## 2022-2023



Since 1992

# YIS Marine Electrical Parts

RV Marine Caravan Emergency Vehicle



























# T精通 精通电子元件有限公司 JING TONG ELECTRONIC COMPONENT CO., LTD

JINGTONG - Factory in Ningbo, China







#### **YIH SEAN**

Enterprise Co., Ltd.

# YIS

#### **Company Introduction**

#### **Overview**

For almost 40 years, YIH SEAN Enterprise Co., Ltd. (part of the Lyric Shin Group) has been providing electrical parts for automotive, RVs, camping cars and marine markets. Today YIH SEAN has become a veteran manufacturer producing cigarette lighter plugs, sockets, fuse blocks, bus bars, switch panels, and other electrical products under the YIS Marine Brand, serving more than 200 customers around the world.

Based in Taiwan, we have a strong base in Product Design and Engineering, Manufacturing, Quality Control and Customer Service. Our R&D team has been rewarded more than 24 patents in the past 5 years and all of our products have been carefully designed, tested and certificated before mass production. We have a rigid quality control system throughout our manufacturing process and are verified as an ISO 9001 certified company since 2002. Our great customer services include instant claim handling, product and packaging customization service, artwork assistance, consulting and educations.

Cooperating with our solely owned subsidiary factory in Ningbo, China, we are able to reduce manufacturing costs and to ship our products from either China or Taiwan factory. Following the business trending of the e-commerce, we now also provide product sales in small volume and more customization options.

Our goal is to continue providing fine quality products and top service to our clients in the industrial switch as well as the car / marine electrical products industry. YIS Marine would be your best choice for electrical parts in the marine/automotive market.





#### **Lyric Shin Group Profiles**

- 40 years of experience. (Group Year of Foundation: 1981)
- Serve 200+ customers worldwide
- Number of employees: 110+ across Taiwan HQ & China Facility
- Main target markets: Industrial, Marine/Yacht Industry.
- ISO9001 Certified since 2002 (19 years in a row)





#### YIS LYRIC SHIN - Switch Experts



Push Button Switches



Water-proof marine switches



Foot pedal (Music)



Reed alarm switches



Audio Switch Box

## YIS SEAN (YIS Marine) – Electrical Parts







Fuse blocks



12/24V Accessories



DC LED light



Battery Switch

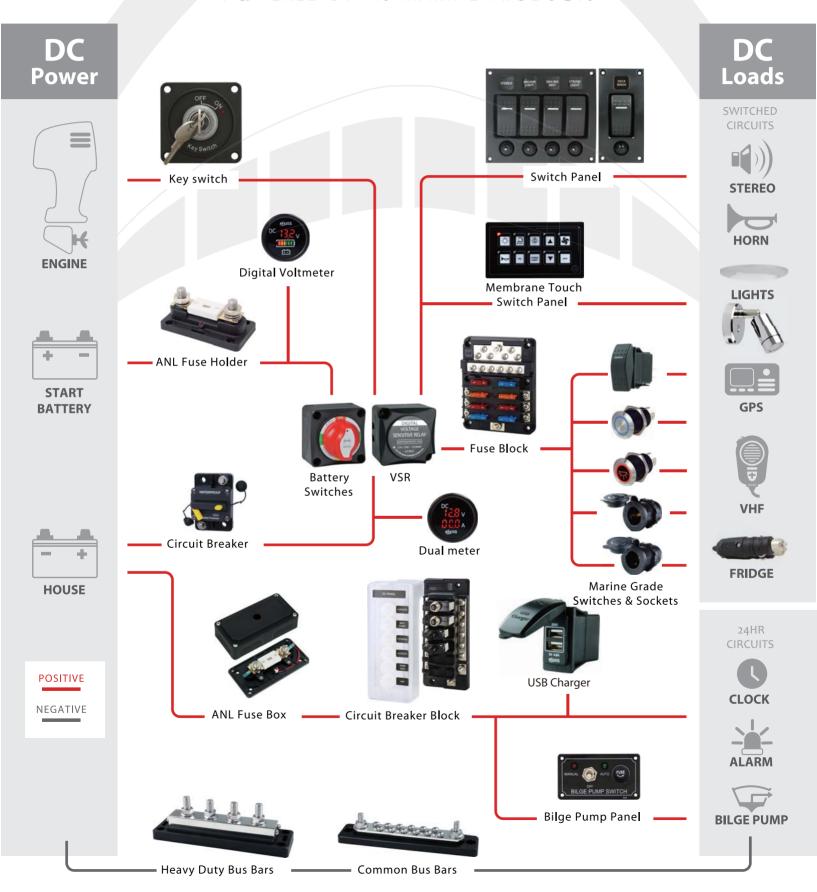


Fuse

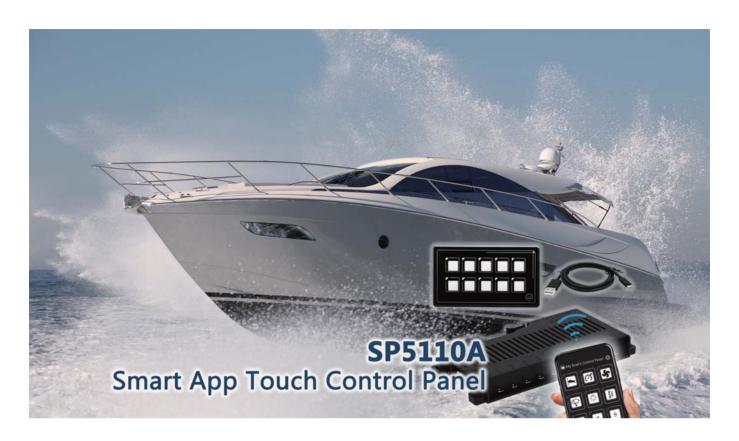


## **BOAT DC ELECTRICAL SYSTEM**

POWERED BY YIS MARINE PRODUCTS



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## **Switch Panels**

Water-resistant Switch Panels
New Digital Membrane Touch Control Panels
C-7 Aluminum Water-resistant Switch Panel
C-7 Curved Water-resistant Switch Panel
SP3331 1 Gang Curved Switch Panel Series
Carbon Fiber Switch Panel
Modern Design Toggle Switch Panel

Power Distribution Panels Wave Design Switch Panel

Other Switch Panels

## New Digital Membrane Touch Control Panels (2019- 4th Gen)

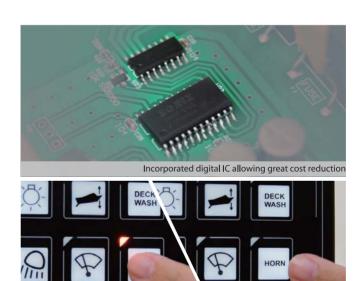


#### Description

This popular membrane panel series just got even better! With the incorporation of new digital IC, these panels are now more reliable, cheaper and with some more advanced features like reduced standby current, compact micro-USB cable connection, momentary button programmable for any button. You can even use your iPhone or Android App to control the membrane control box via Bluetooth (SP5110A).

#### **Features**

- Ultra Compact panel size (60% smaller than traditional panels)
- Easy to install no mounting depth, minimum hole drilling (13.0 x 8.5mm)
- Use compact, ready accessible micro-USB cable, end user can replace cables of any desirable length
- Flexible wiring Control Relay Box installed 1m away from the touch panel
- IP67 Protected even under temporary water immersion (Panel only)
- ON-indication LED / 10A Self-resettable fuse for each branch
- Backlight module allowing easy operation in darkness
- Programmable momentary button ALL buttons can be programmed to be momentary (ideal for horn or wiper applications)
- 60pcs Assorted Graphic and Text labels stickers set included



DECK WASH HORN

Programmable momentary button on all buttons







Additional Features for SP5106A / SP5110A (App Version)

- App remote control on cellphone (Android / iOS) via Bluetooth
- Customizable labels, panel styles, background in the virtual panel
- Battery Voltage Level monitor and Low Voltage Warning
- Pairs up to 4 different control boxes and easily switching between boxes
- App memorizes label and panel styles of paired boxes after switching between boxes





#### **Specifications**

- Faceplate | PET membrane touch panel
- Circuit Protection | Built-in Resettable Fuse (PPTC)
- Switch Ratings | 10A per branch
- Panel Rating | Max Cumulative Amp: 35A(6P) / 60A (10P)
- Voltage Rating | DC 9 15V (12V Model) / DC 11 30V (12-24V Model)
- Notes | **(** Fig. 1967 (Panel Only) RED Directive (2014/53/EU)
- Patented

#### **Product Series**

SP5106 / SP5106D /SP5106A (6P) New



6P Membrane Panel



6P Remote Control Box



Micro USB Cable (1m)



60pcs Label Stickers

SP5110D /SP5110A (10P)



10P Membrane Panel



Micro USB Cable (1m)



10P Remote Control Box



60pcs Label Stickers

Product ID	Positions	Touch Panel (W x H)	Panel Cut-out(W x L)	Control Box (L x W x H)	Note
SP5106	6	91 x 75 mm	ø15 mm (13 x 8.5 mm)	136 x 90 x 32 mm	12V Only
SP5106D	6	91 x 75 mm	ø15 mm (13 x 8.5 mm)	136 x 90 x 32 mm	Dual Voltage (12 - 24V)
SP5106A	6	91 x 75 mm	ø15 mm (13 x 8.5 mm)	136 x 90 x 32 mm	App Compatible Version / Dual Voltage
SP5110D	10	130 x 75 mm	ø15 mm (13 x 8.5 mm)	214 x 95 x 29 mm	Dual Voltage (12 - 24V)
SP5110A	10	130 x 75 mm	ø15 mm (13 x 8.5 mm)	214 x 95 x 29 mm	App Compatible Version / Dual Voltage

#### **Accessories**



**Membrane Touch Panel 20A Expansion Kit** This Expansion Kit allows end users to expand current rating of single branch to 20A without disassembling the control box. This Kit works for all SP51xx models. Instructions manual included.

## **C-7 Aluminum Water-resistant Switch Panel**



#### Description

Coming with the C-7 sealed rocker switches, these switch panels can withstand even severer weather conditions than the C-6 Water-resistant Switch Panel. SP32xx series are the only aluminum switch panels in the market with backlight modules for labels.

#### **Features**

- New modern and compact panel design (15% smaller than SP30xx series)
- Backlight modules for labels, allowing easy operation in darkness
- IP66-protect against strong water jets
- Push-reset circuit breakers with rubber boots
- Illuminated (LED) C-7 rocker switches with dual voltage rating (12V / 24V)
- Watertight mounting gasket included
- Square shaped label stickers (30pcs) allow vertical or horizontal installation

- Faceplate | 0.1"(2.54mm) Coated Aluminum Alloy
- Circuit Protection | Circuit Breakers
- Switch Ratings | 20A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Panel Rating | Maximum Cumulative Amp: 45A, 45A x 2 (8P)\*
- Notes | IP66 **(** €
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.









#### **Product Series**







SP3218P



SP3234P



SP3254P



SP3274P



SP3226P



SP3228P



SP3244P



SP3264P



SP3284P

Product ID	Positions	Color	Circuit Protection	Product Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP3216P	6	Dark Gray	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	
SP3218P	8	Dark Gray	Circuit Breakers	114 x 238 x 75 mm	96 x 217 mm	
SP3234P	4	Dark Gray	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	with USB Charger & Cig. Lighter Socket
SP3254P	4	Dark Gray	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	with Battery Gauge & Cig. Lighter Socket
SP3274P	4	Dark Gray	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	with Battery Gauge & USB Charger
SP3226P	6	White	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	
SP3228P	8	White	Circuit Breakers	114 x 238 x 75 mm	96 x 217 mm	
SP3244P	4	White	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	with USB Charger & Cig. Lighter Socket
SP3264P	4	White	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	with Battery Gauge & Cig. Lighter Socket
SP3284P	4	White	Circuit Breakers	114 x 191 x 75 mm	96 x 166 mm	with Battery Gauge & USB Charger

#### **Accessories**













## **C-7 Curved Water-resistant Switch Panel**



#### Description

Coming with the C-7 sealed rocker Switches, these switch panels are one of our most weather-proof switch panel series. The modular mini panels allow consumers to build switch panels with their own customized features. With modern curved faceplate design and new backlighted label features, these panels are stylish, high performance switch panels with complete features.

#### **Features**

- New modern curved and compact panel design (15% smaller than SP30xx series)
- Mini modular panels allow free combinations at consumers' side
- Backlight modules for labels, allowing easy operation in darkness
- IP66-protect against strong water jets
- Push-reset circuit breakers with rubber boots
- Illuminated (LED) C-7 rocker switches with dual voltage rating (12V / 24V)
- Watertight mounting gasket included
- Square shaped label stickers (30pcs) allow vertical or horizontal installation











#### **Specifications**

- Faceplate | Curved shaped plastic (ASA)
- Circuit Protection | Circuit Breakers
- Switch Ratings | 20A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Panel Rating | Maximum Cumulative Amp: 45A\*
- Notes | IP66 **( €**
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed

#### **Product Series**









SP3314P

SP3316P

SP3320XX

SP3331XX

Product ID	Positions	Color	Circuit Protection	Product Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP3314P	4	Black	Circuit Breakers	114 x 133 x 75 mm	101 x 120 mm	
SP3316P	6	Black	Circuit Breakers	114 x 188 x 75 mm	101 x 166 mm	
SP3320XX	-	Black	Circuit Breakers	114 x 58 x 56 mm	105 x 45 mm	2 Gang Mini Socket Panel*
SP3331XX	1	Black	-	114 x 54 x 75mm	103 x 42 mm	1P Switch Panel for special purposes

<sup>\*</sup> See table below for available sockets combinations

	Socket options for SP3320XX
Product ID	Socket Mounted
SP3320PP	AS212 x2
SP3320PU	AS212 + AS233
SP3320PV	AS212 + AS234
SP3320PG	AS212 + SP-BG1
SP3320XX	Any combination of two

	SP3331 Series
Product ID	Socket Mounted
SP3331BP	Bilge Pump Switch Panel
SP3331BA	Bilge Pump Switch Panel with Alarm
SP3331DW	Deck Wash Control Panel
SP3331WC	Windlass Control Panel
v.c. 0.6	L. II (CDCCC)

<sup>\*</sup> See page 8 for more details of SP3331 Series

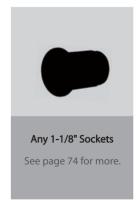
#### **Accessories**







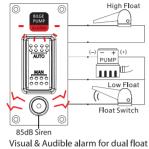




## **SP3331 1 Gang Curved Switch Panel Series**

**Bilge Pump Switch Panel with Alarm** SP3331BA ON-OFF-ON SP3331BAM ON-OFF-(ON)

# BILGE PUMP ALARM AUTO MAN 88



#### **Features**

- Modern design bilge pump panel with visual and audible alarm (85dB Siren)
- Activates alarms and starts pump automatically when water reaches 2nd (high) float switch
- IP67 C-7 Sealed Switch and water-resistant Siren
- Backlight label module allowing easy recognition in darkness
- Fit perfectly with SP33 series regular panels

#### **Specifications**

- Faceplate | Curved shaped plastic (ASA)
- Dimensions | 114 x 54 x 75mm
- Circuit Protection | Pre-installed ATP Fuse 20A
- Switch Function | ON-OFF-ON(SP3331BA) / ON-OFF-(ON)(SP3331BAM)
- Switch Rating | 20A @ DC 12V
- Notes | IP66 ( €

## **Curved Design Single Branch (1P) Switch Panel** SP3331XX



SP3331ST



SP3331DT



SP3331DW



SP3331WC



SP3331BP

#### **Features**

- Blank 1P panel that goes well with other SP33 series panels
- C-7 sealed IP67 switch with dual (12-24V) voltage rating
- Backlight label module allowing easy recognition in darkness
- 5 pcs assorted label stickers included
- Various Switch functions available

#### **Specifications**

- Faceplate | Curved shaped plastic (ASA)
- Dimensions | 114 x 54 x 75mm
- Circuit Protection | Circuit Breaker 20A
- Switch Function | See Table
- Switch Rating | 20A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Notes | IP66 **( €**

#### Blank Panels

Product ID	Туре	Switch Function	Note
SP3331ST	SPST	ON-OFF	Blank panel with 5pcs label stickers
SP3331STM	SPST	(ON)-OFF	Blank panel with 5pcs label stickers
SP3331DT	SPDT	ON-OFF-ON	Blank panel with 5pcs label stickers
SP3331DTM	SPDT	(ON)-OFF-ON	Blank panel with 5pcs label stickers
SP3331DTM2	SPDT	(ON)-OFF-(ON)	Blank panel with 5pcs label stickers

#### **Functional Panels**

Product ID	Type	Switch Function	Note
SP3331DW	SPDT	ON-OFF	Deck Wash Panel
SP3331WC	SPDT	(ON)-OFF-(ON)	Windlass Control Panel
SP3331BP	SPDT	ON-OFF-ON	Standard Bilge Pump Panel
SP3331BPM	SPDT	ON-OFF-(ON)	Standard Bilge Pump Panel

#### Label Stickers for SP32 / 33 Series SP33-ST1



- 30pcs assorted Water-proof PC membrane label stickers
- Designed for SP32 / SP33 backlight modules
- Customizable to local languages or applications

#### **Curved Water-resistant USB Panel**

SP3331USB





#### **Features**

- Double port USB charger (AS235) fully compatible with latest iPad, iPhone and smartphones
- Backlight label module allowing easy recognition in darkness
- Fit perfectly with SP33 series regular panels

#### **Specifications**

- Faceplate | Curved shaped plastic (ASA)
- Dimensions | 114 x 54 x 75mm
- Circuit Protection | Circuit Breaker 5A
- Input | DC 12-24V
- Output | DC 5V 3.4A
- Notes | **( € F©** IP66

#### **Curved Water-resistant Voltage Meter Panel**

SP3331VM - Voltage Meter Panel SP3331DM - Dual (Voltage & Current) Meter Panel





SP3331VM



SP3331DM

#### **Features**

- Digital meters with 3 LED displays (SP-BG4 / SP-BG5)
- Backlight label module allowing easy recognition in darkness
- Fit perfectly with SP33 series regular panels

- Faceplate | Curved shaped plastic (ASA)
- Dimensions | 114 x 54 x 75mm
- Input Range | DC 2.5V 30V (SP3331VM) / DC 4.5V 30V, 0 15A (SP3331DM)
- Notes | *( €* IP66



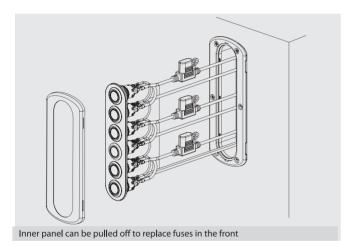
## **Premium Series Slimline Switch Panel**

with Polished Stainless Bezel and 20A Push Button Switches





SP6006B



#### Description

Looking for some elegant and premium panel with powerful outputs? Meet these new carbon fiber / stainless steel hybrid panel with market leading 20A stainless steel push button switches. Carefully design with screw-hidden polished bezel, backlight labels on the button and 3D carbon fiber panel finish, this is the most elegant panel in YIS lineup.

#### **Features**

- Elegant Carbon Fiber Vinyl film with vivid 3D texture
- Ultra Compact Panel Size / mounting holes compatible BEP's Contour Panel Series
- Screw hidden design with polished stainless steel 304 hezel
- 20A Anti-Vandal Stainless Steel Push Button Switches with backlight labels
- Easy fuse-replacing design fuse holder retractable from the front (Patent Pending)
- 40 pcs assorted label stickers included
- IP66 Protected against powerful water jets from all directions (when mounted)
- Water-tight gasket included

Product ID	Positions	Circuit Protection	Product Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP6006	6	ATP Fuses	64 x 169 x 105 mm	32 x 150 mm	Red LED Backlight
SP6006B	6	ATP Fuses	64 x 169 x 105 mm	32 x 150 mm	Blue LED Backlight

#### **Specifications**

- Faceplate | Plastic with Carbon Fiber Vinyl Film
- Outer Frame | Stainless Steel 304
- Circuit Protection | in-line 15A ATP fuses pre-installed (per 2 branches)
- Switch Rating | 20A @ DC 12V
- Panel Rating | Max Cumulative Amp: 25A per 2 branches
- Notes | IP66 **(**€
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

#### **Accessories**





<sup>\*</sup> This product is under development, all specifications and features are subject to change. Contact sales for final specs.

## **Modern Design Toggle Switch Panel**



Compact economical toggle switch panel with fuse protection





#### **Specifications**

- Faceplate | Sleek Design Plastic (ABS)
- Circuit Protection | In-line 15A ATP fuses pre-installed (per 2 branches)
- Switch Ratings | 15A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Panel Rating | Max Cumulative Amp: 25A per 2 branches\*
- Notes | IP66 **( €**
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

#### **Features**

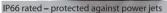
- Compact panel size
- Unique trendy faceplate design (two colors available: Dark Gray /White)
- Heavy duty metal toggle switches with water-resistant **PVC** boot
- Water-tight mounting gasket included
- LED indication when device turned ON
- 28pcs assorted label stickers included
- IP66 Protected against powerful water jets from all directions (when mounted)
- Spray-proof in-line ATP/ATC fuse holders with fuses pre-installed

Additional Features for SP21XX-RG New

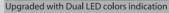


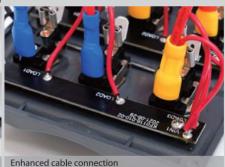
- Upgraded with Dual LED colors indication
- Enhanced cable connection





















SP2116

SP2125P

SP2125U

SP2125G

SP2123X

Gray Panel	White Panel	Positions	Circuit Protection	Product Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP2116	SP2136	6	ATP Fuses	107 x 95 x 45 mm	87 x 78 mm	
SP2125P	SP2145P	5	ATP Fuses	107 x 95 x 60 mm	87 x 78 mm	with Cig. Lighter Socket
SP2125U/V	SP2145U/V	5	ATP Fuses	107 x 95 x 60 mm	87 x 78 mm	USB Charger (U: 1Port V:2Port)
SP2125G	SP2145G	5	ATP Fuses	107 x 95 x 45 mm	87 x 78 mm	with Digital Battery Gauge
SP2123P	SP2143P	3	ATP Fuses	107 x 95 x 60 mm	87 x 78 mm	with Cig. Lighter Socket
SP2123U/V	SP2143U/V	3	ATP Fuses	107 x 95 x 60 mm	87 x 78 mm	USB Charger (U: 1Port V:2Port)
SP2123G	SP2143G	3	ATP Fuses	107 x 95 x 45 mm	87 x 78 mm	with Digital Battery Gauge

\* add -RG in the end of Model # for dual LED color version - ON = Green, OFF = Red)



## **Wave Design Switch Panel**

#### Economical switch panels with circuit breakers















SP1216P SP1218P

SP12XXPW
(Anti-Splash version for all models)

Product ID	Positions	Circuit Protection	Product Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP1214P	4	Circuit Breakers	100 x 110 x 45 mm	77 x 97.5 mm	
SP1216P	6	Circuit Breakers	100 x 160 x 45 mm	77 x 148 mm	
SP1218P	8	Circuit Breakers	100 x 210 x 45mm	77 x 198 mm	
SP1220XX	-	-	100 x 54 x 56mm	82.5 x 38 mm	2 gang mini socket panel

<sup>\*</sup> Anti-splash version with rubber boots for switches and circuit breakers are now available for all models above.

Socket options for SP1220XX			
Product ID	Socket Mounted		
SP1220PP	AS212 x2		
SP1220PU	AS212 + AS233		
SP1220PV	AS212 + AS234		
SP1220PG	AS212 + SP-BG1		
SP1220XX	Any combination of two		

#### **Features**

- 12V DC illuminated (LED) rocker switches
- Pre-wired with resettable circuit breakers
- Ultra shallow mounting depth (~45mm)
- 28 assorted label stickers included

- Faceplate | Wave shaped plastic (ABS)
- Circuit Protection | Circuit breakers
- Switch Ratings | 10A @ DC 12V
- Panel Rating | Maximum Cumulative Amp: 35A\*
- Note | **( €**
- Patented in Taiwan | D155080(TW)
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.







## **Other Switch Panels**

#### The New Classic Rocker Switch Panel (Redesign 2015)





SP1113F

SP1123F





SP1116F

SP1126F





SP1116P

SP1126P



SP1051

#### **Features**

- Classic coated aluminum panel design
- LED illuminated rocker switches
- Pop-out fuse holders with 10A fuse per branch pre-installed (fuse models)
- Circuit Breaker version available for all models
- 20pcs assorted label stickers
- Square shaped stickers allowing vertical or horizontal installation

#### **Specifications**

- Faceplate | 1.25mm Coated Aluminum
- Circuit Protection | Fuse / Circuit Breakers
- Switch Ratings | 10A @ DC 12V
- Panel Rating | Maximum Cumulative Amp: 35A\*
- Notes | **(** €
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

Product ID	Circuit Protection	Dimension (W x H x D)	Panel Cut-out (W x L)
SP1113F	Fuses	117 x 97 x 70 mm	70 x 65 mm
SP1116F	Fuses	117 x 167 x 70 mm	70 x 130 mm
SP1123F	Fuses	117 x 97 x 70 mm	70 x 65 mm
SP1126F	Fuses	117 x 167 x 70 mm	70 x 130 mm
SP1116P	Circuit Breakers	117 x 167 x 70 mm	95 x 125 mm
SP1126P	Circuit Breakers	117 x 167 x 70 mm	95 x 125 mm
SP1051	-	83 x 64 x 50 mm	65 x 50 mm

Anti-splash version with covers for switches available

#### **Bakelite Toggle Switch Panels with Fuses**





SP2013F

SP2016F

Product ID	Dimensions (W x H x D)	Panel Cut-out(W x L)
SP2013F	114 x 92 x 35 mm	90 x 75 mm
SP2016F	114 x 161 x 35 mm	90 x 140 mm

#### **Features**

- Classic toggle switch
- Fuse holders with 5A fuses pre-installed
- Optional anti-splash PVC boots available

- Faceplate | Bakelite
- Circuit Protection | Fuses
- Switch Ratings | DC 12V / 24V
- Panel Rating | Maximum Cumulative Amp: 15A
- Notes | **( €**

## **Windlass Controlling Panel with LED** SP2211



Product ID	Dimensions (W x H x D)	Panel Cut-out(W x L)
SP2211	52 x 76 x 35 mm	40 x 45 mm

#### **Features**

- Momentary (ON)-OFF-(ON) Toggle Switch with PVC Boot
- Red Lamp Indicator

#### **Specifications**

- Faceplate | Aluminum Plate
- Circuit Protection | -
- Switch Ratings | DC 12V
- Panel Rating | 15A @ DC 12V
- Notes | **( €**

## **3-Way Bilge Pump Switch Panel** SP2221AF/BF



- SP2221AF : ON-OFF-ON Bilge Pump Switch Panel with Fuse (AUTO-OFF-AUTO)
- SP2221BF: ON-OFF-(ON) Bilge Pump Switch Panel with Fuse (AUTO-OFF-MANUAL)

Product ID	Dimensions (W x H x D)	Panel Cut-out(W x L)
SP2221AF/BF	90 x 50 x 45 mm	75 x 38 mm

#### **Features**

- 3-Way toggle switch (ON-OFF-ON) with LED indication
- Fuse holders with pre-installed fuses
- Optional anti-splash PVC boots available

#### **Specifications**

- Faceplate | Plastic (ABS)
- Circuit Protection | Fuse
- Switch Ratings | DC 12V
- Panel Rating | Maximum Cumulative Amp: 5A
- Notes | **( €**

#### **C-7 Streamline Water-resistant Switch Panel**





SP3114P

SP3116P

Product ID	Dimensions (W x H x D)	Panel Cut-out(W x L)
SP3114P	133 x 121 x 75 mm	97 x 101 mm
SP3116P	133 x 173 x 75 mm	97 x 153 mm



#### **Features**

- Unique streamline faceplate design
- IP66– protect against strong water jets from all directions (when mounted)
- Push-reset circuit breakers with rubber boots
- Illuminated (LED) C-7 rocker switches with dual voltage rating (12V / 24V)
- Watertight mounting gasket included
- 30 pcs assorted label set included

- Faceplate | Streamline shaped plastic (ABS)
- Circuit Protection | Circuit Breakers
- Switch Ratings | 20A @ DC 12V / 10A @ DC 24V (Dual Voltage)
- Panel Rating | Maximum Cumulative Amp: 45A\*
- Notes | IP66 **( €**
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

#### C-6 Water-resistant Switch Panel



SP3013F



SP3013P



SP3016F



SP3016P



SP3023F



SP3023P



SP3033F



SP3033P

#### **Features**

- IP55– protect against water jets from all directions (when mounted)
- Both circuit breaker and fuse versions available
- Illuminated water-resistant C-6 rocker switches
- Watertight mounting gasket included
- 30 pcs assorted label set included

#### **Specifications**

- Faceplate | 0.1"(2.54mm) Coated Aluminum Alloy
- Circuit Protection | Fuse/Circuit Breaker
- Switch Ratings | 16A @ DC 12V
- Panel Rating | Maximum Cumulative Amp:35A\*
- Notes | IP55 **(**€
- \* Max possible Amperage for each panel is determined by the lower of total switches ratings or the Max Cumulative Amperage listed above.

Product ID	Circuit Protection	Dimension (W x H x D)	Panel Cut-out (W x L)	Note
SP3013F	Fuses	134 x 95 x 75 mm	75 x 75 mm	
SP3013P	Circuit Breakers	134 x 95 x 75 mm	80 x 75 mm	
SP3016F	Fuses	134 x 190 x 75 mm	75 x 166 mm	
SP3016P	Circuit Breakers	134 x 190 x 75 mm	80 x 166 mm	
SP3023F	Fuses	134 x 190 x 80 mm	75 x 158 mm	with DIN Socket, Cig. Lighter Socket with Retainer and Battery Gauge
SP3023P	Circuit Breakers	134 x 190 x 80 mm	80 x 158 mm	with DIN Socket, Cig. Lighter Socket with Retainer and Battery Gauge
SP3033F	Fuses	134 x 190 x 80 mm	75 x 155 mm	with Cig. Lighter Socket and Battery Gauge
SP3033P	Circuit Breakers	134 x 190 x 80 mm	80 x 155 mm	with Cig. Lighter Socket and Battery Gauge

## **Ignition Switch Panel** SP4010 / SP4011





Product ID	Dimensions (Wx H x D)	Panel Cut-out(W x L)
SP4010	69 x 69 x 45mm	φ40mm
SP4011	69 x 69 x 45mm	φ40mm

#### **Features**

- LED ON Indicator
- 2 Keys included

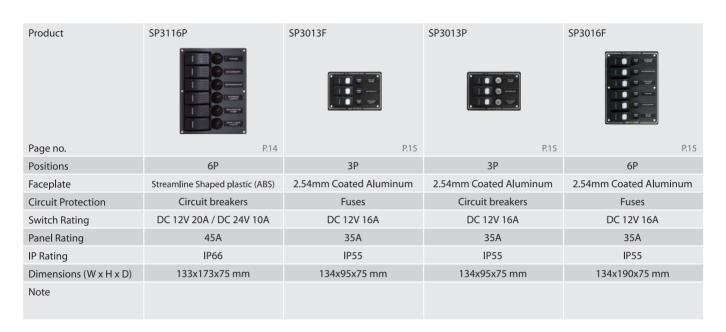
- Faceplate | Nylon 66
- Circuit Protection | -
- Switch Ratings | DC 12V
- Panel Rating | 10 A

### SP Series Selection Guide

Product	SP5106 / SP5106D / SP5106A New	SP5110D / SP5110A	SP3216P / SP3226P	SP3218P / SP3228P
Page no.	P.3	P.3	P.5	P.5
Positions	6P	10P	6P	8P
Faceplate	PET membrane touch panel	PET membrane touch panel	2.54mm Coated Aluminum	2.54mm Coated Aluminum
Circuit Protection	Built-in Resettable Fuse	Built-in Resettable Fuse	Circuit breakers	Circuit breakers
Switch Rating	DC 12V 10A	DC 12V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A
Panel Rating	35A	60A	45A	45Ax2
IP Rating	IP67 (Panel Only)	IP67 (Panel Only)	IP66	IP66
Dimensions (W x H x D)	ø15 mm (13 x 8.5 mm)	ø15 mm (13 x 8.5 mm)	114x191x75 mm	114x238x75 mm
Note	SP5106: 12V only SP5106D: 12V/24V	SP5110D: 12V/24V SP5110A: App Control Ver.		
Product	SP3234P / SP3244P	SP3254P / SP3264P	SP3274P / SP3284P	SP3314P
Page no.	P.5	P.5	P.5	P.7
Positions	4P	4P	4P	4P
Faceplate	2.54mm Coated Aluminum	2.54mm Coated Aluminum	2.54mm Coated Aluminum	Curved shaped plastic (ASA)
Circuit Protection	Circuit breakers	Circuit breakers	Circuit breakers	Circuit breakers
Switch Rating	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A
Panel Rating	45A	45A	45A	45A
IP Rating	IP66	IP66	IP66	IP66
Dimensions (W x H x D)	114x191x75 mm	114x191x75 mm	114x191x75 mm	114x133x75 mm
Note	with USB Charger and Cig. Lighter Socket	with Battery Gauge and Cig. Lighter Socket	with Battery Gauge and USB Charger	
Product	SP3316P	SP3320XX	SP3331ST	SP3331DT
Page no.	P.7	P.7	P.8	P.8
Positions	6P	-	1P	1P
Faceplate	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)
Circuit Protection	Circuit breakers	-	Circuit Breaker 20A	Circuit Breaker 20A
Switch Rating	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A
Panel Rating	45A	-	-	-
IP Rating	IP66	IP66	IP66	IP66
Dimensions (W x H x D)	114x191x75 mm	114x58x56 mm	114x54x75 mm	114x54x75 mm
Note		Sockets options: page 63		

Product	SP3331DW	SP3331WC	SP3331BP	SP3331BA
Page no.	P.8	P.8	P.8	P.8
Positions	1P	1P	1P	1P
Faceplate	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)
Circuit Protection	Circuit Breaker 20A	Circuit Breaker 20A	Circuit Breaker 20A	Pre-installed ATP Fuse 20A
Switch Rating	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A	DC 12V 20A / DC 24V 10A
Panel Rating	-	-	-	-
IP Rating	IP66	IP66	IP66	IP66
Dimensions (W x H x D)	114x54x75 mm	114x54x75 mm	114x54x75 mm	114x54x75 mm
Note				
Product	SP3331USB	SP3331VM	SP3331DM	SP6006 / SP6006B
Page no.	P.9	P.9	P.9	P.10
Positions	1P	1P	1P	6P
Faceplate	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Curved shaped plastic (ASA)	Plastic with Carbon Fiber Vinyl Film
Circuit Protection	Circuit Breaker 5A	-	-	ATP Fuses
Switch Rating	-	DC 2.5V – 30V	DC 4.5V – 30V, 0 – 15A	DC 12V 20A
Panel Rating	-	-	-	25A per 2 branches
IP Rating	IP66	IP66	IP66	IP66
Dimensions (W x H x D)	114x54x75 mm	114x54x75 mm	114x54x75 mm	64x169x105 mm
Note				
Product	SP2116 / SP2116-RG  New	SP2125X / SP2125X-RG New	SP2123X / SP2123X-RG New	SP1214P
Page no.	P.11	P.11	P.11	P.12
Positions	6P	5P	3P	4P
Faceplate	Sleek Design plastic (ABS)	Sleek Design plastic (ABS)	Sleek Design plastic (ABS)	Wave shaped plastic (ABS)
Circuit Protection	ATP Fuses	ATP Fuses	ATP Fuses	Circuit breakers
Switch Rating	DC 12V 15A / DC 24V 10A	DC 12V 15A / DC 24V 10A	DC 12V 15A / DC 24V 10A	DC 12V 10A
Panel Rating	25A per 2 branches	25A per 2 branches	25A per 2 branches	35A
IP Rating	IP66	IP66	IP66	-
Dimensions (W x H x D)	107x95x45 mm	107x95x60 mm	107x95x60 mm	100x110x45 mm
Note		X = P: Cig. Light Socket X = U/V: USB Charger Socket X = G: Digital Voltage Meter	X = P: Cig. Light Socket X = U/V: USB Charger Socket X = G: Digital Voltage Meter	

Product	SP1216P	SP1218P	SP1220XX	SP1113F / SP1123F
Page no.	P.12	P.12	P.12	P.13
Positions	6P	8P	-	3P
Faceplate	Wave shaped plastic (ABS)	Wave shaped plastic (ABS)	Wave shaped plastic (ABS)	1.2mm Coated Aluminum
Circuit Protection	Circuit breakers	Circuit breakers	-	Fuses
Switch Rating	DC 12V 10A	DC 12V 10A	-	DC 12V 10A
Panel Rating	35A	35A	-	20A
IP Rating	-	-	-	<u>-</u>
Dimensions (W x H x D)	100x160x45 mm	100x210x45 mm	100x54x56 mm	117x97x70 mm
Note	100/1100/110 111111	100/12/0/10/10/11/11	2 gang mini socket panel	117,757,77,0 € 111111
Note			2 gang min socket paner	
Product	SP1116F / SP1126F	SP1116P / SP1126P	SP1051	CD2012F
Product	SP1110F / SP1120F	SP1110P / SP1120P	371031	SP2013F
			21. 1881 21.	
Page no.	P.13	P.13	P.13	P.13
Positions	6P	6P	-	3P
Faceplate	1.2mm Coated Aluminum	1.2mm Coated Aluminum	1.2mm Coated Aluminum	Bakelite
Circuit Protection	Fuses	Circuit breakers	-	Fuses
Switch Rating	DC 12V 10A	DC 12V 10A	DC 12V 10A	DC 12V / 24V
Panel Rating	20A	20A	20A	15A
IP Rating	-	_	-	-
Dimensions (W x H x D)	117x167x70 mm	117x167x70 mm	85x64x50 mm	114x92x35 mm
Note	TT/XTO/X/OTHIN	117/1107/7/0111111	Battery Test Gauge panel	111/02/03 11111
Note			with switch	
			CD	
Product	SP2016F	SP2211	SP2221AF/BF	SP3114P
		WHICHASS OCCURS	BILGE PUMP SWITCH	
Do mo mo		D14	D14	D14
Page no. Positions	P.13	P.14	P.14	P.14 <b>4P</b>
	Bakelite	Aluminum Plate		
Faceplate Circuit Protection	Fuses		Plastic (ABS) Fuses	Streamline Shaped plastic (ABS)  Circuit breakers
Circuit Protection		- DC 13V		
Switch Rating	DC 12V / 24V	DC 12V	DC 12V	DC 12V 20A / DC 24V 10A
Panel Rating	15A	15A	5A	45A
IP Rating	-	-	-	IP66
Dimensions (W x H x D)	114x161x35 mm	52x76x35 mm	90x50x45 mm	133x121x75 mm
Note				



Product	SP3016P	SP3023F	SP3023P	SP3033F	
Page no.	P.15	P.15	P.15	P.15	
Positions	6P	3P	3P	3P	
Faceplate	2.54mm Coated Aluminum	2.54mm Coated Aluminum	2.54mm Coated Aluminum	2.54mm Coated Aluminum	
Circuit Protection	Circuit breakers	Fuses	Circuit breakers	Fuses	
Switch Rating	DC 12V 16A	DC 12V 16A	DC 12V 16A	DC 12V 16A	
Panel Rating	35A	35A	35A	35A	
IP Rating	IP55	IP55	IP55	IP55	
Dimensions (W x H x D)	134x190x75 mm	134x190x80 mm	134x190x80 mm	134x190x80 mm	
Note		with DIN Socket, Cig. Lighter Socket with Retainer and Battery Gauge	with DIN Socket, Cig. Lighter Socket with Retainer and Battery Gauge	with Cig. Lighter Socket and Battery Gauge	

Product	SP3033P	SP4010 / SP4011	
no.	P.15	P.15	
Positions	3P	-	
Faceplate	2.54mm Coated Aluminum	Nylon 66	
Circuit Protection	Circuit breakers	-	
Switch Rating	DC 12V 16A	DC 12V	
Panel Rating	35A	10A	
IP Rating	IP55	-	
Dimensions (W x H x D)	134x190x80 mm	69x69x45 mm	
Note	with Cig. Lighter Socket and Battery Gauge		



#### **Battery Management**

Digital Voltage Sensitive Relay (DVSR) / Automatic Charging Relay BP-Series Compact Battery Switches (Metric Threading) BM-Series Main Battery Switches (Imperial Threading)

#### **Circuit Protections**

Modular Design Blade (ATP/ATO/ATC) Fuse Blocks
Multi-use Compact Modular Design Blade Fuse Blocks
Compact Design Independent Source Blade Fuse Blocks
Modern Design Glass-tube AGC Fuse Blocks Series
CLB / CMB Circuit Breaker Boxes
Heavy-Duty Modular Design Fuse Block & Bus Bars
Classic Fuse Block & Bus Bars
Fuses (Glass-tube Fuses / Automotive Blade Fuses & Other Fuses)
Circuit Breakers
Fuse Holders

#### **Connectors & Buses**

Heavy-Duty Bus Bars (Imperial Threading) Marine Grade Bus Bars (Metric Threading) Heavy-Duty Terminal Studs Terminal Blocks

## **Battery Management**

Watch Intro Video on Youtube

BP-Series Compact Battery Switches (Metric Threading)





**Battery Main Switch (On-Off)** BF441 / BF441A (with AFD)

**Battery Selector Switch (1-2-Both-Off)** 

BF442 / BF442A (with AFD)



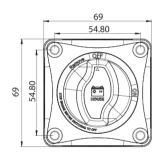
Interchangeable label stickers

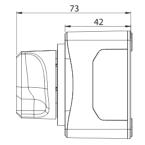
Removable ergonomic

Glass-fiber reinforced nylon enclosure

Built-in AFD disconnect feature (Optional)

Removable windows on 4 sides



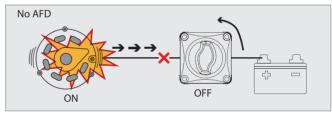




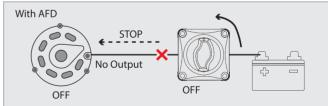


#### **Features**

- Unique ergonomic and aesthetic knob design
- Knobs removable for isolation / safety
- Smallest battery switch with AFD (Alternator Field Disconnect) feature in market (BF441A, BF442A)
- Dimensions fits Heavy Duty Modular Fuse Box Series
- Robust Glass Fiber reinforced Nylon enclosure
- Removable windows for unobstructed wiring
- Compact size matching mainstream products in market
- Surface or panel mount options provides flexibility when installing
- Patented in Taiwan(D183413), China(ZL201730358133.0)
- Meet Ignition Protection Standard (ISO8846 / SAE J1171), suitable for use in marine engine room and fuel tank spaces.
- IP66 Protected against powerful water jets from all directions



Continuous output blows out the alternator.



AFD cuts alternator off before battery switch turned off.

#### **Product Series**













BF441 / BF441A

BF442 / BF442A

Product ID	Function	Voltage Rating (Max)	Stud Size	Cranking Rating (10Secs)	Intermittent Rating (5 mins)	Continuous Rating (1hr)	Note
BF441	ON-OFF	48V	M10	1250A	455A	275A	-
BF441A	ON-OFF	48V	M10	1250A	455A	275A	with AFD
BF442	1-2-Both-Off	48V	M8	1000A	300A	200A	-
BF442A	1-2-Both-Off	48V	M8	1000A	300A	200A	with AFD

#### BM-Series Main Battery Switches (Imperial Threading)







BF446/BF446A Battery Main Switch (A: with AFD) (ON-OFF) BF447/BF447A Battery Selector Switch (A: with AFD) (1-2-Both-OFF) BF448 **Dual Circuit Battery Switch (2-OFF-1-ON)** BF448P Dual Circuit Plus Battery Switch (2-OFF-1-ON-PARALLEL)



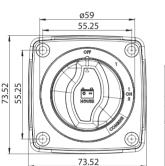
Interchangeable label stickers

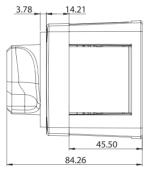
Removable ergonomic knob (only BF446A & BF447A)

Glass-fiber reinforced nylon enclosure

Built-in AFD disconnect feature (Optional)

Removable windows on 3 sides



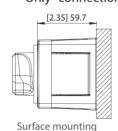


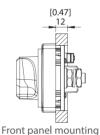
#### **Features**

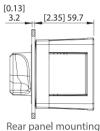
- Unique ergonomic and aesthetic knob design
- Knobs removable for isolation / safety (BF446/BF447
- AFD (Alternator Field Disconnect) feature provides extra safety protection (BF446/BF447 only)
- Dimensions fits popular BlueSea's M-series battery switches
- Robust Glass Fiber reinforced Nylon enclosure
- Removable windows for unobstructed wiring
- 3 mounting options: Surface mount, front panel mount and rear panel mount
- Meet Ignition Protection Standard (ISO8846 / SAE J1171), suitable for use in marine engine room and fuel tank spaces

#### (BF448 Dual Circuit Plus)

- Dual circuit control with parallel option (BF448P)
- Patent pending design allows convenient "1 Only" & "2 Only" connection







**Product Series** 



BF446 / BF446A



BF446A



BF447 / BF447A





BF447A





BF448P



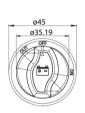
Product ID	Function	Voltage Rating (Max)	Stud Size	Cranking Rating(30s)	Intermittent Rating (5 mins)	Continuous Rating (1hr)	Note
BF446	ON-OFF	48V	3/8"-16	900A	500A	300A	-
BF446A	ON-OFF	48V	3/8"-16	900A	500A	300A	with AFD
BF447	1-2-Both-OFF	32V	3/8"-16	900A	500A	300A	-
BF447A	1-2-Both-OFF	32V	3/8"-16	900A	500A	300A	with AFD
BF448	OFF-1-Both	32V	3/8"-16	675A	450A	300A	Dual Circuit
BF448P	OFF-1-Both-PARALLEL	32V	3/8"-16	675A	450A	300A	Dual Circuit with Parallel option

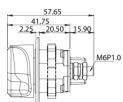
#### Mini Size 150A Battery Switch BF449















#### **Features**

- Unique ergonomic and aesthetic knob design
- Knobs removeable for isolation / safety
- Robust Glass Fiber reinforced Nylon enclosure
- Ultra compact size fits 1-1/8" mounting holes
- ISO8846 Ignition Protected

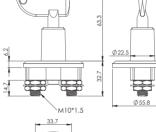
#### **Specifications**

- Cranking Rating (30 Secs) | 500A
- Intermittent Rating (5 mins) | 200A
- Continuous Rating | 150A
- Voltage Rating | 32V
- Terminal Studs | M6
- Note | **( €**

#### 300A Battery Isolation Switch with removable key

BF501 /BF501C (With Cocver)











#### **Features**

- SPST ON-OFF
- Copper Studs and Contacts
- Keys Removable at OFF position

#### **Specifications**

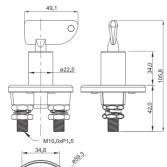
- Rating | 12Volts DC
- Continuous Rating | 300Amps
- Intermittent Rating | 800Amps
- Note | **( €**

#### 300A Battery Isolation Switch with removable key

BF502 /BF502C (With Cocver)











#### **Features**

- SPST ON-OFF
- Copper Studs and Contacts
- Keys Removable at OFF position
- 4 mounting screw holes version

- Rating | 12Volts DC
- Continuous Rating | 300Amps
- Intermittent Rating | 800Amps
- Note | **( €**

#### **Battery Isolation Switch**

BF503





#### **Features**

- SPST ON-OFF
- Copper Studs and Contacts
- Heavy Duty T Handle Bar (not Removable)
- Zinc housing with coated white painting

#### **Specifications**

- Rating | 12Volts DC
- Continuous Rating | 300Amps
- Intermittent Rating | 800Amps
- Note | **( €**

#### **Battery Isolation Switch**

BF508





#### **Features**

- SPST ON-OFF
- Heavy Duty 500A continuous rating
- Heavy Duty T Handle Bar (not emovable)
- Zinc housing with coated white painting
- Universal Type suits various Engineering Vehicles

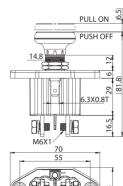
#### **Specifications**

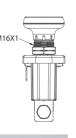
- Rating | 6-48Volts DC
- Continuous Load | 500Amps @DC 12V
- Cranking Rating (10 Secs) | 2000 Amps @DC 12V
- Note | **(** €

#### **Push Pull LED Starter Switch**

BF507











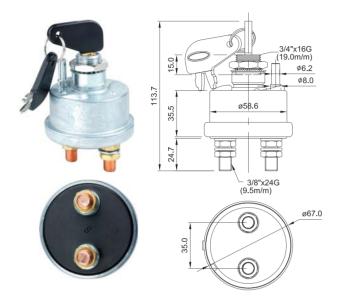
#### **Features**

- SPST ON-OFF
- Vertically Installed Copper Terminals
- Unique Push-Pull design
- ON indication LED illuminates when switch ON

- Rating | 12Volts DC
- Continuous Rating | 300Amps
- Intermittent Rating | 800Amps
- Note | **( €**

## **Master Disconnect Switch replacing Caterpillar Cat 7N0718** BF504





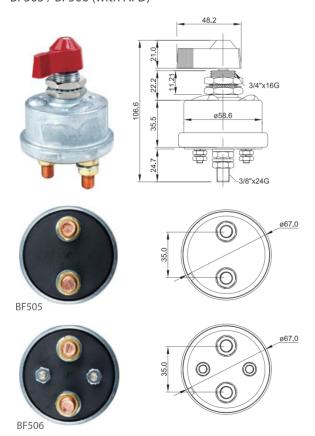
#### **Features**

- SPST ON-OFF
- Copper Studs and Contacts
- Indexing pins align switch and prevent housing from rotating
- Key is removable in the OFF position
- Two keys included
- OEM Parts for Catepillar 7N-0718

#### **Specifications**

- Rating | 12Volts DC
- Momentary Rating | 450Amps
- Continual Rating | 250Amps
- Note | **(**€

## **Battery Isolation Switch** BF505 / BF506 (with AFD)





#### **Features**

- 2 Position Off-On
- Imperial stud terminals (3/8"-24G)
- Copper Contacts
- Die-casting molded housing
- AFD features prevents accidental cut-off (BF506)

- Rating | 6-12Volts DC
- Continual Rating | 250Amps
- Momentary Rating | 450Amps
- Mounting Stem | 3/4"(19.05mm) Diameter
- Note | **( €**



#### Digital Voltage Sensitive Relay (DVSR) / Automatic Charging Relay

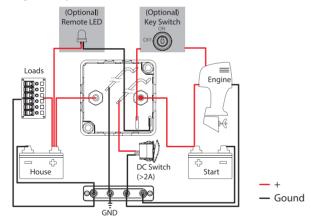


BF452



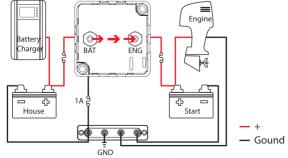
VSR (Voltage Sensitive Relay) or ACR (Automatic Charging Relay) are automatically controlled switches that allow two batteries to be combined when charging, and to be isolated when not charging and current is draining from one of the batteries. When used with battery switches, VSR helps to reserve a fully charged battery at all time, avoid the dead battery and possibility of towing on the sea. D-VSR is an upgraded Digital version of VSR with enhanced features like 12/24V system support, dual-port sensing, much lower standby power consumption and better reliability.

#### Wiring Example for BF452 D-VSR

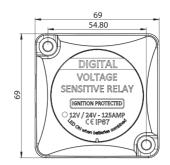


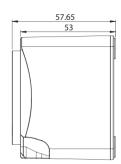
 $\times$  Wiring Diagrams are for reference only, consult professionals for wiring suits your needs.

#### Wiring Example for D-VSR with Battery Charger



Dual Port Sensing allows Battery Charger charging to Start Battery when engine is off.





#### **Features**

- Automatically combines two batteries when charging and isolates the two batteries when not charging
- DC 12/24V input auto ranging
- Sensing voltage from either battery bank
- No voltage drops comparing to battery isolator diodes (0.6V)
- Dimensions fits BF43x Fuse Box Series and Battery Switch, matching mainstream products in market (BEP style)
- Robust Glass Fiber reinforced Nylon enclosure
- Built-in LED indication (ON when VSR engages)
- Port for remote LED indicating VSR status (LED not included)
- Surface or panel mount options provides flexibility when installing
- Optional Storage Mode allows zero power consumption when engine is off

#### **Specifications**

- Nominal Voltage | DC 12V / 24V Auto Detect
- Combine / Open Voltage | DC 13.3V / 12.8V @ 12V DC 26.6V / 25.6V @ 24V
- Continuous Current Rating | 125A
- Intermittent Current Rating | 140A
- Power Consumption | 3mA (Standby) / 270mA (Engage) / 0mA (Storage Mode)
- Note | **(** € IP67



This Kit provides all the necessary cables, accessories and D-VSR that you need to install the secondary battery. Customer installing this for the first time will find it convenient to have the cables ready in single package.

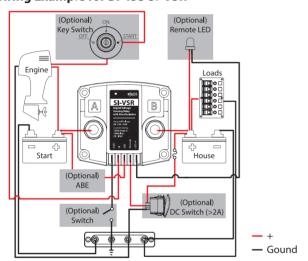
#### Digital Voltage Sensitive Relay (VSR) with Start Isolation



BF453 SI-VSR

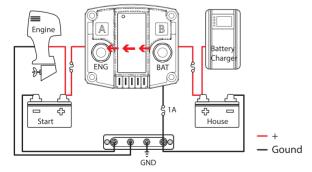


#### Wiring Example for BF453 SI-VSR



 $\times$  Wiring Diagrams are for reference only, consult professionals for wiring suits your needs.

#### Wiring Example for SI-VSR with Battery Charger



Dual Port Sensing allows Battery Charger charging to Start Battery when engine is off.

BF453 is a higher end Voltage Sensing Relay (VSR) or Automatic Charging Relay (ACR) with more advanced features such as Start Isolation (SI), Auxiliary Battery Charging Extension (ABE) and Manual Override (ON & OFF) in additional to Dual Port Sensing and 12V / 24V Compatibility. This would allow BF453 to better protect the electronics loads in the house battery side and suits more dedicated needs. The upward studs (M10) and configuration terminals design also allows it to be more easily installed than traditional VSR.

#### **Features**

- Automatically combines two batteries when charging and isolates the two batteries when not charging
- DC 12/24V input auto ranging
- Sensing voltage from either battery bank
- Upward studs (M10) and configuration pins allows easier installation
- Robust Glass Fiber reinforced Nylon enclosure
- Built-in LED indication (ON when VSR engages)
- Port for remote LED indicating VSR status (LED not included)
- Optional Storage Mode allows zero power consumption when engine is off
- Optional Start Isolation forces to temporary isolate the connection during engine cranking to protect sensitive electronics in the house loads
- Optional Aux Battery Charging Extension (ABE) allows extra time charging 2nd battery when engine idling by dropping the open voltage to lower 12.25V
- Over and Under Voltage Lockup protects unintentional grounding of the battery positive

- Nominal Voltage | DC 12V / 24V Auto Detect
- Combine / Open Voltage

	DC	12V	DC 24V		
Combine	13.6V	30 sec.	27.2V	30 sec.	
Combine	13.0V	2 mins.	26.0V	2 mins.	
Open	12.8V	30 sec.	25.5V	30 sec.	
Open(ABE)	12.2V	30 sec.	24.5V	30 sec.	

- Continuous Current Rating | 125A
- Intermittent Current Rating | 140A
- Power Consumption | 5mA (Standby) / 300mA (Engage) / 0mA (Storage Mode)
- Note | **(** € IP67 ISO8846/SAE J1171 (Ignition Protected)

## **Circuit Protections**

#### Modular Design Blade (ATO/ATC/ATP) Fuse Blocks





The BF27x series are compact and solid blade fuse blocks designed for 24-hour circuits. The fuse blocks come with blown fuse indication LEDs, clear cover with recessed areas for label stickers and are available in two versions with different terminals (screw or quick terminals).



M5(#10) Studs

M4(#8) Terminal screws with lock washers

Storage for spare fuses



Available in Screw or Quick Terminals



LED indication of blown fuses

#### Two Modules for all

YIS Marine exclusive modular design – two basic modules can be combined into 4 popular fuse blocks (and more depending on specific needs). The assembly is very simple and can be done by consumers alone (instruction manual included). This not only gives consumers flexibility to expand their current fuse block, but also allows retailers to save precious shelf space in the store.





6P Fuse Block

12P Negative Bus Bar

#### BF271 6P Fuse Block

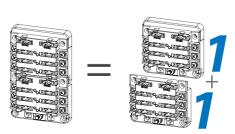


#### **BF273** 6P Fuse Block with Negative Bus Bar

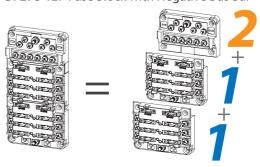


leph BF273 comes with 6 circuits negative bus bar when sold pre-assembled in factory.

#### BF274 12P Fuse Block



#### BF275 12P Fuse Block with Negative Bus Bar





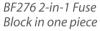






#### **New Compact 2 in 1 model**







BF273A=BF271+BF272 (Modular Design)

- More compact and cost-effective model when you need negative bus bar pre-combined
- Size reduced by 19%, significant cost reduction
- Same design language with all same great features

#### **Series Features**

- Accepts Automotive Blade Fuses (ATC/ATO/ATP)
- Modular Design saves shelf space (2 items can be combined into 4 models)
- Transparent cover with recessed area for label stickers
- 60 pieces assorted label stickers set included
- Storage for 2 spare fuses (for each 6P block)
- LED indication of blown fuses

#### **Specifications**

- Voltage Rating | DC 32V Max
- Amp Rating per Branch | 30A (Screw Terminals) / 20A (Quick Terminals)
- Max Cumulative Amp | 100A per block
- Terminal Stud Size | M5 (3/16")
- Screw Size | M4 (5/32") (BF27x Only)
- Note | Patented in Taiwan(M490103) & China(ZL201420495842.4)

#### **Product Series**

#### **Basic modules**

The two basic module that can be combined into 4 models at end user's end



BF271 / BF281 (6P Fuse Blocks)





BF272 /BF282 (12P Negative Bus Bar)

#### **Combined Models**

Cost-effective combined Fuse Blocks with Negative Bus bar













BF276 / BF286 (6P fuse block + Neg. bus bar)

BF277 / BF287 (12P fuse block + Neg. bus bar)

BF278 / BF288 (12P fuse blocks)

Product ID	Terminals	Circuits	Negative Bus Bar	Product Dimensions (W x L x H)	Note
BF271	Screws (M4)	6	-	86 x 78 x 41 mm	6P Fuse block module
BF281	Quick (0.250")	6	-	86 x 78 x 41 mm	6P Fuse block module
BF272	Screws (M4)	-	12 Circuits	86 x 57 x 41 mm	12P Neg. bus bar module
BF282	Quick (0.250")	-	12 Circuits	86 x 57 x 41 mm	12P Neg. bus bar module
BF276	Screws (M4)	6	6 Circuits	85 x 93 x 36 mm	One-piece fuse block + neg. bus bar
BF286	Quick (0.250")	6	6 Circuits	85 x 93 x 36 mm	One-piece fuse block + neg. bus bar
BF277	Screws (M4)	12	12 Circuits	85 x 132 x 36 mm	One-piece fuse block + neg. bus bar
BF287	Quick (0.250")	12	12 Circuits	85 x 132 x 36 mm	One-piece fuse block + neg. bus bar
BF278	Screws (M4)	12	-	85 x 132 x 36 mm	One-piece fuse block
BF288	Quick (0.250")	12	-	85 x 132 x 36 mm	One-piece fuse block

<sup>\*</sup> All models can also be sold without covers or without blown fuse indicating LEDs.

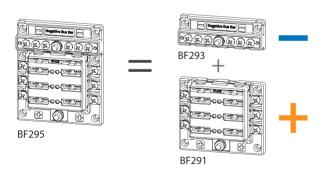
#### Multi-use Compact Modular Design Blade Fuse Blocks



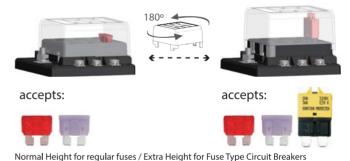
The BF29x series is more compact and economical version of the popular BF27x series. It not only keeps BF27x series signature positive / negative modular design and LED fuse blown indication, but also equipped with new features like circuit breaker type fuse support (with patent pending cover design). The patent pending cover design allows shipping and packaging in compact size while expending the cover height when required by reversing the cover 180 detgrees. BF29x is suitable not only in marine but also in the car/caravan market as a lower-cost alternative to BF27 series.



#### Signature Positive / Negative Modular Design



#### Patent pending dual-use cover design:



**Features** 

- Accepts standard (ATC/ATO/ATP) blade fuses
- Modular positive and negative bus bar design
- Transparent cover with recessed area for label stickers
- 60 pieces assorted label stickers set included
- Storage for 2 spare fuses
- LED indication of blown fuses

- Voltage Rating | DC 32V Max
- Amp Rating per Branch | 30A (Screw Terminals) / 20A (Quick Terminals)
- Max Cumulative Amp | 100A per block
- Terminal Stud Size | M5 (3/16")
- Screw Size | M4 (5/32") (BF29x Only)
- Note | **(** € Patented in Taiwan(M591252) & China(ZL 2020 2 0206415.5)

### **Product Series**











BF291 / BF291Q

BF293

BF295 / BF295Q











BF292 / BF292Q

BF294 / BF294Q

BF296 BF296Q

Product ID	Terminals	Circuits	Negative Bus Bar	Product Dimensions (W x L x H)	Note
BF291	Screws (M4)	6	-	85 x 72 x 40 mm	-
BF292	Screws (M4)	12	-	85 x 117 x 40 mm	-
BF293	Screws (M4)	-	6 Circuits	85 x 29.75 x 30.9 mm	Negative Bus Bar Module (6P)
BF294	Screws (M4)	-	12 Circuits	85 x 29.75 x 30.9 mm	Negative Bus Bar Module (12P)
BF295	Screws (M4)	6	6 Circuits	85 x 100 x 40 mm	Pre-assembled fuse block w/ bus bar
BF296	Screws (M4)	12	12 Circuits	85 x 145 x 40 mm	Pre-assembled fuse block w/ bus bar
BF291Q	Quick (0.250")	6	-	85 x 72 x 40 mm	-
BF292Q	Quick (0.250")	12	-	85 x 117 x 40 mm	-
BF294Q	Quick (0.250")	-	12 Circuits	85 x 29.75 x 25.2 mm	Negative Bus Bar Module (12P)*
BF295Q	Quick (0.250")	6	12 Circuits	85 x 100 x 40 mm	Pre-assembled fuse block w/ bus bar
BF296Q	Quick (0.250")	12	12 Circuits	85 x 145 x 40 mm	Pre-assembled fuse block w/ bus bar

<sup>\*</sup>Quick terminal negative bus bar (BF294Q) comes without cover due to its upward terminal design; use screw terminal version (BF294) if cover is required.

### How is YIS Marine BF29X series different from cheap products from Chinese Competitors?







Watch Video for More



### Compact Design Independent Source Blade Fuse Blocks





#### BF279 / BF289





M4 Screws with lock washer



Available in Screw of Quick terminals

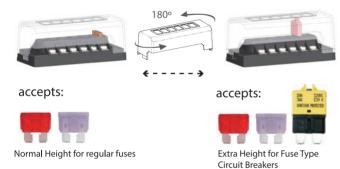


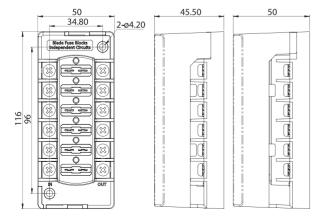
Recessed area for label stickers



LED indication of blown fuses

### Patent pending dual-use cover design





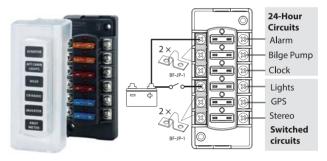
### **Features**

- Ultra compact size 6 way independent source fuse block
- Can be used for switched circuits and 24-hour circuits in the same block
- Accepts standard (ATC/ATO/ATP) blade fuses
- Patented cover design supports circuit breaker type fuses with extra height
- Transparent cover with recessed area for label stickers
- 60 pieces assorted label stickers set included
- LED indication of blown fuses

### **Specifications**

- Voltage Rating | DC 32V Max
- Amp Rating per Branch | 30A (BF279) / 20A (BF289)
- Max Cumulative Amp | 40A per jumper circuit group
- Screw Size | M4 (5/32") (BF279)
- Note | **( €** Patented in Taiwan(D214940)

#### **BF279/BF289 Independent Source Fuse Block**



Can be flexibly divided into 24 hour circuits and switched circuits

### **Product Series**







BF289 6P Quick Terminals



BF-JP-1 Jumper for BF279

<sup>\*</sup> Jumpers are only available for Screw Terminals version (BF279)



### Modern Design Glass-tube AGC Fuse Blocks Series

PATENTED TW.CH

BF210 / BF211 / BF212







BF211-6



BF212-6

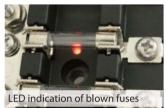
### **Features**

- LED indication of blown fuses
- Redesigned fuse clips hold fuses firmly and steadily
- Transparent cover with recessed area for label stickers and storage for 6 spare fuses
- 60 pieces label stickers included

### **Specifications**

- Base Material | PBT, glass fiber reinforced
- Max Operating Voltage | 32V
- Amp Rating per Branch | 30A
- Max Cumulative Amp | 100A per block
- Screw Size | M4 (5/32")
- Terminal Stud Size | M5 (3/16")
- Note | Patented in Taiwan(D182308) & China(ZL201630425859.7)
- \* M4 screw is comparable to #8-32 screws and M5 stud is comparable to #10-32 Studs.

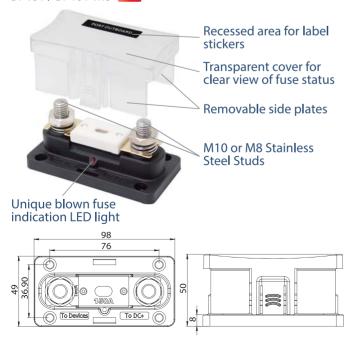




Product ID	Circuits	Positive Source	Negative Bus Bar	Product Dimensions	Note
BF210-6	6	Common Source	6 Circuits	129 x 91 mm	Common Source Fuse Block with Negative Bus Bar
BF211-6	6	Common Source	-	129 x 91 mm	Common Source Fuse Block
BF212-6	6	Independent Source	-	129 x 91 mm	Independent Source Fuse Block

#### **Compact ANL Fuse Holder**

BF461 / BF461-M8 New



#### **Features**

- Accepts 35-300A ANL Fuses (not included)
- Compact size 49 x 98 x 50 (W x L x H) mm (including cover)
- Transparent cover for clear view of fuse status
- Cover with recessed area for label stickers (5 pcs assorted label stickers included)
- Bendable / removable side plates for flexible wiring
- Unique blown fuse indication LED light

- Max Operation Voltage | DC 32V
- Max Continuous Current | 35-300A (fuse dependent)
- Terminal Stud Size | 2 x M10( 3/8") (BF461) 2 x M8( 5/16") (BF461-M8)



### CLB / CMB Circuit Breaker Boxes



BF221I(B) 6P Independent Source (B: with PVC Boot)
BF221C(B) 6P Common Source with Neg. Bus Bar (B: with PVC Boot)



### **Features**

- Install circuit breakers as easy as blade fuses
- Accepts both CLB & CMB circuit breakers
- 100A Positive Bus Bar with M5 (#10) Studs
- M4 (#8) screw terminals accepts ring terminals
- Transparent cover with recessed area for label stickers
- 60 pieces assorted label stickers set included
- Optional push button waterproof boots can be installed on cover

### **Specifications**

- Voltage Rating | DC 32V Max
- Amp Rating per Branch | 30A
- Max Cumulative Amp | 100A per block
- Terminal Stud Size | M5 (3/16")
- Screw Size | M4 (5/32")
- Dimensions | 65.5 x 160 x 56 mm 65.5 x 160 x 73 mm (with PVC Boot)
- Note | **( €**

BF221C(B) 6P Common Source with Neg. Bus Bar (B: with PVC Boot)



One positive feed in, six protected output to devices

BF221I(B) 6P Independent Source (B: with PVC Boot)



Can be flexibly divided into 24 hour circuits and switched circuits

### **Related Products**



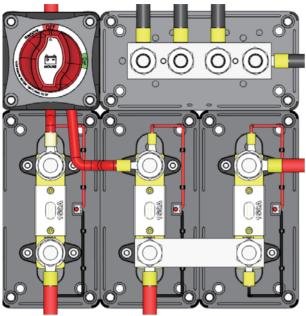


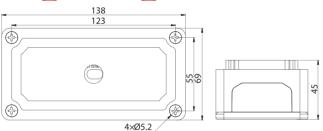




### Heavy-Duty Modular Design Fuse Block & Bus Bars

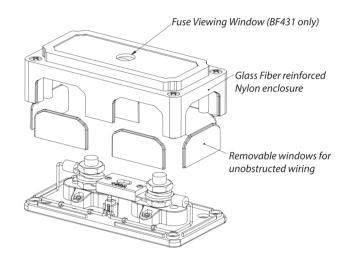
Module box design for clean, neat and easy wiring configurations





#### **Features**

- Module box design for easy wiring configurations
- Robust Glass Fiber reinforced Nylon enclosure
- All models are of the same dimensions (see below)
- 6 removable windows at 4 directions
- Blank write-on space on the top allows easy labeling
- Complete product line including fuse blocks, bus bars and terminal studs



#### **Module Design ANL Fuse Box**

BF431 Heavy-Duty Modular Design ANL Fuse Box BF431S Heavy Duty ANL Fuse Box with Additional Cable Connection Studs



- Withstands high currents between 100-300A ANL Fuses (not included)
- Open window on the top for clear vision of blown fuse
- LED indication of blown fuse condition (turns on when fuse blows)

### **Specifications**

- Max Operating Voltage | DC 32V
- Max Continuous Amp | 35-300A (determined by fuse)
- Terminal Stud Size | 2 x M10 (3/8")



- Additional studs with heavy duty oxygen-free copper bus bar
- Withstands high currents up to 750A ANL Fuses (not included)
- Open window on the top for clear vision of blown fuse
- LED indication of blown fuse condition (turns on when fuse blows)

- Bus Materia | Oxygen-free Copper, Nickel plated
- Max Operating Voltage | DC 32V
- Max Continuous Amp | 35-750A (determined by fuse)
- Terminal Stud Size | 4 x M10 (3/8")



#### **Heavy Duty Bus Bar Box**

BF432 / BF432-M8 Heavy-Duty Module Design Bus Bar Box with 4 Terminal Studs



- Highest amperage rated bus bar (300A) with M10 terminal studs (also available in M8)
- Blank write-on space on the top allows easy labeling for each branch

### **Specifications**

- Bus Material | Brass, Nickel plated
- Max Operating Voltage | DC 48V
- Max Continuous Amp | 300A
- Terminal Stud Size | 4 x M10 (3/8") (BF432) / 4x M8 (5/16") (BF432-M8)

#### **Heavy Duty Bus Bar Box**

BF433 Heavy-Duty Module Design Bus Bar Box with 2 x M10 Terminal Studs & 6 x M5 Screws



- Highest amperage rated bus bar (300A) with M10 terminal studs
- Blank write-on space on the top allows easy labeling for each branch

### **Specifications**

- Bus Material | Brass, Nickel plated
- Max Operating Voltage | DC 48V
- Max Continuous Amp | 300A
- Terminal Stud Size | 2 x M10 (3/8")
- Screw Size | 6 x M5 (3/16")

### **Heavy Duty Dual Bus Bar Box**

BF434 Heavy-Duty Modular Design Dual Bus Bars with Connecting Link



- Dual Bus Bar with removable connecting link
- Nickel plated brass bus bar allowing current up to 100A
- Blank write-on space on the top allows easy labeling for each branch

### **Specifications**

- Bus Material | Brass, Nickel plated
- Max Operating Voltage | DC 48V
- Max Continuous Amp | 100A
- Terminal Stud Size | 4 x M6 (1/4")
- Screw Size | 12 x M4 (5/32")

### 4 Way Heavy-Duty Terminal Studs Box

BF435 Heavy-Duty Modular Design Terminal Studs with Insulation Partition



- Allow terminating of heavy-duty cables for one or more connections (each terminal)
- Removable insulation partition included
- Heavy duty terminal studs (up to M10), allowing current up to 200A (rating determined by wires connected)
- Terminal Studs available in M8 or M10 (Default: M10)
- Blank write-on space on the top allows easy labeling for each branch

- Max Operating Voltage | DC 48V
- Max Amp per circuit | Determined by wires connected
- Terminal Stud Size | 4 x M10 (3/8")

### Classic Fuse Block & Bus Bars

#### **Common Source AGC Fuse Blocks**

BF201(2P-12P)



Dimensions		
Product ID	Dimensions (H x W)	
BF201-2P	57 x 31 mm	
BF201-4P	57 x 62 mm	
BF201-6P	57 x 93 mm	
BF201-8P	57 x 126 mm	
BF201-10P	57 x 157 mm	
BF201-12P	57 x 188 mm	

### **Specifications**

- Base Material | ABS + Glass Fiber
- Clip Material | Brass
- Max Operating Voltage | DC 32V
- Max Amp per circuit | 20A
- Max Cumulative Amp | 60A
- Screw Size | M5 x P0.8 x 6

### **Reinforced Nylon Base Glass-tube AGC Fuse Blocks**

BF202 / BF205 / BF206 (4P, 6P, 8P)







			_
Product ID	BF202	BF206	BF205
Description	Common Source Fuse Block with Negative Bus	Common Source Fuse Block	Independent Source Fuse Block
Positive Source	Common Source	Common Source	Independent Source
Negative Bus Bar	Yes	None	None
Max Cumulative Amp	80A	50A	-
	Dimensions	(L x W)	
4P	84 x 76 mm	62 x 76 mm	62 x 76 mm
6P	84 x 114 mm	62 x 114 mm	62 x 114 mm
8P	84 x 152 mm	62 x 152 mm	62 x 152 mm

### **Specifications**

- Base Material | Nylon, Glass Fiber reinforced
- Clip Material | Brass
- Max Operating Voltage | DC 32V
- Max Amp per circuit | 20A
- Max Cumulative Amp | See each model
- Screw Size | No.8-32 x 1/4

#### **Bus Bars**

#### **Dual Bus Bars** BF204(4P-8P)



Dimensions		
Product ID	Dimensions (H x W)	
BF204-4P	38 x 76 mm	
BF204-6P	38 x 114 mm	
BF204-8P	38 x 152 mm	

### **Large Current Bus Bar**

BF207 (10P)



### **Specifications**

- Base Material | Nylon, Glass Fiber reinforced
- Bus Material | Brass
- Max Operating Voltage | DC 32V
- Max Cumulative Amp | 60A for each bus
- Screw Size | No.8-32x1/4

- Base Material | PBT, Glass Fiber reinforced
- Bus Material | Copper, Brass-plated
- Max Operating Voltage | DC 48V
- Max Cumulative Amp | 150A
- Screw Size | No.8-32 x 1/4
- Terminal Stud Size | M6 x 25mm
- Dimensions (L x W) | 146 x 31.5mm

### Fuses (Glass-tube Fuses / Automotive Blade Fuses & Other Fuses)

AGC / ATE Fuses | American standard size 0.25"x 1.25"(6.3 x 32.0mm) glass-tube fuses



**AGC(3AG) Fuses**Fast-acting glass-tube fuses



**ATE Fuses**Slow-blow glass-tube fuses

Specifications		
Dimension	Ф6.3 x 32.0mm	
Cap Material	Nickel-plated Brass	
Max. Voltage	DC 32V, AC 125V/250V	
Amps	0.5A, 1A, 1.5A, 2A, 2.5A, 3A, 4A, 5A, 6A, 7.5A, 10A, 15A, 20A, 25A, 30A, 35A	
Note	RoHS Compliant	

Specifications		
Dimension	Ф6.3 x 32.0mm	
Cap Material	Nickel-plated Brass	
Max. Voltage	AC 250V	
Amps	0.1A – 20A	
Note	RoHS Compliant	

JMC / JTG Fuses | Japanese standard size 6.3 x 30mm glass-tube fuses



**JMC Fuses** Fast-acting glass-tube fuses



**JTG Fuses** Slow-blow glass-tube fuses

Specifications		
Dimension	Ф6.3 x 30.0mm	
Cap Material	Nickel-plated Brass	
Max. Voltage	DC 32V, AC 250V	
Amps	0.1A-30A	
Note	RoHS Compliant	

Specifications		
Ф6.3 x 30.0mm		
Nickel-plated Brass		
AC 250V		
0.1A-30A		
RoHS Compliant		

GMA / GTE Fuses | Mini size glass-tube fuses (5 x 20mm)



#### **GMA Fuses**

Mini-size fast-acting glass-tube fuses

### **GTE Fuses**

Mini-size slow-blow glass-tube fuses

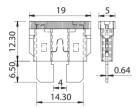
Specifications		
Dimension	Ф5.0 x 20.0mm	
Cap Material	Nickel-plated Brass	
Max. Voltage	AC 250V	
Amps	0.1A-20A	
Note	RoHS Compliant UL, CSA for 10A and less	

Specifications		
Dimension	Ф5.0 x 20.0mm	
Cap Material	Nickel-plated Brass	
Max.Voltage	AC 250V	
Amps	0.1A-10A	
Note	RoHS Compliant	

#### ATO/ATC/ATP - Standard Blade Fuses



- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse



Product ID	Amps	Color Coding
F-ATP-1A	1 A	Black
F-ATP-2A	2 A	Gray
F-ATP-3A	3 A	Violet
F-ATP-4A	4 A	Pink
F-ATP-5A	5 A	Tan
F-ATP-7.5A	7.5 A	Brown
F-ATP-10A	10 A	Red
F-ATP-15A	15 A	Lt. Blue
F-ATP-20A	20 A	Yellow
F-ATP-25A	25 A	Natural
F-ATP-30A	30 A	Lt. Green

### ATO/ATC/ATP Fuses – Standard Blade Fuses with Blown Indication Lamp



- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse
- Indicating lamp lights up when fuse is blown

	H 19	5.2
6.50 12.30	14.30	0.64



Product ID	Amps	Color Coding
F-ATPL-3A	3 A	Violet
F-ATPL-4A	4 A	Pink
F-ATPL-5A	5 A	Tan
F-ATPL-7.5A	7.5 A	Brown
F-ATPL-10A	10 A	Red
F-ATPL-15A	15 A	Lt. Blue
F-ATPL-20A	20 A	Yellow
F-ATPL-25A	25 A	Natural
F-ATPL-30A	30 A	Lt. Green

### ASP/ATM/Mini - Mini Blade Fuses



- Compact size
- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse

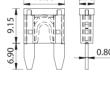
10.80	3.90
6.90	0.80

Product ID	Amps	Color Coding
F-ATM-2A	2 A	Gray
F-ATM-3A	3 A	Violet
F-ATM-4A	4 A	Pink
F-ATM-5A	5 A	Tan
F-ATM-7.5A	7.5 A	Brown
F-ATM-10A	10 A	Red
F-ATM-15A	15 A	Lt. Blue
F-ATM-20A	20 A	Yellow
F-ATM-25A	25 A	Natural
F-ATM-30A	30 A	Lt. Green

### ASP/ATM/Mini – Mini Blade Fuses with Blown Indication Lamp



- Compact size
- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse
- Indicating lamp lights up when fuse is blown





Product ID	Amps	Color Coding
F-ATML-3A	3 A	Violet
F-ATML-4A	4 A	Pink
F-ATML-5A	5 A	Tan
F-ATML-7.5A	7.5 A	Brown
F-ATML-10A	10 A	Red
F-ATML-15A	15 A	Lt. Blue
F-ATML-20A	20 A	Yellow
F-ATML-25A	25 A	Natural
F-ATML-30A	30 A	Lt. Green

#### MAXI / ATX - Heavy-duty Blade Fuses

# 50A

- 29.50 8.90
- Heavy-duty blade fuse protects circuits up to 80A
- Voltage Rating: DC 32V
- Transparent body for easy indication of blown fuse
- Optional gold plated terminals available

Product ID	Amps	Color Coding
F-ATX-20A	20 A	Yellow
F-ATX-30A	30 A	Green
F-ATX-40A	40 A	Orange
F-ATX-50A	50 A	Red
F-ATX-60A	60 A	Blue
F-ATX-70A	70 A	Tan
F-ATX-80A	80 A	Natural

### Dual-Purpose Fuse Tester/Puller

F-FT-1



- Indicating Green LED for easy identification of blown fuse in fuse box
- Adjustable probe pitch allowing test on fuses of different sizes: MAXI, ATO/ATC, ATM
- Fuse puller for easy removal of blown fuse



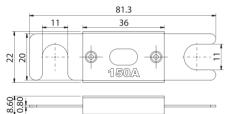


### Other Fuses

### **ANL Fuses – Fuses for high amperage applications**







- Body Material: See Below
- Metal Element: Brass, Gold Plated
- Voltage: 32V DC
- Ignition Protected (ISO8846) model available at extra cost

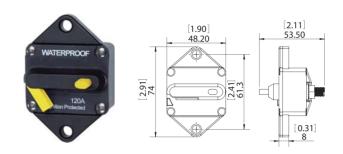
Electrical characteristics		
% of Amp. Rating	Blowtime	
100% Rating	4 Hours, Minimum	
150% Rating	60 Sec.,Minimum	
200% Rating	15 Sec.,Minimum	

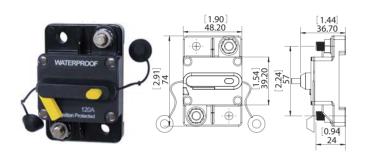
Product ID	Amps	Body Material
F-ANL-35A	35A	Nylon + Glass Fiber
F-ANL-50A	50 A	Nylon + Glass Fiber
F-ANL-70A	70 A	Nylon + Glass Fiber
F-ANL-100A	100 A	Ceramic
F-ANL-150A	150 A	Ceramic
F-ANL-200A	200 A	Ceramic
F-ANL-250A	250 A	Ceramic
F-ANL-300A	300 A	Ceramic
F-ANL-350A	350 A	Ceramic
F-ANL-400A	400 A	Ceramic

### Circuit Breakers

### **Single Pole Thermal Circuit Breaker**

CB-E95/E98 Manual Reset CB-E96/E99 Switchable Reset (Manual ON-OFF)





#### **Features**

- Trip-free safety design cannot be closed after trip
- IP67 Protection even under temporary water immersion
- Visible reset lever indicating open condition
- Manual OPEN button to manually isolate the circuit (CB-E96 / E99 Only)
- Available in surface mount or panel mount models
- Ignition protected safe for use in engine compartment

### **Specifications**

- Interrupting Capacity (AIC) | 3,000A @ DC 48V
- Voltage Rating | DC 48V Max
- Current Rating | DC 25 150A
- Terminal Studs | 1/4" 28
- Note | **C €** SAE J1625 / ABYC E-11 / SAE J1171 / UL 1500 / IP67





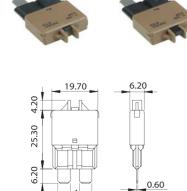




Product ID	CB-E95	CB-E96	CB-E98	CB-E99
Mounting	Panel Mount	Panel Mount	Surface Mount	Surface Mount
Function Type	Manual Reset	Switchable Reset	Manual Reset	Switchable Reset

### **ATC Fuse Type Circuit Breaker** CB-E39





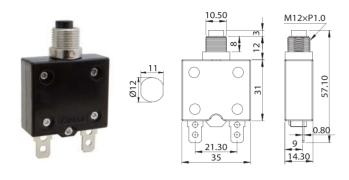
14.60

### **Features**

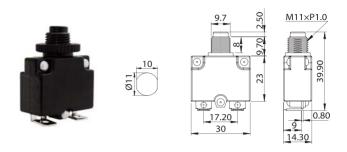
- Low profile design
- Thermal Type Circuit breaker with Manual Reset button
- Compatible with ATC fuse blocks

- Interrupting Capacity (AIC) | 2,000A @ DC 28V
- Voltage Rating | DC 28V Max
- Current Rating | DC 5 30A
- Note | SAEJ 553 / SAEJ 1171 / UL1500 / ISO8846

### **Push Reset Circuit Breaker** CB-P100



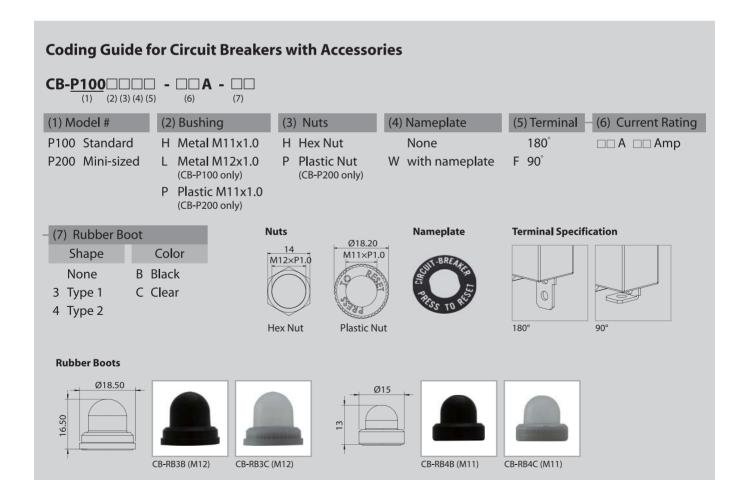
### Mini Size Push Reset Circuit Breaker CB-P200



### **Specifications**

- Voltage Rating | DC 50V, AC 125V/250V
- Amps | 3A-50A
- Dielectric Strength | AC 1500V/1 Minute
- Interrupting Capacity | 1000A @125VAC , 2000A @250VAC
- Insulation Resistance  $| > 100 \text{ M}\Omega$
- Note | 🕦 Approval : 3-30A 125/250V AC

- Voltage Rating | DC 50V, AC 125V/250V
- Amps | 3A-20A
- Dielectric Strength | AC 1500V/1 Minute
- Interrupting Capacity | 1000A @125VAC,1000A @250VAC
- Insulation Resistance  $| > 100 \text{ M}\Omega$
- Note | 🔊 Approval: 3-15A 125/250V AC



### **Fuse Holders**

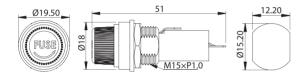
for AGC/JMC fuses -



### **Panel Mount Fuse Holder with Screw Cap** BF101



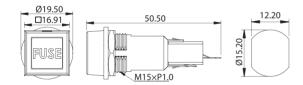
- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Water-resistant screw cap
- Solder terminal



### **Square Panel Mount Fuse Holder with Push-in Cap** BF103



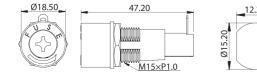
- For 6.3x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Push-in cap available in red or white
- Solder terminal



### **Panel Mount Fuse Holder with Screw Cap** BF104



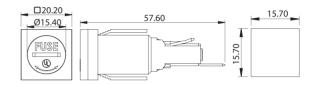
- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Screw cap with Phillips drive
- Solder terminal



### **Square Panel Mount Fuse Holder with Slotted Bayonet Cap BF105**



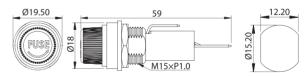
- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Slotted bayonet cap
- 0.250" Quick Connect Terminal



### **Panel Mount Fuse Holder with Screw Cap** BF110



- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Bakelite body
- Water-resistant screw cap
- 0.250" Quick Connect Terminal



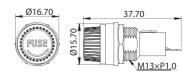
for GMA fuses -

### **Panel Mount Fuse Holder with Screw Cap** BF102





Water-resistant screw capSolder terminal





### **Coding Guide for pre-wired in-line fuse holders**

#### (1) Wire Leads

(2) Wire Spec

UL1015

(3) Wire Gauge

(4) Wire Length

- Unwired
- A UL1007

22# AWG

XX" length in inches

- L Loop Lead
- C Cut
- S Semi-stripped
- T Tinned (stripped)

for AGC/JMC fuses



### In-Line Fuse Holder for AGC/JMC Fuses BF309



- For 6.3 x 32mm (AGC/ATE) or 6.3 x 30mm (JMC/JTG) fuses
- Amperage rating: Max 30A
- Wire Gauge: #14-#18 AWG

### **In-Line Fuse Holder for AGC/JMC Fuses** BF301



- For 6.3 x 32mm (AGC or ATE) or 6.3 x 30mm (JMC or JTG) fuses
- Wire Gauge: #16-#22 AWG

### **Water-resistant In-Line Fuse Holder for AGC/JMC Fuses** BF308



- For 6.3 x 32mm (AGC/ATE) or 6.3 x 30mm (JMC/JTG) fuses
- Wire Gauge: #16-#18
- Water-resistant (for #16-#18 AWG wires only)

### In-Line Fuse Holder with 3-pin connector (pre-wired)

BF304



BF301 with 3-pin connector (pre-wired)

### In-Line Fuse Holder with 2-pin connector (pre-wired)

BF305



BF301 with 2-pin connector (pre-wired)

- BF305A: Standard Type - BF305B: Mini Type

for GMA fuses -



### In-Line Fuse Holder for AGC/JMC Fuses BF302



- For 6.3 x 32mm (AGC/ATE) or 6.3 x 30mm (JMC/JTG) fuses
- Bakelite body
- Wire Gauge: #10-#22 AWG

### **In-Line Fuse Holder for AGC/JMC Fuses** BF310



- For 6.3 x 32mm (AGC/ATE) or 6.3 x 30mm (JMC/JTG) fuses
- Wire Gauge: #14-#20 AWG

### In-Line Fuse Holder for GMA/GTE Fuses BF303



- For 5 x 20mm (GMA/GTE) fuses
- Wire Gauge: #16-#22 AWG

#### **Add-A-Circuit In-line Fuse Holders**

BF357 - for ATC/ATO/ATP Fuses BF357S - for ATM Fuses



### Water-resistant In-Line Fuse Holder for ATC/ATO/ATP Fuses

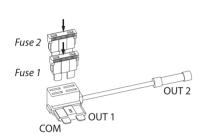
BF351

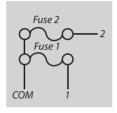


- Add a second protected circuit easily
- 2P fuse holder (1 common source input, 2 outputs)
- Wire Gauge: #14 #18 (Default: #18/4" long)
- Amperage Rating: Max 30A



- For ATC/ATO/ATP automotive fuses
- Amperage rating: Max 30A
- Wire Gauge: #10-#18 AWG
- Molded wiring for better sealing
- Water-resistant





Wiring Diagram

#### Water-resistant In-Line Fuse Holder for ATC/ATO/ATP Fuses

BF354



- For ATC/ATO/ATPautomotive fuses
- Available in blue or red
- Amperage rating: Max 20A
- Wire Gauge: #14-#18 AWG

#### **Water-resistant In-Line Fuse Holder for Automotive Fuses**

BF353



- Water-resistant with cap
- Molded wiring for better sealing
- Available in 3 different sizes

		Product Se	eries	
Product Compatible ID Fuses		Wire Gauge	Amp Rating	
	BF353S	ATM/ASP	#12-#16	30A
	BF353	ATC/ATO/ATP	#10-#18	30A
	BF353L	MAXI/ATX	#6 - #8	80A

#### In-Line Fuse Holder for ATC/ATO/ATP Fuses BF352



- For ATC/ATO/ATP automotive fuses
- Amperage rating: Max 20A
- Wire Gauge: #10-#18 AWG
- Cap with see-thru window for clear view of blown fuses
- Holder for spare fuse or for mounting of multiple fuse holders

#### In-Line Fuse Holder for ATC/ATO/ATP and ATM Fuses BF356



- Concave shape allowing clear view of blown fuses
- Molded wiring for better sealing



		Product Se	ries	
Product Compatible Fuses		Wire Gauge	Amp Rating	
	BF356S	ATM/ASP	#12-#20	30A
	BF356	ATC/ATO/ATP	#10-#18	30A

#### In-Line Fuse Holder for ATC/ATO/ATP Fuses BF355



- For ATC/ATO/ATP automotive fuses
- Low cost model
- Amperage rating: Max 20A
- Wire Gauge: #14-#18 AWG

### **Connectors & Buses**

### Heavy-Duty Bus Bars (Imperial Threading - Upgraded 2020)



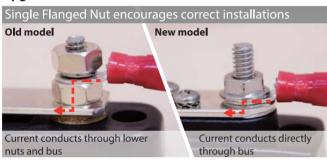
- Imperial threading screws and studs for US market
- Optional insulation cover
- Tin-plated copper bus allowing large current (100A up)
- Stainless steel screws and studs provide great anti-corrosion ability on board
- Upgraded design with Serrated Flange Nuts encourages correct installation of ring terminals
- Can be customized in Metric Threading with MOQ

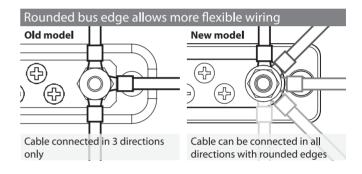
### **Specifications**

- Voltage Rating | DC 48V Max
- Studs and Screws | Stainless Steel
- Bus Bar | Tin-Plated Copper

Product ID	Studs	Screws	Rating
BF471	2 x 3/16"-24	5 x #8-32	100A
BF472	4 x 3/16"-24	-	100A
BF473	2 x 1/4"-20	10 x #8-32	150A
BF474	4 x 1/4"-20	-	150A
BF475	2 x 1/4"-20	20 x #8-32	150A
BF476	6 x 1/4"-20	-	150A
BF477	2 x 1/4"-20	12 x #8-32	150A
BF478	4 x 5/16"-18	-	250A
BF479	6 x 5/16"-18	-	250A
BF480	2 x 5/16"-18	12 x #10-24	250A
BF481	4 x 3/8"-16	-	600A
BF482	8 x 3/8"-16	-	600A

#### **Upgrades from old models**

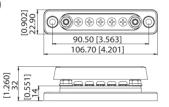




### Mini Bus Bars (100A)

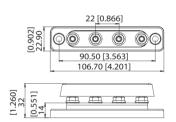
BF471 / BF471C (with cover)





BF472 / BF472C (with cover)

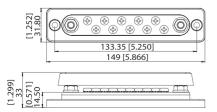




#### Common Bus Bars (150A)

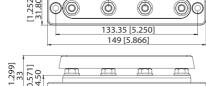
Standard 150A bus bar with sturdy design

BF473 / BF473C (with cover)



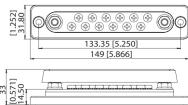
BF474 / BF474C (with cover)





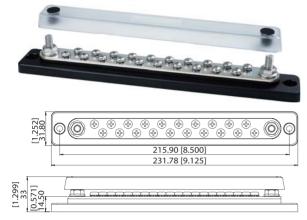
BF477 / BF477C (with cover)



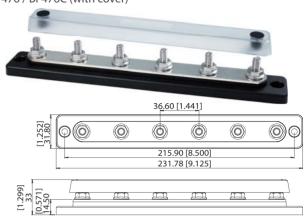








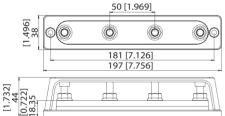
BF476 / BF476C (with cover)



### MaxiPower Bus Bar (250A)

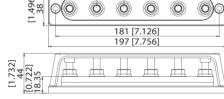
Heavy Duty copper bus bars carry current up to 250A

BF478 / BF478C (with Cover)



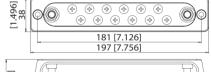
BF479 / BF479C (with Cover)





BF480 / BF480C (with Cover)





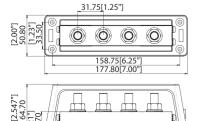


#### Ultra Power Bus Bar (600A)

Bus bars with very large current up to 600A

BF481 / BF481C (with Cover) New









new easy to open snap-in cover latching design

BF482 / BF482C (with Cover)



### Marine Grade Bus Bars (Metric Threading)



- Metric threading screws and studs
- Glass fiber reinforced Nylon base ensures great mechanical strength and durability
- Optional transparent insulating cover with recessed area for label stickers
- Tin-plated copper bus allowing current up to 150A
- Stainless steel studs and screws provide great anti-corrosion ability on board
- Insulated base ensures no leakage to metal hulls

### **Upgrades from old models**









#### **Single Bus Bars**

Compact size bus bars with ample 150A capacity

BF421-6P / BF425-6P BF421C-6P / BF425C-6P (with cover)



BF421-12P/ BF425-12P BF421C-12P / BF425C-12P (with cover)



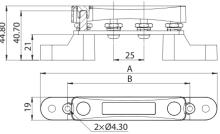
2xØ4.30

BF423-4P BF423C-4P (with cover)



BF423-6P BF423C-6P (with cover)





Product ID	Studs	Screws	A. Length (mm)	B. Mounting Centers (mm)	Rating	Bus Material
BF421-6P	2 x M6 (1/4")	6 x M4 (5/32")	146	101	100A	Brass
BF421-12P	2 x M6 (1/4")	12 x M4 (5/32")	206	161	100A	Brass
BF425-6P	2 x M6 (1/4")	6 x M4 (5/32")	146	101	150A	Copper
BF425-12P	2 x M6 (1/4")	12 x M4 (5/32")	206	161	150A	Copper
BF423-4P	4 x M6 (1/4")	-	146	101	100A	Brass
BF423-6P	6 x M6 (1/4")	-	206	161	100A	Brass



#### **Common Bus Bars**

#### Standard common bus bars with 10 or 22 terminals

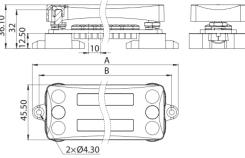
BF424-10P

BF424-22P

BF424C-22P (with cover)







Product ID	Studs	Screws	A. Length (mm)	B. Mounting Centers (mm)	Rating
BF424-10P	2 x M6 (1/4")	10 x M4 (5/32")	118	107	150A
BF424-22P	2 x M6 (1/4")	22 x M4 (5/32")	178	167	150A

#### **Dual Bus Bars**

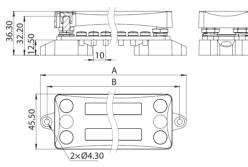
### Dual bus bars with removable connecting link

BF422-6P / BF426-6P BF422-12P / BF426-12P

BF422C-6P / BF426C-6P (with cover) BF422C-12P / BF426C-12P (with cover)







Product ID	Studs	Screws	A. Length (mm)	B. Mounting Centers (mm)	Rating per bus	Bus Material
BF422-6P	Dual 2 x M6 (1/4")	Dual 6 x M4 (5/32")	118	107	100A	Brass
BF422-12P	Dual 2 x M6 (1/4")	Dual 12 x M4 (5/32")	178	167	100A	Brass
BF426-6P	Dual 2 x M6 (1/4")	Dual 6 x M4 (5/32")	118	107	150A	Copper
BF426-12P	Dual 2 x M6 (1/4")	Dual 12 x M4 (5/32")	178	167	150A	Copper

### "2-Steps" Dual Bus Bar

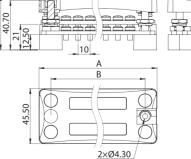
### Bus bars with different heights allowing more flexible wiring

BF427-6P BF427-12P

BF427C-6P (with cover) BF427C-12P (with cover)







Single side
Double Side

**Wire Output Options:** 

				2/0-	4.50
Product ID	Studs	Screws	A. Length (mm)	B. Mounting Centers (mm)	Rating per Bus
BF427-6P	Dual 2 x M6 (1/4")	Dual 6 x M4 (5/32")	94	75	150A
BF427-12P	Dual 2 x M6 (1/4")	Dual 12 x M4 (5/32")	154	135	150A

### Heavy-Duty Terminal Studs

- Allow terminating of heavy-duty cables for one or more connections
- Red or Black colors allowing easy and clear color coding for wiring
- Glass Fiber reinforced Nylon base ensures great mechanical strength and durability
- Heavy duty terminal studs (up to M10)
- Insulated base ensures no leakage to metal hulls (New Feature)

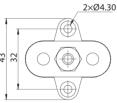
### **Single Terminal Studs**

BF411









Product ID	Stud Size	A. Height (mm)
BF411-M6 / BF411R-M6	2 x M6 (1/4")	32.5
BF411-M8 / BF411R-M8	2 x M8 (5/16")	32.5
BF411-M10 / BF411R-M10	2 x M10 (3/8")	37.5

### **Specifications**

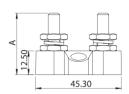
- Max Operating Voltage | DC 48V
- Max Amp per circuit | Determined by wires connected
- Terminal Stud Size | See each model

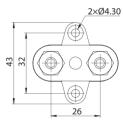
### **Dual Terminal Studs**

BF412







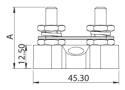


■ Dual Terminal Studs with options of different studs sizes

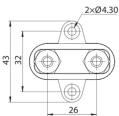
Product ID	Stud Size	A. Height (mm)
BF412-M6 / BF412R-M6	2 x M6 (1/4")	32.5
BF412-M8 / BF412R-M8	2 x M8 (5/16")	32.5

### **Dual Terminal Studs with Connecting Link** BF413







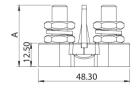


- Dual Terminal Studs with options of different studs sizes
- Removable Connecting Link withstands current up to 80A

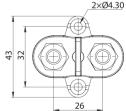
Product ID	Stud Size	A. Height (mm)
BF413-M6 / BF413R-M6	2 x M6 (1/4")	32.5
BF413-M8 / BF413R-M8	2 x M8 (5/16")	32.5

### **Dual Terminal Studs with Isolating Plate**









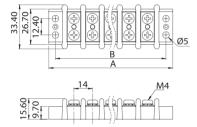
- Dual Terminal Studs with options of different studs sizes
- Removable isolating plate

J		
Product ID	Stud Size	A. Height (mm)
BF414-M8 / BF414R-M8	2 x M8 (5/16")	32.5
BF414-M10 / BF414R-M10	2 x M10 (3/8")	37.5
BF414-M8M10 / BF414R-M8M10	1 x M8 (5/16") + 1 x M10 (3/8")	37.5

### **Terminal Blocks**

### **Independent Source Terminal Blocks 30A** BF401-XXP





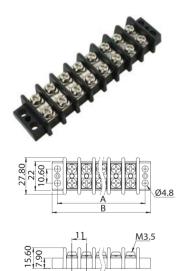
BF-JP-3 Jumpers for BF401



- Maximum Voltage | 300V AC/DC
- Continuous Rating | 30A
- Base Material | UL 94 V0, Nylon
- Bus Material | Nickel-Plated Brass
- Mounting Screw | M5 (#10)
- Screw Material | Stainless Steel
- Terminal Screws | M4 with exterior gear Washer

Product ID	Circuits	A. Length(mm)	B. Mounting Centers(mm)
BF401-2P	2	52	42
BF401-4P	4	80	70
BF401-6P	6	108	98
BF401-8P	8	136	126
BF401-10P	10	164	154
BF401-12P	12	192	182

### **Independent Source Terminal Blocks 20A** BF402-XXP



BF-JP-4 Jumpers for BF402



- Maximum Voltage | 300V AC/DC
- Continuous Rating | 20A
- Base Material | UL 94 V0, Nylon
- Bus Material | Nickel-Plated Brass
- Mounting Screw | M3.5 (#6)
- Screw Material | Steel / Nickel Plated
- Terminal Screws | M3.5
- Wire Terminal Size | M3 (#6)

Product ID	Circuits	A. Length(mm)	B. Mounting Centers(mm)
BF402-2P	2	41	33
BF402-4P	4	63	55
BF402-6P	6	85	77
BF402-8P	8	107	99
BF402-10P	10	129	121
BF402-12P	12	151	143



### 12 / 24V Accessories

Power Plugs and Sockets Cigarette Lighter Plugs Cigarette Lighter Sockets Other Plugs & Sockets

### 12V-24V Accessories

Battery Gauges
Marine Grade USB Charger Sockets
The 1-1/8" Sockets and Accessories Family
CurvMount Handle Bar Mount Sockets
CurvMount Surface Mount Sockets
Flush Mount Panel for 1-1/8" Sockets

### **Cigarette Lighter Plugs**

### Normal Cigarette Lighter Plugs

with AGC/JMC Fuses



### **Bakelite Cigarette Lighter Plug with Fuse** AP101



- Replaceable AGC/JMC Fuses
- Heat-resistant Bakelite body
- Heavy-duty (20A) model available
- Designed for Size A (φ21.0mm) Sockets
- Amp Rating : Standard Model: 5A / Enhanced Model: 20A
- **■** ( ∈

### **Illuminated Cigarette Lighter Plug with Fuse** AP109



- Replaceable AGC/JMC Fuses
- Illuminated shielding
- Heavy-duty (20A) model available
- Designed for both Size A (φ
   21.0mm) & Size B (φ22.0mm)
   Sockets
- Amp Rating: Standard Model: 5A / Enhanced Model: 20A
- ( F

### Marine Grade Locking Cigarette Lighter Plug with Fuse AP121A (with LED) / AP121B (without LED)



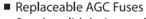
① Insert AP121 with the negative

2 Twist AP121 by 90° until locked.

Twist again to unlock

AP127

termial on the top



- Sturdy, solid design and assembly
- Flame retardant Nylon (glass fiber reinforced) body
- Twist-and-Lock capability when used with AS212
- Rubber ring for better stability and sealing when plugged
- LED power indicator (AP121A only)
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating: Standard Model: 5A / Enhanced Model: 20A
- **■** ( €

#### **Bakelite Cigarette Lighter Plug with Fuse** AP110



- Replaceable AGC/JMC Fuses
- Heat-resistant Bakelite body
- Heavy-duty (20A) model available
- Designed for both Size A (φ
   21.0mm) & Size B (φ22.0mm)
   Sockets
- Amp Rating: Standard Model: 5A / Enhanced Model: 20A
- ( <del>(</del>

### Cigarette Lighter Plug with Fuse



- Replaceable AGC/JMC Fuses
- Designed for Size A (φ21.0mm)
   Sockets
- Amp Rating:3A
- ■((

### **Cigarette Lighter Plug with Fuse** AP113



- Replaceable AGC Fuses
- Designed for both Size A (φ
   21.0mm) & Size B (φ22.0mm)
   Sockets
- Amp Rating: 10A
- **■**(€

#### **Cigarette Lighter Plug with Fuse** AP131



- Replaceable AGC/JMC Fuses
- Wire leads from the side
- Designed for Size A (φ21.0mm)
   Sockets
- Amp Rating:5A
- **-** ( \in \in \)

### **Cigarette Lighter Plug with Fuse** AP129



- Modern sleek design
- Replaceable AGC/JMC Fuses
- LED power indicator
- Latching collar that latches onto retainers in cigarette sockets
- Designed for both Size A (φ 21.0mm)& Size B (φ22.0mm) Sockets
- Amp Rating:5A
- **-** ( (

### **Deluxe Cigarette Lighter Plug with LED (Fused)**

AP111A (with LED) AP111B (without LED)





- Replaceable AGC/JMC Fuses
- Sturdy, solid design and assembly
- LED power indicator (AP111A only)
- Heavy-duty (20A) model available
- Best Seller
- Designed for both Size A (φ21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating : See below
- **■** ( €

### **Coding Guide for AP111 Customizations:**

As our No.1 seller in AP series, AP111 can be customized to meet every customer's requirement, please use the following table to pick one AP111 that fits your requirement most:

(1) LED indicator –	(2)	Body Material	- (3) A	Amp Rating
A with LED	Α	ABS	_	5 Amps
B without LED	Ν	Nylon, Glass Fiber reinforced	10A	10 Amps
	Р	PBT, Glass Fiber reinforced	15A	15 Amps
		(UL94V-0)	20A	20 Amps
			20/1	207

		Best Selling Mo	dels	
Product ID	Body Material	Terminals Finish	Amp Rating	Note
AP111A-A	ABS	Nickel plated	5A	Standard Model with LED
AP111B-A	ABS	Nickel plated	5A	Standard Model without LED
AP111A-N-10A	Nylon, Glass Fiber reinforced	Nickel plated	10A	Robust body material with LED
AP111A-N-20A	Nylon, Glass Fiber reinforced	Gold plated	20A	Heavy-duty (20A) model with LED
AP111A-P-20A	PBT, Glass Fiber reinforced (UL94V-0)	Gold plated	20A	Heavy-duty 20A with UL94V-0 flame retardant body material and LED





AP111A-N-20A





AP111A-1P3-18#-6FT \* AP111 can also be sold pre-wired, see page 59 for available options

### **Deluxe Cigarette Lighter Plug with LED (Fused)**

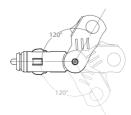
AP112A (with LED) / AP112B (without LED)



- Replaceable AGC/JMC Fuses
- Sturdy, solid design and assembly
- Robust Nylon (glass fiber reinforced) body
- LED power indicator (AP112A only)
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating : Standard Model: 5A / Enhanced Model: 20A
- **■** ( €

#### **Bendable Car Cigarette Plug with Switch and Fuse** AP120





- Replaceable AGC/JMC Fuses
- Bendable with multiple angle positions (±60°)
- Built-in On-Off Switch
- LED power indicator
- Latching collar that latches onto retainers in cigarette lighter sockets
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating: 10A
- Patented: TW No. P-053789



### Mini Size Cigarette Lighter Plug with Fuse



- Replaceable GMA Fuse
- Compact size
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating: 10A
- **■** ( €

### Mini Size Cigarette Lighter Plug to DC Jack Adapter



- Replaceable GMA Fuse
- Output: DC Jack 3.5 x 1.3mm
- Compact size
- Designed for Size A (φ21.0mm) Sockets
- Amp Rating:5A
- **■** ( €

#### Mini Size Cigarette Lighter Plug with Fuse AP107



- Replaceable GMA Fuse
- Compact size
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm)
- Amp Rating : Standard Model: 5A / Enhanced Model: 10A
- **■** ( €

#### **Cigarette Lighter Plug with Fuse** AP119



- Replaceable GMA Fuses
- Heat-resistant Bakelite head
- Designed for both Size A (φ 21.0mm) &Size B (φ22.0mm) Sockets
- Amp Rating: 5A
- **■** ( €

### **Cigarette Lighter Plug with LED Switch (Fused)**

AP130



- Replaceable GMA Fuses
- Illuminated push-button switch
- Wire leads from the side
- Designed for Size A ( $\phi$ 21.0mm) Sockets
- Amp Rating:3A

Specifications may subject to change. Go to YISMarine.com for the latest product informatio

**■** ( €

#### Unfused -

### **Bakelite Cigarette Lighter Plug**

AP103



- Unfused
- Heat-resistant Bakelite body
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating: 10A
- **■** ( ∈

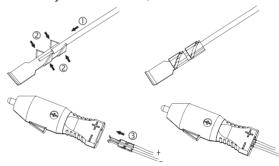
#### **Cigarette Lighter Plug with Quick Insert-and-Lock Terminals**

AP106



- Unfused
- "Insert-and-Lock" terminals allowing quick wire assembly (as illustrated)
- Designed for Size A ( $\phi$ 21.0mm) Sockets
- Amp Rating: 10A
- **■** (€

#### Assembly Illustration of Quick Terminals:



#### **Cigarette Lighter Plug** AP108



- Heat-resistant Bakelite head
- Designed for both Size A (φ 21.0mm) & Size B (φ22.0mm) Sockets
- Amp Rating: 10A
- **■** ( ∈

### Specialty Cigarette Lighter Plugs

#### Cigarette Lighter Plug Transformer (12V to 8V / 9V) AP104A (DC 12V to 8V) / AP104B (DC12V to 9V)



- Replaceable AGC/JMC Fuses
- Converts DC 12V to 8V (AP104A) or DC 12V to 9V (AP104B)
- Output: DC Jack 3.5 x 1.3mm
- Designed for both Size A -(φ 21.0mm) & Size B (φ22.0mm)
   Sockets
- Amp Rating:1A
- **■** ( €

### Car Fragrance Diffuser AP114 / AP115 (with Switch)



- Fragrance Diffuser for cars
- LED power indicator
- On-Off Switch (AP115 only)
- Designed for both Size A (φ21.0mm)& Size B (φ 22.0mm) Sockets
- **■** (€

### **Battery Analyzer (Cigarette Plug Voltage Meter)** AP125



- Voltage meter for DC 12V batteries
- Plug designed for both Size A (φ21.0mm) & Size B (φ 22.0mm) Sockets
- **■** ( ∈

#### Cigarette Lighter USB Charger AP133



- DC 5V USB Charger
- LED power indicator
- Designed for both Size A (φ21.0mm) & Size B (φ 22.0mm) Sockets
- Amp Rating : AP133-1A : 1A AP133-2A : 2A

**■**(€

### Cigarette Lighter Socket Splitters

### **Three Way Cigarette Lighter Sockets Splitter with Fuse** AP116



- 1 x Cig. Lighter Socket with retainer and 2 x DC Outlets
- 3 feet extension cord
- LED power indicator
- Replaceable AGC/JMC Fuses
- Plug designed for both Size A (φ21.0mm) & Size B (φ 22.0mm) Sockets
- Wall-mount fixing panel included
- Amp Rating: 10A
- **■**(€

### **Dual Port Cigarette Lighter Sockets Splitter with Fuse** AP117



- Replaceable AGC Fuses
- 1 to 2 Cigarette Socket Adapter
- LED power indicator
- Plug designed for both Size
   A (φ21.0mm) & Size B (φ
   22.0mm) Sockets
- Amp Rating: 10A
- **■**(€

### **Three Way Cigarette Lighter Sockets Splitter (Unfused)** AP118



- 1 x Cig. Lighter Socket and 2 x DC Outlets
- 3 feet extension cord
- LED power indicator
- Plug designed for both Size
   A (φ21.0mm) & Size B (φ
   22.0mm) Sockets
- Wall-mount fixing panel included
- Amp Rating: 10A
- **■** ( €

### AP Series Selection Guide

Product	AP101	AP109	AP110	AP112A	AP112B
Page no.	P.53	P.53	P.53	P.54	P.54
Fuse	AGC/JMC	AGC/JMC	AGC/JMC	AGC/JMC	AGC/JMC
Indicating LED		•		•	
Size A (Ø21mm)	•	•	•	•	•
Size B (Ø22mm)		•	•	•	•
Rating	5A/20A	5A/20A	5A/20A	5A/20A	5A/20A
Note	Bakelite body	Illuminated Shielding	Bakelite body		

Product	AP113	AP120	AP111A	AP111B	AP121A
Page no.	P.53	P.54	P.54	P.54	P.53
Fuse	AGC/JMC	AGC/JMC	AGC/JMC	AGC/JMC	AGC/JMC
Indicating LED		•	•		•
Size A (Ø21mm)	•	•	•	•	•
Size B (Ø22mm)	•	•	•	•	•
Rating	10A	10A	5-20A	5-20A	5A/10A
Note		Bendable with switch	Top Seller	Top Seller	Locks with AS212

Product	AP121B	AP127	AP129	AP131	AP102
Page no.	P.53	P.53	P.53	P.53	P.55
Fuse	AGC/JMC	AGC/JMC	AGC/JMC	AGC/JMC	GMA
Indicating LED			•		
Size A (Ø21mm)	•	•	•	•	•
Size B (Ø22mm)	•		•		•
Rating	5A-20A	3A	5A	5A	10A
Note	Locks with AS212		With latching collar	Wire leads from side	

Product	AP105	AP107	AP119	AP130	AP106
Page no.	P.55	P.55	P.55	P.55	P.55
Fuse	GMA	GMA	GMA	GMA	Unfused
Indicating LED				•	
Size A (Ø21mm)	•	•	•	•	•
Size B (Ø22mm)		•	•		
Rating	5A	5A/10A	5A	3A	10A
Note				With illuminated switch	Quick assembly terminals

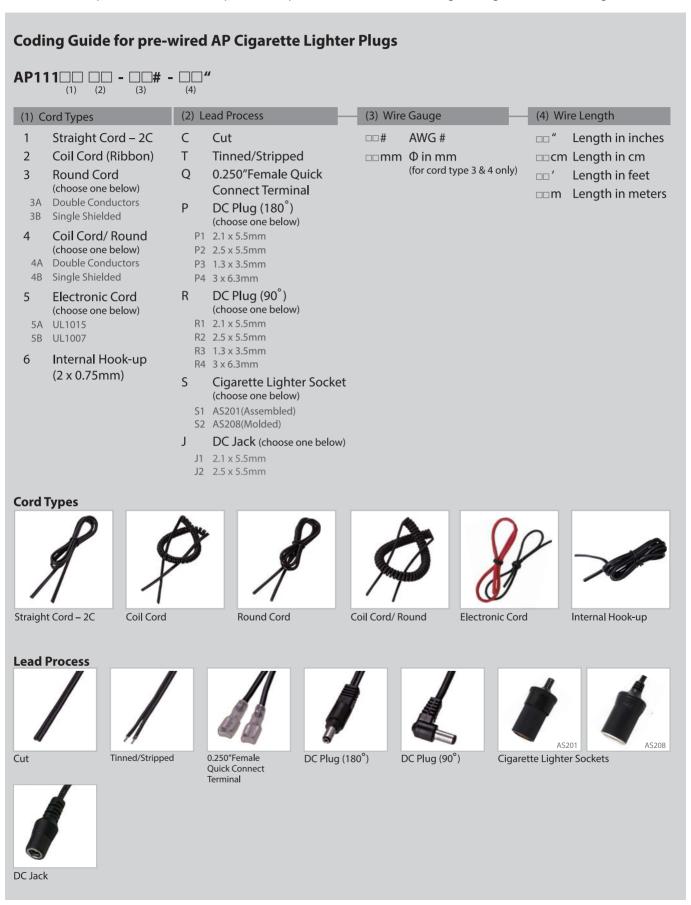
Product	AP103	AP108	AP116	AP117	AP118
Page no.	P.55	P.55	P.56	P.56	P.56
Fuse	Unfused	Unfused	AGC/JMC	AGC/JMC	Unfused
Indicating LED			•	•	•
Size A (Ø21mm)	•	•	•	•	•
Size B (Ø22mm)	•	•	•	•	•
Rating	10A	10A	10A	10A	10A
Note			Three way splitter	Dual port splitter	Three way splitter

Product	AP104A	AP104B	AP114	AP115	AP125
Page no.	P.56	P.56	P.56	P.52	P.56
Fuse	AGC/JMC	AGC/JMC	-	-	-
Indicating LED			•	•	
Size A (Ø21mm)	•	•	•	•	•
Size B (Ø22mm)	•	•	•	•	•
Rating	1A	1A	-	-	-
Note	12V to 8V transformer	12V to 9V transformer	Fragrance Diffuser	Fragrance Diffuser with switch	Battery Gauge

Product	AP133	AP124	AP122
Page no.	P.56	P.63	P.63
Fuse	-	GBC or AGC/JMC	-
Indicating LED	•		
Size A (Ø21mm)	•	•	
Size B (Ø22mm)	•	•	
Rating	1A/2A	16A	-
Note	12V-5V USB	Universal DIN/Cig. Plug	Engel Plug

### Wiring for AP Series

Most of our AP products can be sold pre-wired, please refer to the following coding table for ordering details:



### Car Cigarette Lighters

### **Car Cigarette Lighter Head with Guard** AL301



■ Cigarette Lighter with long handle

### **Car Cigarette Lighter Head with Guard** AL302



Cigarette Lighter with short handle

### **Compass Knob Car Cigarette Lighter Head with Guard** AL303



Cigarette Lighter with Compass Knob handle

### **Chrome Knob Car Cigarette Lighter Head with Guard** AL304



Cigarette Lighter with chrome plated handle

### **Car Cigarette Lighter Set** AL305



- 1 x Cigarette Lighter Head (AL301)
- 1 x Cigarette Lighter Socket with Retainer (AS202)
- Wiring cable included

### **Illuminated Cigarette Lighter** AL306



- 1 x Cigarette Lighter Head (AL301)
- 1 x Cigarette Lighter Socket with Retainer (AS202)
- Illuminated cigarette lighter socket
- Wiring cable included

### Automotive Antenna Plugs & Sockets

#### Car Radio Antenna Plug Screw Type AT101



Solder type with screw-on enclosure

#### Car Radio Antenna Plug AT102



 Solder type without enclosure (covered with heat shrink tube)

### Car Radio Antenna Plug to TV Aerial (PAL) Female Adapter

AT104



Car Radio Antenna male to PAL female

### Car Radio Antenna Socket Screw Type



 Car Radio Antenna male to PAL female

#### Car Radio Antenna Socket to TV Aerial (PAL) Plug Adapter (Right Angled) AT204

- Car Radio Antenna Female to PAL Male
- Right Angled (90 degrees)

### **Cigarette Lighter Sockets**

### Normal Cigarette Lighter Sockets

### **Panel Mount Cigarette Lighter Socket and Retainer** AS202



- Metal case withstands high temperature
- Ceramic base with retaining spring
- Various customization options available (see below)
- Panel mount (screw type)
- Amp Rating: 20A

### **Coding Guide for AS202 with Accessories**

AS202 comes with a variety of terminal configurations and accessories, please use the following table to pick one AS202 that fits your requirement most:



#### (1) Terminals

- B Bullet Terminal (Φ=4mm)
- R Screw Nuts for Ring Terminals
- Q Quick Connect Terminal
- S Solder Terminal

#### (2) Mounting Panels

- A Mounting Panel Type A
- B Mounting Panel Type B
- C Mounting Panel Type C
- D Mounting Panel Type D
- E Mounting Panel Type E

#### **Terminals**









Bullet Terminal  $(\Phi=4)$ 

Screw Nuts for Ring Terminal

0.250" Quick Connect Terminal

Solder Terminal

### **Accessories**



AS-RC1 Cover cap for AS202 and AS204



AS-IR1
Illumination Ring for

**Mounting Panels** 

Type A L-shaped



Type B Small plate



Type C Small plate/half mount



Type D Large panel



Type E

Large panel/half

### **Panel Mount Cigarette Lighter Socket and Retainer** AS204



- Metal case withstands high temperature
- Ceramic base with retaining spring
- Optional Rubber Cap (AS-RC1) available
- Panel mount (screw type)
- Amp Rating: 20A

### **In-Line Cigarette Lighter Socket** AS201



- DC Power Outlet
- In-Line socket with solder
- Optional cover cap available
- Amp Rating: 10A
- For Wire Gauge : #16-#22 AWG

### **In-Line Cigarette Lighter Socket** AS208



- DC Power Outlet
- Molded wiring for better sealing
- Amp Rating: 10A
- For Wire Gauge:#18-#22 AWG

### **Panel Mount Cigarette Lighter Socket** AS217



- Economical DC Power Outlet
- Push-in panel mounting
- Anti-splash cap
- Bullet Terminal (Φ=4mm)
- Amp Rating: 10A

#### **Marine Grade Cigarette Lighter Power Socket** AS212





- DC Power Outlet
- Panel mount and anti-splash cap available (see below)
- Flame retardant Nylon (glass fiber reinforced) enclosure
- Twist-and-Lock capability when used with AP121 (page 53)
- 0.250" Quick Connect Terminals
- Illuminated bottom plate for easy recognition at night (AS212L only)

**Quick Nut** 

■ Rating: DC 9-36V 20A

### **Coding Guide for AS212 with Accessories**

As our No.1 seller in AS series, AS212 comes with a variety of accessories that meet every customer's requirement, please use the following table to pick one AS212 that fits your requirement most:



	(1) (2) (3)
(1)	Bottom Plate
	Standard
L	Illuminated
Κ	Half-threaded Body

M Half-threaded & Illuminated

### (2) Mounting & Fixing Nuts

Flat Panel Screw Nut Flat Panel **Quick Nut** L-Shaped Panel Screw Nut

L-Shaped Panel Quick Nut Screw Nut

#### (3) Cap Labels

A Type A: Marine 12V

B Type B: 12V



AS212 with illuminated bottom plate

#### **Mounting Panels**



Flat Panel Flat panel for flush mount



L-shaped panel Mounting Panel for 90° installation

### **Mounting Options**

AS212 can be mounted with several options (flush or surface mount) and accessories. See below for possible options.





AS242PU

Surface Mount Charger Sockets - mounted together with AS233



2 Gang Flush Mount Charger Sockets mounted together with AS233

X See page 72 for further information about the AS24X CurvMount Series.

### **Fixing Nuts**



Screw Nut



Ouick Nut Fixing AS212 quickly

#### **Surface Mount Marine Grade Cigarette Lighter Socket** AS212G



- Surface-mount allowing easy installation on any surface (no hole cut-out needed)
- Equipped with the best-selling AS212
- Pre-wired with 6" #16 AWG wire
- Dust and water-resistant cap
- Surface-mount mounting screws included
- UV stabilized PVC boot for better protection against water and dust from the bottom

#### **Cigarette Lighter Socket with Panel and Rubber Cap** AS215



- Economical DC Power Outlet
- Panel and rubber cap included
- 0.250" Ouick Connect Terminals
- Amp Rating: 15A

### **Other Plugs & Sockets**

### **DIN Plugs & Sockets**

### **Universal DIN / Cigarette Lighter Plug** AP124



- Replaceable GBC Fuses
- Bayonet-catch DIN to Cigarette Lighter Plug adapter
- Designed for both Size A (φ
   21.0mm) & Size B (φ22.0mm)
   Cigarette Sockets
- Amp Rating: 16A



### **Panel Mount DIN Socket with Anti-splash Cap** AS213



- Robust Nylon (glass fiber reinforced) enclosure
- Anti-splash cap
- Panel mount with fixing screw nuts
- 0.250" Quick Connect Terminals
- Amp Rating: 15A

#### In-Line DIN Socket with Anti-splash Cap AS214



- Flame retardant Nylon (glass fiber reinforced) enclosure
- Anti-splash cap
- 0.250" Quick Connect Terminals
- Amp Rating: 15A

#### **DIN Plugs & Sockets**

DIN sockets, also known as Hella sockets, BMW sockets, Triumph sockets and Powerlet sockets, are connectors that are more suited to motorcycle use for its compact size, robust design and more secure and reliable connection than cigarette lighter sockets.

#### 1-1/8" DIN/Merit Socket AS216



- Standardized 1-1/8" cut-out (see page 74 for mounting accessories)
- Flame retardant Nylon (glass fiber reinforced) enclosure
- Water-proof PVC Cap (IP66)
- Panel mount with fixing screw nuts
- 0.250" Quick Connect Terminals
- Amp Rating: 15A

### **Deluxe Panel Mount DIN Socket with Anti-splash Cap** AS210



- Robust, elegant anodized aluminum body
- Spring-loaded dust-proof, anti-splash cap
- Panel mount with fixing screw nuts
- 0.250" Quick Connect Terminals
- Amp Rating: 15A

### **Engel Plug & Socket**

#### 1-1/8" Engel Socket AS218



ront View

- Standardized 1-1/8" cut-out (see page 74 for mounting accessories)
- Designed for Engel type sockets
- Water-proof PVC Cap (IP66)
- Flame retardant Nylon (glass fiber reinforced) enclosure
- 0.250" Ouick Connect Terminal
- LED indication for easy identification at night
- Rating: DC 12V 15A / DC 24V 7.5A

#### **Engel Plug** AP122



- Securing shroud that screws into Engel Type Sockets
- Easy to assemble solder-free screw-terminals for cable connection
- Rating DC 0-36V 15A

### 12V-24V Accessories

### **Battery Gauges**





SP-BGX Series are compact size, self-powered DC battery gauges. The patented see-through uni-body housing leaves no opening in the front, allowing low profile outlook and excellent protection against dust, moisture, and vibration. The series includes a voltmeter, an ammeter and a voltage / current dual meter and are available in either wire output or .250" quick terminals (with suffix "T"). These battery gauges are made for either standard 1-1/8" cut-out with several mounting accessories (see page 74) or for popular Contura style switch mounting holes.











IP67: protection against temporary water immersion Two Output Options: Wire & Quick Terminals

Patented see-through display design

#### **Digital Voltmeter**

SP-BG1 (with wire output) / SP-BG1T (with Quick Connector Terminals)

### **Digital Voltmeter - Switch Mount**

SP-BG4



### **Features**

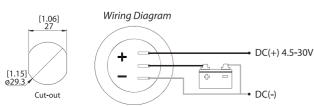
- Compact Size with 3 digits LED display
- Self-powered from measuring DC voltage
- Floating decimal point for better resolution below 10V
- Completely sealed design with no opening (IP67)
- Reversed polarity input protection

### **Specifications**

- Voltage Range | DC 2.50-30V
- Current Consumption | <30mA
- Sampling Rate | 5 readings/s
- Resolution | 0.01V (<10V) / 0.1V (>10V)
- Note | **(** € IP67 Patented

#### Digital Voltmeter up to 100V SP-BG1-100V

# ø36.60 Wiring Diagram

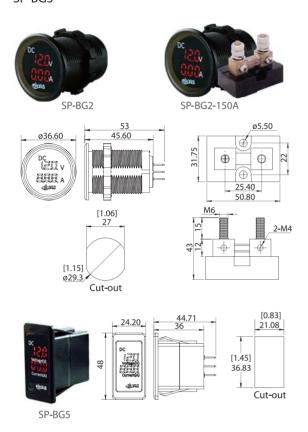


### **Features**

- Compact Size with 3 digits LED display
- Measuring large voltage range from 0 100V
- Completely sealed design with no opening (IP67)
- Reversed polarity input protection

- Measure Voltage Range | DC 0-100V
- Powering Voltage Range | DC 4.5-30V
- Current Consumption | <30mA
- Sampling Rate | 5 readings/s
- Resolution | 0.1V
- Note | **(** € IP67 Patented

## **Digital Voltage & Current Dual-meter**SP-BG2 / SP-BG2-150A **Digital Voltage & Current Dual-meter – Switch Mount**SP-BG5



### **Features**

- Compact Voltage & Current 2 in 1 meter
- Digital 3 digits LED displays
- Self-powered from measuring DC voltage
- Floating decimal point for better resolution
- Completely sealed design with no opening (IP67)
- Reversed polarity input protection

Additional Features for SP-BG2-150A

- Includes 500 Amp shunt
- Measuring large amperage range from 0 150A

### **Specifications**

SP-BG2 / SP-BG5

- Voltage Range | DC 4.5-30V
- Amperage Range | DC 0-15A
- Amperage Tolerance | > 10A: ±0.5A, <10A ±0.17A
- Note | **(** € IP67 Patented

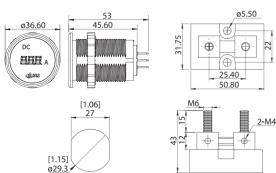
SP-BG2-150A

- Voltage Range | DC 4.5-30V
- Amperage Range | DC 0-150A
- Amperage Tolerance | ±2%
- Shunt Type | 50mV
- Note | **( €** IP67 Patented

**Digital Ammeter** SP-BG3 / SP-BG3-150A







Cut-out

### **Features**

- Compact Size with 3 digits LED display
- Self-powered from measuring DC voltage
- Floating decimal point for better resolution
- Completely sealed design with no opening (IP67)

Additional Features for SP-BG3-150A

- Includes 500 Amp shunt
- Measuring large amperage range from 0 150A

### **Specifications**

- Voltage Rating | DC 4.5-30V
- Amperage Range | DC 0-15A
- Amperage Tolerance | > 10A: ±0.5A, <10A ±0.17A
- Note | C € IP67 Patented

SP-BG3-150A

- Voltage Range | DC 4.5-30V
- Amperage Range | DC 0-150A
- Amperage Tolerance | ±2%
- Shunt Type | 50mV
- Note | **(** € IP67 Patented



### **Digital Voltmeter with Battery Level Display** SP-BG6



### **Features**

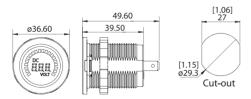
- Compact Size with 3 digital LED display
- Easily recognizable Battery Status LEDs
- 12 / 24V systems auto detect (compatible to both systems)
- Completely sealed with no opening (IP67)
- Reverse polarity input protection
- Self-powered from measuring DC voltage

### **Specifications**

- Voltage Rating | 5 30V (12/24V Auto Detect)
- Refresh Rate | 100ms
- Note | **C E** IP67 Patented

### **Digital Voltmeter with Rainbow Battery Level Display** SP-BG7





### **Features**

- Compact Size with 3 digital LED display
- Easily recognizable Battery Status LEDs
- 12 / 24V systems auto detect (compatible to both systems)
- Reverse polarity input protection
- Self-powered from measuring DC voltage
- Low-voltage alarm when volt is lower than 11V in 12V mode, 22V in 24V mode

- Voltage Rating | 7 30V (12/24V Auto Detect)
- Refresh Rate | 100ms
- Low Voltage Alarm | 11.0V (@12V mode) / 22.0V (@24V mode)
- Note | **C**€

#### Marine Grade USB Charger Sockets











Full Compatibility- fast charges like AC chargers

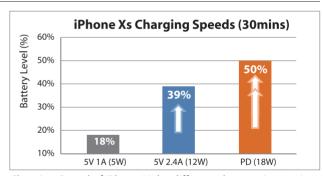
AS23x series are quality-built, powerful and compact USB Charger sockets for marine or RV applications. Built with sophisticated circuit, these chargers not just allow fast full-speed charging to your latest iPhones/iPads, but also protect your devices with features like overheat, reverse-polarity protection, EMC suppression, and more. Thanks to its specially designed PVC cap and unique uni-body design, this series is IP66 rated and is suitable for Marine and other applications.

#### **Series Features**

- Input: DC12/24V (Dual Voltage)
- LED Power Indication
- Short circuit / Overheat protection / Reverse polarity protection
- Enhanced uni-body water-resistant design with unique water-tight cap (IP65 for AS237/AS238, IP66 for others when sealed)
- Standardized 1-1/8" cut-out (See page 74 for accessories)
- Fits in existing C-7 or Contura style switch mounting holes (AS235)
- Flame retardant Nylon (glass fiber reinforced) enclosure
- ( € F©

#### **Charge Compatibility & Fast Charging**

As built-in batteries for cellphone become bigger and bigger, charging speed becomes more important for end users. While QC (Quick Charge) protocol has been in the market for years, they are only compatible with Qualcomm based android phones. The newly developed PD (Power Delivery) protocol, however, is compatible with both Android, iPhones, iPads and even laptops, and is deemed as the future of fast charging. PD chargers would typically charge your iPhone or Android phones from 0% to 50% within half hour.



Charging Speed of iPhone Xs by different chargers in 30 mins

#### **Compatibility chart of Fast-Charging technologies**

Protocol	Charger Socket	Compatible with	YIS Charger Model
Apple 2.4A  Made for iPod iPhone iPad	USB TYPE A	iPhones / iPads / Most Androids	All models except AS237
Quick Charge (QC)	USB TYPE A USB TYPE C	ONLY Qualcomm based Androids	AS237 AS238
Power Delivery (PD)  USB PD	USB TYPE C	iPhone 8 / X or later (2017) iPad Air 3 or later Most Androids since 2018	AS237 AS238



#### **Product Series**

PD (Power Delivery) USB Type-C Chargers New



- Type A port 5V 2.4A compatible with most smartphones in market
- Type C port PD 45W compatible with latest PD devices in market (iPhones/iPads/Android/Nintendo Switch)
- Fast charges your iPhone / Android phones from 0% to 50% within 30 mins
- Also charges ultrabooks, Macbooks & Macbook Air (after 2018) in 20V mode
- \* 20V/2.25A mode is only achievable when input > 20V

# AS237



- Powerful 45W (20V/2.25A) PD charging
- Compatible with latest PD devices in market (iPhones/iPads/Android/Nintendo Switch)
- Fast charges your iPhone / Android phones from 0% to 50% within 30 mins
- Also charges ultrabooks, Macbooks & Macbook Air (after 2018) in 20V mode
- \* 20V/2.25A mode is only achievable when input > 20V





AS221 New





- Type A port 5V 3A compatible with most smartphones in market
- Type C port PD 18W compatible with latest PD devices in market (iPhones/iPads/Android/Nintendo Switch)
- Fast charges your iPhone / Android phones from 0% to 50% within 30 mins
- Also charges ultrabooks, Macbooks & Macbook Air (after 2018) in 20V mode
- Lower cost alternative to AS238
- Enhanced IP66 water-sealing cap design

# **Single Port USB Chargers** AS233



- Single Port 2.4A USB Charger (12W)
- Fast charges iPad /iPhone and Android devices



- Snap-in Keystone Charger Socket for Decora Style wallplate (RJ-45 Keystone hole)
- Single Port 2.4A USB Charger (12W)
- Fast charges iPad /iPhone and Android devices





#### **Double Port USB Chargers**

AS234 / AS234L / AS234LT / AS235





#### AS234-3.1A

#### Lower Price

- Best Cost-Performance value
- Best-selling item with solid performance and competitive price

#### AS234(L)-4.8A

- Two port 2.4A large current charger
- Charges 2 iPads at full speed at the same time

#### AS234LT-4.8A New

- Two port 2.4A large current charger
- Touch button to turn off charger when not in use





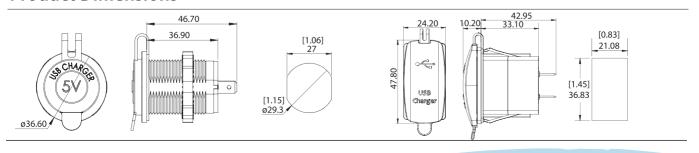
#### AS235-4.8A

- Two port 2.4A large current charger
- Charges 2 iPads at full speed

Model#	Sockets	Amp. Rating	Power	Note
AS233	USB (A) x 1	2.4A	12W	-
AS236	USB (A) x 1	2.4A	12W	Designed for Keystone Sockets
AS234-3.1A	USB (A) x 2	2.1A+1A	15W	Newly developed low cost model (2019)
AS234-4.8A AS234L-4.8A	USB (A) x 2	2.4A+2.4A	24W	4.8A large current model New
AS235-4.8A	USB (A) x 2	2.4A+2.4A	24W	4.8A large current model
AS221	USB (A) x 1 USB (C) x 1	(A)5V2.4A (C)5V 3A/9V2A/ 12V 1.5A	18W	Power Delivery (PD) 3.0 New USB-C Also charges ultrabook, Macbook & Macbook Air (after 2018)*
AS237	USB (C) x 1	5V 3A/ 9V 3A/ 12V 3A/ 15V 2.25A/ 20V 2.25A (PD 45W Max.)	45W	Power Delivery (PD) 3.0 New Also charges ultrabook, Macbook & Macbook Air (after 2018)*
AS238	USB (A) x 1 USB (C) x 1	(A)5V2.4A (C)5V 3A/9V3A/ 12V 3A/ 15V 2.25A/ 20V 2.25A (PD 45W Max.)	45W	Power Delivery (PD) 3.0 New USB-C Also charges ultrabook, Macbook & Macbook Air (after 2018)*

 $<sup>{\</sup>rm *Charging\ ultrabook, Macbook\ \&\ Macbook\ Air\ (after\ 2018)\ requires\ 20V\ mode, which is\ only\ achieve able\ when\ input\ >\ 20V\ mode, which\ is\ only\ achieve able\ when\ input\ >\ 20V\ mode, which\ is\ only\ achieve able\ when\ input\ >\ 20V\ mode, which\ is\ only\ achieve able\ when\ input\ >\ 20V\ mode, which\ is\ only\ achieve able\ when\ input\ >\ 20V\ mode, which\ is\ only\ achieve able\ when\ input\ >\ 20V\ mode, which\ is\ only\ achieve able\ when\ input\ >\ 20V\ mode, which\ is\ only\ achieve able\ when\ input\ >\ 20V\ mode, which\ is\ only\ achieve able\ when\ input\ >\ 20V\ mode, which\ is\ only\ achieve\ able\ achieve\ able\ achieve\ able\ achieve\ achieve\ able\ achieve\ ach$ 

#### **Product Dimensions**



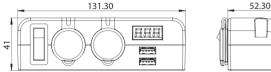




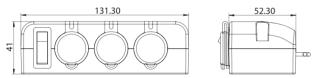
#### **Cigarette Lighter Outlet Extension Box**

AS901 2-Way Cigarette Lighter Outlet Box with dual USB & Digital Voltage Meter AS902 3 Port Cigarette Lighter Outlet Box











These cigarette lighter outlet box come with 2 or 3 ways standard cig. outlet. Advanced model AS901 comes also with 2 port USB charger and Voltmeter. Both model come with a convenient illuminated rocker switch style circuit breaker, providing not only 16A protection but also an easy way to control multiple devices at the same time.

Suitable for 12V and 24V DC power source. Come with 3 feet of wires with circuit break protection. Mounting accessories included.

#### **Specifications**

- Rating | DC 12 / 24V 16A
- Cable | 18AWG / Black & Red Wires / Length 3 ft
- Built-in Circuit Breaker Switch (16A)

#### USB (AS901)

- Input DC 12/24V
- Output: DC 5V 3.1A Max (2.1A + 1A)

#### Digital Voltage Meter (AS901)

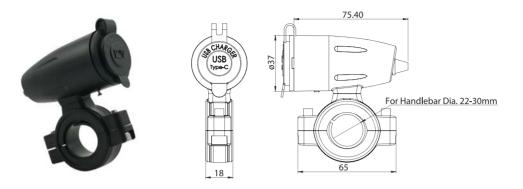
- Voltage Range | DC 2.50~30V
- Current Consumption | <30mA
- Sampling Rate | 5 readings/s
- Resolution | 0.01V (input <10V) / 0.1V (input >10V)



#### CurvMount Handle Bar Mount Sockets



#### AS251

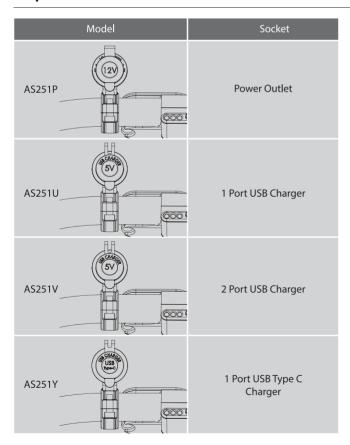


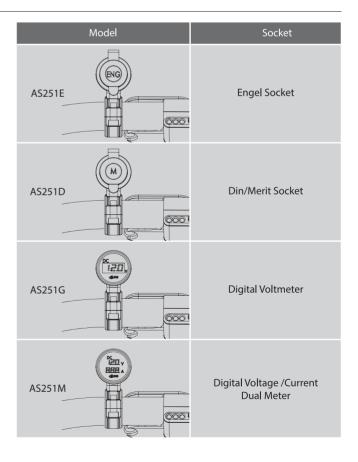


#### **Features**

- Suitable for all of our 1-1/8" sockets (See options below)UV-stabilized enclosure material
- Compatible with most motobike handlebar in the market (diameter: 0.8" -1.18")
- UV-stabilized enclosure material
- Water-tight gasket & water-resistant rubber cap included
- Robust Nylon (glass fiber reinforced) enclosure

#### **Popular CurvMount Models**





#### **CurvMount Surface Mount Sockets**

AS241 AS241W AS242 AS242W



The CurvMount cases are fully covered surface mount cases designed for the 1-1/8" socket family. These cases are made of UV-stabilized plastic with water-tight gaskets and water-resistant caps, making them perfect for use with RV, caravans and yachts. They are easy to install and can be mounted vertically, horizontally or even underneath a dash.

#### **Features**

- Surface-mount allowing easy installation on any surface (no hole cut-out needed)
- UV-stabilized enclosure material
- Water-tight gasket & water-resistant rubber cap included
- Robust Nylon (glass fiber reinforced) enclosure

#### **Popular CurvMount Models**

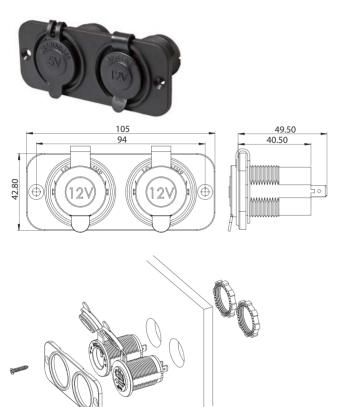
	Model	Socket
AS241P		Power Outlet
AS241U	(50)	1 Port USB Charger
AS241V	(50)	2 Port USB Charger
AS241D		Din/Merit Socket
AS241E	(ENG)	Engel Socket
AS241G	DC 120	Digital Voltmeter
AS241M	CELLY HERE A	Digital Voltage /Current Dual Meter

	Model	Socket
AS242PP	(12)	Power Outlet + Power Outlet
AS242PU	(SV) (12)	Power Outlet + 1 Port USB Charger
AS242PV	50 (2)	Power Outlet + 2 Port USB Charger
AS242PD		Power Outlet + Din/Merit Socket
AS242PE	(12V) (ENG)	Power Outlet + Engel Socket
AS242VG	SV) PC	2 Port USB Charger + Digital Voltmeter
AS242XX		Any Socket from 1-1/8" family + Any Socket from 1-1/8" family



#### Flush Mount Panel for 1-1/8" Sockets

AS245



AS245: Decorative Panel mounted in front of sockets

# 

AS246: Panel mounted in back of sockets

#### **Flush Mount Models**

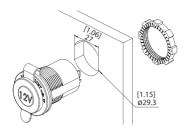
	Model	Socket
AS245PP	(12) (12)	Power Outlet + Power Outlet
AS245PU	(12) (50)	Power Outlet + 1 Port USB Charger
AS245PV	(12) (50)	Power Outlet + 2 Port USB Charger
AS245PD		Power Outlet + Din/Merit Socket
AS245PE	(2V) (ENG)	Power Outlet + Engel Socket
AS245VG	SV SC SZ S	2 Port USB Charger + Digital Voltmeter
AS245XX		Any Socket from 1-1/8" family + Any Socket from 1-1/8" family



#### **Features**

- Flush Mount Panel available in 1 gang or 2 gang
- UV-stabilized material
- Robust Nylon (glass fiber reinforced) material

#### The 1-1/8" Sockets and Accessories Family



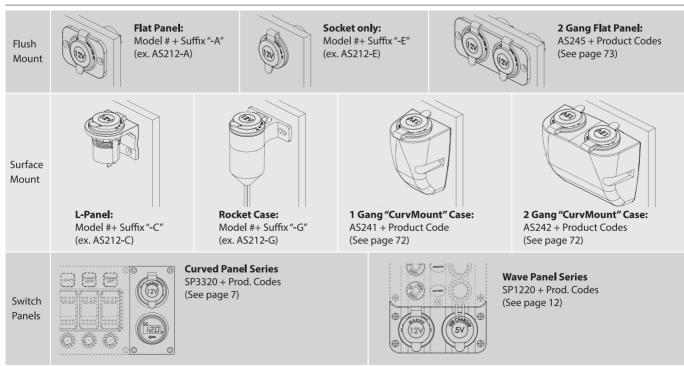
We all love to add a little bit more gadgets to our boats every now and then. That is why YIS Marine keeps introducing new sockets and accessories with standardized mounting dimension (the 1-1/8" system). All of these accessories come with the same threads and design language, and fit in the same panel cut-out, allowing them to fit each other perfectly when mounted together. See this page for coding and ordering guides

#### **Product Codes**

Prod	uct Code	Model #	Name
P (t	TICK POR	AS212	Marine Grade Power Outlet (See page 62)
E (		AS218	Engel Socket (See 63)
D (		AS216	Din/Merit Socket (See page 63)
U		AS233	1 Port USB Charger (See page 68)
v (	2 459215	AS234	High Current 2 Port USB Charger (See page 69)
Υ (	(355 70 (5) (5) (7)	AS237	PD 45W USB Type C Charger (See page 68)

F	Product Code	Model #	Name
G	pc 12H <sub>v</sub>	SP-BG1	Battery Gauge (Voltmeter) (See page 64)
М	DC UHHH A	SP-BG2	2 in 1 Battery Gauge (See page 65)
С	DC HHH A	SP-BG3	Digital Current Meter (See page 65)
В	DC HHH v	SP-BG6	Battery Level Voltage Meter (See page 66)
R	CONTROL OF THE PROPERTY OF THE	SP-BG7	Digital Voltmeter with Rainbow Battery Level Display(See page 66)
Z		AS238	PD 45W USB 1A+1C Charger (See page 68)

#### **Mounting Options**





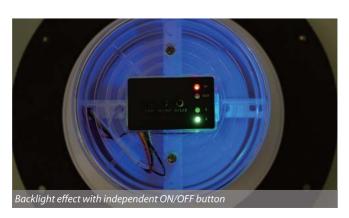


# **Solar Ventilator for Marine, Caravans and Motorhomes** SV001





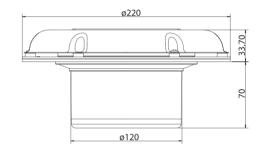




#### **Features**

- Low profile stainless steel solar vent for boats, caravans and motorhomes
- Fully automatic operation powered by solar energy with a solar panel and rechargeable Li-ion battery
- Built-in Battery no external power or wiring requried
- Modern digital switching design with options of exhaust/intake direction and 2 different fan speed (0/OFF 1/Weak 2/Strong))
- Optional LED Backlight effect with ON/OFF button

- Solar cell capacity | Max. 1.8w / 3V / 600mA
- Fan motor operation voltage | DC 3V
- Battery | NiMH LSD AA, 1.2 V, 2400 mAh
- Capacity | Up to 25 m³ air/h at full effect





# **Automotive Electrical Accessories**

#### Car Battery Clips Accessories

# **Lead Acid Battery Clip with Cable** AE601-10



- Battery clip for lead acid battery
- UL2468 cord (8" bare wire)

# **Battery Clamp to Cigarette Lighter Socket (Coil Cord)** AE602-25



- Battery clamps for car batteries
- Coil Cord: 0.12/30, 12 feet
- In-line cigaretter lighter socket

# **Lead Acid Battery Clip with Coaxial DC Power Plug** AE601-13



- Battery clip for lead acid battery
- UL2468 cord (8")
- In-line Molded DC Plug -Type A: ID 2.1mm OD 5.5mm -Type B: ID 2.5mm OD 5.5mm

### **Customized battery clips accessories** AE60X



- Customizable wire and end processes (See p.9 for wiring options
- You choice of battery clips or clamps (see below)

# **Lead Acid Battery Clip with Cigarette Lighter Socket** AE601-15



- Battery clip for lead acid battery
- UL2468 cord (8")
- In-line cigaretter lighter socket

# **Universal Dry Cell Battery Tester** AE603



- Easy to use, portable battery tester
- Universal tester for dry cells(D, C, AA, AAA), 9V (Transistor) batteries, and button cells
- Voltage Range: 0-2V (for dry cells & button cells) / 0-9V (for 9V batteries)

#### **Battery Clamp to Cigarette Lighter Socket** (Straight Cord) AE602-15



- Battery clamps for car batteries
- Cable Spec: SPT-1, 18AWG, 1 feet
- In-line cigaretter lighter socket

#### Available Battery Clips / Clamps:



#### **Molded Trailer Connectors**

# **Molded Flat Trailer Connector Pair - 2 Poles with Cable** AM701



- 1 x male & 1 x female trailer connector set
- 2 contacts male & female
- Cable width: 18AWG
- Customizable cable length
- Mositure-proof molded design
- Connectors with grip for tight and secure connection
- Connectors available in pair, or seperately

# **Molded Stacked Trailer Connector Pair - 5 Poles with Cable**AM704



- 1 x male & 1 x female trailer connector set
- 5 contacts male & female
- Cable width: 18AWG
- Customizable cable length
- Mositure-proof molded design
- Connectors with grip for tight and secure connection
- Connectors available in pair, or seperately

# **Molded Flat Trailer Connector Pair - 3 Poles with Cable** AM702



- 1 x male & 1 x female trailer connector set
- 3 contacts male & female
- Cable width: 18AWG
- Customizable cable length
- Mositure-proof molded design
- Connectors with grip for tight and secure connection
- Connectors available in pair, or seperately

# **Molded Stacked Trailer Connector Pair - 6 Poles with Cable**AM705



- 1 x male & 1 x female trailer connector set
- 6 contacts male & female
- Cable width: 18AWG
- Customizable cable length
- Mositure-proof molded design
- Connectors with grip for tight and secure connection
- Connectors available in pair, or seperately

# **Molded Flat Trailer Connector Pair - 4 Poles with Cable** AM703



- 1 x male & 1 x female trailer connector set
- 4 contacts male & female
- Cable width: 18AWG
- Customizable cable length
- Mositure-proof molded design
- Connectors with grip for tight and secure connection
- Connectors available in pair, or seperately



# **Marine Grade Switch**

Large Current (20A) Anti-Vandal Stainless Steel Push-Button Switch with LED Ring
Anti-Vandal Stainless Steel Push-Button Switch with LED Ring
Starter Push-Button Switch
Water-resistant Sealed Rocker Switches (C-7 Series)
Water-resistant Rocker Switches (C-6 Series)
Marine Toggle Switch with Plastic Handle Bar
Heavy Duty Brass Toggle Switch Series

### **Marine Grade Switches**

Weather-proof switches specially designed for outdoor environments

Mounting Cut-out

### **IP67 Water-resistant Sealed Rocker Switch**

C-7 Series





	Product Series	
Product ID	Туре	Switch Function
C-7124	SPST	(ON)-OFF
C-7137	SPDT	(ON)-OFF-(ON)
C-7144	DPST	(ON)-OFF
C-7167	DPDT	(ON)-OFF-(ON)
C-7231R ☆	SPST	ON-OFF
C-7251R ☆	DPST	ON-OFF
C-7243RR ☆☆	SPDT	ON-OFF-ON
C-7273RR ☆☆	DPDT	ON-OFF-ON
C-7246RR ☆☆	SPDT	(ON)-OFF-ON
C-7276RR ☆☆	DPDT	(ON)-OFF-ON
C-7272RR ☆☆	DPDT	ON-ON

※ Product ID are for Switch Body only, for full switch with actuators, add suffix like "-H1W" (see Website)



#### **Features**

- Fit popular Contura style switch mounting
- Interchangeable actuators with various options
- Available in customized switch function, illuminating and other configurations
- LED illuminated (DC12V/ 24V dual voltage)
- PC Terminals (0.250" Quick Connect Terminals)
- IP67: Water proof even under temporary water immersion
- Exclusive advanced water-tight sealing design (Patented)

IP67 Water proof even under temporary water immersion

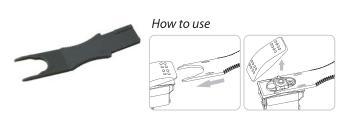
#### **Specifications**

- Rating | DC 12V 20A 24V 10A
- Electrical Life | 20,000~50,000 switch function dependent
- Note | IP67 Patented in TW CH



Advanced water-tight sealing design (Patented)

#### **Actuator Removal Tool for C-7 Switches** C7-RM-1



# C7-HC-1

**Hole Cover** 



- Used to change C-7 switch actuators
- Anti-slip grip design

- Hole Cover for spare switch slots
- Easy snap-in design

#### **Actuator for C-7 Switch** C7A-XXX





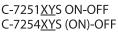




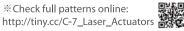


- Available stand-alone without switch body ■ Available in various colors, lens configurations and
- printing options
- Lens color available in white, red, amber, green and blue
- Customizable silkscreen printing or label stickers on square lens available

# **Laser Etched Contour C-7 Actuator**







\*\* Check coding guide online:

http://tiny.cc/C7\_Actuator







- Premium feeling and backlight effects
- YIS exclusive trendy actuator shape (Patented)
- Laser etching technology allowing even very complicated patterns
- Illuminates on both symbol and label (label illumination configurable to be always on or power indication)
- 100% customizable with low MoO

X Stands for Symbol illumnation LED color, and Y for Label LED Color (X is ON only when switch is ON; Y is configurable externally.)

#### **Mounting Panel for C-7 Series**

C7-PA-1 (End Frame) C7-PA-2 (Middle Frame)



(MIDDLE)

#### Label Stickers for C-7 Switch with square lens C7-ST-1



- 60 pcs assorted label stickers
- For use with Actuators with white square lens C7A-H3W
- Sold separately



- Allows mounting of multiple switches together
- Cascade as many switches as you like
- Push-in installations

#### **Digital Battery Gauges – Switch Mount**

SP-BG4 Digital Voltmeter SP-BG5 Digital Voltage & Current Dual-meter

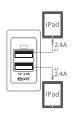




※ Fit popular Contura style switch mounting (See page 64-65)

#### **High Power 2 Port USB Charger – Switch Mount** AS235-4.8A (2.4A + 2.4A)



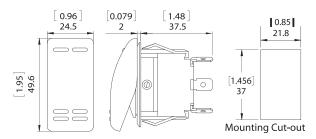


※ Fit popular Contura style switch mounting (See page 69)

#### **IP55 Water-resistant Rocker Switch**

C-61/C-62 Series





Product Series			
Product ID	Туре	Switch Function	
C-6124P	SPST	(ON)-OFF	
C-6136P	SPDT	(ON)-OFF-ON	
C-6137P	SPDT	(ON)-OFF-(ON)	
C-6144P	DPST	(ON)-OFF	
C-6166P	DPDT	(ON)-OFF-ON	
C-6167P	DPDT	(ON)-OFF-(ON)	
C-6231P 🔆	SPST	ON-OFF	
C-6253P ·☆-☆-	SPDT	ON-OFF-ON	

#### **Features**

- Robust design to withstand outdoor environments
- Easy-to-press, stylish curved actuator design
- Available in various switch functions and illuminating configurations
- PC Terminals (0.250" Quick Connect Terminals) or Screw Terminals
- LEDs or Lamps available for illuminated C-62 series
- IP55: Water projected in jets from any direction shall have no harmful effects

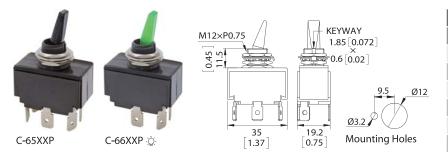
#### **Specifications**

- Rating | DC 12V 16A 24V 10A
- Electrical Life | 20,000 make and break cycles at full load

#### **Mounting Panel for C-6 Series**



# **Toggle Switch** C-65/C-66 Series



Product Series			
Product ID	Туре	Switch Function	
C-6521P	SPST	ON-OFF	
C-6524P	SPST	(ON)-OFF	
C-6537P	SPDT	(ON)-OFF-(ON)	
C-6631P ☆	SPST	ON-OFF	
C-6634P - 🌣 -	SPST	(ON)-OFF	
C-6647P -🌣-	SPDT	(ON)-OFF-(ON)	

#### **Features**

- Available in various switch functions, illuminating and other configurations
- Current rating up to 16A (@12V DC)
- Self-illuminating handle bar (C-66 only)
- Heat-resistant bakelite switch body
- Available in PC (Quick) Terminals or Screw Terminals
- Hidden color lens allowing up to three different illuminating colors(for illuminated C-66 series)

#### **Specifications**

- Rating | DC 12V 16A 24V 10A
- Electrical Life | 20,000 make and break cycles at full load

#### C6653L-CRG:Tri-color illuminated switch ON-OFF-ON







**Rubber Boot** C6-RB-2



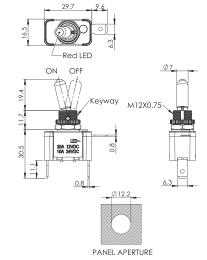
- Water-proof, dust proof rubber boot
- Screw Nuts: M12
- Available in clear/black color

# **Toggle Switch with On indication LED** T-1341









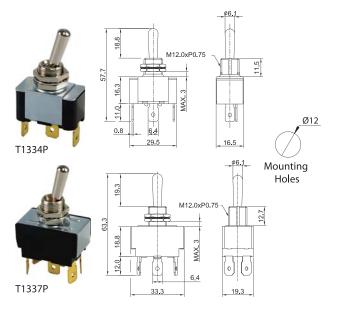
#### **Features**

- 3P SPST ON-OFF Toggle Switch with LED indicated
- 3 Quick-connect terminals: 6.3mm\*0.8mm
- Rating: 20A 12VDC,10A 24VDC
- Mechanical Operating Life: 50,000 cycles
- Electrical Operating Life: 25,000 cycles at full load
- Ingress Protection: IP40
- Mounting holes: 12.2mm Diameter 6.0mm max.
   Thickness

#### **Premium Heavy Duty Toggle Switch Series**

T-133X Series





#### **Features**

- Product design matches leading brands switch allowing direct replacement
- More Premium feeling and texture than T1325 Series
- 100% Made in Taiwan

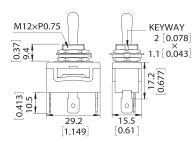
Product Series			
Product ID	Туре	Switch Function	
T-1332P	SPST	ON-OFF	
T-1332PM	SPST	(ON)-OFF	
T-1334P	SPDT	ON-OFF-ON	
T-1334PM1	SPDT	(ON)-OFF-ON	
T-1334PM2	SPDT	(ON)-OFF-(ON)	
T-1337P	DPDT	ON-OFF-ON	
T-1337PM1	DPDT	(ON)-OFF-ON	
T-1337PM2	DPDT	(ON)-OFF-(ON)	

#### **Heavy-Duty Toggle Switch**

T132X Series







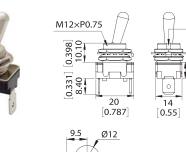
KEYWAY 2 [0.078]

1.1 [ 0.043]

KEYWAY 2 [0.078] .13[0.044]







32.2 [1.267]

19.8 [0.779]

M12×P0.75



#### **Features**

- Current rating up to 15A (@12V DC)
- Robust and durable toggle design
- Available in PC (Quick) Terminals or Screw Terminals
- Series-specific nameplates and rubber boot available
- Short Body design saves mounting space (for T-1331 series)

#### **Specifications**

- Rating | DC 12V 15 A 24V 10A
- Electrical Life | 50,000 make and break cycles at full load

Product Series			
Product ID	Туре	Switch Function	
T-1325P	SPST	ON-OFF	
T-1325PM	SPST	(ON)-OFF	
T-1327P	SPDT	ON-OFF-ON	
T-1327PM1	SPDT	(ON)-OFF-ON	
T-1327PM2	SPDT	(ON)-OFF-(ON)	
T-1330P	DPDT	ON-OFF-ON	
T-1331P	SPST	ON-OFF	
T-1331PM	SPST	(ON)-OFF	

#### **Rubber Boot**

T-RB-3



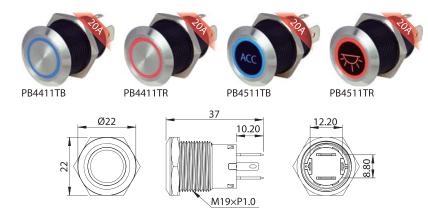
- Water-proof, dust proof rubber boot
- Screw Nuts: M12
- Available in clear/black color



#### Large Current (20A) Anti-Vandal Stainless Steel Push-Button Switch with LED Ring

PB-44xx Series - with LED light ring PB-45xx Series - with backlight labels





Product Series				
Product ID	Voltage Rating	Switch Function		
PB-4411TL- <u>X</u>	DC 12V	ON-OFF (Latching)		
PB-4511TL- <u>X</u>	DC 12V			
PB-4411T- <u>X</u>	DC 12V	(ON) OFF (Mamantany)		
PB-4511T- <u>X</u>	DC 12V	(ON)-OFF (Momentary)		
PB-4411TL- <u>X</u> -24V	DC 24V	ON-OFF (Latching)		
PB-4511TL- <u>X</u> -24V	DC 24V			
PB-4411T- <u>X</u> -24V	DC 24V	(ON)-OFF (Momentary)		
PB-4511T- <u>X</u> -24V	DC 24V			

※ X Stands for Symbol illumnation LED color. R:Red/B:Blue/W:White/G:Green

#### **Features**

- Market-leading 20A Capability (No more relays!)
- Same compact size as mainstream anti-vandal switches in market (PB-42 Series)
- Durable CNC Stainless Steel (SS316) housing
- 0.250" Quick connect terminals
- LED light rings configurable to be push-on (power indication) or always on (back lighting)
- IP67 protected even under temporary water immersion

#### Additional Features for PB45xx

- Backlight button version
- 5 pcs PC membrane label stickers included
- Additional 40pcs assorted label stickers sold separately (PB-ST-1)

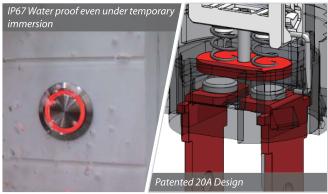








5 pcs labels included with PB45xx series



#### **Specifications**

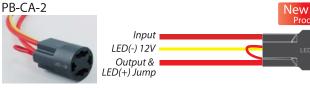
- Rating | DC 12V 20A / DC 24V 10A
- Electrical Life | > 20,000 cycles
- Operation Temperature | -20°C ~ +55°C
- Note | Patented in Taiwan(M558458) & China(ZL2018202565058) & USA(US10297404B1)

#### **Label stickers for PB45xx Series** PB-ST-1



- 40 pcs assorted label sticker
- Scratch resistant, water-proof PC membrane material
- Customized version also possible
- Back printing for better durability

# Cable set pre-assembled for PB44/PB45xx Series



- Cable set pre-assembled in factory or included as accessories
- Jumper cable allowing configuration of LED Ring to be "Push ON" or "Always ON"
- UL1015 18AWG cable capable of carrying 20A current
- (Optional) 24V LED negative cable kit allows 12V switch to be applied on 24V applications (PB-CA-2-24V)
- Cable length: 6" (15cm) (Customizable)



#### Anti-Vandal Stainless Steel Push-Button Switch with LED Ring

PB-42xx Series



Product Series				
Product ID	Voltage Rating	LED Color	Switch Function	
PB-4212TL-R	DC 12V	Red	ON-OFF (Latching)	
PB-4212T-R	DC 12V	Red	(ON)-OFF (Momentary)	
PB-4212TL-B	DC 12V	Blue	ON-OFF (Latching)	
PB-4212T-B	DC 12V	Blue	(ON)-OFF (Momentary)	
PB-4212TL-R-24V	DC 24V	Red	ON-OFF (Latching)	
PB-4212T-R-24V	DC 24V	Red	(ON)-OFF (Momentary)	
PB-4212TL-B-24V	DC 24V	Blue	ON-OFF (Latching)	
PB-4212T-B-24V	DC 24V	Blue	(ON)-OFF (Momentary)	
PB-BZ-1R	DC 12V	Red/flashing	Buzzer	



- Up to Double Pole NO/NC/COM Terminals (5 or 8 Terminals)
- Durable stainless steel housing and button
- LED light rings configurable to be push-on (power indication) or always on (back lighting).
- IP67 protected agasint even under temporary water immersion (IP50 for the Buzzer PB-BZ-1R)

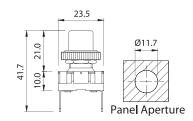
#### **Specifications**

- Rating | DC 12V 5A / DC 24V 5A
- Electrical Life | > 50,000 cycles
- Operation Temparture | -20°C ~ +55°C

#### Starter Push-Button Switch

PB-4071





#### **Features**

- Quick terminal blades
- High current push button switch
- Water-resistant cap available
- Rating: AC 125V 15A / 240V 10A

**Rubber Boot** PB-RB-1





# **LED Lights for Boats**

YIS Marine LED Lights for Boats

WaveLED Marine LED Lights Series

WaveLED Reading Light Series

**LED Courtesy Lights** 

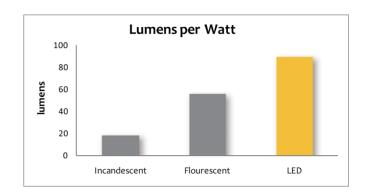
# **YIS Marine LED Lights for Boats**

#### Next Generation of Marine Lighting

LED is the next generation of lighting. With its lower power consumption, vibration-proof and better durability comparing to traditional halogen lights, the LED lights are an ideal solution on the board. The performance of LED lights, however, is-based heavily on their electronic circuit design, which is very different from traditional luminaire using incandescent lights. With more than 20 years of expertise in automotive electronics designing and manufacturing, YIS Marine is able to provide high performance LED light products with competitive costs.

#### **Low Power Consumption**

Low power consumption means longer cruising time on the sea. As of 2015, the latest LED technology can generate around 80-100 lumens per watt, while the traditional incandescent lights generate less than 20 lumens per watt. In fact, EU has banned use of incandescent lights since 2012, and planned to ban the halogen lights due to their low lighting efficiency.



#### **Life & Durability**







Typically LED's has a lifespan for about 20,000 – 50,000 hours, more than 20 times of that of an incandescent light. LED also has no filaments to break, and thus are very vibration proof. Most of YIS Marine lights are built in one part without replaceable lamps, and some outdoor models are fully sealed to ensure great durability against moisture and shocks.

#### **Electronic Circuit Design**



Electrical systems on the boats are very complex and sophisticated systems. DC power supply on board can vary from 10 – 15V under different circumstances (for a 12V system). That's why almost all of our LED lights come with Constant-Current technology that keeps the LED output stable despite the input voltage variation. As radio communication is crucial on the boats, all of our LED lights also have EMI suppression design and approved by the EU standards  $\mathbf{C} \in \mathbf{C}$ .

#### Cost

The cost of LED has been dropping consistently each year. This, combing with its steady growth in lighting efficiency, makes LED lights become more and more suitable to replace traditional incandescent lights used on the boat. YIS Marine re-design LED lights on board by removing or modifying parts that were necessary for halogen lights but no longer needed for LED lights. By designing lights exclusively for the LED technology, we are able to build cost-effective LED lights with much better performance than traditional halogen lights.

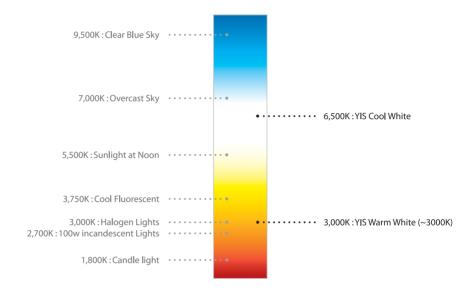
#### **LED Terminologies**

LED is the next generation of lighting. With its lower power consumption, no heat radiation and better durability comparing to traditional halogen lights, the LED lights are an ideal solution on the board. Here is some of the important terminologies of LED lights:

#### **Color Temperature** (Unit: K (Kelvin))

Color temperature is conventionally stated in Kelvin (K), the unit of absolute temperature. The color temperature is the temperature that makes an ideal black body radiator radiate comparable hue as the light source.

Usually, color temperatures over 5,200K are called cool colors, color temperature below 3500K are called warm colors.



#### Luminous Flux (Unit: Im(lumens))

The total amount of light emitted from a lamp. The higher lumen is, the more intense the light output. Luminous Flux does not vary with distances.

#### **Illuminance** (Unit: Lux )

Illuminance is the total luminous flux falling on a surface. It shows the intensity of the incident light. Mathematically,

Illuminance (Lux) = Lumens (Im) / area(m²)

where area is the illuminated area of the light source. The farther the surface are away from the source, the larger the area would be, and hence the smaller illuminance, while the Luminous Flux remains the same.

#### Example:

If a light fixture with 100 lumens lights up an area of 1 square meter, the Illuminance would be 100 lux. If, however, the same fixture lights up 10 square meters (at a farther place), the illuminance would be reduced to only 10 lux.

#### **Types of LEDs**

**SMD LEDs** (Surface Mounted Devices)



SMD LEDs are bright and economical LEDs that are mounted on PC Boards and hence are easy for mass production. With the SMD LED becoming brighter and brighter, they have become mainstream of marine lights.



#### **High Power LEDs**



High power LEDs use from 1 watts to as much as 500 watts in a single package and thus has the ability to provide unparalleled brightness within limited area comparing to SMD LEDs. The heat dissipation issue is an important factor in designing High-Power LED lights. YIS Marine utilizes all-aluminum LED holders/enclosures for our High Power LED product lines.



# **WaveLED Marine LED Lights Series**



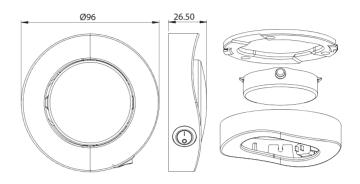
Unique Marine Wave-shaped LED Lights from YIS

WaveLED Ceiling Light LC004W WaveLED Ceiling Light - Dual Color LC004WB / LC004WR





LC004WB-S / LC004WR-S (Dual Color)



#### **Features**

- Unique wave shape enclosure design
- Easy-to-install bayonet latch design
- Matte surface allows soft and smooth light output
- Completely sealed LED Module
- Built-in ON-OFF switch
- Adjustable light angle
- Constant-Current technology design ideal for marine lighting
- DC 12V-24V dual voltage rating
- 2 different enclosure colors available

#### Additional Features for LC004WB/LC004WR

- White/Blue or White/Red dual light color
- Cost-effective bulit-in ON-OFF-ON switch

#### **Specifications**

- Lighting Source | SMD LED x 6 (120lm)
- Color Temperature | 2900-3200K (Warm White)
- Voltage Rating | DC 12-30V
- Power Consumption | 1.5W
- Note | **(**€

### Dual Color LC004WB / LC004WR

Blue Blue

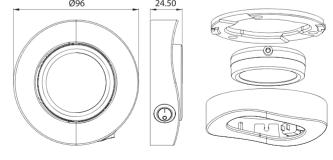


# **WaveLED Ceiling Light / Spotlight with High Power LED** LC003-3x1W



#### **Features**

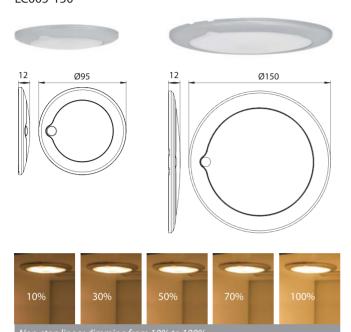
- Unique wave shape enclosure design
- Easy-to-install bayonet latch design
- Specially designed optical lens provide bright and focused spot light
- 3 x 1 Watt super bright High Power LED
- Built-in ON-OFF switch
- Adjustable light angle
- DC 12V-24V dual voltage rating



- Lighting Source | High Power LED (1W) x 3
- Color Temperature | 3000-3300K (Warm White)
- Voltage Rating | DC 12-30V
- Power Consumption | 3.24W
- Note | **( €**



# **DishLED Dimmable Ceiling Light with Touch Button** LC005-95 LC005-150







LC005 are ultra-thin ceiling lights with dimmable function and a low profile touch button. They have the same un-intrusive like outlook as the recessed light fixtures yet are also as easy to install as any other surface mount ceiling lights. It can be turned on/off or dimmed linearly with a simple touch, and the memory function allows it to memorize previous brightness level when turned back on. The cut-off memory feature allows multiple DishLEDs to be controlled centrally by a single switch. The completely sealed design made it perfect for use in marine applications (IP67).

#### **Features**

- Ultra-thin surface mount (only 12mm in thickness)
- Low profile touch button
- Linear (non-stop) dimming allowing brightness adjustment to any desirable level (10-100%)
- Memory feature remembering previous brightness level when turned back on
- Power cut-off memory feature allowing central control of several DishLED lights
- Constant-current technology design ideal for marine lighting
- Completely sealed (IP67) protected even under temporary water immersion

#### **Specifications**

#### LC005-95

- Light Source | Super Bright SMD LED x 4 (200lm)
- Color Temperature | 3000 3300K (Warm White)
- Voltage Rating | DC 9 30V (Multi-volt)
- Power Consumption | 2.4W
- Note | IP67 **(**€

#### LC005-150

- Light Source | Super Bright SMD LED x 12 (400lm)
- Color Temperature | 3000 3300K (Warm White)
- Voltage Rating | DC 9 30V (Multi-volt)
- Power Consumption | 4.5W
- Note | IP67 **( €**

# **WaveLED Marine Reading Light Series**



#### Cost-effective Reading Lights with Trendy Design



### Description

The WaveLED reading light series are modern design, good performance and cost-effective LED reading lights. While High Power LED version provides unparalleled focused light output, the SMD version can provide wider angle and smoother output with much lower cost. There is also a dimmable SMD LED version with touch button. With economical plastic housing, built-in switches, and its easy-to-install feature, this series is ideal for sale in the aftermarket.

#### **Features**

- Unique wave shaped base design
- New screw-free easy-to-install bayonet catch design
- Built in switch for easy wiring
- Adjustable light angle
- 3 Versions available: high power LED, cost-effective SMD LED, and dimmable touch button version





#### 3 Versions of WaveLED reading lights





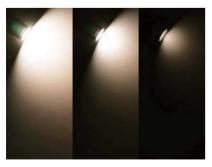


**High Power LED with Condenser Lens** 

High power LED provides unparalleled brightness through the ultra clear condenser lens, the high power LED version can light up as far as 5 meters away, suitable forreading or spotlight applications.

**SMD LEDs with matte lens** 

SMD LED version is a wide angle, lower cost alternative. This version is also more suitable for reading at a closer range.







**Dimmable SMD LED version with TOUCH button** 

SMD LED version with additional dimming feature and water-resistant touch button design.



#### **WaveLED Reading Light**

LR001-1W

**WaveLED Reading Light (SMD Version)** 

LR001-SMD

#### **WaveLED Dimmable Reading Light with Touch Button**

LR001-TOUCH



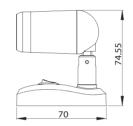
LR001-1W

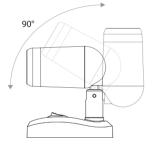


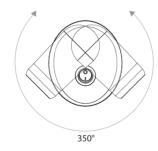
LR001-SMD



LR001-TOUCH







#### **Features**

- Compact size with powerful output
- New screw-free bayonet catch wave base design
- 350° rotatable horizontally and 90° vertically leaving no blind spot
- Constant-Current technology design ideal for marine lighting
- Dual Voltage rating for both 12V & 24V systems

#### Additional Feature for LR001-TOUCH

- Linear (non-step) dimming allowing brightness adjustment to any desirable level
- Memory feature remembering previous brightness level when turned back on
- Low profile touch button design

#### **Specifications**

LR001-1W(High Power LED)

- Lighting Source | High Power LED (1W) x 1 with condenser lens
- Color Temperature | 3000-3300K (Warm White)
- Voltage Rating | DC 9-30V
- Power Consumption | 1.32W
- Note | **(**€

#### LR001-SMD/LR001-TOUCH

- Lighting Source | 8 super bright SMD LED (160lm)
- Color Temperature | 2900-3200K (Warm White)
- Voltage Rating | DC 10-30V
- Power Consumption | 1.68W
- Note | **(**€

#### **WaveLED Gooseneck Reading Light**

LR011-1W-130 / LR011-1W-330

**WaveLED Gooseneck Reading Light (SMD Version)** 

LR011-SMD-130 / LR011-SMD-330

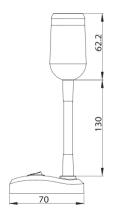
#### **WaveLED Dimmable Gooseneck Reading Light with Touch Button**

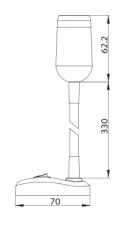
LR011-TOUCH-130 / LR011-TOUCH-330



LR011-TOUCH-330

LR011-TOUCH-130





#### **Features**

- Compact size with powerful output
- New screw-free bayonet catch wave base design
- Bendable gooseneck allows more freedom of light positions
- Constant-Current technology design ideal for marine lighting
- Dual Voltage rating for both 12V & 24V systems

#### Additional Features for LR011-TOUCH

- Linear (non-step) dimming allowing brightness adjustment to any desirable level
- Memory feature remembering previous brightness level when turned back on
- Low profile touch button design

#### **Specifications**

LR011-1W(High Power LED)

- Lighting Source | High Power LED (1W) x with condenser lens
- Color Temperature | 3000-3300K (Warm White)
- Voltage Rating | DC 9-30V
- Power Consumption | 1.32W
- Note | **(**€

#### LR011-SMD/LR011-TOUCH

- Lighting Source | 8 super bright SMD LED (160lm)
- Color Temperature | 2900-3200K (Warm White)
- Voltage Rating | DC 10-30V
- Power Consumption | 1.68W
- Note | **(€**

# **WaveLED Dual Color Chart Reading Light** LR012-330



#### **Features**

- New screw-free bayonet catch wave base design
- Dual Light Colors: Bright white light for daytime; Red LED light for night vision
- Built-in ON-OFF-ON switch
- Bendable gooseneck allows more freedom of light positions
- Constant-Current technology design ideal for marine lighting
- Dual Voltage rating for both 12V & 24V systems

#### **Specifications**

- Lighting Source | White: 8 super bright SMD LED (160lm) / 1 Red 5050 SMD LED
- Color Temperature | 6500K (White)
- Voltage Rating | DC 12V-30V
- Power Consumption | 1.56W
- Note | **(€**

# **WaveLED Cabin / Reading Light** LR002

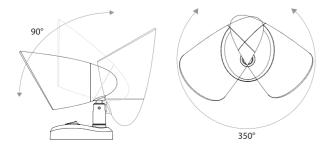


#### **Features**

- New screw-free bayonet catch wave base design
- Economical, light weight PolyCarbonate shielding
- Replaceable G4 LED bulbs
- Built-in ON-OFF switch
- 350° rotatable horizontally and 90° vertically leaving no blind spot

#### **Specifications**

- Lighting Source | G4 LED Bulbs 2W (200-230lm)
- Color Temperature | 2800-3200K (Warm White)
- Voltage Rating | DC 10 30V
- Current Consumption | 2W
- Note | **(**€



# **Replaceable G4 LED Bulbs for LR002** LR-G4-2W



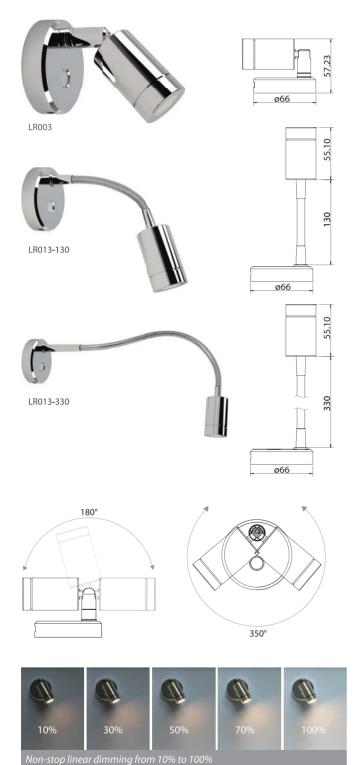






# **LED Reading Light with USB Charging Socket** LR003 / LR003D

LR013-130 / LR013D-130 LR013-330 / LR013D-330



#### **Features**

- Chrome plated plastic housing for premium feeling with low cost
- Compact size with powerful output
- Convenient 1 port 2.4A USB Charge socket on base (Compatible with latest iPad)
- Screw-free bayonet catch base design
- Low profile touch button design
- Constant-Current technology design ideal for marine lighting
- Dual voltage rating for both 12V & 24V system

Additional Features for LR003D (Dimmable)

- Linear (non-stop) dimming allowing brightness
- adjustment to any desirable level (10-100%)

- Lighting Source | 4 x super bright SMD LED (160lm)
- Color Temperature | 3000 3300K (Warm White)
- Voltage Range | DC 10V 30V
- Power Consumption | 1.68W (USB not charging) 15.5W Max (USB Charging)
- Note | **(€**

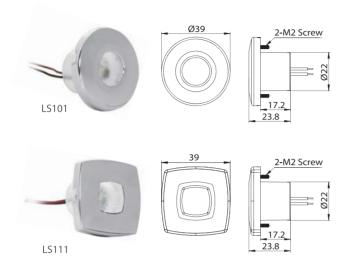


<sup>\*</sup> This product is under development, all specifications and features are subject to change. Contact sales for final specs.

# **Marine LED Courtesy Lights**

#### **LED Step Lights / Courtesy Light with Stainless Steel Faceplate**

LS101(Round) LS111(Square)



#### **Features**

- Polished marine grade stainless steel (SAE 316) faceplate
- Completely sealed completely waterproof even undertemporary water immersion (IP67)
- Compact size and easy to install
- Matte Surface allowing soft and smooth light output
- LED Colors available in Warm White, Blue, Red

#### **Specifications**

- Lighting Source | SMD LED
- Voltage Rating | DC 12V
- Power Consumption | 0.25W
- Note | IP67 **( €**





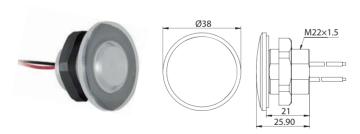


LS101W

LS101R

# **Economical LED Step Lights / Courtesy Light** LS102





#### **Features**

- Completely sealed completely waterproof even undertemporary water immersion (IP67)
- Compact size and easy to install
- Matte Surface allowing soft and smooth light output
- LED Colors available in Warm White, Blue, Red
- Also applicable as live well bait tank light







LS102W

LS102B

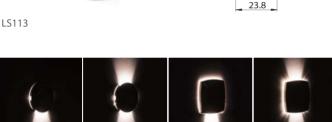
LS102R

- Lighting Source | SMD LED
- Voltage Rating | DC 12V
- Power Consumption | 0.25W
- Note | IP67 **( €**

#### **LED Step Light / Courtesy Light with Single or Double Light Rays**

LS103 (Round) LS113 (Square)





#### **Features**

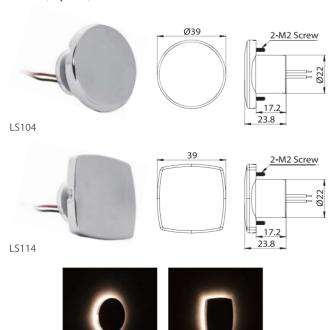
- Polished marine grade stainless steel (SAE 316) faceplate
- Single or Double light rays provides elegant illumination
- Completely sealed completely waterproof even undertemporary water immersion (IP67)
- Compact size and easy to install
- Available in warm white or cold white color
- Dual voltage rating for both 12V & 24V systems

#### **Specifications**

- Lighting Source | SMD LED
- Color Temperature | 2900-3200K(Warm White) / 6500K (Cold White)
- Voltage Rating | DC 10-30V
- Power Consumption | 0.24W(Single Ray) / 0.36W (Double Ray)
- Note | IP67 **(**€

#### **LED Step Light / Courtesy Light with Light Ring**

LS104 (Round) LS114 (Square)



#### **Features**

- Polished marine grade stainless steel (SAE 316) faceplate
- Sun eclipse like light ring effects
- Completely sealed completely waterproof even undertemporary water immersion (IP67)
- Compact size and easy to install
- Available in warm white or cold white color

- Lighting Source | SMD LED
- Voltage Rating | DC 12V
- Power Consumption | 0.25W
- Note | IP67 **(**€

# **Customize Packaging for Your Products!**



Almost all of YIS Marine's quality products come with retail display packages.

Designed for the aftermarket, our blister or colored boxes packages typically include customizable label stickers, instruction manual and installation accessories - everything consumers need to install the products themselves. Our blisters and box packages are made in Taiwan with good quality that matches the products within them.

In addition to supplying our quality products, we also provide marketing support like blister card / box design, instruction manual or even marketing support for customer's catalogue design. Customer's logo on blister cards are also possible.

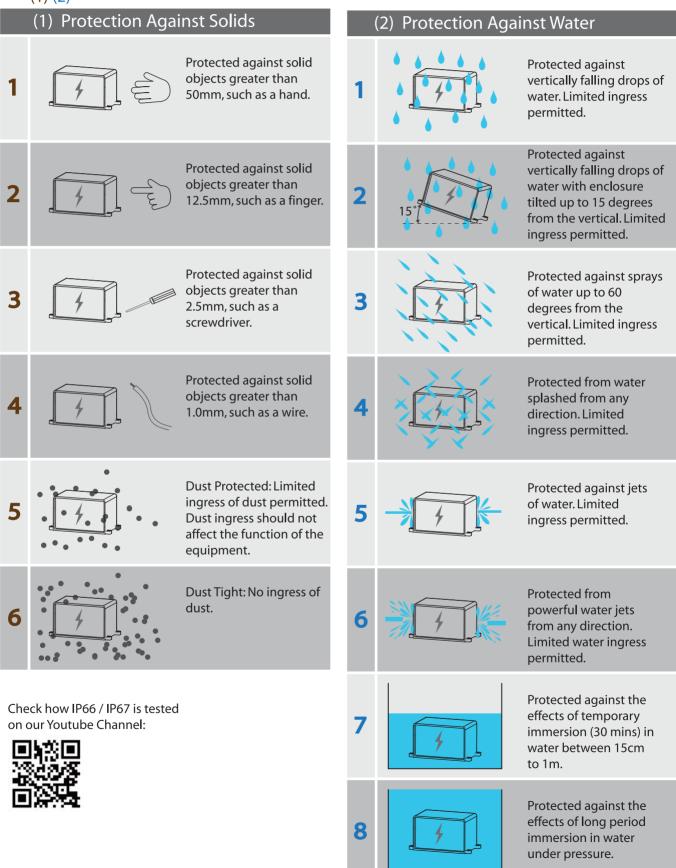




# **Appendix: IP Rating Guide**

The IP (Ingress Protection) Rating refers to the different levels of protection a product provides against foreign objects (such as fingers, tools, wires and dust) and water ingress.





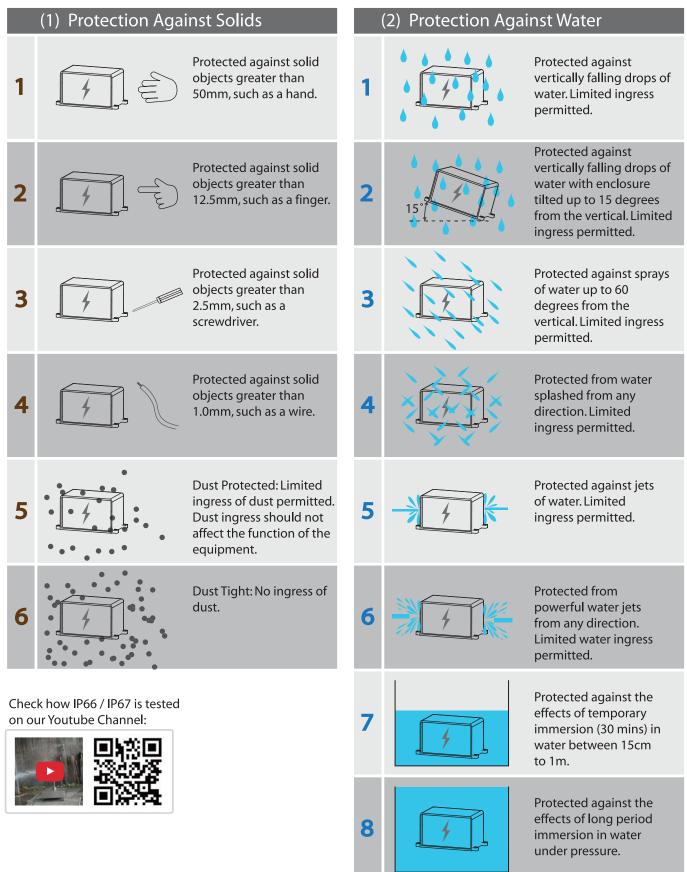
# **Appendix: IP Rating Guide**

The IP (Ingress Protection) Rating refers to the different levels of protection a product provides against foreign objects (such as fingers, tools, wires and dust) and water ingress.





(1)(2)



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