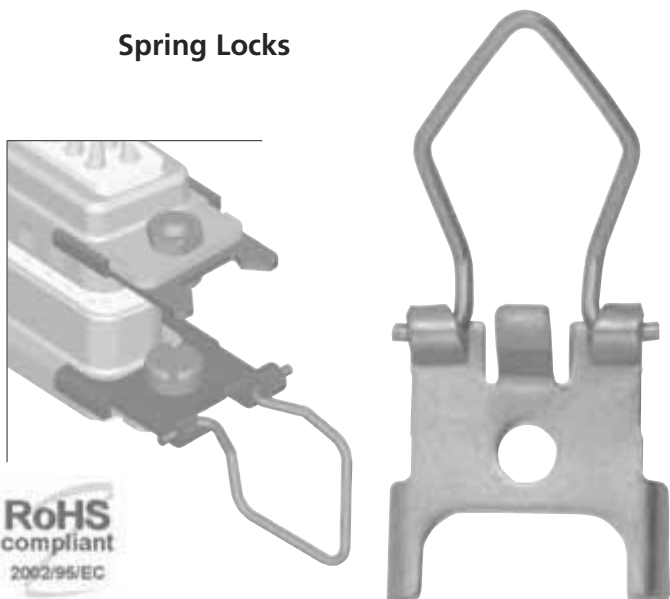


## Accessories Miniature Connector Zubehör Miniatur Steckverbinder

### General Information

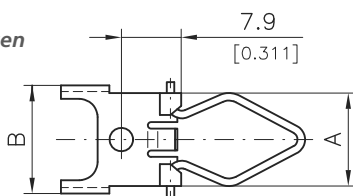
All Products of Accessories for D-Sub Connectors are RoHS compliant. A summary of all products and possible exceptions can be found on our internet site [www.fctgroup.com](http://www.fctgroup.com), Menu item RoHS product summary.

### Spring Locks



#### Spring Lock F1045-... with Mounting Screws Federbügel F1045-... mit Befestigungsschraube

##### Dimensions Abmessungen



#### Sizes and Order-Information Größen und Bestell-Informationen

| Order Number<br>Bestellnummer | Suitable for Shell Size<br>Passend für Gehäusegröße | A       | B       |
|-------------------------------|-----------------------------------------------------|---------|---------|
| F1045-1                       | 1 - 4                                               | 12,3    | 14,3    |
|                               |                                                     | (0.484) | (0.563) |
| F1045-5                       | 5                                                   | 15,5    | 17,2    |
|                               |                                                     | (0.610) | (0.677) |

#### Packing Units

**Packing unit**  
2 reception plates  
2 spring locks  
2 spring washers  
2 nuts  
2 screws

## Spring Locks Federbügelverriegelungen

### Allgemeine Informationen

Alle Erzeugnisse des Zubehörs für D-Sub Steckverbinder sind RoHS konform. Eine Übersicht über alle Erzeugnisse und eventuelle Ausnahmen finden Sie auf unserer Internetseite [www.fctgroup.com](http://www.fctgroup.com), Menüpunkt RoHS Artikelübersicht.

### Federbügelverriegelung

#### Advantages and Special Features

- Spring lock is mounted on the front panel and the corresponding D-Sub connector
- Lockplate F1044-1 is screwed on the metal hood
- with Corresponding Mounting Screw
- Packed in Pairs
- Material: Stainless steel

#### Vorteile und Merkmale im Überblick

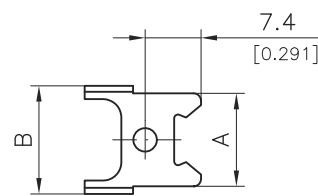
- Der Federbügel wird an der Frontplatte bzw. am Gegensteckverbinder montiert
- An der Metallhaube wird die Verschlussplatte F1044-1 angeschraubt.
- mit passender Befestigungsschraube
- paarweise verpackt
- Material: Edelstahl

#### Accessories for Spring Locks

##### Locking Plate F1044

#### Zubehör für die Federbügelverriegelung Verschlussplatte F1044

##### Dimensions Abmessungen



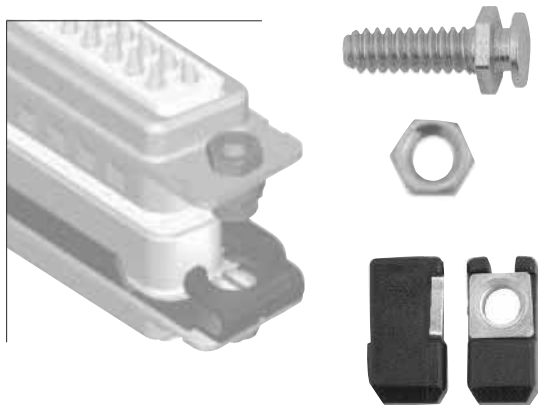
#### Sizes and Order-Information Größen und Bestell-Informationen

| Order Number<br>Bestellnummer | Suitable for Shell Size<br>Passend für Gehäusegröße | A       | B       |
|-------------------------------|-----------------------------------------------------|---------|---------|
| F1044-1                       | 1 - 4                                               | 12,3    | 14,3    |
|                               |                                                     | (0.484) | (0.563) |
| F1044-5                       | 5                                                   | 15,6    | 17,2    |
|                               |                                                     | (0.614) | (0.677) |

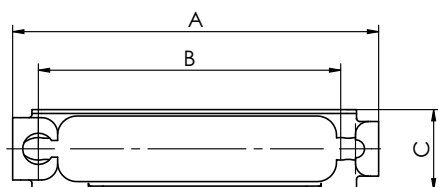
#### Verpackungseinheiten

**Verpackungseinheit**  
2 St. Aufnahmeplatten  
2 St. Federbügel  
2 St. Federringe  
2 St. Muttern  
2 St. Schrauben

## Slide Locks F-GV-...



### Dimensions Abmessungen



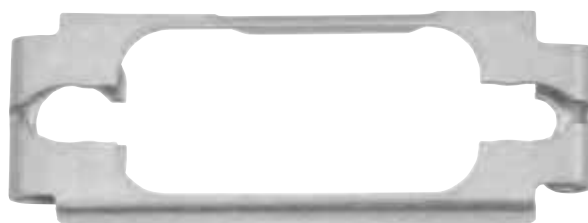
## Gleitverriegelungen F-GV-...

### Advantages and Special Features

- inclusive fixing Screw
- wide range of accessories
- for the mounting of appliances
- Locking in place occurs by sliding the locking frame

### Vorteile und Merkmale im Überblick

- inklusive Befestigungsschraube
- umfangreiches Montagezubehör
- geeignet für die Gerätemontage
- die Verriegelung erfolgt durch Verschieben des Gleitverriegelungsrahmens



| Shell Size<br>Gehäusegröße | Order Number for Appliance Mounting<br>Bestellnummer bei Gerätemontage | A       | B       | C       | D        |
|----------------------------|------------------------------------------------------------------------|---------|---------|---------|----------|
| 1                          | F-GV-1                                                                 | 35,1    | 25,0    | 12,5    | 4-40 UNC |
|                            | F-GV-1M3                                                               | (1.382) | (0.984) | (0.492) | M3       |
| 2                          | F-GV-2                                                                 | 43,1    | 33,3    | 12,5    | 4-40 UNC |
|                            | F-GV-2M3                                                               | (1.697) | (1.311) | (0.492) | M3       |
| 3                          | F-GV-3                                                                 | 56,94   | 47,0    | 12,5    | 4-40 UNC |
|                            | F-GV-3M3                                                               | (2.242) | (1.852) | (0.492) | M3       |
| 4                          | F-GV-4                                                                 | 73,3    | 63,5    | 12,5    | 4-40 UNC |
|                            | F-GV-4M3                                                               | (2.886) | (2.500) | (0.492) | M3       |
| 5                          | F-GV-5                                                                 | 72      | 61,1    | 14,7    | 4-40 UNC |
|                            | F-GV-5M3                                                               | (2.835) | (2.406) | (0.579) | M3       |

## Packing Units Verpackungseinheiten

### Packing Unit

#### Verpackungseinheit

Appliance Assembly

Gerätemontage

1 frame

1 St. Rahmen

2 short screws

2 St. kurze Schrauben

2 nuts

2 St. Muttern

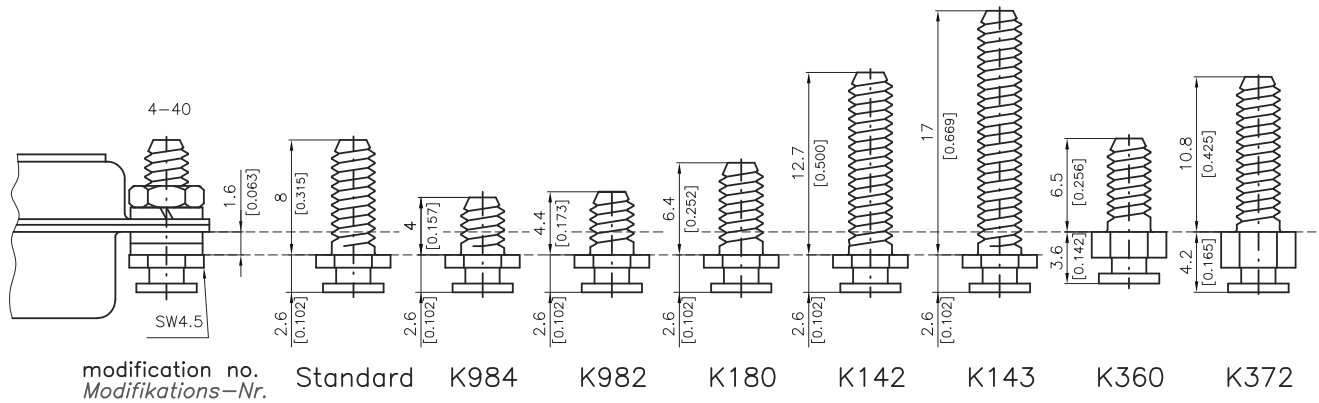
2 spring washers

2 St. Federringe

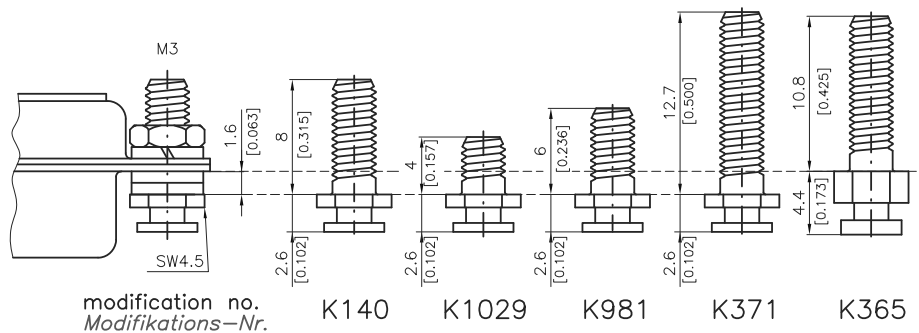


## Gegenschrauben F-SGV1/5-... für Gleitverriegelung

### Außengewinde 4-40 UNC Abmessungen



### Außengewinde M3 Abmessungen



### Packing Units *Verpackungseinheiten*

|                      | Zinc Plated Version                      | Tin Plated Version          |
|----------------------|------------------------------------------|-----------------------------|
|                      | <i>Verzinkte Ausführung</i>              | <i>Verzinnte Ausführung</i> |
| <b>Order Number</b>  |                                          |                             |
| <i>Bestellnummer</i> | F-SGV1/5-...                             | F-SGV1/5-...SN              |
| <b>Material</b>      | steel, zinc plated, blue chromate,       | steel, tin plated           |
| <i>Material</i>      | <i>Stahl verzinkt, blau chromatiert,</i> | <i>Stahl verzinnt</i>       |

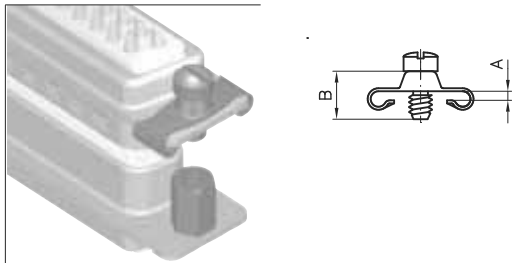
| Packing Unit           |                    |
|------------------------|--------------------|
| Verpackungseinheit     |                    |
| Head Height 0.012"     | Head Height 0.165" |
| Kopfhöhe 2,6 mm        | Kopfhöhe 4,2 mm    |
| 2 bolts                | 2 bolts            |
| 2 St. Bolzen           | 2 St. Bolzen       |
| 4 washers              |                    |
| 4 St. Unterlegscheiben |                    |
| 2 spring washers       | 2 spring washers   |
| 2 St. Federringe       | 2 St. Federringe   |
| 2 nuts                 | 2 nuts             |
| 2 Muttern              | 2 Muttern          |

### Bestellbeispiel

Gegenschraube für Gleitverriegelung mit Schlüsselweite  
4,5 mm, Kopfhöhe 2,6 mm, Außengewinde M3,  
Länge 8 mm, verzinkt: **F-SGV1/5-K140SN**

Screw Locks F-SCHV...

Dimensions  
Abmessungen



Schraubverriegelungen F-SCHV...

**Mounting information**  
Screw locks F-SCHV-... (thread 4-40 UNC) are mounted on the connector shell. They are packed in pairs.

**Montageinformation**  
Die Schraubverriegelungen F-SCHV-... (Gewinde 4-40 UNC) werden am Steckverbindergehäuse montiert. Sie sind paarweise verpackt.

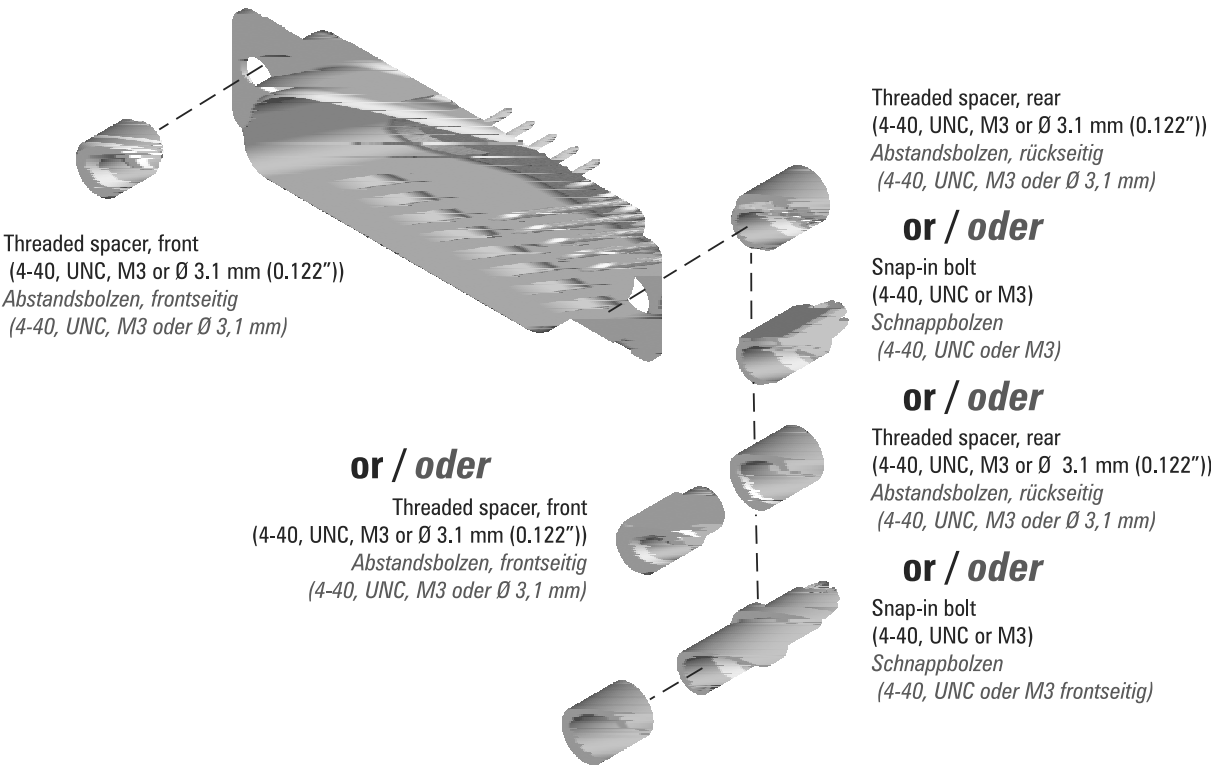
| Order Number<br>Bestellnummer | Suitable for Shell Size 1 - 4<br>Passend für Gehäusegröße 1 - 4                                   | A              | B               | Surface<br>Oberfläche   |
|-------------------------------|---------------------------------------------------------------------------------------------------|----------------|-----------------|-------------------------|
| F-SCHV-1                      | Pin and socket connector<br>Stift- und Buchsensteckverbinder direkt                               | 0,8<br>(0.031) | 6,35<br>(0.250) |                         |
| F-SCHV-2                      | Pin and socket connector with sheet metal hood<br>Stift- und Buchsensteckverbinder mit Blechhaube | 1,2<br>(0.047) | 7,15<br>(0.281) | Zinc-plated<br>verzinkt |
| F-SCHV-3                      | Pin and socket connector<br>Stift- und Buchsensteckverbinder direkt                               | 0,8<br>(0.031) | 7,15<br>(0.281) |                         |

Dimensions in mm (inch) - Abmessungen in mm (inch)



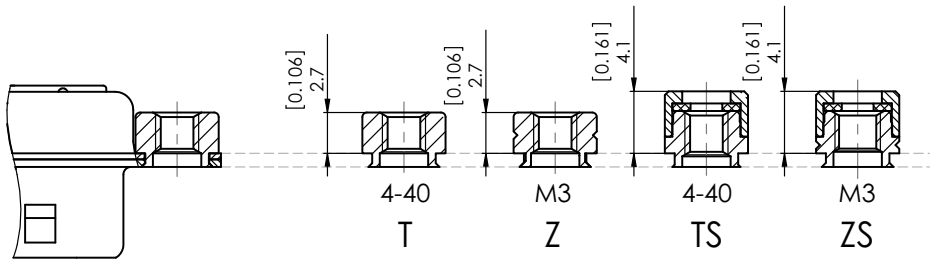
D-Sub Connector with Accessories

D-Sub Steckverbinder mit Anbauteilen



Clinch Nuts  
Einnietmuttern

Dimensions  
Abmessungen



| Mounting Type          | Self Locking          | Surface                   |
|------------------------|-----------------------|---------------------------|
| <i>Befestigungsart</i> | <i>Selbstsichernd</i> | <i>Oberfläche</i>         |
| T                      | —                     | Tin-plated or zinc-plated |
| Z                      | —                     |                           |
| TS                     | •                     | verzinkt oder verzinkt    |
| ZS                     | •                     |                           |

Ordering Example

Pin connector, clinch nut 4-40 UNC, 9 contacts, solder pot termination, performance class 1: **FT09P0G1**

Bestellbeispiel

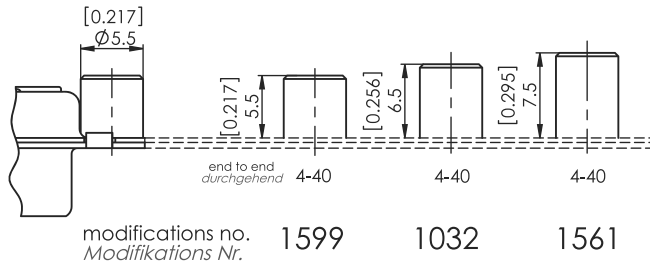
Stiftsteckverbinder, Einnietmutter 4-40 UNC, 9-polig, Löttopfkontakt, Gütestufe 1: **FT09P0G1**

## Spacers

## Abstandsbolzen

### Rear Riveted Inner Thread 4-40 UNC

### Rückseitig vernietet Innengewinde 4-40 UNC



#### Modification

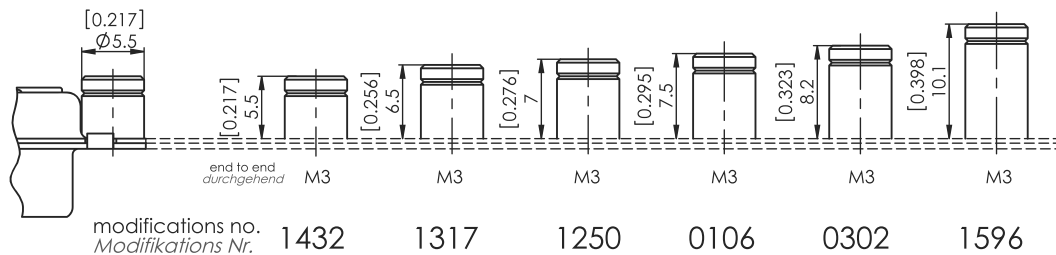
The modification number for the spacers completes the order number for the connector on which they are mounted. Surface: Tin-plated

#### Modifikation

Die Modifikationsnummer des Abstandsbolzens ergänzt die Bestellnummer des Steckverbinders, in den der Abstandsbolzen eingebaut ist. Oberfläche: Verzinkt

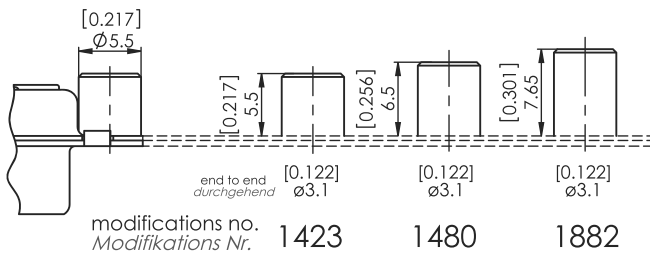
### Inner Thread M3

### Innengewinde M3



### Through Hole Ø 3.1 mm (0.122")

### Durchgangsloch Ø 3,1 mm



#### Ordering Example

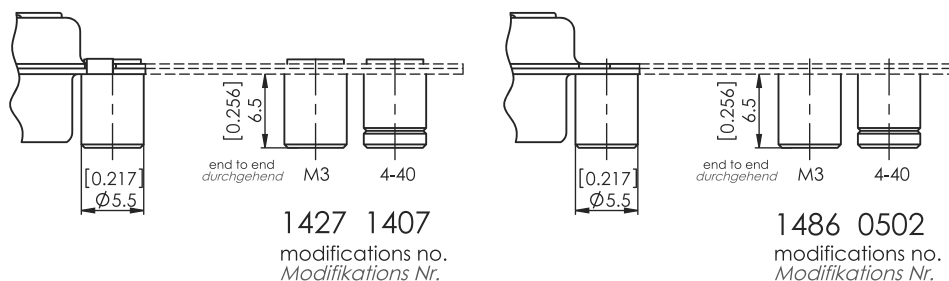
Pin connector, 15 contacts, straight PCB termination, performance class 1, rear riveted threaded spacer with inner thread M3 and length 5.5 mm (0.217"): **F15P1G1-1432**

#### Bestellbeispiel

Stiftsteckverbinder, 15-polig, gerader Leiterplattenanschluss, Gütestufe 1, rückseitig vernieteter Abstandsbolzen mit Innengewinde M3 und Länge 5,5 mm: **F15P1G1-1432**

### Front Riveted

### Frontseitig vernietet



Only 1427 and 1407 are suitable for hood assembly as the rear part is uneven.

1427 und 1407 nur für Haubenmontage geeignet, da Rückteil nicht planeben.

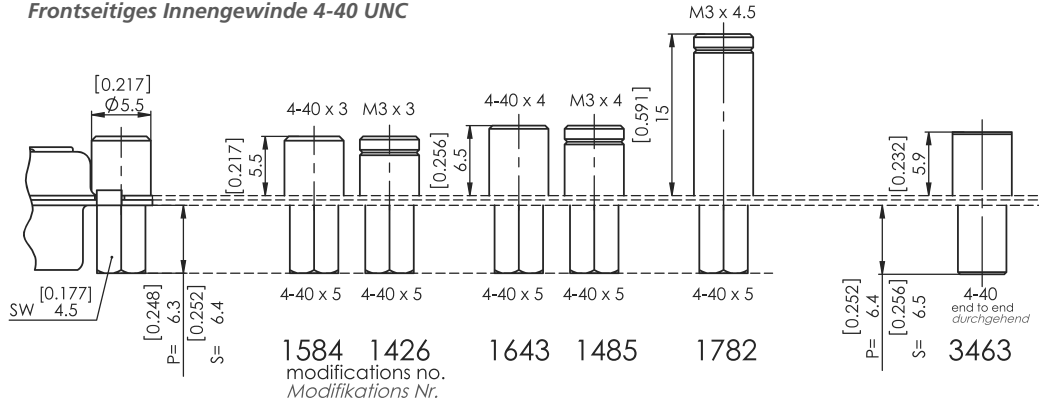


Frontside Spacers and Rearside Spacers  
or Snap-in Bolts

Frontseitiger Abstandsbolzen und rücksei-  
tiger Abstands- oder Schnappbolzen

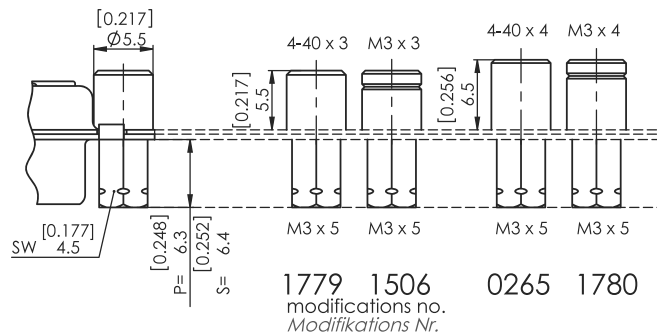
Frontside Inner Thread 4-40 UNC

Frontseitiges Innengewinde 4-40 UNC



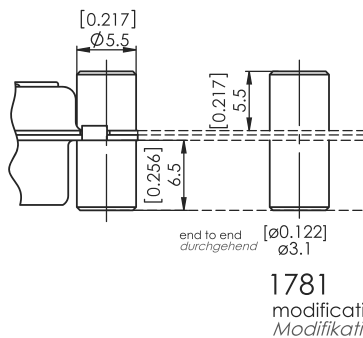
Frontside Inner Thread M3

Frontseitiges Innengewinde M3



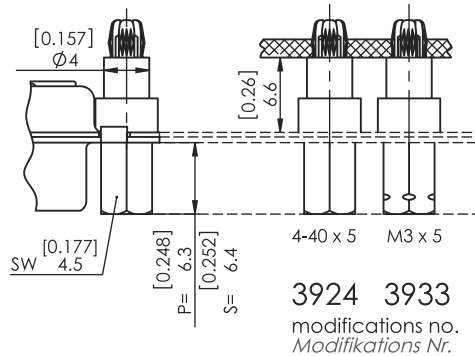
Through Hole Ø 3.1 mm (0.122")

Durchgangsloch Ø 3,1 mm



## Frontside Inner Thread

**Rearside Snap-in Bolt (Recommended Diameter of the Assembly Drilling  $\varnothing 3.0 \text{ mm} \pm 0.1$  ( $0.118" \pm 0.004$ ))**



### Ordering Example

Pin connector, 15 contacts, straight PCB termination, performance class 1, front and rear side spacers with front side inner thread M3 and rear side inner thread 4-40 UNC, length 5.5 mm (0.217"): **F15P1G1-1779**

## Frontseitiges Innengewinde

**Rückseitiger Schnappbolzen (empfohlener Durchmesser der Montagebohrungen  $\varnothing 3,0 \text{ mm} \pm 0,1$ )**

The modification number for the spacers completes the order number for the connector on which they are mounted.

Die Modifikationsnummer des Abstandsbolzens ergänzt die Bestellnummer des Steckverbinders, in den der Abstandsbolzen eingebaut ist.

Surface: Tin-plated (only when using tin-plated shells)

Oberfläche: Verzinkt (Nur in Verbindung mit verzinnem Gehäuse.)

### Bestellbeispiel

Stiftsteckverbinder, 15-polig, gerader Leiterplattenanschluss, Gütestufe 1, front- und rückseitiger Abstandsbolzen mit frontseitigem Innengewinde M3 und rückseitigem Innengewinde 4-40 UNC, Länge 5,5 mm: **F15P1G1-1779**



## Snap-In Bolts for PCB Mounting

For PCBs with 1.6 mm (0.063") Thickness  
(Recommended Diameter of the Assembly  
Drilling  $\varnothing$  3.0 mm  $\pm$ 0.1 (0.118"  $\pm$ 0.004))

### The Advantages of This New Design are:

- less snap-in force required for an increased retention strength.
- constant development of power when snapping in
- less sensitivity to the tolerance of the assembly hole.

As a result the required press-in force on to the PCB is lessened without diminishing the retention strength.

Depending on the snap-in rivet, the press in strength per snap-in rivet, with a diameter of 3 mm, lies between 20 - 60 N. In contrast a press in strength of 100 N was required with the previous snap-in geometry.

## Schnappbolzen für Leiterplattenmontage

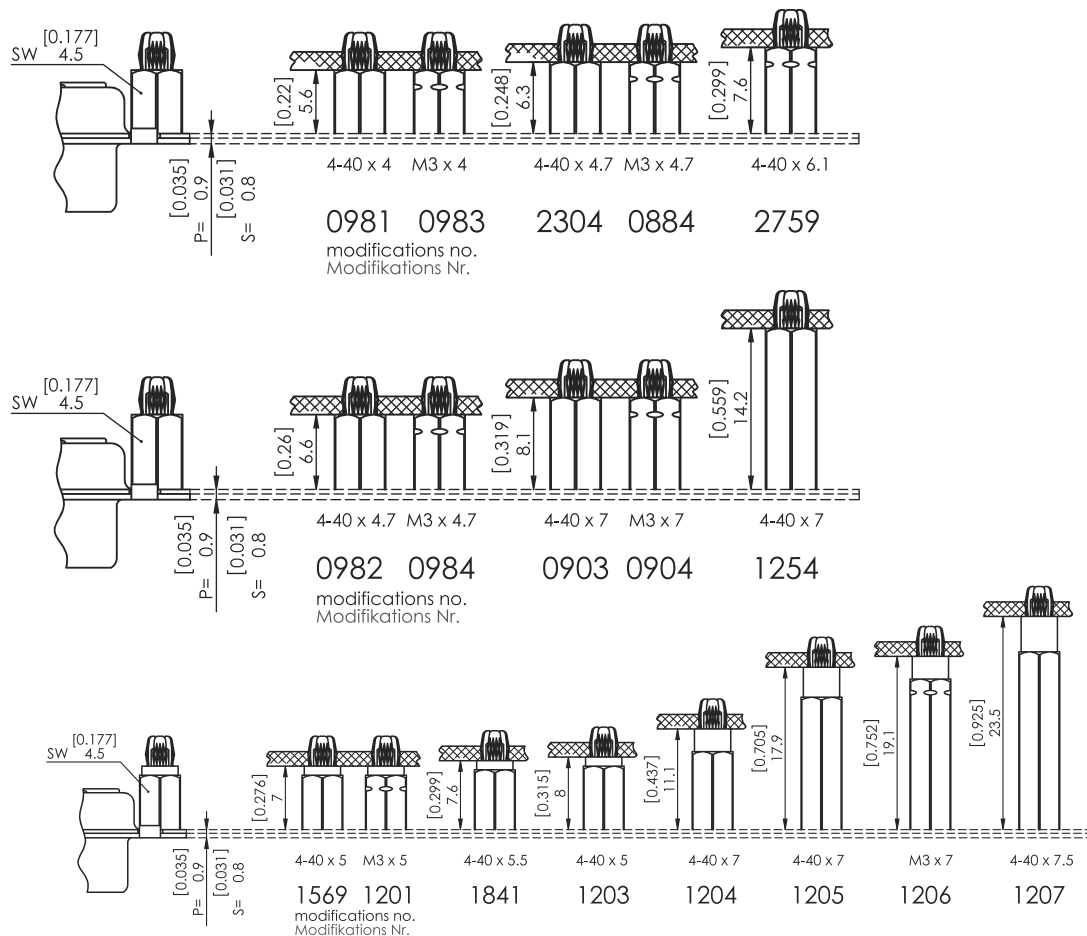
Für Leiterplatten mit 1,6 mm Stärke  
(empfohlener Durchmesser der  
Montagebohrungen  $\varnothing$  3,0 mm  $\pm$ 0,1)

### Die Vorteile der neuen Geometrie sind:

- geringere Einpresskraft bei hoher Haltekraft
- gleichmäßiger Kraftverlauf beim Einpressen
- geringere Empfindlichkeit gegenüber Montagelochtoleranzen.

Dadurch wird eine weichere Einrastung auf der Leiterplatte ohne Verringerung der Haltekraft erreicht.

Abhängig vom Snap-in Niet liegen die Einpresskräfte pro Snap-in Niet bei einem Durchmesser von 3 mm bei 20 - 60 N. Bei der bisherigen Snap-in Geometrie waren dagegen Einpresskräfte bis 100 N erforderlich.



The modification number for the snap-in bolts completes the order number for the connector on which they are mounted. Platings: Tin plated over nickel, only when using tin-plated shells.

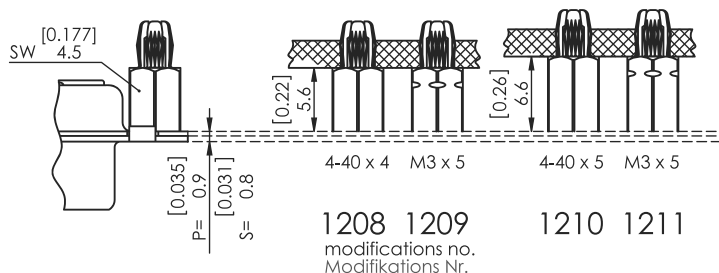
Die Modifikationsnummer des Schnappbolzens ergänzt die Bestellnummer des Steckverbinders, in den der Schnappbolzen eingebaut ist. Oberflächen: Verzinkt über Nickel, nur in Verbindung mit verzinktem Gehäuse.

## Snap-In Bolts for PCB Mounting

For PCBs with 2.4 mm (0.094") Thickness  
(Recommended Diameter of the Assembly  
Drilling  $\varnothing$  3.0 mm  $\pm$ 0.1 (0.118"  $\pm$ 0.004))

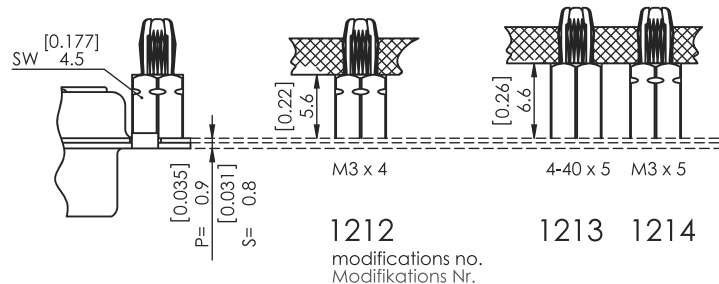
## Schnappbolzen für Leiterplattenmontage

Für Leiterplatten mit 2,4 mm Stärke  
(empfohlener Durchmesser der  
Montagebohrungen  $\varnothing$  3,0 mm  $\pm$ 0,1)



For PCBs with 3.2 mm (0.126") Thickness  
(Recommended Diameter of the Assembly  
Drilling  $\varnothing$  3.0 mm  $\pm$ 0.1 (0.118"  $\pm$ 0.004))

Für Leiterplatten mit 3,2 mm Stärke  
(empfohlener Durchmesser der  
Montagebohrungen  $\varnothing$  3,0 mm  $\pm$ 0,1)



The modification number for the snap-in bolts completes the order number for the connector on which they are mounted. Platings: Tin plated over nickel, only when using tin-plated shells.

For the assembly and positioning of connectors, FCT has modified its well proven snap-in bolts and snap-in rivets.

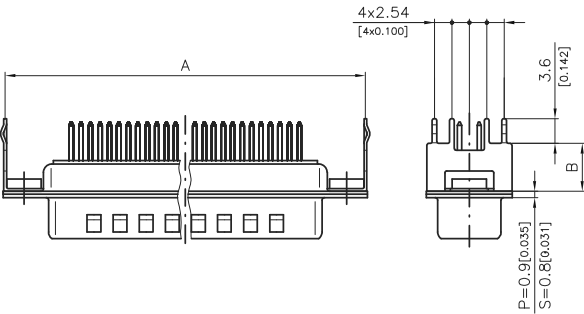
Die Modifikationsnummer des Schnappbolzens ergänzt die Bestellnummer des Steckverbinders, in den der Schnappbolzen eingebaut ist. Oberflächen: Verzinnt über Nickel, nur in Verbindung mit verzinntem Gehäuse.

Für die Montage und Positionierung der Steckverbinder hat FCT electronic die bewährten Schnappbolzen und Snap-in-Nieten modifiziert.



Stamped Latch Locks for  
PCB Mounting

Dimensions  
Abmessungen



| Shell Size<br>Gehäusegröße | A                | B             |
|----------------------------|------------------|---------------|
| 1                          | 30,46<br>(1.199) | 5,6           |
| 2                          | 38,76<br>(1.526) | (0.220)<br>or |
| 3                          | 52,5<br>(2.067)  | oder<br>7     |
| 4                          | 68,96<br>(2.715) | (0.276)       |

Dimensions in mm (inch) - Abmessungen in mm (inch)

Gestanzte Rastelemente für  
Leiterplattenmontage



Fig. 2: Detail latch lock  
Abb. 2: Detail Rastelement

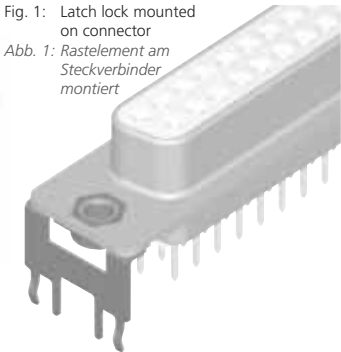


Fig. 1: Latch lock mounted  
on connector  
Abb. 1: Rastelement am  
Steckverbinder  
montiert

Technical Data  
Technische Daten

| Technical Data<br>Technische Daten           |                        |
|----------------------------------------------|------------------------|
| Material                                     | Steel                  |
| Material                                     | Stahl                  |
| Plating                                      | Tin plated over nickel |
| Oberfläche                                   | Zinn über Nickel       |
| For PCB thickness<br>für Leiterplattenstärke | 1,6 mm (0.063")        |

Modifications  
Modifikationen

| Modification No.<br>Modifikationsnummern |                                                             |
|------------------------------------------|-------------------------------------------------------------|
| -0503                                    | Thread 4-40 UNC<br>Gewinde 4-40 UNC                         |
| -0348                                    | Thread M3<br>Gewinde M3                                     |
| -0504                                    | Through hole Ø 3.1 mm (Ø 0.122")<br>Durchgangsloch Ø 3,1 mm |

Ordering Example

9 contact pin connector, performance class 1, straight PCB termination, stamped latch lock for PCB mounting, thread M3: **F09P1G1-0348**

Other heights available on request.

Bestellbeispiel

9-poliger Stiftsteckverbinder, gerader Leiterplattenanschluss, Gütestufe 1, Rastelement mit Gewinde M3: **F09P1G1-0348**

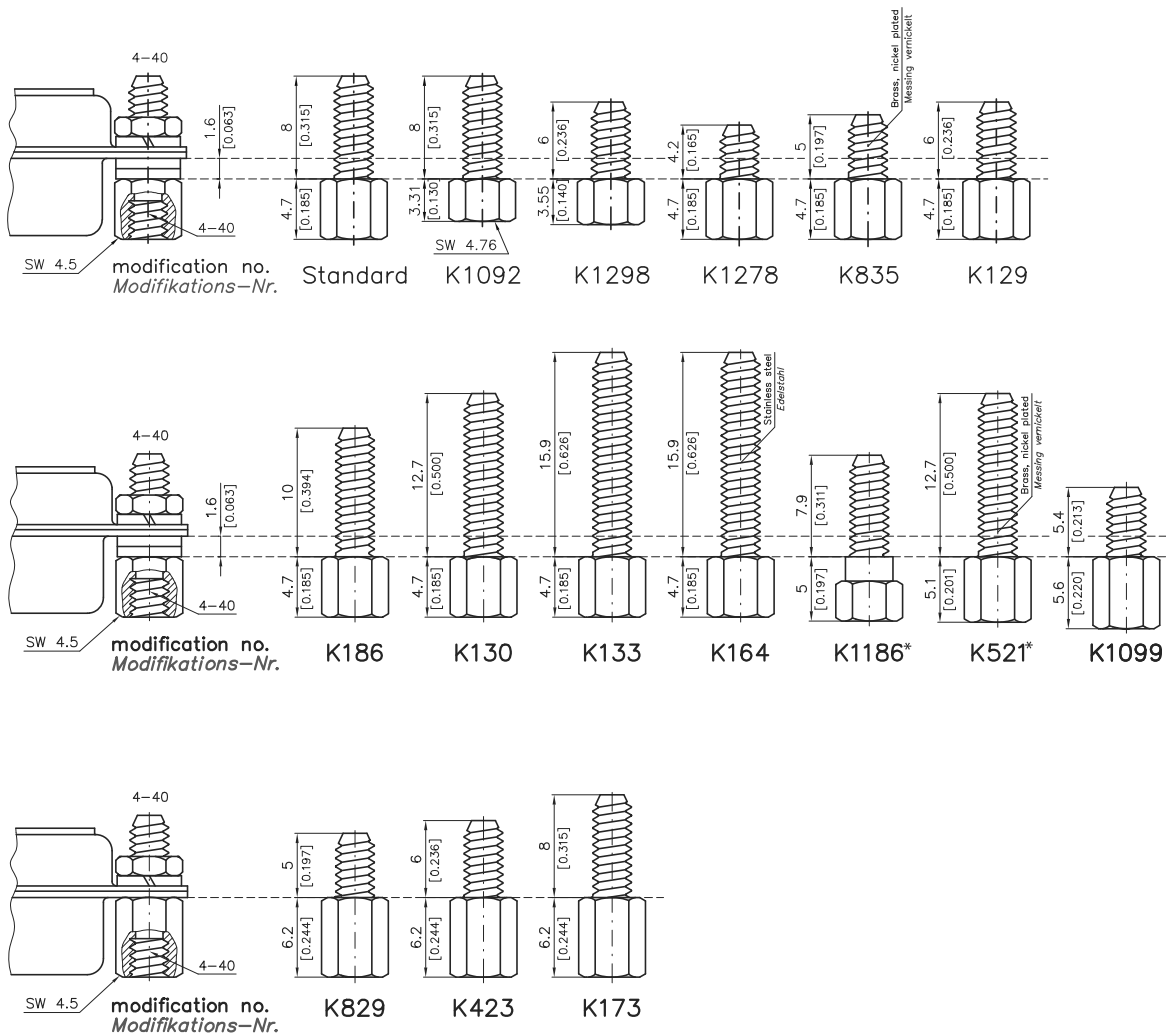
Andere Höhen auf Anfrage.

Female Screw Locks F-GSCH1/5...  
Hex. 4.5 mm (0.177")

Sechskantbolzen F-GSCH1/5...  
Schlüsselweite 4,5 mm

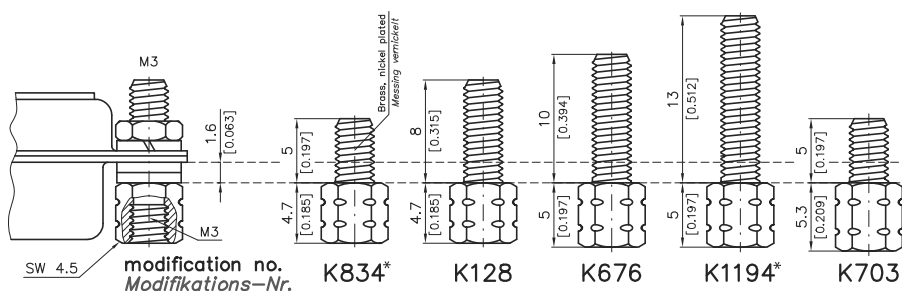
Outer Thread 4-40 UNC, Inner Thread 4-40 UNC

Außengewinde 4-40 UNC, Innengewinde 4-40 UNC



Outer Thread M3, Inner Thread M3

Außengewinde M3, Innengewinde M3

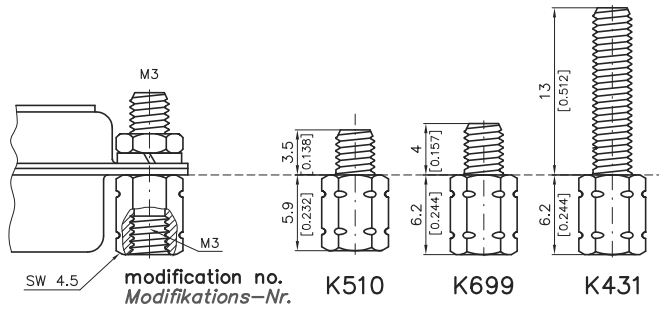


Female Screw Locks F-GSCH1/5...  
Hex. 4.5 mm (0.177")

Sechskantbolzen F-GSCH1/5...  
Schlüsselweite 4,5 mm

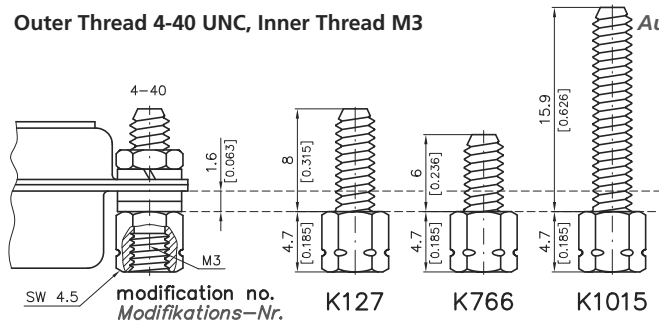
Outer Thread M3, Inner Thread M3

Außengewinde M3, Innengewinde M3



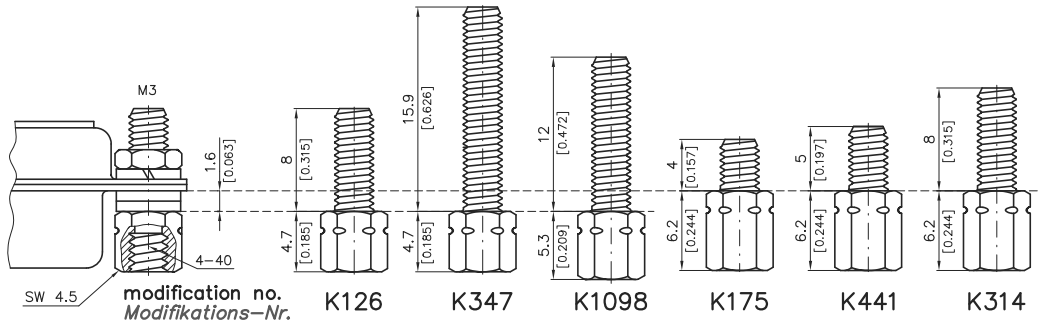
Outer Thread 4-40 UNC, Inner Thread M3

Außengewinde 4-40 UNC, Innengewinde M3



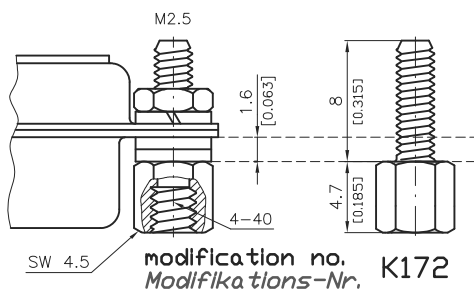
Outer Thread M3, Inner Thread 4-40 UNC

Außengewinde M3, Innengewinde 4-40 UNC



Outer Thread M2,5; Inner Thread 4-40 UNC

Außengewinde M2,5; Innengewinde 4-40 UNC

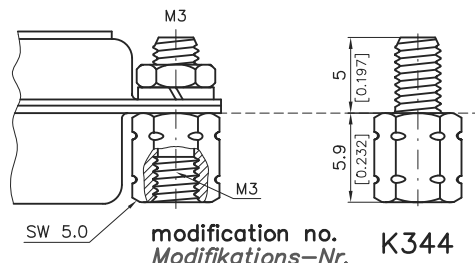


Female Screw Locks F-GSCH1/5...  
Hex. 5.0 mm (0.197")

Sechskantbolzen F-GSCH1/5...  
Schlüsselweite 5,0 mm

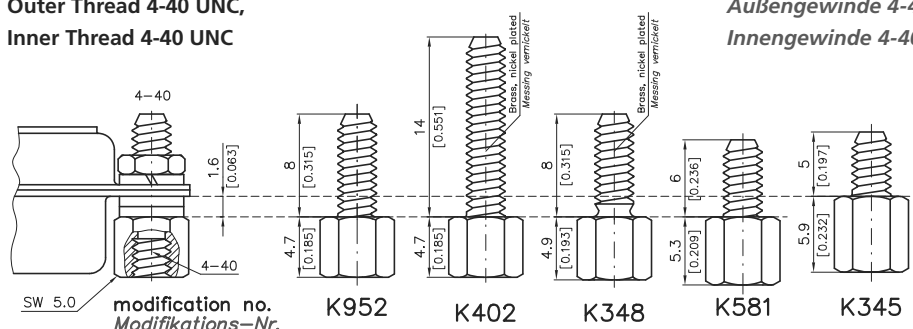
Outer Thread M3, Inner Thread M3

Außengewinde M3, Innengewinde M3



Outer Thread 4-40 UNC,  
Inner Thread 4-40 UNC

Außengewinde 4-40 UNC,  
Innengewinde 4-40 UNC



Ordering Example

Female screw lock, spanner size Hex. 4,5 mm (0.177"),  
outer thread M3, length 5 mm (0.197"), inner thread 4-40  
UNC, head size 6.2 mm (0.244"), tin plated:

**F-GSCH1/5-K441SN**

Bestellbeispiel

Sechskantbolzen mit Schlüsselweite 4,5 mm, Außenge-  
winde M3, Länge 5 mm, Innengewinde 4-40 UNC, Kopf-  
höhe 6,2 mm, verzinkt: **F-GSCH1/5-K441SN**

Delivery Quantity

Washers are not included for head size 5.9 mm (0.232") or 6.2 mm (0.244"). All female screw locks are packed in pairs (that means 2 bolts, 4 washers, 2 spring washers, 2 nuts). Also available bulk packed on request.

\* Please request the number of accessories included.

Lieferumfang

Bei Kopfhöhe 5,9 mm oder 6,2 mm sind im Lieferumfang keine Unterlegscheiben enthalten. Alle Sechskantbolzen sind paarweise (d.h. 2 Bolzen, 4 Unterlegscheiben, 2 Federringe, 2 Muttern) verpackt. Auf Anfrage auch als Schüttware lieferbar.

\* Die Anzahl des beigefügten Zubehörs bitte anfragen.

Technical Data

Technische Daten

|                                          | Zinc Plated Version<br>Verzinkte Ausführung | Tin Plated Version<br>Verzinnte Ausführung |
|------------------------------------------|---------------------------------------------|--------------------------------------------|
| Material                                 | Steel, zinc plated, blue chromate           | Steel, tin plated                          |
| Material                                 | Stahl, verzinkt, blau chromatiert           | Stahl, verzinkt                            |
| Order number<br>Bestellnummer            | F-GSCH1/5-...                               | F-GSCH1/5-...SN                            |
| Maximum torque<br>Maximales Anzugsmoment | 48Ncm (0.356 ft.lbf)<br>48Ncm               |                                            |



Reduction Plates FRP...

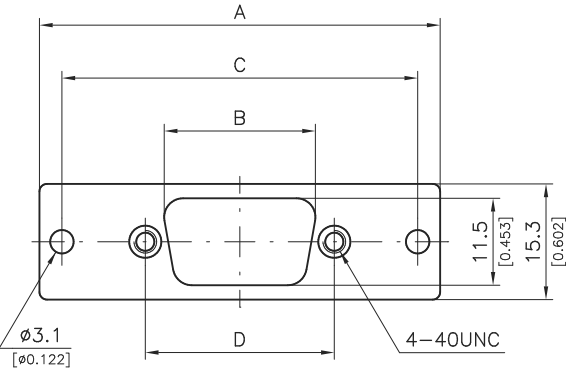
Reduzierplatten FRP...

Dimensions  
Abmessungen

For mounting D-Sub connectors in larger panel cut-outs.  
Other sizes and M3 thread are available on request.

Zum Einbau eines D-Sub Steckverbinders in größere Frontplattenausschnitte. Andere Größen, bzw. Gewinde M3 auf Anfrage lieferbar.

Material Steel, Plating Tin Plated  
Material Stahl, Oberfläche verzinkt



| Order Number<br>Bestellnummer | From Size<br>von Größe | To Size<br>auf Größe | A               | B               | C                | D                |
|-------------------------------|------------------------|----------------------|-----------------|-----------------|------------------|------------------|
| FRP3/1                        | 3                      | 1                    | 53,0<br>(2.087) | 20,0<br>(0.787) | 47,04<br>(1.852) | 25,0<br>(0.984)  |
| FRP5/3                        | 5                      | 3                    | 67,2<br>(2.646) | 42,2<br>(1.661) | 61,1<br>(2.406)  | 47,04<br>(1.852) |

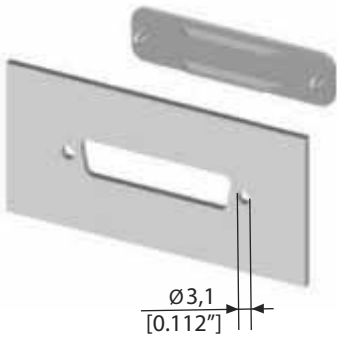
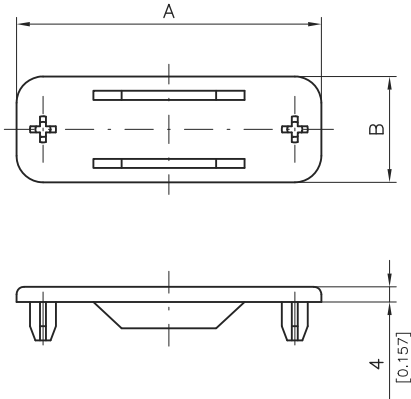
Dimensions in mm (inch) - Abmessungen in mm (inch)

Cover F1049-...

Abdeckplatten F1049-...

Dimensions  
Abmessungen

Colour Grey, Material ABS  
Farbe Grau, Material ABS



For covering of unused panel cut-outs.  
Zur Abdeckung nicht benötigter Montageausschnitte.

| Order Number<br>Bestellnummer | For Shell Size<br>Für Gehäusegröße | A               | B               |
|-------------------------------|------------------------------------|-----------------|-----------------|
| F1049-1                       | 1                                  | 32,0<br>(1.260) | 14,0<br>(0.551) |
| F1049-2                       | 2                                  | 40,3<br>(1.587) | 14,0<br>(0.551) |
| F1049-3                       | 3                                  | 54,0<br>(2.126) | 14,0<br>(0.004) |
| F1049-4                       | 4                                  | 70,5<br>(2.776) | 14,0<br>(0.551) |
| F1049-5                       | 5                                  | 68,1<br>(2.681) | 16,6<br>(0.654) |

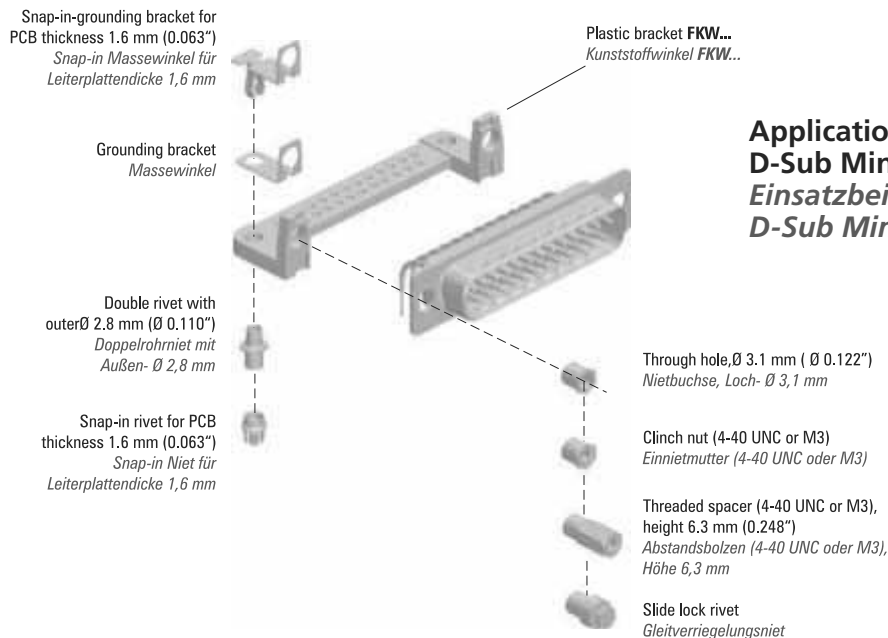
Dimensions in mm (inch) - Abmessungen in mm (inch)

## D-Sub Connectors with Plastic Brackets and Accessories

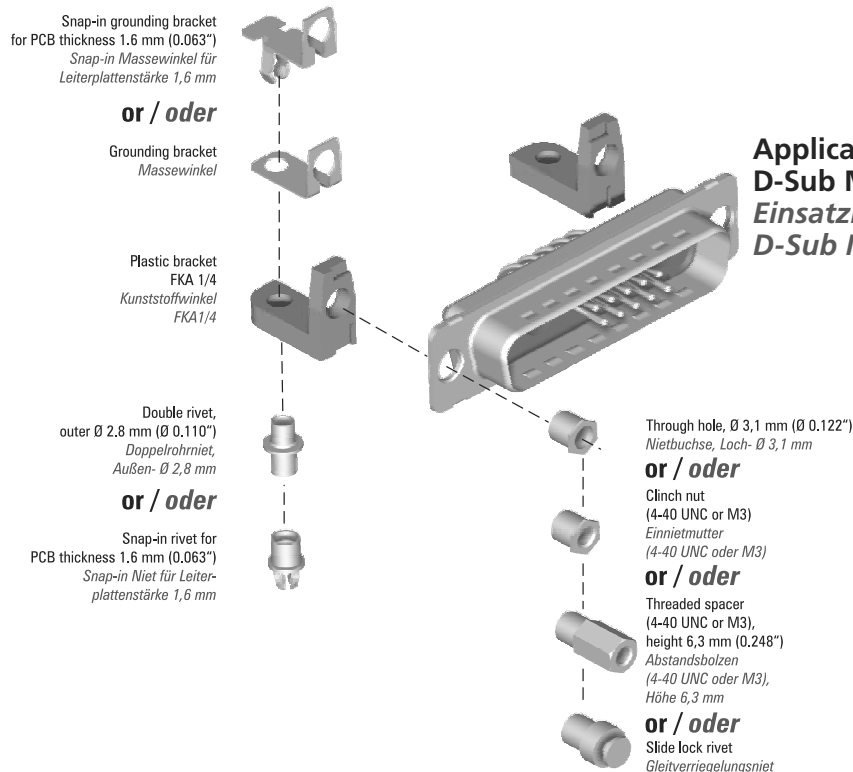
Plastic brackets are used to ensure that a conductive electrical connection does not occur between the connector housing and the PCB.

## D-Sub Steckverbinder mit Kunststoffwinkel und Anbauteilen

Kunststoffwinkel werden eingesetzt um zu verhindern, dass eine elektrisch leitende Verbindung zwischen dem Steckverbindergehäuse und der Leiterplatte entsteht.



### Application Example D-Sub Miniature Einsatzbeispiel D-Sub Miniatur

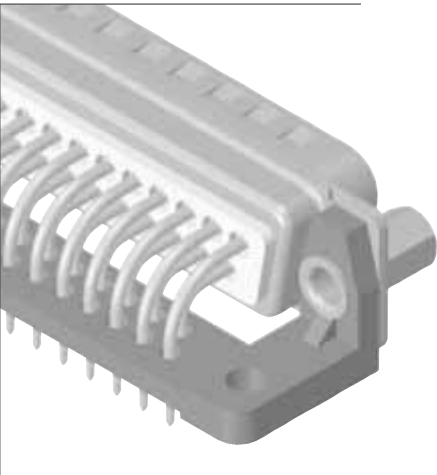


### Application Example D-Sub Mixed Layout Einsatzbeispiel D-Sub Mischpolleiste

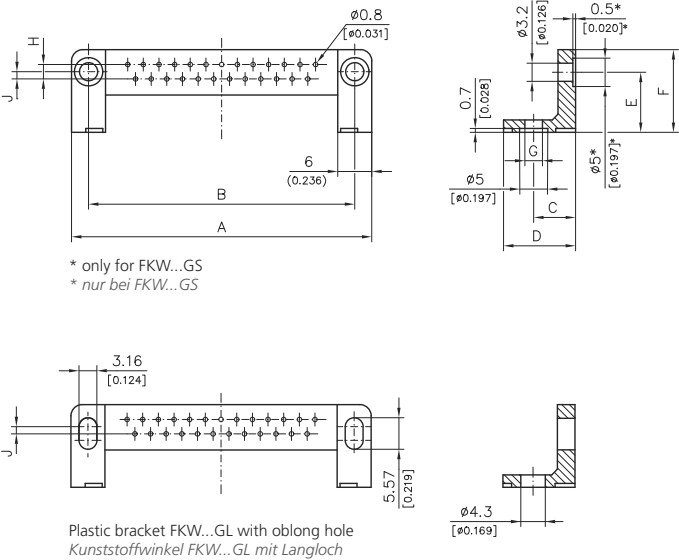


Plastic Brackets FKW...

Kunststoffwinkel FKW...



Dimensions  
Abmessungen



| Order number<br><i>Bestellnummer</i> | Shell Size<br><i>Gehäusegröße</i> | Number of Contacts<br><i>Polzahl</i> | A<br>±0,1<br>(±0.004) | B<br>±0,1<br>(±0.004) | C<br>±0,1<br>(±0.004) | D<br>±0,1<br>(±0.004) | E<br>±0,1<br>(±0.004) | F<br>±0,1<br>(±0.004) | J<br>±0,1<br>(±0.004) |
|--------------------------------------|-----------------------------------|--------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| FKW1...                              | 1                                 | 9                                    | 30,9<br>(1.217)       | 25,0<br>(0.984)       | 7,4<br>(0.291)        | 12,7<br>(0.500)       | 10,7<br>(0.421)       | 14,6<br>(0.575)       | 1,27<br>(0.050)       |
| FKW2...                              | 2                                 | 15                                   | 39,2<br>(1.543)       | 33,3<br>(1.311)       | 7,4<br>(0.291)        | 12,7<br>(0.500)       | 10,7<br>(0.421)       | 14,6<br>(0.575)       | 1,27<br>(0.050)       |
| FKW3...                              | 3                                 | 25                                   | 53,0<br>(2.087)       | 47,04<br>(1.852)      | 7,4<br>(0.291)        | 12,7<br>(0.500)       | 10,7<br>(0.421)       | 14,6<br>(0.575)       | 1,27<br>(0.050)       |
| FKW4...                              | 4                                 | 37                                   | 69,5<br>(2.736)       | 63,5<br>(2.500)       | 7,4<br>(0.291)        | 12,7<br>(0.500)       | 10,7<br>(0.421)       | 14,6<br>(0.575)       | 1,27<br>(0.050)       |
| FKW5...                              | 5                                 | 50                                   | 67,1<br>(2.642)       | 61,1<br>(2.406)       | 8,8<br>(0.346)        | 14,0<br>(0.551)       | 11,9<br>(0.469)       | 17,2<br>(0.677)       | 2,54<br>(0.100)       |

Dimensions in mm (inch) - Abmessungen in mm (inch)

| Order Number<br><i>Bestellnummer</i> | Shell Size<br><i>Gehäusegröße</i> | G<br>± 0,1<br>(±0.004) | H<br>± 0,1<br>(±0.004) |
|--------------------------------------|-----------------------------------|------------------------|------------------------|
| FKW...                               | 1 - 5                             | 3,1<br>(0.122)         | 2,54<br>(0.100)        |
| FKW...GS                             | 1 - 5                             | 4,3<br>(0.169)         | 2,54<br>(0.100)        |
| FKW...GB                             | 1 - 5                             | 4,3<br>(0.169)         | 2,84<br>(0.112)        |
| FKW...GL                             | 1 - 5                             | 4,3<br>(0.169)         | 2,54<br>(0.100)        |

Dimensions in mm (inch) - Abmessungen in mm (inch)

Accessories Miniature Connector  
Zubehör Miniatur Steckverbinder

Material  
Material

Plastic brackets are individually available (specified as FKW...) as well as available mounted on D-Sub connectors (modification numbers from page 426f.).

Die Kunststoffwinkel sind sowohl einzeln als FKW..., als auch am D-Sub Steckverbinder montiert erhältlich (Modifikationsnummern siehe ab Seite 426f.).

Technical Data

Technische Daten

Material Polycarbonate according to UL94V-1

Material Polycarbonat entsprechend UL94V-1

Colour Black

Farbe Schwarz

Assemblies Plastic Brackets  
Anbauteile Kunststoffwinkel

Modifications  
Modifikationen

Order Number

Modifications

Bestellnummer

Modifikationen

FKW...GS

Hole Ø 4.3 mm (Ø 0.169") connector side,  
countersink PCB side

Loch-Ø 4,3 mm steckverbinderseitig,  
Senkung platinenseitig

FKW...GB

Hole Ø 4.3 mm (Ø 0.169") connector side,  
row spacing 2.84 mm (0.112")

Loch-Ø 4,3 mm steckverbinderseitig,  
Reihenabstand 2,84 mm

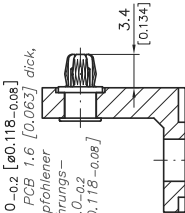
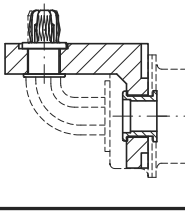
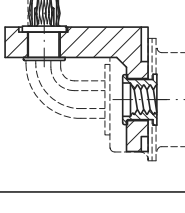
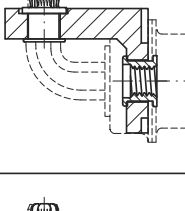
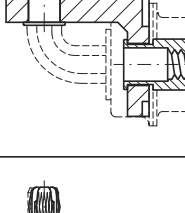
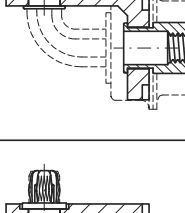
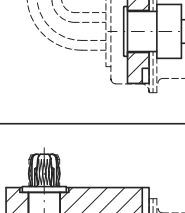
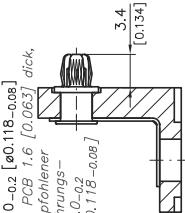
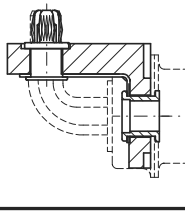
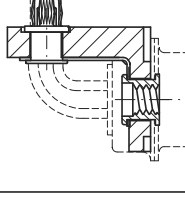
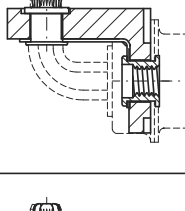
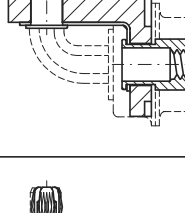
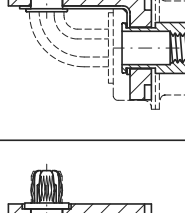
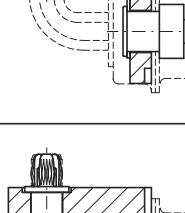
FKW...GL

Hole Ø 4.3 mm (Ø 0.169") connector side,  
oblong hole PCB side

Loch-Ø 4,3 mm steckverbinderseitig,  
Langloch platinenseitig

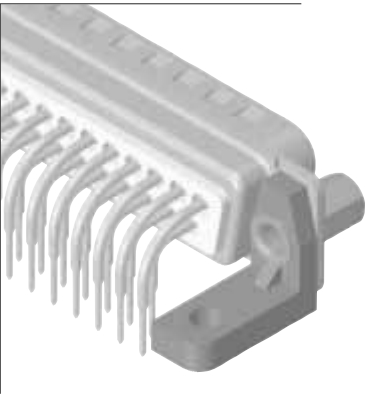


[illegible]

|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                 |                                                                                                 |                                                                                                |                                                                                               |                                                                                               |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                 |                                                                                                 |                                                                                                |                                                                                               |                                                                                               |                                                                                               |                                                                                                                                                                                     |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  <p>for PCB 1.6 [0.063] thick,<br/>recommended hole<br/><math>\varnothing 3.0 - 0.2</math> [<math>\varnothing 0.118 - 0.08</math>]<br/>für PCB 1.6 [0.063] dick,<br/>empfohlener<br/>Bohrungs-<br/><math>\varnothing 3.0 - 0.2</math><br/>[<math>\varnothing 0.118 - 0.08</math>]</p> <p>FKW with snap-in rivet<br/>FKW mit Snap-in Niet</p> |  <p>0988</p> |  <p>0989</p> |  <p>0990</p> |  <p>0991</p> |  <p>0992</p> |  <p>0993</p> |  <p>for PCB 1.6 [0.063] thick,<br/>recommended hole<br/><math>\varnothing 3.0 - 0.2</math> [<math>\varnothing 0.118 - 0.08</math>]<br/>für PCB 1.6 [0.063] dick,<br/>empfohlener<br/>Bohrungs-<br/><math>\varnothing 3.0 - 0.2</math><br/>[<math>\varnothing 0.118 - 0.08</math>]</p> <p>FKW with grounding bracket<br/>and snap-in rivet<br/>FKW mit Massewinkel<br/>und Snap-in Niet</p> |  <p>0994</p> |  <p>0995</p> |  <p>0996</p> |  <p>0997</p> |  <p>0998</p> |  <p>0999</p> | <p>Dimensions apply only to connectors with 9 to 37 contacts, 50 contacts are available on request /<br/>Maße gelten nur für 9 - 37-polige Steckverbinder, 50-polig auf Anfrage</p> |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|



Plastic Brackets FKA...



| Order-No. | Shell Size   | A                | B                | C                | D                |
|-----------|--------------|------------------|------------------|------------------|------------------|
| Bestelln. | Gehäusegröße | ±0,1<br>(±0.004) | ±0,1<br>(±0.004) | ±0,1<br>(±0.004) | ±0,1<br>(±0.004) |
| FKA1/4... | 1 - 4        | 12,7<br>(0.500)  | 7,4<br>(0.291)   | 14,6<br>(0.575)  | 10,7<br>(0.421)  |
| FKA5...   | 5            | 14<br>(0.551)    | 8,8<br>(0.346)   | 17,2<br>(0.677)  | 11,9<br>(0.469)  |

Dimensions in mm (inch) - Abmessungen in mm (inch)

Technical Data  
Technische Daten

|          |                                    |
|----------|------------------------------------|
| Material | Polycarbonate according to UL94V-1 |
| Material | Polycarbonat entsprechend UL94V-1  |
| Colour   | Black                              |
| Farbe    | Schwarz                            |

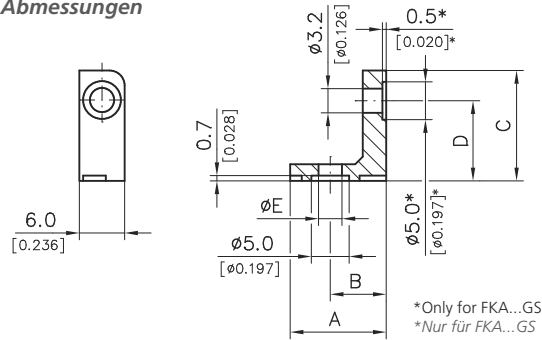
Modification  
Modifikation

FKA...GS Hole Ø 4.3 mm (Ø 0.169") connector side  
and countersink PCB side

Loch-Ø 4,3 mm steckverbinderseitig  
und Senkung platinenseitig

Kunststoffwinkel FKA...

Dimensions  
Abmessungen



| Order Number  | Shell Size   | Ø E              |
|---------------|--------------|------------------|
| Bestellnummer | Gehäusegröße | ±0,1<br>(±0.004) |
| FKA...        | 1 - 5        | 3,1<br>(0.122)   |
| FKA...GS      | 1 - 5        | 4,3<br>(0.169)   |

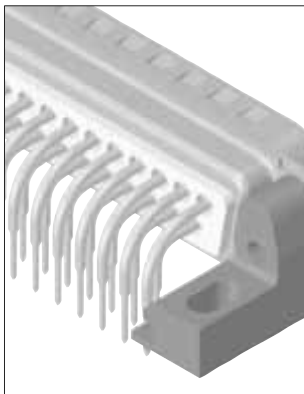
Dimensions in mm (inch) - Abmessungen in mm (inch)

Delivery Quantity  
Lieferumfang

Plastic brackets FKA... are packed in pairs.  
On request also available bulk packed.

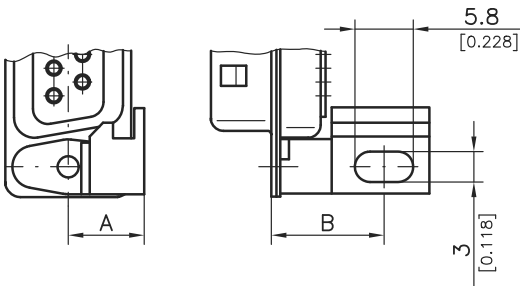
Die Kunststoffwinkel FKA... sind paarweise verpackt.  
Auf Anfrage auch als Schüttware lieferbar.

Plastic Mounting Brackets F-BFK-...



Kunststoffbefestigungswinkel F-BFK-...

Dimensions  
Abmessungen



| Order Number<br><i>Bestellnummer</i> | Shell Size<br><i>Gehäusegröße</i> | A               | B               | Brackets Only Available in Pairs<br><i>Winkel nur paarweise lieferbar</i>                    |
|--------------------------------------|-----------------------------------|-----------------|-----------------|----------------------------------------------------------------------------------------------|
| F-BFK-1/4                            | 1 - 4                             | 7,55<br>(0.297) | 11,2<br>(0.441) | Bulk packed without mounting screws<br><i>ohne Befestigungsschrauben als Schüttware</i>      |
| F-BFK-1/4S                           | 1 - 4                             | 7,55<br>(0.297) | 11,2<br>(0.441) | With mounting screws, packed in pairs<br><i>mit Befestigungsschrauben paarweise verpackt</i> |
| F-BFK-5                              | 5                                 | 8,90<br>(0.350) | 12,1<br>(0.476) | Bulk packed without mounting screws<br><i>ohne Befestigungsschrauben als Schüttware</i>      |
| F-BFK-5S                             | 5                                 | 8,90<br>(0.350) | 12,1<br>(0.476) | With mounting screws, packed in pairs<br><i>mit Befestigungsschrauben paarweise verpackt</i> |

Dimensions in mm (inch) - Abmessungen in mm (inch)

Order Example

Bulk packed mounting screws for F-BFK-1/4  
and F-BFK-5: **FSGK1/5K**

Bestellbeispiel

Befestigungsschraube für F-BFK-1/4 und F-BFK-5 als  
Schüttware: **FSGK1/5K**

Plastic Brackets F-BFK-...  
and FKA... in Comparison

Kunststoffwinkel F-BFK-...  
und FKA... im Vergleich

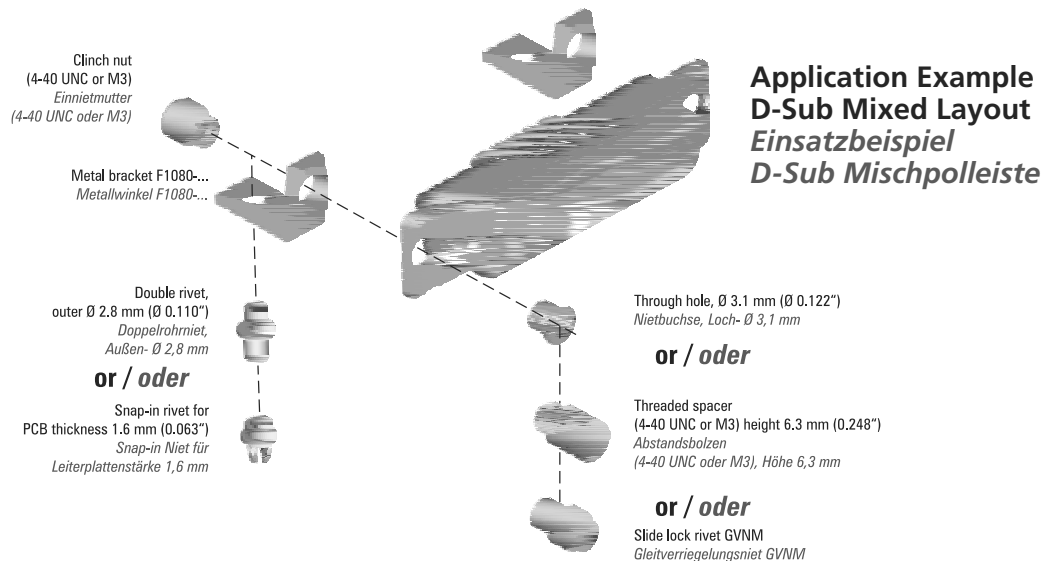
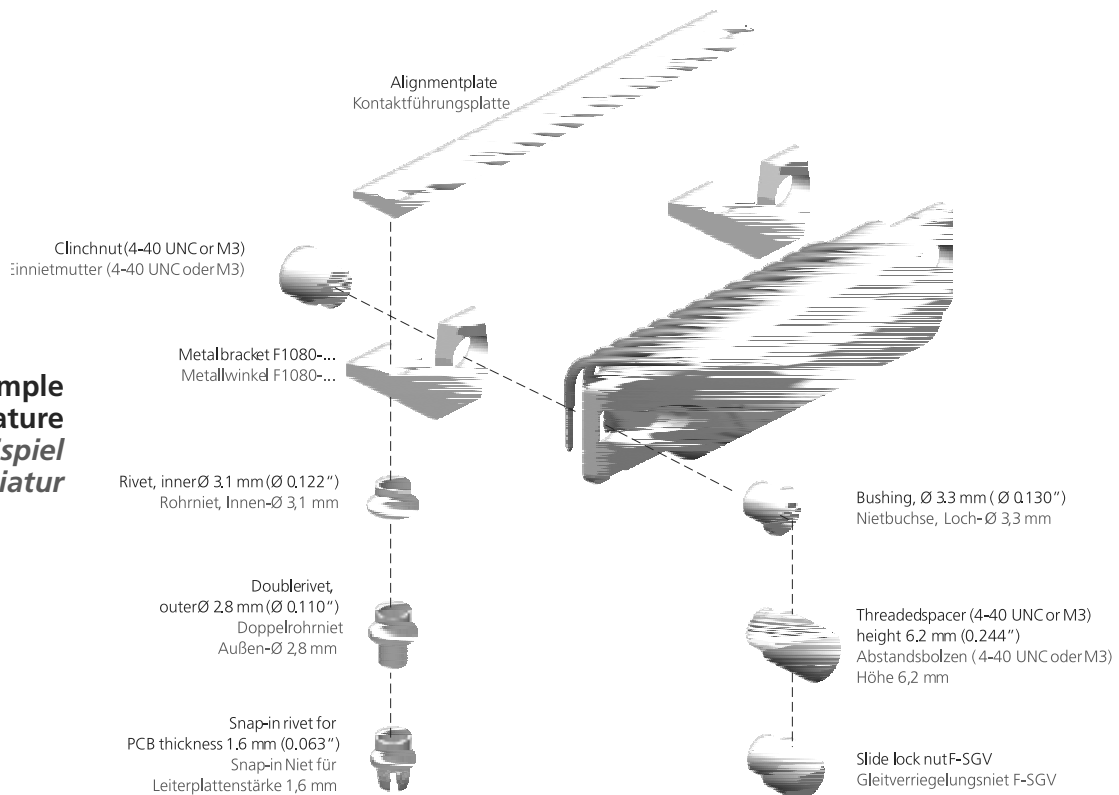
|                                                                                                                   | FKA...                                                                                          | F-BFK...                      |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------|
| Oblong hole<br><i>Langloch</i>                                                                                    | •                                                                                               | —                             |
| Connection to connector shell<br><i>Verbindung zum Steckverbindergehäuse</i>                                      | All add-on parts may be used (see page 423)<br><i>Alle Anbauteile möglich (siehe Seite 423)</i> | Screwed<br><i>verschraubt</i> |
| For use with mixed layout connectors instead of FKW...<br><i>Einsatz bei Mixed Layout Polbildern statt FKW...</i> | •                                                                                               | •                             |



Assembly of a D-Sub Connectors with  
Metal Brackets F1080-... and Accessories

Aufbau eines D-Sub Steckverbinder mit  
Metallwinkel F1080-... und Anbauteilen

Application Example  
D-Sub Miniature  
*Einsatzbeispiel*  
D-Sub Miniatur

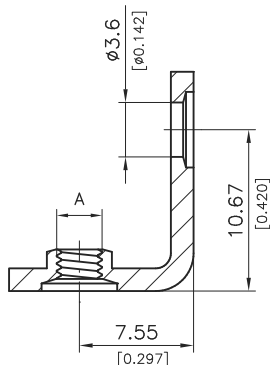


## Threaded Metal Mounting Brackets F1080-...

Material: Steel, zinc-plated, yellow chromate.  
 For tinned version add suffix SN to the order number.

### Dimensions Abmessungen

#### Metal Brackets for Mounting with Alignment Plate Metallwinkel montierbar mit Kontaktführungsplatte

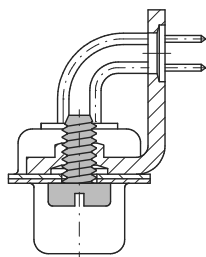


| Order Number  | A                                |                         |
|---------------|----------------------------------|-------------------------|
| Bestellnummer |                                  |                         |
| F1080-1       | Thread M3                        | Gewinde M3              |
| F1080-2       | Thread 4-40 UNC                  | Gewinde 4-40 UNC        |
| F1080-7       | Through hole Ø 3.1 mm (Ø 0.122") | Durchgangsloch Ø 3,1 mm |

#### Mounting Example for Metal Brackets F1080-... Montagebeispiel für Metallwinkel F1080-...

#### Slotted Screw FSGK1/5-... Schlitzschraube FSGK1/5-...

Material: Steel, zinc plated, chromate  
 Material: Stahl, verzinkt, chromatiert

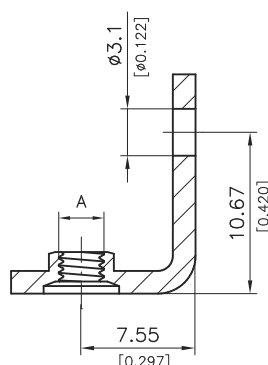


| Thread   | Order Number  |
|----------|---------------|
| Gewinde  | Bestellnummer |
| 4-40 UNC | FSGK1/5       |
| M3       | FSGK1/5M3     |

## Verschraubbare Metallwinkel F1080-...

Material: Stahl, verzinkt, gelb chromatiert. Für verzinnzte Ausführung SN an die Bestellnummer anfügen.

#### Metal Brackets, Through Hole, Ø 3.1 mm (Ø 0.122") Metallwinkel, Durchgangsloch Ø 3,1 mm

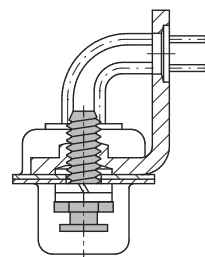


| Order Number  | A                                |                         |
|---------------|----------------------------------|-------------------------|
| Bestellnummer |                                  |                         |
| F1080-3       | Thread M3                        | Gewinde M3              |
| F1080-4       | Thread 4-40 UNC                  | Gewinde 4-40 UNC        |
| F1080-8       | Through hole Ø 3.1 mm (Ø 0.122") | Durchgangsloch Ø 3,1 mm |

#### Lock Posts F-SGSV-1/5-... for Slide Locks F-GV-... Gegenschraube F-SGV-1/5-... für Gleitverriegelung F-GV-...

Order number: F-SGV-1/5-...  
 Bestellnummer: F-SGV-1/5-...

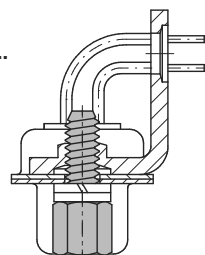
Also see page 410  
 Siehe auch Seite 410



#### Mounting Example for Metal Brackets F1080-... Montagebeispiel für Metallwinkel F1080-...

#### Female Screw Lock F-GSCH1/5-... Sechskantbolzen F-GSCH1/5-...

Order number: F-GSCH-1/5-...  
 Bestellnummer: F-GSCH-1/5-...  
 See page 419 onwards  
 Siehe Seite 419



**Summary of Riveted Metal Brackets F1080-...**

For further possible add-on parts for metal brackets, please see table on page 434.

Material: Steel  
 Plating: tin-plated, blue chromate over zinc plating on request

**Übersicht angenietete Metallwinkel F1080-...**

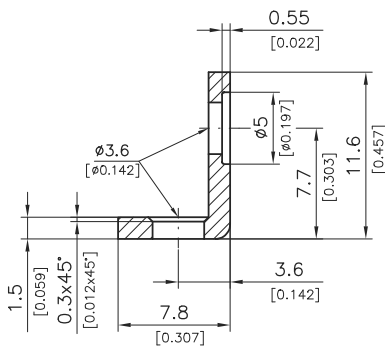
Mögliche Anbauteile für Metallwinkel siehe Tabelle auf Seite 434.

Material: Stahl  
 Oberfläche: verzinkt, auf Anfrage auch verzinkt und blau chromatiert erhältlich

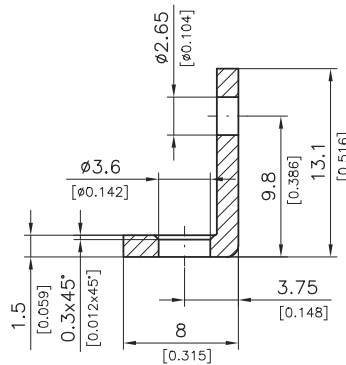
**Metal Brackets F1080-... for Shell Size 1 - 4**

**Metallwinkel F1080-... für Gehäusegröße 1 - 4**

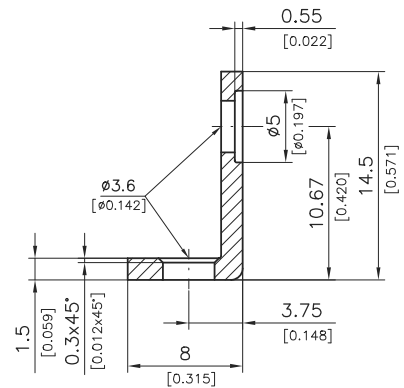
Metal Bracket F1080-41  
 Metallwinkel F1080-41



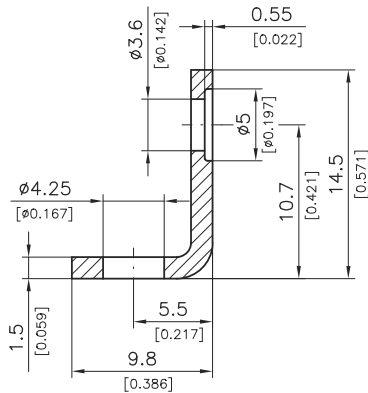
Metal Bracket F1080-48  
 Metallwinkel F1080-48



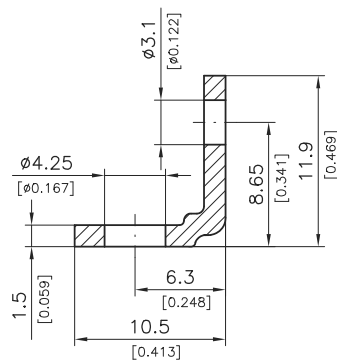
Metal Bracket F1080-30  
 Metallwinkel F1080-30



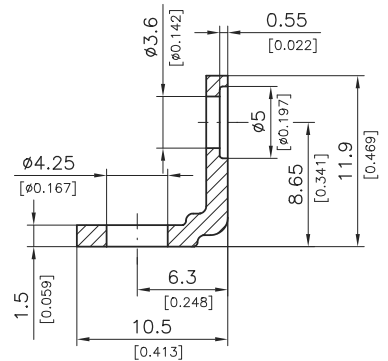
Metal Bracket F1080-45  
 Metallwinkel F1080-45



Metal Bracket F1080-16  
 Metallwinkel F1080-16



Metal Bracket F1080-27  
 Metallwinkel F1080-27



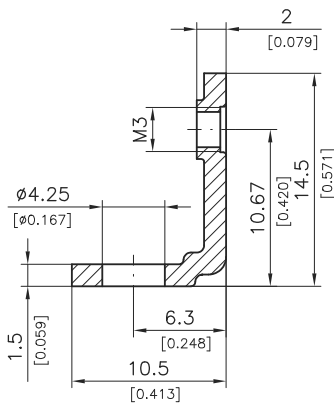
## Summary of Riveted Metal Brackets F1080-...

## Übersicht angenietete Metallwinkel F1080-...

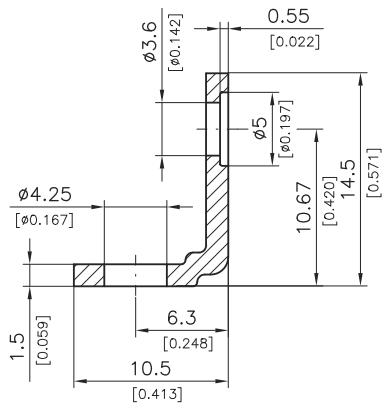
### Metal Brackets F1080-... for Shell Sizes 1 - 4 (Continuation)

### Metallwinkel F1080-... für Gehäusegrößen 1 - 4 (Fortsetzung)

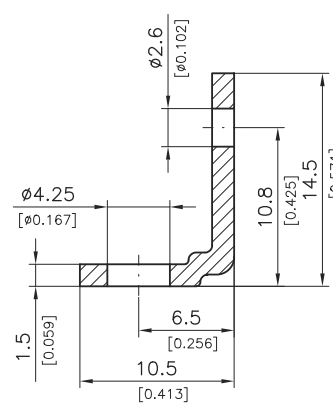
Metal Bracket F1080-17  
Metallwinkel F1080-17



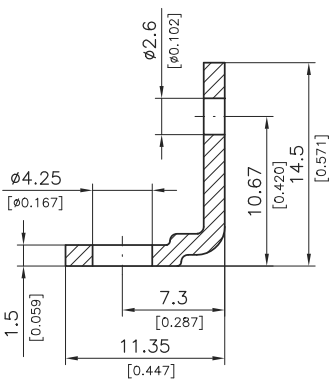
Metal Bracket F1080-29  
Metallwinkel F1080-29



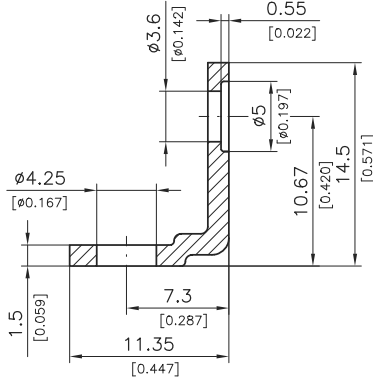
Metal Bracket F1080-19  
Metallwinkel F1080-19



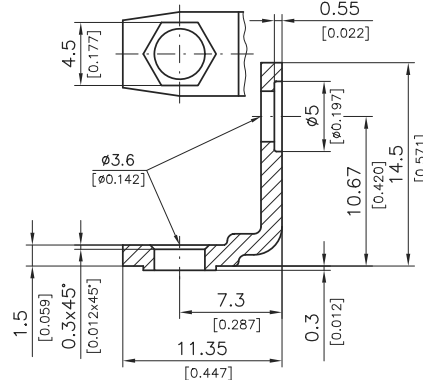
Metal Bracket F1080-24  
Metallwinkel F1080-24



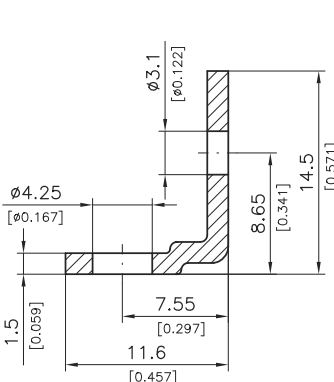
Metal Bracket F1080-13B  
Metallwinkel F1080-13B



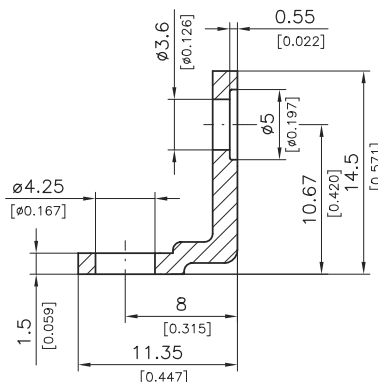
Metal Bracket F1080-26  
Metallwinkel F1080-26



Metal Bracket F1080-14  
Metallwinkel F1080-14



Metal Bracket F1080-61  
Metallwinkel F1080-61



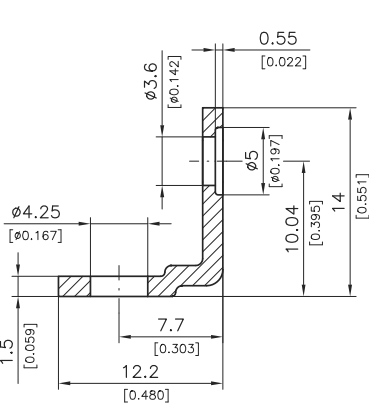
Summary of Riveted Metal  
Brackets F1080-...

Übersicht angenietete  
Metallwinkel F1080-...

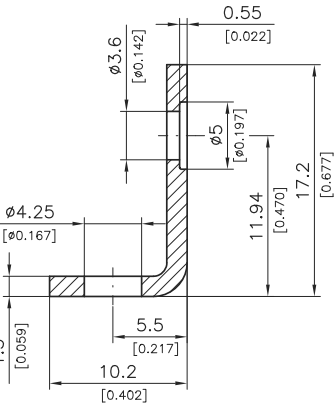
Metal Brackets F1080-... for Shell Size 5

Metallwinkel F1080-... für Gehäusegröße 5

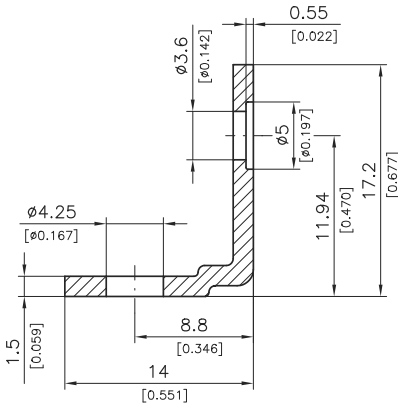
Metal Bracket F1080-22  
Metallwinkel F1080-22



Metal Bracket F1080-18  
Metallwinkel F1080-18



Metal Bracket F1080-23  
Metallwinkel F1080-23



Compatibility Table of Metal Brackets F1080-...

Kompatibilitätstabelle für Metallwinkel F1080-...

The accessories listed in the summary of accessories on page 435/436 cannot be used for all metal brackets. The following table provides a guide to the combinations available.

Die Anbauteile in der Übersicht Seite 435/436 sind nicht mit allen Metallwinkeln verwendbar. Die folgende Tabelle gibt einen Überblick, welche Kombinationen möglich sind.

• = Possible

• = Möglich

| Suitable for<br>Shell Size               | Connector Side<br>Steckverbinderseitig |                         |                    |                     |                                | PCB Side<br>Platinenseitig |                                      |               |                                    |
|------------------------------------------|----------------------------------------|-------------------------|--------------------|---------------------|--------------------------------|----------------------------|--------------------------------------|---------------|------------------------------------|
|                                          | Metal Bracket<br>F1080-...             | Bushing<br>F1080-...    | Clinch Nut         | Spacer              | Fixing Plate<br>and Rivet      | Double Rivet               | Fixing Plate<br>and Double Rivet     | Snap-in-rivet | Fixing Plate and<br>Snap-in rivet  |
| Passend für<br>Gehäusegröße<br>F1080-... | Metallwinkel<br>F1080-...              | Nietbuchse<br>F1080-... | Einniet-<br>mutter | Abstands-<br>bolzen | Führungsplatte<br>und Hohlriet | Doppelrohrniet             | Führungsplatte und<br>Doppelrohrniet | Snap-In-Niet  | Führungsplatte und<br>Snap-In-Niet |
| 1 - 4                                    | 1                                      |                         |                    |                     | •                              | •                          | •                                    | •             | •                                  |
| 1 - 4                                    | 2                                      |                         |                    |                     | •                              | •                          | •                                    | •             | •                                  |
| 1 - 4                                    | 3                                      |                         |                    |                     |                                |                            |                                      |               |                                    |
| 1 - 4                                    | 4                                      |                         |                    |                     |                                |                            |                                      |               |                                    |
| 1 - 4                                    | 13B                                    | •                       | •                  | •                   | •                              | •                          | •                                    | •             | •                                  |
| 1 - 4                                    | 14                                     | •                       | •                  | •                   |                                |                            |                                      |               |                                    |
| 1 - 4                                    | 15                                     | •                       | •                  | •                   |                                |                            |                                      |               |                                    |
| 1 - 4                                    | 16                                     | •                       | •                  | •                   |                                |                            |                                      |               |                                    |
| 1 - 4                                    | 17                                     | •                       | •                  | •                   |                                |                            |                                      |               |                                    |
| 5                                        | 18                                     | •                       | •                  | •                   | •                              | •                          | •                                    | •             | •                                  |
| 1 - 4                                    | 19                                     | •                       | •                  | •                   |                                |                            |                                      |               |                                    |
| 5                                        | 22                                     | •                       | •                  | •                   |                                |                            |                                      |               |                                    |
| 5                                        | 23                                     | •                       | •                  | •                   | •                              | •                          | •                                    | •             | •                                  |
| 1 - 4                                    | 24                                     | •                       | •                  | •                   |                                |                            |                                      |               |                                    |
| 1 - 4                                    | 26                                     |                         |                    |                     | •                              | •                          | •                                    | •             | •                                  |
| 1 - 4                                    | 27                                     | •                       | •                  | •                   | •                              | •                          | •                                    | •             | •                                  |
| 1 - 4                                    | 29                                     | •                       | •                  | •                   | •                              | •                          | •                                    | •             | •                                  |
| 1 - 4                                    | 45                                     | •                       | •                  | •                   | •                              | •                          | •                                    | •             | •                                  |
| 1 - 5                                    | 61                                     | •                       | •                  | •                   | •                              | •                          | •                                    | •             | •                                  |

| Modification numbers for<br>D-Sub connectors with<br>metal brackets F1080-13B<br>and accessories | bushing<br>Nietbüchse | clinch nut 4-40 UNC<br>Einriemutter M3 | clinch nut M3<br>Einriemutter M3 | threaded spacer 4-40 UNC<br>Abstandsbolzen 4-40 UNC | threaded spacer M3<br>Abstandsbolzen M3 | slide lock rivet F-SGV<br>Gleitverriegelungsriet F-SGV |
|--------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------|----------------------------------|-----------------------------------------------------|-----------------------------------------|--------------------------------------------------------|
| <p>F1080-13B<br/>F1080-13B</p>                                                                   | 1241                  | 0221                                   | 1568                             | 1447                                                | 1548                                    | 0489                                                   |
| <p>F1080-13B<br/>F1080-13B</p>                                                                   | 1762                  | 1632                                   | 2315                             | 2157                                                | 2316                                    | 0490                                                   |
| <p>F1080-13B<br/>F1080-13B</p>                                                                   | 0220                  | 0138                                   | 0269                             | 0493                                                | 0494                                    | 0495                                                   |
| <p>F1080-13B with<br/>snap-in rivet<br/>F1080-13B mit<br/>Snap-in Niet</p>                       |                       |                                        |                                  |                                                     |                                         |                                                        |

Dimensions apply only to connectors with 9 to 37 contacts, 50 contacts are available on request  
Maße gelten nur für 9 - 37-polige Steckverbinder, 50-polig auf Anfrage



|                                                                                                                                                                                                                                                                                            |             |             |             |             |             |             |             |             |             |             |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <p>for PCB 1.6 [0.063] thick,<br/>recommended hole<br/>ø3.0 ±0.1 [ø0.118 ±0.04]<br/>für PCB 1.6 [0.063] dick,<br/>empfohlener<br/>Bohrungs-<br/>ø3.0 ±0.1<br/>[ø0.118 ±0.04]<br/>3.3<br/>[0.130]<br/>F1080-13B with<br/>snap-in rivet<br/>F1080-13B mit<br/>Snap-in Niet</p>               | <p>1002</p> | <p>1003</p> | <p>1004</p> | <p>1005</p> | <p>1006</p> | <p>1007</p> | <p>1008</p> | <p>1009</p> | <p>1010</p> | <p>1011</p> | <p>1012</p> |
| <p>Modification numbers for connectors with other metal brackets and accessories, e. g.<br/>self locking clinch nuts, available on request.<br/>Modifikations-Nr. für Steckverbinder mit anderen Metallwinkeln und Anbauteilen, z. B.<br/>selbstsichernden Einriemuttern, auf Anfrage.</p> |             |             |             |             |             |             |             |             |             |             |             |
| <p>Dimensions apply only to connectors with 9 to 37 contacts, 50 contacts are available on request<br/>Maße gelten nur für 9 - 37-polige Steckverbinder, 50-polig auf Anfrage</p>                                                                                                          |             |             |             |             |             |             |             |             |             |             |             |

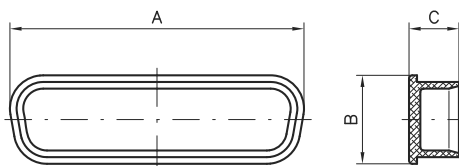
Plastic Dust Caps/  
Plastic Protection Caps F1042-...

Kunststoff-Staubkappen/  
-Abschirmkappen F1042-...



Dimensions  
Abmessungen

Plastic Dust Cap  
Kunststoff-Staubkappe



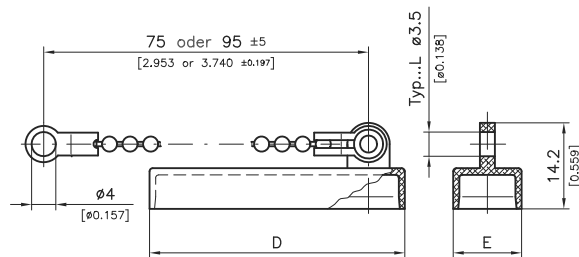
Advantages and special Features

The antistatic plastic dust cap F1042-...AH can be used with connectors which are mounted in a hood. Recesses have been formed in the plastic cap to match the geometry of the hoods. The standard plastic dust cap is suitable for mounting on hoods with socket connectors. The Plastic Dust Caps are equipped with Clip and Chain for Mounting on Hoods with Pin Connector.

Vorteile und Merkmale im Überblick

Die antistatische Kunststoff-Staubkappe F1042-...AH kann auf Steckverbindergehäuse, die in einer Haube montiert sind, aufgesetzt werden. Es sind Aussparungen in der Kunststoffkappe entsprechend der Haubengeometrie eingebaut. Für die Montage an Hauben mit Buchsensteckverbindern ist die Standard Kunststoff-Staubkappe verwendbar. Die Kunststoff-Staubkappen sind mit Lasche und Kette für die Montage an Hauben mit Stiftsteckverbinder ausgestattet.

Plastic Dust Cap with Clip and Chain  
Kunststoff-Staubkappe mit Lasche und Kette



Order number chain length 95 mm (3.740"): **F1042-...K1...**  
Bestellnummer Kettenlänge 95 mm: **F1042-...K1...**

| Shell Size<br>Gehäusegr. | Order-No.<br>Bestellnr. | For Pin Connectors<br>Für Stiftsteckverbinder |                  |                  | For Socket Connectors<br>Für Buchsensteckverbinder |                  |                  |
|--------------------------|-------------------------|-----------------------------------------------|------------------|------------------|----------------------------------------------------|------------------|------------------|
|                          |                         | A                                             | B                | C                | A                                                  | B                | C                |
|                          |                         | ±0,3<br>(±0.012)                              | ±0,3<br>(±0.012) | ±0,2<br>(±0.008) | ±0,3<br>(±0.012)                                   | ±0,3<br>(±0.012) | ±0,2<br>(±0.008) |
| 1                        | F1042-1...              | 21,8<br>(0.858)                               | 13,2<br>(0.520)  | 7,4<br>(0.291)   | 20,0<br>(0.787)                                    | 11,8<br>(0.465)  | 7,6<br>(0.299)   |
| 2                        | F1042-2...              | 30,0<br>(1.181)                               | 13,2<br>(0.520)  | 7,4<br>(0.291)   | 28,5<br>(1.122)                                    | 11,8<br>(0.465)  | 7,6<br>(0.299)   |
| 3                        | F1042-3...              | 44,2<br>(1.740)                               | 13,2<br>(0.520)  | 7,4<br>(0.291)   | 42,3<br>(1.665)                                    | 11,8<br>(0.465)  | 7,6<br>(0.299)   |
| 4                        | F1042-4...              | 59,8<br>(2.354)                               | 13,2<br>(0.520)  | 7,4<br>(0.291)   | 58,8<br>(2.315)                                    | 11,8<br>(0.465)  | 7,6<br>(0.299)   |
| 5                        | F1042-5...              | 57,8<br>(2.276)                               | 15,9<br>(0.626)  | 7,4<br>(0.291)   | 56,2<br>(2.213)                                    | 14,5<br>(0.571)  | 7,6<br>(0.299)   |

Dimensions in mm (inch) - Abmessungen in mm (inch)

| D                | E                | For Pin Connectors<br>Für Stiftsteckverbinder |                  | For Socket Connectors<br>Für Buchsensteckverbinder |                  | Order-No.<br>Bestellnr. | Shell Size<br>Gehäusegr. |
|------------------|------------------|-----------------------------------------------|------------------|----------------------------------------------------|------------------|-------------------------|--------------------------|
|                  |                  | D                                             | E                | D                                                  | E                |                         |                          |
| ±0,3<br>(±0.012) | ±0,2<br>(±0.008) | ±0,3<br>(±0.012)                              | ±0,2<br>(±0.008) | ±0,3<br>(±0.012)                                   | ±0,2<br>(±0.008) | F1042-1...K...          | 1                        |
| 19,6<br>(0.772)  | 11,1<br>(0.437)  | 17,8<br>(0.701)                               | 9,6<br>(0.378)   | 17,8<br>(0.701)                                    | 9,6<br>(0.378)   | F1042-1...K...          | 1                        |
| 27,8<br>(1.094)  | 11,1<br>(0.437)  | 26,2<br>(1.031)                               | 9,6<br>(0.378)   | 26,2<br>(1.031)                                    | 9,6<br>(0.378)   | F1042-2...K...          | 2                        |
| 41,8<br>(1.646)  | 11,1<br>(0.437)  | 39,9<br>(1.571)                               | 9,6<br>(0.378)   | 39,9<br>(1.571)                                    | 9,6<br>(0.378)   | F1042-3...K...          | 3                        |
| 57,4<br>(2.260)  | 11,1<br>(0.437)  | 56,2<br>(2.213)                               | 9,6<br>(0.378)   | 56,2<br>(2.213)                                    | 9,6<br>(0.378)   | F1042-4...K...          | 4                        |
| 55,3<br>(2.177)  | 13,8<br>(0.543)  | 53,7<br>(2.114)                               | 12,2<br>(0.480)  | 53,7<br>(2.114)                                    | 12,2<br>(0.480)  | F1042-5...K...          | 5                        |

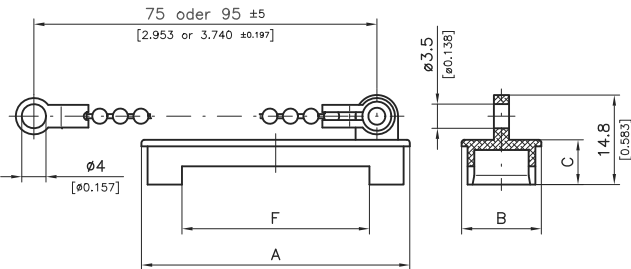
Dimensions in mm (inch) - Abmessungen in mm (inch)



Plastic Dust Cap with Clip and Chain for Mounting on Hoods with Pin Connector

Kunststoff-Staubkappe mit Lasche und Kette für Montage an Hauben mit Stiftsteckverbinder

Dimensions  
Abmessungen



Order number chain length 95 mm (3.740"): **F1042-...K1...**  
Bestellnummer Kettenlänge 95 mm: **F1042-...K1...**

For Pin Connectors  
Für Stiftsteckverbinder

| Order Number<br>Bestellnummer | Shell Size<br>Gehäusegröße | A<br>±0,3<br>(±0.012) | B<br>±0,3<br>(±0.012) | C<br>±0,2<br>(±0.008) | F<br>±0,2<br>(±0.008) |
|-------------------------------|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| F1042-1PLAH                   | 1                          | 21,8<br>(0.858)       | 13,2<br>(0.520)       | 7,4<br>(0.291)        | 16,0<br>(0.630)       |
| F1042-2PLAH                   | 2                          | 30,0<br>(1.181)       | 13,2<br>(0.520)       | 7,4<br>(0.291)        | 16,0<br>(0.630)       |
| F1042-3PLAH                   | 3                          | 44,2<br>(1.740)       | 13,2<br>(0.520)       | 7,4<br>(0.291)        | 31,0<br>(1.220)       |
| F1042-4P...AH*                | 4                          | 59,8<br>(2.354)       | 13,2<br>(0.520)       | 7,4<br>(0.291)        | 46,0<br>(1.811)       |
| F1042-5P...AH*                | 5                          | 57,8<br>(2.276)       | 15,9<br>(0.626)       | 7,4<br>(0.291)        | 44,0<br>(1.732)       |

\* On request / auf Anfrage

**Order Code**

**Bestellschlüssel**

**F1042** | **5** | **S** | **K** | **A**

**Series Prefix**

**Serienbezeichnung**

**Series (Insulator)**

**Baureihe (Isolierkörper)**

| No. of Contacts/Polzahl | 09 | 15 | 25 | 37 | 50 |
|-------------------------|----|----|----|----|----|
| Shell Size/Gehäusegröße | 1  | 2  | 3  | 4  | 5  |

**For Connector Type**

**Für Steckverbinderart**

**P** Pin contact/Stiftkontakt  
**S** Socket contact/Buchsenkontakt

-- Without Chain, without Clip  
*Ohne Kette, ohne Lasche*  
**L** Without Chain, with Clip with hole  
*Ohne Kette, mit Lasche mit Loch*  
**LR** Without Chain, with Clip without hole  
*Ohne Kette, mit Lasche ohne Loch*  
**K** With Chain 75mm (2.95") length and Clip  
*Mit Kette 75mm Länge und Lasche*  
**K1** With Chain 95mm (3.74") length and Clip  
*Mit Kette 95mm Länge und Lasche*  
**K2** With Chain 120mm (4.72") length and Clip  
*Mit Kette 120mm Länge und Lasche*  
**K3** With Chain 37mm (1.46") length and Clip  
*Mit Kette 37mm Länge und Lasche*  
**K4** With Chain 25mm (0.98") length and Clip  
*Mit Kette 25mm Länge und Lasche*

**Modifications**

**Modifikationen**

-- Standard Version/Standard Ausführung  
**A** Antistatic Version/Antistatische Ausführung  
**B** Flame retardant according to UL94V-0/Selbstverlöschend nach UL94V-0  
**M** Plastic Protection Caps, metallized version, flame retardant according to UL94V-0, shielding against electromagnetic radiation, protection against electrostatic discharge.  
*Abschirmkappe, metallisierte Ausführung, selbstverlöschend nach UL94V-0, Abschirmung elektromagnetischer Einstrahlung, Schutz vor elektrostatischer Entladung.*  
**AH** Antistatic Version for Hood Mounting/Antistatische Ausführung für Haubenmontage

**Protection Level/Schutzgrad**

All variations of dust cap meet protection level IP 50 requirements, DIN 40050.

*Die Staubkappen entsprechen in allen Ausführungen dem Schutzgrad IP50, DIN 40050.*



An Example of Use for Plastic  
Dust Cap F1042-...AH

Einsatzbeispiel für Kunststoff-  
Staubkappe F1042-...AH

Material

Material

Chain

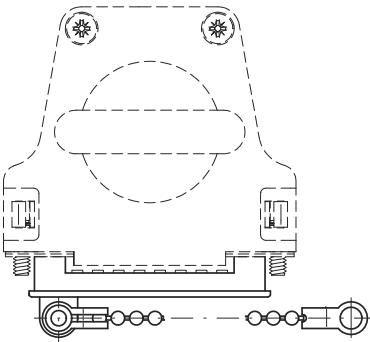
Kette

Material

Material

Brass, nickel plated

Messing, vernickelt



Dust Cap

Staubkappe

Material

Colour

Ordering Example

Material

Farbe

Bestellbeispiel

Polyethylene

Red

F1042-3P

Polyethylen

Rot

Polypropylene (antistatic)

Black

F1042-3PA

Polypropylen (antistatisch)

Schwarz

ABS, self-extinguishing (UL94V-0)

Grey

F1042-3PB

ABS, selbstverlöschend (UL94V-0)

Grau

ABS, self-extinguishing (UL94V-0), metallized, nickel plating over Cu

Nickel

F1042-3PM

ABS, selbstverlöschend (UL94V-0), metallisiert: Ni über Cu

Nickel

**Shielded Dust Cap FSSK,  
Screwable**



Shielding dust cap FSSK2P  
*Geschirmte Staubkappe FSSK2P*



Rear view shielding dust cap FSSK2P-1426, with front seal.  
*Rückansicht geschirmte Staubkappe FSSK2P-1426, mit Frontdichtung*

***Geschirmte Staubkappe FSSK,  
verschraubbar***

**Features of Shielding Dust Cap FSSK**

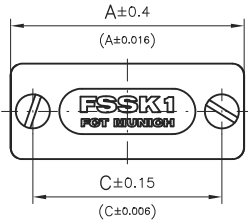
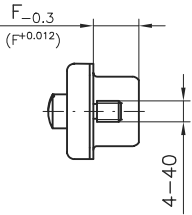
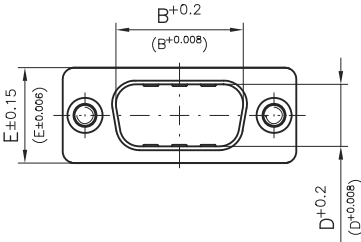
- Solid metal
- Simple mounting - push on and screw in place
- Contacts are protected from dust
- Version K1426 meet protection level IP 67 requirements, DIN 40050
- Captive screws

***Eigenschaften der geschirmten Staubkappe FSSK***

- Vollmetall
- einfachste Montage durch Aufstecken und Verschrauben
- Kontakte werden vor Staub geschützt
- Version K 1426 entspricht dem Schutzgrad IP 67, DIN 40050
- Schrauben unverlierbar



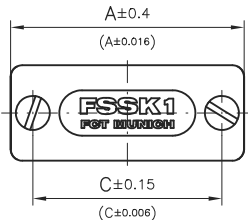
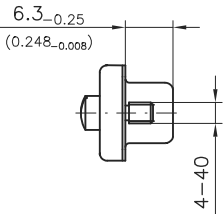
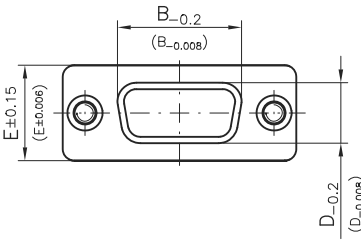
Dimension of Dust Cap for the Sealing  
of Pin Connectors



| Order No.  | Shell Size | A                | B                | C                 | D                | E                 | F                |
|------------|------------|------------------|------------------|-------------------|------------------|-------------------|------------------|
| Bestellnr. | Gehäusegr. | ±0,4<br>(±0.016) | +0,2<br>(±0.008) | ±0,15<br>(±0.006) | +0,2<br>(±0.008) | ±0,15<br>(±0.006) | -0,3<br>(±0.012) |
| FSSK1P     | 1          | 30,8<br>(1.213)  | 16,9<br>(0.665)  | 25,0<br>(0.984)   | 8,2<br>(0.323)   | 12,5<br>(0.492)   | 6,1<br>(0.240)   |
| FSSK2P     | 2          | 39,1<br>(1.539)  | 25,2<br>(0.992)  | 33,3<br>(1.311)   | 8,2<br>(0.323)   | 12,5<br>(0.492)   | 6,1<br>(0.240)   |
| FSSK3P     | 3          | 53,0<br>(2.087)  | 38,9<br>(1.531)  | 47,0<br>(1.852)   | 8,2<br>(0.323)   | 12,5<br>(0.492)   | 6,0<br>(0.236)   |
| FSSK4P*    | 4          | 69,3<br>(2.728)  | 55,3<br>(2.177)  | 63,5<br>(2.500)   | 8,2<br>(0.323)   | 12,5<br>(0.492)   | 6,0<br>(0.236)   |
| FSSK5P*    | 5          | 66,9<br>(2.634)  | 52,8<br>(2.079)  | 61,1<br>(2.406)   | 11,0<br>(0.433)  | 15,4<br>(0.606)   | 6,0<br>(0.236)   |

\*On request / auf Anfrage  
Dimensions in mm (inch) - Abmessungen in mm (inch)

Dimension of Dust Cap for the Sealing  
of Socket Connectors



| Order-No   | Shell Size | A                | B                | C                 | D                | E                 |
|------------|------------|------------------|------------------|-------------------|------------------|-------------------|
| Bestellnr. | Gehäusegr. | ±0,4<br>(±0.016) | -0,2<br>(±0.008) | ±0,15<br>(±0.006) | -0,2<br>(±0.008) | ±0,15<br>(±0.006) |
| FSSK1S     | 1          | 30,8<br>(1.213)  | 16,4<br>(0.646)  | 25,0<br>(0.984)   | 8,0<br>(0.315)   | 12,5<br>(0.492)   |
| FSSK2S     | 2          | 39,1<br>(1.539)  | 24,7<br>(0.972)  | 33,3<br>(1.311)   | 8,0<br>(0.315)   | 12,5<br>(0.492)   |
| FSSK3S     | 3          | 53,0<br>(2.087)  | 38,5<br>(1.516)  | 47,0<br>(1.852)   | 8,0<br>(0.315)   | 12,5<br>(0.492)   |
| FSSK4S     | 4          | 69,3<br>(2.728)  | 54,9<br>(2.161)  | 63,5<br>(2.500)   | 8,0<br>(0.315)   | 12,5<br>(0.492)   |
| FSSK5S     | 5          | 66,9<br>(2.634)  | 52,5<br>(2.067)  | 61,1<br>(2.406)   | 10,8<br>(0.425)  | 15,4<br>(0.606)   |

\* On request / auf Anfrage  
Dimensions in mm (inch) - Abmessungen in mm (inch)

Order Code  
Bestellschlüssel

|                                                                                                                                          |  |  |  |  |      |   |   |    |      |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|------|---|---|----|------|
|                                                                                                                                          |  |  |  |  | FSSK | 2 | P | M3 | 1426 |
| Series Prefix<br>Serienbezeichnung                                                                                                       |  |  |  |  |      |   |   |    |      |
| D-Sub Shell Size<br>D-Sub Gehäusegröße                                                                                                   |  |  |  |  |      |   |   |    |      |
| <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div>                                                            |  |  |  |  |      |   |   |    |      |
| Contact Type<br>Kontaktart                                                                                                               |  |  |  |  |      |   |   |    |      |
| <div> <div>P</div> <div>Pin contact<br/>Stiftkontakt</div> </div> <div> <div>S</div> <div>Socket contact<br/>Buchsenkontakt</div> </div> |  |  |  |  |      |   |   |    |      |
| Screw Thread<br>Schraubengewinde                                                                                                         |  |  |  |  |      |   |   |    |      |
| <div>--</div> <div>Standard 4-40 / Standardausführung 4-40</div>                                                                         |  |  |  |  |      |   |   |    |      |
| <div>M3</div> <div>M3 / M3</div>                                                                                                         |  |  |  |  |      |   |   |    |      |
| Modifications<br>Modifikationen                                                                                                          |  |  |  |  |      |   |   |    |      |

**K1462** With Front Seal Waterproof  
(for Contact Type P pre-mounted, for Contact Type S in a separate Package)  
Mit Frontdichtung, wasserdicht.  
(bei Kontaktart P vormontiert, bei Kontaktart S im Beipack)

Size 1-3 are available, other sizes on request.  
Gehäusegrößen 1-3 verfügbar, andere Größen auf Anfrage.



**Material and Plating**

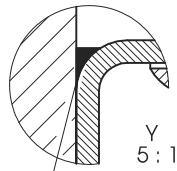
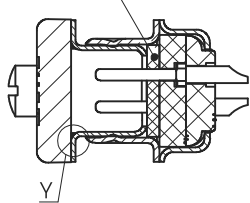
**Material und Oberfläche**

|                                                             |                                                           |
|-------------------------------------------------------------|-----------------------------------------------------------|
| Shell                                                       | Brass, tin plated / Messing, verzinkt                     |
| Gehäuse                                                     | K1426 brass, tin plated / K1426 Messing, verzinkt         |
| Shielding flange / Schirmflansch                            | Zinc die-cast, nickel plated / Zink-Druckguss, vernickelt |
| Screws / Schrauben                                          | Brass, tin plated / Messing, verzinkt                     |
| Front Seal (only for K1426) / Frontdichtung (nur bei K1426) | Silicone / Silikon                                        |
| Maximum torque / maximales Anzugsmoment                     | 40Ncm (0.295ft.lb)                                        |

**Mounting Instructions**

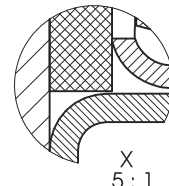
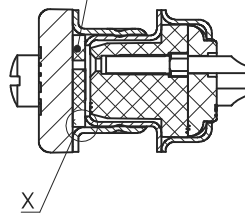
**Montagehinweise**

Front Seal (F1043-1-5) is mounted in male connector  
 Frontdichtung (F1043-1-5) wird im Stiftstecker montiert



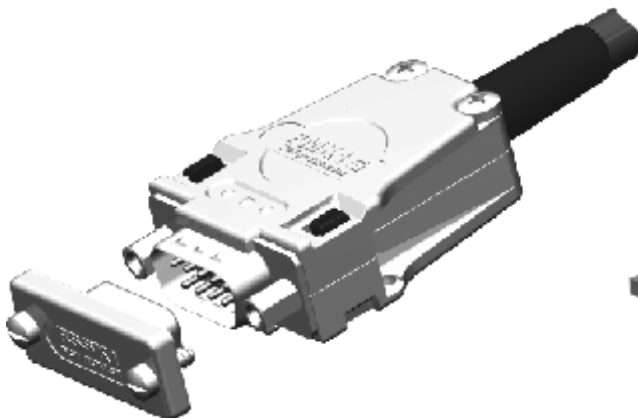
sealed  
 abgedichtet

Front Seal glued to shielding dust cap  
 Frontdichtung mit geschirmter Staubkappe verklebt

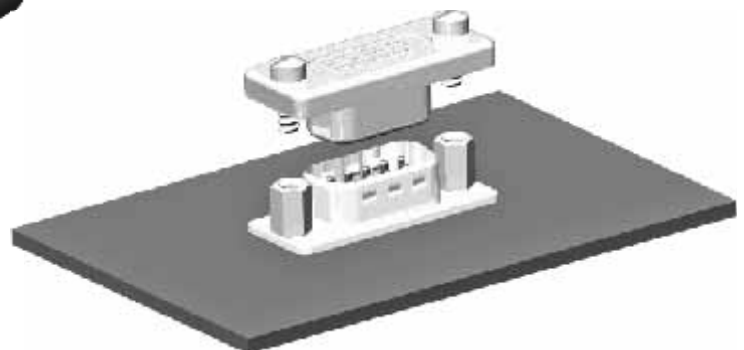


X  
 5:1

**Application Example Cable to Cable Connections**  
**Einsatzbeispiel fliegende Verbindung**



**Application Example of a Housing Seal**  
**Einsatzbeispiel Gehäuseabdichtung**



Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
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