



PX-1600 Line



RoHS (Restriction of Hazardous Substances) finishes:

Cadmium plate (QQ-P-416) and hexavalent chromates are not RoHS compliant.

Cadmium plate and hexavalent chromates are being replaced by Zinc plate (ASTM-B-633) with a trivalent chromate, topped with a clear sealer. Salt spray to corrosion is 100 hours minimum.

Trivalent chromate only comes in clear. Yellow and black can be achieved with a dye, but the dye does not increase the corrosion protection. (Yellow and black cost slightly more.)

The PX-1600 Quarter-Turn fastener is based upon a spiral cam milled externally on the body of the fastener. The spiral cam is engaged by tabs on the recessed portion of the receptacle.

The stud is offered in two (2) diameters, five (5) head styles, and four (4) standard finishes. The two sizes are designated 4 and 6.

These numbers relate to the nominal diameter of the stud body expressed in millimeters.

Stud retention is possible with either a plastic or a steel retainer. Retainer installation is performed by simply pushing the retainer onto the end of the stud. A plastic retainer may also be used as a washer under the head of the stud to protect decorative finishes. For applications with large gaps between the panel and support, a retaining spring may be added to keep the stud aligned with the receptacle.

The receptacle is offered in five different styles. All styles are available in sizes 4 and 6. The receptacles are available with any finish.

The stud length increases in 1 mm increments to allow for a wide range of panel thickness. The grip range for each length of stud has been predetermined to provide the optimum 'pull-up' for a safe and secure locked condition.

The available finishes for the PX-1600 fastener are all **RoHS** compliant. They are:

Z3CT	Zinc Trivalent Chromate Clear with Sealer (Standard Finish)
ZFBT	Zinc Flake Coating with Black Sealer
Z3BT	Zinc Trivalent Chromate Black with Sealer
Z3YT	Zinc Trivalent Chromate Yellow Dye with Sealer

PX-1600 Line



UNDERWRITERS LABORATORIES INC.
CERTIFICATE OF REGISTRATION



DFCI Solutions, Inc.

425 Union Blvd.
West Islip, NY 11795

Underwriters Laboratories Inc.® (UL) issues this certificate to the Firm named above, after assessing the Firm's quality system and finding it in compliance with

ISO 9001:2000

EN ISO 9001:2000; BS EN ISO 9001:2000; ANSI/ASQ Q9001:2000
and the Quality System Requirements

AS9100:2004 – 01

UL is accredited under the aerospace Registrar Management Committee program. UL conducted this assessment in accordance with the latest version of AS9104 and AIR5359 for the following scope of registration:

3429 (US) : Hardware, Not Elsewhere Classified

The design and manufacture of Quick Acting Specialty fasteners and latches in steel, stainless steel, aluminum and plastic used to secure access panels, covers, avionics equipment or detachable components. Market segments include military and commercial aerospace, marine boating, transportation, electronics, air handling, refrigeration, motor control, performance race car and computer industries.

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2000 requirements may be obtained by consulting the organization.

This quality system registration is included in UL's Directory of Registered Firms and applies to the provision of goods and/or services as specified in the scope of registration from the address(es) shown above. By issuance of this certificate the firm represents that it will maintain its registration in accordance with the applicable requirements. This certificate is not transferable and remains the property of Underwriters Laboratories Inc.®.

File Number: A1956

Volume: 1

Original Certification Date: October 28, 1994

ISO 9001:2000 Issue Date: May 10, 2002

AS9100 Issue Date: May 10, 2002

Revision Date: February 24, 2006

Recertification Date: January 28, 2006

Renewal Date: January 27, 2009

Sajeev Jesudas
Chief Operating Officer





PX-1600 Line

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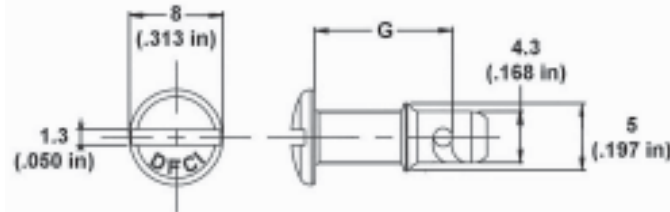
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PX-1600 Line



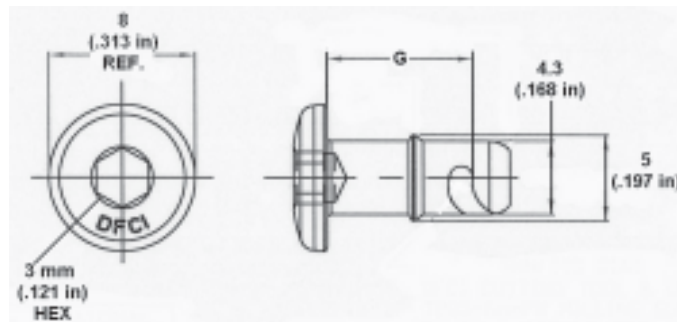
Size 4 Studs

Slotted

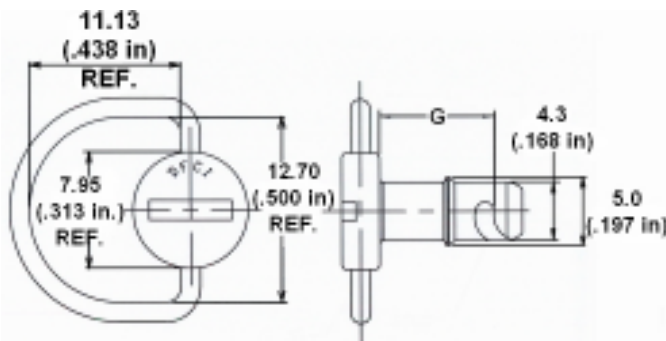


Part Number: 1631-41**G**-Z3CT

Hex Recess



Ring



G Represents the Stud Grip Length. The Stud Grip Length can be determined from the sizing table found on the Receptacle page.

Z3CT is the Standard Finish for this part. Other available finishes are listed on page **PX-1**.

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PX-1600 Line

Size 4 Retainers

Stud retention is possible with either a plastic or steel retainer.

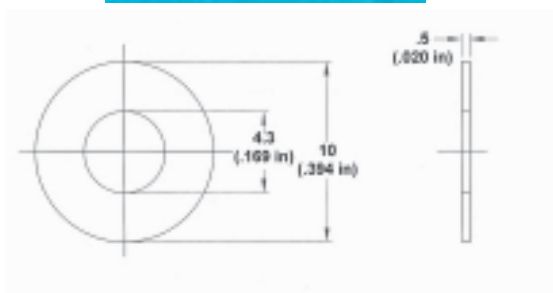
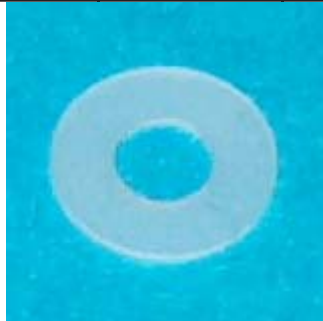
Retainer installation is performed by simply pushing the retainer onto the end of the stud.

A plastic retainer may also be used as a washer under the head of the stud to protect decorative finishes.

For applications with large gaps between the panel and support, a retaining spring may be added to keep the stud aligned with the receptacle. Note: A steel retainer will also be required with the spring.

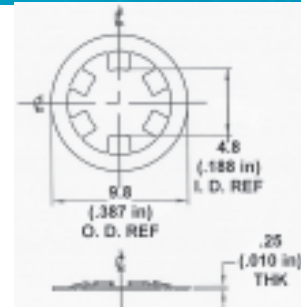
Plastic

Part Number	Material	Finish
1632-4100	Polyethylene	Natural

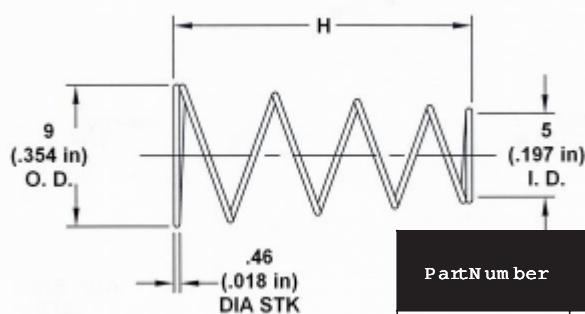


Steel

Part Number
1632-4101-Z3CT



Retaining Spring



Part Number	H		Material
	(mm)	(in)	
1632-4200-SS	48	1.890	Stainless Steel
1632-4201-SS	20	.787	



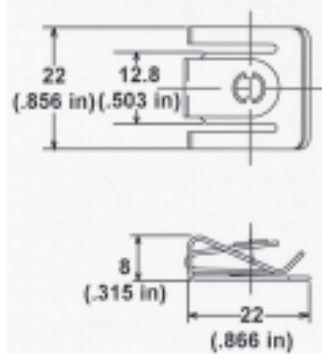
PX-1600 Line



Size 4 Receptacles

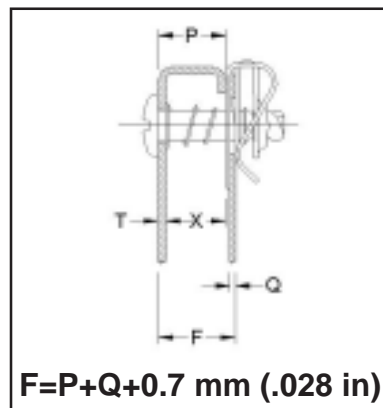
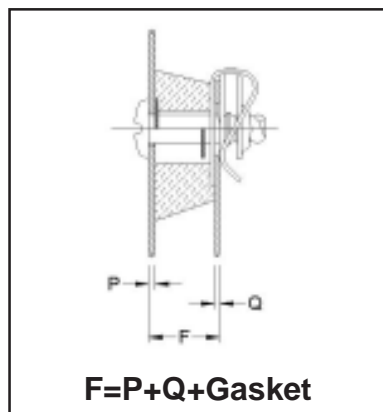
Slip-On

Part Number
1633-4300-Z3CT
Material
Spring Steel
Mechanical
Maximum Load without Distortion
30 LB
Maximum Torque
23 in-lb



Calculate F Dimension

Using the table below, find the F Dimension range that applies to your calculated F range. The "G" for the Stud Part Number is stated to the right of the applicable F Dimension range.



F Dimension		G
(mm)	(in)	
1.5-2.4	.059-.094	08
2.5-3.4	.098-.134	09
3.5-4.4	.138-.173	10
4.5-5.4	.177-.213	11
5.5-6.4	.217-.252	12
6.5-7.4	.256-.291	13
7.5-8.4	.295-.331	14
8.5-9.4	.335-.370	15
9.5-10.4	.371-.409	16
10.5-11.4	.413-.449	17
11.5-12.4	.453-.488	18
12.5-13.4	.492-.528	19
13.5-14.4	.531-.537	20
14.5-15.4	.571-.606	21
15.5-16.4	.610-.646	22
16.5-17.4	.650-.685	23

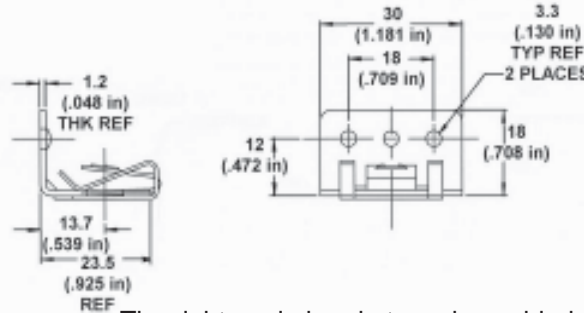
F Dimension		G
(mm)	(in)	
17.5-18.4	.689-.724	24
18.5-19.4	.728-.764	25
19.5-20.4	.768-.803	26
20.5-21.4	.807-.843	27
21.5-22.4	.846-.882	28
22.5-23.4	.886-.921	29
23.5-24.4	.925-.961	30
24.5-25.4	.964-1.000	31
25.5-26.4	1.004-1.039	32
26.5-27.4	1.043-1.079	33
27.5-28.4	1.086-1.118	34
28.5-29.4	1.122-1.157	35
29.5-30.4	1.161-1.197	36
30.5-31.4	1.201-1.236	37
31.5-32.4	1.240-1.276	38



PX-1600 Line

Size 4 Receptacles

Bracket



The right angle bracket can be welded or riveted to the support structure.

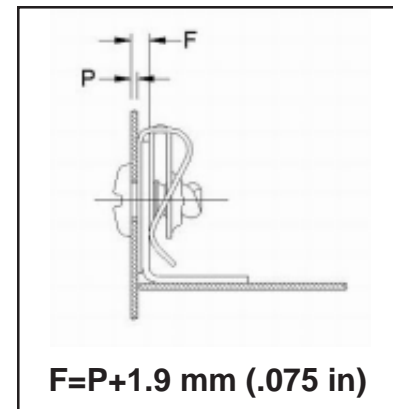
Calculate F Dimension

Using the table below, find the F Dimension range that applies to your calculated F range. The "G" for the Stud Part Number is stated to the right of the applicable F Dimension range.

F Dimension		G
(mm)	(in)	
1.5-2.4	.059-.094	08
2.5-3.4	.098-.134	09
3.5-4.4	.138-.173	10
4.5-5.4	.177-.213	11
5.5-6.4	.217-.252	12
6.5-7.4	.256-.291	13
7.5-8.4	.295-.331	14
8.5-9.4	.335-.370	15
9.5-10.4	.371-.409	16
10.5-11.4	.413-.449	17
11.5-12.4	.453-.488	18
12.5-13.4	.492-.528	19
13.5-14.4	.531-.537	20
14.5-15.4	.571-.606	21
15.5-16.4	.610-.646	22
16.5-17.4	.650-.685	23

F Dimension		G
(mm)	(in)	
17.5-18.4	.689-.724	24
18.5-19.4	.728-.764	25
19.5-20.4	.768-.803	26
20.5-21.4	.807-.843	27
21.5-22.4	.846-.882	28
22.5-23.4	.886-.921	29
23.5-24.4	.925-.961	30
24.5-25.4	.964-1.000	31
25.5-26.4	1.004-1.039	32
26.5-27.4	1.043-1.079	33
27.5-28.4	1.086-1.118	34
28.5-29.4	1.122-1.157	35
29.5-30.4	1.161-1.197	36
30.5-31.4	1.201-1.236	37
31.5-32.4	1.240-1.276	38

Part Number
1633-4310-Z3CT
Material
Spring Steel
Mechanical
Maximum Load without Distortion
30 LB
Maximum Torque
23 in-lb



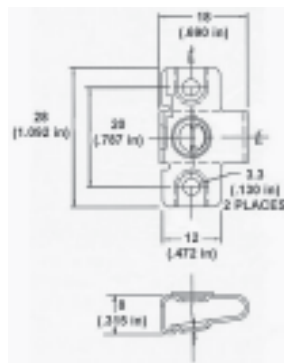
PX-1600 Line



Size 4 Receptacles

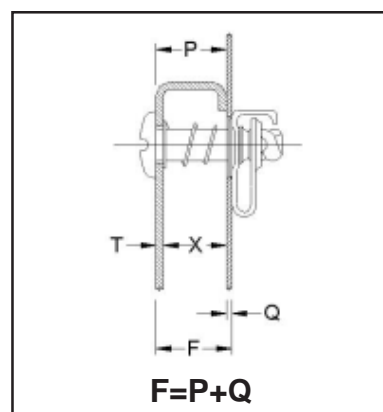
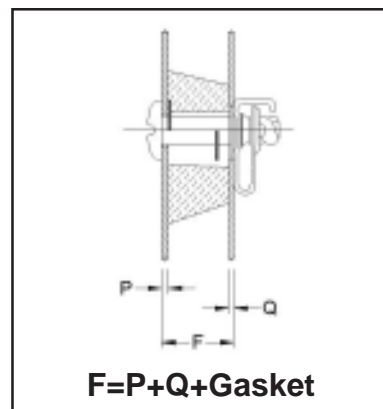
Rivet-On

Part Number
1633-4400-Z3CT
Material
Spring Steel
Mechanical
Maximum Load without Distortion
30 LB
Maximum Torque
23 in-lb



Calculate F Dimension

Using the table below, find the F Dimension range that applies to your calculated F range. The "G" for the Stud Part Number is stated to the right of the applicable F Dimension range.



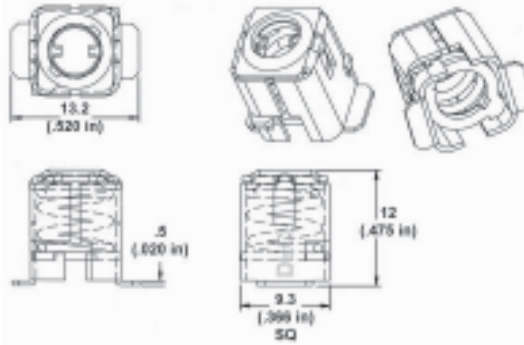
F Dimension		G	F Dimension		G
(mm)	(in)		(mm)	(in)	
1.0-1.9	.039-.075	08	17.0-17.9	.669-.705	24
2.0-2.9	.079-.114	09	18.0-18.9	.709-.744	25
3.0-3.9	.118-.154	10	19.0-19.9	.748-.783	26
4.0-4.9	.157-.193	11	20.0-20.9	.787-.823	27
5.0-5.9	.197-.232	12	21.0-21.9	.827-.862	28
6.0-6.9	.236-.272	13	22.0-22.9	.866-.902	29
7.0-7.9	.276-.311	14	23.0-23.9	.906-.941	30
8.0-8.9	.315-.350	15	24.0-24.9	.945-.980	31
9.0-9.9	.354-.390	16	25.0-25.9	.984-1.020	32
10.0-10.9	.394-.429	17	26.0-26.9	1.024-1.059	33
11.0-11.9	.433-.469	18	27.0-27.9	1.063-1.098	34
12.0-12.9	.472-.508	19	28.0-28.9	1.102-1.138	35
13.0-13.9	.512-.547	20	29.0-29.9	1.142-1.117	36
14.0-14.9	.551-.587	21	30.0-30.9	1.181-1.217	37
15.0-15.9	.591-.626	22	31.0-31.9	1.220-1.256	38
16.0-16.9	.630-.665	23			



PX-1600 Line

Size 4 Receptacles

Front-Load



Calculate F Dimension

Using the table below, find the F Dimension range that applies to your calculated F range. The "G" for the Stud Part Number is stated to the right of the applicable F Dimension range.

F Dimension		G
(mm)	(in)	
1.5-2.4	.059-.094	12
2.5-3.4	.098-.134	13
3.5-4.4	.138-.173	14
4.5-5.4	.177-.213	15
5.5-6.4	.217-.252	16
6.5-7.4	.256-.291	17
7.5-8.4	.295-.331	18
8.5-9.4	.335-.370	19
9.5-10.4	.374-.409	20
10.5-11.4	.413-.449	21
11.5-12.4	.453-.488	22
12.5-13.4	.492-.528	23
13.5-14.4	.531-.537	24
14.5-15.4	.571-.606	25

F Dimension		G
(mm)	(in)	
15.25-16.4	.610-.646	26
16.5-17.4	.650-.685	27
17.5-18.4	.689-.724	28
18.5-19.4	.728-.764	29
19.5-20.4	.768-.803	30
20.5-21.4	.807-.843	31
21.5-22.4	.843-.882	32
22.5-23.4	.886-.921	33
23.5-24.4	.925-.961	34
24.5-25.4	.965-1.000	35
25.5-26.4	1.004-1.039	36
26.5-27.4	1.043-1.079	37
27.5-28.4	1.083-1.118	38

Part Number

1633-4200-Z3CT

Material

Spring Steel

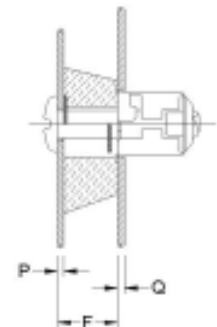
Mechanical

Maximum Load
without Distortion

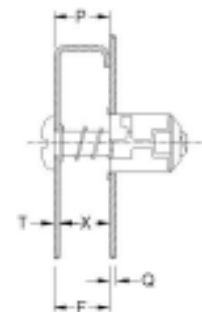
12 LB

Maximum Torque

23 in-lb



$F = P + \text{Gasket}$



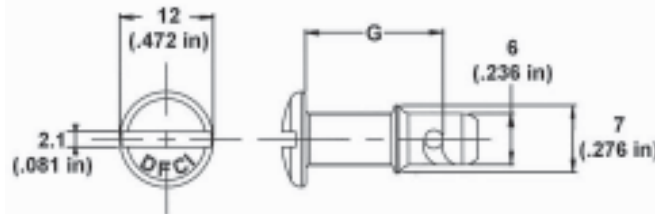
$F = P$

PX-1600 Line



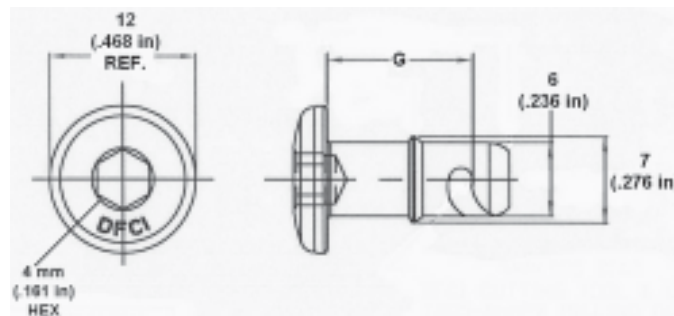
Size 6 Studs

Slotted

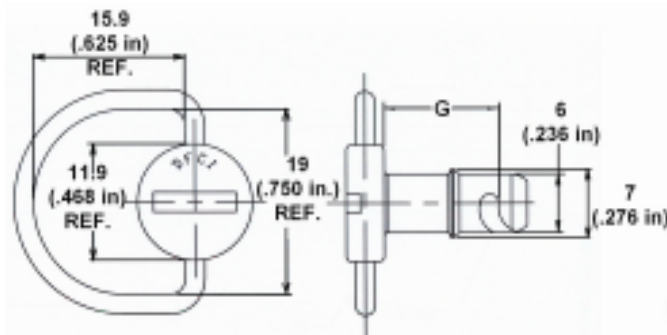


Part Number: 1631-61G-Z3CT

Hex Recess



Ring



G Represents the Stud Grip Length. The Stud Grip Length can be determined from the sizing table found on the Receptacle page.

Z3CT is the Standard Finish for this part. Other available finishes are listed on page **PX-1**.

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PX-1600 Line

Size 6 Retainers

Stud retention is possible with either a plastic or steel retainer.

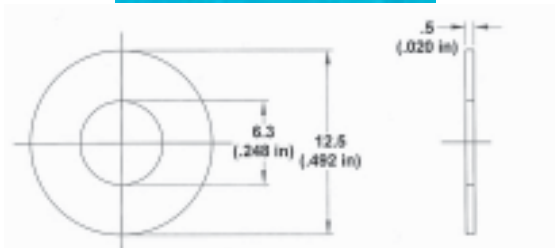
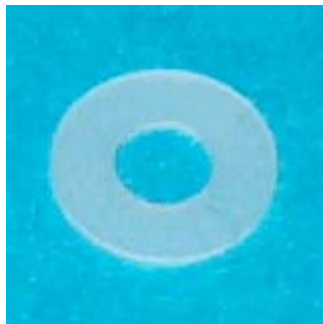
Retainer installation is performed by simply pushing the retainer onto the end of the stud.

A plastic retainer may also be used as a washer under the head of the stud to protect decorative finishes.

For applications with large gaps between the panel and support, a retaining spring may be added to keep the stud aligned with the receptacle. Note: A steel retainer will also be required with the spring.

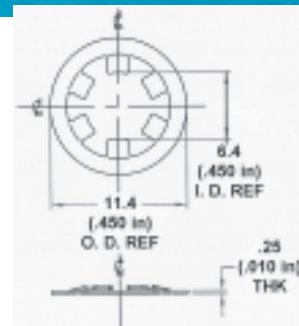
Plastic

Part Number	Material	Finish
1632-6100	Polyethylene	Natural

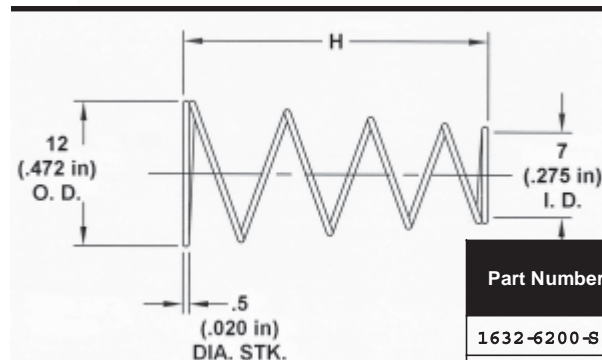


Steel

Part Number
1632-6101-Z3CT



Retaining Spring



Part Number	H		Material
	(mm)	(in)	
1632-6200-SS	48	1.890	Stainless Steel
1632-6201-SS	25	.984	



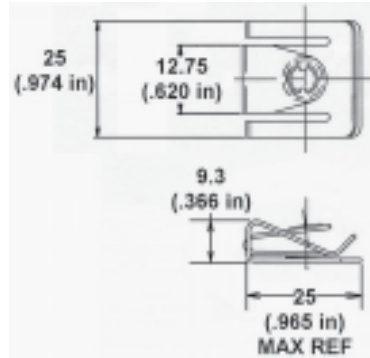
PX-1600 Line



Size 6 Receptacles

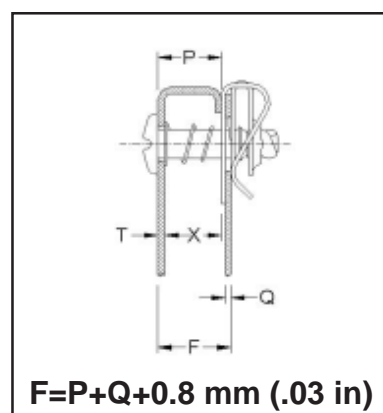
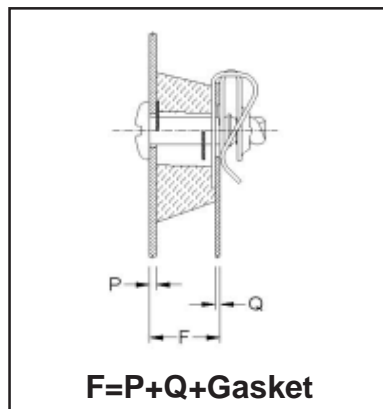
Slip-On

Part Number
1633-6300-Z3CT
Material
Spring Steel
Mechanical
Maximum Load without Distortion
50 LB
Maximum Torque
31 in-lb



Calculate F Dimension

Using the table below, find the F Dimension range that applies to your calculated F range. The "G" for the Stud Part Number is stated to the right of the applicable F Dimension range.



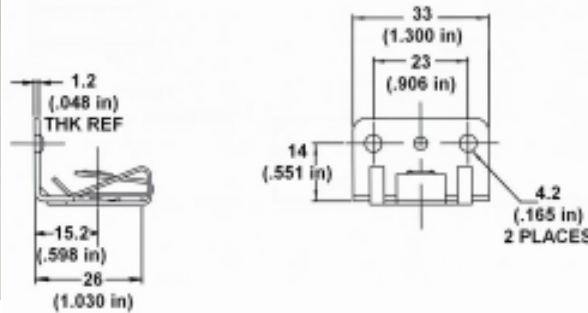
F Dimension		G	F Dimension		G
(mm)	(in)		(mm)	(in)	
1.5-2.4	.059-.094	09	16.5-17.4	.650-.685	24
2.5-3.4	.098-.134	10	17.5-18.4	.689-.724	25
3.5-4.4	.138-.173	11	18.5-19.4	.728-.764	26
4.5-5.4	.177-.213	12	19.5-20.4	.768-.803	27
5.5-6.4	.217-.252	13	20.5-21.4	.807-.843	28
6.5-7.4	.256-.291	14	21.5-22.4	.846-.882	29
7.5-8.4	.295-.331	15	22.5-23.4	.886-.921	30
8.5-9.4	.335-.370	16	23.5-24.4	.926-.961	31
9.5-10.4	.374-.409	17	24.5-25.4	.965-1.000	32
10.5-11.4	.413-.449	18	25.5-26.4	1.004-1.039	33
11.5-12.4	.453-.488	19	26.5-27.4	1.043-1.078	34
12.5-13.4	.492-.528	20	27.5-28.4	1.083-1.118	35
13.5-14.4	.531-.567	21	28.5-29.4	1.122-1.157	36
14.5-15.4	.571-.606	22	29.5-30.4	1.161-1.197	37
15.5-16.4	.610-.646	23	30.5-31.4	1.201-1.236	38



PX-1600 Line

Size 6 Receptacles

Bracket



Part Number

1633-6310-Z3CT

Material

Spring Steel

Mechanical

Maximum Load
without Distortion

50 LB

Maximum Torque

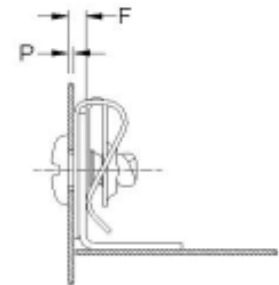
31 in-b

Calculate F Dimension

Using the table below, find the F Dimension range that applies to your calculated F range. The "G" for the Stud Part Number is stated to the right of the applicable F Dimension range.

F Dimension		G
(mm)	(in)	
1.5-2.4	.059-.094	09
2.5-3.4	.098-.134	10
3.5-4.4	.138-.173	11
4.5-5.4	.177-.213	12
5.5-6.4	.217-.252	13
6.5-7.4	.256-.291	14
7.5-8.4	.295-.331	15
8.5-9.4	.335-.370	16
9.5-10.4	.374-.409	17
10.5-11.4	.413-.449	18
11.5-12.4	.453-.488	19
12.5-13.4	.492-.528	20
13.5-14.4	.531-.567	21
14.5-15.4	.571-.606	22
15.5-16.4	.610-.646	23

F Dimension		G
(mm)	(in)	
16.5-17.4	.650-.685	24
17.5-18.4	.689-.724	25
18.5-19.4	.728-.764	26
19.5-20.4	.768-.803	27
20.5-21.4	.807-.843	28
21.5-22.4	.846-.882	29
22.5-23.4	.886-.921	30
23.5-24.4	.926-.961	31
24.5-25.4	.965-1.000	32
25.5-26.4	1.004-1.039	33
26.5-27.4	1.043-1.078	34
27.5-28.4	1.083-1.118	35
28.5-29.4	1.122-1.157	36
29.5-30.4	1.161-1.197	37
30.5-31.4	1.201-1.236	38



$$F = P + 2.0 \text{ mm } (.079 \text{ in})$$

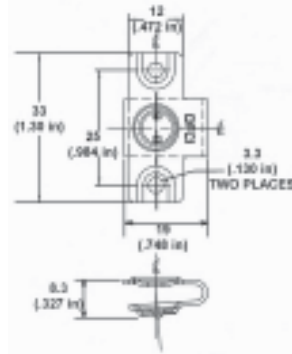
PX-1600 Line



Size 6 Receptacles

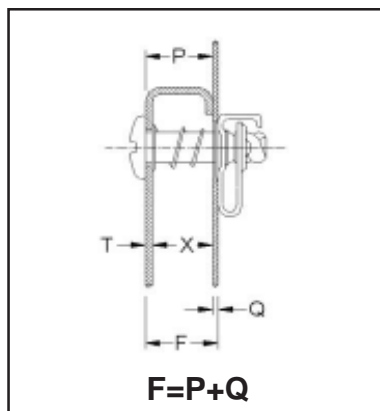
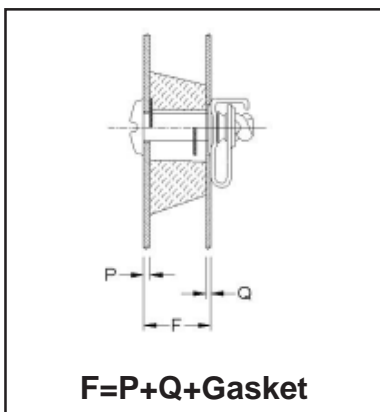
Rivet-On

Part Number
1633-6400-Z3CT
Material
Spring Steel
Mechanical
Maximum Load without Distortion
54 LB
Maximum Torque
31 in-lb



Calculate F Dimension

Using the table below, find the F Dimension range that applies to your calculated F range. The "G" for the Stud Part Number is stated to the right of the applicable F Dimension range.



F Dimension		G
(mm)	(in)	
1.5-2.4	.059-.094	09
2.5-3.4	.098-.134	10
3.5-4.4	.138-.173	11
4.5-5.4	.177-.213	12
5.5-6.4	.217-.252	13
6.5-7.4	.256-.291	14
7.5-8.4	.295-.331	15
8.5-9.4	.335-.370	16
9.5-10.4	.374-.409	17
10.5-11.4	.413-.449	18
11.5-12.4	.453-.488	19
12.5-13.4	.492-.528	20
13.5-14.4	.531-.567	21
14.5-15.4	.571-.606	22
15.5-16.4	.610-.646	23

F Dimension		G
(mm)	(in)	
16.5-17.4	.6350-.685	24
17.5-18.4	.689-.724	25
18.5-19.4	.728-.764	26
19.5-20.4	.768-.803	27
20.5-21.4	.807-.843	28
21.5-22.4	.846-.882	29
22.5-23.4	.886-.921	30
23.5-24.4	.925-.961	31
24.5-25.4	.965-1.000	32
25.5-26.4	1.004-1.039	33
26.5-27.4	1.043-1.079	34
27.5-28.4	1.083-1.118	35
28.5-29.4	1.122-1.157	36
29.5-30.4	1.161-1.197	37
30.5-31.4	1.201-1.236	38



PX-1600 Line

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PX-1600 Line



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