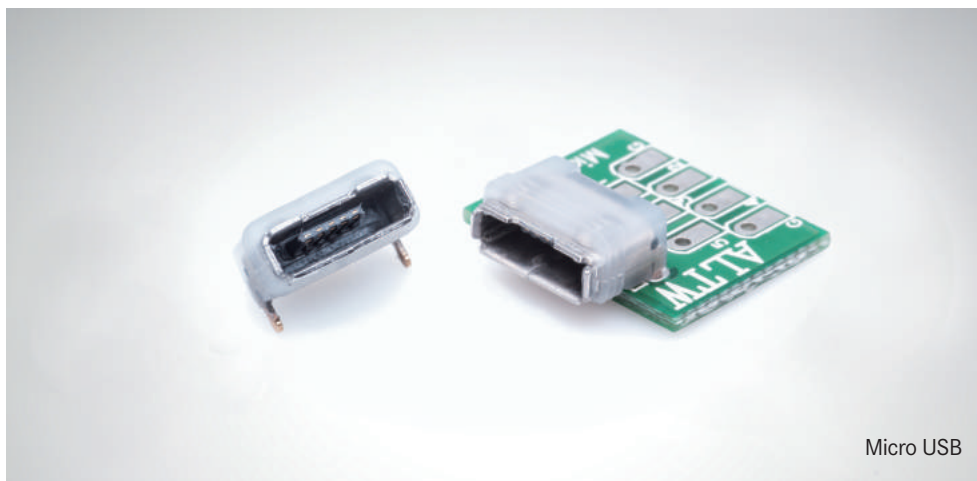


## USB/Micro USB



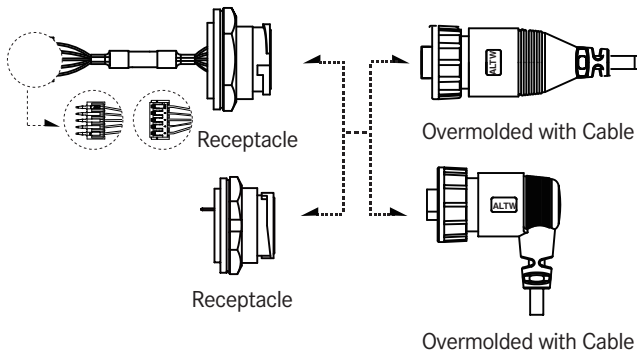
USB Type C



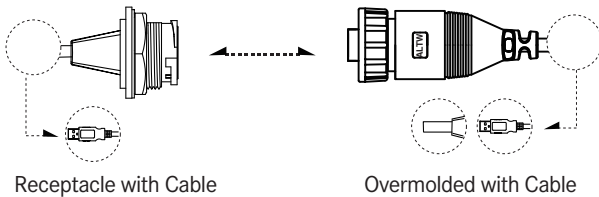
Micro USB

# Range Overview

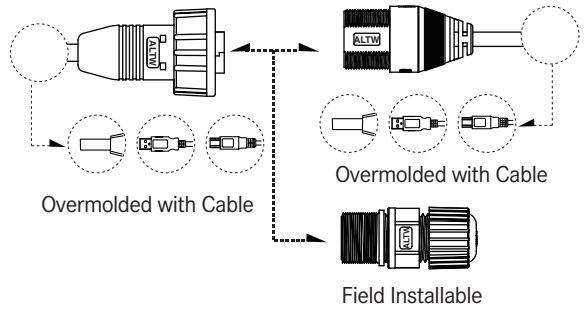
## Receptacle to Overmolded with Cable



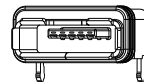
## Receptacle with Cable to Overmolded with Cable



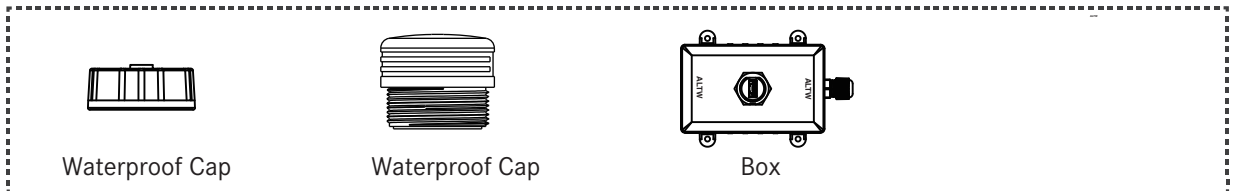
## In-Line



## Micro USB



## Accessories



【Note】 Design and specification are subject to change without notice.

## Specification | USB Type A/B

<b>Identifications</b>	USB Type A 3.0 USB Type A 2.0 USB Type B 2.0 Mini USB Type B 2.0
<b>Description</b>	Receptacle Receptacle With Cable Overmolded with Cable Field Installable
<b>Current Rating / Data</b>	USB 2.0: 1.5A USB 3.0: 1A
<b>Material</b>	Contacts: Copper Alloy, Gold Plated Connector Body (Housing): PBT, UL94V-0
<b>Waterproof Rating</b>	IP67/68
<b>Temperature Range</b>	Receptacle: Nylon+GF: -40°C~105°C M-PPE: -40°C~105°C ABS: -20°C~80°C Receptacle with cable: Nylon+GF: -20°C~105°C ABS: -20°C~80°C Overmolded with Cable: -20°C~80°C Field Installable: -20°C~80°C
<b>Contact Resistance</b>	≤ 30mΩ
<b>Insulation Resistance</b>	≥ 1000MΩ at DC500V
<b>More to know</b>	Standard Cable Length - USB 2.0: 1 ~ 5m - USB 3.0: 1 ~ 3m - Mini USB: 1 ~ 4m

## Specification | USB Type C

<b>Identifications</b>	USB Type C 3.1
<b>Description</b>	Receptacle Overmolded with Cable
<b>Current Rating / Data</b>	3A
<b>Material</b>	Contacts: Copper Alloy, Gold Plated Connector Body (Housing): PP, UL94V-0, f1 Rated
<b>Waterproof Rating</b>	IP68
<b>Temperature Range</b>	-40°C ~ 105°C
<b>Contact Resistance</b>	≤ 50mΩ
<b>Insulation Resistance</b>	≥ 100MΩ at DC500V
<b>More to know</b>	Standard Cable Length: 1 ~ 2m

【Note】 Design and specification are subject to change without notice.

# Ordering Information | USB & Mini USB

	1	2	3	4	5	6	7	8	9	10
<b>Specification</b>	( <b>UA</b> ) USB Type A	( <b>UC</b> ) USB Type C								
	( <b>UB</b> ) USB Type B	( <b>NUB</b> ) Mini USB Type B								
<b>Data Transfer Rate</b>	( <b>20</b> ) 2.0	( <b>G1</b> ) 3.1 Gen 1 (Plug)								
	( <b>30</b> ) 3.0	( <b>G2</b> ) 3.1 Gen 2 (Plug)								
	( <b>31</b> ) 3.1 (Jack)									
<b>Connector Body (Style)</b>	<u>&gt; For Receptacle</u>		<u>&gt; For Overmolded with Cable</u>							
	( <b>P</b> ) Front Fastened	( <b>A</b> ) With Strain Relief								
	<u>&gt; For Field installable</u>	( <b>B</b> ) Without Strain Relief								
	( <b>B</b> ) Without Strain Relief									
<b>Connector (Housing) Gender</b>	( <b>M</b> ) Male	( <b>F</b> ) Female								
<b>Contact Gender</b>	( <b>M</b> ) Male (Plug)	( <b>F</b> ) Female (Jack)								
<b>Assemble Style</b>	<u>&gt; For Receptacle</u>		<u>&gt; For Overmolded with Cable</u>							
	( <b>P</b> ) 180° PCB Type	( <b>M</b> ) Overmolded with Cable								
	( <b>R</b> ) 90° PCB Type	<u>&gt; For Field Installable</u>								
	( <b>J</b> ) Jack	( <b>A</b> ) Field installable (Solder)								
<b>Mating Style</b>	( <b>S</b> ) Screw Thread	( <b>L</b> ) 2 Points Lock Bayonet (Nut OD: 28.5mm)								
	( <b>N</b> ) 2 Points Lock Bayonet (Nut OD: 25.4mm)	( <b>Q</b> ) Quick Lock								
<b>Backshell</b>	<u>&gt; For Receptacle</u>		<u>&gt; For Overmolded with Cable</u>		<u>&gt; For Field Installable</u>					
	( <b>C</b> ) Circular	( <b>L</b> ) Straight	( <b>R</b> ) Right Angle	( <b>L</b> ) Straight						
	( <b>S</b> ) Square									
<b>Waterproof Rating</b>	( <b>7</b> ) IP 67									
	( <b>8</b> ) IP 68									
<b>More Information</b>	<u>&gt; For Receptacle</u>		<u>&gt; For Overmolded with Cable</u>							
	( <b>001</b> ) Without Cable	( <input type="checkbox"/> )+( <input type="checkbox"/> ) : Cable Type + Cable Length								
	( <b>002</b> ) With Cable (Harness: 50mm)	e.g. ( <b>A01</b> ) = USB 2.0 Cable + 1M								
	<input type="checkbox"/> : Cable Type	<input type="checkbox"/> : Cable Length								
	( <b>A</b> ) USB 2.0 Cable	USB 2.0: From 1m to 5m								
	( <b>B</b> ) USB 3.0 Cable	USB 3.0: From 1m to 3m								
	( <b>C</b> ) USB 3.1 Cable	Mini USB 2.0: From 1m to 4m								
		e.g. ( <b>01</b> ) = 1M								

# Ordering Information | USB | Double-ended

ALTW waterproof connector to ALTW waterproof connector

ALTW waterproof connector to Standard USB connector (None Waterproof)

	1	2	3	4	5	6	7	8	9	
<b>Specification (1st End)</b>										
(UA) USB Type A			(UC) USB Type C							
(UB) USB Type B										
<b>Data Transfer Rate</b>										
(20) 2.0			(G1) 3.1 Gen 1 (Plug)							
(30) 3.0			(G2) 3.1 Gen 2 (Plug)							
(31) 3.1 (Jack)										
<b>Connector Body (Style)</b>										
> For Receptacle			> For Overmolded with Cable							
(P) Front Fastened			(A) With Strain Relief							
			(B) Without Strain Relief							
<b>Connector (Housing) Gender</b>										
(M) Male			(F) Female							
<b>Contact Gender</b>										
(M) Male (Plug)			(F) Female (Jack)							
<b>Mating Style</b>										
(S) Screw Thread			(L) 2 Points Lock Bayonet (Nut OD: 28.5mm)				(Q) Quick Lock			
<b>Specification (2nd End)</b>										
(A) USB Type A 2.0 (Plug, Non-waterproof)			(E) USB Type C 3.1 Gen1 (Plug, Waterproof)							
(B) USB Type B 2.0 (Plug, Non-waterproof)			(F) USB Type C 3.1 Gen2 (Plug, Waterproof)							
(D) USB Type A 3.0 (Plug, Non-waterproof)										
<b>Waterproof Rating</b>										
(6) IP 66										
(7) IP 67										
(8) IP 68										
<b>More Information</b>										
> For Receptacle with Cable			> For Overmolded with Cable							
(□)+(■) : Cable Type + Cable Length			(□)+(■) : Cable Type + Cable Length							
e.g. (BX15) = USB 3.0 Cable + 150mm			e.g. (A01) = USB 2.0 Cable + 1M							
(□) : Cable Type			(□) : Cable Type							
(■) : Cable Length			(■) : Cable Length							
(B) USB 3.0 Cable			(A) USB 2.0 Cable							
USB 3.0: From 150mm to 300 mm			USB 2.0: From 1m to 5m							
e.g. (15) = 150mm			USB 3.0: From 1m to 3m							
			e.g. (01) = 1M							
			(C) USB 3.1 Cable							

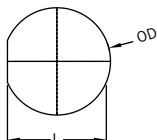
【Note】 Design and specification are subject to change without notice.

# Physical Dimension | USB

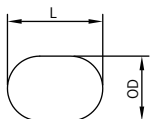
## Receptacle

Panel Cut-Out

Type A/B



Type C

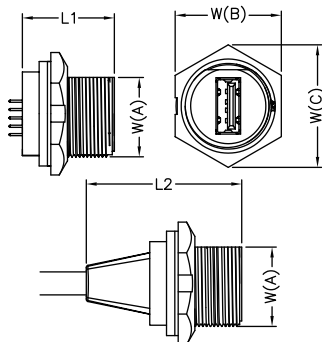


Type		Mating Style	Housing Gender	L	OD
USB2.0	Type A	Screw Thread	Male	19.4	20.8
		2 Points Lock Bayonet		19.4	20.8
	Type B	Screw Thread		19.4	20.8
		2 Points Lock Bayonet		23.6	25.6
USB3.0	Type A	Screw Thread		19.4	20.8
		2 Points Lock Bayonet		23.6	25.6
Mini USB	-	Screw Thread	14.8	15.6	
USB3.1	Type C	Quick	Female	16.7	11.3

\* Maximum Panel Thickness: USB: 4mm | Mini USB: 2.5mm

Unit: mm

Connector Dimension



Receptacle with Cable

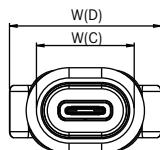
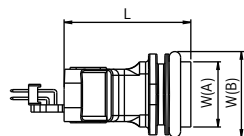
Type	Mating Style	Housing Gender	W(A)	W(B)	W(C)	L1	L2
USB2.0	Type A	Screw Thread	19.0	25.4	29.3	22.0	-
		2 Points Lock Bayonet	23.2	28.5	32.9	20.3	-
	Type B	Screw Thread	19.0	25.4	29.3	22.0	-
		2 Points Lock Bayonet	23.2	28.5	32.9	20.3	-
USB3.0	Type A	Screw Thread	19.0	25.4	29.3	-	37.2
		2 Points Lock Bayonet	23.2	28.5	32.9	-	37.5
Mini USB	-	Screw Thread	14.5	20.6	23.5	15.0	-

\* USB: Screw | Middle Size (13/16"-28 UNS)

2 Points Lock Bayonet | Large Size (1"20 UNEF)

\*Mini USB: Screw | Standard Size (5/8"-27 UNS)

Unit: mm

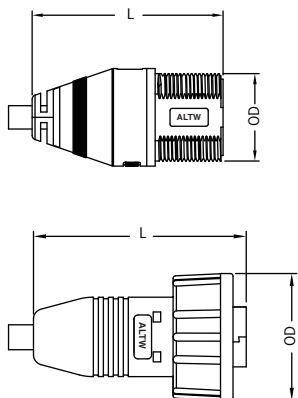


Type	Mating Style	Housing Gender	W(A)	W(B)	W(C)	W(D)	L1	
USB3.1	Type C	Quick	Female	10.8	14.2	19.6	25.1	21.0

\*Recommended Screw Size: M2x0.4x10mmL (min.)

Unit: mm

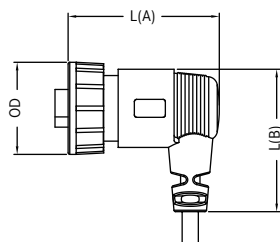
↳ **Overmolded with Cable**



Type		Mating Style	Housing Gender	L	OD
USB2.0	Type A	Screw Thread	Female	42.6	25.4
			Male	45.0	20.6
		2 Points Lock Bayonet	Female	73.3	28.5
			Male	-	-
	Type B	Screw Thread	Female	42.6	25.4
			Male	45.0	20.6
2 Points Lock Bayonet		Female	73.3	28.5	
		Male	-	-	
USB3.0	Type A	Screw Thread	Female	42.6	42.6
			Male	45.0	20.6
		2 Points Lock Bayonet	Female	75.0	28.5
			Male	-	-

\* USB: Screw | Middle Size (13/16"-28 UNS)  
 2 Points Lock Bayonet | Large Size (1"20 UNEF)  
 \*Mini USB: Screw | Standard Size (5/8"-27 UNS)

Unit: mm



Type		Mating Style	Housing Gender	L(A)	L(B)	OD
USB2.0	Type A	Screw Thread	Female	-	-	-
		2 Points Lock Bayonet		46.8	44.1	28.5
	Type B	Screw Thread		-	-	-
		2 Points Lock Bayonet		46.8	44.1	28.5
USB3.0	Type A	Screw Thread		-	-	-
		2 Points Lock Bayonet		-	-	-
Mini USB	-	Screw Thread		-	-	-

\* USB: Screw | Middle Size (13/16"-28 UNS)  
 2 Points Lock Bayonet | Large Size (1"20 UNEF)

Unit: mm

【Note】 Design and specification are subject to change without notice.

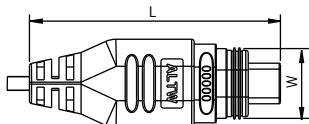


# USB/Micro USB | Physical Dimension

USB Type A/B/C | Mini USB Type B

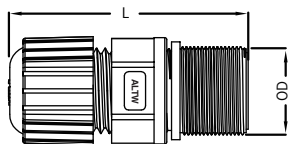
Receptacle | Overmolded with Cable | Field Installable

**IP 67 . 68**  
Unmated or Mated



Type		Mating Style	Housing Gender	W	L
USB2.0/3.0	Type C	Quick Lock	Male	14.2	51.1

Unit: mm



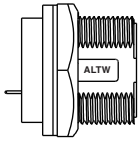
Type		Mating Style	Housing Gender	L	OD	
USB2.0	Type A	Screw Thread	Male	56.0	20.6	
		2 Points Lock Bayonet		-	-	
	Type B	Screw Thread		56.0	20.6	
		2 Points Lock Bayonet		-	-	
USB3.0	Type A	Screw Thread		-	-	
		2 Points Lock Bayonet		-	-	
Mini USB	-	Screw Thread			45.0	15.45

Unit: mm

- \* USB: Screw | Middle Size (13/16"-28 UNS)  
2 Points Lock Bayonet | Large Size (1"20 UNEF)
- \* Mini USB: Screw | Standard Size (5/8"-27 UNS)

# Product Features | USB

## Receptacle



### Backshell 8



Circular (C)

### Mating Style 7



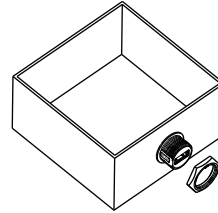
Screw Thread (S)



2 Points Lock Bayonet (L)  
(Nut OD: 28.5mm)

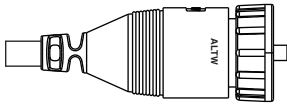
2 Points Lock Bayonet (N)  
(Nut OD: 25.4mm)

### Connector Body (Style) 3



Front Fastened (P)

## Overmolded with Cable



### Backshell 8



Straight (L)



Right Angle (R)

### Mating Style 7



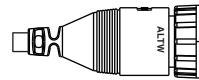
Screw Thread (S)



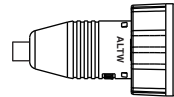
2 Points Lock Bayonet (L)  
(Nut OD: 28.5mm)

2 Points Lock Bayonet (N)  
(Nut OD: 25.4mm)

### Connector Body (Style) 3

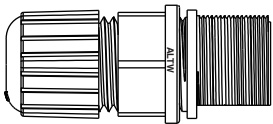


With Strain Relief (A)

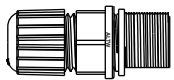


Without Strain Relief (B)

## Field Installable



### Backshell 8



Straight  
(L)

### Mating Style 7



Screw Thread (S)

### Connector Body (Style) 3


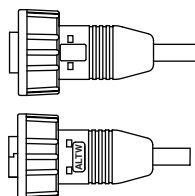
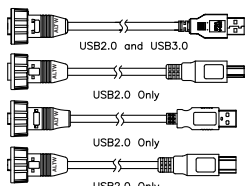


Without Strain Relief (B)


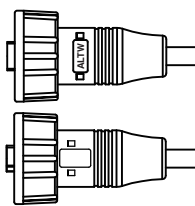
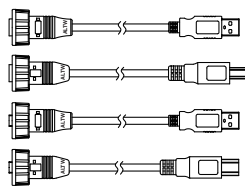
【Note】 Design and specification are subject to change without notice.

# Find Our Standard Products | USB

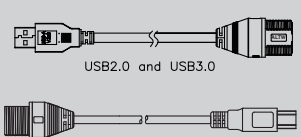
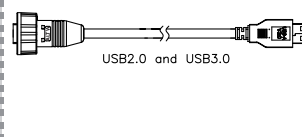
## USB > In-line

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Screw Thread</li> <li>• Middle Size (13/16"-28 UNS)</li> </ul>	<p>Overmolded with Cable-----&gt;</p> 	<p>Overmolded with Cable -----&gt;</p> 	<p>Overmolded with Cable (Double-Ended)</p>  <p>USB2.0 and USB3.0 USB2.0 Only USB2.0 Only USB2.0 Only</p> <p>Non-Waterproof</p>
	<p>** USB 2.0: Choose the cable length from 01~05m ** USB 3.0: Choose the cable length from 01~03m</p>	<p>** USB 2.0: Choose the cable length from 01~05m ** USB 3.0: Choose the cable length from 01~03m</p>	<p>** USB 2.0: Choose the cable length from 01~05m ** USB 3.0: Choose the cable length from 01~03m</p>
Speed	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
USB Type A 2.0	UA-20AMFM-SL7AXX**	UA-20BFMM-SL7AXX**	UA-20BFM-SA7AXX** UA-20BFM-SB7AXX**
USB Type B 2.0	UB-20AMFM-SL7AXX**	UB-20BFMM-SL7AXX**	UB-20BFM-SA7AXX** UB-20BFM-SB7AXX**
USB Type A 3.0	UA-30AMFM-SL7BXX**	UA-30BFMM-SL7BXX**	UA-30BFM-SD7BXX**

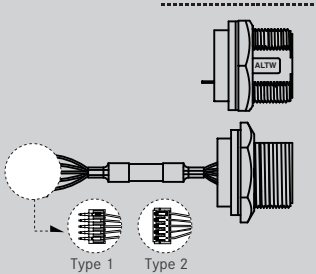
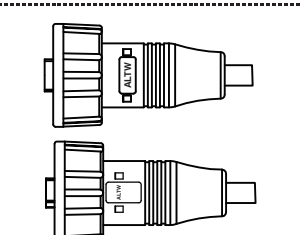
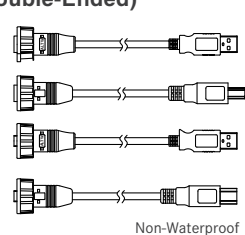
## USB > In-line

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Screw Thread</li> <li>• Middle Size (13/16"-28 UNS)</li> </ul>	<p>Field Installable -----&gt;</p> 	<p>Overmolded with Cable -----&gt;</p> 	<p>Overmolded with Cable (Double-Ended)</p>  <p>Non-Waterproof</p>
	<p>** USB 2.0: Choose the cable length from 01~05m</p>	<p>** USB 2.0: Choose the cable length from 01~05m</p>	<p>** USB 2.0: Choose the cable length from 01~05m</p>
Speed	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
USB Type A 2.0	UA-20BMFA-SL8001	UA-20BFMM-SL7AXX**	UA-20BFM-SA7AXX** UA-20BFM-SB7AXX**
USB Type B 2.0	UB-20BMFA-SL8001	UB-20BFMM-SL7AXX**	UB-20BFM-SA7AXX** UB-20BFM-SB7AXX**

↳ **USB > In-line**

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Screw Thread</li> <li>• Middle Size (13/16"-28 UNS)</li> </ul>	<p><b>Overmolded with Cable (Double-Ended)</b></p>  <p>USB2.0 and USB3.0</p>	<p><b>Overmolded with Cable (Double-Ended)</b></p>  <p>USB2.0 and USB3.0</p>	<p><b>Field Installable</b></p>
	<p>** USB 2.0: Choose the cable length from 01~05m ** USB 3.0: Choose the cable length from 01~03m</p>		
Speed	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
USB Type A 2.0	UA-20AMF-SA7AXX** UA-20AMF-SB7AXX**	UA-20BFM-SA7AXX** UA-20BFM-SA7AXX**	-
USB Type A 3.0	UA-30AMF-SD7BXX**	UA-30BFM-SD7BXX**	-
USB Type B 2.0	UB-20AMFM-SA7AXX** UB-20AMFM-SB7AXX**	UB-20BFM-SA7AXX** UB-20BFM-SB7AXX**	-

↳ **USB > Receptacle and Mating Pair**

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Screw Thread</li> <li>• Middle Size (13/16"-28 UNS)</li> </ul>	<p><b>Receptacle</b></p>  <p>Type 1 Type 2</p>	<p><b>Overmolded with Cable</b></p> 	<p><b>Overmolded with Cable (Double-Ended)</b></p>  <p>Non-Waterproof</p>
	<p>** Choose the cable length from 01~05m</p>		
Speed	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
USB Type A 2.0	UA-20PMFP-SC8001 UA-20PMFP-SC8002 Type1 UA-20PMFP-SC8003 Type2	UA-20BFMM-SL7AXX**	UA-20BFM-SA7AXX** UA-20BFM-SB7AXX**
USB Type B 2.0	UB-20PMFP-SC8001 UB-20PMFP-SC8002 UB-20PMFP-SC8003	UB-20BFMM-SL7AXX**	UB-20BFM-SA7AXX** UB-20BFM-SB7AXX**

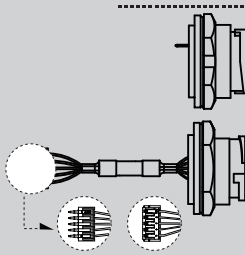
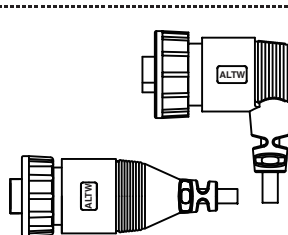
[Note] Design and specification are subject to change without notice.

**USB Type A | Type B**

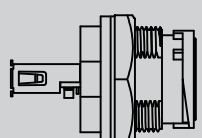
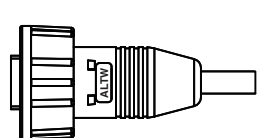
Receptacle and Mating Pair  
2 Points Lock Bayonet  
Large Size

**IP 67 . 68**  
Unmated or Mated

↳ **USB > Receptacle and Mating Pair**

<ul style="list-style-type: none"> <li>• <b>Male Connector (Housing)</b></li> <li>• <b>Female Contacts</b></li> <li>• <b>2 Points Lock Bayonet</b> (Nut OD: 28.5mm)</li> <li>• <b>Large Size</b> (1"20 UNEF)</li> </ul>	<p>Receptacle</p>  <p>Type 1    Type 2</p>	<p>Overmolded with Cable</p>  <p>** Choose the cable length from 01~05m</p>	<p>Field Installable</p>
	<p>Speed</p> <p>Male Connector <b>(M)</b> Female Contacts <b>(F)</b></p>	<p>Female Connector <b>(F)</b> Male Contacts <b>(M)</b></p>	<p>Female Connector <b>(F)</b> Male Contacts <b>(M)</b></p>
<p>USB Type A 2.0</p>	<p>UA-20PMFP-LC7001 UA-20PMFP-LC7002 Type1 UA-20PMFP-LC7003 Type2</p>	<p>UA-20AFMM-LL7A<u>XX</u>** UA-20AFMM-LR7A<u>XX</u>**</p>	-
<p>USB Type B 2.0</p>	<p>UB-20PMFP-LC7001 UB-20PMFP-LC7002 UB-20PMFP-LC7003</p>	<p>UB-20AFMM-LL7A<u>XX</u>** UB-20AFMM-LR7A<u>XX</u>**</p>	-

↳ **USB > Receptacle and Mating Pair**

<ul style="list-style-type: none"> <li>• <b>Male Connector (Housing)</b></li> <li>• <b>Female Contacts</b></li> <li>• <b>2 Points Lock Bayonet</b> (Nut OD: 25.4mm)</li> <li>• <b>Large Size</b> (13/16-28 UN)</li> </ul>	<p>Receptacle</p> 	<p>Overmolded with Cable</p>  <p>** Choose the cable length from 01~05m</p>	<p>Field Installable</p>
	<p>Speed</p> <p>Male Connector <b>(M)</b> Female Contacts <b>(F)</b></p>	<p>Female Connector <b>(F)</b> Male Contacts <b>(M)</b></p>	<p>Female Connector <b>(F)</b> Male Contacts <b>(M)</b></p>
<p>USB Type A 2.0</p>	<p>UA-20PMFJ-NC7001</p>	<p>UA-20BFMM-NL7A<u>XX</u>**</p>	-

### USB > Receptacle with Cable and Mating Pair

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Screw Thread</li> <li>• 2 Points Lock Bayonet (Nut OD: 28.5mm)</li> <li>• Large Size (1"20 UNEF)</li> </ul>	<p><b>Receptacle with Cable (Double-Ended)</b></p> <p>Non-Waterproof</p> <p>* USB 3.0: Choose the cable length from 150~300mm</p>	<p><b>Overmolded with Cable</b></p> <p>** USB 3.0: Choose the cable length from 01~03m</p>	<p><b>Overmolded with Cable (Double-Ended)</b></p> <p>** USB 3.0: Choose the cable length from 01~03m</p>
	Speed	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)
USB Type A 3.0	UA-30PMF-LD7BXX* UA-30PMF-SD7BXX*	UA-30AFMM-LL7BXX** UA-30BFMM-SL7BXX**	UA-30BFM-SD7BXX** UA-30AFM-LD7BXX**

### USB > Receptacle and Mating Pair

<ul style="list-style-type: none"> <li>• Female Connector (Housing)</li> <li>• Female Contacts</li> <li>• Quick Lock</li> <li>• Speed of Jack: USB Type C 3.1</li> </ul>	<p><b>Receptacle</b></p>	<p><b>Overmolded with Cable (Double-Ended)</b></p> <p>1st End                      2nd End</p> <p>② Choose the data transfer rate (G1) 3.1 Gen 1 or (G2) 3.1 Gen 2 *XX: Choose the cable length from 01~03m</p>	<p><b>Field Installable</b></p>
	Speed of Plug	Female Connector (F) Female Contacts (F)	Male Connector (M) Male Contacts (M)
1st End: USB Type C 3.1 Gen 1/Gen 2 2nd End: USB Type C 3.1 Gen 1/Gen 2	UC-31PFFP-QS8001 UC-31PFFH-QF7001	UC-② AMM-QE8CXX* UC-② AMM-QF8CXX*	-
1st End: USB Type C 2.0 2nd End: USB Type A 2.0	-	UC-20AMM-QA8AXX*	-
1st End: USB Type C 3.0 2nd End: USB Type B 2.0	-	UC-30AMM-QD8BXX*	-

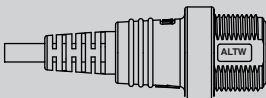
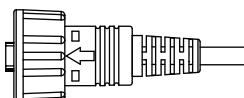
[Note] Design and specification are subject to change without notice.

Mini USB Type B

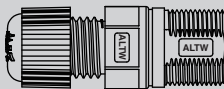
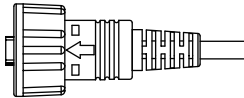
In-line  
Screw Thread  
Standard Size

**IP 67 . 68**  
Unmated or Mated

↳ Mini USB > In-line

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Screw Thread</li> <li>• Standard Size (5/8"-27 UNS)</li> </ul>	<p>Overmolded with Cable-----&gt;</p>  <p>** Choose the cable length from 01~04m</p>	<p>Overmolded with Cable-----&gt;</p>  <p>** Choose the cable length from 01~04m</p>	Field Installable
	Speed	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)
Mini USB Type B 2.0	NUB-20AMFM-SL7AXX**	NUB-20AFMM-SL7AXX**	-

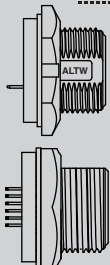
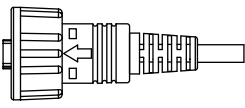
↳ Mini USB > In-line

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Screw Thread</li> <li>• Standard Size (5/8"-27 UNS)</li> </ul>	<p>Field Installable -----&gt;</p> 	<p>Overmolded with Cable-----&gt;</p>  <p>** Choose the cable length from 01~04m</p>	Field Installable
	Speed	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)
Mini USB Type B 2.0	NUB-20BMFA-SL7001	NUB-20AFMM-SL7AXX**	-

**Mini USB Type B**

Receptacle and Mating Pair  
Screw Thread  
Standard Size

↳ **Mini USB > Receptacle and Mating Pair**

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Screw Thread</li> <li>• Standard Size (5/8"-27 UNS)</li> </ul>	<p>Receptacle -----&gt;</p> 	<p>Overmolded with Cable -----&gt;</p> 	<p>Field Installable</p>
	<p>** Choose the cable length from 01-04m</p>		
Speed	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
Mini USB Type B 2.0	NUB-20PMFP-SC7001 NUB-20PMFR-SC7001	NUB-20AFMM-SL7A <u>XX</u> **	-

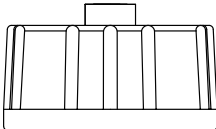
【Note】 Design and specification are subject to change without notice.



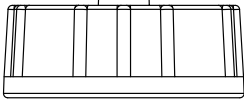
## Accessories

### ↳ USB A/B Type > Waterproof Cap

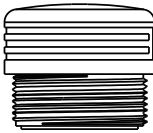
■ Customized - Upon Request



\* USB Screw (Mating Pair: Male)



2 Points Lock Bayonet



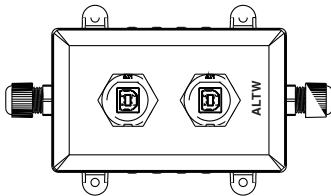
\* USB Screw (Mating Pair: Female)

⑥ More to choose: None (A) / With Chain (B) / With Rubber Lead (C) / With Fish Line (D)

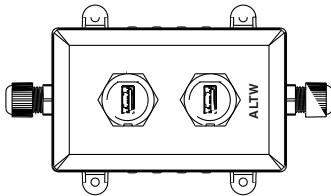
Type	Mating Pair	Mating Style	Mating Pair (Gender)	P/N
USB 2.0 Type A USB 2.0 Type B USB 3.0 Type A	Receptacle	Screw Thread	Male	CAP-WACMSP ⑥ 1
		2 Points Lock Bayonet (1"20 UNEF)	Male	CAP-WADMLP ⑥ 1
	Receptacle and Overmolded with Cable	Screw Thread	Male	CAP-WACMSMA1
		2 Points Lock Bayonet (1"20 UNEF)	Male	CAP-WADMLMA1
	Overmolded with Cable	Screw Thread	Female	CAP-WUSFSCC1
USB 2.0 Type A	Receptacle	2 Points Lock Bayonet (13/16"-28 UNS)	Male	CAP-WCCMLMA1 CAP-WCCMLPB1 CAP-WCCMLPC1

### ↳ USB A/B Type > Box

■ Customized - Upon Request



USB Type B 2.0



USB Type A 2.0

Type	Ports	P/N
USB Type A 2.0	1	BOX-USA11
	2	BOX-USA22
	4	BOX-USA44
USB Type B 2.0	1	BOX-USB11
	2	BOX-USB22
	4	BOX-USB44

## Specification | Micro USB

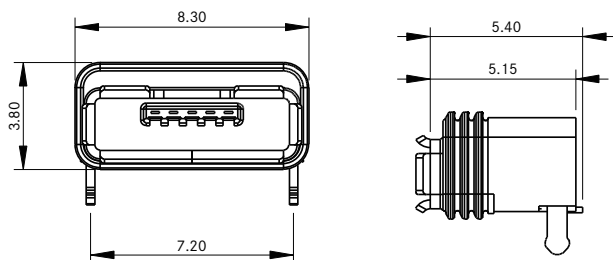
<b>Identifications</b>	Micro USB: AB Type
<b>Description</b>	Receptacle
<b>Current Rating</b>	1pin & 5pin: 1.8A 2pin, 3pin & 4pin: 1A
<b>Materials</b>	Contacts: Copper Alloy, Gold Plated Connector Body (Housing): Nylon, Black Shell: Stainless, Gold Plated Inner Gasket: Silicone, Transparent Outside Gasket: Silicone, Transparent
<b>Waterproof Rating</b>	IP67/68
<b>Temperature Range</b>	-30°C ~ 85°C
<b>Contact Resistance</b>	≤30mΩ
<b>Insulation Resistance</b>	≥ 1000MΩ at 100Vdc
<b>Durability</b>	10,000 Cycles
<b>More to Know</b>	SMT Temperature & Time: 260°C/5Sec

【Note】 Design and specification are subject to change without notice.

## Ordering Information | Micro USB

	1	2	3	4	5	6	7	8	9	10
<b>Specification</b> (MUC) Micro USB										
<b>Data Transfer Rate</b> (20) 2.0										
<b>Connector Body (Style)</b> > For Receptacle (P) Front Fastened										
<b>Connector (Housing) Gender</b> (F) Female										
<b>Contact Gender</b> (F) Female (Jack)										
<b>Assemble Style</b> > For Receptacle (R) 90° PCB Type										
<b>Mating Style</b> (J) For Joint										
<b>Backshell</b> > For Receptacle (S) Square										
<b>Waterproof Rating</b> (70) IP67 (1M depth of water in 30min) (8A) IP68 (1M depth of water in 24hrs) (8B) IP68 (5M depth of water in 24hrs) (8C) IP68 (10M depth of water in 3hrs)										
<b>More information</b> (01), (02).... Without Cable: Different Versions										

## Physical Dimension | Micro USB



Unit: mm

## Find Our Standard Products | Micro USB

### ▾ Micro USB

Waterproof Rating	Part Number
IP67 (1M, 30mins)	MUC-20PFFR-JS7002
IP68 (1M, 24hrs)	MUC-20PFFR-JS8A02
IP68 (5M, 24hrs)	MUC-20PFFR-JS8B02
IP68 (10M, 3hrs)	MUC-20PFFR-JS8C02

【Note】 Design and specification are subject to change without notice.