

# LTW<sup>®</sup>

Innovator & Manufacturer of Waterproof  
and Environment-Proof World

# B.C.E. ELECTRONICS

## Short Form CATALOGUE

Complete range of waterproof  
Connector and cable assembly

RJ45



DVI



*NEW*

Junction Box

Low Profile

*NEW*



DC Audio Jack  
& Plug

*NEW*



Coaxial

Circular



LED



Cable Joiner

*NEW*



Power

Mini USB



USB &  
IEEE 1394



Mini DIN

*NEW*

AP Box / Vent  
Connector

Sensor



HDMI



Cable Gland

D-SUB



# APPLICATIONS



Solar Power



Marine Electronic Devices



Outdoor Wireless CPE



Medical Devices and Equipments



Outdoor LED Display



Wind Power Turbines

## AND:

- Sensors
- DeviceNet, Profibus, Ethernet
- Data Acquisition Devices
- Telecommunication and Satellites Modems
- Industrial PC and POS
- Rugged Mobile and Handheld Terminals and Devices, Notebooks, POS
- Electric Motors

- Canbus and Automotive Electronic Equipments and Devices (Telematic, GPS, Fleet & Asset Management)
- CCTV and Security Devices
- RFID and Tagging Systems and Devices
- Military Commercial Equipments
- Weighing Scales
- Electronic Scoring

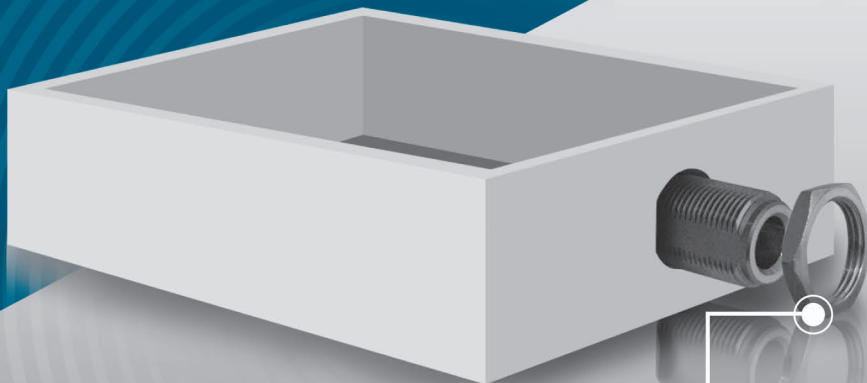
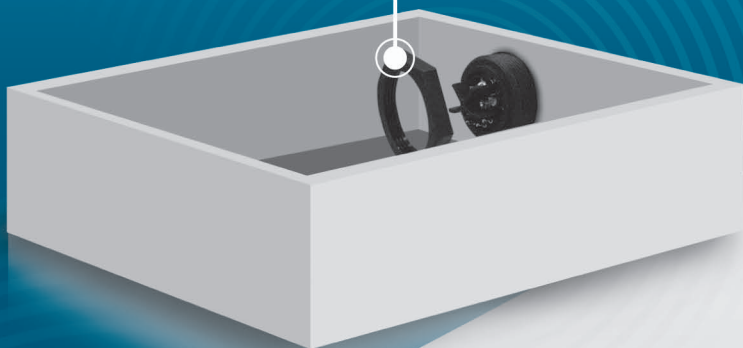
- Robotics
- Surveying and Telemetry Devices
- Measurements and Testing Equipments
- Batteries and Power Supply
- Traffic Systems and Signals
- Rugged and Outdoor Devices, Equipments and Machines

**Many More.....**

LTW<sup>®</sup>

# Front and Rear Mount

Rear Mount



Front Mount

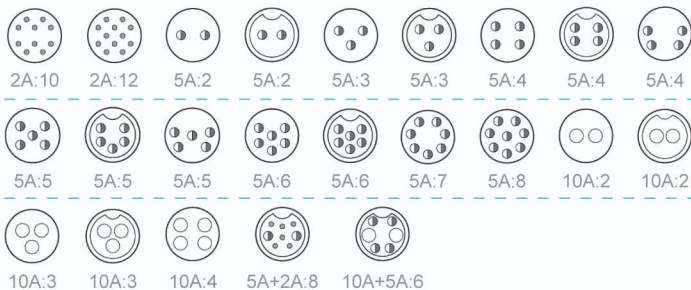
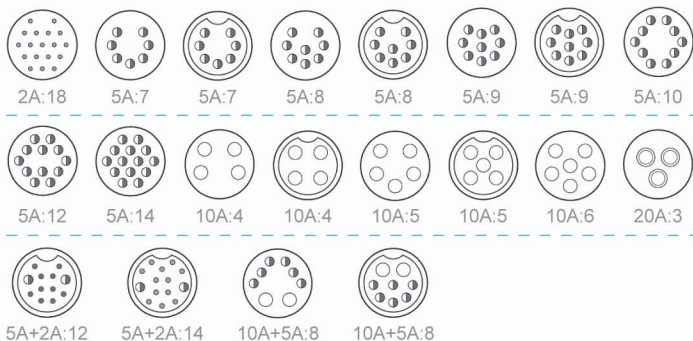
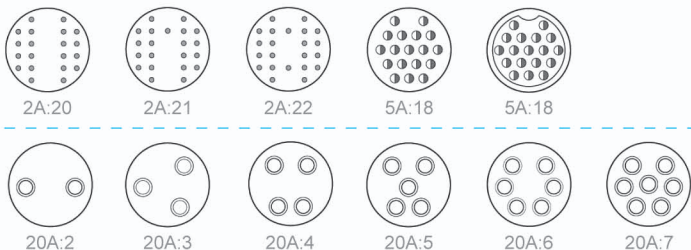
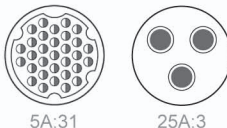
# INDEX

<b>Circular</b>	<b>_____</b>	<b>P01</b>
<b>RJ45</b>	<b>_____</b>	<b>P08</b>
<b>Sensor</b>	<b>_____</b>	<b>P14</b>
<b>D-SUB</b>	<b>_____</b>	<b>P32</b>
<b>USB</b>	<b>_____</b>	<b>P37</b>
<b>Mini USB</b>	<b>_____</b>	<b>P40</b>
<b>IEEE 1394</b>	<b>_____</b>	<b>P42</b>
<b>Power</b>	<b>_____</b>	<b>P44</b>
<b>Mini DIN</b>	<b>_____</b>	<b>P48</b>
<b>DVI</b>	<b>_____</b>	<b>P51</b>
<b>HDMI</b>	<b>_____</b>	<b>P54</b>
<b>Coaxial</b>	<b>_____</b>	<b>P55</b>
<b>Cable Gland</b>	<b>_____</b>	<b>P57</b>
<b>LED</b>	<b>_____</b>	<b>P59</b>
<b>DC Audio Jack &amp; Plug</b>	<b>_____</b>	<b>P61</b>
<b>Cable Joiner</b>	<b>_____</b>	<b>P63</b>
<b>Junction Box</b>	<b>_____</b>	<b>P63</b>
<b>Low Profile</b>	<b>_____</b>	<b>P64</b>
<b>AP Box / Vent Connector</b>	<b>_____</b>	<b>P65</b>

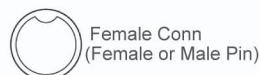
## CIRCULAR SERIES

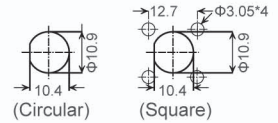
NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	A Size (Mini Size) B Size (Standard Size) C Size (Middle Size) D Size (Large Size) E Size (Macro Size)
<b>02 . Description</b>	Panel Mount, Molded with Cable and Field Installable
<b>03 . Current Rating / Pin Arrangements</b>	A Size (Mini): 2A: 4 to 6, 5A: 2 and 3 B Size (Standard): 2A: 10 or 12, 5A: 2 to 8, 10A: 2 to 4, 5A+2A: 8, 10A+5A: 6 C Size (Middle): 2A: 18, 5A: 7 to 14, 10A: 4 to 6, 20A: 3, 5A+2A: 12 or 14, 10A+5A: 8 D Size (Large): 2A: 20 to 22, 5A: 18, 20A: 2 to 7 E Size (Macro): 5A: 31, 25A: 3
<b>04 . Material</b>	Contacts: Copper Alloy, Gold Plated Connector Body: Nylon + GF, UL Recognized
<b>05 . Temperature Range</b>	Cable: -20°C to + 80°C Connector Body: -40°C to +105°C
<b>06 . Waterproof Rating</b>	IP66 and IP67(Per IEC60590)
<b>07 . Contact Resistance</b>	≤10MΩ
<b>08 . Insulation Resistance</b>	≥100MΩ at DC 500V
<b>09 . Durability</b>	3000 Plug / Unplug Cycles Minimum
<b>10 . Breakdown Voltage</b>	≥AC 1000V/1 Minute, ≥ 500V / 1 Minute (1.5~5A)
<b>11 . Corrosion</b>	48 Hours Salt Spray Contact
<b>12 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5, 10M (Standard Cable: UL2464 PVC Jacket)
<b>13 . Field Installable</b>	All Solder Contacts Except For D Size (Large) 20A

## CIRCULAR CONNECTOR

**A Size**  
(Mini Size)**B Size**  
(Standard Size)**C Size**  
(Middle Size)**D Size**  
(Large Size)**E Size**  
(Macro Size)

● 2A ○ 5A ○ 10A ○ 20A ● 25A





## Panel (Chassis) Plastic



<b>Pin</b>	2A: 4 to 6 5A: 2 and 3				
<b>Mating Style</b>	Screw (Thread) Rear or Front Mount	Lock (Bayonet) Rear or Front Mount		Front Mount	Rear Mount
<b>Assembly Style</b>	PCB 180° (P) or Solder(S)	Front Mount-Screw PCB(P) Solder(S)	Front Mount-Lock PCB(P) Solder(S)	Rear Mount-Screw Solder(S)	Rear Mount-Lock Solder(S)

<b>Mating Part</b>	Molded with Cable (with or Without SR) or Field Installable					
	with SR	Without SR	Field Installable	Cable to Cable(In-Line)	with SR	Without SR

<b>Accessories</b>	I Adaptor	T Adaptor	T Cable	Extension Cord	Waterproof Cover
--------------------	-----------	-----------	---------	----------------	------------------

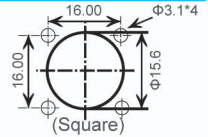
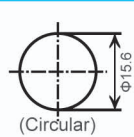
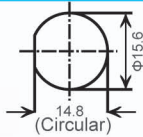
## Panel (Chassis) Metal





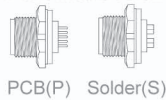
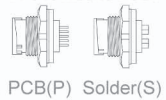
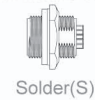

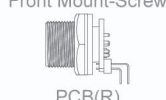
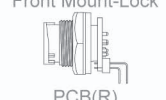
<b>Pin</b>	2A: 4 to 6 5A: 2 and 3				
<b>Mating Style</b>	Lock (Bayonet) Front Mount				Front Mount
<b>Assembly Style</b>	PCB 180° (P) or Solder(S)			Front Mount-Lock PCB(P)	Front Mount-Lock Solder(S)

<b>Mating Part</b>	Molded with Cable (with or Without SR) or Field Installable			with SR	Without SR	Field Installable
--------------------	---	--	--	---------	------------	-------------------

<b>Accessories</b>	I Adaptor	T Adaptor	T Cable	Extension Cord	Waterproof Cover
--------------------	-----------	-----------	---------	----------------	------------------



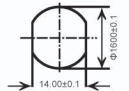
## Panel (Chassis) Plastic










<b>Pin</b>	2A : 10 or 12 5A : 2 to 8	10A: 2 to 4 5A + 2A : 8	10A +5A: 6		
<b>Mating Style</b>	Screw (Thread) Rear or Front Mount		Lock (Bayonet) Rear or Front Mount	Front Mount	Rear Mount
<b>Assembly Style</b>	PCB 180° (P) or PCB 90° (R) or Solder(S)	 Front Mount-Screw PCB(P) Solder(S)	 Front Mount-Lock PCB(P) Solder(S)	 Rear Mount-Screw Solder(S)	 Rear Mount-Lock Solder(S)
		 Front Mount-Screw PCB(R)	 Front Mount-Lock PCB(R)		

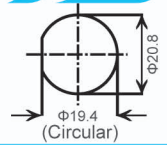
<b>Mating Part</b>	Molded with Cable (with or Without SR) or Field Installable					
				Cable to Cable(In-Line)		
	with SR	Without SR	Field Installable			Without SR

<b>Accessories</b>						
	I Adaptor	T Adaptor	T Cable	Extension Cord	Waterproof Cover	Waterproof Cover With Rubber Lead or Fish Line or Chain

## Panel (Chassis) Metal



<b>Pin</b>	2A: 10 5A: 4 to 8			
<b>Mating Style</b>	Screw (Thread) Rear or Front Mount	Front Mount		Rear Mount
<b>Assembly Style</b>	PCB 180° (P) or Solder(S)	 Front Mount-Screw PCB(P) Solder(S)	 Rear Mount-Screw Solder(S)	
<b>Mating Part</b>	Molded with Cable (Without SR) or Field Installable			
		Without SR	Without SR	Field Installable
<b>Accessories</b>	Waterproof Cover			



## Panel (Chassis) Plastic

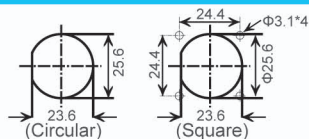


<b>Pin</b>	2A : 18 5A : 7 to 14 10A: 4 to 6 20A: 3 5A+2A :12 or 14 10A+5A: 8				
<b>Mating Style</b>	Screw (Thread) Rear or Front Mount	Lock (Bayonet) Rear or Front Mount	Front Mount	Rear Mount	
<b>Assembly Style</b>	PCB 180° (P) or Solder(S)	Front Mount-Screw  PCB(P) Solder(S)	Front Mount-Lock  PCB(P) Solder(S)	Rear Mount-Screw  Solder(S)	Rear Mount-Lock  Solder(S)

<b>Mating Part</b>	Molded with Cable (with or Without SR) or Field Installable				
	with SR	Without SR	Field Installable	Cable to Cable(In-Line) Without SR	With SR

<b>Accessories</b>	Dummy Cover	Waterproof Cover (Metal) With Rubber Lead or Fish Line or Chain	Waterproof Cover With Rubber Lead	Waterproof Cover With Fish Line	Waterproof Cover With Chain
--------------------	-------------	---	-----------------------------------	---------------------------------	-----------------------------

## Panel (Chassis) Plastic

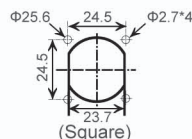


<b>Pin</b>	2A : 20 to 22 5A : 18 20A: 2 to 7				Front Mount          Rear Mount	
<b>Mating Style</b>	Screw (Thread) Rear or Front Mount		Lock (Bayonet) Rear or Front Mount			
<b>Assembly Style</b>	PCB 180° (P) or Solder(S)	 Front Mount-Screw PCB(P) Solder(S)	 Front Mount-Lock PCB(P) Solder(S)	 Rear Mount-Screw Solder(S)	 Rear Mount-Lock Solder(S)	

<b>Mating Part</b>	Molded with Cable (with or Without SR) or Field Installable			
	 with SR	 Field Installable (Screw-In Termination Contacts Are Available)	 Cable to Cable(In-Line)	 with SR      Without SR

<b>Accessories</b>	Waterproof Cover	
--------------------	------------------	--

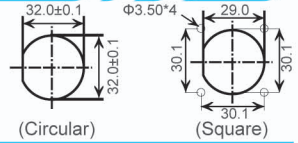
## Panel (Chassis) Metal






<b>Pin</b>	5A: 18		Front Mount
<b>Mating Style</b>	Screw (Thread) Front Mount		
<b>Assembly Style</b>	PCB 180° (P) or Solder(S)		 Front Mount-Screw PCB(P) Solder(S)
<b>Mating Part</b>	Molded with Cable (Without SR)		 Without SR

# Circular E Size (Macro Size)

07



## Panel (Chassis) Plastic

<b>Pin</b>	5A: 31 25A: 3	
<b>Mating Style</b>	Lock (Bayonet) Front Mount	
<b>Assembly Style</b>	PCB 180° (P) or Solder(S)	  <p>Screw-In Termination      PCB(P)      Solder(S)</p>

<b>Mating Part</b>	Molded with Cable (with SR)	    <p>with SR      with SR      with SR</p>
--------------------	-----------------------------	---





**RJ45 SERIES****NO. SPECIFICATIONS**

<b>01 . Identifications</b>	RJ45 Jack and plug
<b>02 . Description</b>	Panel Mount, Molded with Cable and Field Installable
<b>03 . Data</b>	100 Base, 100 Base T and 1000 Base T Networks Cat 5E per TIA or EIA 568B Class D per ISO / IEC 11801
<b>04 . Category</b>	Option 1: Cat. 5E Option 2: Cat. 5E Option 3: Cat. 6 or 5E Option 5: Cat. 5E Option 6: Cat. 5E
<b>05 . Material</b>	Contacts: Copper Alloy with Gold Plated Connector Body: PBT(Jack), Polycarbonate(Plug)
<b>06 . Temperature Range</b>	-20°C to +80 C
<b>07 . Waterproof Rating</b>	IP67, IP68
<b>08 . Durability</b>	500 Cycles
<b>09 . Flame Test</b>	UL / CSA FT4 Flame Test
<b>10 . Thermal shock</b>	5 Cycles at -20°C to +80°C
<b>11 . Salt Spray</b>	48 hrs
<b>12 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5, 10M (Standard Cable: UTP or FTP (Cat.5E) )

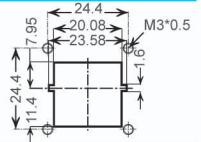


## Panel (Chassis) Mount

<b>Connector NO.1</b>  LTWRJ-5EPFFD-SC7001	<b>Features</b> Screw Type Cat 5E Punch Down Wiring IP67 When Mated	<b>Connector NO.6</b>  LTWRJS-5EPFFJ-SC7002 (Without Ground Pin) LTWRJS-5EPFFJ-SC7003 (With Ground Pin)	<b>Features</b> Screw Type Cat 5E Shielded Jack Termination With or Without Ground Pin IP67 When Mated
<b>Connector NO.2</b>  LTWRJS-5EPFFJ-SC7001	<b>Features</b> Screw Type Cat 5E, Shielded 90° Jack Termination IP67 When Mated	<b>Connector NO.7</b>  LTWRJ-5EAFFM-SL7xxx (Unshielded) LTWRJS-5EAFFM-SL7xxx (Shielded)	
<b>Connector NO.3</b>  LTWRJS-5EPFFJ-SC7004	<b>Features</b> Screw Type Cat 5E, Shielded Jack Termination With Ground Pin IP67 (Unmated) Stand Alone	<b>Features</b> Screw Type Cat 5E Shielded or Unshielded In-line Molded Type(Cable to Cable) IP67 (Unmated) Stand Alone	
<b>Connector NO.4</b>  LTWRJS-5EPFFJ-SC7008	<b>Features</b> Metal Connector, Screw Type Cat 5E, Shielded Jack Termination IP67 (Unmated) Stand Alone	<b>Connector NO.8</b>  LTWRJS-5EPFFJ-SC7005 (With Ground Pin) LTWRJS-5EPFFJ-SC7006 (Without Ground Pin)	
<b>Connector NO.5</b>  LTWRJS-5EPFFJ-SC7009	<b>Features</b> Metal Connector, Screw Type Cat 5E, Shielded Flying Leads With RJ Pigtail IP67 (Unmated) Stand Alone	<b>Features</b> Screw Type Cat 5E Shielded Ready to Connect With or Without Ground Pin IP67 When Mated	

<b>Mating Part</b>	 Screw Type Field Installable for On Site Termination RJ45 Plug, IP67 When Mated	 Screw Type Field Installable for On Site Termination RJ45 Plug, IP67 When Mated
	 Screw Type Cat 5 or 5E, FTP or UTP Shielded or Unshielded Molded Type IP67 (Unmated) Stand Alone	 Screw Type, Metal Nut Field Installable for On Site Termination RJ45 Plug, IP67 When Mated Mating pair of connector NO.4 & 5

<b>Accessories</b>	 Dummy Cover	 Waterproof Cover (Metal) With Rubber Lead or Fish Line or Chain	 Waterproof Cover With Rubber Lead	 Waterproof Cover With Fish Line	 Waterproof Cover With Chain
--------------------	--	--	---	---	--



## Panel (Chassis) Mount

### Connector NO.1



LTWRJS-5EPFFJ-SS7001

### Features

Screw Type  
Cat 5E, Shielded  
Jack Termination  
IP67 When Mated

### Connector NO.3



LTWRJS-5EPFFD-SS7002

### Features

Screw Type  
Cat 5E, Shielded  
Punch Down Wiring  
IP67 When Mated

### Connector NO.2



LTWRJS-5EPFFJ-SS7002

### Features

Screw Type, Cat 5E, Shielded  
Ready to Connect  
Flying Leads With RJ Pigtail  
IP67 When Mated

### Connector NO.4



LTWRJS-00PFFR-SS7001

### Features

Screw Type  
Shielded  
PCB 90°  
IP67 When Mated

## Mating Part



Screw Type  
Unshielded  
Field Installable for  
On Site Termination  
RJ45 Plug, IP67 When Mated



Screw Type  
Unshielded  
Field Installable for  
On Site Termination  
IP67 When Mated



Screw Type  
Cat 5 or 5E  
Shielded  
IP67 (Unmated) Stand Alone



Screw Type  
Cat 5 or 5E  
Shielded  
IP67 (Unmated) Stand Alone

## Accessories



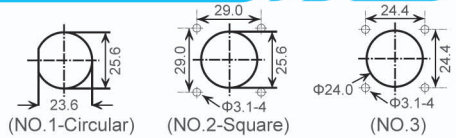
Waterproof Cover  
With Chain



Waterproof Cover  
With Rubber Lead



Waterproof Cover  
With Fish Line



## Panel (Chassis) Mount

### Connector NO.1



LTWRJS-06PFFD-SC7001  
(Cat 6)  
LTWRJS-5EPFFD-SC7xxx  
(Cat 5E)

### Features

Screw Type  
Cat 6 or 5E  
Shielded  
Punch Down Wiring  
IP67 When Mated

### Connector NO.3



LTWRJ-06PFFD-SS7001  
(Cat 6)  
LTWRJ-5EPFFD-SS7001  
(Cat 5E)

### Features

Screw Type  
Cat 6 or 5E  
Unshielded  
Punch Down Wiring  
IP67 When Mated

### Connector NO.2



LTWRJS-06PFFD-SS7001  
(Cat 6)  
LTWRJS-5EPFFD-SS7001  
(Cat 5E)

### Features

Screw Type  
Cat 6 or 5E  
Shielded  
Punch Down Wiring  
IP67 When Mated

### Mating Part



Screw Type  
Field Installable Feed Thru for  
Pre-Terminated Cable With Plug  
RJ45 Plug  
IP67 When Mated  
Mating pair of connector NO.1 & 2



Screw Type  
Field Installable Feed Thru for  
Pre-Terminated Cable With Plug  
RJ45 Plug  
IP67 When Mated  
Mating pair of connector NO.3

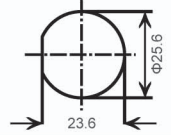
### Accessories



Waterproof Cover  
With Chain  
Accessories for connector NO.3



Waterproof Cover  
With Rubber Lead  
Accessories for connector NO.3



### Panel (Chassis) Mount

#### Connector NO.1



LTWRJS-00PFFJ-SC7001

#### Features

Screw Type  
Panel With Cover  
IP67 When Mated

#### Connector NO.3



LTWRJS-00PFFA-SC7001

#### Features

Screw Type  
Panel  
In-Line Shielded  
Field Installable Feed Thru  
IP67 When Mated

#### Connector NO.2



LTWRJS-00BFFA-SL7001

#### Features

Screw Type  
Panel  
In-Line Shielded  
Field Installable Feed Thru  
IP67 When Mated

#### Accessories



Waterproof Cover  
With Rubber Lead  
[Accessories for connector NO.3](#)

## RJ45 Option 5 Panel Mount Screw Type

### Panel (Chassis) Mount

#### Connector NO.1

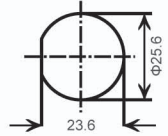


LTWRJS-5EPFFJ-SC7007

NEW

#### Features

Cat 5E, Unshielded  
RJ45 Non-Waterproof  
With Ground Pin  
Field Installable Feed Thru  
IP67 When Mated



## Panel (Chassis) Mount

### Connector NO.1



LTWRJ-5EPFFP-LC7001  
(Unshielded)  
LTWRJS-5EPFFP-LC7001  
(Shielded)

### Features

Lock Type  
Cat 5E  
Unshielded or Shielded  
180° PCB Type  
IP67 (Unmated) Stand Alone

### Connector NO.2



LTWRJS-05AMMM-LR7xxx  
(Cat 5)  
LTWRJS-5EAMMM-LR7xxx  
(Cat 5E)

### Features

Lock Type  
Cat 5 or 5E  
Shielded  
Panel With Pigtail  
IP67 (Unmated) Stand Alone

### Mating Part



Lock Type  
Cat 5 or 5E, Shielded  
180° Molded Type  
(Cable to Cable)  
IP67 (Unmated) Stand Alone



Lock Type  
Cat 5 or 5E, Shielded  
90° Molded Type  
(Cable to Cable)  
IP67 (Unmated) Stand Alone



Lock Type  
Field Installable for  
On Site Termination  
IP67 When Mated



Lock Type  
Field Installable for  
On Site Termination  
IP67 When Mated

### Accessories



Waterproof Cover  
With Chain



Waterproof Cover  
With Rubber Lead

# RJ45 Option 7 Cable Gland

## Panel (Chassis) Mount

### Connector NO.1



LTWCSG-16G010

**NEW**

### Features

Screw Type  
Cable Range  
Φ 10.0MM to Φ14.0MM  
IP68 When Mated  
Feed Thru

**SENSOR SERIES**

NO. SPECIFICATIONS	STANDARD VALUE
<b>0 1 . Identifications</b>	M8, M10.5, M12, M12 B-Coded, M12 D-Coded, M12 I-Style
<b>0 2 . Description</b>	Panel Mount, Molded with Cable and Field Installable
<b>0 3 . Current Rating / Pin Arrangements</b>	M8: 5A: 3 and 4 M10.5: 2A: 2 to 5 M12: 2A: 8, 5A: 3 to 5 M12 B-Coded: 5A: 4 and 5 M12 D-Coded: 5A: 4 and 5 M12 I-Style: 5A: 5
<b>0 4 . Material</b>	Contacts: Copper Alloy, Gold Plated Connector Body: Nylon + GF or PU, UL Recognized Shield: Zinc Alloy or Copper Alloy, Nickel Plated
<b>0 5 . Temperature Range</b>	Cable: -25°C to + 90°C (PU), -20°C to + 80°C (PVC) Connector Body: -25°C to + 90°C
<b>0 6 . Waterproof Rating</b>	IP65, IP66, IP67, IP68
<b>0 7 . Contact Resistance</b>	≤10MΩ
<b>0 8 . Insulation Resistance</b>	≥100MΩ at DC 500V
<b>0 9 . Durability</b>	3000 Plug / Unplug Cycles Minimum
<b>1 0 . Breakdown Voltage</b>	≥AC 500V / 1 Minute
<b>1 2 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5, 10M (Standard Cable: UL2464 PVC Jacket or PU)
<b>1 3 . Field Installable</b>	All Solder Contacts Unless And Otherwise Indicated

## SENSOR CONNECTOR

**M8**



5A:3

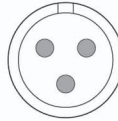


5A:4

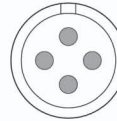
**M10.5**



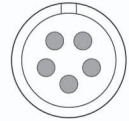
2A:2



2A:3

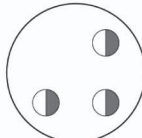


2A:4

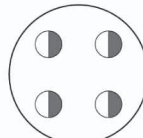


2A:5

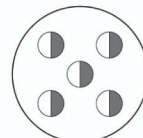
**M12**



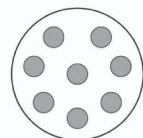
5A:3



5A:4

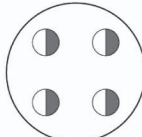


5A:5

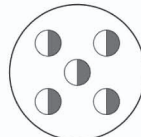


2A:8

**M12 B-Coded**

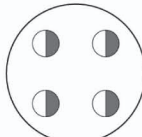


5A:4

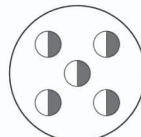


5A:5

**M12 D-Coded**

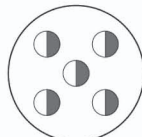


5A:4



5A:5

**M12 I-Style**



5A:5

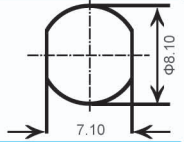
● 2A    ● 5A



Female Conn Female Pin  
Male Conn Male Pin



Female Conn Male Pin  
Male Conn Female Pin



## Panel (Chassis) Mount

### Connector NO.1

### Features

Screw Type, Solder Contacts  
Rear Mounted  
IP67 (Unmated) Stand Alone  
▲→5A: 3 and 4



### Mating Part



180°  
With SR

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) With SR  
PVC or PU Cable  
IP67 (Unmated) Stand Alone  
5A: 3 and 4



180°  
Without SR

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP67 (Unmated) Stand Alone  
5A: 3 and 4



90°  
With SR



90°  
Without SR

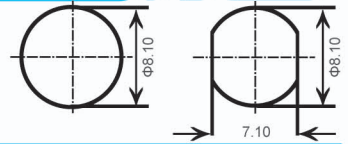


**NEW** Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP67 When Mated  
5A: 4

### Accessories

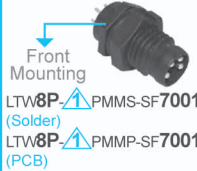


Cap-Screw (for Female)



## Panel (Chassis) Mount

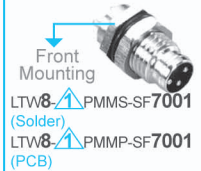
### Connector NO.1



### Features

Quick Type  
Screw Type  
Hexagonal Flange Front Mounted  
Solder or PCB Contacts  
IP67 (Unmated) Stand Alone  
△→5A: 3 and 4

### Connector NO.3



### Features

Screw Type  
Hexagonal Flange Front Mounted  
Solder or PCB Contacts  
IP67 (Unmated) Stand Alone  
△→5A: 3 and 4

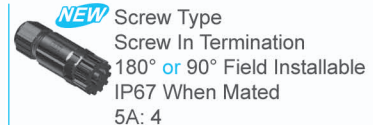
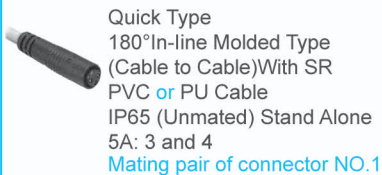
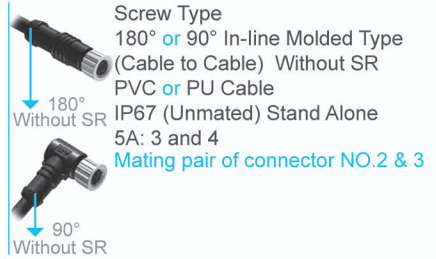
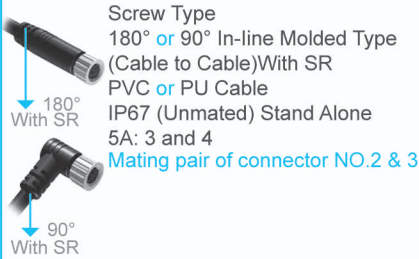
### Connector NO.2



### Features

Screw Type, Solder Contacts  
Rear Mounted  
IP67 (Unmated) Stand Alone  
△→5A: 3 and 4

## Mating Part



## Accessories



## Field Installable

### Connector NO.1



NEW

LTW8P-04BMMB-SL7001

### Features

Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP67 When Mated  
5A: 4

### Mating Part



NEW

Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP67 When Mated  
5A: 4

### Accessories



Cap-Screw (for Female)



Cap-Screw (for Male)

# M10.5 Sensor Male Panel (2A)



## Panel (Chassis) Mount

### Connector NO.1



Rear Mounting

LTW105-PMFS-SC7001

### Features

Screw Type  
Solder Contacts  
Circular Rear Mounted  
IP67 (Unmated) Stand Alone  
→2A: 2 to 5

### Connector NO.2

No Drawing  
or  
Picture

LTW105-PMFS-SH7001

### Features

Screw Type  
Solder Contacts  
Hexagonal Rear Mounted  
IP67 (Unmated) Stand Alone  
→2A: 2 to 5

### Mating Part



180°  
With SR



90°  
With SR

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable)With SR  
PVC or PU Cable  
IP67 (Unmated) Stand Alone  
2A: 2 to 5

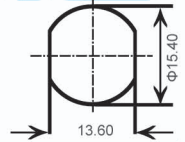


180°  
Without SR



90°  
Without SR

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable)Without SR  
PVC or PU Cable  
IP67 (Unmated) Stand Alone  
2A: 2 to 5



## Panel (Chassis) Mount

### Connector NO.1



Front Mounting  
 LTW12-▲PFFS-SF8001  
 (Solder)  
 LTW12-▲PFFP-SF8001  
 (PCB)

### Features

Screw Type  
 Hexagonal Flange Front Mounted  
 Solder or PCB Contacts  
 IP68 (Unmated) Stand Alone  
 ▲→2A: 8, 5A: 3 to 5

### Connector NO.2



Rear Mounting  
 LTW12-▲PFFS-SH8001

### Features

Screw Type  
 Rear Mounted  
 Solder Contacts  
 IP68 (Unmated) Stand Alone  
 ▲→2A: 8, 5A: 3 to 5

## Mating Part



180°  
 With SR

Screw Type  
 180° or 90° In-line Molded Type  
 (Cable to Cable)With SR  
 PVC or PU Cable  
 IP67 (Unmated) Stand Alone  
 2A: 8, 5A: 3 to 5

For Cable to Cable, See Page 20



90°  
 With SR



180°  
 Without SR

Screw Type  
 180° or 90° In-line Molded Type  
 (Cable to Cable) Without SR  
 PVC or PU Cable  
 IP68 (Unmated) Stand Alone  
 2A: 8, 5A: 3 to 5

For Cable to Cable, See Page 20



90°  
 Without SR



Screw Type, Shielded  
 180° In-line Molded Type  
 (Cable to Cable)Without SR  
 PVC or PU Cable  
 IP67 (Unmated) Stand Alone  
 2A: 8, 5A: 3 to 5



180°

Screw Type  
 Screw In Termination  
 180° or 90° Field Installable  
 IP67 When Mated  
 5A: 3 to 5



90°



Screw Type  
 Solder Contacts  
 Field Installable  
 IP68 When Mated  
 2A: 8, 5A: 3 to 5



Screw Type  
 Y Cable Adaptor  
 PU Cable  
 IP68 (Unmated) Stand Alone  
 2A: 8, 5A: 3 to 5  
 For Cable to Cable, See Page 20

## Accessories



Cap-Screw  
 (for Female)



T Cable



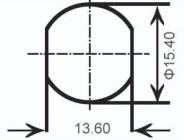
T Adaptor



I Adaptor



Y Adaptor



## Panel (Chassis) Mount

### Connector NO.1



### Features

Screw Type  
Hexagonal Flange Front Mounted  
Solder or PCB Contacts  
IP68 (Unmated) Stand Alone  
△→2A: 8, 5A: 3 to 5

### Connector NO.2



### Features

Screw Type  
Rear Mounted  
Solder Contacts  
IP68 (Unmated) Stand Alone  
△→2A: 8, 5A: 3 to 5

## Mating Part

Screw Type  
180° or 90° In-line Molded Type (Cable to Cable) With SR  
PVC or PU Cable  
IP67 (Unmated) Stand Alone  
2A: 8, 5A: 3 to 5  
For Cable to Cable, See Page 19



Screw Type  
180° or 90° In-line Molded Type (Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
2A: 8, 5A: 3 to 5  
For Cable to Cable, See Page 19



Screw Type, Shielded  
180° In-line Molded Type (Cable to Cable) Without SR  
PVC or PU Cable  
IP67 (Unmated) Stand Alone  
2A: 8, 5A: 3 to 5



Screw Type, LED  
90° In-line Molded Type (Cable to Cable) Without SR  
PVC or PU Cable  
IP67 (Unmated) Stand Alone  
5A: 4 and 5



Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
2A: 8, 5A: 3 to 5



Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP67 When Mated  
5A: 3 to 5



Screw Type  
Y Cable Adaptor  
PU Cable  
IP68 (Unmated) Stand Alone  
2A: 8, 5A: 3 to 5  
For Cable to Cable, See Page 19



## Accessories



Cap-Screw (for Male)



T Cable



T Adaptor



I Adaptor



Y Adaptor

## Field Installable

<p><b>Connector NO.1</b></p>  <p>180° LTW12P-08BMMM-SL8XXX (180°) LTW12P-08BMMM-SR8XXX (90°)</p>	<p><b>Features</b></p> <p>Screw Type 180° or 90° In-line Molded Type (Cable to Cable)Without SR IP68 (Unmated) Stand Alone 2A: 8</p>	<p><b>Connector NO.2</b></p>  <p>LTW12P-08BMMA-SL8001</p>	<p><b>Features</b></p> <p>Screw Type Solder Contacts Field Installable IP68 When Mated 2A: 8</p>
--	--	--	--

<p><b>Mating Part</b></p>	 <p>180° Without SR</p>  <p>90° Without SR</p> <p>Screw Type 180° or 90° In-line Molded Type (Cable to Cable)Without SR IP68 (Unmated) Stand Alone 2A: 8</p>	 <p>Screw Type Solder Contacts Field Installable IP68 When Mated 2A: 8</p>
---------------------------	--	---

<p><b>Accessories</b></p>	 <p>Cap-Screw (for Female)</p>	 <p>Cap-Screw (for Male)</p>
---------------------------	---	---

## Field Installable

## Connector NO.1



Rear Mounting

LTW12P-△BMMMS-SC8001

## Features

Screw Type  
Solder Contacts  
Rear Mounted  
IP68 (Unmated) Stand Alone  
△→5A: 3 to 5

## Connector NO.3



LTW12P-△BMMMA-SL8001

## Features

Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
△→5A: 3 to 5

## Connector NO.2



180°  
LTW12P-△BMMM-SL8XXX  
(180°)  
90°  
LTW12P-△BMMM-SR8XXX  
(90°)

## Features

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
IP68 (Unmated) Stand Alone  
△→5A: 3 to 5

## Connector NO.4



180°  
LTW12P-△BMMB-SL8001  
(180°)  
90°  
LTW12P-△BMMB-SR8001  
(90°)

## Features

Screw Type  
Screw In Termination  
180° or 90° In-line Molded Type  
(Cable to Cable) Field Installable  
IP68 When Mated  
△→5A: 3 to 5

## Mating Part

180°  
Without SR90°  
Without SR

180°



90°

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
IP68 (Unmated) Stand Alone  
5A: 3 to 5

Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP68 When Mated  
5A: 3 to 5



Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
5A: 3 to 5

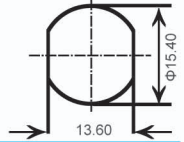
## Accessories



Cap-Screw (for Female)



Cap-Screw (for Male)



## Panel (Chassis) Mount

### Connector NO.1



LTW12B-▲PFFS-SF8001  
(Solder)  
LTW12B-▲PFFP-SF8001  
(PCB)

### Features

Screw Type  
Hexagonal Flange Front Mounted  
Solder or PCB Contacts  
IP68 (Unmated) Stand Alone  
▲→5A: 4 and 5

### Connector NO.2



LTW12B-▲PFFS-SH8001

### Features

Screw Type  
Rear Mounted  
Solder Contacts  
IP68 (Unmated) Stand Alone  
▲→5A: 4 and 5

## Mating Part



180°  
Without SR



90°  
Without SR

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
5A: 4 and 5  
[For Cable to Cable, See Page 24](#)



180°



90°

Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP68 When Mated  
5A: 4 and 5



Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
5A: 4 and 5



Screw Type  
Y Cable Adaptor  
PU Cable  
IP68 (Unmated) Stand Alone  
5A: 4 and 5  
[For Cable to Cable, See Page 24](#)

## Accessories



Cap-Screw  
(for Female)



T Cable



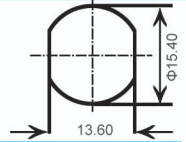
T Adaptor



I Adaptor



Y Adaptor



## Panel (Chassis) Mount

### Connector NO.1



LTW12B-▲PMMS-SF8001  
(Solder)

LTW12B-▲PMMP-SF8001  
(PCB)

### Features

Screw Type  
Hexagonal Flange  
Solder or PCB Contacts  
IP68 (Unmated) Stand Alone  
▲→5A: 4 and 5

### Connector NO.2



Rear Mounting

LTW12B-▲PMMS-SH8001

### Features

Screw Type  
Rear Mounted  
Solder Contacts  
IP68 (Unmated) Stand Alone  
▲→5A: 4 and 5

## Mating Part

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
5A: 4 and 5

180°  
Without SR

90°  
Without SR

For Cable to Cable, See Page 23

Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP67 When Mated  
5A: 4 and 5

180°

90°

Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
5A: 4 and 5

Screw Type  
Y Cable Adaptor  
PU Cable  
IP68 (Unmated) Stand Alone  
5A: 4 and 5  
For Cable to Cable, See Page 23

## Accessories



Cap-Screw  
(for Male)



T Cable



T Adaptor



I Adaptor



Y Adaptor

## Field Installable

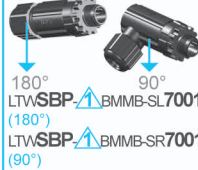
### Connector NO.1



### Features

Screw Type  
 180° or 90° In-line Molded Type  
 (Cable to Cable) Without SR  
 Solder or PCB Contacts  
 IP68 (Unmated) Stand Alone  
 △→5A: 4 and 5

### Connector NO.3



### Features

Screw Type  
 Screw In Termination  
 180° or 90° Field Installable  
 IP67 When Mated  
 △→5A: 4 and 5

### Connector NO.2



### Features

Screw Type  
 Solder Contacts  
 Field Installable  
 IP68 When Mated  
 △→5A: 4 and 5

### Mating Part



Screw Type  
 180° or 90° In-line Molded Type  
 (Cable to Cable) Without SR  
 PVC or PU Cable  
 IP68 (Unmated) Stand Alone  
 5A: 4 and 5



Screw Type  
 Solder Type  
 180° or 90° Field Installable  
 IP67 When Mated  
 5A: 4 and 5



Screw Type  
 Solder Contacts  
 Field Installable  
 IP68 When Mated  
 5A: 4 and 5

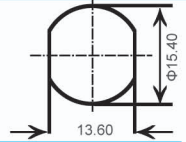
### Accessories



Cap-Screw (for Female)

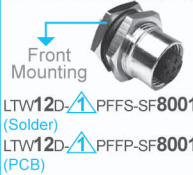


Cap-Screw (for Male)



Panel (Chassis) Mount

Connector NO.1



Features

Screw Type  
Hexagonal Flange Front Mounted  
Solder or PCB Contacts  
IP68 (Unmated) Stand Alone  
▲→5A: 4 and 5

Connector NO.2

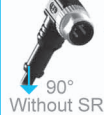


Features

Screw Type  
Rear Mounted  
Solder Contacts  
IP68 (Unmated) Stand Alone  
▲→5A: 4 and 5

Mating Part

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
5A: 4 and 5  
For Cable to Cable, See Page 27



Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP67 When Mated  
5A: 4 and 5



Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
5A: 4 and 5



Screw Type  
Y Cable Adaptor  
PU Cable  
IP68 (Unmated) Stand Alone  
5A: 4 and 5  
For Cable to Cable, See Page 27



Accessories



Cap-Screw  
(for Female)



T Cable



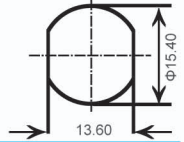
T Adaptor



I Adaptor

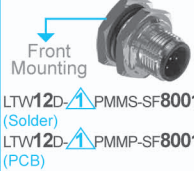


Y Adaptor



## Panel (Chassis) Mount

### Connector NO.1



### Features

Screw Type  
Hexagonal Flange Front Mounted  
Solder or PCB Contacts  
IP68 (Unmated) Stand Alone  
→5A: 4 and 5

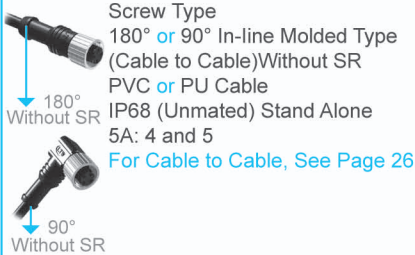
### Connector NO.2



### Features

Screw Type  
Rear Mounted  
Solder Contacts  
IP68 (Unmated) Stand Alone  
→5A: 4 and 5

## Mating Part



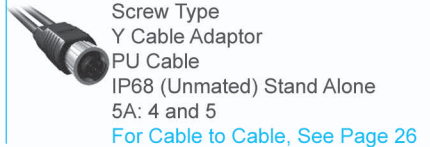
Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
5A: 4 and 5  
[For Cable to Cable, See Page 26](#)



Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP67 When Mated  
5A: 4 and 5



Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
5A: 4 and 5



Screw Type  
Y Cable Adaptor  
PU Cable  
IP68 (Unmated) Stand Alone  
5A: 4 and 5  
[For Cable to Cable, See Page 26](#)

## Accessories



Cap-Screw  
(for Male)



T Cable



T Adaptor



I Adaptor



Y Adaptor

## Field Installable

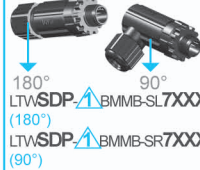
## Connector NO.1



## Features

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
△→5A: 4 and 5

## Connector NO.3



## Features

Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP67 When Mated  
△→5A: 4 and 5

## Connector NO.2



## Features

Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
△→5A: 4 and 5

## Mating Part



Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
5A: 4 and 5



Screw Type  
Screw In Termination  
180° or 90° Field Installable  
IP67 When Mated  
5A: 4 and 5



Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
5A: 4 and 5

## Accessories




Cap-Screw (for Female)



Cap-Screw (for Male)

## Panel (Chassis) Mount

### Connector NO.1

Front Mounting  
  
 LTW12-05PFIS-SF8001 (Solder)  
 LTW12-05PFIP-SF8001 (PCB)

### Features

Screw Type  
 Hexagonal Flange Front Mounted  
 Solder or PCB Contacts  
 IP68 (Unmated) Stand Alone  
 5A: 5


### Connector NO.2

Rear Mounting  
  
 LTW12-05PFIS-SH8001


### Features

Screw Type  
 Rear Mounted  
 Solder Contacts  
 IP68 (Unmated) Stand Alone  
 5A: 5

### Mating Part


  
 Screw Type  
 180° or 90° In-line Molded Type  
 (Cable to Cable) Without SR  
 PVC or PU Cable  
 IP68 (Unmated) Stand Alone  
 5A: 5  
 For Cable to Cable, See Page 30

  
 90° Without SR


  
 Screw Type  
 180° or 90° In-line Molded Type  
 (Cable to Cable) With SR  
 PVC or PU Cable  
 IP67 (Unmated) Stand Alone  
 5A: 5  
 For Cable to Cable, See Page 30

  
 90° With SR

  
 Screw Type  
 Solder Contacts  
 Field Installable  
 IP68 When Mated  
 5A: 5

  
 Screw Type  
 Y Cable Adaptor  
 PVC or PU Cable  
 IP68 (Unmated) Stand Alone  
 5A: 5  
 For Cable to Cable, See Page 30

### Accessories

  
 Cap-Screw  
 (for Female)

  
 T Cable

  
 T Adaptor

  
 I Adaptor

  
 Y Adaptor

## Panel (Chassis) Mount

## Connector NO.1



LTW12-05PMIS-SF8001  
(Solder)  
LTW12-05PMIP-SF8001  
(PCB)

## Features

Screw Type  
Hexagonal Backshell Front Mounted  
Solder or PCB Contacts  
IP68 (Unmated) Stand Alone  
5A: 5

## Connector NO.2



LTW12-05PMIS-SH8001

## Features

Screw Type  
Rear Mounted  
Solder Contacts  
IP68 (Unmated) Stand Alone  
5A: 5

## Mating Part



Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
5A: 5

For Cable to Cable, See Page 29



Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) With SR  
PVC or PU Cable  
IP67 (Unmated) Stand Alone  
5A: 5

For Cable to Cable, See Page 29



Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
5A: 5



Screw Type  
Y Cable Adaptor  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
5A: 5  
For Cable to Cable, See Page 29

## Accessories



## Field Installable

### Connector NO.1



180°  
LTW12P-05BMIM-SL8XXX  
(180°)  
LTW12P-05BMIM-SR8XXX  
(90°)

### Features

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
5A: 5

### Connector NO.2



LTW12P-05BMIA-SL8XXX

### Features

Screw Type  
Solder Contacts  
Field Installable  
IP68 (Unmated) Stand Alone  
5A: 5

### Mating Part



180°  
Without SR



90°  
Without SR

Screw Type  
180° or 90° In-line Molded Type  
(Cable to Cable) Without SR  
PVC or PU Cable  
IP68 (Unmated) Stand Alone  
5A: 5



Screw Type  
Solder Contacts  
Field Installable  
IP68 When Mated  
5A: 5

### Accessories



Cap-Screw (for Female)



Cap-Screw (for Male)

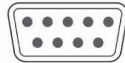
**D-SUB SERIES**

NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	Standard D-Sub Connector High Density D-Sub Connector
<b>02 . Description</b>	Panel Mount, Molded with Cable and Field Installable
<b>03 . Current Rating / Pin Arrangements</b>	Standard D-Sub: 5A: 9, 15, 25, 37, 50 High Density D-Sub: 2A: 15, 26, 44, 62, 78
<b>04 . Material</b>	Contacts: Copper Alloy, Gold Plated Connector Body: Nylon 9T or PBT, UL Recognized Shell: Steel, Nickel Plated
<b>05 . Temperature Range</b>	Cable: -20°C to + 80°C Connector Body: -40°C to +105°C
<b>06 . Waterproof Rating</b>	IP67(Per IEC60590), IP68
<b>07 . Contact Resistance</b>	≤20MΩ
<b>08 . Insulation Resistance</b>	≥500MΩ at DC 500V
<b>09 . Breakdown Voltage</b>	≥AC 500V / 1 Minute
<b>10 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5, 10M (Standard Cable: UL2464 )
<b>11 . Field Installable</b>	All Solder Contacts Unless And Otherwise Indicated

## D-SUB CONNECTOR

### Standard D-Sub

Size 1



5A: 9 (Male)



5A: 9 (Female)

Size 2



5A: 15 (Male)



5A: 9 (Female)

Size 3

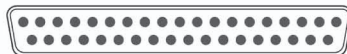


5A: 25 (Male)



5A: 25 (Female)

Size 4

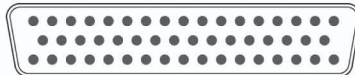


5A: 37 (Male)

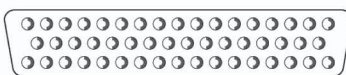


5A: 37 (Female)

Size 5



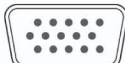
5A: 50 (Male)



5A: 50 (Female)

### High Density D-Sub

Size 1

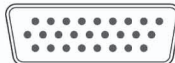


2A: 15 (Male)



2A: 15 (Female)

Size 2



2A: 26 (Male)



2A: 26 (Female)

Size 3

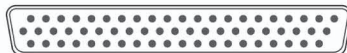


2A: 44 (Male)



2A: 44 (Female)

Size 4

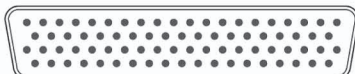


2A: 62 (Male)

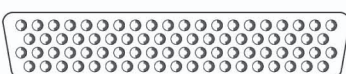


2A: 62 (Female)

Size 5



2A: 78 (Male)



2A: 78 (Female)

Male: •2A •5A

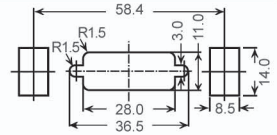
Female: ○2A ○5A



Male Conn  
(Male Pin)



Female Conn  
(Female Pin)



### Panel (Chassis) Metal

#### Connector NO.1

#### Features



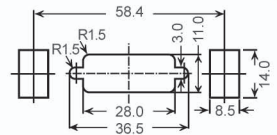
Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded, PCB or Solder Contacts  
 IP68 (Unmated) Stand Alone  
 5A: 15

#### Mating Part



Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded, Solder Contacts  
 Field Installable  
 IP67 When Mated  
 5A: 15

## High Density D-SUB Size 2 Push-Pull Type (2A)



### Panel (Chassis) Metal

#### Connector NO.1

#### Features



Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded, PCB or Solder Contacts  
 IP68 (Unmated) Stand Alone  
 2A: 26

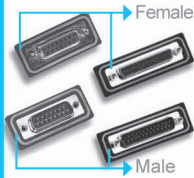
#### Mating Part



Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded, Solder Contacts  
 Field Installable  
 IP67 When Mated  
 2A: 26

## Panel (Chassis) Plastic

### Connector NO.1



### Features

Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded  
 PCB or Solder Contacts  
 IP67(5A: 37) or IP68(5A: 9, 15, 25)  
 (Unmated) Stand Alone  
 5A: 9, 15, 25, 37

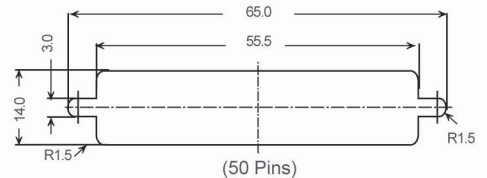
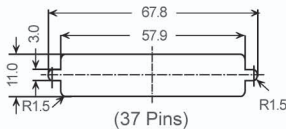
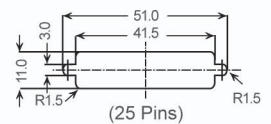
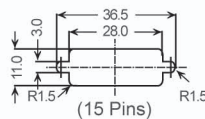
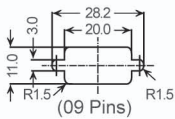
### Connector NO.2



### Features

Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded  
 PCB or Solder Contacts  
 IP67 (Unmated) Stand Alone  
 5A: 50

### Cut-Out



### Mating Part



With SR



Without SR

Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded  
 In-line Molded Type (Cable to Cable)With SR  
 IP67 (Unmated) Stand Alone  
 5A: 9, 15, 25, 37, 50  
**Mating pair of connector NO.1 & 2**



With SR



Without SR

Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded  
 Solder Contacts  
 Crimp Contact (10K Terminals/ Reel)  
 Field Installable, without SR  
 IP67 When Mated  
 5A: 9, 15, 25  
**Mating pair of connector NO.1**

### Accessories



Waterproof Cover (for Size 1 to 3)



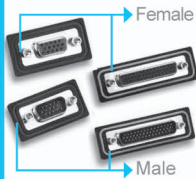
Joiner for Cable Connector (for Size 1 to 3)



Dust Cap (for Size 1 to 3)

## Panel (Chassis) Mount

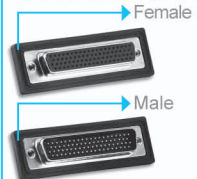
### Connector NO.1



### Features

Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded  
 PCB or Solder Contacts  
 IP67(2A: 62) or IP68(2A: 15, 26, 44)  
 (Unmated) Stand Alone  
 2A: 15, 26, 44, 62

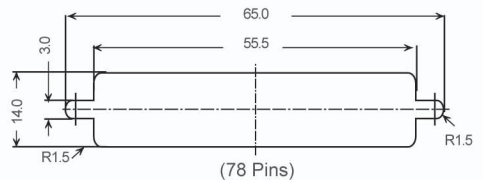
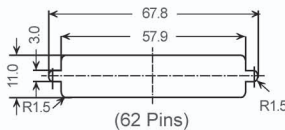
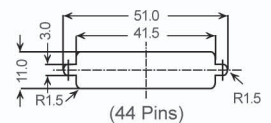
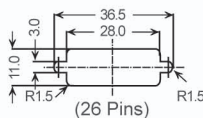
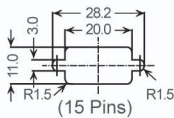
### Connector NO.2



### Features

Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded  
 PCB or Solder Contacts  
 IP67 (Unmated) Stand Alone  
 2A: 78

### Cut-Out



### Mating Part



With SR



Without SR

Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded  
 In-line Molded Type (Cable to Cable) With SR  
 IP67 (Unmated) Stand Alone  
 2A: 15, 26, 44, 62, 78  
 Mating pair of connector NO.1 & 2



With SR



Without SR

Connector+Contact Gender: FF or MM Only (F-Female, M-Male)  
 Shielded  
 Solder Contacts  
 Crimp Contact (10K Terminals/ Reel)  
 Field Installable, without SR  
 IP67 When Mated  
 2A: 15, 26, 44  
 Mating pair of connector NO.1

### Accessories



Waterproof Cover  
 (for Size 1 to 3)



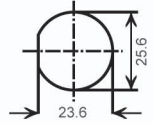
Joiner for Cable Connector  
 (for Size 1 to 3)



Dust Cap  
 (for Size 1 to 3)

## USB SERIES

NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	USB A Type USB B Type
<b>02 . Description</b>	Panel Mount, Molded with Cable and Field Installable
<b>03 . Current Rating</b>	1.5A
<b>04 . Speed</b>	480Mbps
<b>05 . Material</b>	Contacts: Copper Alloy, Gold Plated Connector Body: PBT UL94V-0
<b>06 . Temperature Range</b>	-20°C to + 80°C
<b>07 . Waterproof Rating</b>	IP67(Per IEC60590), IP68
<b>08 . Contact Resistance</b>	≤30MΩ Max
<b>09 . Insulation Resistance</b>	≥1000MΩ Min
<b>10 . Breakdown Voltage</b>	≥AC 500V / 1 Minute
<b>11 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5M (Standard Cable: USB 2.0)



## Panel (Chassis) Mount

### Connector NO.1



LTWUA-20PMFP-LC7001  
(Without)  
LTWUA-20PMFP-LC7002  
(With)

### Features

USB A Type  
Male Connector  
PCB 180°  
With or Without Flying Lead  
IP67 (Unmated) Stand Alone

### Connector NO.2



LTWUB-20PMFP-LC7001  
(Without)  
LTWUB-20PMFP-LC7002  
(With)

### Features

USB B Type  
Male Connector  
PCB 180°  
With or Without Flying Lead  
IP67 (Unmated) Stand Alone

### Mating Part



90°  
With SR

USB A Type  
Female Connector  
180° or 90° In-line Molded Type  
(Cable to Cable)With SR  
Cable Length 1 to 5 Meters  
IP67 (Unmated) Stand Alone  
Mating pair of connector NO.1

180° With SR Available  
(LTWUA-20AFMM-LL7AXX)



90°  
With SR

USB B Type  
Female Connector  
180° or 90° In-line Molded Type  
(Cable to Cable)With SR  
Cable Length 1 to 5 Meters  
IP67 (Unmated) Stand Alone  
Mating pair of connector NO.2

180° With SR Available  
(LTWUB-20AFMM-LL7AXX)

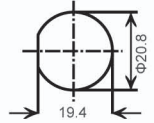
### Accessories













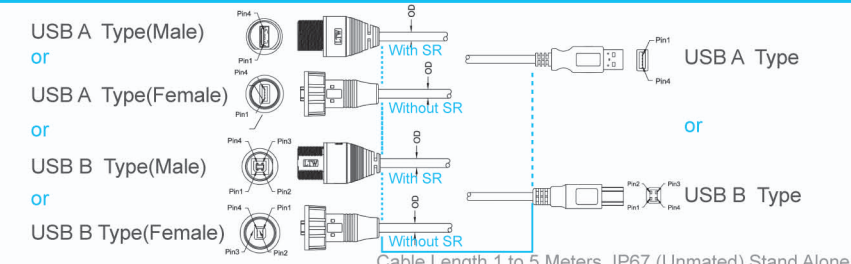
Waterproof Cover  
With Chain



Waterproof Cover  
With Rubber Lead

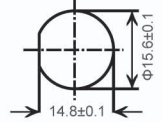


## Panel (Chassis) Mount

<p><b>Connector NO.1</b></p>  <p>LTWUA-20PMFP-SC8001 (Without) LTWUA-20PMFP-SC8002 (With)</p>	<p><b>Features</b></p> <p>USB A Type Male Connector PCB 180° With or Without Flying Lead IP68 (Unmated) Stand Alone</p>	<p><b>Connector NO.4</b></p>  <p>With SR LTWUB-20AMFM-SL7AXX</p>	<p><b>Features</b></p> <p>USB B Type Male Connector In-line Molded Type (Cable to Cable)With SR Cable Length 1 to 5 Meters IP67 (Unmated) Stand Alone</p>	
<p><b>Connector NO.2</b></p>  <p>LTWUB-20PMFP-SC8001 (Without) LTWUB-20PMFP-SC8002 (With)</p>	<p><b>Features</b></p> <p>USB B Type Male Connector PCB 180° With or Without Flying Lead IP68 (Unmated) Stand Alone</p>	<p><b>Connector NO.5</b></p>  <p>LTWUA-20BMFA-SL8001</p>	<p><b>Features</b></p> <p>USB A Type Male Connector Field Installable Without Cable IP68 When Mated</p>	
<p><b>Connector NO.3</b></p>  <p>With SR LTWUA-20AMFM-SL7AXX</p>	<p><b>Features</b></p> <p>USB A Type Male Connector In-line Molded Type (Cable to Cable)With SR Cable Length 1 to 5 Meters IP67 (Unmated) Stand Alone</p>	<p><b>Connector NO.6</b></p>  <p>LTWUB-20BMFA-SL8001</p>	<p><b>Features</b></p> <p>USB B Type Male Connector Field Installable Without Cable IP68 When Mated</p>	
<p><b>Mating Part</b></p>  <p>Without SR</p>	<p>USB A Type Female Connector In-line Molded Type (Cable to Cable)Without SR Cable Length 1 to 5 Meters IP67 (Unmated) Stand Alone Mating pair of connector NO.1, 3, 5</p>	 <p>Without SR</p> <p>USB B Type Female Connector In-line Molded Type (Cable to Cable)Without SR Cable Length 1 to 5 Meters IP67 (Unmated) Stand Alone Mating pair of connector NO.2, 4, 6</p>		
<p><b>Accessories</b></p>	 <p>Waterproof Cover With Chain</p>	 <p>Waterproof Cover With Rubber Lead</p>	 <p>Waterproof Cover With Fish Line</p>	 <p>Waterproof Box</p>
<p><b>Waterproof USB</b></p> <p>to</p> <p><b>Non-Waterproof USB</b></p>	 <p>USB A Type (Male) or USB A Type (Female) or USB B Type (Male) or USB B Type (Female)</p> <p>USB A Type or USB B Type</p> <p>Cable Length 1 to 5 Meters, IP67 (Unmated) Stand Alone</p>			

## Mini USB SERIES

NO. SPECIFICATIONS	STANDARD VALUE
01 . Identifications	USB B Type
02 . Description	Panel Mount, Molded with Cable and Field Installable
03 . Current Rating	1A
04 . Speed	480 Mbps
05 . Material	Contacts: Copper Alloy, Gold Plated Connector Body: PBT UL94V-0
06 . Temperature Range	-20°C to + 80°C
07 . Waterproof Rating	IP67(Per IEC60590), IP68
08 . Contact Resistance	≤30MΩ Max
09 . Insulation Resistance	≥1000MΩ at DC 500V
10 . Breakdown Voltage	≥AC 500V / 1 Minute
11 . Standard Cable Length (for Molded Cable)	1, 2, 5M (Standard Cable: USB 2.0)



## Panel (Chassis) Mount

### Connector NO.1

#### Features

Male Connector  
PCB 180°  
IP67 (Unmated) Stand Alone



LTWNUB-20PMFP-SC7001

### Connector NO.3

#### Features

Male Connector  
Field Installable  
Without SR  
IP67 When Mated



LTWNUB-20BMFA-SL7001

### Connector NO.2

#### Features

Male Connector  
PCB 90°  
IP67 (Unmated) Stand Alone



LTWNUB-20PMFR-SC7001

### Connector NO.4

#### Features

Male Connector  
In-line Molded Type (Cable to Cable) With SR  
Cable Length 5 Meters Max  
IP67 (Unmated) Stand Alone



LTWNUB-20AMFM-SL7AXX

### Mating Part



With SR Mating pair of connector NO.1 to 4

Female Connector  
In-line Molded Type (Cable to Cable) With SR  
Cable Length 5 Meters Max  
IP67 (Unmated) Stand Alone

### Accessories



Waterproof Cover With Chain

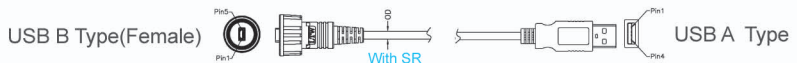


Waterproof Cover With Rubber Lead



Waterproof Cover

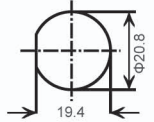
### Waterproof Mini USB to Non-Waterproof USB



Cable Length 1 to 5 Meters, IP67 (Unmated) Stand Alone

## IEEE 1394 A TYPE

NO. SPECIFICATIONS	STANDARD VALUE
01 . Identifications	IEEE 1394 Connector
02 . Description	Panel Mount, Molded with Cable and Field Installable
03 . Current Rating	0.5A
04 . Material	Contacts: Copper Alloy, Gold Plated Connector Body: PBT UL94V-0
05 . Temperature Range	-20°C to + 80°C
06 . Waterproof Rating	IP67(Per IEC60590), IP68
07 . Contact Resistance	≤30MΩ Max
08 . Insulation Resistance	≥100MΩ at DC 500V
09 . Breakdown Voltage	≥AC 500V / 1 Minute
10 . Standard Cable Length (for Molded Cable)	1, 2,4M (IEEE1394A Cable)
11 . Speed	400Mbps



## Panel (Chassis) Mount

### Connector NO.1



LTW13-AA~~PM~~FP-SC8001

### Features

Male Connector  
PCB 180°  
IP68 (Unmated) Stand Alone

### Connector NO.3



LTW13-AA~~BM~~FA-SL8001

### Features

Male Connector  
Field Installable  
Without Cable  
IP68 When Mated

### Connector NO.2



LTW13-AA~~AM~~FM-SL7A~~XX~~

### Features

Male Connector  
In-line Molded Type (Cable to Cable) With SR  
Cable Length 1 to 4 Meters  
IP67 (Unmated) Stand Alone

### Mating Part



Without SR Mating pair of connector NO.1 to 3

Female Connector  
In-line Molded Type (Cable to Cable) Without SR  
IP67 (Unmated) Stand Alone  
Cable Length 1 to 4 Meters

### Accessories



Waterproof Cover  
With Chain



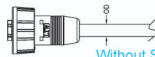
Waterproof Cover  
With Rubber Lead



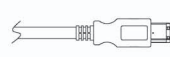
Waterproof Cover  
With Fish Line

### Waterproof IEEE 1394 A to Non-Waterproof IEEE 1394 A

1394 A Type(Female)



Without SR



Non-Waterproof A Type

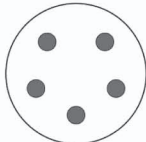
Cable Length 1 to 5 Meters, IP67 (Unmated) Stand Alone

## POWER CONNECTOR

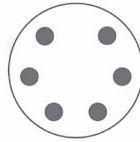
NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	Power Connector
<b>02 . Description</b>	Panel Mount, Molded with Cable and Field Installable
<b>03 . Current Rating / Pin Arrangements</b>	8A : 5 to 7 12A: 2 to 4 20A: 3
<b>04 . Material</b>	Contacts: Copper Alloy, Gold Plated Connector Body: Nylon + GF, UL Recognized
<b>05 . Temperature Range</b>	Cable: -20°C to + 80°C Connector Body: -40°C to +105°C
<b>06 . Waterproof Rating</b>	IP67(Per IEC60590)
<b>07 . Contact Resistance</b>	≤20MΩ
<b>08 . Insulation Resistance</b>	≥100MΩ at 250V DC
<b>09 . Durability</b>	1000 Times
<b>10 . Breakdown Voltage</b>	≥AC 1000V / 1 Minute
<b>11 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5, 10M (Standard Cable: UL2464 PVC Jacket or Power Cable)
<b>12 . Field Installable</b>	All Solder Contacts Unless And Otherwise Indicated

## POWER CONNECTOR

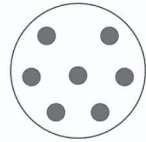
### 8A Current



8A:5

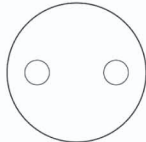


8A:6

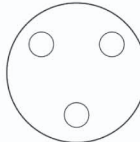


8A:7

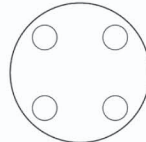
### 12A Current



12A:2



12A:3



12A:4

### 20A Current



20A:3



8A



12A



20A

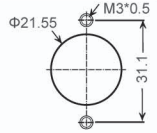


Male Conn  
(Male Pin)



Female Conn  
(Female Pin)

8A:7 and 12A:4 Compatible With Amphenol, Binder, Hirschmann and Amp



## Panel (Chassis) Mount

### Connector NO.1



#### Features

Male Connector  
Front Mount  
IP67 (Unmated) Stand Alone  
▲→8A: 5 to 7

LTWPWE ▲ PMMS-SC7001

### Connector NO.2



#### Features

Female Connector  
Front Mount  
IP67 (Unmated) Stand Alone  
▲→8A: 5 to 7

LTWPWE ▲ PFFS-SC7001

### Mating Part



Female Connector  
In-line Molded Type (Cable to Cable or Cable to Field Installable)  
With SR  
IP67 (Unmated) Stand Alone  
Cable Length 1 to 99 Meters  
8A: 5 to 7  
Mating pair of connector NO.1



Female Connector  
Solder Contacts  
In-line Field Installable (Field Installable to Field Installable or Cable to Field Installable)  
Without Cable  
IP67 When Mated  
8A: 5 to 7  
Mating pair of connector NO.1



Male Connector  
In-line Molded Type (Cable to Cable or Cable to Field Installable)  
With SR  
IP67 (Unmated) Stand Alone  
Cable Length 1 to 99 Meters  
8A: 5 to 7  
Mating pair of connector NO.2



Male Connector  
Solder Contacts  
In-line Field Installable (Field Installable to Field Installable or Cable to Field Installable)  
Without Cable  
IP67 When Mated  
8A: 5 to 7  
Mating pair of connector NO.2





## Panel (Chassis) Mount

### Connector NO.1

#### Features

Male Connector  
Front Mount  
IP67 (Unmated) Stand Alone  
▲→12A: 2 to 4



LTWPWF-▲PMS-SC7001

### Connector NO.2

#### Features

Female Connector  
Front Mount  
IP67 (Unmated) Stand Alone  
▲→12A: 2 to 4



LTWPWF-▲PFS-SC7001

### Mating Part



With SR



Female Connector  
In-line Molded Type (Cable to Cable or Cable to Field Installable)  
With SR  
IP67 (Unmated) Stand Alone  
Cable Length 1 to 99 Meters  
12A: 2 to 4  
Mating pair of connector NO.1



Female Connector  
Solder Contacts  
In-line Field Installable (Field Installable to Field Installable or Cable to Field Installable)  
Without Cable  
IP67 When Mated  
12A: 2 to 4  
Mating pair of connector NO.1



With SR



Male Connector  
In-line Molded Type (Cable to Cable or Cable to Field Installable)  
With SR  
IP67 (Unmated) Stand Alone  
Cable Length 1 to 99 Meters  
12A: 2 to 4  
Mating pair of connector NO.2

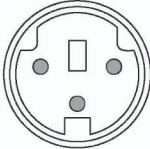
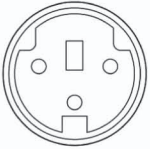
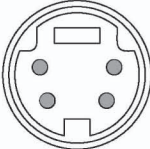
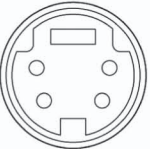
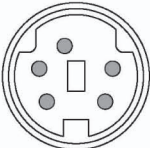
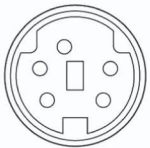
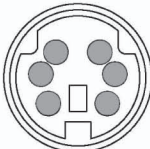
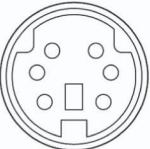
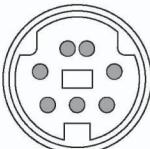
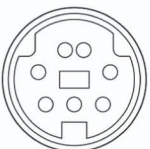
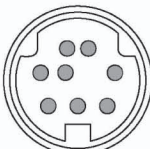
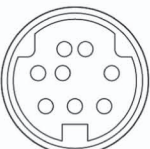


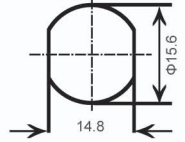
Male Connector  
Solder Contacts  
In-line Field Installable (Field Installable to Field Installable or Cable to Field Installable)  
Without Cable  
IP67 When Mated  
12A: 2 to 4  
Mating pair of connector NO.2

## MINI DIN SERIES

NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	Mini Din
<b>02 . Description</b>	Panel Mount, Molded with Cable
<b>03 . Current Rating / Pin Arrangements</b>	1A: 3 to 8
<b>04 . Material</b>	Contacts: Copper Alloy, Gold / Tin Plated Connector Body: PBT UL94V-0
<b>05 . Temperature Range</b>	-20°C to + 80°C
<b>06 . Waterproof Rating</b>	IP66, IP67(Per IEC60590)
<b>07 . Contact Resistance</b>	≤20MΩ Max
<b>08 . Insulation Resistance</b>	≥50MΩ at DC 250V
<b>09 . Breakdown Voltage</b>	≥AC 250V / 1 Minute
<b>10 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5, 10M (Standard Cable: UL2464 PVC Jacket)

## MINI DIN SERIES CONNECTOR

	Male (Male Conn Female Pin)	Female (Female Conn Male Pin)
<b>3 Contact</b>		
<b>4 Contact</b>		
<b>5 Contact</b>		
<b>6 Contact</b>		
<b>7 Contact</b>		
<b>8 Contact</b>		



## Panel (Chassis) Mount

### Connector NO.1



LTVWMID-△PMFS-SC7001

### Features

Screw Type  
IP67 (Unmated) Stand Alone  
△→1A: 3 to 8

### Connector NO.2



With SR Screw  
LTVWMID-△AMFM-SL7AXX (Screw)  
With SR Quick  
LTVWMID-△AMFM-QL6AXX (Quick)

### Features

In-line Molded Type (Cable to Cable) With SR  
IP66(Quick) or P67(Scerw) (Unmated) Stand Alone  
Cable Length 1 to 99 Meters  
△→1A: 3 to 8

### Mating Part



With SR Screw

In-line Molded Type (Cable to Cable) With SR  
IP66(Quick) or P67(Scerw) (Unmated) Stand Alone  
Cable Length 1 to 99 Meters  
1A: 3 to 8

Mating pair of connector NO.1 & 2 (Screw Type)



With SR Quick

Mating pair of connector NO. 2 (Quick Type)

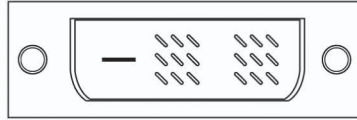
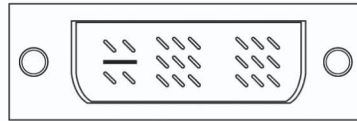
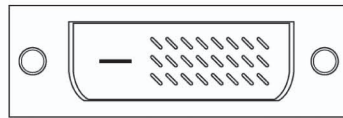
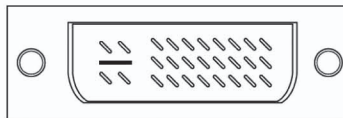
### Accessories



Waterproof Cover With Chain

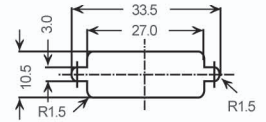
## DVI SERIES

NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	DVI-D Single Link (DDS) DVI-D Dual Link (DDD) DVI-I Single Link (DIS) DVI-I Dual Link (DID)
<b>02 . Description</b>	Panel Mount, Molded with Cable
<b>03 . Pin Arrangements</b>	DVI-D Single Link (DDS): 19 Contacts DVI-D Dual Link (DDD): 25 Contacts DVI-I Single Link (DIS): 23 Contacts DVI-I Dual Link (DID): 29 Contacts
<b>04 . Material</b>	Contacts: Copper Alloy, Gold Plated Connector Body: Nylon + GF, UL Recognized Shell: Steel, Nickel Plated
<b>05 . Temperature Range</b>	Cable: -20°C to + 80°C Connector Body: -20°C to + 85°C
<b>06 . Waterproof Rating</b>	IP67(Per IEC60590)
<b>07 . Contact Resistance</b>	≤20MΩ
<b>08 . Insulation Resistance</b>	≥1000MΩ at DC 500V
<b>09 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5M (Standard Cable: UL20276 28 AWG / PVC)

**DVI CONNECTOR****DVI-D Single Link(DDS)****19 Contacts****DVI-I Single Link(DIS)****23 Contacts****DVI-D Dual Link(DDD)****25 Contacts****DVI-I Dual Link(DID)****29 Contacts**

# DVI-D (Digital) (Female)

53



## Panel (Chassis) Mount

### Connector NO.1



### Features

DVI-D Single 19 Contacts or DVI-D Dual 25 Contacts  
Screw Type  
IP68 (Unmated) Stand Alone

### Mating Part



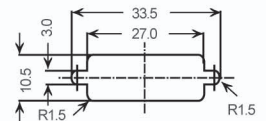
With SR



With SR

DVI-D Single 19 Contacts or DVI-D Dual 25 Contacts  
Screw Type  
In-line Molded Type (Cable to Cable) With SR  
IP67 (Unmated) Stand Alone

# DVI-I (Analog / Digital) (Female)



## Panel (Chassis) Mount

### Connector NO.1



### Features

DVI-I Single 23 Contacts or DVI-I Dual 29 Contacts  
Screw Type  
IP68 (Unmated) Stand Alone

### Mating Part

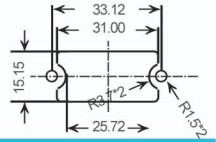


With SR



With SR

DVI-I Single 23 Contacts or DVI-I Dual 29 Contacts  
Screw Type  
In-line Molded Type (Cable to Cable) With SR  
IP67 (Unmated) Stand Alone



## Panel (Chassis) Mount

### Connector NO.1



LTWHJ-19PFFR-QS7001

### Features

- Latch Type
- 90° PCB
- IP67 (Unmated) Stand Alone

### Mating Part



With SR

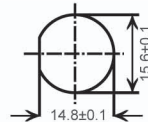
- 180° In-line Molded Type (Cable to Cable) With SR
- Maximum Cable Length 5M(Cable Specification HDMI 1.3)
- IP67 (Unmated) Stand Alone

## PIN ARRANGEMENT / PCB LAYOUT

	Male (Male Conn Male Pin)	PCB
19 Contacts		

## COAXIAL SERIES

NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	Coaxial TNC Coaxial RCA
<b>02 . Description</b>	Panel Mount, Molded with Cable
<b>03 . Impedance</b>	TNC: 50Ω, 75Ω
<b>04 . Material</b>	Contacts: Copper Alloy, Nickel Plated / Gold Plated Connector Body: Teflon (TNC), PBT (RCA)
<b>05 . Temperature Range</b>	Cable: -20°C to + 80°C Connector Body: -40°C to + 105°C
<b>06 . Waterproof Rating</b>	IP66, IP67(Per IEC60590)
<b>07 . Contact Resistance</b>	RCA: ≤30MΩ
<b>08 . Insulation Resistance</b>	RCA: ≥100MΩ at DC 500V TNC: ≥AC 500MΩ
<b>09 . Breakdown Voltage</b>	RCA: ≥AC 500V / 1 Minute
<b>10 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5, 10M (Standard Cable: RG58C / U or RG59U or UL1185 26#)



### Panel (Chassis) Mount

#### Connector NO.1



#### Features

TNC Connector  
50Ω or 75Ω  
Screw Tyoe  
Solder Contact  
Front Mount  
IP67 (Unmated) Stand Alone

#### Connector NO.3



Without SR

#### Features

TNC Connector  
50Ω or 75Ω  
Screw Tyoe, Front Mount  
In-line Molded Type (Cable to Cable)With SR  
IP67 (Unmated) Stand Alone

#### Connector NO.2



With SR

#### Features

RCA Connector  
Quick Type  
In-line Molded Type (Cable to Cable)With SR  
IP66 When Mated

#### Mating Part



With SR

TNC Connector  
50Ω or 75Ω  
Screw Tyoe  
In-line Molded Type (Cable to Cable)With SR  
IP67 (Unmated) Stand Alone  
Mating pair of connector NO.1 & 3



With SR

RCA Connector  
Quick Tyoe  
In-line Molded Type (Cable to Cable)With SR  
IP66 When Mated  
Mating pair of connector NO.2

#### Accessories



Waterproof Cover With Chain

## CABLE GLAND SERIES

---

NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	Cable Gland
<b>02 . Description</b>	Field Installable
<b>03 . Thread Style</b>	M8, M12, M16, M20, M25, M32, M40 PG7, PG9, PG11, PG13.5, PG16, PG29
<b>04 . Material</b>	Connector Body:Nylon 66, UL Recognized UV Resistant
<b>05 . Temperature Range</b>	-40°C to + 105°C
<b>06 . Waterproof Rating</b>	IP67, IP68



Long Type (With SR:

), (Without SR:

Thread Style	Cable OD	Panel Thickness	With SR (Connector Length)	Without SR (Connector Length)	IP
M 12	Φ4.5 ~ Φ6.5mm	MAX 3.0mm	60.0mm	30.0mm	68
M 16	Φ6 ~ Φ10mm	MAX 7.5mm	78.0mm	45.0mm (UV)	68
M 20	Φ10 ~ Φ14mm	MAX 6.2mm	86.6mm	43.7mm	68
M 25	Φ13 ~ Φ18mm	MAX 6.2mm	96.0mm	52.1mm	68
M 32	or Φ16 ~ Φ22mm Φ18 ~ Φ25mm	MAX 6.0mm		52.5mm	68
M 40	or Φ20 ~ Φ25mm Φ24 ~ Φ32mm	MAX 9.0mm		60.0mm	68
PG 7	Φ4.5 ~ Φ6.5mm	MAX 3.0mm	60.0mm	30.0mm	68
PG 9	Φ6.0 ~ Φ10mm	MAX 7.5mm	78.0mm	45.0mm	68
PG 11	Φ6.0 ~ Φ10mm	MAX 6.0mm	79.1mm	48.3mm	68
PG 13.5	Φ10 ~ Φ14mm	MAX 6.2mm	86.6mm	49.6mm	68
PG 16	or Φ6.5mm(for RJ) Φ10 ~ Φ14mm	or MAX 4.5mm(for RJ) MAX 6.0mm	86.6mm	or 49.85mm(for RJ) 49.6mm	68
PG 29	or Φ16 ~ Φ22mm Φ18 ~ Φ25mm	MAX 6.0mm		52.5mm	68



Short Type (With SR:

), (Without SR:

Thread Style	Cable OD	Panel Thickness	With SR (Connector Length)	Without SR (Connector Length)	IP
M 8	Φ2.5 ~ Φ3.0mm			22.0mm	67
M 16	Φ6 ~ Φ10mm	MAX 3mm		40.0mm	68
M 20	Φ10 ~ Φ14mm	MAX 6.2mm	79.6mm	36.7mm	68
M 25	Φ13 ~ Φ18mm	MAX 6.2mm	89.0mm	45.0mm	68
M 32	or Φ16 ~ Φ22mm Φ18 ~ Φ25mm	MAX 6.0mm		47.5mm	68
PG 16	or Φ5.5 ~ Φ7.5mm(for RJ) Φ10 ~ Φ14mm			or 45.0mm(for RJ) 44.6mm	68

## LED SERIES

### NO. SPECIFICATIONS

STANDARD VALUE

#### 01. Identifications

Plastic LED  
Metal LED

#### 02. Description

Panel Mount

#### 03. LED Size

Plastic LED:  $\Phi$ 3mm  
Metal LED:  $\Phi$ 3mm,  $\Phi$ 5mm

#### 04. Light Color

Red, Blue, Green, White, Yellow

#### 05. Material

Metal: Brass, Nickel 120u Plated  
Plastic: ABS

#### 06. Waterproof Rating

IP67(Per IEC60590)

#### 07. Operating Temperature

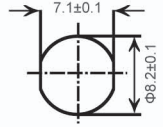
-40°C to + 80°C

#### 08. Breakdown Voltage

4V

#### 09. Luminous Intensity (mcd / min)

	$\Phi$ 3mm	$\Phi$ 5mm
White	2100mcd	4150mcd
Red	1080mcd	2100mcd
Blue	1080mcd	4150mcd
Green	2950mcd	2950mcd
Yellow	700mcd	2100mcd



### Panel (Chassis) Plastic

#### Connector NO.1



Rear Mounting  
LTWL08-01WAAS-PR7001

#### Features

White Light Color  
Φ 3mm  
IP67 (Unmated) Stand Alone

#### Connector NO.4



Rear Mounting  
LTWL08-01GAAS-PR7001

#### Features

Green Light Color  
Φ 3mm  
IP67 (Unmated) Stand Alone

#### Connector NO.2



Rear Mounting  
LTWL08-01RAAS-PR7001

#### Features

Red Light Color  
Φ 3mm  
IP67 (Unmated) Stand Alone

#### Connector NO.5



Rear Mounting  
LTWL08-01YAAS-PR7001

#### Features

Yellow Light Color  
Φ 3mm  
IP67 (Unmated) Stand Alone

#### Connector NO.3



Rear Mounting  
LTWL08-01BAAS-PR7001

#### Features

Blue Light Color  
Φ 3mm  
IP67 (Unmated) Stand Alone

### Panel (Chassis) Metal

#### Connector NO.1



Rear Mounting  
LTWL08-01WAAS-MR7001(3)  
LTWL08-01WBAS-MR7001(5)

#### Features

White Light Color  
Φ 3mm or Φ 5mm  
IP67 (Unmated) Stand Alone

#### Connector NO.4



Rear Mounting  
LTWL08-01GAAS-MR7001(3)  
LTWL08-01GBAS-MR7001(5)

#### Features

Green Light Color  
Φ 3mm or Φ 5mm  
IP67 (Unmated) Stand Alone

#### Connector NO.2



Rear Mounting  
LTWL08-01RAAS-MR7001(3)  
LTWL08-01RBAS-MR7001(5)

#### Features

Red Light Color  
Φ 3mm or Φ 5mm  
IP67 (Unmated) Stand Alone

#### Connector NO.5



Rear Mounting  
LTWL08-01YAAS-MR7001(3)  
LTWL08-01YBAS-MR7001(5)

#### Features

Yellow Light Color  
Φ 3mm or Φ 5mm  
IP67 (Unmated) Stand Alone

#### Connector NO.3



Rear Mounting  
LTWL08-01BAAS-MR7001(3)  
LTWL08-01BBAS-MR7001(5)

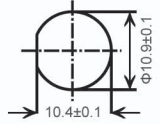
#### Features

Blue Light Color  
Φ 3mm or Φ 5mm  
IP67 (Unmated) Stand Alone

## DC AUDIO PLUG & JACK

---

NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	DCM: Mono Phone Jack DCS: Stereo Phone Jack
<b>02 . Description</b>	Panel Mount, Molded with Cable
<b>03 . Plug Dimension</b>	Φ 2.5mm, Φ3.5mm
<b>04 . Waterproof Rating</b>	IP66
<b>05 . Standard Cable Length (for Molded Cable)</b>	1, 2, 5, 10M (Standard Cable: UL2464 PVC Jacket)



## Panel (Chassis) Mount

### Connector NO.1



LTWDCM-01RMFS-QC6001

#### Features

DC Mono Phone Jack Connector  
 $\Phi$  2.5mm  
 Male Connector  
 Panel Rear Mount  
 IP66 When Mated

### Connector NO.4



With SR  
 LTWDCS-02AMFM-QL6AXX  
 (Stereo)  
 LTWDCM-02AMFM-QL6AXX  
 (Mono)

#### Features

DC Stereo or Mono Phone Jack Connector  
 $\Phi$  3.5mm, Male Connector  
 In-line Molded Type (Cable to Cable)With SR  
 Cable Length Any Value  
 IP66 When Mated

### Connector NO.2



LTWDCS-01RMFS-QC6001

#### Features

DC Stereo Phone Jack Connector  
 $\Phi$  2.5mm  
 Male Connector  
 Panel Rear Mount  
 IP66 When Mated

### Connector NO.5



With SR  
 LTWDCS-01AMFM-QL6AXX  
 (Stereo)  
 LTWDCM-01AMFM-QL6AXX  
 (Mono)

#### Features

DC Stereo or Mono Phone Jack Connector  
 $\Phi$  2.5mm, Male Connector  
 In-line Molded Type (Cable to Cable)With SR  
 Cable Length Any Value  
 IP66 When Mated

### Connector NO.3



LTWDCM-02RMFS-QC6001

#### Features

DC Mono Phone Jack Connector  
 $\Phi$  3.5mm  
 Male Connector  
 Panel Rear Mount  
 IP66 When Mated

## Mating Part



With SR

DC Stereo or Mono Plug Connector  
 $\Phi$  3.5mm(Stereo) or  $\Phi$  2.5mm  
 Female Connector  
 In-line Molded Type (Cable to Cable)With SR  
 Cable Length Any Value  
 IP66 When Mated  
 Mating pair of connector NO.1, 2, 4, 5



With SR

DC Mono Plug Connector  
 $\Phi$  3.5mm  
 Female Connector  
 In-line Molded Type (Cable to Cable)With SR  
 Cable Length Any Value  
 IP66 When Mated  
 Mating pair of connector NO.3 and 4

## Cable Joiner

### Connector NO.1



LTWCX-04BAM20-7001

### Features

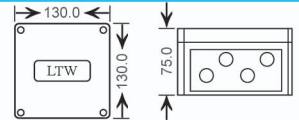
M20, 2 to 4 Conductor  
 Field Installable  
 Wiring Gauge 16~22AWG  
 Cable Range:  $\Phi$ 10mm,  $\Phi$ 62mm  
 UV Resistant  
 Temperature range:  $-40^{\circ}\text{C} + 85^{\circ}\text{C}$   
 IP67 (Unmated) Stand Alone

### Accessories



Tool

# Junction Box



## Junction Box

### Connector NO.1



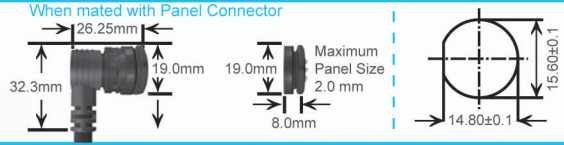
LTWJBOX-A001

### Features

A Size: 130 x 130 x 75  
 001 With Knockout Hole  
 UV Resistant Up to 300 Hours (Max.)  
 Temperature range:  $-40^{\circ}\text{C} + 85^{\circ}\text{C}$   
 IP67 (Unmated) Stand Alone

### Accessories

M8, M12, M16, M20, M25, M32, M40  
 PG7, PG9, PG11, PG13.5, PG16, PG29



## Panel (Chassis) Mount

### Connector NO.1



LTPWAA-△RFFS-LC7001

### Features

- Female Connector
- Lock Type, Sloder Contacts
- Panel Rear Mount
- Connector Rating 1A
- IP67 (Unmated) Stand Alone
- △→8 or 10 Pin

### Connector NO.2



LTPWAA-△RFFP-LC7001

### Features

- Female Connector
- Lock Type, PCB Contacts
- Panel Rear Mount
- PCB 180°
- IP67 (Unmated) Stand Alone
- △→8 or 10 Pin

### Mating Part



With SR

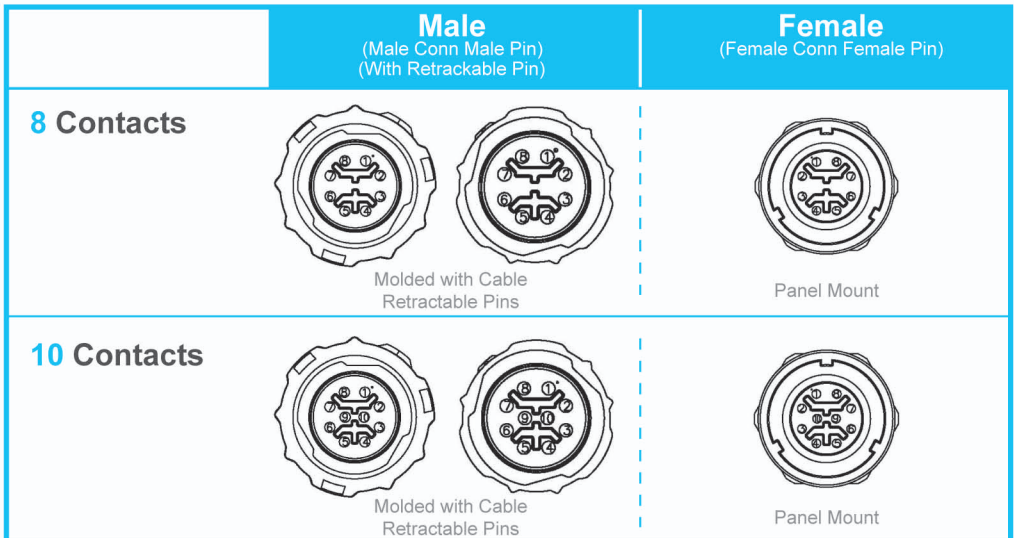
- (Short Nut) LTPWAA-△AMMM-KR7XXX  
 △→8 or 10 Pin  
 Male Connector  
 In-line Molded Type (Cable to Cable) With SR  
 Cable Length 1~99 Meters  
 Cable Type UL2464 PVC Jacket  
 IP67 (Unmated) Stand Alone  
 Mating pair of connector NO.1 & 2



With SR

- (Long Nut) LTPWAA-△AMMM-LR7XXX  
 △→8 or 10 Pin  
 Male Connector, Lock Type  
 In-line Molded Type (Cable to Cable) With SR  
 Cable Length 1~99 Meters  
 Cable Type UL2464 PVC Jacket  
 IP67 (Unmated) Stand Alone  
 Mating pair of connector NO.1 & 2











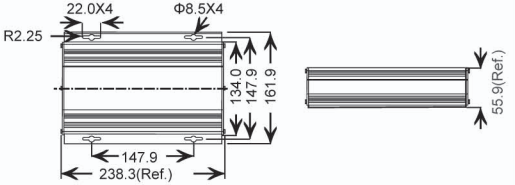
## LOW PROFILE CONNECTOR PIN ARRANGEMENT



## AP BOX SERIES

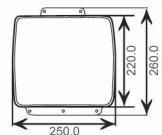
NO. SPECIFICATIONS	STANDARD VALUE
<b>01 . Identifications</b>	AP-02, AP-03, AP-04, AP-06, AP-07
<b>02 . Casing Material</b>	AP-02: Aluminum Rectangular AP-03: Light Gray Aluminum Square, Unpainted Bottom AP-04: White Aluminum Square, Painted Bottom AP-06: Aluminum Square, Unpainted Bottom AP-07: Aluminum Square, Painted Bottom
<b>03 . Cover Material</b>	AP-02: Metal AP-03, 04, 06, 07: Metal or Plastic
<b>04 . Accessory</b>	AP-02: SPCC Accessories AP-03: SPCC Accessories AP-04: SPCC Accessories AP-06: SUS Accessories AP-07: SUS Accessories
<b>05 . Waterproof Rating</b>	IP65, IP67

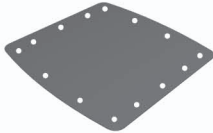
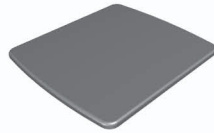

## Choose Option 1 of 5

<p><b>Casing NO.0</b></p>  <p>Front</p>  <p>Rear</p> <p>LTWAP-ODU-M00002</p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> No Connection</p> <p><b>REAR :</b> No Connection</p>	<p><b>Casing NO.3</b></p>  <p>Front</p>  <p>Rear</p> <p>LTWAP-ODU-M03002</p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> RJ45 X 2PCS and N BH JACK X 1PCS</p> <p><b>REAR :</b> No Connection</p>
<p><b>Casing NO.1</b></p>  <p>Front</p>  <p>Rear</p> <p>LTWAP-ODU-M01002</p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> RJ45 X 1PC</p> <p><b>REAR :</b> N BH JACK X 1PC</p>	<p><b>Casing NO.4</b></p>  <p>Front</p>  <p>Rear</p> <p>LTWAP-ODU-M04002</p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> RJ45 X 2PCS and N BH JACK X 2PCS</p> <p><b>REAR :</b> No Connection</p>
<p><b>Casing NO.2</b></p>  <p>Front</p>  <p>Rear</p> <p>LTWAP-ODU-M02002</p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> RJ45 X 1PC N BH JACK to U.FL X 1PC</p> <p><b>REAR :</b> N BH JACK X 1PC</p>		

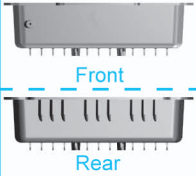
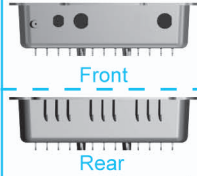
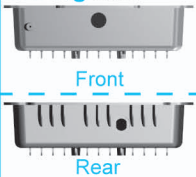
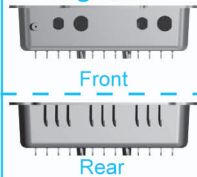
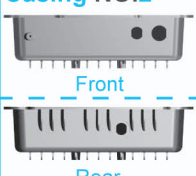
## Aluminum Square (AP-03, 04, 06, 07), (IP67)

## Metal Aluminum or Plastic Upper Cover




<p><b>Metal</b></p> 	<p>or</p> <p><b>Plastic</b></p> 	<p><b>Bottom Cover</b></p> 	<p>Unpainted (AP-03, 06) or Painted (AP-04, 07)</p>
--	---	--	---

## Choose Option 1 of 5

<p><b>Casing NO.0</b></p>  <p>LTWAP-ODU-<sup>1</sup>0000<sup>2</sup></p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> No Connection</p> <p><b>REAR :</b> No Connection</p>	<p><b>Casing NO.3</b></p>  <p>LTWAP-ODU-<sup>1</sup>0300<sup>2</sup></p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> RJ45 X 2PCS and N BH JACK X 1PCS</p> <p><b>REAR :</b> No Connection</p>
<p><b>Casing NO.1</b></p>  <p>LTWAP-ODU-<sup>1</sup>0100<sup>2</sup></p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> RJ45 X 1PC</p> <p><b>REAR :</b> N BH JACK X 1PC</p>	<p><b>Casing NO.4</b></p>  <p>LTWAP-ODU-<sup>1</sup>0400<sup>2</sup></p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> RJ45 X 2PCS and N BH JACK X 2PCS</p> <p><b>REAR :</b> No Connection</p>
<p><b>Casing NO.2</b></p>  <p>LTWAP-ODU-<sup>1</sup>0200<sup>2</sup></p>	<p>Suggested connector (Not Incl.)</p> <p><b>FRONT :</b> RJ45 X 1PC N BH JACK to U.FL X 1PC</p> <p><b>REAR :</b> N BH JACK X 1PC</p>	<p>LTWAP-ODU-<sup>1</sup>0X00<sup>2</sup></p> <p><sup>1</sup>→M (Metal Upper Cover) or P (Plastic Upper Cover)</p> <p><sup>2</sup>→3, 6(AP-03, 06)Unpainted or 4, 7(AP-04, 07)Painted</p>	

## Mounting Kit for Square

	<p><b>Features</b></p> <p>With SPCC Mounting Kit and Accessory(AP-03, 04) or With SUS Mounting Kit and Accessory(AP-06, 07)</p>
--	---

<p><b>Rectangular &amp; Square Accessories</b></p>	 <p>Vent Connector</p>	 <p>Dummy Cover for RJ45</p>	 <p>panel cover for RF Conn.(N-Type)</p>
--	---	---	---

# About LTW<sup>®</sup>

Company Name  
LTW TECHNOLOGY CO., LTD.

Established  
March 1993

Headquarters  
9F, NO. 657-12, Jungjeng Road,  
Shinjuang City, Taipei Hsien 242,  
Taiwan, R.O.C.

Total Number of Manpower  
800 employees

Certification  
ISO9001:2000, ISO14001:1996, CE,  
UL, JIS, RoHS

Type of Business  
Design, Manufacturer and Exporter



Taiwan Head Quarters:

## LTW TECHNOLOGY CO., LTD

9F, NO. 657-12, Jungjeng Road, Shinjuang City,  
Taipei Hsien 242, Taiwan, R.O.C.

Tel: +886-2-2908-5626

Fax: +886-2-2902-9787/8

E-mail: [sales@ltw-tech.com](mailto:sales@ltw-tech.com)

URL: [www.ltw-tech.com](http://www.ltw-tech.com)

China (Shanghai)

## KUNSHAN ZHENGRI ELECTRONIC CO., LTD (KSZ)

No. 2 Jian Yue Road, Peng Lang Street, Kunshan City,  
Jiangsu Province, China

Tel: +86-512-5761-0501/2

Fax: +86-512-5761-0515

## Why LTW<sup>®</sup> ?

- Design & manufacture waterproof connectors
- Cable assembly manufacturer  
EMS Provider
- "Total Solution Provider" from in-house design, tooling, plastic injection molding, PCBA, Packaging, QA to logistics.....
- ISO9001 & ISO14001 certified manufacturer
- Accept OEM & ODM requests
- Swift introduction and rapid progression for products-to-market
- ROHS, CE, UL, JIS certified compliant
- Products are protected by international patents
- Extensive range of waterproof connectors for broad applications
- Competitive pricing
- Small quantity orders are accepted
- On-time delivery
- "Customer Satisfaction First" Policy
- Multi-languages speaking sales representatives & engineers
- Prompt response
- Highly qualified, committed and motivated workforce

## Distributed By:

### B.C.E. S.r.l.

Via Regina Pacis, 54/c - I 41049 Sassuolo - (MO)

**Tel:** (+39) 0536 811616 - **Fax:** (+39) 0536 811500

**E-mail.:** [bce@bce.it](mailto:bce@bce.it) • **Home Page :** [www.bce.it](http://www.bce.it)

Short Form Ver1.1\_09052008