INLINE MINI PIN & OFFSET MINI PIN
COMPACT RETRACTABLE LOCATING PINS

INLINE & OFFSET RETRACT PINS FOR REPEATABLE, PRECISION PART LOCATION. THE SMALLEST, LIGHTEST, FULL-FEATURE LOCATING PINS AVAILABLE.

FIXED NET SURFACE & PRIMARY PIN LOCATOR ARE COMBINED INTO ONE COMPONENT. VERSATILE NAAMS MOUNTING ON TWO SIDES.

EASY PIN CHANGE-OUT. PINS ARE INTERCHANGEABLE BETWEEN INLINE AND OFFSET - LOWER SPARE PARTS STOCKING COSTS.

HARD ANODIZED ALUMINUM CONSTRUCTION, WELD SPATTER RESISTANT COATING.

WELKER ANTI-ROTATE TECHNOLOGY. RAP OR RIGID COUPLING. NO LUBRICATION NEEDED.

APPLICATIONS:
SEATING
END EFFCTORS
INSTRUMENT PANELS
EXHAUST
TRUNNIONS

OPTIONAL PALM BUTTON FOR MANUAL OPERATION

RELEASED 7/2/19
INLINE MINI PIN MPS ORDERING INFORMATION
NOTE: ALL BOXES MUST BE FILLED IN FOR A COMPLETE PART NUMBER

Pin Diameter
1589  Pin Diameter
       4.85 - 25.00mm
       (15.89mm dia. shown)
XXX  Pin Styles 0 and X
000S  Pin Blank Max 19mm Dia.
000L  Pin Blank Max 25mm Dia.

Pin Style & Orientation
0  Pin Blank (Machined by Customer)
X  No Pin
A  4-Way Round
B  2-Way Diamond
C  2-Way Diamond (Rotated 90°)

Backup Size
S  Small 30mm Diameter Backup
L  Large 35mm Diameter Backup

Coupler
A  Rap
B  Rigid

Port Position
A  P1 Position
B  P2 Position
C  P3 Position
D  P4 Position

Switch
0  No Switch
LX  See Cylinder Switch Chart

Actuator Options
32  50mm Bore with NPT Port
33  50mm Bore with G Port
36  50mm Bore Double Rod with
    NPT Port & Palm Button
37  50mm Bore Double Rod with
    G Port & Palm Button

To order replacement pins:

Pin Diameter
1589  Pin Diameter
000S  For Pin Blank Max 19mm Dia.
000L  For Pin Blank Max 25mm Dia.

Pin Style & Orientation
0  Pin Blank (Machined by Customer)
A  4-Way Round
B  2-Way Diamond
C  2-Way Diamond (Rotated 90°)

Backup Size
S  Small 30mm Diameter Backup
L  Large 35mm Diameter Backup

Switch Option Part Number Manufacturer Description

<table>
<thead>
<tr>
<th>Cylinder Switches</th>
<th>Part Number</th>
<th>Manufacturer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWITCH L3</td>
<td>L3</td>
<td>Welker</td>
<td>4-Wire, 4-Pin, DC (PNP) M12 X 1 Quick Disconnect</td>
</tr>
<tr>
<td>MK5113</td>
<td>L5</td>
<td>ifm Efector</td>
<td>3-Wire, 4-Pin, DC (NPN) M12 X 1 Quick Disconnect</td>
</tr>
</tbody>
</table>

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

(DO NOT SCALE DRAWING)

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

SHEET 2
GENERAL DIMENSIONS INLINE MINI PIN MPS

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

$\phi$35 LARGE BACKUP: ANY SIZE PIN DIAMETER
$\phi$30 SMALL BACKUP: FOR PINS UP TO 19mm DIA.

PINS RETRACT BELOW BACKUP

2-WAY PIN ORIENTATION "B" SHOWN
SEE SHEET 8 FOR DETAILS

$\phi$8.0 S.F. $\phi 12$
(2) NEAR, (2) FAR
30.00 CENT. TYP.

50mm BORE X 25mm STROKE PNEUMATIC CYLINDER

2X M8x1.25 TAP $\phi 12$
(1) NEAR, (1) FAR

COVER PLATE TO ACCESS PIN FASTENER

OPTIONAL SOLID STATE CYLINDER SWITCH

UNIT WEIGHTS*

<table>
<thead>
<tr>
<th>MODEL</th>
<th>WEIGHT</th>
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<tbody>
<tr>
<td>MPS</td>
<td>3.6 LBS</td>
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<tr>
<td>MPC</td>
<td>5.4 LBS</td>
</tr>
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*WEIGHTS VARY WITH OPTIONS

(DO NOT SCALE DRAWING)
INLINE MINI PIN ~ PALM BUTTON OPTION

(FOR MANUAL OPERATION)

50mm BORE X 25mm STROKE PNEUMATIC CYLINDER

ALUMINUM BUTTON WITH KNURLED EDGE

244 SHOWN CYLINDER EXTENDED

196

51

73
OFFSET MINI PIN MPC ORDERING INFORMATION

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

<table>
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<th>MPC</th>
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Pin Style & Orientation

0 Pin Blank (Machined by Customer)
X No Pin
A 4-Way Round
B 2-Way Diamond
C 2-Way Diamond (Rotated 90°)

Port Position

A P1 Position
B P2 Position
C P3 Position
D P4 Position

Switch

00 No Switch
LX See Cylinder Switch Chart

Actuator Options

32 50mm Bore with NPT Port
33 50mm Bore with G Port
36 50mm Bore Double Rod with NPT Port & Palm Button
37 50mm Bore Double Rod with G Port & Palm Button

To order replacement pins:

M P P | 0 | PIN |

Pin Diameter

1589 Pin Diameter
XXX For Pin Style 0
000S For Pin Blank
Max 19.00 Dia.

Pin Style & Orientation

0 Pin Blank (Machined by Customer)
A 4-Way Round
B 2-Way Diamond
C 2-Way Diamond (Rotated 90°)

Switch Option | Part Number | Manufacturer | Description
--- | --- | --- | ---
Cylinder Switches | SWITCH L3 | Welker | 4-Wire, 4-Pin, DC (PNP) M12 X 1 Quick Disconnect
| L3 | | | L3 switch is weld field immune, comparable to World Switches
| L5 | MK5113 | ifm Eefector | 3-Wire, 4-Pin, DC (NPN) M12 X 1 Quick Disconnect
| | | | (This is a single sensor switch: 2 switches are installed per cylinder)

Standard Switch Option - All other options may affect price and delivery
GENERAL DIMENSIONS ~ OFFSET MINI PIN MPC

PIN ORIENTATION "B" SHOWN. SEE SHEET 8 FOR DETAILS

PORT POSITION 2 & 4 WILL CAUSE CYLINDER TO EXTEND PAST MOUNTING FACE BY 10.5mm

4mm PART ENGAGEMENT

6X M8x1.25 TAP x 16
3X NEAR SIDE
3X FAR SIDE

4X Ø8.0 S.F. x 16
2X NEAR SIDE
2X FAR SIDE

OPTIONAL SOLID STATE CYLINDER SWITCH

50mm BORE X 15mm STROKE PNEUMATIC CYLINDER

2X 1/8"NPT OR G1/8 PORTS

UNIT WEIGHTS*

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*WEIGHTS VARY WITH OPTIONS

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

DO NOT SCALE DRAWING
OFFSET MINI PIN ~ PALM BUTTON OPTION

(FOR MANUAL OPERATION)

50mm BORE X
15mm STROKE
PNEUMATIC
CYLINDER

2X 1/8"NPT OR
G1/8 PORTS

ALUMINUM BUTTON
WITH KNURLED EDGE

222
SHOWN
CYLINDER
EXTENDED

167

57
PIN STYLE & ORIENTATION OPTIONS

PINS ARE A2 TOOL STEEL HARDENED TO Rc 58-62
PIN DIA +0.00/-0.03

HARDEN PIN TO Rc 58-62 AFTER MACHINING

OPTION "A" PIN
4-WAY ROUND

OPTION "B" OR "C" PIN
2-WAY DIAMOND

OPTION "000S" PIN
PIN BLANK FOR SMALL BACKUP

OPTION "000L" PIN
PIN BLANK FOR LARGE BACKUP

PIN NOTE:
PINS MANUFACTURED BY WELKER (OPTIONS A, B, & C) ARE HARDENED A2 TOOL STEEL. PIN BLANKS (OPTION "0") ARE SHIPPED UNHARDENED. HARDENING OF THE PIN AFTER MACHINING IS REQUIRED AND THE RESPONSIBILITY OF THE CUSTOMER.