PIN CLAMPS
FOR POSITIVE LOCATING AND CLAMPING

**PCT**
12.00 - 16.00mm PIN DIAMETERS

- STANDARD BULLET NOSE PIN
- LOCATING PIN IN SELF-CONTAINED CARTRIDGE, CARTRIDGE IS REPLACEABLE IN FIELD

**PCS**
16.01 - 25.00mm PIN DIAMETERS

- NAAMS COMPLIANT MOUNTING HOLE PATTERN
- PNEUMATIC ACTUATOR NPT or G PORTS
- SOLID STATE CYLINDER SWITCH
- GAPLESS CLAMP FINGER DESIGN AT FULL EXTENSION AND RETRACTION
- OPTIONAL LONG PART BACKUP

**PCM**
25.01 - 40.00mm PIN DIAMETERS

- STANDARD LOW PROFILE PIN
- STANDARD STEEL PART BACKUP
- PIN RETRACT OPTION: LOW PROFILE PIN RETRACTS FLUSH WITH BACKUP
- WORLD SWITCH OPTION
- CUSTOMER SUPPLIED M12x1 PROX SWITCH FOR RETRACT OPTION WITH WORLD SWITCH

**APPLICATIONS**

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

REQUIRES NO LUBRICATION!

Patent #6,786,478

Released 9/20/21
**PIN CLAMP WORKSHEET**

<table>
<thead>
<tr>
<th>Project</th>
<th>Station #</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>Customer</th>
<th>Contact</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

**NOMINAL HOLE DIAMETER:**

<table>
<thead>
<tr>
<th></th>
<th>Tolerance ±</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Metal</td>
<td></td>
</tr>
<tr>
<td>Multiple Metal</td>
<td></td>
</tr>
</tbody>
</table>

**Thickness:**

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

**Quantity:**

<table>
<thead>
<tr>
<th>Overall thickness:</th>
</tr>
</thead>
</table>

Will the pin be in geo holes in multiple metal pieces?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**RECOMMENDED PIN DIAMETER:**

<table>
<thead>
<tr>
<th>Series, Application</th>
<th>Pin sizing</th>
<th>0.15mm under minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCS, PCT, PCM geo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCS, PCT, PCM</td>
<td>material handling</td>
<td>0.5mm under minimum</td>
</tr>
</tbody>
</table>

**FINGER & PIN CLAMP ORIENTATION**

**PIN CLAMP MOUNTED HORIZONTALLY:**

Fingers must extend parallel to floor.

**PIN CLAMP MOUNTED INVERTED OR VERTICALLY:**

Fingers may extend in either direction.

**Part #**

<table>
<thead>
<tr>
<th>Mounting</th>
<th>Fingers</th>
<th>Horizontal</th>
<th>Vertical or inverted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>@ 0°</td>
<td>@ 90°</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part #</th>
<th>Mounting</th>
<th>Fingers</th>
<th>Horizontal</th>
<th>Vertical or inverted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>@ 0°</td>
<td>@ 90°</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Part #</th>
<th>Mounting</th>
<th>Fingers</th>
<th>Horizontal</th>
<th>Vertical or inverted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>@ 0°</td>
<td>@ 90°</td>
</tr>
</tbody>
</table>

**DO NOT SCALE DRAWING**

ENGINEERED PRODUCTS

800-229-0890 www.welkerproducts.com
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)
  - D: None
  - A: DC Turck 4 Pin (PNP)
  - B: AC/DC Turck 5 Pin (N.O.)
  - C: DC Turck 4 Pin (NPN)
  - D: DC Pepprl-Fuchs 4 Pin (PNP)
  - E: DC Balluff 4 Pin (PNP/NO)
  - J: DC Efector 4 Pin (PNP)
  - Z: DC Welker 4 Pin (PNP)

**Switch Options**
- World Switch Sensor Position
  - 0: None (No Switch)
  - E: Sensor 01-Unclamped (Pin Extended)
  - R: Sensor 01-Clamped (Pin Retracted)
  - S: Sensor 02-Clamped

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

---

**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 (035-050mm) C & T Series
- 051-075 (051-075mm) 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
- L: 1/8 G at Pos 3
- M: 1/8 G at Pos 4

---

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

**GENERAL DIMENSIONS**

CLAMP FINGERS IN CLAMPED POSITION

FINGERS EXTENDED IN CLAMPED POSITION.
DIM = PIN DIA + U

PORTS: SEE ACTUATOR OPTION SHEETS

**SERIES**
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

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

Pin Type
A Bullet Nose Pin with fingers at 0°
B Bullet Nose Pin with fingers at 90°
C Bullet Nose 2-way Pin with fingers at 0°
D Bullet Nose 2-way Pin with fingers at 90°
E Low Profile Pin with fingers at 0°
F Low Profile Pin with fingers at 90°
G Low Profile 2-Way Pin with fingers at 0°
H Low Profile 2-Way Pin with fingers at 90°

T SERIES DIAMETERS
C SERIES DIAMETERS
M SERIES DIAMETERS

12.00 - 16.00 16.01 - 25.00 25.01 - 40.00
12.00 - 16.00 16.01 - 25.00 25.01 - 40.00
13.00 - 16.00 18.00 - 26.00 26.85 - 42.00
13.00 - 16.00 18.00 - 26.00 26.85 - 42.00
12.00 - 16.00 16.01 - 25.00 25.01 - 40.00
12.00 - 16.00 16.01 - 25.00 25.01 - 40.00
13.00 - 16.00 18.00 - 26.00 26.85 - 42.00
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

2-WAY PINS

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

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

Series: PCT Body
- T
- C
- M

Actuator: 2500 A B A R D 035 K A

**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°F to 165°F, -23 to 74°C

---

**PCT ACTUATOR INFORMATION**

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

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PORTS</th>
<th>CLAMP FORCE (LBS.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>DOUBLE ACTING 40mm BORE</td>
<td>1/8&quot; NPT</td>
</tr>
<tr>
<td>B</td>
<td>SINGLE ACTING 50mm BORE, SPRING CLAMP</td>
<td>1/8&quot; NPT or G 1/8</td>
</tr>
<tr>
<td>T</td>
<td>SINGLE ACTING 50mm BORE, SPRING CLAMP, RETRACTABLE PIN</td>
<td>1/8&quot; NPT or G 1/8</td>
</tr>
</tbody>
</table>

---

**PCS & PCM ACTUATOR INFORMATION**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PORTS</th>
<th>CLAMP FORCE (LBS.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>DOUBLE ACTING 50mm BORE WITH SPRING ASSIST</td>
<td>1/8&quot; NPT or G 1/8</td>
</tr>
<tr>
<td>T</td>
<td>DOUBLE ACTING 50mm BORE, SPRING ASSIST, RETRACTABLE PIN</td>
<td>1/8&quot; NPT or G 1/8</td>
</tr>
</tbody>
</table>

---

**TOP VIEW: PORT LOCATION**

- A: NPT AT POSITION #1
- B: NPT AT POSITION #2
- C: NPT AT POSITION #3
- D: NPT AT POSITION #4
- J: G AT POSITION #1
- K: G AT POSITION #2
- L: G AT POSITION #3
- M: G AT POSITION #4

---

(DO NOT SCALE DRAWING)
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

RELEASE PORT

CLAMP PORT

RELEASE PORT

CLAMP/RETRACT PORT:
PCT RETRACT PORT IS A BREATHER PORT, SPRING RETRACT

NOTES:
• Cylinder switches not available with actuator A on PCT
• Actuator A is only available with PCT
ACTUATOR T: RETRACT OPTION
FOR RETRACT SEQUENCE SEE SHEET 8

RETRACT OPTION WITH CYLINDER SWITCH

RETRACT OPTION WITH WORLD SWITCH

MUST USE LOW PROFILE PIN OPTIONS E-H FOR PIN TO RETRACT FLUSH TO BACKUP

CUSTOMER SUPPLIED M12x1 PROX SWITCH FOR RETRACT OPTION WITH WORLD SWITCH

EXTEND PORT 1/8" NPT or G1/8

RETRACT PORT 1/8" NPT or G1/8

PRIMARY CYLINDER SWITCH
SECONDARY CYLINDER SWITCH

PRIMARY CYLINDER
SECONDARY CYLINDER

EXTEND PORT 1/8" NPT OR G1/8

CLAMP/RETRACT PORT

CLAMP/RETRACT PORT: PCS, PCM
PCT RETRACT PORT IS A BREATHER PORT, SPRING RETRACT

(DO NOT SCALE DRAWING)
PIN CLAMP RETRACT OPTION SEQUENCE

**STEP 1: PART LOAD**
- Primary cylinder extend port energized
- Power on
- Sensor 1 on
- Secondary cylinder extend port energized
- Pin & pin fingers retracted
- Part released
- Post sensor on

**STEP 2: PART CLAMP**
- Primary cylinder retract port energized
- Sensor 2 on
- Secondary cylinder extend port energized
- Pin extends, pin fingers retract
- Pin fingers extend, pin retracts to clamp

**STEP 3: PIN RELEASE**
- Primary cylinder extend port energized
- Sensor 1 on
- Secondary cylinder extend port energized
- Pin extends, pin fingers retract

**STEP 4A: PIN RETRACT**
- 4A: Secondary cylinder retract port energized
- Primary cylinder retract port energized

**STEP 4B: PART RELEASE**
- 4B: Primary cylinder retract port energized
- Post sensor on
WORLD SWITCH INFORMATION

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

PIN RETRACT OPTION
WORLD SWITCH
CUSTOMER SUPPLIED
M12x1 PROX SWITCH FOR
RETRACT OPTION
WITH WORLD SWITCH

(DO NOT SCALE DRAWING)

WELKER
ENGENEERED PRODUCTS
800-229-0890 www.welkerproducts.com
### CYLINDER SWITCH INFORMATION

**FOR PIN CLAMP ACTUATOR OPTION "B" & "D"

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

<table>
<thead>
<tr>
<th>Option</th>
<th>QTY</th>
<th>Switch Part #</th>
<th>Wire</th>
<th>Output</th>
<th>Mfg</th>
</tr>
</thead>
<tbody>
<tr>
<td>L3</td>
<td>1</td>
<td>SWITCH L3**</td>
<td>4</td>
<td>PNP</td>
<td>Welker</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dual sensor, single connector switch: 1 switch required per cylinder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L5</td>
<td>2</td>
<td>MK5113</td>
<td>3</td>
<td>NPN</td>
<td>ifm Efector</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Single sensor, single connector switch: 2 switches required per cylinder</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FOR PIN CLAMP ACTUATOR OPTION "T"

<table>
<thead>
<tr>
<th>Option</th>
<th>QTY</th>
<th>Switch Part #</th>
<th>Wire</th>
<th>Output</th>
<th>Mfg</th>
</tr>
</thead>
<tbody>
<tr>
<td>L3</td>
<td>1</td>
<td>SWITCH L3**</td>
<td>4</td>
<td>PNP</td>
<td>Welker</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Single sensor, single connector switch: 1 switch required for retract cylinder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L5</td>
<td>3</td>
<td>MK5113</td>
<td>3</td>
<td>NPN</td>
<td>ifm Efector</td>
</tr>
</tbody>
</table>

**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

WEIKER

ENGINEERED PRODUCTS

800-229-0890 www.welkerproducts.com
Backup Distance

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

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

**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
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.
REPLACEMENT PIN CLAMP CARTRIDGES
SEE SHEET 5 FOR PIN TYPES AND FINGER ORIENTATION

Series
- C R T -
- -
- -

Options
- - G -
- - T -

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
- Std -
- Long -

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

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

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

Series
- E O C -
- -
- -

Options
- - A & C -
- - B & D -

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

Backup ordering example:
CE06C-16.00-035-K-A