

# Waterproof USB Connectors

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## Waterproof USB Connectors

### M12 - Mini-USB Panel Connector

Rear mount, Solder pin

Mini-USB 2.0 Type B -Socket



Protection: IP 67

(Assembled with CAP)

Contacts: 5 + 1 Shield connection

Terminal: Solder Pin

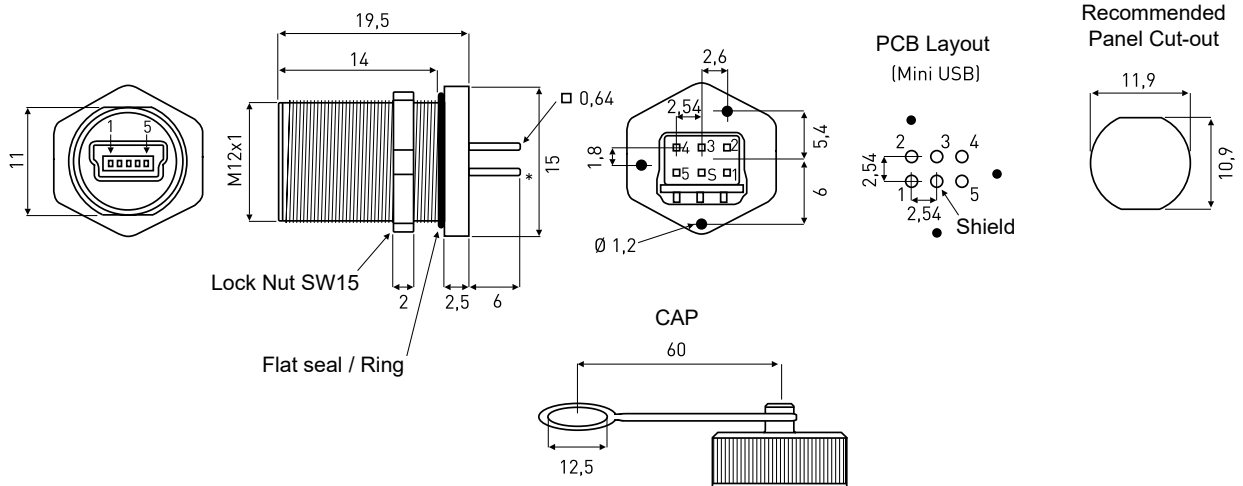
Housing material: Plastic, Black (PA)

UL 94-HB, black or metalized

Contact plating: Gold-plated

Kit: Including Gasket + nut

Connection cable: See next page



### M12 - Mini-USB Panel Connector

Connectors:	Part No:
Plastic Contact	1310-0008-01
Metalized Contact	1310-0008-02

Accessories:	Part No:
Plastic Cap, Black	1310-0008-03
Lock Nut, Metal, M12	1310-0008-04



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## Waterproof USB Connectors

### Mini-USB 2.0 Connection Cable

End 1: M12 Connector with

Mini-USB 2.0 Type B

End 2: Plug, USB 2.0 Type A



Protection: IP 67

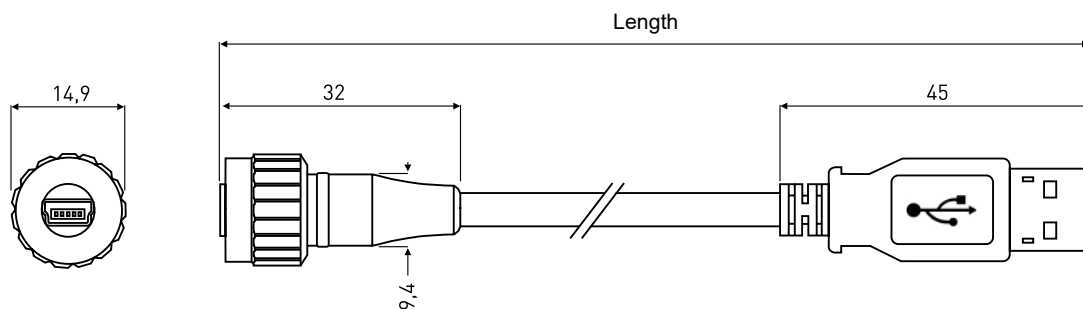
(In locked condition with mating part)

Contacts: 5 + 1 Shield connection

Housing material: Plastic, Black (PA)

Contact plating: Gold-plated

Mating part: See previous page



#### Mini USB 2.0 - Type B, Connection Cable to standard USB Type A

Cable length:	Part No:
1.0m	1310-0009-01
3.0m	1310-0009-02
5.0m	1310-0009-03



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## Waterproof USB Connectors

Mini-USB 2.0 Extension cord

End 1: M12 housing with

Mini USB 2.0 Type B

End 2: Plug, Mini-USB 2.0 Type B



Protection: IP 64 / IP 67

(M12 housing -front, with cap mounted)

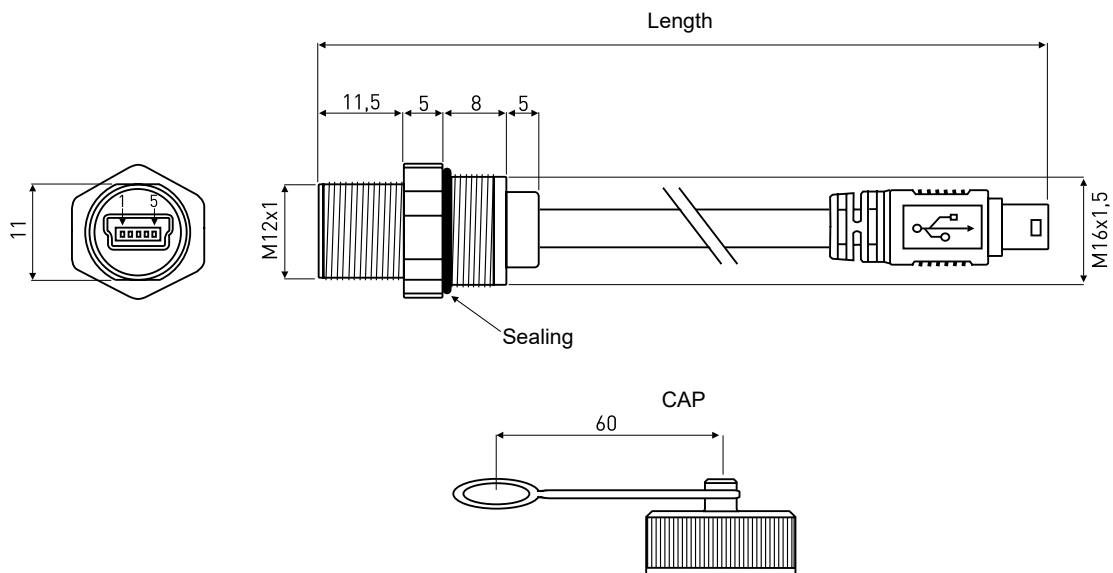
Contacts: 5

Housing material: M12 plastic housing

(PA6 / GF30), glass fiber reinforced, UL 94-HB, black

Contact plating: Gold

Connection cable: See previous page



### Mini USB 2.0 - Type B Extension cord

**Cable length:** **Part No:**

0.5m 1310-0009-10

1.0m 1310-0009-11

1.5m 1310-0009-12

2.0m 1310-0009-13

3.0m 1310-0009-14

**Accessories:** **Part No:**

Plastic Cap, Black 1310-0008-03

Lock Nut, Plastic, M16 1310-0008-05

Lock Nut, Metal, M16 1310-0008-06



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## Waterproof USB Connectors

M16-Panel mount connector  
 Front mounting, Solder cup  
 USB 2.0 Type A

Protection: IP 64 / IP 67  
 (Assembled with CAP)

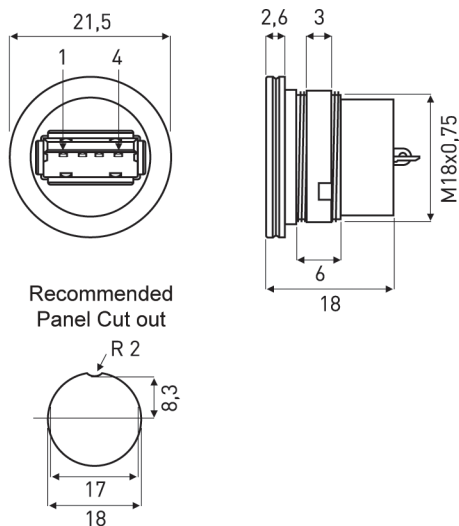
Contacts: 4 + 1 Shield connection

Terminal: Solder Cup

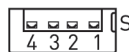
Housing material: Plastic, Black (PA)

Contact plating: Gold-plated

Kit: Including CAP + Circular nut

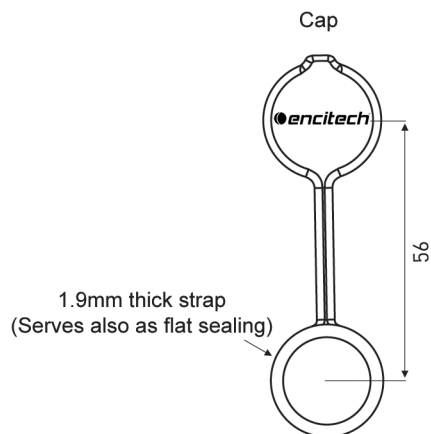


Solder Pins



Pin Assignment

- 1 - +5 V
- 2 - D-
- 3 - D+
- 4 - GND
- S - Shield



### M16 Panel mount USB 2.0 - Type A

Connector:	Part No:
Panel Conn, Black	1310-1001-01

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



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## Waterproof USB Connectors

M16-Panel mount connector

Front mounting, Solder pin

USB 3.0 Type A

Protection: IP 64 / IP 67

(front side, protection cap mounted and plugged)

Contacts: 9

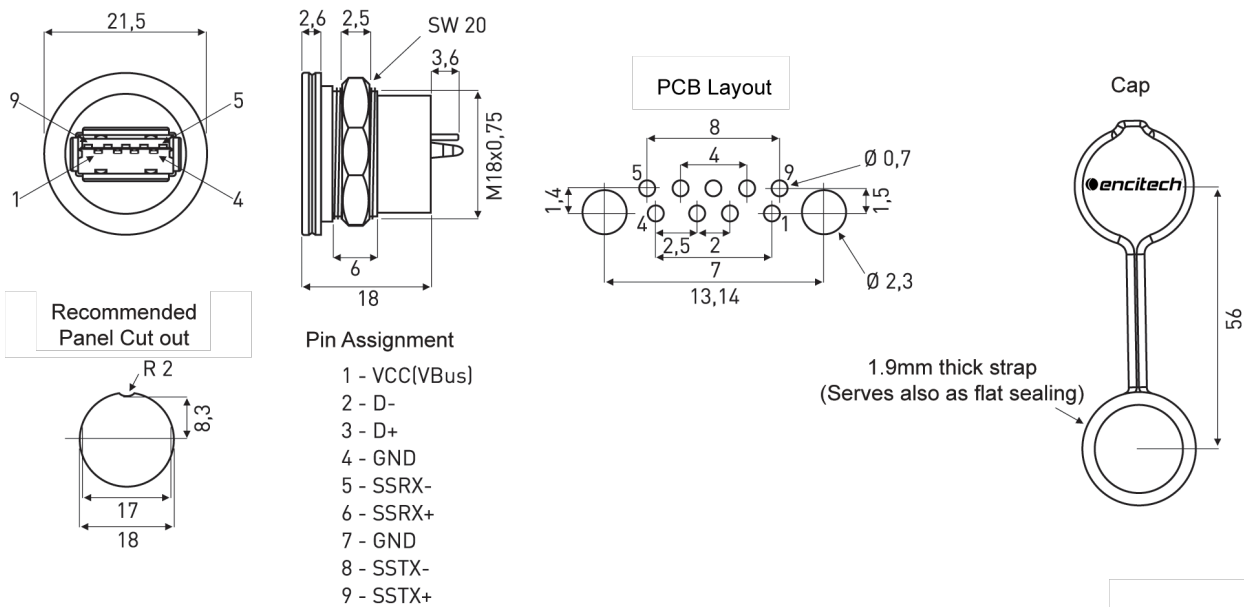
Housing: Plastic, Black (PA)

Cap: Elastolan®

Contact plating: Gold

Connection: Solder pin

Kit: Including CAP + Hex nut



### M16 Panel mount USB 3.0 - Type A

Connector:	Part No:
Panel Conn, Black	1310-1014-01

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



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## Waterproof USB Connectors

### USB 2.0-Cable

End 1: M16 Panel conn. USB 2.0 Type A

End 2: Plug, USB 2.0 Type A



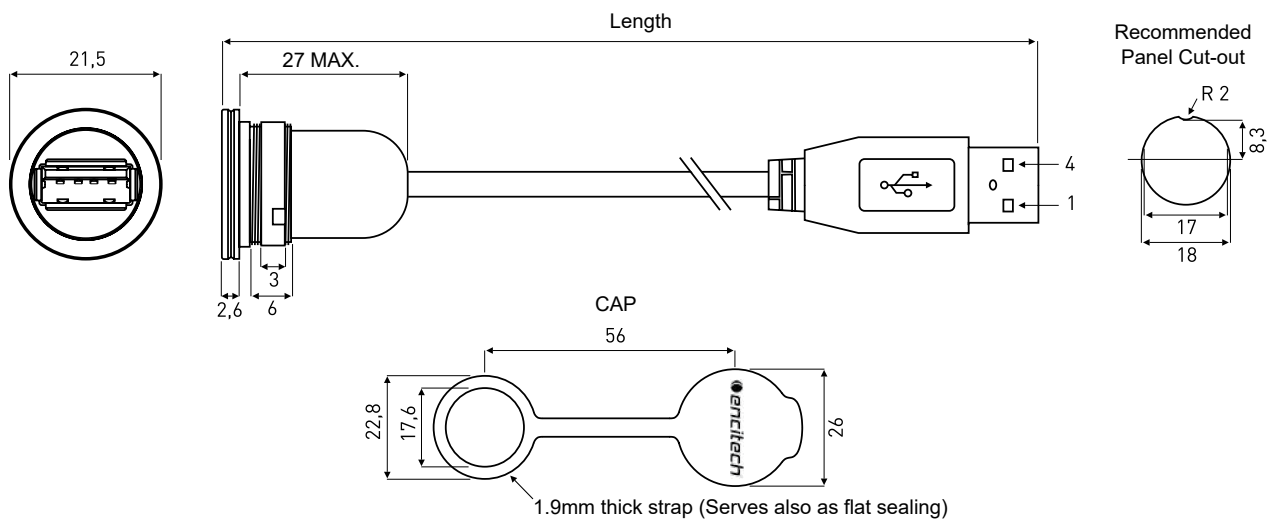
Protection: IP64 / IP67  
(Assembled with CAP)

Contacts: 4

Housing material: Plastic, Black (PA)

Contact plating: Gold-plated

Kit: Including CAP + Circular nut



#### USB 2.0 - Type A Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1002-01
1.0m	1310-1002-02
1.5m	1310-1002-03
2.0m	1310-1002-04
3.0m	1310-1002-05

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



## Waterproof USB Connectors

### USB 3.0-Cable

End 1: M16 Panel conn. USB 3.0 Type A

End 2: Plug, USB 3.0 Type A

Protection: IP64 / IP67  
(Assembled with CAP)

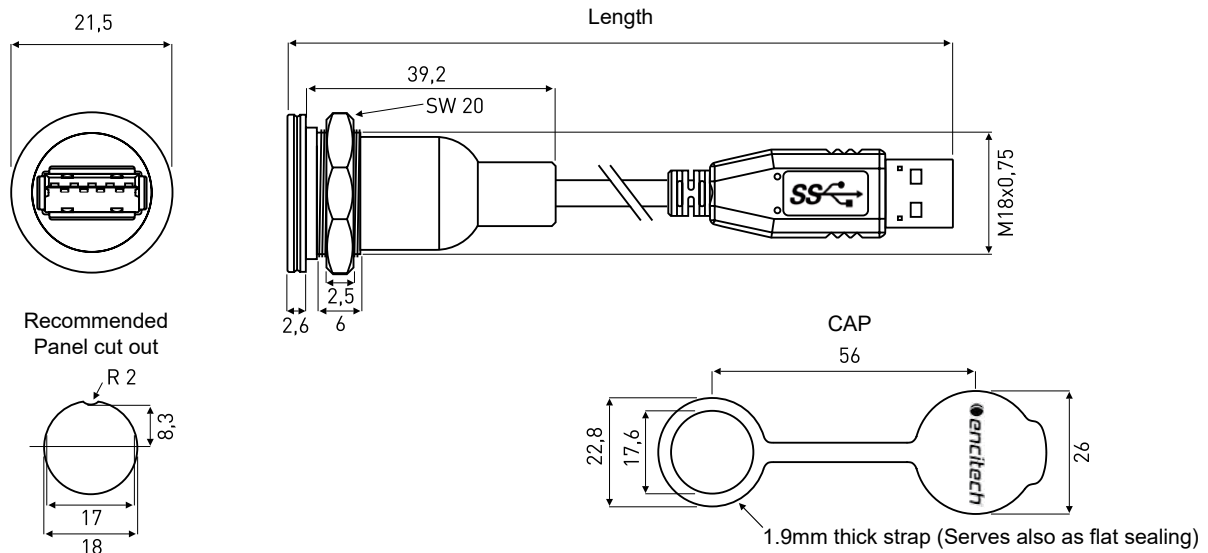
Contacts: 9

Housing: Plastic (PA)

Cap: Elastolan®

Contact plating: Gold

Kit: Including CAP + nut



### USB 3.0 - Type A Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1015-01
1.0m	1310-1015-02
1.5m	1310-1015-03
2.0m	1310-1015-04
3.0m	1310-1015-05



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## Waterproof USB Connectors

M16-Panel mount connector  
 Front mounting, Solder cup  
 USB 2.0 Type A

Protection: IP 54  
 (Assembled with CAP)

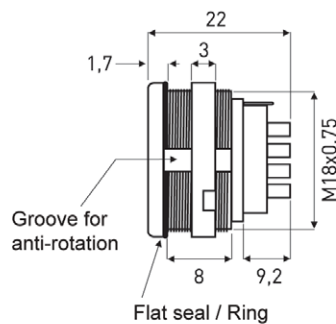
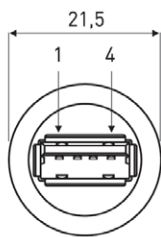
Contacts: 4 + 1 Shield connection

Terminal: Solder Cup

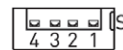
Housing material: Zinc

Contact plating: Gold-plated

Kit: Including CAP, ground solder tail + Circular nut



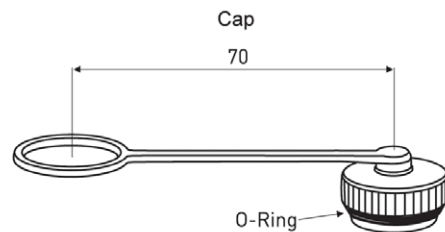
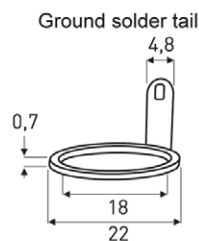
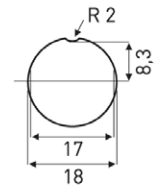
Solder Pins



Pin Assignment

- 1 - +5 V
- 2 - D-
- 3 - D+
- 4 - GND
- 5 - Shield

Recommended Panel Cut out



### M16 Panel mount USB 2.0 Type A, Full Metal housing

Connector:	Part No:
Panel Conn, Metal	1310-0003-01

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



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## Waterproof USB Connectors

### USB 2.0-Cable

End 1: M16 Panel Connector

with USB 2.0 Type A

End 2: Plug, USB 2.0 Type A

Protection: IP 54  
(Assembled with CAP)

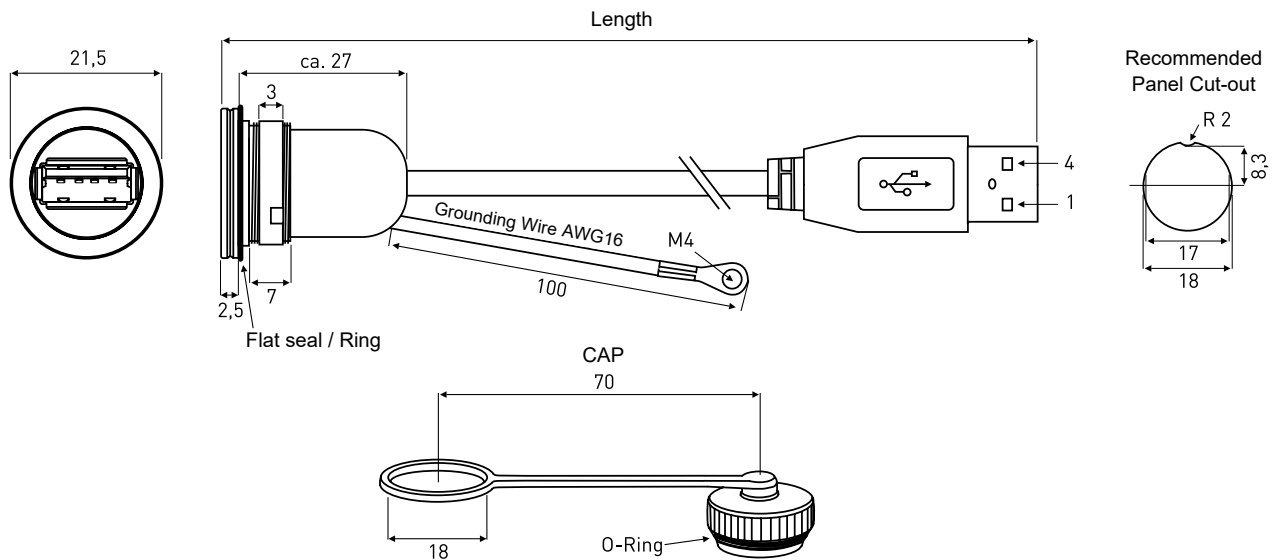
Contacts: 4

Grounding wire 0.5mm<sup>2</sup> (green / yellow)

Housing material: Zinc

Contact plating: Gold-plated

Kit: Including CAP, Circular nut + premounted  
grounding wire with crimp terminal



#### USB 2.0 - Type A Panel Connector with Cable + Grounding wire

Cable length:	Part No:
0.5m	1310-0004-01
1.0m	1310-0004-02
1.5m	1310-0004-03
2.0m	1310-0004-04
3.0m	1310-0004-05

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



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# Waterproof USB Connectors

M16-Panel mount connector

Front mounting

Mini-USB 2.0 Type AB

Protection: IP 64 / IP67  
(Assembled with CAP)

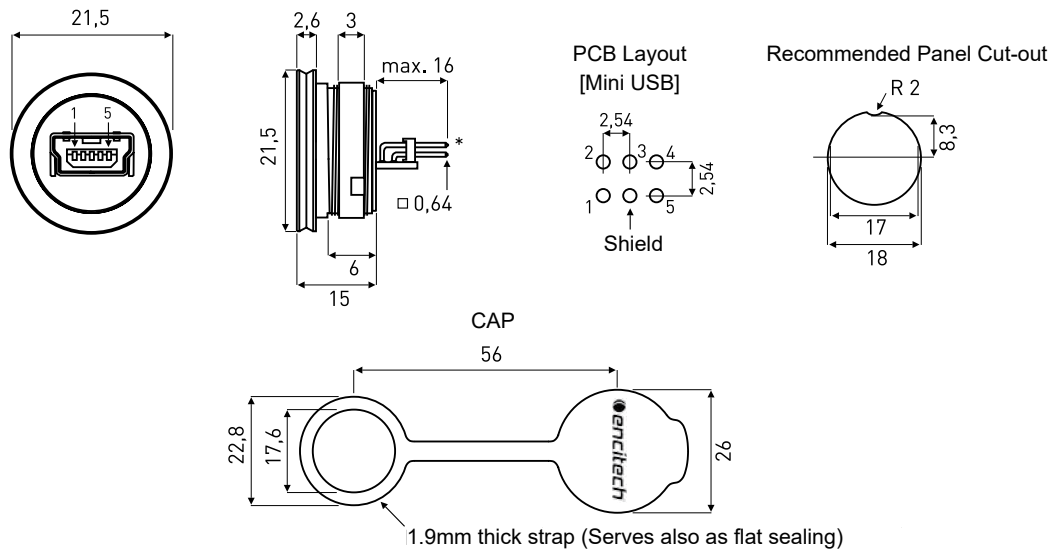
Contacts: 4 + 1 Shield connection

Connection: By 2x3 terminal, 2.54mm

Housing material: Plastic, Black (PA)

Contact plating: Gold-plated

Kit: Including CAP + Circular nut



## M16 Panel mount Mini USB 2.0 - Type AB

Connector:	Part No:
Panel Conn, Black	1310-1010-01

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



## Waterproof USB Connectors

### Mini-USB 2.0-Cable

End 1: M16 Panel Connector

with Mini-USB 2.0 Type B

End 2: Plug, Mini-USB 2.0 Type B

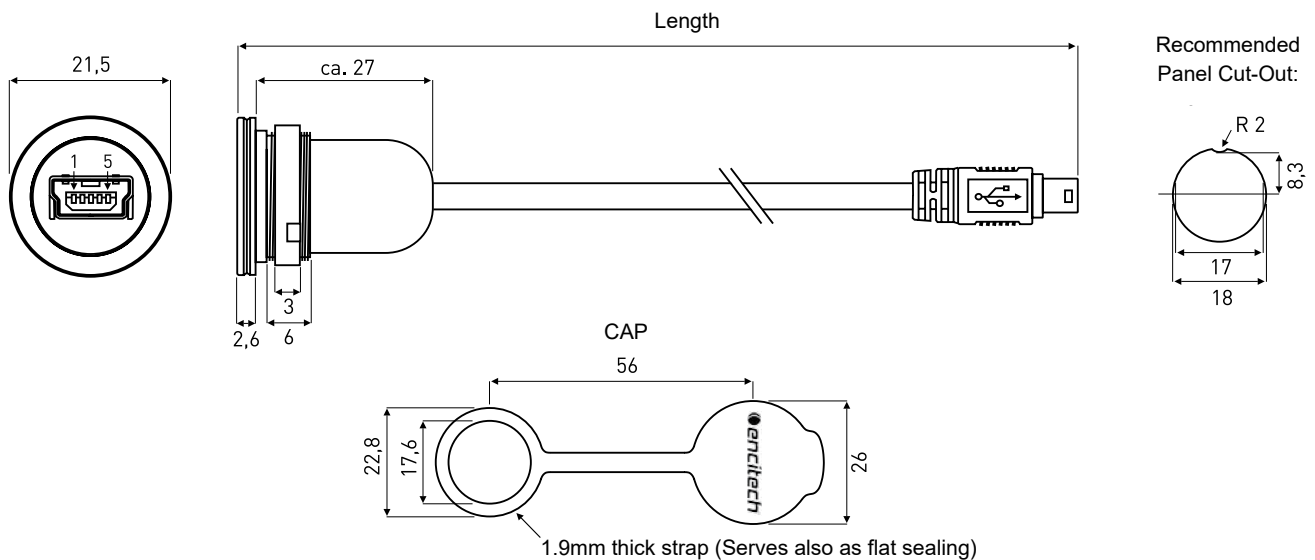
Protection: IP 64 / IP67  
(Assembled with CAP)

Contacts: 5

Housing material: Plastic, Black (PA)

Contact plating: Gold-plated

Kit: Including CAP + Circular nut



#### Mini USB 2.0 - Type B Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1011-01
1.0m	1310-1011-02
1.5m	1310-1011-03
2.0m	1310-1011-04
3.0m	1310-1011-05

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



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## Waterproof USB Connectors

M16-Panel mount connector

Front mounting

Micro-USB 2.0 Type B

Protection: IP 64 / IP67  
(Assembled with CAP)

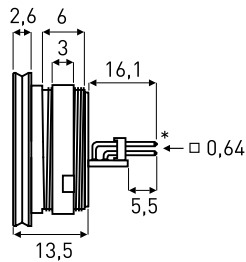
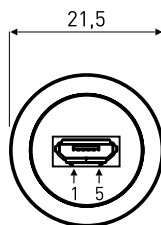
Contacts: 4 + 1 Shield connection

Connection: By 2x3 terminal, 2.54mm

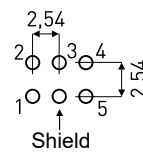
Housing material: Plastic, Black (PA)

Contact plating: Gold-plated

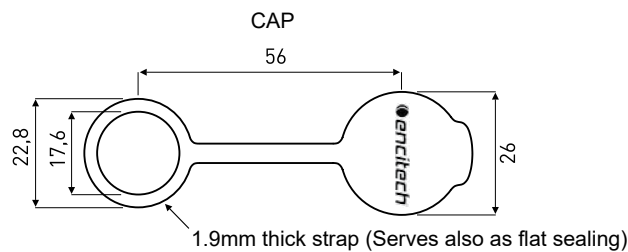
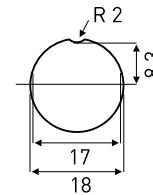
Kit: Including CAP + Circular nut



PCB Layout  
[Mini USB]



Recommended Panel Cut-out



### M16 Panel mount Micro USB 2.0 - Type B

Connector:	Part No:
Panel Conn, Black	1310-1012-01

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



## Waterproof USB Connectors

### Micro-USB 2.0-Cable

End 1: M16 Panel Connector

with Micro-USB 2.0 Type B

End 2: Plug, Micro-USB 2.0 Type B

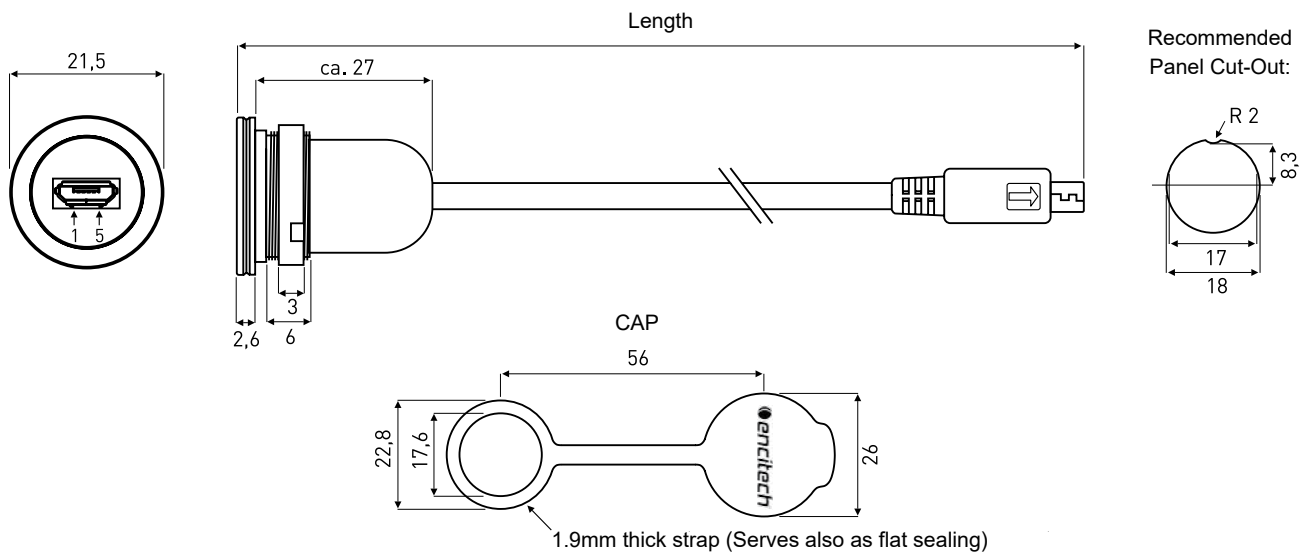
Protection: IP 64 / IP67  
(Assembled with CAP)

Contacts: 5

Housing material: Plastic, Black (PA)

Contact plating: Gold-plated

Kit: Including CAP + Circular nut



### Micro USB 2.0 - Type B Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1013-01
1.0m	1310-1013-02
1.5m	1310-1013-03
2.0m	1310-1013-04
3.0m	1310-1013-05

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



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## Waterproof USB Connectors

M16-Panel mount connector

Front mounting

USB 3.1 Type C

Protection: IP 64 / IP67

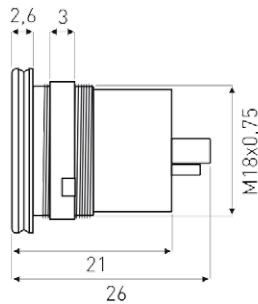
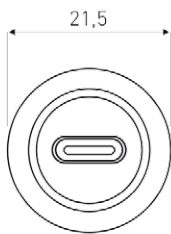
(Assembled with CAP)

Contacts: 24

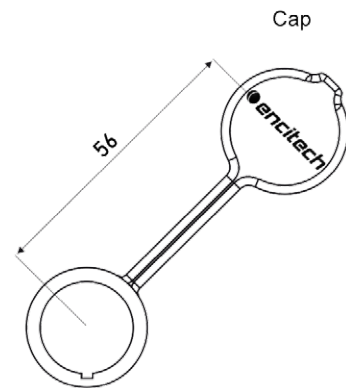
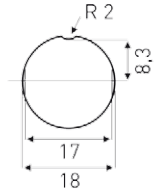
Housing material: Plastic, Black (PA)

Contact plating: Gold-plated

Kit: Including CAP + Circular nut



Recommended  
Panel Cut out



### M16 USB C

Connector:	Part No:
Panel Conn, Black	1310-1040-01

Accessories:	Part No:
Mounting Tool for Ring nut	1310-0099-01



## Waterproof USB Connectors

### M22-Panel mount Connector

Front mounting  
with USB 2.0 Type A

Protection: IP 64 / IP67  
(Assembled with CAP)

Contacts: 4 + 1 (Shield)

Housing material: Plastic, Black (PA)

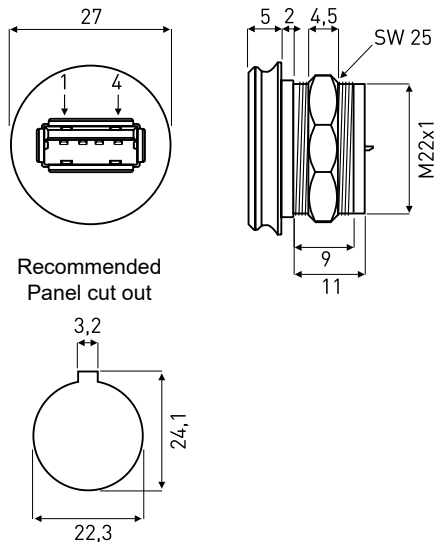
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

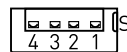
Contact Plating: Gold

Connection: Solder

Kit: Including CAP + nut



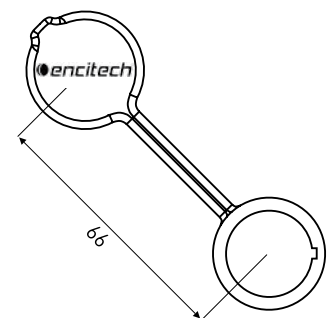
PCB Layout



Pin out USB A

- 1 - +5 V
- 2 - D-
- 3 - D+
- 4 - GND
- S - Shield

CAP



1.9mm thick strap  
(Serves also as flat sealing)

### M22 Panel mount USB 2.0 - Type A

**Connector:**

**Part No:**

Panel Conn, Black

1310-1016-01



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## Waterproof USB Connectors

### M22-Panel mount Connector

Front mounting  
with USB 3.0 Type A

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 9

Housing: Plastic, Black (PA)

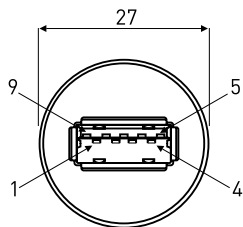
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

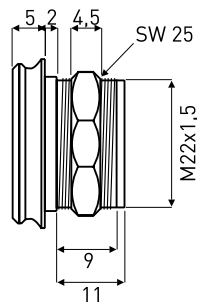
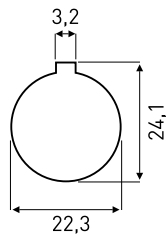
Contact plating: Gold

Connection: Solder

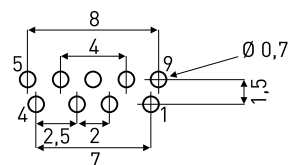
Kit: Including CAP + nut



Recommended  
Panel cut out

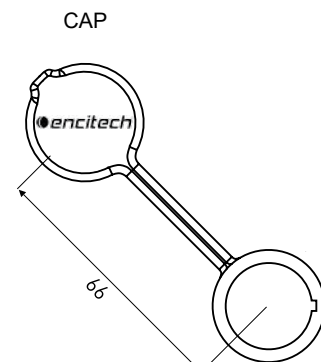


PCB Layout



Pin out USB A

- 1 - VCC(VBus)
- 2 - D-
- 3 - D+
- 4 - GND
- 5 - SSRX-
- 6 - SSRX+
- 7 - GND
- 8 - SSTX-
- 9 - SSTX+



1.9mm thick strap  
(Serves also as flat sealing)

### M22 Panel mount USB 3.0 - Type A

**Connector:**

**Part No:**

Panel Conn, Black

1310-1017-01



**Encitech Connectors AB**

Rörkullsvägen 4  
SE-302 41 HALMSTAD, Sweden

Tel: +46-(0)35-15 13 90  
e-mail: connectors@encitech.com

[www.encitech.com](http://www.encitech.com)

## Waterproof USB Connectors

### USB 2.0-Cable

End 1: M22 Panel Connector

with USB 2.0 Type A

End 2: Plug, USB 2.0 Type A

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 4

Housing: Plastic, Black (PA)

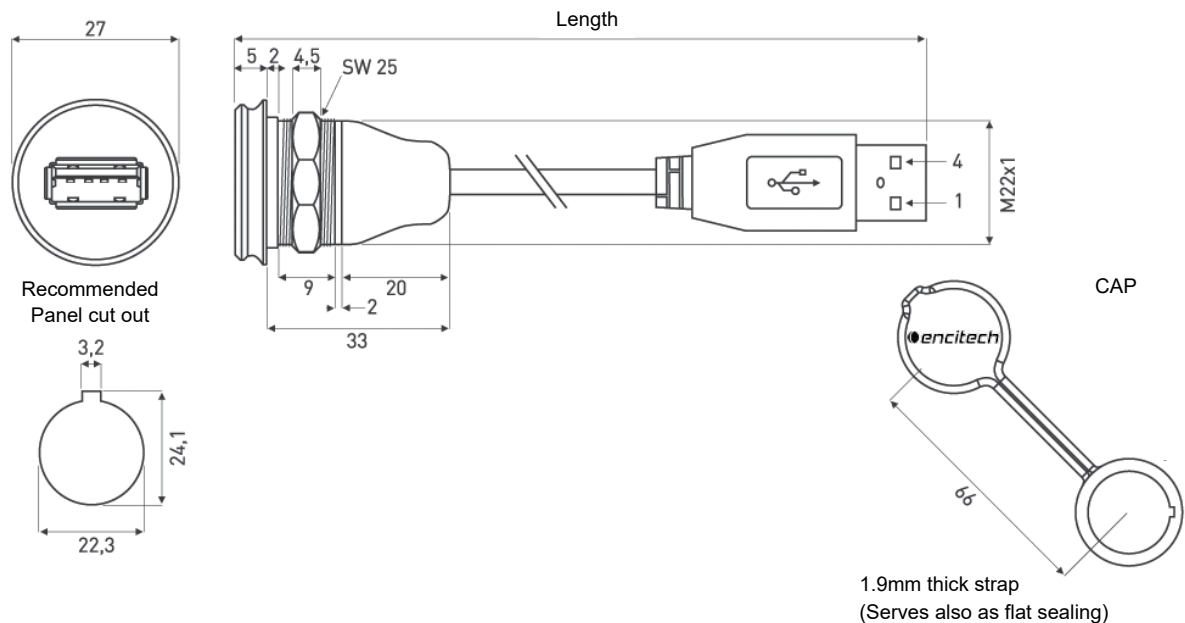
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Connection: Solder

Kit: Including CAP + nut



### USB 2.0 - Type A Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1018-01
1.0m	1310-1018-02
1.5m	1310-1018-03
2.0m	1310-1018-04
3.0m	1310-1018-05



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e-mail: connectors@encitech.com

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## Waterproof USB Connectors

USB 3.0 cable  
 End 1: M22 Panel Connector  
 with USB 3.0 Type A  
 End 2: Plug, USB 3.0 Type A

Protection: IP 64 / IP 67  
 (Assembled with CAP)

Contacts: 9

Housing: Plastic, Black (PA)

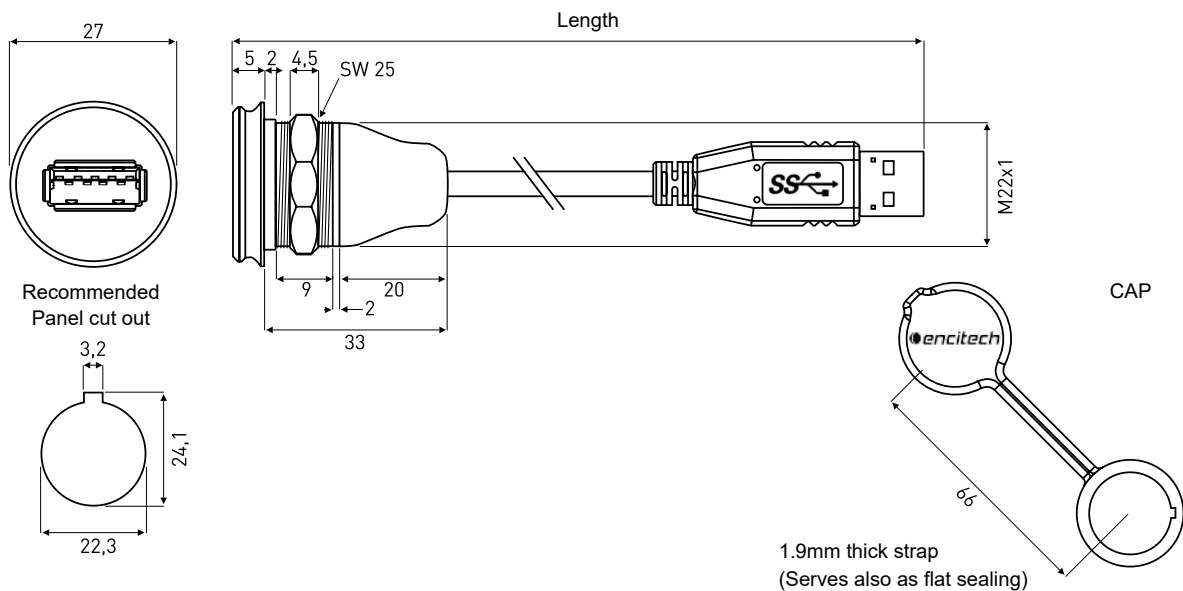
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Connection: Solder

Kit: Including CAP + nut



### USB 3.0 - Type A Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1019-01
1.0m	1310-1019-02
1.5m	1310-1019-03
2.0m	1310-1019-04
3.0m	1310-1019-05



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## Waterproof USB Connectors

### USB 2.0-Cable

End 1: 2x M22 Panel Connector USB-A 2.0

End 2: 2x Cable, USB-A 2.0 Plug

Protection: IP 64 / IP 67

(Assembled with CAP)

Contacts: 4 + Shield

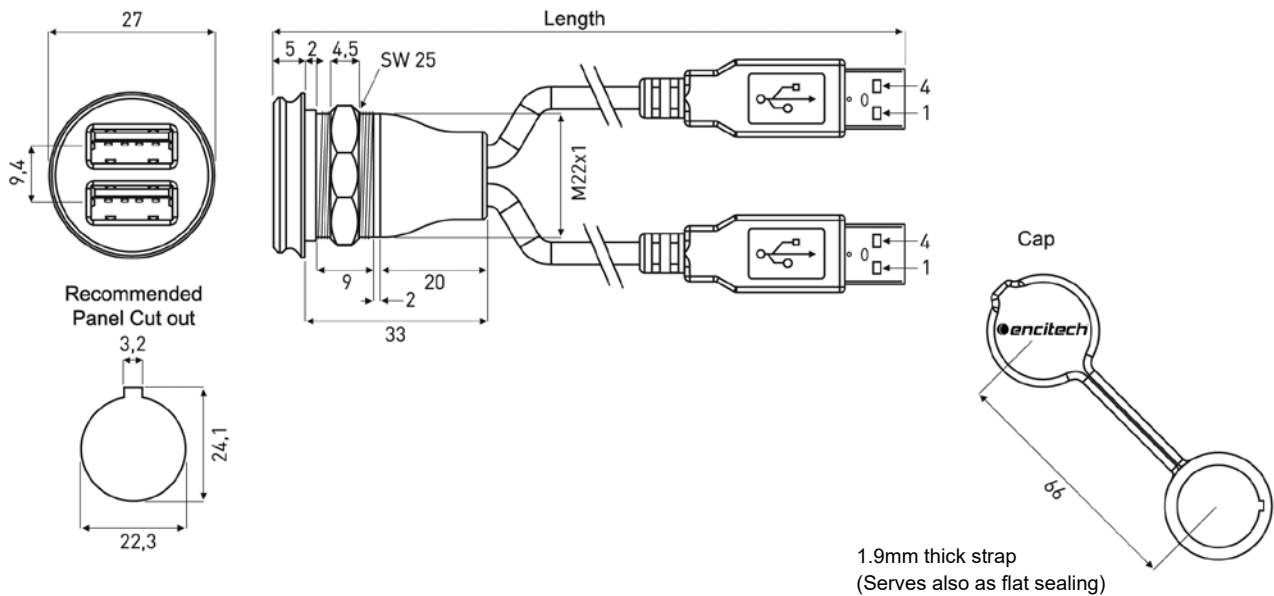
Housing: Plastic, Black (PA)

Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



### USB 2.0 - Type A Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1028-01
1.0m	1310-1028-02
1.5m	1310-1028-03
2.0m	1310-1028-04
3.0m	1310-1028-05



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## Waterproof USB Connectors

USB 3.0 cable

End 1: 2x M22 Panel Connector USB-A 3.0

End 2: 2x Cable, USB-A 3.0 Plug

Protection: IP 64 / IP 67

(Assembled with CAP)

Contacts: 9

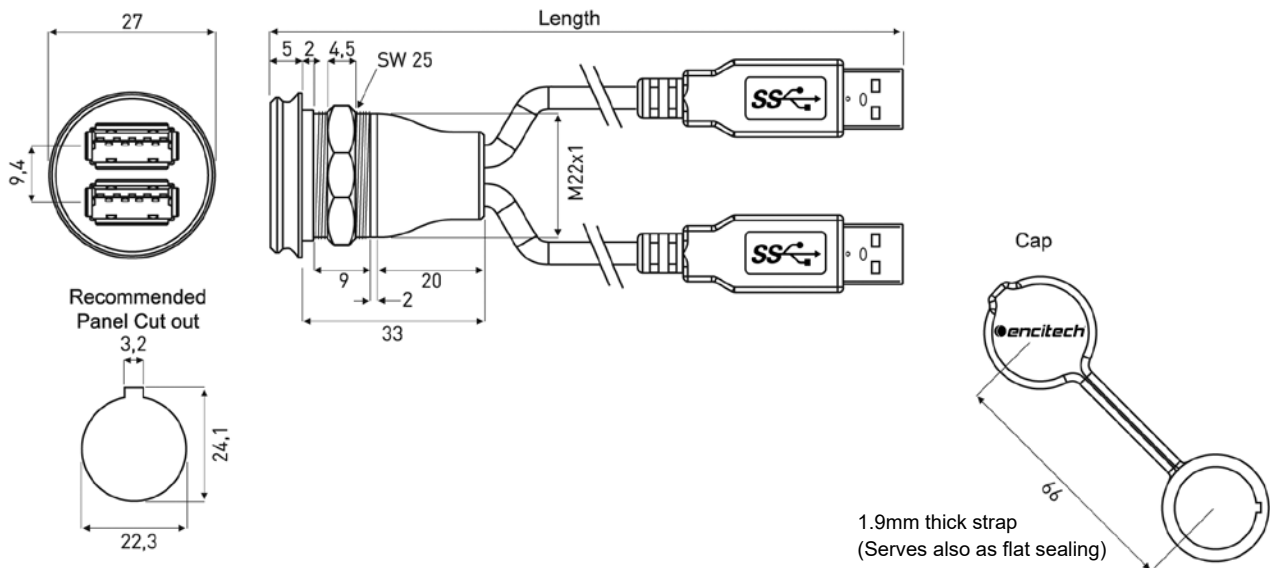
Housing: Plastic, Black (PA)

Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



### USB 3.0 - Type A Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1029-01
1.0m	1310-1029-02
1.5m	1310-1029-03
2.0m	1310-1029-04
3.0m	1310-1029-05



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## Waterproof USB Connectors

### M22-Panel mount Connector

#### Front mounting Coupler USB 3.0 Type A to USB 3.0 Type A

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 9

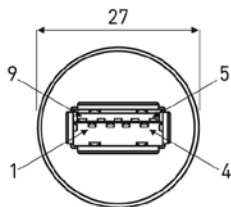
Housing: Plastic, Black (PA)

Cap: Elastolan®

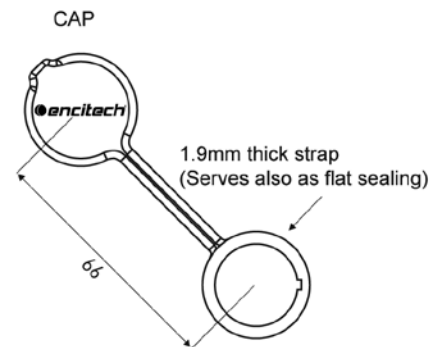
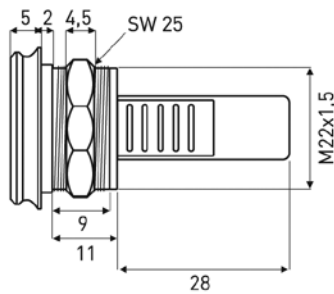
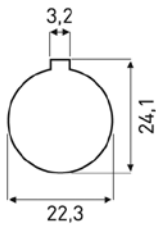
Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



Recommended  
Panel cut out



### M22 Panel mount USB-A 3.0 Coupler

**Connector:**

**Part No:**

Panel Conn, Black

1310-1030-01



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## Waterproof USB Connectors

### M22-Panel mount Connector

#### Front mounting Coupler USB 3.0 Type B to USB 3.0 Type A

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 9

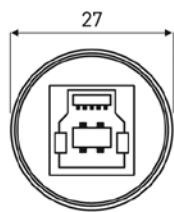
Housing: Plastic, Black (PA)

Cap: Elastolan®

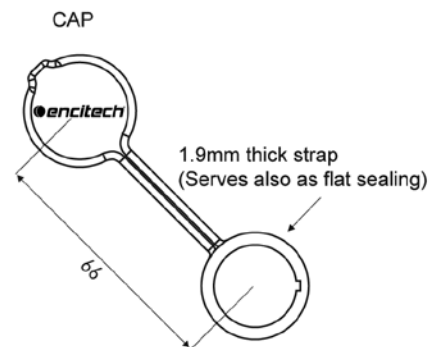
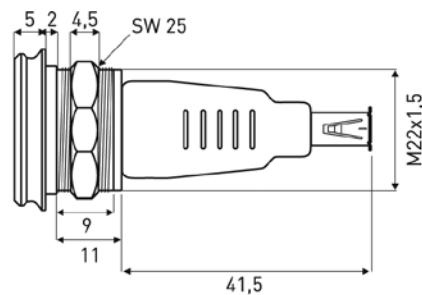
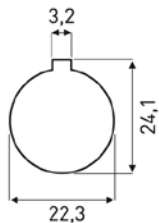
Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



Recommended  
Panel cut out



### M22 Panel mount USB-B 3.0 Coupler

**Connector:**

**Part No:**

Panel Conn, Black

1310-1030-02



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## Waterproof USB Connectors

### M22-Panel mount Connector

#### Front mounting Adapter USB Type A

#### Suitable for Nano-Stick

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 4 + 1 Shield

Housing: Plastic, Black (PA)

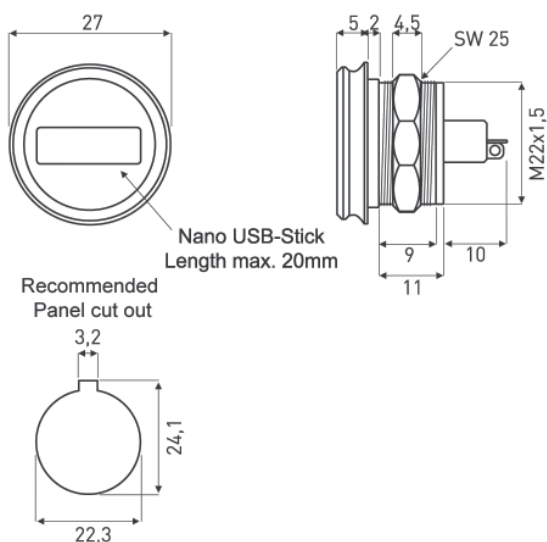
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

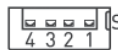
Contact plating: Gold

Kit: Including CAP + Circular nut (M22)

(Nano-Stick not included)

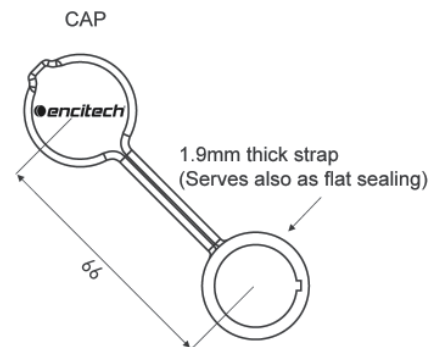


#### Solder Pin Layout



#### Pin out USB-A

- 1 - +5 V
- 2 - D-
- 3 - D+
- 4 - GND
- S - Shield



### M22 Panel mount USB-A 2.0 Adapter for Nano-Stick

**Connector:**

**Part No:**

Panel Conn, Black

1310-1031-01



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## Waterproof USB Connectors

### M22-Panel mount Connector

End 1: Front mounting Adapter USB Type A

Suitable for Nano-Stick

End 2: Cable with USB-A 2.0 Plug

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 4 + 1 Shield

Housing: Plastic, Black (PA)

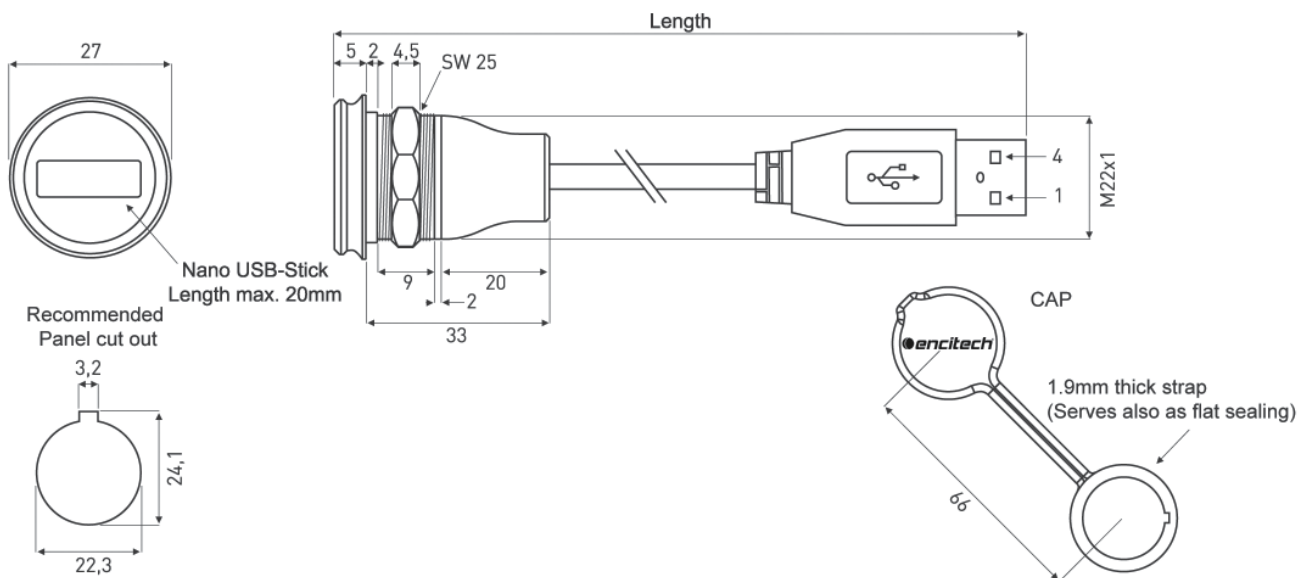
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + Circular nut (M22)

(Nano-Stick not included)



### M22 Panel mount USB-A 2.0 Adapter for Nano-Stick with cable

Cable length:	Part No:
0.5m	1310-1032-01
1.0m	1310-1032-02
1.5m	1310-1032-03
2.0m	1310-1032-04
3.0m	1310-1032-05



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## Waterproof USB Connectors

### M22-Panel mount Connector Front mounting with Mini USB 2.0 Type AB

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 5 + 1 (Shield)

Housing: Plastic, Black (PA)

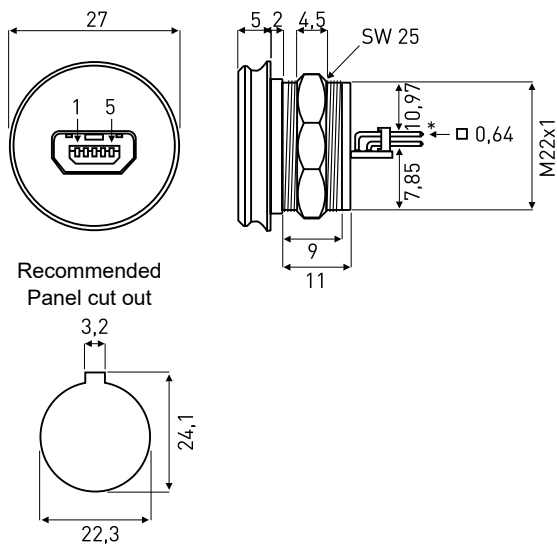
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

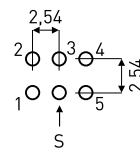
Contact plating: Gold

Connection: Solder

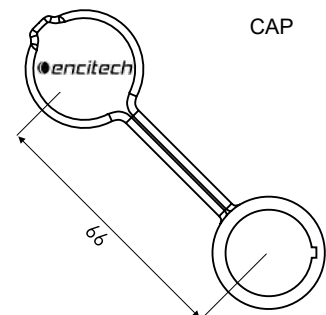
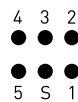
Kit: Including CAP + nut



#### PCB Layout



#### Pin out Mini USB



1.9mm thick strap  
(Serves also as flat sealing)

### M22 Panel mount Mini USB 2.0 - Type AB

**Connector:**

**Part No:**

Panel Conn, Black

1310-1020-01



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SE-302 41 HALMSTAD, Sweden

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e-mail: connectors@encitech.com

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## Waterproof USB Connectors

### Mini USB 2.0-Cable

End 1: M22 panel connector with

Mini USB 2.0 Type AB

End 2: Plug, Mini USB 2.0 Type B

Protection: IP 64 / IP 67

(Assembled with CAP)

Contacts: 5

Housing: Plastic, Black (PA)

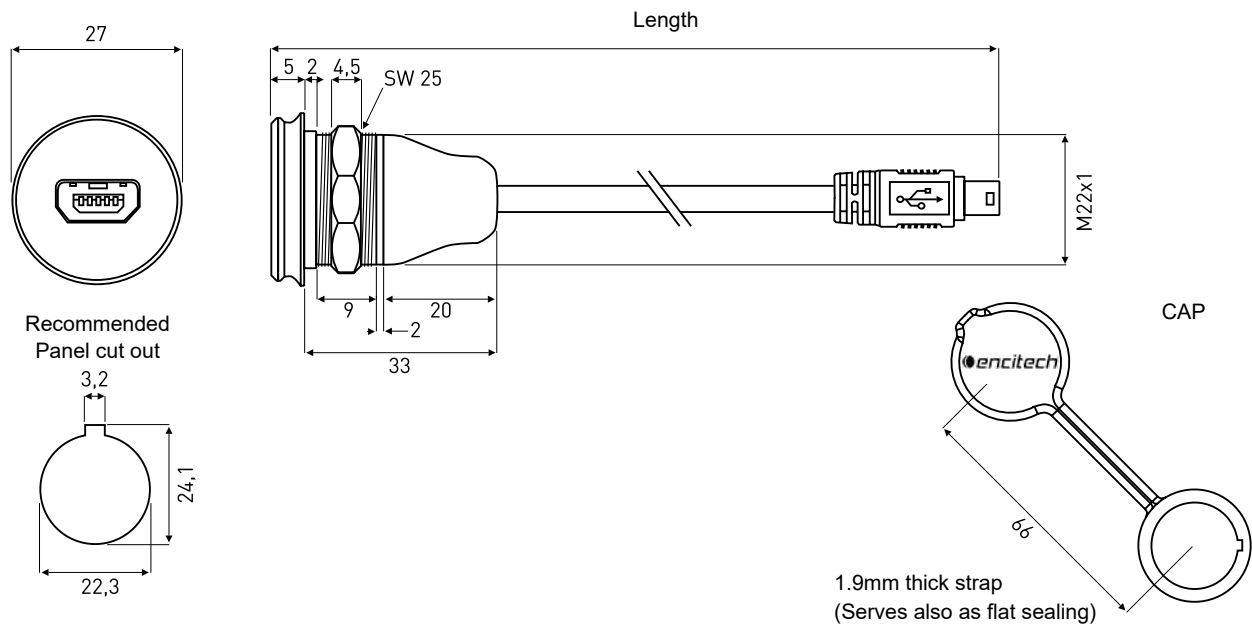
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Connection: Solder

Kit: Including CAP + nut



### Mini USB 2.0 - Cable

Cable length:	Part No:
0.5m	1310-1021-01
1.0m	1310-1021-02
1.5m	1310-1021-03
2.0m	1310-1021-04
3.0m	1310-1021-05



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## Waterproof USB Connectors

### M22-Panel mount Connector Front mounting with Micro USB 2.0 Type B

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 5 + 1 (Shield)

Housing: Plastic, Black (PA)

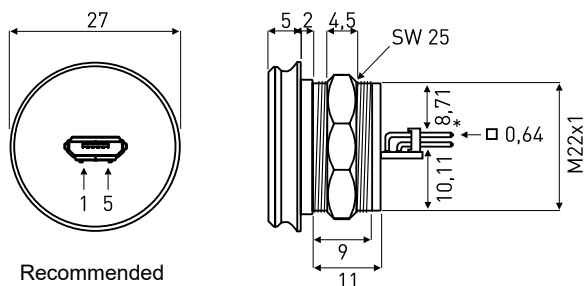
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

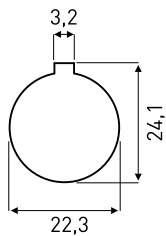
Contact plating: Gold

Connection: Solder

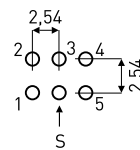
Kit: Including CAP + nut



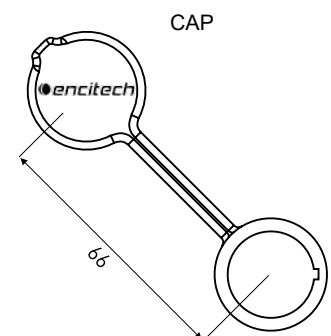
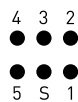
Recommended  
Panel cut out



PCB Layout



Pin out Mini USB



1.9mm thick strap  
(Serves also as flat sealing)

#### M22 Panel mount Micro USB 2.0 - Type B

Connector:	Part No:
Panel Conn, Black	1310-1022-01



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## Waterproof USB Connectors

### Micro USB 2.0-Cable

End 1: M22 panel connector with

Micro USB 2.0 Type B

End 2: Plug, Micro USB 2.0 Type B

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 5

Housing: Plastic, Black (PA)

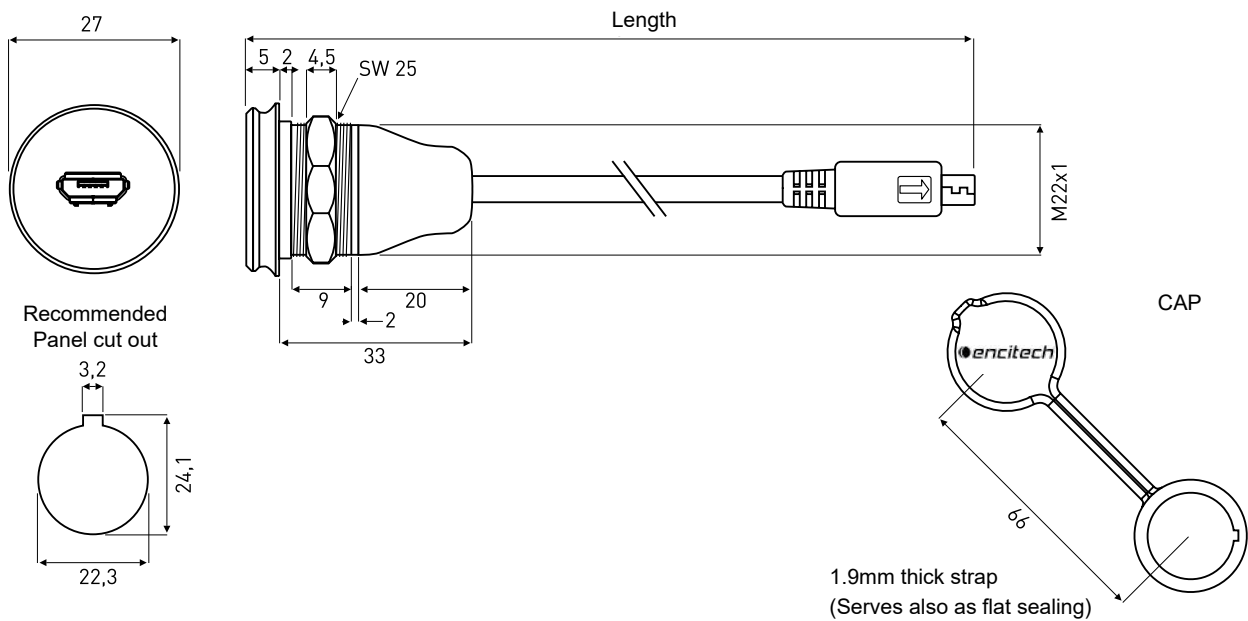
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Connection: Solder

Kit: Including CAP + nut



### Micro USB 2.0 - Panel Connector with Cable - Type B

Cable length:	Part No:
0.5m	1310-1023-01
1.0m	1310-1023-02
1.5m	1310-1023-03
2.0m	1310-1023-04
3.0m	1310-1023-05



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## Waterproof USB Connectors

M22-Panel mount Connector  
 Front mounting, Coupler style  
 with Micro USB 3.1 Type C

Protection: IP 64 / IP 67  
 (Assembled with CAP)

Contacts: 24

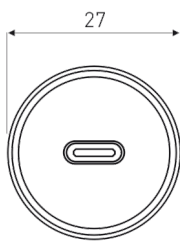
Housing: Plastic, Black (PA)

Cap: Elastolan®

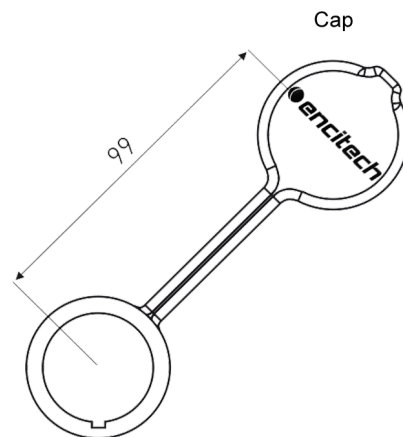
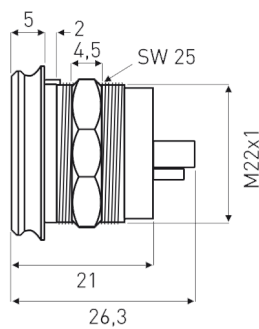
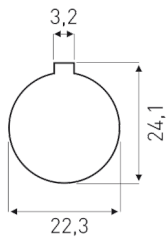
Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



Recommended  
 Panel Cut out



### M22 Panel mount USB 3.1 - Type C

Connector:	Part No:
Panel Conn, Black	1310-1041-01



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## Waterproof USB Connectors

### M30-Panel mount Coupler Front mounting USB 3.0 Type A to USB 3.0 Type A

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 9

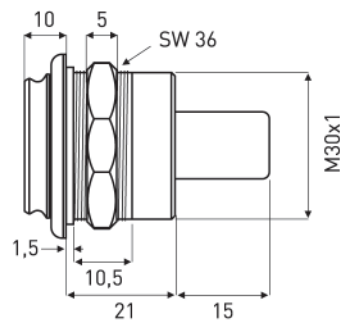
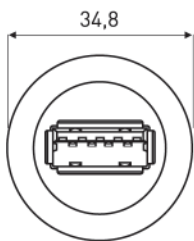
Housing: Plastic, Black (PA)

Cap: Elastolan®

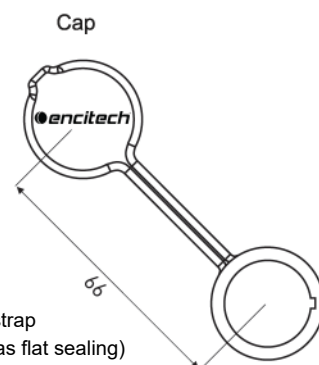
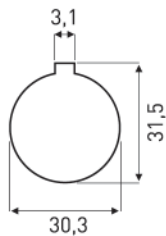
Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



Recommended  
Panel Cut out



### M30 Panel mount Adapter Type A

Connector:	Part No:
Panel Conn, Black	1310-1034-01



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## Waterproof USB Connectors

### M30-Panel mount Coupler Front mounting USB 3.0 Type B to USB 3.0 Type A

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 9

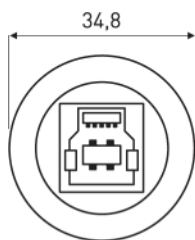
Housing: Plastic, Black (PA)

Cap: Elastolan®

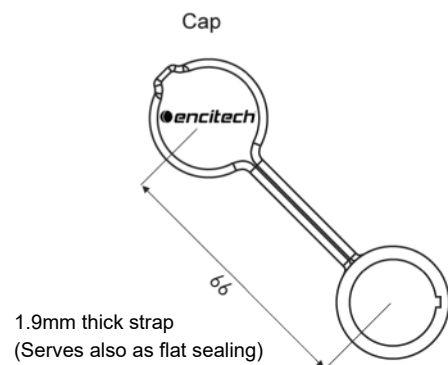
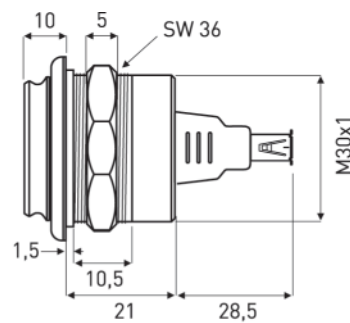
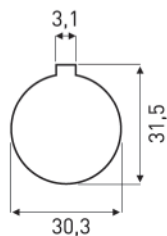
Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



Recommended  
Panel Cut out



### M30 Panel mount Adapter Type B

Connector:	Part No:
Panel Conn, Black	1310-1034-02



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## Waterproof USB Connectors

### USB 2.0-Cable

End 1: M30 Panel connector USB 2.0 Type A

End 2: Plug USB 2.0 Type A

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 4 + Shield

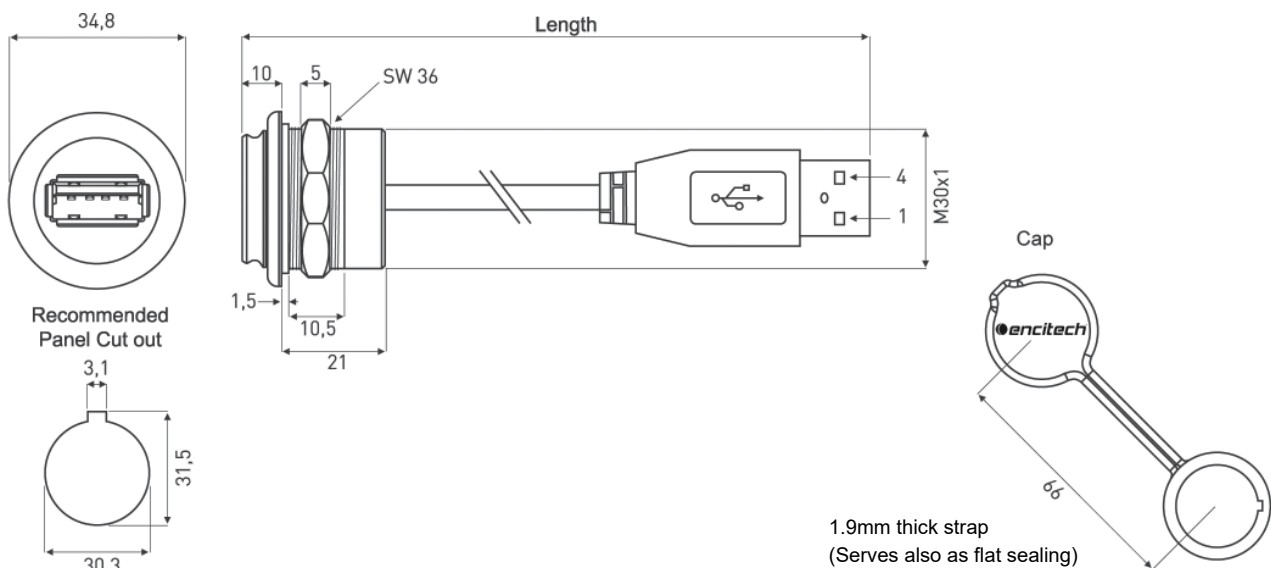
Housing: Plastic, Black (PA)

Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



#### M30 USB-A 2.0 - Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1024-01
1.0m	1310-1024-02
1.5m	1310-1024-03
2.0m	1310-1024-04
3.0m	1310-1024-05



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## Waterproof USB Connectors

### USB 3.0-Cable

End 1: M30 Panel connector USB 3.0 Type A

End 2: Plug USB 3.0 Type A

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 4 + Shield

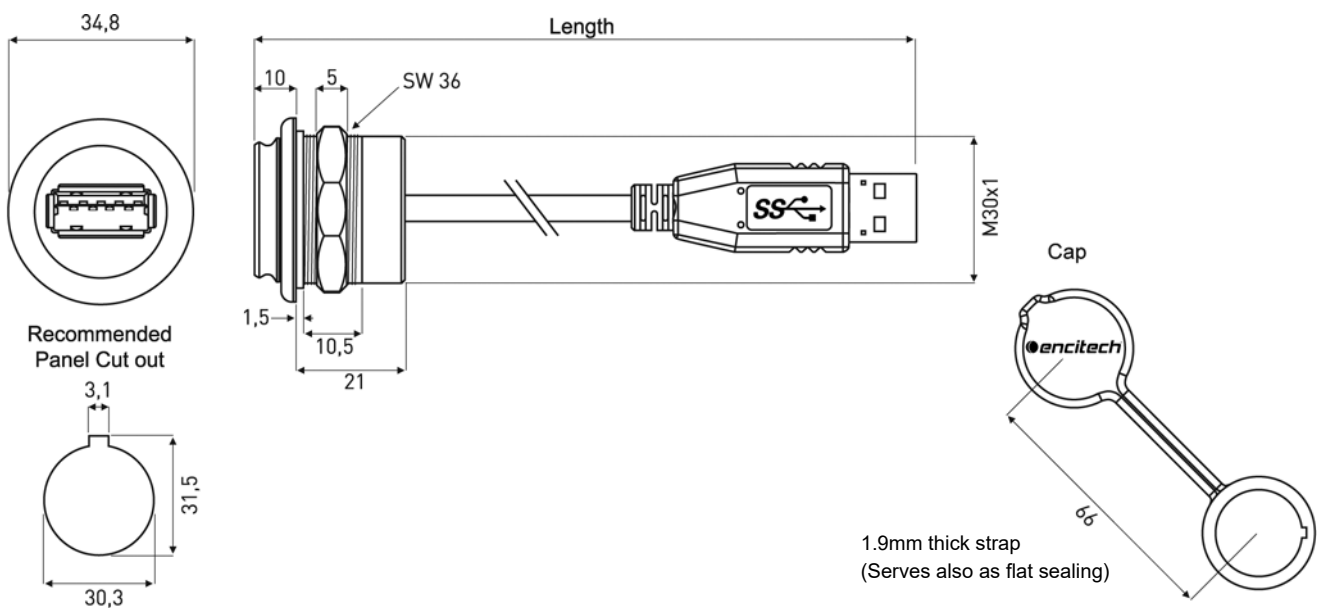
Housing: Plastic, Black (PA)

Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



#### M30 USB-A 3.0 - Panel Connector with Cable

Cable length:	Part No:
0.5m	1310-1025-01
1.0m	1310-1025-02
1.5m	1310-1025-03
2.0m	1310-1025-04
3.0m	1310-1025-05



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## Waterproof USB Connectors

### USB 2.0-Cable

End 1: 2x M30 Panel Connector USB-A 2.0

End 2: 2x Cable, USB-A 2.0 Plug

Protection: IP 64 / IP 67

(Assembled with CAP)

Contacts: 4 + Shield

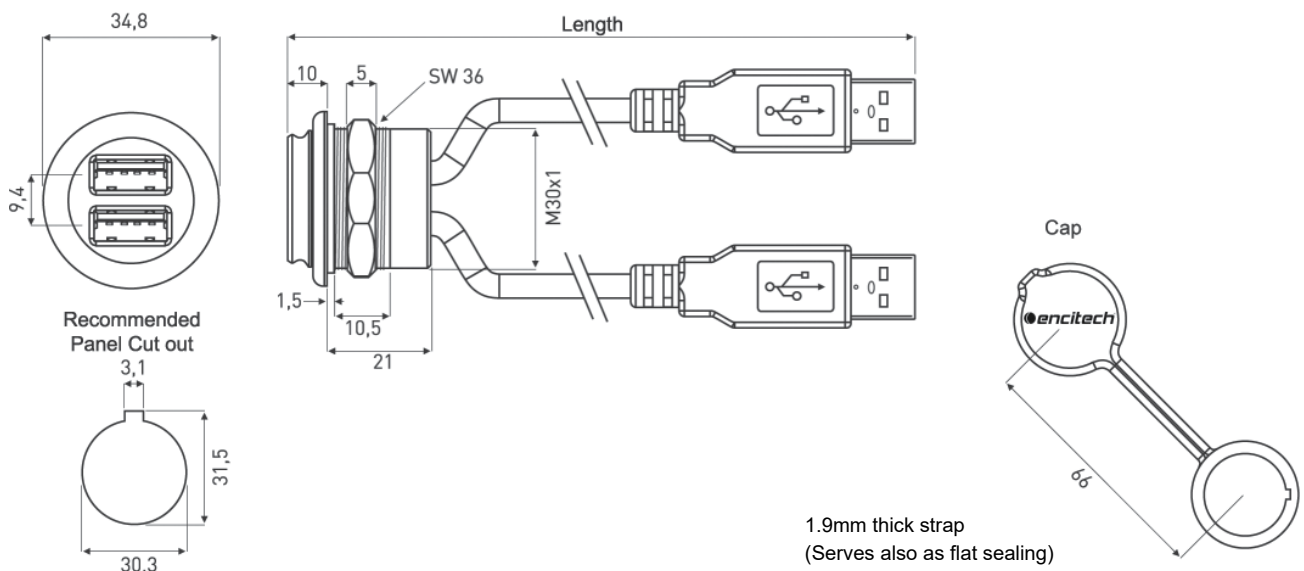
Housing: Plastic, Black (PA)

Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



#### M30 USB-A 2.0 - 2x Panel Connector with 2x Cable

Cable length:	Part No:
0.5m	1310-1035-01
1.0m	1310-1035-02
1.5m	1310-1035-03
2.0m	1310-1035-04
3.0m	1310-1035-05



## Waterproof USB Connectors

USB 3.0 cable

End 1: 2x M30 Panel Connector USB-A 3.0

End 2: 2x Cable, USB-A 3.0 Plug

Protection: IP 64 / IP 67

(Assembled with CAP)

Contacts: 9

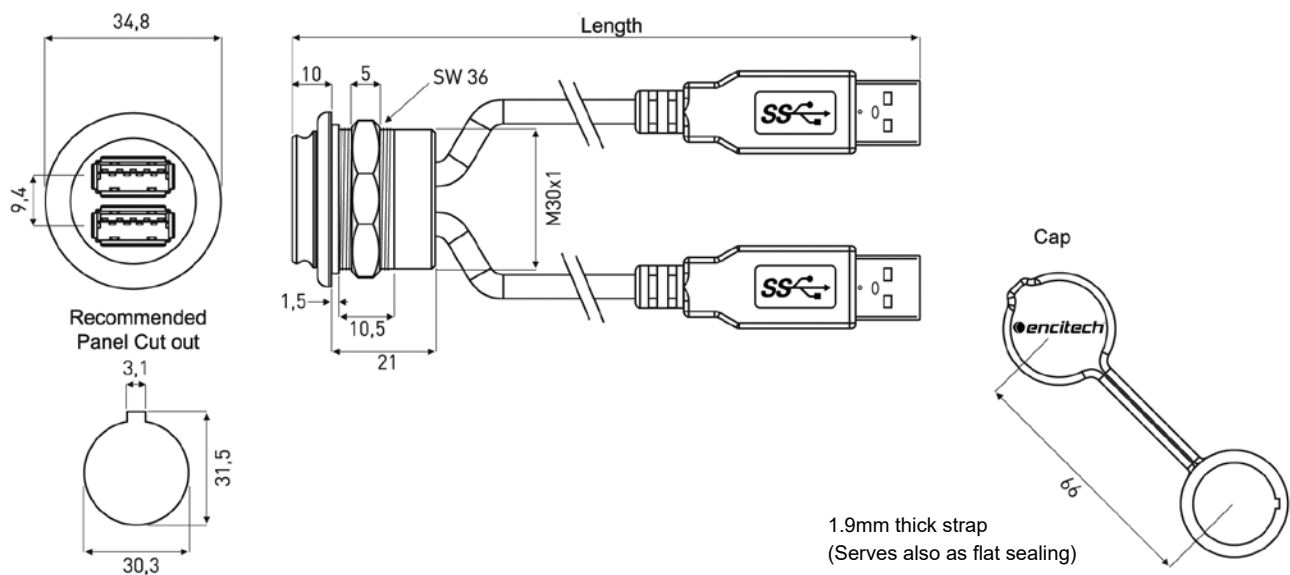
Housing: Plastic, Black (PA)

Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut



### M30 USB-A 3.0 - 2x Panel Connector with 2x Cable

Cable length:	Part No:
0.5m	1310-1036-01
1.0m	1310-1036-02
1.5m	1310-1036-03
2.0m	1310-1036-04
3.0m	1310-1036-05



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## Waterproof USB Connectors

### USB 2.0-Adapter + Cable

1: Front mounting Adaptor USB Type A

Suitable for Nano-Stick

2: Cable with USB-A 2.0 Plug

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 4 + Shield

Housing: Plastic, Black (PA)

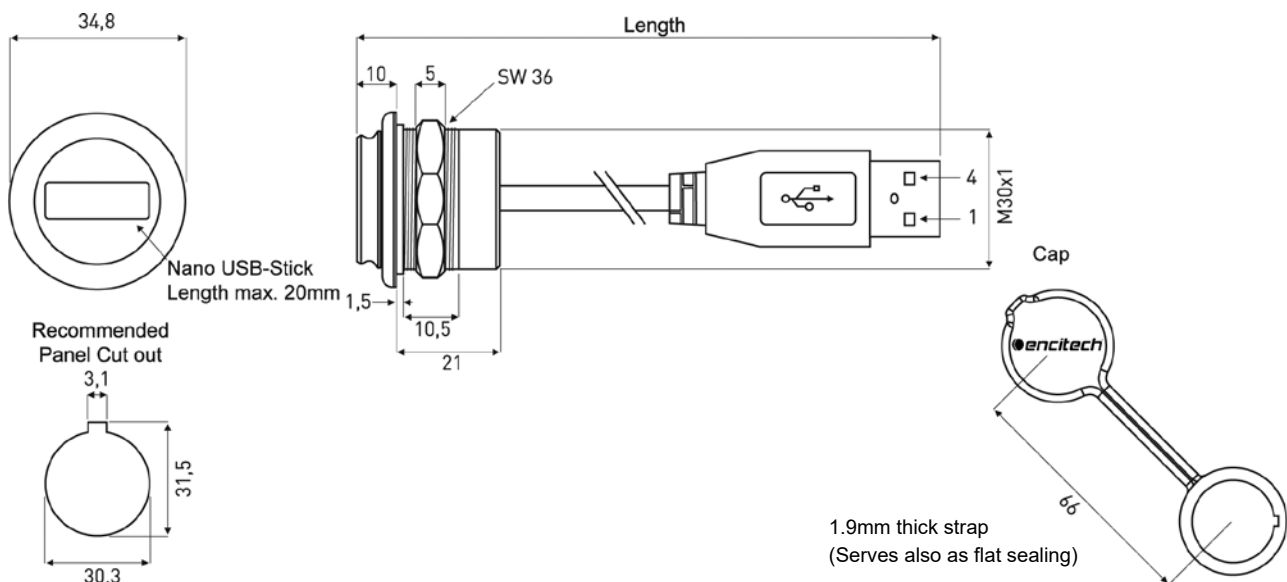
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut

(Nano-Stick not included)



#### M30 Adaptor for Nano-Stick with Cable USB-A 2.0

Cable length:	Part No:
0.5m	1310-1037-01
1.0m	1310-1037-02
1.5m	1310-1037-03
2.0m	1310-1037-04
3.0m	1310-1037-05



## Waterproof USB Connectors

### Mini USB 2.0-Cable

End 1: M30 panel conn. Mini USB 2.0 Type AB

End 2: Plug, Mini USB 2.0 Type B

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 5

Housing: Plastic, Black (PA)

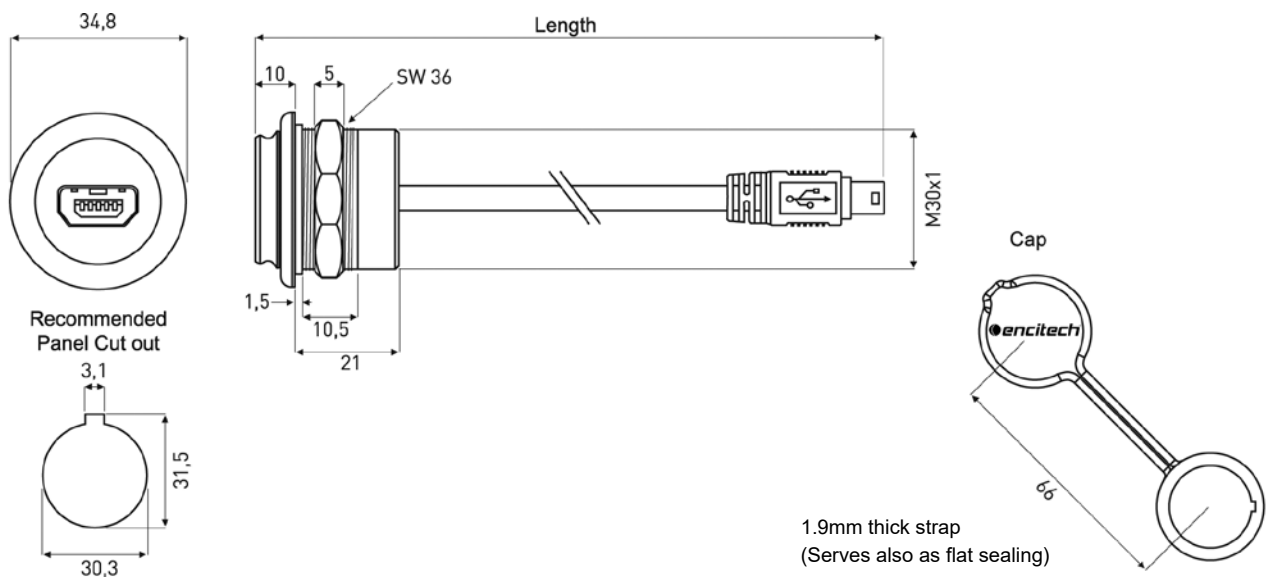
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Connection: Solder

Kit: Including CAP + nut



#### M30 Mini USB 2.0 with Cable

Cable length:	Part No:
0.5m	1310-1026-01
1.0m	1310-1026-02
1.5m	1310-1026-03
2.0m	1310-1026-04
3.0m	1310-1026-05



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## Waterproof USB Connectors

### Micro USB 2.0-Cable

End 1: M30 panel conn. Micro USB 2.0 Type B

End 2: Plug, Micro USB 2.0 Type B

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 5

Housing: Plastic, Black (PA)

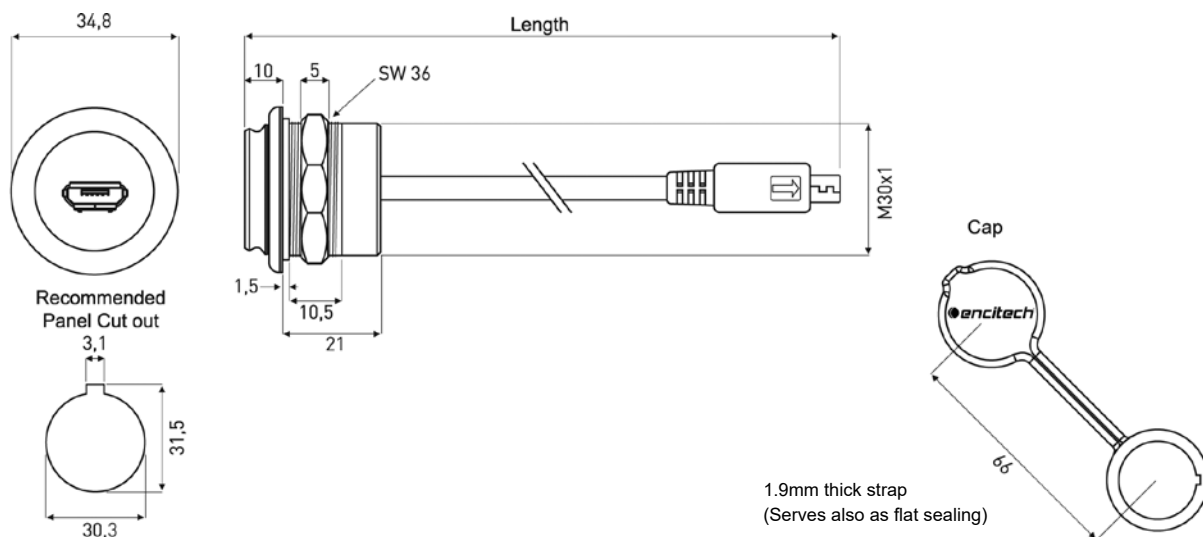
Cap: Elastolan®

Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Connection: Solder

Kit: Including CAP + nut



#### M30 Micro USB 2.0 with Cable

Cable length:	Part No:
0.5m	1310-1027-01
1.0m	1310-1027-02
1.5m	1310-1027-03
2.0m	1310-1027-04
3.0m	1310-1027-05



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## Waterproof USB Connector with HAN® Housing

USB 2.0-Connection + Cable

End 1: HAN® 3A-Conn. housing with

USB 2.0 Type A contact

End 2: Plug, USB 2.0 Type A

Protection: IP 65

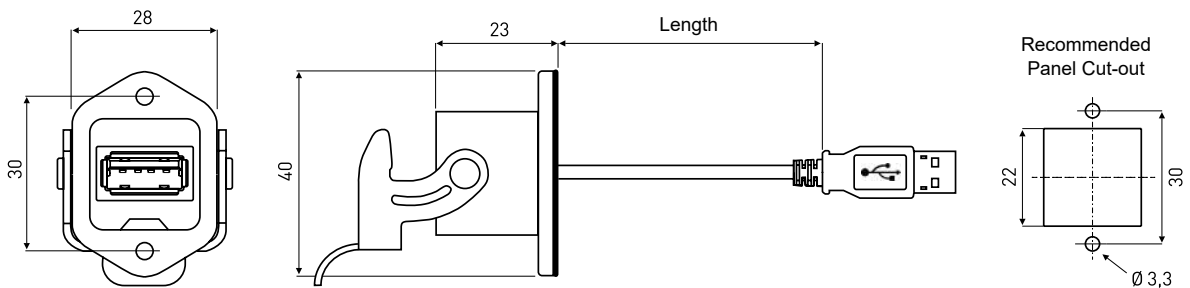
(In closed state w. Hinged Cap )

Contacts: 4

Materials: Aluminium / Plastic

Contact plating: Gold-plated

Kit: Including Cap + sealing



### USB 2.0 - Connection Cable with HAN® housing

Cable length:	Housing/Type:	Part No:
1.8m	Plastic / With Cap	1310-0007-01
3.0m	Plastic / With Cap	1310-0007-02
1.8m	Metal / With Cap	1310-0007-03
3.0m	Metal / With Cap	1310-0007-04
1.8m	Metal / With Hinged Cap	1310-0007-05
3.0m	Metal / With Hinged Cap	1310-0007-06



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# Waterproof HDMI Adapter

M22-Panel mount Connector  
Front mounting HDMI Adapter

Protection: IP 64 / IP 67

(Assembled with CAP)

Contacts: 19

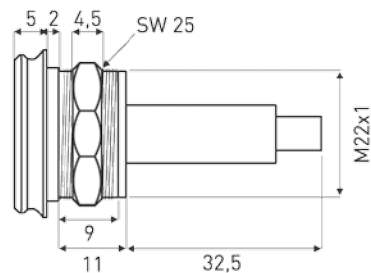
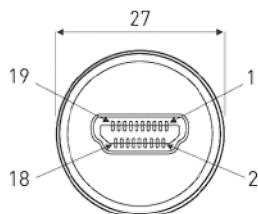
Housing: Plastic, Black (PA)

Cap: Elastolan®

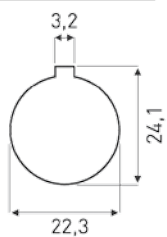
Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut

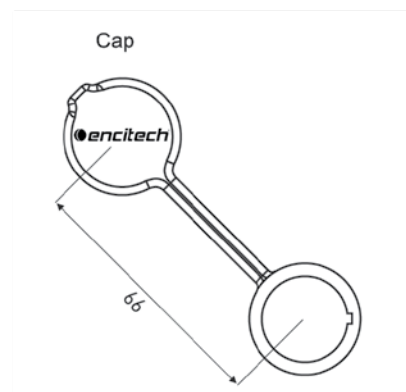


Recommended  
Panel Cut out



## Pin Assignment

3		3	[TMDS Data 2-]
1		1	[TMDS Data 2+]
2		2	[TMDS Data 2 Shield]
6		6	[TMDS Data 1-]
4		4	[TMDS Data 1+]
5		5	[TMDS Data 1 Shield]
9		9	[TMDS Data 0-]
7		7	[TMDS Data 0+]
8		8	[TMDS Data 0 Shield]
12		12	[TMDS Clock -]
10		10	[TMDS Clock +]
11		11	[TMDS Clock Shield]
18		18	[+5V Power]
17		17	[Ground]
15		15	[DCC Clock]
16		16	[DCC Data]
19		19	[Hot Plug Detect]
13		13	[CEC]
14		14	[NO FUNCTION]
SHELL		SHELL	[SHELL]



## M22 HDMI Adapter

Connector:

Part No:

Panel Conn, Black

1310-1033-01



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# Waterproof HDMI Adapter

M30-Panel mount Connector  
Front mounting HDMI Adapter

Protection: IP 64 / IP 67  
(Assembled with CAP)

Contacts: 19

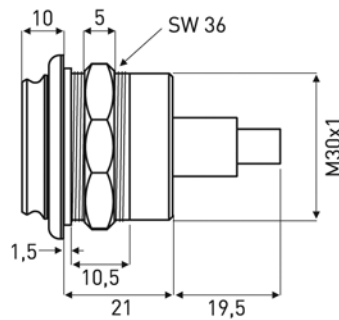
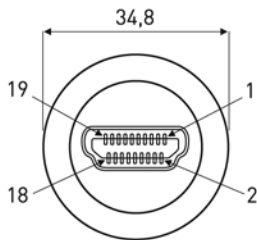
Housing: Plastic, Black (PA)

Cap: Elastolan®

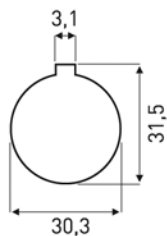
Plastic nut: Plastic, Black (PA)

Contact plating: Gold

Kit: Including CAP + nut

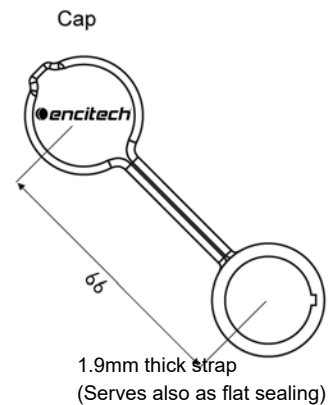


Recommended  
Panel Cut out



### Pin Assignment

3		3	[TMDS Data 2-]
1		1	[TMDS Data 2+]
2		2	[TMDS Data 2 Shield]
6		6	[TMDS Data 1-]
4		4	[TMDS Data 1+]
5		5	[TMDS Data 1 Shield]
9		9	[TMDS Data 0-]
7		7	[TMDS Data 0+]
8		8	[TMDS Data 0 Shield]
12		12	[TMDS Clock -]
10		10	[TMDS Clock +]
11		11	[TMDS Clock Shield]
18		18	[+5V Power]
17		17	[Ground]
15		15	[DCC Clock]
16		16	[DCC Data]
19		19	[Hot Plug Detect]
13		13	[CEC]
14		14	NO FUNCTION
SHELL		SHELL	



1.9mm thick strap  
(Serves also as flat sealing)

## M30 HDMI Adapter

Connector:

Part No:

Panel Conn, Black

1310-1033-02



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# Waterproof USB Connectors

## M20 Connector Kit

With USB 2.0 connector type A  
and 200 mm connection cable

Protection: IP 65  
(Assembled with CAP)

Contacts: 4 + 1 Shield connection

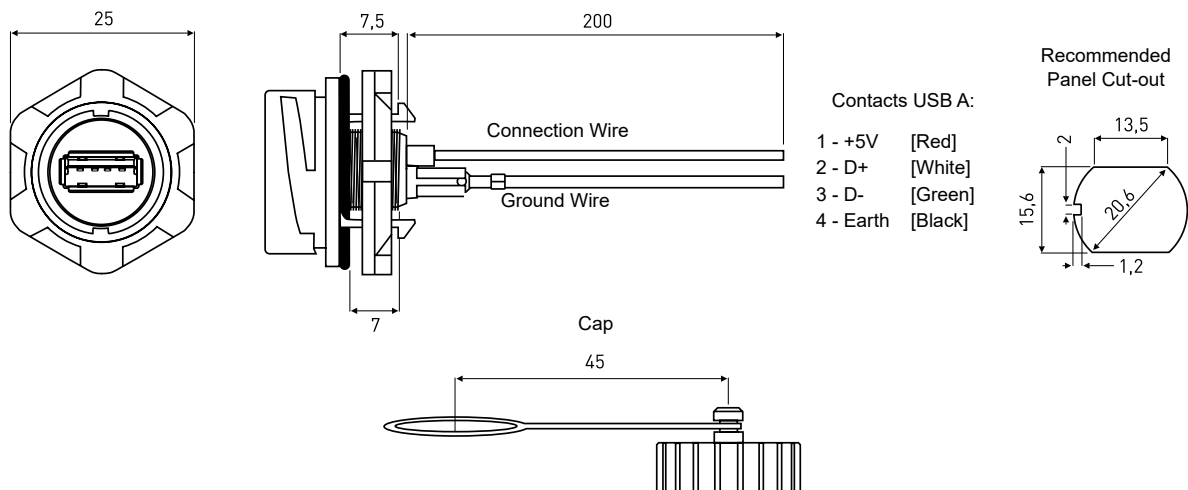
Connection: Stranded UL 1061, AWG 26  
Grounding wire 0.5mm (green / yellow)

Housing material: Plastic, Black (PA)

Contact plating: Gold-plated

Kit: Including Contact, seal, screw cap,  
cable, lock nut, ground braid

Note: Devices can be screwed or snapped  
in 7 mm wall units



### M20 Panel mount Micro USB 2.0 - Type B

Connector:	Part No:
Panel Conn, Black	1310-0005-01

Accessories:	Part No:
CAP	1310-0006-01
Seal / Gasket	1310-0006-02
Lock Nut M20x1	1310-0006-03
Connection Cable with Contact	1310-0006-04
Ground Wire - single	1310-0006-05



## Waterproof USB Connectors

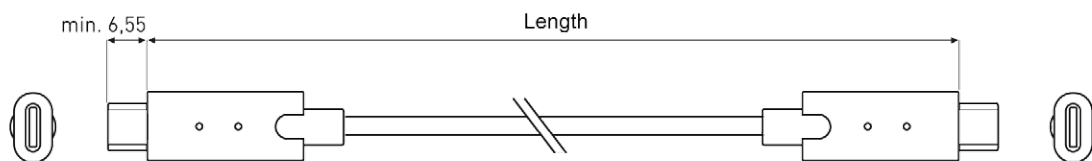
### USB 3.1 Connection Cable

End 1&2: Plug, USB 3.1 Type C

Contacts: 24

Housing: Plastic, Black (PVC)

Contact plating: Gold



#### USB 3.1 Connection Cable

Cable length:	Part No:
1.0m	1310-1042-02
1.5m	1310-1042-03



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