

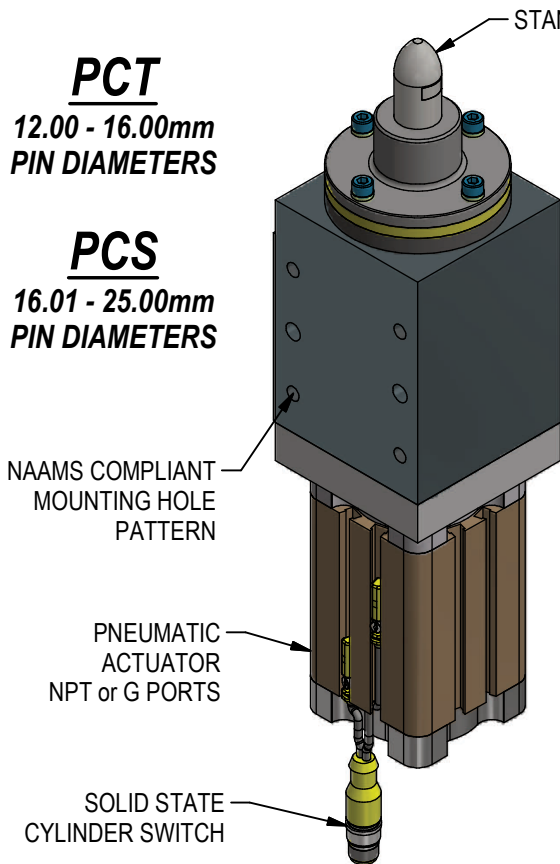
Patent #6,786,478

## PIN CLAMPS FOR POSITIVE LOCATING AND CLAMPING

**REQUIRES NO  
LUBRICATION!**

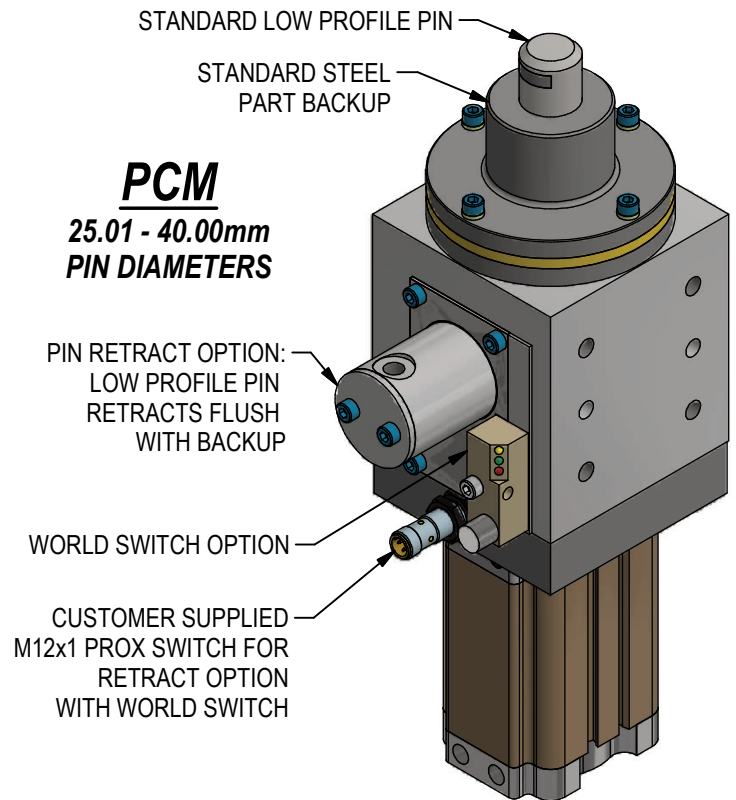
**PCT**  
12.00 - 16.00mm  
PIN DIAMETERS

**PCS**  
16.01 - 25.00mm  
PIN DIAMETERS



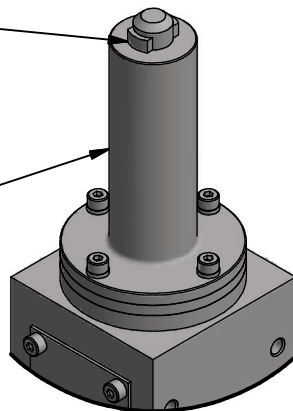
LOCATING PIN IN SELF-CONTAINED  
CARTRIDGE. CARTRIDGE IS  
REPLACEABLE IN FIELD

**PCM**  
25.01 - 40.00mm  
PIN DIAMETERS



GAPLESS CLAMP  
FINGER DESIGN  
AT FULL EXTENSION  
AND RETRACTION

OPTIONAL LONG  
PART BACKUP



### **APPLICATIONS**

- ROBOT END EFFECTORS
- END OF ARM TOOLING
- AUTOMOTIVE ASSEMBLY & B/W
- PALLETIZED PART LOCATE & TRANSFER
- WELDING & HIGH CORROSIVE ENVIRONMENTS

RELEASED 5/20/22

# PIN CLAMP WORKSHEET

Project	Station #	Date	
Customer	Contact	Email	Phone

**NOMINAL HOLE DIAMETER:** \_\_\_\_\_ Tolerance ± \_\_\_\_\_

Single Metal Thickness: \_\_\_\_\_

Multiple Metal Quantity: \_\_\_\_\_ Overall thickness: \_\_\_\_\_

Will the pin be in geo holes in multiple metal pieces?  Yes  No

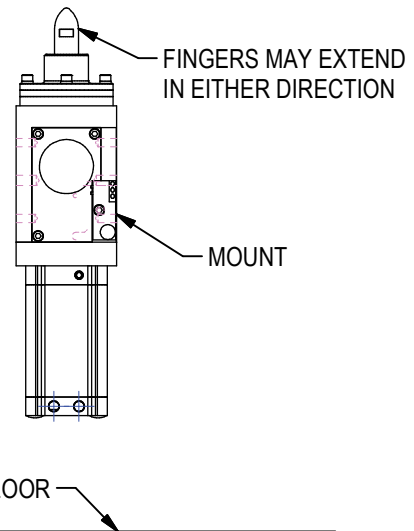
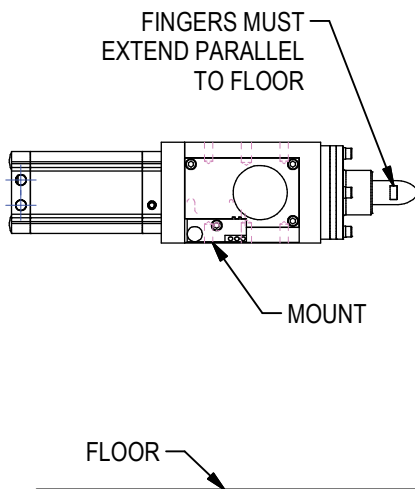
**RECOMMENDED PIN DIAMETER:**

Series	Application	Pin sizing
PCS, PCT, PCM	geo	0.15mm under minimum
PCS, PCT, PCM	material handling	0.5mm under minimum

## FINGER & PIN CLAMP ORIENTATION

PIN CLAMP MOUNTED HORIZONTALLY:

PIN CLAMP MOUNTED INVERTED OR VERTICALLY:



Part # _____	Mounting	<input type="checkbox"/> Horizontal	<input type="checkbox"/> Vertical or inverted
	Fingers	<input type="checkbox"/> @ 0°	<input type="checkbox"/> @ 90°
Part # _____	Mounting	<input type="checkbox"/> Horizontal	<input type="checkbox"/> Vertical or inverted
	Fingers	<input type="checkbox"/> @ 0°	<input type="checkbox"/> @ 90°
Part # _____	Mounting	<input type="checkbox"/> Horizontal	<input type="checkbox"/> Vertical or inverted
	Fingers	<input type="checkbox"/> @ 0°	<input type="checkbox"/> @ 90°

(DO NOT SCALE DRAWING)



# ORDERING INFORMATION

NOTE: ALL BOXES MUST BE FILLED IN FOR A COMPLETE PART NUMBER



**Series**

- T PCT Body
- C PCS Body
- M PCM Body

**Pin Diameter\***

- 12.00-16.00 T Series
- 16.01-25.00 C Series
- 25.01-40.00 M Series

\*Pin diameter to 2 decimal places

**Pin Type**

- A Bullet Nose Pin w/ fingers at 0°
- B Bullet Nose Pin w/ fingers at 90°
- C Bullet Nose 2-way Pin w/ fingers @ 0° \*\*
- D Bullet Nose 2-way Pin w/ fingers @ 90° \*\*
- E Low Profile Pin w/ fingers at 0°
- F Low Profile Pin w/ fingers at 90°
- G Low Profile 2-Way Pin w/ fingers @ 0° \*\*
- H Low Profile 2-Way Pin w/ fingers @ 90° \*\*

**Actuator**

See Actuator Charts

**Switch Assembly Type**

World Switch (See World Switch Chart)

- 0 None
- A DC Turck 4 Pin (PNP)
- B AC/DC Turck 5 Pin (N.O.)
- C DC Turck 4 Pin (NPN)
- D DC Peppri-Fuchs 4 Pin (PNP)
- E DC Balluff 4 Pin (PNP/NO)
- J DC Efector 4 Pin (PNP)
- Z DC Welker 4 Pin (PNP)

Cylinder Switch (See Cylinder Switch Chart)

- 0 None
- L Solid State Cylinder Switch

*NOTE: Cylinder switches not available with actuator A on PCT*

**Switch ordering examples:**

PCS with low profile pin, Turck World Switch in Retract position: C1601EBARA035KA  
 PCM with bullet nose pin, Welker L3 switch: M2501BBL3A051KA

**STANDARD PRICING INCLUDES THESE FEATURES**

\*\* Not available on PCT with pin diameters 12.00 - 12.99mm

**SEE SHEET 14 FOR REPLACEMENT PIN CARTRIDGE & BACKUP ORDERING INFORMATION**

**L3 NOTE:**

L3 switch is weld field immune, comparable to World Switches. Note that some mid and low frequency DC resistance applications (i.e. aluminum resistance welding applications) may cause a fault. In these applications, it is recommended that the sensor be ignored/bypassed during the welding cycle.

**Options**

- A Std Steel Backup
- B Steel Long Backup
- C Alum Bronze Backup
- D Alum Bronze Long Backup

**Backup Distance**

- K 14mm (for clamping range 0.1 - 4mm)
- N 17mm (for clamping range 4.1 - 7mm)

**Backup Diameter**

- 035-050 (Ø35-Ø50mm) C & T Series
- 051-075 (Ø51-Ø75mm) M Series

See Sheet 11 for smaller backup diameters

**Port Type & Position**

- A 1/8 NPT at Pos 1
- B 1/8 NPT at Pos 2
- C 1/8 NPT at Pos 3
- D 1/8 NPT at Pos 4
- J 1/8 G at Pos 1
- K 1/8 G at Pos 2
- L 1/8 G at Pos 3
- M 1/8 G at Pos 4

**Switch Options**

World Switch Sensor Position

- 0 None (No Switch)
- E Sensor 01-Unclamped (Pin Extended)  
Sensor 02-Clamped
- R Sensor 01-Clamped (Pin Retracted)  
Sensor 02-Unclamped

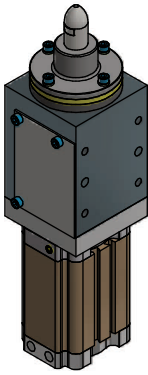
Cylinder Switch Selection

- 0 None (No Switch)
- 3 DC 4 Pin (PNP) Weld Field Immune (See L3 Note)
- 5 DC 3 Wire (NPN)

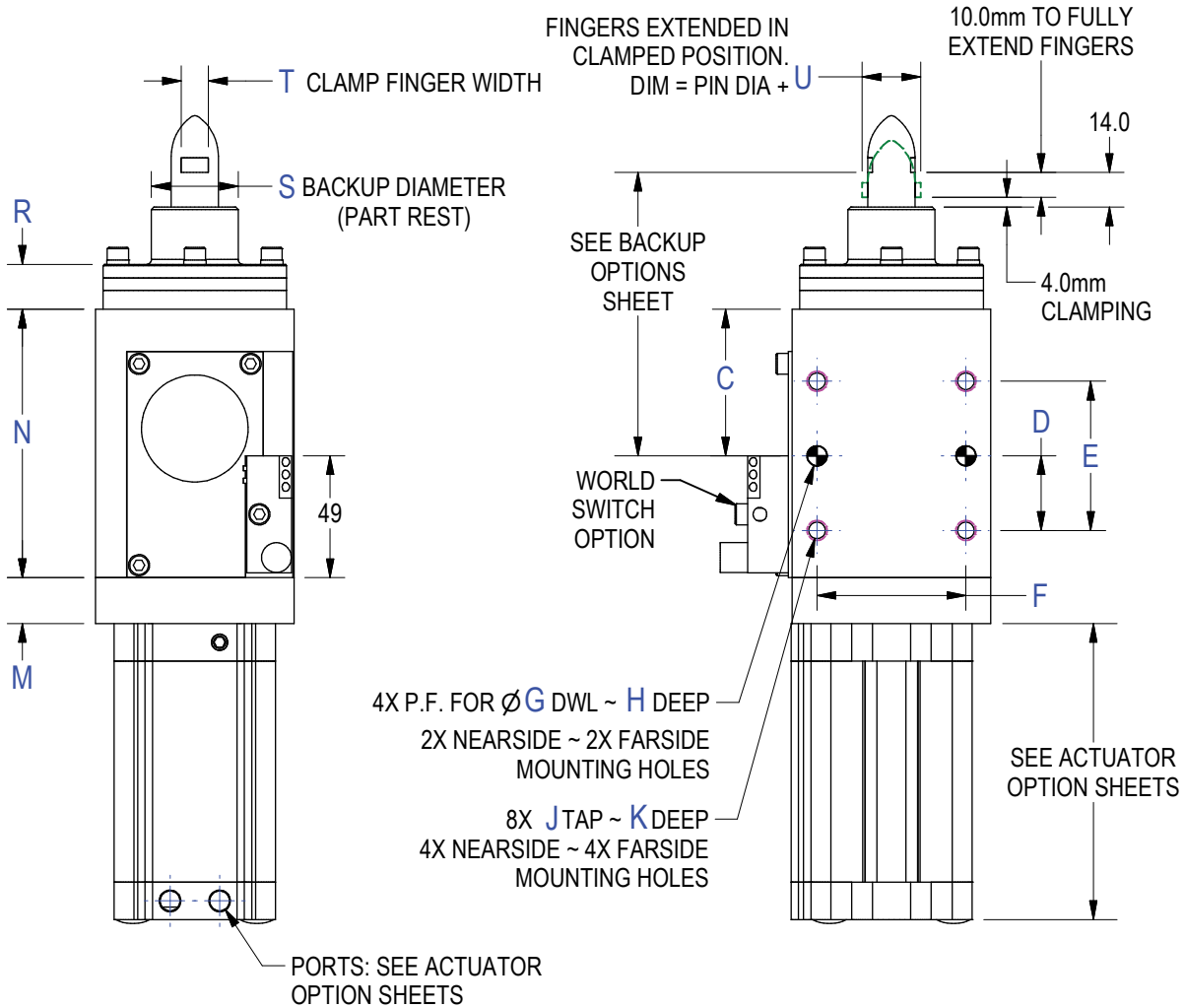
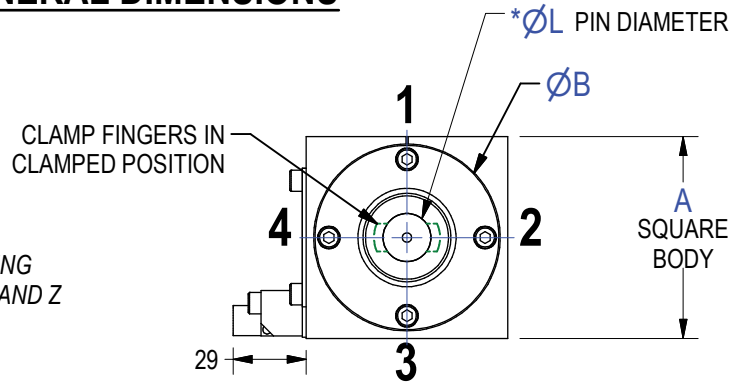
(DO NOT SCALE DRAWING)



# GENERAL DIMENSIONS



DESIGNER'S NOTE: SHIMMING  
RECOMMENDED FOR X, Y, AND Z



SERIES	A	ØB	C	D	E	F	G	H	J	K	*ØL	M	N	R	ØS	T	U	WGHT
T	80	74	59	30.00	60.00	60	8	16	M8 X 1.25	16	12.00-16.00	19	108	18	35-50	8	3.4	12 LBS
C	80	74	59	30.00	60.00	60	8	16	M8 X 1.25	16	16.01-25.00	19	108	18	35-50	11	4.6	12 LBS
M	100	99	55	30.00	60.00	60	8	16	M10 X 1.5	20	25.01-40.00	19	110	22	51-75	18	5.6	20 LBS

\* DIAMETER RANGE FOR 2-WAY LOCATING PINS ARE DIFFERENT FROM 4-WAY RANGE. SEE SHEET 4

(DO NOT SCALE DRAWING)



# LOCATING PIN OPTIONS

**C** **2500** **A** **B** **A** **R** **D** **035** **K** **A**

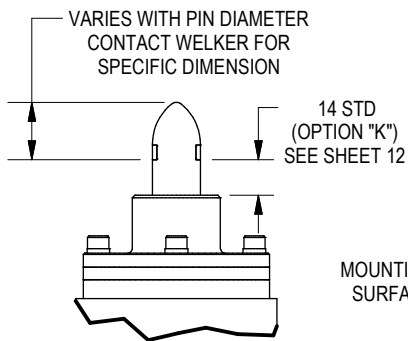
**Pin Diameter**  
(Ø25.00mm SHOWN)  
ORDER IN MILLIMETERS ONLY  
.01 INCREMENTS

SEE SHEET 14 FOR REPLACEMENT PIN CARTRIDGE & BACKUP ORDERING INFORMATION

Pin Type	T SERIES DIAMETERS	C SERIES DIAMETERS	M SERIES DIAMETERS
<b>A</b> Bullet Nose Pin with fingers at 0°	12.00 - 16.00	16.01 - 25.00	25.01 - 40.00
<b>B</b> Bullet Nose Pin with fingers at 90°	12.00 - 16.00	16.01 - 25.00	25.01 - 40.00
<b>C</b> Bullet Nose 2-way Pin with fingers at 0°	13.00 - 16.00	18.00 - 26.00	26.85 - 42.00
<b>D</b> Bullet Nose 2-way Pin with fingers at 90°	13.00 - 16.00	18.00 - 26.00	26.85 - 42.00
<b>E</b> Low Profile Pin with fingers at 0°	12.00 - 16.00	16.01 - 25.00	25.01 - 40.00
<b>F</b> Low Profile Pin with fingers at 90°	12.00 - 16.00	16.01 - 25.00	25.01 - 40.00
<b>G</b> Low Profile 2-Way Pin with fingers at 0°	13.00 - 16.00	18.00 - 26.00	26.85 - 42.00
<b>H</b> Low Profile 2-Way Pin with fingers at 90°	13.00 - 16.00	18.00 - 26.00	26.85 - 42.00

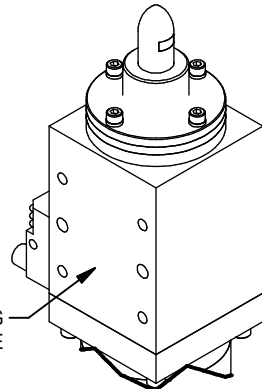
**STOCK 4-WAY DIAMETERS: 16.00, 19.85, 20.00, 24.85, 25.00, 34.85, 35.00, 39.85, 40.00**

## 4-WAY PINS

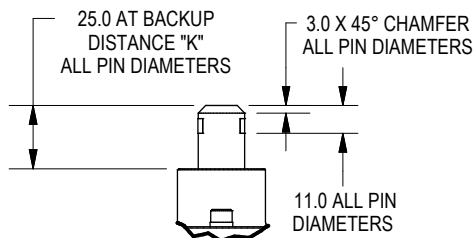


OPTION

- A** BULLET NOSE PIN WITH FINGERS AT 0°
- B** BULLET NOSE PIN WITH FINGERS AT 90°

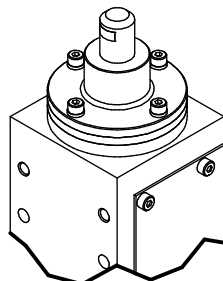


**PIN TYPE OPTION "A"**  
BULLET NOSE PIN WITH FINGERS SHOWN AT 0° (FINGERS EXTEND & RETRACT PARALLEL TO MOUNTING SURFACE)



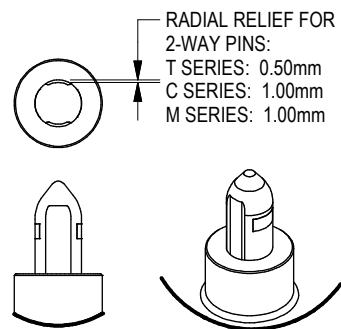
OPTION

- E** LOW PROFILE PIN WITH FINGERS AT 0°
- F** LOW PROFILE PIN WITH FINGERS AT 90°



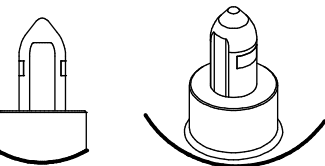
**PIN TYPE OPTION "F"**  
LOW PROFILE PIN WITH FINGERS SHOWN AT 90° (FINGERS EXTEND & RETRACT PERPENDICULAR TO MOUNTING SURFACE)

## 2-WAY PINS



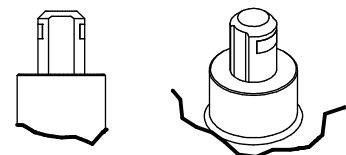
OPTION

- C** BULLET NOSE 2-WAY PIN WITH FINGERS AT 0°
- D** BULLET NOSE 2-WAY PIN WITH FINGERS AT 90°



OPTION

- G** LOW PROFILE 2-WAY PIN WITH FINGERS AT 0°
- H** LOW PROFILE 2-WAY PIN WITH FINGERS AT 90°



**NOTE:** FOR OPTIMAL HORIZONTAL APPLICATIONS, ORIENTATION OF THE CLAMP FINGER MOVEMENT SHOULD BE PARALLEL TO THE GROUND FOR ROUND HOLES

(DO NOT SCALE DRAWING)

**WELKER**  
ENGINEERED PRODUCTS  
800-229-0890 www.welkerproducts.com

## ACTUATOR INFORMATION

**C** **2** **5** **0** **0** **A** **B** **A** **R** **D** **0** **3** **5** **K** **A**

**Series** \_\_\_\_\_

- T** PCT Body
- C** PCS Body
- M** PCM Body

**Actuator** \_\_\_\_\_

**Port Type & Position** \_\_\_\_\_

### NOTES: ALL ACTUATORS

AT LOSS OF AIR PRESSURE, SPRING ASSIST WILL MAINTAIN 50 LBS. OF CONSTANT CLAMP PRESSURE.

FOR INVERTED APPLICATIONS, PART WEIGHT MUST NOT EXCEED 50 LBS.

NORMAL OPERATING TEMPERATURE FOR ALL ACTUATORS IS -10° TO 165°F, -23 TO 74°C

## PCT ACTUATOR INFORMATION

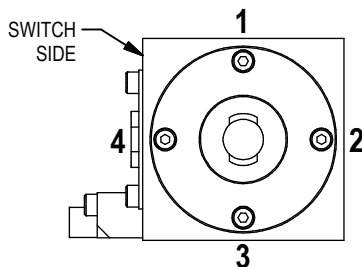
NOTE: Cylinder switches not available with actuator A on PCT

DESCRIPTION	PORTS	CLAMP FORCE (LBS.) (INCLUDES SPRING PRESSURE) 60 PSI
<b>A</b> DOUBLE ACTING 40mm BORE	1/8" NPT or G 1/8	50
<b>B</b> SINGLE ACTING 50mm BORE, SPRING CLAMP		50
<b>T</b> SINGLE ACTING 50mm BORE, SPRING CLAMP, RETRACTABLE PIN		50

## PCS & PCM ACTUATOR INFORMATION

DESCRIPTION	PORTS	CLAMP FORCE (LBS.) 50mm BORE ACTUATOR INCLUDES SPRING PRESSURE		
		60 PSI	80 PSI	100 PSI
<b>B</b> DOUBLE ACTING 50mm BORE WITH SPRING ASSIST	1/8" NPT or G 1/8	220	277	333
<b>T</b> DOUBLE ACTING 50mm BORE, SPRING ASSIST, RETRACTABLE PIN		220	277	333

### TOP VIEW: PORT LOCATION



### PORT TYPE & POSITION

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li><b>A</b> NPT AT POSITION #1</li> <li><b>B</b> NPT AT POSITION #2</li> <li><b>C</b> NPT AT POSITION #3</li> <li><b>D</b> NPT AT POSITION #4</li> </ul> | <ul style="list-style-type: none"> <li><b>J</b> G AT POSITION #1</li> <li><b>K</b> G AT POSITION #2</li> <li><b>L</b> G AT POSITION #3</li> <li><b>M</b> G AT POSITION #4</li> </ul> |
|--|--|

(DO NOT SCALE DRAWING)

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# ACTUATOR DIMENSIONS: A & B

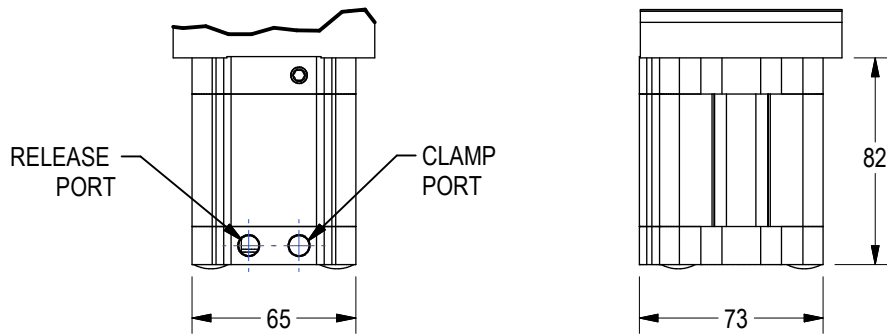
ACTUATOR T ON FOLLOWING SHEET

## ACTUATOR A

40mm BORE

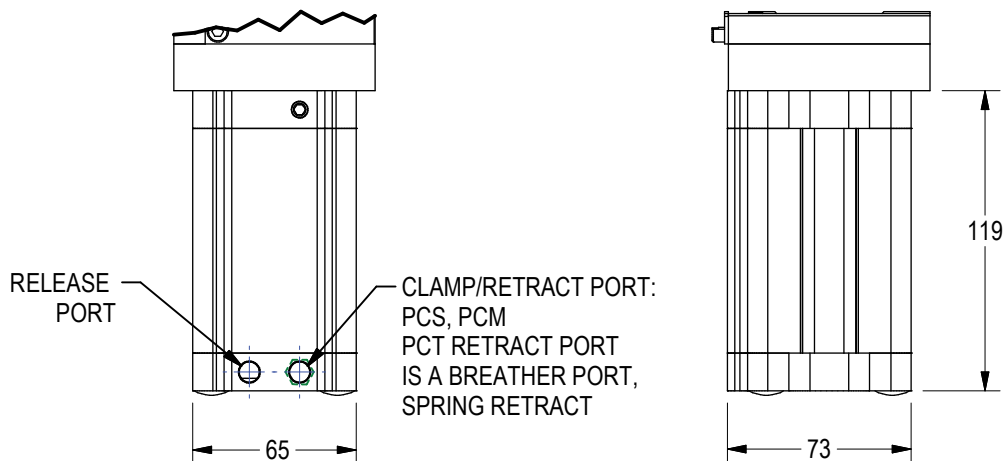
NOTES:

- Cylinder switches not available with actuator A on PCT
- Actuator A is only available with PCT



## ACTUATOR B

50mm BORE



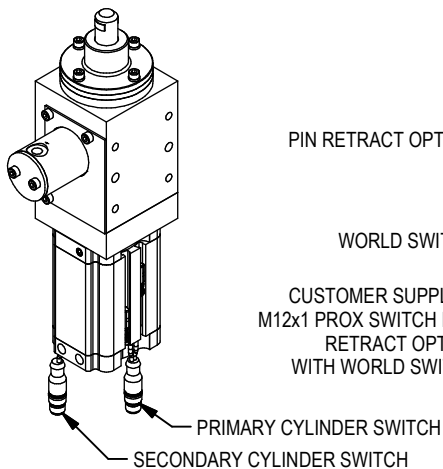
(DO NOT SCALE DRAWING)

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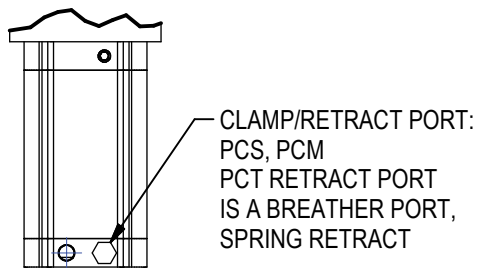
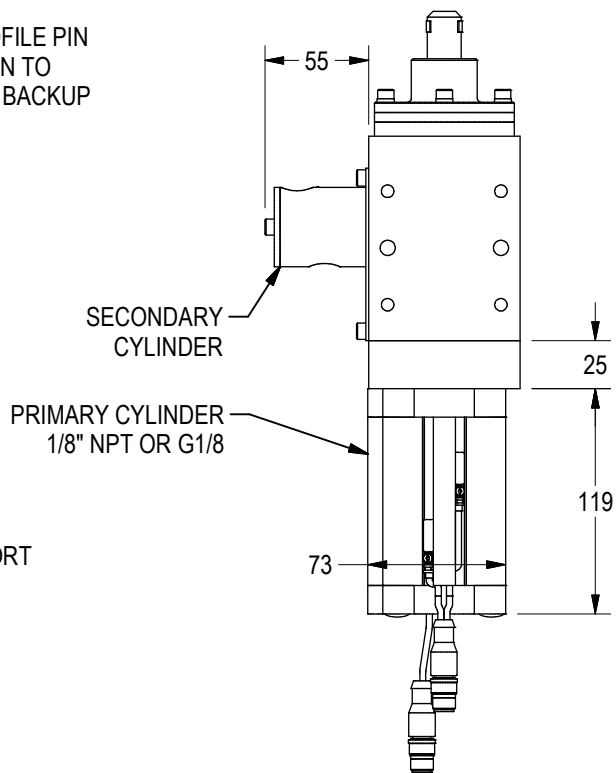
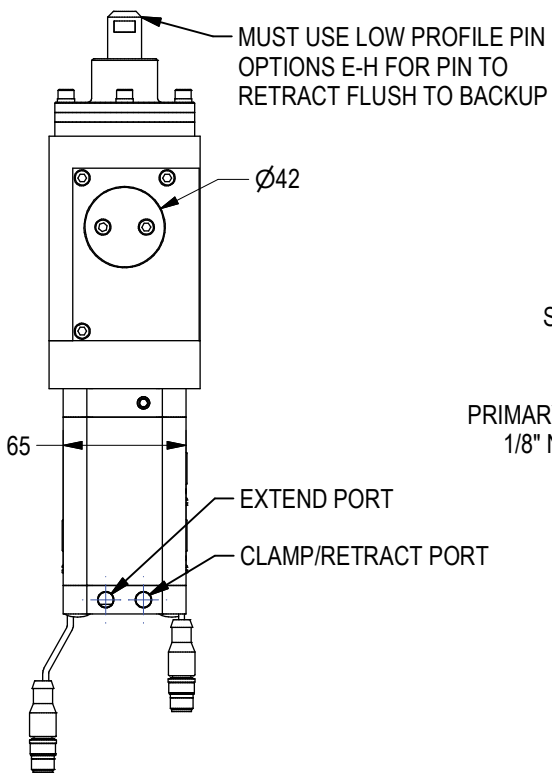
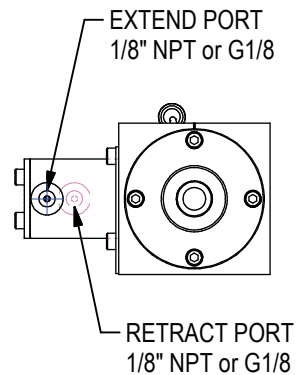
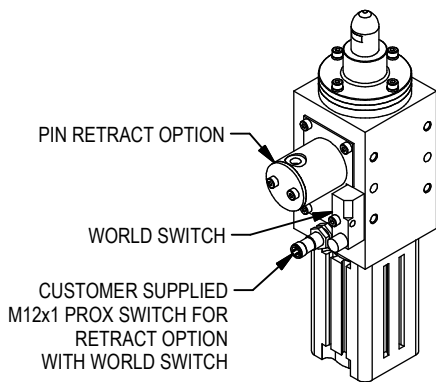
# ACTUATOR T: RETRACT OPTION

FOR RETRACT SEQUENCE SEE SHEET 8

RETRACT OPTION WITH CYLINDER SWITCH



RETRACT OPTION WITH WORLD SWITCH



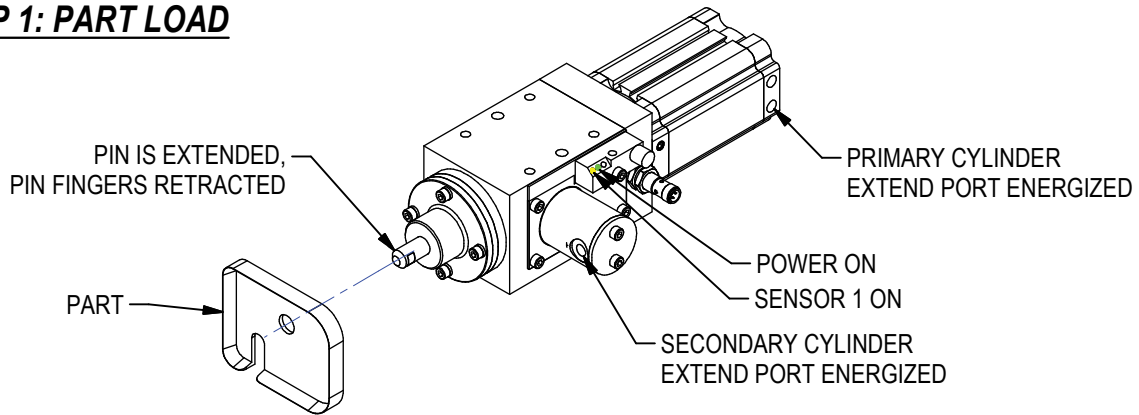
(DO NOT SCALE DRAWING)

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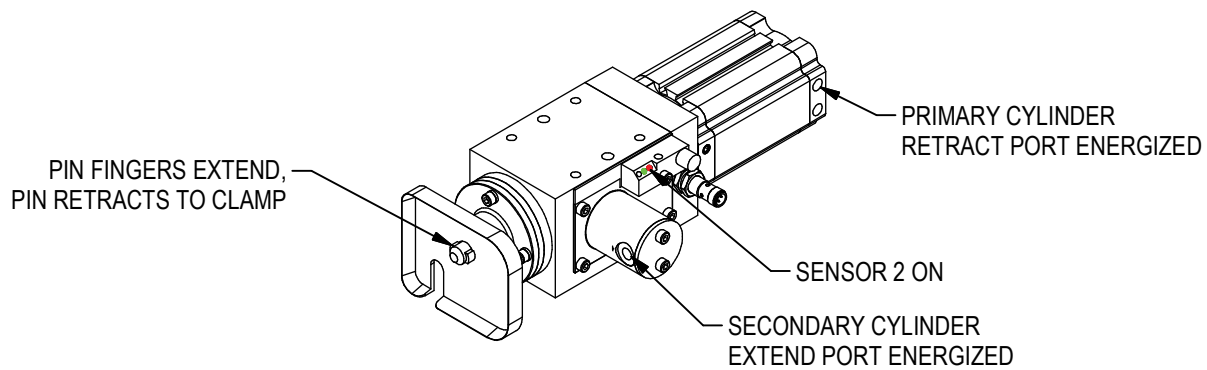


# PIN CLAMP RETRACT OPTION SEQUENCE

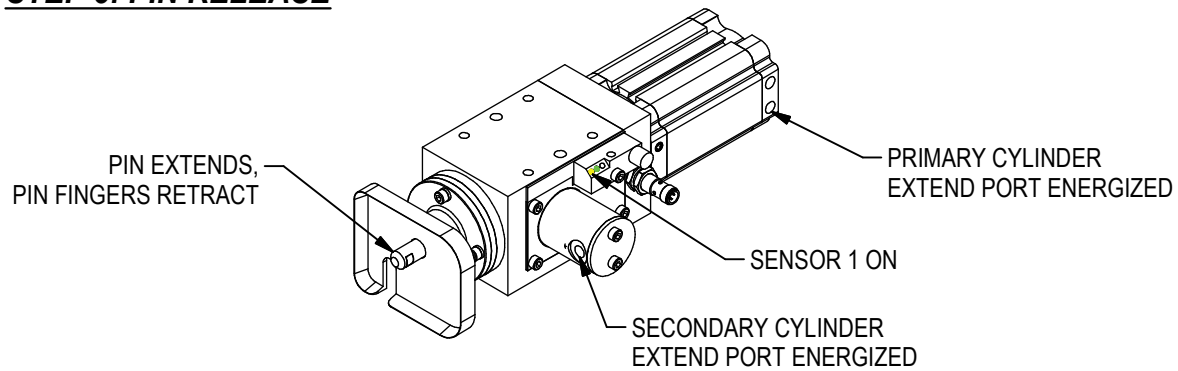
## STEP 1: PART LOAD



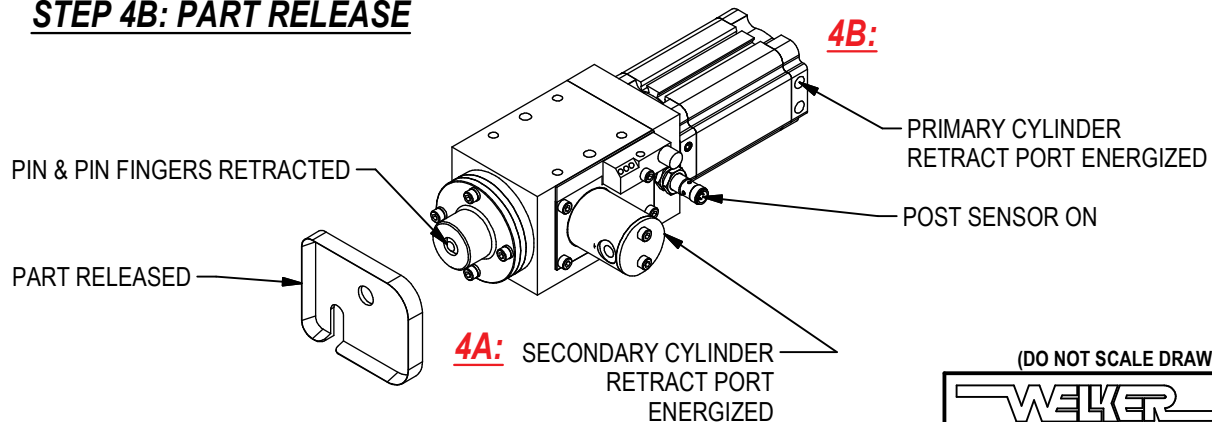
## STEP 2: PART CLAMP



## STEP 3: PIN RELEASE



## STEP 4A: PIN RETRACT STEP 4B: PART RELEASE



# WORLD SWITCH INFORMATION

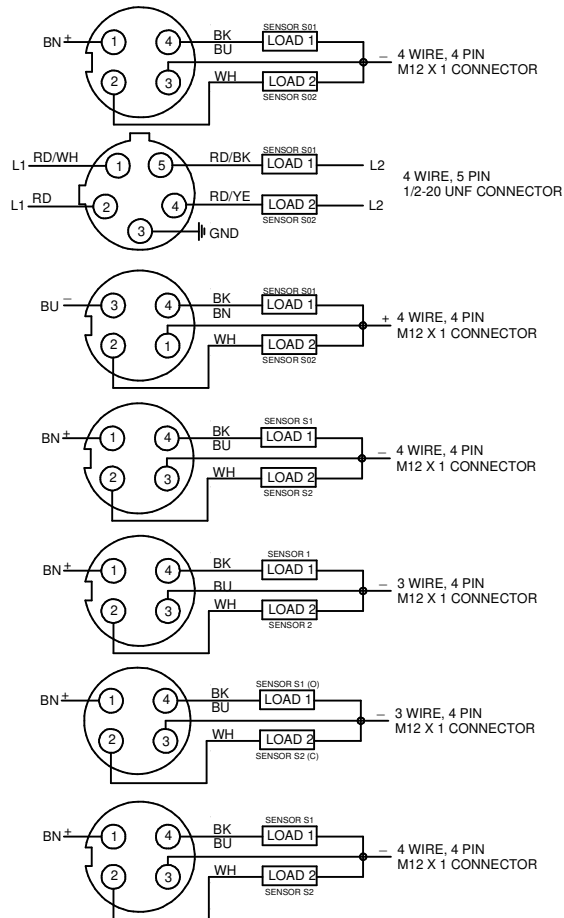
C
2
5
0
0
A
B
Z
E
D
0
3
5
K
A

WORLD SWITCH ASSEMBLY

WORLD SWITCH SENSOR POSITION

## WORLD SWITCH ASSEMBLY

- 0
NONE
- A
DC TURCK 4-PIN (PNP)  
#Ni2-Q6.5-AP6-0.1-FS 4.4x3/S304
- B
AC/DC TURCK 5-PIN (N.O.)  
#Ni2-Q6.5-ADZ32-0.1-FSB 5.4x4/S304
- C
DC TURCK 4-PIN (NPN)  
#Ni2-Q6.5-AN6-0.1-FS 4.4x3/S304
- D
DC PEPPERL & FUCHS 4-PIN (PNP)  
#NBN2-F581-100S6-E8-V1
- E
DC BALLUFF 4-PIN (PNP)  
#BES-Z02KR2-PSC20F-P100-S04
- J
DC EFECTOR 4-PIN (PNP)  
#IN5374
- Z
\*DC WELKER 4-PIN (PNP)  
#WWS001A



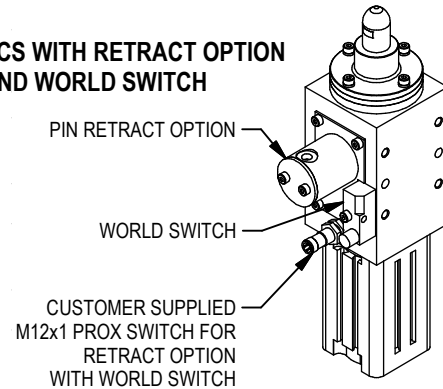
\*STANDARD SWITCH PRICING  
OTHER SWITCHES MAY REQUIRE PRICING PREMIUM

## SENSOR POSITION

- 0
NONE
- E
Sensor 01-Unclamped (Pin Extended, Load/Unload Position)  
Sensor 02-Clamped (Pin Retracted)
- R
Sensor 01-Clamped (Pin Retracted)  
Sensor 02-Unclamped (Load/Unload Position)

Note: Sensor 01 displays an amber LED. Sensor 02 displays a red LED

## PCS WITH RETRACT OPTION AND WORLD SWITCH



(DO NOT SCALE DRAWING)

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## CYLINDER SWITCH INFORMATION

C
2
5
0
0
A
B
L
3
D
0
3
5
K
A

CYLINDER SWITCH

FOR PIN CLAMP ACTUATOR OPTION "B" & "D"  
 (NOTE: Cylinder switches not available with actuator A on PCT)

Option	QTY	Switch Part #	Wire	Output	Mfg
L3	1	SWITCH L3** Dual sensor, single connector switch: 1 switch required per cylinder	4	PNP	Welker
L5	2	MK5113 Single sensor, single connector switch: 2 switches required per cylinder	3	NPN	ifm Efeetor

FOR PIN CLAMP ACTUATOR OPTION "T"

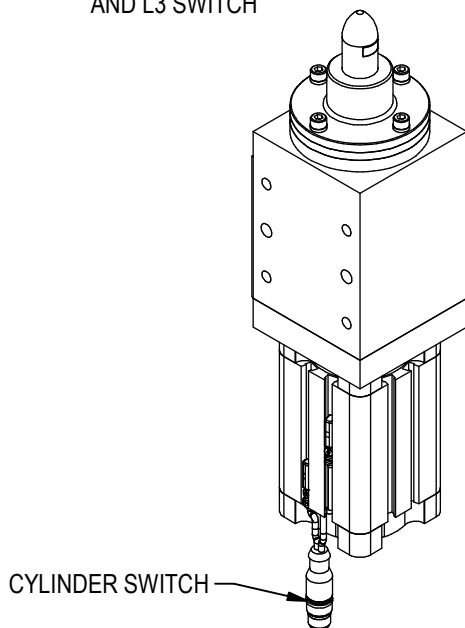
Option	QTY	Switch Part #	Wire	Output	Mfg
L3	1	SWITCH L3**	4	PNP	Welker
	1	SWITCH L3S** Single sensor, single connector switch: 1 switch required for retract cylinder	3	PNP	
L5	3	MK5113	3	NPN	ifm Efeetor

**Standard Switch Option - All other options may affect price and delivery**

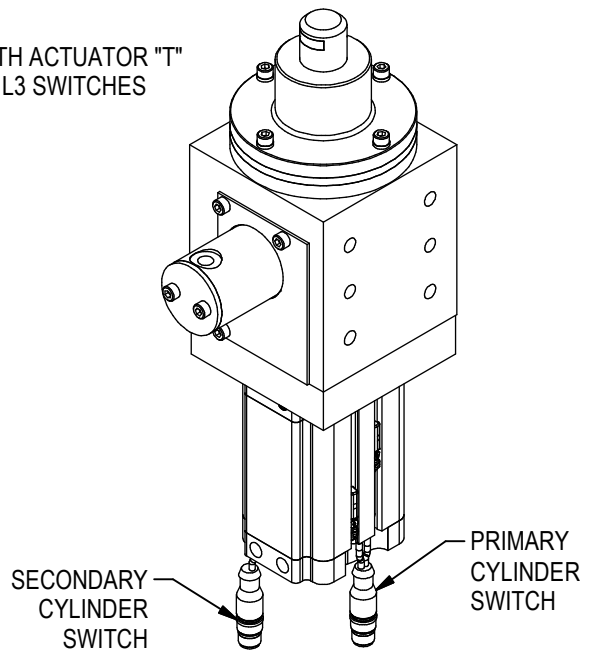
All switches are DC M12 X 1, Quick Disconnect

\*\*L3 switch is weld field immune, comparable to World Switches. Note that some mid and low frequency DC resistance applications (i.e. aluminum resistance welding applications) may cause a fault. In these applications, it is recommended that the sensor be ignored/bypassed during the welding cycle.

PCS WITH ACTUATOR "B"  
AND L3 SWITCH



PCM WITH ACTUATOR "T"  
AND L3 SWITCHES



(DO NOT SCALE DRAWING)

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 ENGINEERED PRODUCTS  
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# BACKUP OPTIONS

**C** **2500** **A** **B** **A** **R** **D** **035** **K** **A**

SEE SHEET 14 FOR REPLACEMENT  
PIN CARTRIDGE & BACKUP  
ORDERING INFORMATION

**BACKUP DIAMETER RANGE**  
(1mm INCREMENTS)

**MIN** **035** TO **MAX** **050** "C" & "T" SERIES  
**051** TO **075** "M" SERIES

**Backup Distance**

**OPTION "K":** 14mm (for Clamping Range: 0.1 - 4mm)

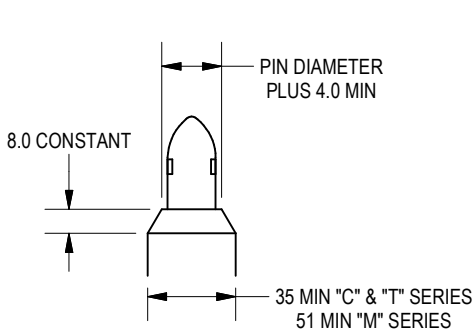
**OPTION "N":** 17mm (for Clamping Range: 4.1 - 7mm)

## OPTIONS

- A** STANDARD STEEL BACKUP
- B** STEEL LONG BACKUP
- C** ALUMINUM BRONZE BACKUP
- D** ALUMINUM BRONZE LONG BACKUP

**NOTE:** LOCATING PIN RETRACTS TO ACTUATE CLAMP FINGERS. CLAMP FINGERS ARE EXTENDING DURING THE FIRST 10mm OF PIN TRAVEL AND THEN TRAVELS LINEARLY UNTIL CLAMPED.

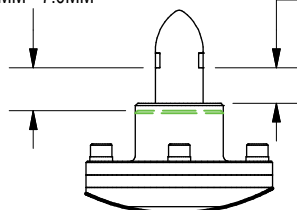
**FOR SPECIAL PART CLAMP RANGES, CONTACT WELKER**



### BACKUP DIMENSIONS FOR DIAMETERS LESS THAN THE MINIMUM SHOWN

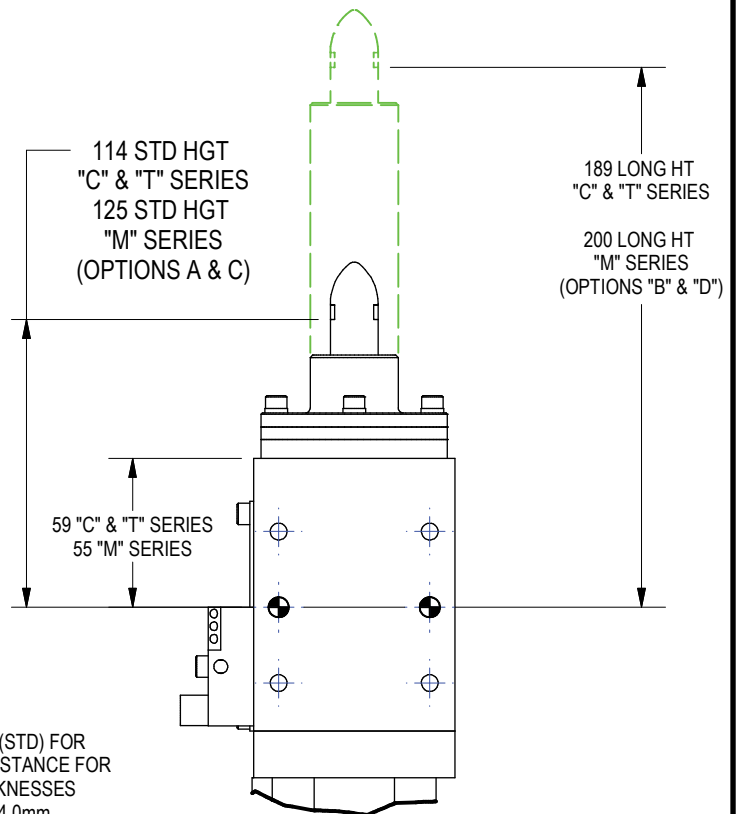
EXAMPLE: TO ORDER A "C" SERIES WITH  
ø18.85 PIN AND A ø25.0 BACKUP TOUCHING  
THE PART, USING THE ABOVE ORDER  
NUMBER, ORDER #C1885AAARD025KA

**OPTION "N" (STD)** FOR  
17.0 BACKUP DISTANCE  
FOR PART THICKNESSES  
4.0MM - 7.0MM



**STANDARD BACKUP DISTANCES**

**OPTION "K" (STD)** FOR  
14.0 BACKUP DISTANCE FOR  
PART THICKNESSES  
0.1mm - 4.0mm



(DO NOT SCALE DRAWING)

**WELKER**  
ENGINEERED PRODUCTS  
800-229-0890 www.welkerproducts.com

## PIN CLAMP DESIGN GUIDELINES

1. FOR HORIZONTAL APPLICATIONS, ORIENTATION OF THE CLAMP FINGER MOVEMENT SHOULD BE PARALLEL TO THE GROUND FOR ROUND HOLES. SEE GENERAL DIMENSION SHEET FOR MAXIMUM SIDE LOADS.
2. PROXIMITY OF SOME WELD APPLICATIONS TO THE PIN CLAMP COULD AFFECT THE LIFE OF THE PIN AND CLAMP FINGERS.
3. IMPACT LOADING AND EXCESSIVE SIDE LOADING MUST BE AVOIDED. FOR ROBOTICS AND HARD AUTOMATION APPLICATIONS, THE LOCATING PINS NEED TO ENGAGE AND DISENGAGE AT LOAD AND UNLOAD.
4. WELKER ENGINEERED PRODUCTS DOES NOT RECOMMEND MORE THAN ONE 4-WAY AND ONE 2-WAY LOCATING DEVICE IN A COMMON GEO SETTING APPLICATION. PIN BIND AND EXCESSIVE SIDE LOAD MAY RESULT. IF A GEO SETTING APPLICATION REQUIRES MULTIPLE LOCATING DEVICES, CONTACT WELKER.
5. ALL PIN CLAMPS ARE DESIGNED TO BE OPERABLE UP TO 110 psi MAX.
6. PIN CLAMP PNEUMATIC ACTUATORS HAVE INTEGRATED FLOW RESTRICTIVE ORIFICES. FLOW CONTROLS ARE NOT REQUIRED.

## WARRANTY

WELKER ENGINEERED PRODUCTS WARRANTS TO ITS CUSTOMERS PURCHASING PIN CLAMPS MANUFACTURED BY WELKER THAT THESE UNITS ARE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS. WELKER WARRANTS IT WILL REPAIR DEFECTS IN ITS MANUFACTURE DETERMINED BY WELKER TO HAVE OCCURRED AS A RESULT OF DEFECTIVE WORKMANSHIP AND /OR MATERIALS. THIS WARRANTY AUTOMATICALLY EXPIRES AT THE EARLIER OF THREE YEARS FROM THE DATE OF WELKER BEARING'S SHIPMENT OF THE PRODUCTS TO ITS CUSTOMER, OR THREE MILLION CYCLES. THE AFOREMENTIONED WARRANTY SHALL NOT APPLY IF WELKER DETERMINES THE PIN CLAMP(S) WERE MISAPPLIED, ABUSED, OR MODIFIED BY THE CUSTOMER. WITH THE EXCEPTION OF THE THREE YEAR OR THREE MILLION CYCLE WARRANTY ON DEFECTIVE WORKMANSHIP AND MATERIALS, WELKER BEARING MAKES NO EXPRESS WARRANTY, NO WARRANTY OF MERCHANTABILITY, NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND NO WARRANTY WHICH EXTENDS BEYOND THIS WRITING ON WELKER MANUFACTURED PIN CLAMPS SOLD BY WELKER BEARING.

LOCATING PINS AND CLAMP FINGERS ARE CONSIDERED WEAR ITEMS AND AS SUCH ARE NOT INCLUDED IN THIS WARRANTY UNLESS THERE IS A MANUFACTURING DEFECT AS STATED ABOVE.

UNDER NO CIRCUMSTANCES SHALL WELKER BEARING BE LIABLE TO ANYONE FOR INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, SPECIAL OR PUNITIVE DAMAGES WHETHER DIRECT OR INDIRECT, INCLUDING, BUT NOT LIMITED TO DOWN TIME, ARISING OUT OF OR RELATED TO ANY PRODUCTS SOLD OR MANUFACTURED BY WELKER ENGINEERED PRODUCTS.

ANY PRODUCT THOUGHT TO BE DEFECTIVE IN WORKMANSHIP OR MATERIALS MUST BE RETURNED TO WELKER FREIGHT PREPAID FOR EVALUATION. WELKER SHALL NOT BE LIABLE FOR LABOR COST INCURRED IN THE REMOVAL OF A PART, DEFECTIVE PART OR THE INSTALLATION OF ANY REPLACEMENT PART.

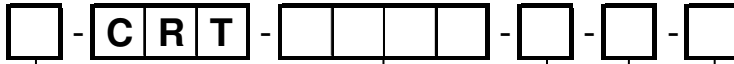
ALL PNEUMATIC PIN CLAMPS ARE SHIPPED WITH INTERNAL OR EXTERNAL FLOW RESTRICTORS. IF THESE RESTRICTORS ARE REMOVED OR BYPASSED, THE WARRANTY IS VOID.

(DO NOT SCALE DRAWING)



# REPLACEMENT PIN CLAMP CARTRIDGES

SEE SHEET 5 FOR PIN TYPES AND FINGER ORIENTATION



**Series**

- T PCT Body
- C PCS Body
- M PCM Body

**Pin Diameter\***

- 12.00-16.00 T Series
- 16.01-25.00 C Series
- 25.01-40.00 M Series

\*Pin diameter to 2 decimal places

**Pin Type**

- A Bullet Nose Pin w/ fingers at 0°
- B Bullet Nose Pin w/ fingers at 90°
- C Bullet Nose 2-way Pin w/ fingers @ 0° \*\*
- D Bullet Nose 2-way Pin w/ fingers @ 90° \*\*
- E Low Profile Pin w/ fingers at 0°
- F Low Profile Pin w/ fingers at 90°
- G Low Profile 2-Way Pin w/ fingers @ 0° \*\*
- H Low Profile 2-Way Pin w/ fingers @ 90° \*\*

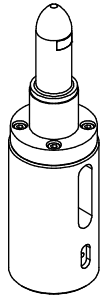
\*\* Not available on PCT with pin diameters 12.00 - 12.99

**Options**

- G Electric actuator
- T Retractable cartridge

**Backup**

- Std Standard Backup
  - Long Long Backup
- (Backups must be ordered separately)



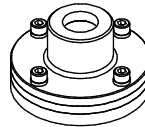
Cartridge ordering examples:

- C-CRT-16.00-A-STD
- M-CRT-40.00-B-LONG
- C-CRT-19.00-A-STD-T

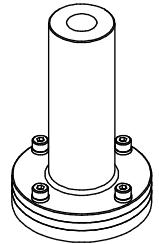
# REPLACEMENT BACKUP

ALL BACKUPS INCLUDE A BACKUP, BACKUP RING WITH SEAL, SPACER & HARDWARE  
SEE SHEET 12 FOR BACKUP OPTIONS

OPTIONS A & C  
STANDARD  
BACKUP



OPTIONS B & D  
LONG  
BACKUP



**Series**

- T PCT Body
- C PCS Body
- M PCM Body

**Pin Diameter\***

- 12.00-16.00 T Series
- 16.01-25.00 C Series
- 25.01-40.00 M Series

\*Pin diameter to 2 decimal places

**Backup Diameter**

- 035-050 (Ø35-Ø50mm) C & T Series
- 051-075 (Ø51-Ø75mm) M Series

**Options**

- A Std Steel Backup
- B Steel Long Backup
- C Alum Bronze Backup
- D Alum Bronze Long Backup

**Backup Distance**

- K 14mm (for clamping range 0.1 - 4mm)
- N 17mm (for clamping range 4.1 - 7mm)

Backup ordering example:

CE06C-16.00-035-K-A

(DO NOT SCALE DRAWING)



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