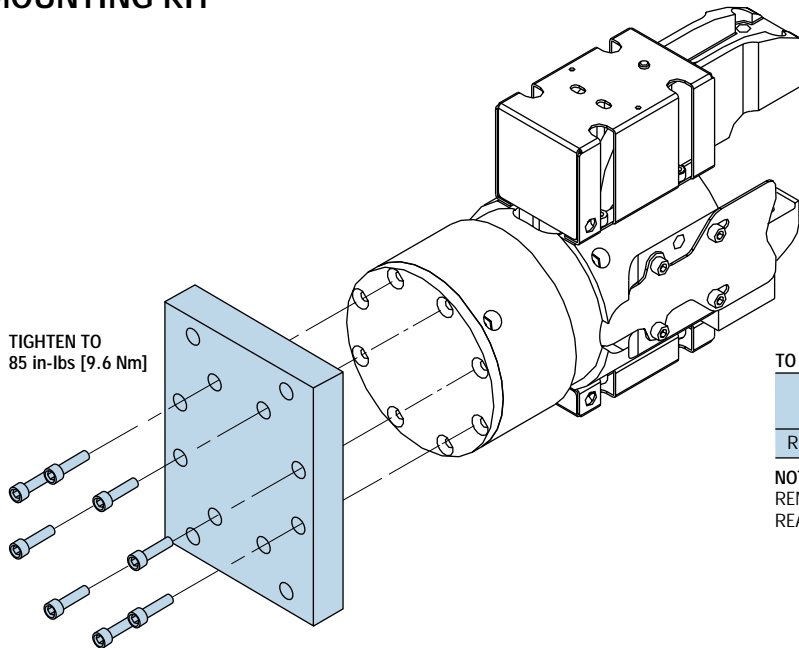
REAR MOUNTING BRACKET

PNC55 **P**



- NOTES:**
 1) NUMBERS IN [] ARE FOR METRIC UNITS AND ARE IN mm.
 2) PLATE MAY ROTATE IN 45° INCREMENTS ABOUT UNIT CENTERLINE.

REAR MOUNTING KIT



TO ORDER KIT SEPARATELY:

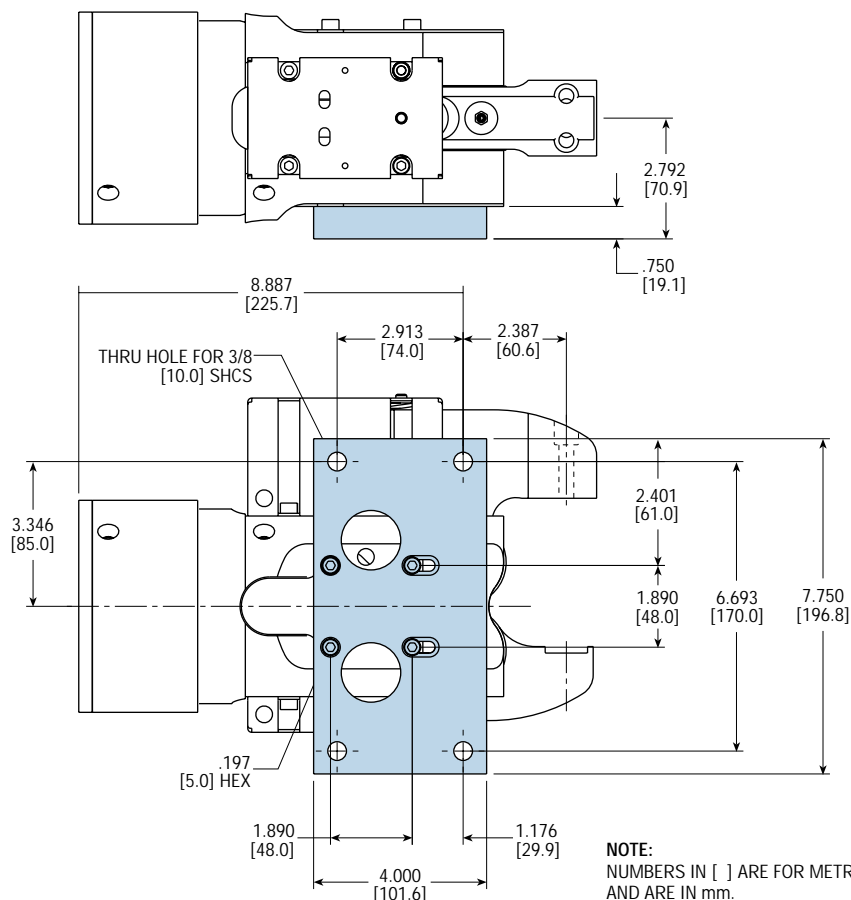
DESCRIPTION	KIT NUMBER
REAR MOUNTING PLATE KIT	PNC55P 63099-02

NOTE:
 REMOVAL OF 8 CAP SFHCS IS REQUIRED BEFORE REAR MOUNTING PLATE CAN BE ASSEMBLED.

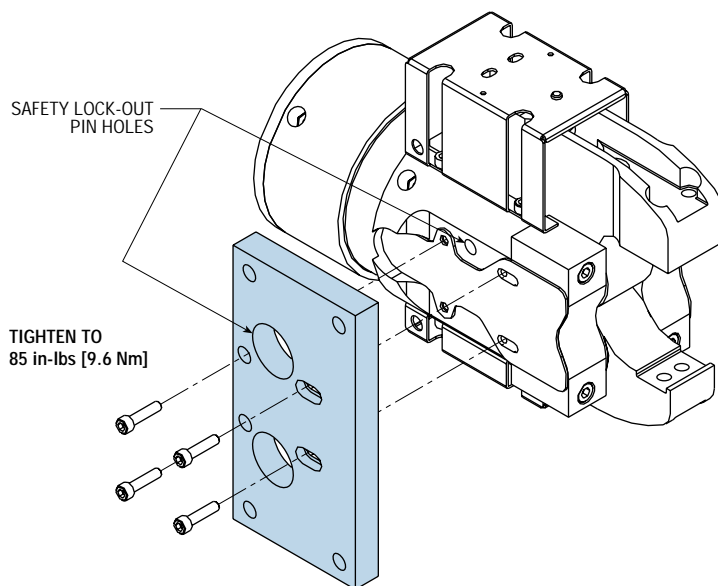
MOUNTING BRACKET DIMENSIONS: PNC CLAMP

SIDE MOUNTING BRACKET

PNC55 **M**



SIDE MOUNTING KIT



TO ORDER KIT SEPARATELY:

DESCRIPTION	KIT NUMBER
SIDE MOUNTING PLATE KIT	PNC55M 63099-03

NOTE: REMOVAL OF 4 IMPACT PLATE SHCS IS REQUIRED BEFORE SIDE MOUNTING PLATE CAN BE ASSEMBLED.

MOUNTING BRACKET DIMENSIONS: PNC CLAMP

NON-SPHERICAL MOUNTING BRACKET

PNC55 **R**

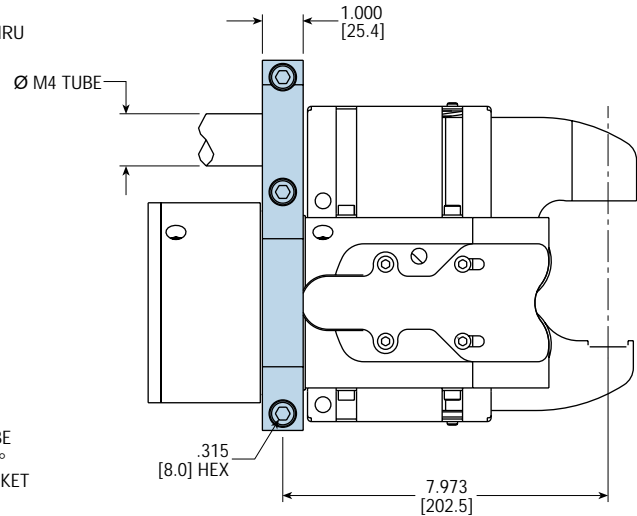
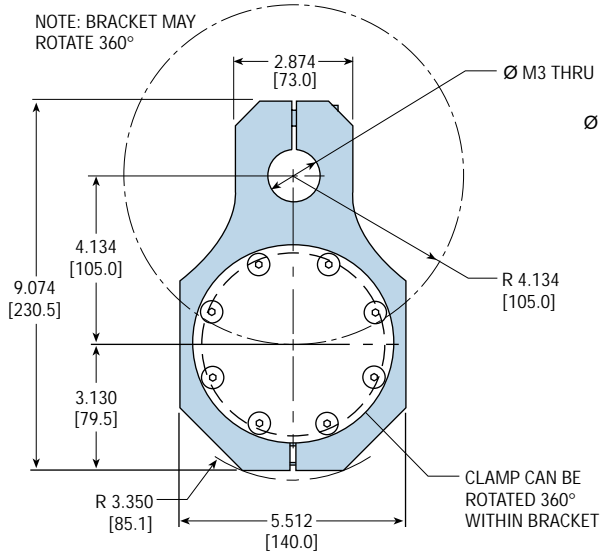
PNC55 **V**

LETTER DIM	MODEL NUMBER			
	PNC55R		PNC55V	
	in	mm	in	mm
M3*	1.005	25.5	1.255	31.9
M4	1.000	25.4	1.250	31.8

* TOLERANCE FOR M3 = ±.002 [.051]

NOTES:

- 1) NUMBERS IN [] ARE FOR METRIC UNITS AND ARE IN mm.
- 2) BRACKET MAY ROTATE 360° ABOUT M4 TUBE.



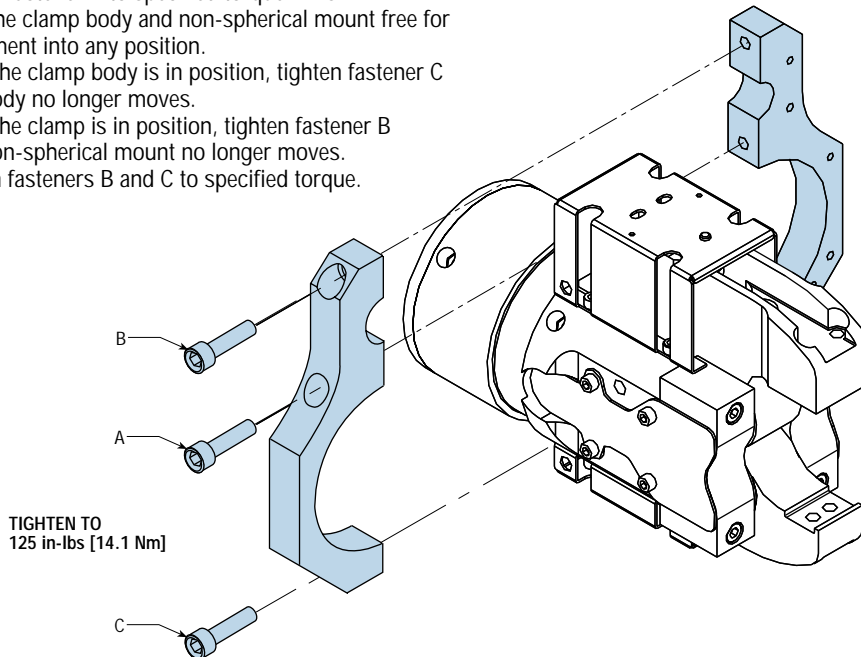
NON-SPHERICAL MOUNTING KIT

Installation Procedure:

- 1) Insert body between non-spherical bracket halves.
- 2) Insert fasteners
 - A) Tighten fastener A to specified torque. This will allow the clamp body and non-spherical mount free for adjustment into any position.
 - B) When the clamp body is in position, tighten fastener C until body no longer moves.
 - C) When the clamp is in position, tighten fastener B until non-spherical mount no longer moves.
 - D) Tighten fasteners B and C to specified torque.

TO ORDER KIT SEPARATELY:

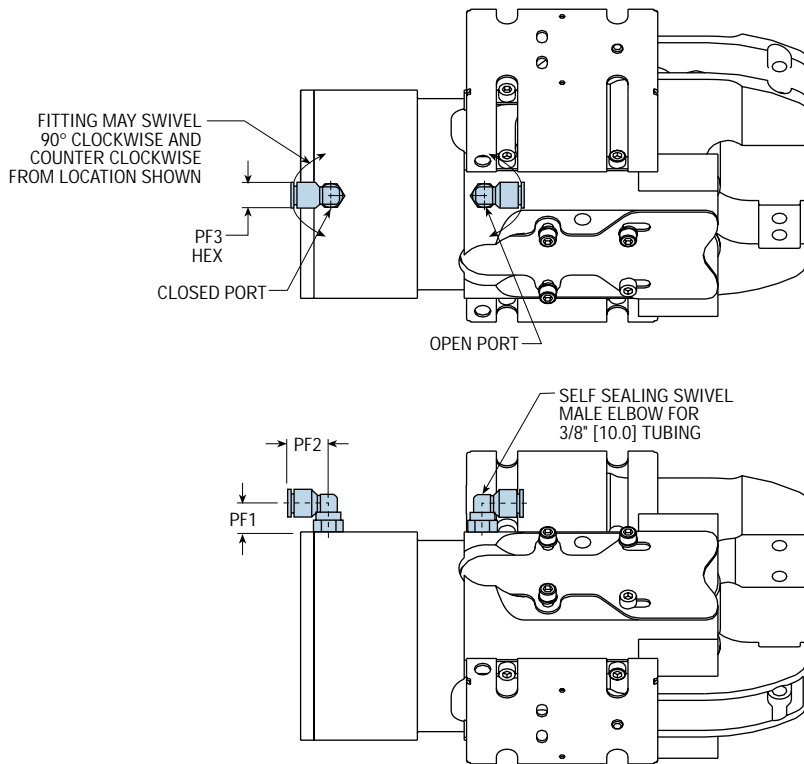
KIT DESCRIPTION	KIT NUMBER	
	PNC55R	PNC55V
NON-SPHERICAL MOUNTING KIT	63099-01	63099-04



All dimensions are reference only unless specifically tolerated.

PORT FITTING DIMENSIONS: PNC CLAMP

- LAA OPTION (FITTINGS IN BOTH PORTS)

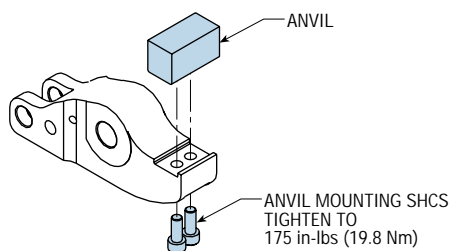


LETTER DIM	MODEL NUMBER	
	PNC55	
PF1	.767	20.5
PF2	1.102	28.0
PF3	.551	14.0

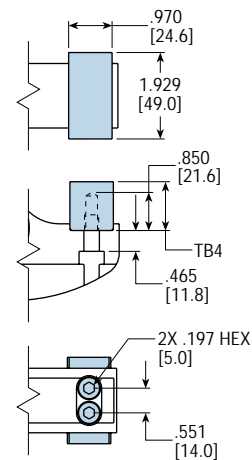
NOTE:
TO ORDER FITTINGS SEPARATELY,
PART NO. 62178-010 -IMPERIAL
PART NO. 62195-010 -METRIC

JAW B - ANVIL: PNC AUTOMATIC NUMBERING CLAMPS

JAW B - ANVIL



PANEL THICKNESS		PART COLOR	ANVIL KIT NO.	LETTER DIM.	
PNC55	PNC55x-B01 OPTION			in	mm
—	.25 - 1.00 mm	GREEN	74940-00	1.138	28.9
.25 - 1.50 mm	1.00 - 2.25 mm	BLACK	74940-01	1.089	27.7
1.50 - 3.00 mm	2.25 - 3.50 mm	SILVER	74940-02	1.040	26.4
3.00 - 4.00 mm	3.50 - 4.75 mm	GOLD	74940-03	.990	25.1



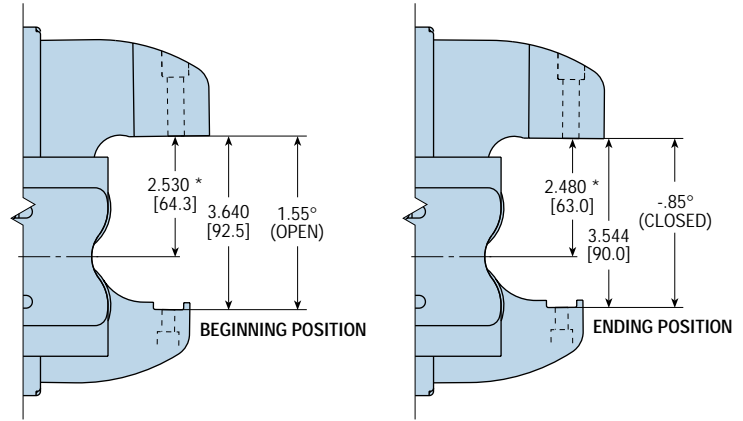
EFFECTIVE STAMPING RANGE: PNC CLAMP

EFFECTIVE STAMPING RANGE

The effective stamping range is defined as the range where the clamp develops the greatest amount of clamp force (C_f). The effective stamping range occurs between the beginning and ending jaw positions as shown below.

NOTES:

- 1) NUMBERS IN [] ARE FOR METRIC UNITS AND ARE IN mm.
- 2) ANGULAR DIMENSIONS ARE MEASURED IN DEGREES.
- 3) *- DIMENSION MEASURED FROM CENTERLINE OF UNIT TO CENTERLINE OF TIP SLOT.



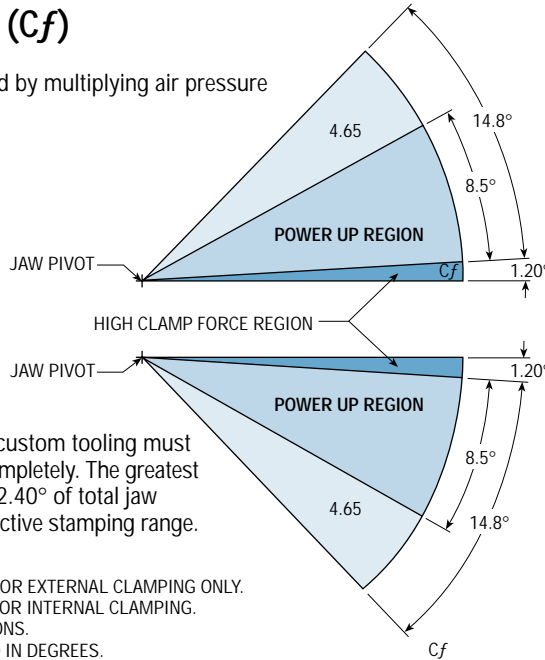
TOTAL CLAMP FORCE (C_f)

Total clamp force can be determined by multiplying air pressure by the clamp force multiplier (C_f).

Example:

Your air line pressure: 72 psi
 Clamp force multiplier: 4.65
 (outside effective stamping range)
 $72 \times 4.65 = 334.8$ lb

Clamp force multiplier: 158.0
 (within high force region)
 $72 \times 158.0 = 11,376$ lb



AIR PRESSURE		PNC55x-x-A16-B16			
		TOTAL CLAMP FORCE (C_f) = 158.0 [10191]		TOTAL CLAMP FORCE (C_f) = 4.65 [300]	
psi	bar	lb	N	lb	N
30	2.07	4740	21085	140	621
40	2.76	6320	28113	186	828
50	3.45	7900	35141	233	1034
60	4.14	9480	42170	279	1241
70	4.83	11060	49198	326	1448
80	5.52	12640	56226	372	1655
90	6.21	14220	63254	419	1862
100	6.90	15800	70283	465	2069

(For chart below)

Will not function in this range

Ideal stamping range

To achieve maximum clamp force, custom tooling must not restrict the jaws from closing completely. The greatest clamp force occurs during the last 2.40° of total jaw rotation. Refer to the picture for effective stamping range.

NOTES:

- 1) THE NUMBER CRUNCHER IS DESIGNED FOR EXTERNAL CLAMPING ONLY. DO NOT USE THE NUMBER CRUNCHER FOR INTERNAL CLAMPING. CONSULT PHD FOR SPECIAL APPLICATIONS.
- 2) ANGULAR DIMENSIONS ARE MEASURED IN DEGREES.

PNC55x-x-A16-B16-LAA TIP COMBINATION

DESCRIPTION	COLOR	PRESSURE		PANEL THICKNESS in [mm]																										
				.000	.010	.019	.029	.039	.049	.059	.069	.078	.089	.098	.108	.118	.128	.137	.148	.157	.167	.177	.187	.196	.207	.217	.226	.236		
		psi	bar	[0]	[.25]	[.5]	[.75]	[1]	[1.25]	[1.5]	[1.75]	[2]	[2.25]	[2.5]	[2.75]	[3]	[3.25]	[3.50]	[3.75]	[4]	[4.25]	[4.5]	[4.75]	[5]	[5.25]	[5.5]	[5.75]	[6]		
GREEN ANVIL	GREEN	60	4.1																											
		87	6																											
		100	6.9																											
BLACK ANVIL	BLACK	60	4.1																											
		87	6																											
		100	6.9																											
SILVER ANVIL	SILVER	60	4.1																											
		87	6																											
		100	6.9																											
GOLD ANVIL	GOLD	60	4.1																											
		87	6																											
		100	6.9																											

BODY OPTIONS: PNC ACCESSORIES

H618

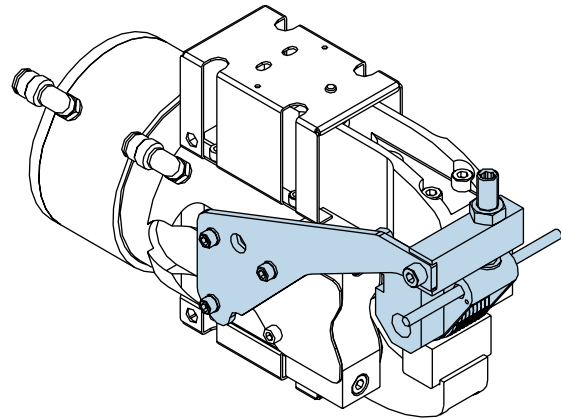
6 DIGIT AUTOMATIC NUMBERING HEAD

H918

9 DIGIT AUTOMATIC NUMBERING HEAD

This option provides an automatic numbering head for accurate consecutive numbering. The adjusting screw mounted in the trip arm automatically indexes the head to the next digit as the PNC opens. No additional pneumatic valves are required for indexing.

Six and nine wheel heads are available with 1/8 inch characters. Six wheels automatically index on both heads, the last three wheels are manually indexed on the nine wheel head. Zero suppression is standard, meaning that a six wheel head starts at the number 1, not 000001. Designed and produced for millions of trouble-free cycles. Most materials can be numbered (steel, aluminum, copper, plastic).



REPLACEMENT KIT NUMBERS AND PRICES IF ORDERED SEPARATELY

AVAILABLE ON	DESIGN NO.	ACCESSORY	PRICE ADDER
PNC55	1 [5]	H618	\$3,972.65
PNC55	1 [5]	H918	\$5,251.30

KIT DESCRIPTION	KIT NUMBER	LIST PRICE
JAW REPLACEMENT KIT - JAW A	74845-03	\$700.36
REPLACEMENT JAW - JAW B	63094-10	\$536.75
AUTOMATIC NUMBERING HEAD KIT -H618	74845-04	\$3,972.65
AUTOMATIC NUMBERING HEAD KIT -H918	74845-05	\$5,251.30
NUMBERING HEAD REPLACEMENT KIT -H618	74845-06	\$3,864.00
NUMBERING HEAD REPLACEMENT KIT -H918	74845-07	\$5,142.67

Example Ordering Data:

PNC **55** N-1- **A** 16- **B** 16-LAA -**H918**

SHADED CODES are required for this option.

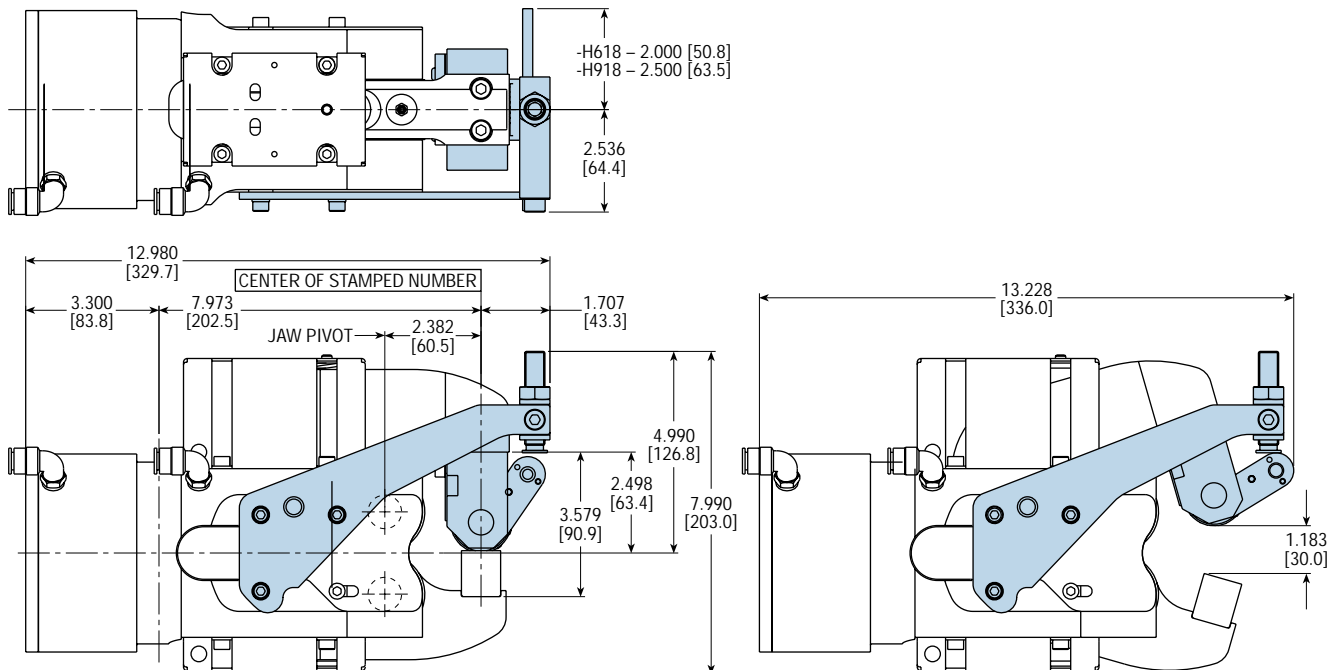
All unshaded model codes are example only.

For compatibility with other units, consult PHD.

NOTE: Jaw replacement kit includes all parts noted on page 5. Automatic numbering head kits include all parts shaded in blue. Numbering head replacement kit includes: Numbering Head & Mounting SHCS.

WEIGHT ADDER

ACCESSORY	lb	Kg
H618	3.6	1.61
H918	4.2	1.91



BODY OPTIONS: PNC ACCESSORIES

B01

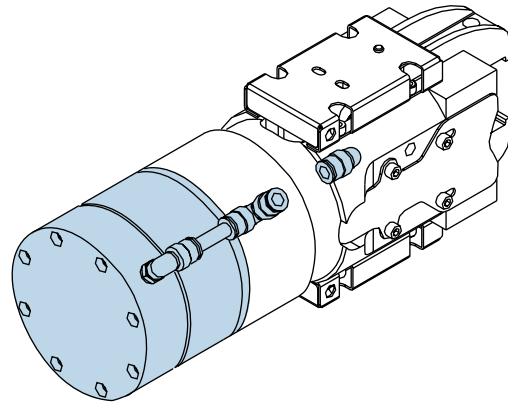
TANDEM CYLINDER

This option provides up to a 70% increase in clamp force by adding a second cylinder (tandem) on a standard PNC55 clamp. The cylinder mounts directly to the back of a PNC55 clamp body. Overall length is increased by 3.59 in [91.2 mm]. Weight is increased by 5.4 lb [2.45 kg].

This option is compatible with P, R, V, and M mounts. Length adder affects P mounting option. See page 7 for P mounting option dimensions. This option will accommodate standard Jaw Style B anvils (see page 10).

The -LAA option provides the plumbing shown on page 10. If the -LAA option is not ordered, the customer should plumb the clamp in a similar fashion as depicted on page 14.

NOTE: 90 psi [6.2 bar] max. working pressure.



AVAILABLE ON	DESIGN NO.	ACCESSORY	PRICE ADDER
PNC55	1 [5]	B01	\$282.70

Price adder is for the tandem cylinder only. Fittings are ordered separately.

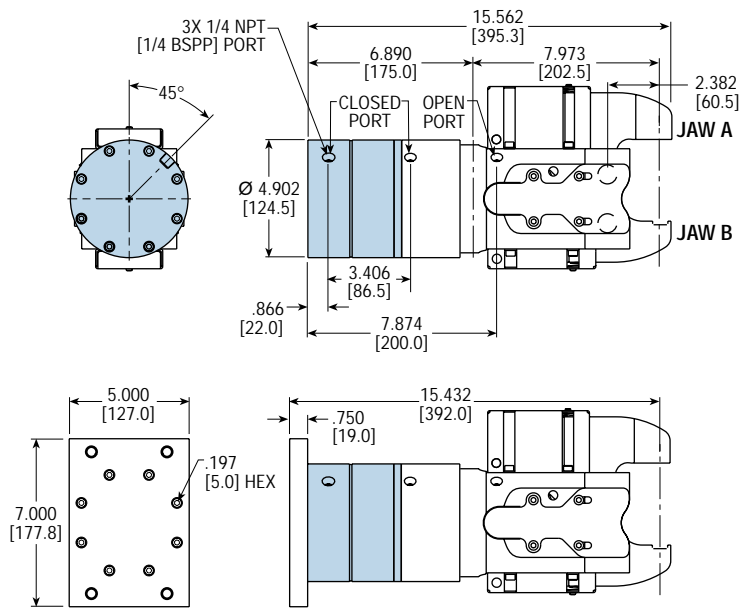
Example Ordering Data:

PNC **55** N-1-A16-B16-LAA **-B01**

SHADED CODES are required for this option.

All unshaded model codes are example only.

For compatibility with other units, consult PHD.



- NOTES:
 1) ALL DIMENSIONS ARE REFERENCE UNLESS SPECIFICALLY TOLERANCED.
 2) ALL DIMENSIONS [] ARE GIVEN IN MILLIMETERS
 1mm = .03937 in

SPECIFICATIONS

CLAMP SIZE	WEIGHT ADDER		LENGTH ADDER		TOTAL CLAMP FORCE AT 87 psi [6 bar]		DISPLACEMENT			
	lb	Kg	in	mm	lb	N	in ³	cm ³	in ³	cm ³
55	5.4	2.45	3.59	91.2	23490	104488	19.60	321	41.74	684

REPLACEMENT KIT NUMBERS AND PRICES IF ORDERED SEPARATELY

CLAMP SIZE & MODEL	CYLINDER ASSEMBLY NO.		LIST PRICE
	IMPERIAL	METRIC	
55x	72204-03	72204-04	\$282.70
55P	72204-05	72204-06	\$282.70

Price adder is for the cylinder only. Fittings are ordered separately.

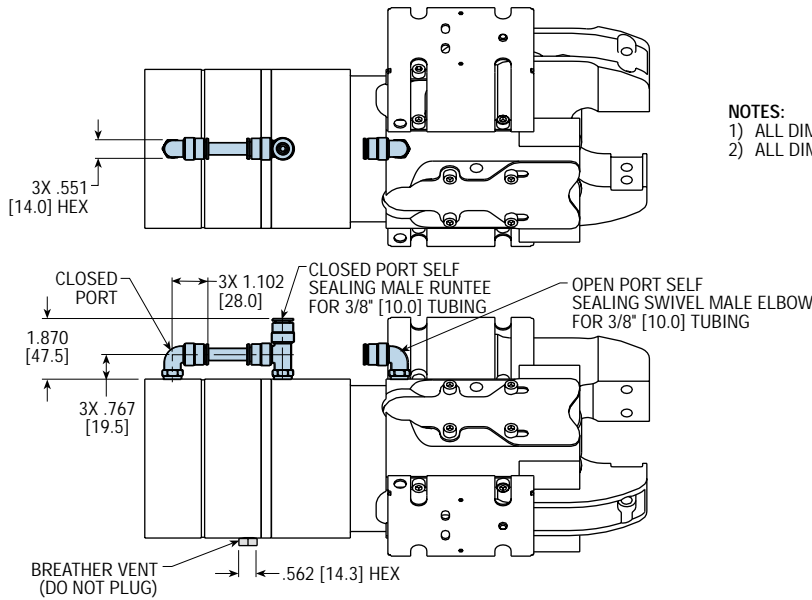
CLAMP SIZE & MODEL	MOUNTING KIT NO.		LIST PRICE
	55P	72204-07	

(continued on next page)

All dimensions are reference only unless specifically toleranced.

BODY OPTIONS: PNC ACCESSORIES

-LAA OPTION - Port Fittings with B01 Option



NOTES:
 1) ALL DIMENSIONS ARE REFERENCE UNLESS SPECIFICALLY TOLERANCED.
 2) ALL DIMENSIONS [] ARE GIVEN IN MILLIMETERS 1mm = .03937 in

REPLACEMENT KIT NUMBERS AND PRICE IF ORDERED SEPARATELY

CLAMP SIZE	KIT NUMBER			LIST PRICE
	IMPERIAL	METRIC		
55	72204-11	72204-12		\$24.55

Kit includes 2 swivel male elbows, 1 male runtee, 1 tube, and 1 breather vent.

EFFECTIVE STAMPING RANGE

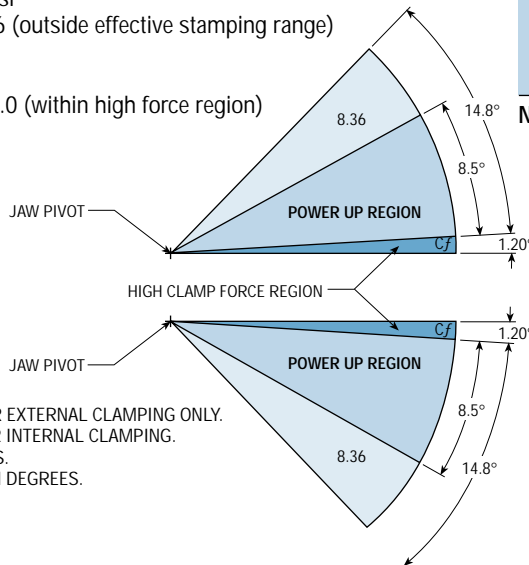
TOTAL CLAMP FORCE (Cf)

Total clamp force can be determined by multiplying air pressure by the clamp force multiplier (Cf).

Example: Your air line pressure: 72 psi
 Clamp force multiplier: 8.36 (outside effective stamping range)
 $72 \times 8.36 = 601.92 \text{ lb}$

Clamp force multiplier: 270.0 (within high force region)
 $72 \times 270.0 = 19,440 \text{ lb}$

To achieve maximum clamp force, custom tooling must not restrict the jaws from closing completely. The greatest clamp force occurs during the last 2.40° of total jaw rotation. Refer to the picture for effective stamping range.



NOTES:
 1) THE NUMBER CRUNCHER IS DESIGNED FOR EXTERNAL CLAMPING ONLY. DO NOT USE THE NUMBER CRUNCHER FOR INTERNAL CLAMPING. CONSULT PHD FOR SPECIAL APPLICATIONS.
 2) ANGULAR DIMENSIONS ARE MEASURED IN DEGREES.

PNC55x-x-A16-B16-B01

AIR PRESSURE	psi	bar	TOTAL CLAMP FORCE			
			(Cf) = 270 [17415]		(Cf) = 8.36 [539]	
			lb	N	lb	N
30	2.07		8100	36031	251	1115
40	2.76		10800	48041	334	1487
50	3.45		13500	60052	418	1859
60	4.14		16200	72062	502	2230
70	4.83		18900	84072	585	2602
80	5.52		21600	96083	669	2974
90	6.21		24300	108093	752	3346

NOTE: 90 psi [6.2 bar] max. working pressure

(For chart below)

Will not function in this range

Ideal stamping range

PNC55x-x-A16-B16-LAA-B01 TIP COMBINATION

DESCRIPTION	COLOR	PRESSURE	PANEL THICKNESS in [mm]																									
			.000 [0]	.010 [.25]	.019 [.5]	.029 [.75]	.039 [1]	.049 [1.25]	.059 [1.5]	.069 [1.75]	.078 [2]	.089 [2.25]	.098 [2.5]	.108 [2.75]	.118 [3]	.128 [3.25]	.137 [3.50]	.148 [3.75]	.157 [4]	.167 [4.25]	.177 [4.5]	.187 [4.75]	.196 [5]	.207 [5.25]	.217 [5.5]	.226 [5.75]	.236 [6]	
GREEN ANVIL	GREEN	60 4.1																										
		87 6																										
BLACK ANVIL	BLACK	60 4.1																										
		87 6																										
SILVER ANVIL	SILVER	60 4.1																										
		87 6																										
GOLD ANVIL	GOLD	60 4.1																										
		87 6																										

GENERAL OPTIONS: PNC ACCESSORIES

G01

WELDING SLAG SHIELDS

This option provides shields that protect the PNC55 mechanism from flying sparks and weld slag. Metal shields are assembled over the spring covers, blocking all spring cover openings. Additionally, a urethane shield is mounted on the bushing blocks covering the opening between the jaws.

AVAILABLE ON	DESIGN NO.	ACCESSORY	PRICE ADDER
PNC55	1 [5]	G01	\$166.90

Price adder is for gasket and shields mounted on clamp.

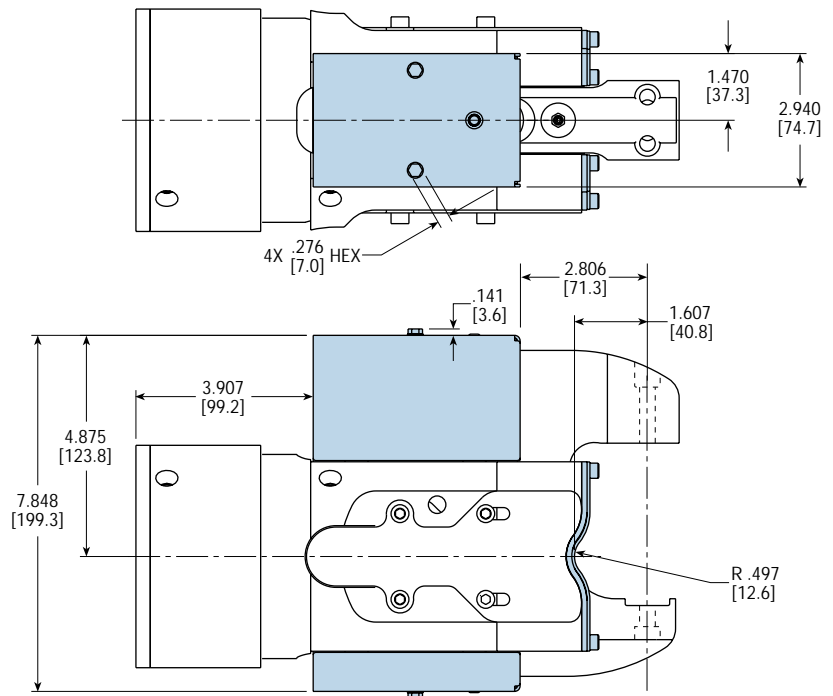
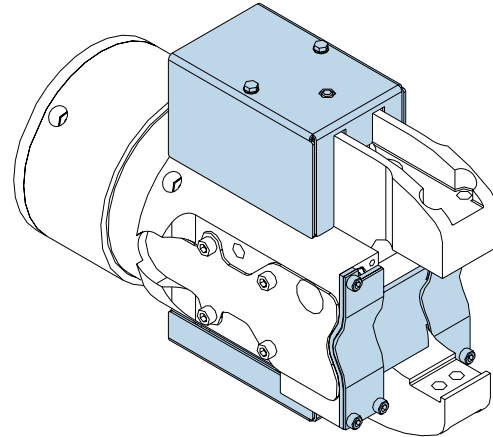
Example Ordering Data:

PNC **55** N -1-A16-B16-LAA -**G01**

SHADED CODES are required for this option.

All unshaded model codes are example only.

For compatibility with other units, consult PHD.



NOTES:

- 1) ALL DIMENSIONS ARE REFERENCE UNLESS SPECIFICALLY TOLERANCED.
- 2) ALL METRIC DIMENSIONS [] ARE GIVEN IN MILLIMETERS 1 mm = .03937 in

SWITCH MOUNTING OPTIONS: PNC ACCESSORIES

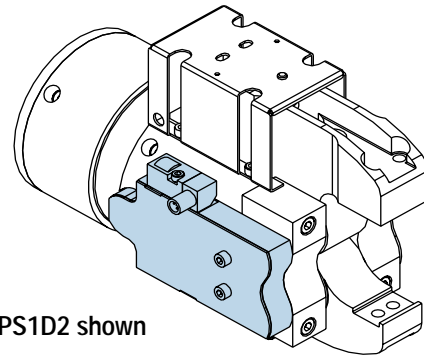
PSxxx POSITIONAL SENSING DETECTION

This option provides jaw open and jaw closed sensing by affixing an aluminum housing to the side of the clamp body. The adjustable switches sense the position of a target on the drive pin as the clamp opens and closes. (open range = 14° to full open, close range = 3° to full close)

PS positions satellite switch S02 to sense open and S01 to sense close. PR positions satellite switch S01 to sense open and S02 to sense close. See tables on switch option page for satellite switch to quick disconnect pin number relationships.

For use with the following PHD or customer supplied switches or equivalent:

- Ni 2-Q6.5-ADZ32-0.16-FSB 5.4X4/S304 (Turck)
- NBN2-F581-160S6-E8-V1 (P + F)
- Ni 2-Q6.5-0.16-BDS-2AP6X3-H1141/S34 (Turck)
- IN 5375 (Efector)



PS1D2 shown

AVAILABLE ON	DESIGN NO.	ACCESSORY	REPLACES	HOUSING POSITION	AMPLIFIER POSITION	PRICE ADDER
		PS(R)1Nx	—	1	—	\$180.00
		PS(R)3Nx	—	3	—	\$180.00
		PS(R)1A2	—	1	2	\$398.80
		PS(R)1A4	—	1	4	\$398.80
		PS(R)3A2	—	3	2	\$398.80
		PS(R)3A4	—	3	4	\$398.80
		PS(R)1D2	SB01	1	2	\$292.35
		PS(R)1D4	SB02	1	4	\$292.35
PNC55	1 [5]	PS(R)3D2	SB03	3	2	\$292.35
		PS(R)3D4	SB04	3	4	\$292.35
		PS(R)1E2	—	1	2	\$292.35
		PS(R)1E4	—	1	4	\$292.35
		PS(R)3E2	—	3	2	\$292.35
		PS(R)3E4	—	3	4	\$292.35
		PS(R)1F2	—	1	2	\$292.35
		PS(R)1F4	—	1	4	\$292.35
		PS(R)3F2	—	3	2	\$292.35
		PS(R)3F4	—	3	4	\$292.35

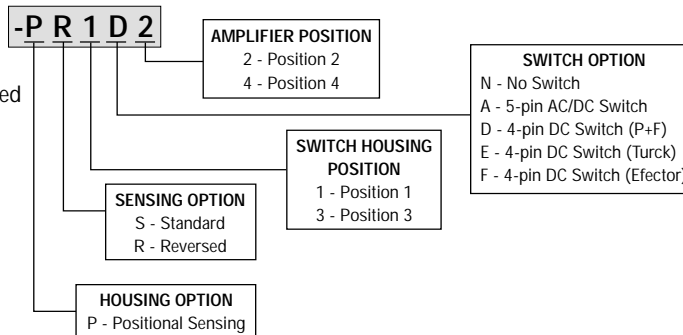
Price adder is for one switch cover with or without switch mounted to the clamp.

Example Ordering Data:

PNC55N-1-A16-B16-LAA -P R 1 D 2

SHADED CODES are required for this option. All unshaded model codes are example only.

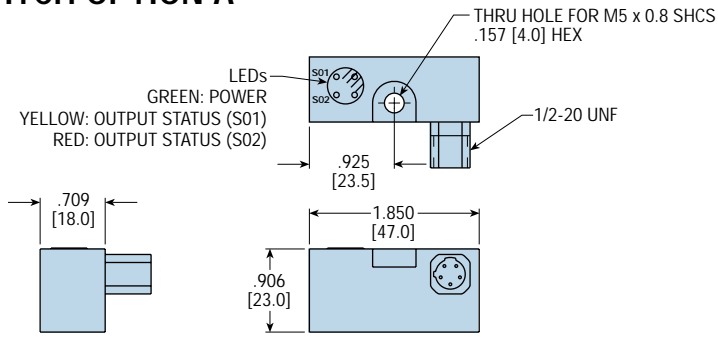
Switch Option-Refer to next page for specifications.



(continued on next page)

SWITCH MOUNTING OPTIONS: PNC ACCESSORIES

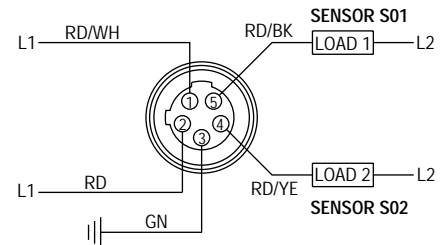
SWITCH OPTION A



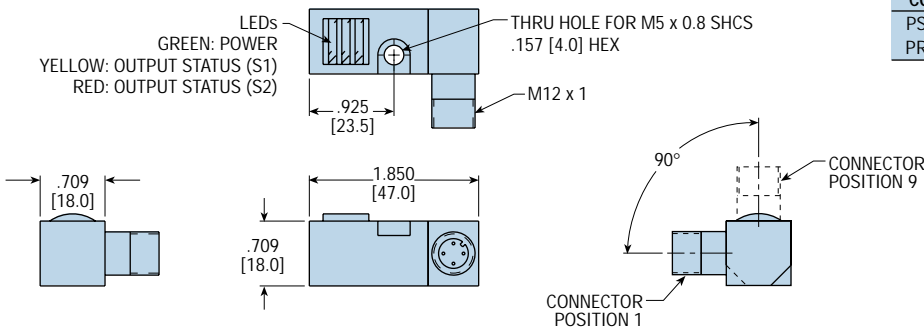
Ni 2-Q6.5-ADZ32-0.16-FSB 5.4X4/S304 (Turck)

OPTION CODE	SATELLITE		QUICK DISCONNECT PIN NUMBER
	OPEN	CLOSE	
PSxAx	S02	S01	S01 = PIN 5 S02 = PIN 4
PRxAx	S01	S02	

4-WIRE AC/DC



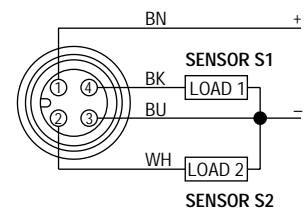
SWITCH OPTION D



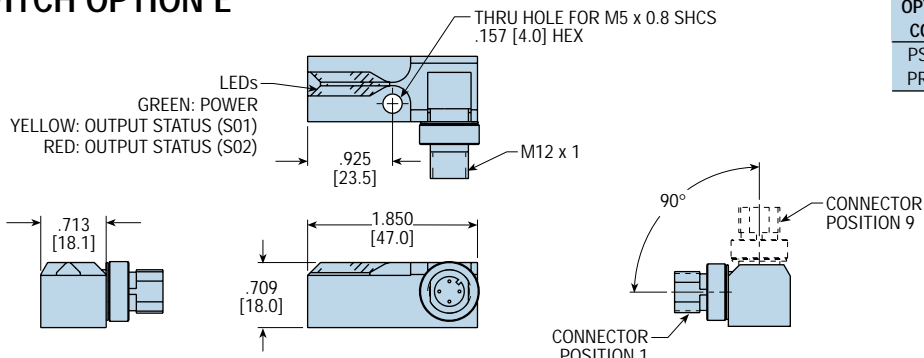
NBN2-F581-160S6-E8-V1 (P + F)

OPTION CODE	SATELLITE		QUICK DISCONNECT PIN NUMBER
	OPEN	CLOSE	
PSxDx	S2	S1	S1 = PIN 4 S2 = PIN 2
PRxDx	S1	S2	

3-WIRE DC (V1 TYPE) PNP DUAL NORMALLY OPEN



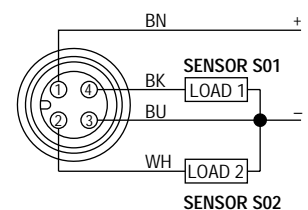
SWITCH OPTION E



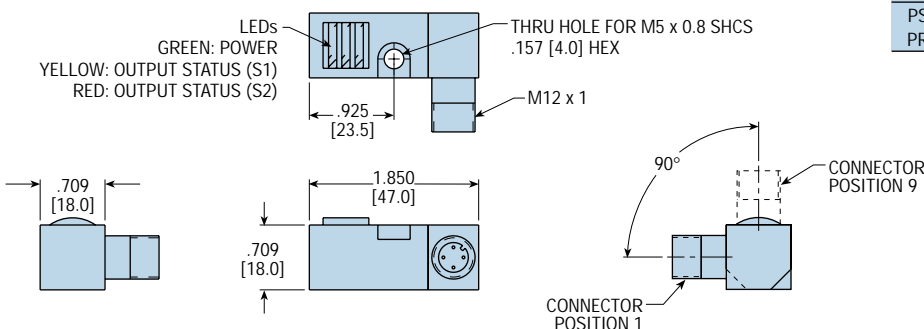
Ni 2-Q6.5-0.16-BDS-2AP6X3-H1141/S34 (Turck)

OPTION CODE	SATELLITE		QUICK DISCONNECT PIN NUMBER
	OPEN	CLOSE	
PSxEx	S02	S01	S01 = PIN 4 S02 = PIN 2
PRxEx	S01	S02	

3-WIRE DC PNP DUAL NORMALLY OPEN



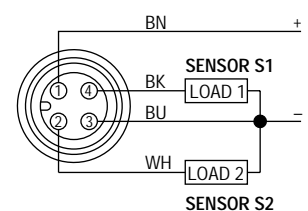
SWITCH OPTION F



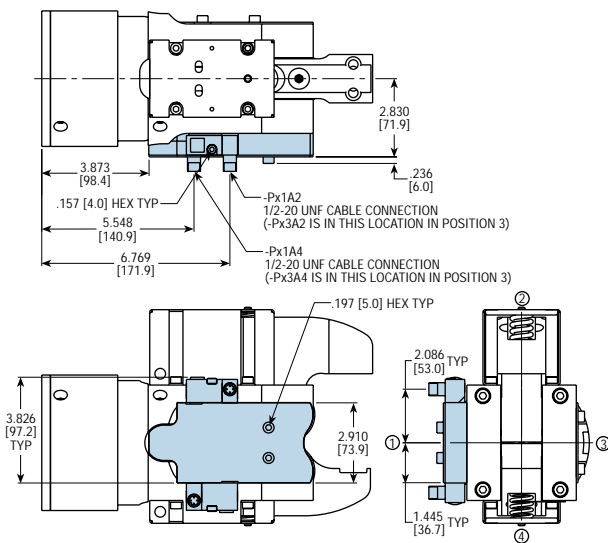
IN 5375 (Efactor)

OPTION CODE	SATELLITE		QUICK DISCONNECT PIN NUMBER
	OPEN	CLOSE	
PSxFx	S2	S1	S1 = PIN 4 S2 = PIN 2
PRxFx	S1	S2	

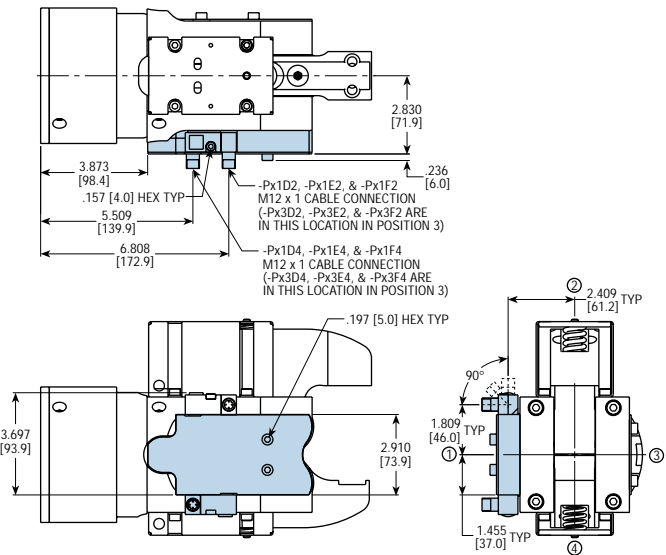
3-WIRE DC PNP DUAL NORMALLY OPEN



SWITCH MOUNTING OPTIONS: PNC ACCESSORIES



PS(R)xAx OPTION



PS(R)xDx, PS(R)xEx, & PS(R)xFx OPTIONS

NOTES:

- 1) ALL DIMENSIONS ARE REFERENCE UNLESS SPECIFICALLY TOLERANCED
- 2) ALL METRIC DIMENSIONS [] ARE GIVEN IN MILLIMETERS 1 mm = .03937 in
- 3) NUMBERS IN CIRCLES INDICATE POSITION (POSITION 1 IS PORT SIDE OF CLAMP)

REPLACEMENT KIT NUMBERS AND PRICES IF ORDERED SEPARATELY

CLAMP SIZE	ACCESSORY	KIT NUMBER	DESCRIPTION	LIST PRICE
PNC55	PS(R)xNx	71251-04	Housing w/o switch kit	\$180.00
	PS(R)xAx	71251-08	Housing w/5-pin AC/DC switch kit	\$398.80
	PS(R)xDx	71251-03	Housing w/4-pin DC (P+F) switch kit	\$292.35
	PS(R)xEx	71251-06	Housing w/4-pin DC (Turck) switch kit	\$292.35
	PS(R)xFx	71251-10	Housing w/4-pin DC (Efactor) switch kit	\$292.35

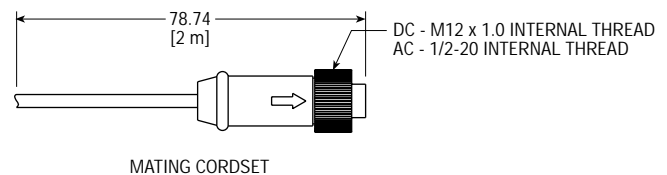
Kit includes: Housing and all pins and screws required for installation.

REPLACEMENT SWITCH KIT NUMBERS AND PRICES IF ORDERED SEPARATELY

SWITCH OPTION	SWITCH TYPE	PHD SWITCH KIT NUMBER	PHD LIST PRICE	SWITCH PART NUMBER
A	5-PIN AC/DC - N.O.	71251-09	\$199.10	Ni 2-Q6.5-ADZ32-0.16-FSB 5.4X4/S304
D	4-PIN DC - N.O. - PNP	71251-05	\$115.00	NBN2-F581-160S6-E8-V1
E	4-PIN DC - N.O. - PNP	71251-07	\$115.00	Ni 2-Q6.5-0.16-BDS-2AP6X3-H1141/S34
F	4-PIN DC - N.O. - PNP	71251-11	\$115.00	IN 5375

MATCHING CORDSETS 2 METERS LONG

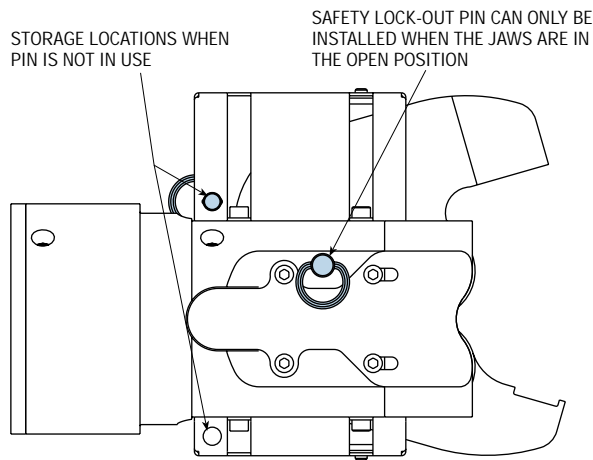
SWITCH OPTION	PHD PART NUMBER	PHD LIST PRICE	CORDSET PART NUMBER
A	73317-00-02	\$31.50	KB 5T-2
D	65440-001-02	\$13.15	V1-G-YE2M-PVC
E	65413-00-02	\$13.15	V1-G-YE2M-PVC
F	65440-001-02	\$13.15	V1-G-YE2M-PVC



SAFETY LOCK-OUT: PNC AUTOMATIC NUMBERING CLAMP

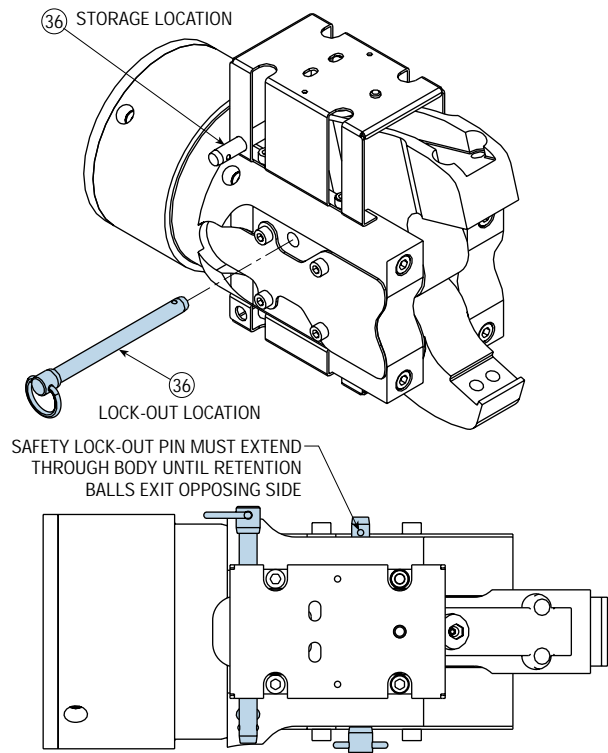
The safety lock-out pin is a safety device that stops the motion of the jaws during maintenance on the clamp. Remove the safety lock-out pin from the storage location. Re-install the safety lock-out pin in the lock-out location in the body before attempting to work on or near the stamping portion of this clamp. No attempt should be made to service the clamp and/or remove the retainer, backing plate, or anvil before the safety lock-out pin is installed in the lock-out location.

NOTE: SAFETY LOCK-OUT PIN CAN ONLY BE INSTALLED IN THE LOCK-OUT LOCATION WHEN THE JAWS ARE IN THE OPEN POSITION.

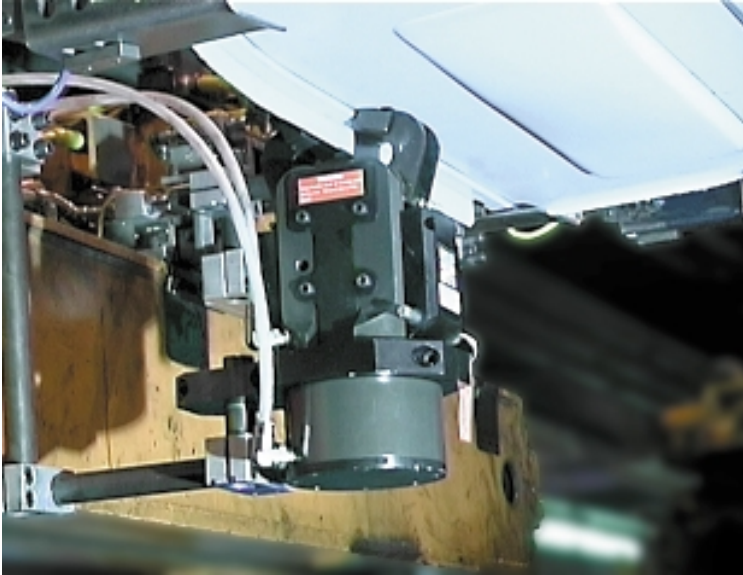


KEY	DESCRIPTION	REPLACEMENT PART NO.
36	SAFETY LOCK-OUT PIN	PNC55x 63087

NOTE: ONE SAFETY LOCK-OUT PIN SUPPLIED WITH UNIT



APPLICATION EXAMPLE: SERIES PNC CLAMPS



The Series PNC Clamp (Number Cruncher®) provides a solution for part number identification and date/shift traceability. Using high clamp force, the Number Cruncher® will imprint part numbers in a variety of materials ranging in thickness up to 4.75 mm. During use, the transfer press presents material to the Number Cruncher® location. Typically located in an idle station, the Number Cruncher® imprints part numbers in material in approximately 0.24 seconds (close and open). After stamping, the material will move from the idle station to the next operation.

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