

SW IP67 Waterproof Series – Part Numbering



Features

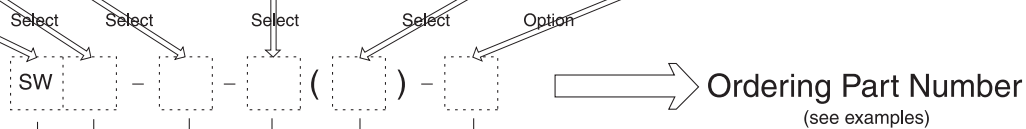
- Excellent performance at low cost
- Screw mounting assures solid connection
- Rubber gasket assures water resistance
- Manufactured with precision
- Protection rating of IP67.

Applications

- Professional audio and video
- CCTV system
- Vision related testing equipment
- Portable wireless radio
- Measuring equipment
- Computers and peripherals
- Medical, and much more.

Part Numbering

Part Number		Size	Number of Contacts	Suffix	Optional Suffix	Notes	Page
Series	Prefix				S		
SW		8W or	8W size : 4,5,6	P	●	Main SW Series	94
				R / RPCB	●		
	H	10W	10W size : 2,3,4,9,10,12	P	●	SWH Series	95
	A			R / RPCB	●	(SW with reverse contacts)	
HA				●	SWHA Series (Adapter for SWH series)	95	



- Connector Series**
 - SW
 - SWH - reverse contact
 - SWA - adapter for SN series
 - SWHA - adapter for SNH series
- Size**
 - 8W,10W
- No. of Contacts**
 - 8 Size : 4,5,6
 - 10 Size : 2,3,4,9,10,12
- Body Type**
 - P : Plug
 - R : Receptacle (solder termination)
 - RPCB : Receptacle (PCB termination)
 - blank : Adapter
- Optional**
 - S : Silver contact

Examples

SW - 8W - 4 (P)

SW Waterproof series - Size 8 - 4 contact (Plug shell)

SW - 10W - 12 (RPCB) - S

SW Waterproof series - Size 10 - 12 contact (Receptacle / PCB termination) - Silver contact

SWHA - 10W - 12

Adapter for SWH Waterproof series - Size 10 - 12 contact

Specifications subject to change without notice. Consult Sam Woo Electronics for the latest specifications.

Specifications – SW IP67 Waterproof Series

Major Performances / Contact Arrangements

Performance	Size / No. of Contacts		Size 8			
	4	5	5	6	6	
Withstanding Voltage (per min) ¹	AC 300V	AC 300V	AC 300V	AC 300V	AC 300V	
Current	2A	2A	2A	2A	2A	
Insulation Resistance (Minimum) ²	1,000MΩ	1,000MΩ	1,000MΩ	1,000MΩ	1,000MΩ	
Contact Resistance (Maximum) ³	10mΩ	10mΩ	10mΩ	10mΩ	10mΩ	
Solder Pot Inside Diameter	Ø0.7	Ø0.7	Ø0.7	Ø0.7	Ø0.7	
Contact Arrangement						
Environmental Protection	IP 67					
Performance	Size / No. of Contacts		Size 10			
	2	3	4	9	10	12
Withstanding Voltage (per min) ¹	AC 500V	AC 500V	AC 500V	AC 300V	AC 300V	AC 300V
Current	3A	3A	3A	2A	2A	2A
Insulation Resistance (Minimum) ²	1,000MΩ	1,000MΩ	1,000MΩ	1,000MΩ	1,000MΩ	1,000MΩ
Contact Resistance (Maximum) ³	10mΩ	10mΩ	10mΩ	10mΩ	10mΩ	10mΩ
Solder Pot Inside Diameter	Ø1.0	Ø1.0	Ø1.0	Ø0.7	Ø0.7	Ø0.7
Contact Arrangement						
Environmental Protection	IP 67					

¹ Withstanding voltage is the tested voltage value in this table.

² Insulation resistance is measured at DC 100V.

³ Contact resistance is measured at DC 1A.

• Values are from tested items and may not apply to all connectors.

• Specifications subject to change without notice.

• Consult Sam Woo Electronics for the latest specifications.

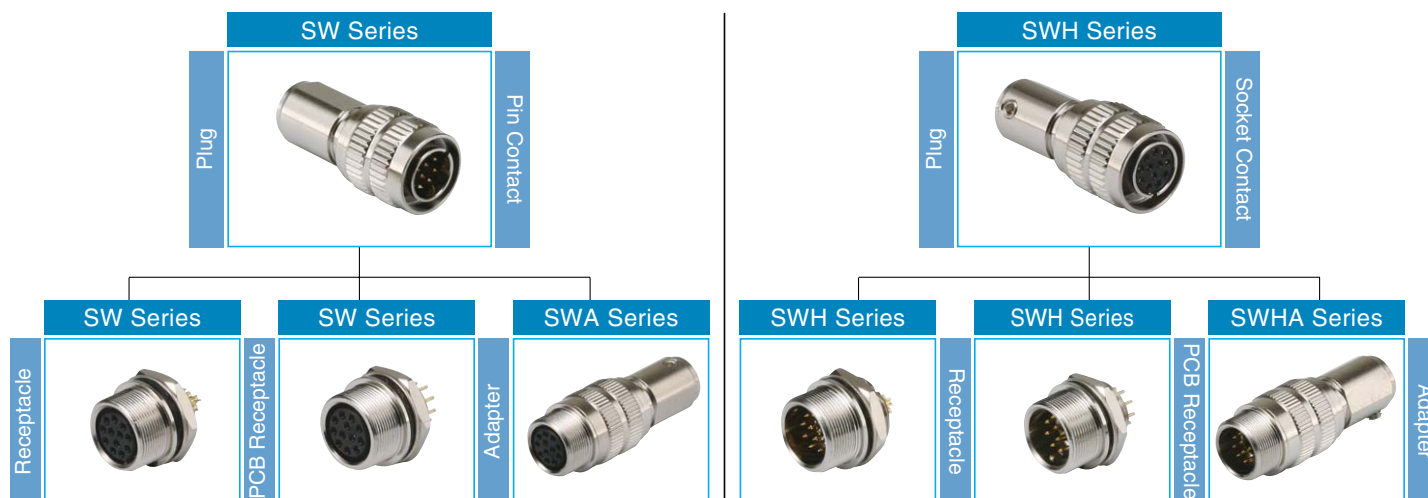
Contact Diameter

○ 0.55mm ● 1.0mm

Material Used / Finish

	Material	Finish
Body	Brass	Sn, Ni plate
Insulator	PA	Black
Contacts	Pin	Brass
	Socket	Phosphor bronze

SW Series Mini-map



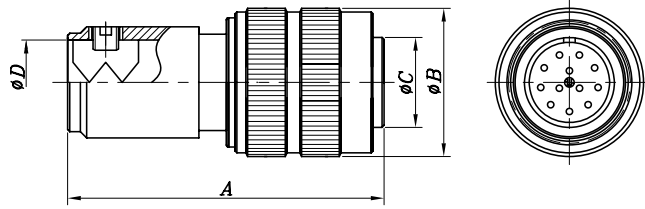
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SW IP67 Waterproof Series – Male Plug, Female Receptacle/Adapter

SW Plug



SW-10W-12(P)



Part Number	A	ØB	ØC	ØD
SW-8W-4 (P)	24.5	12	6.7	5.1
SW-8W-5 (P)				
SW-8W-6 (P)				

→ SW Series
→ Size & Type
→ No. of Contacts

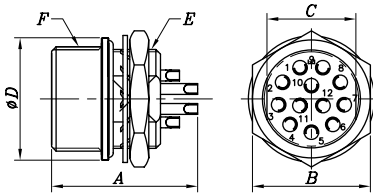
Part Number	A	ØB	ØC	ØD
SW-10W-2 (P)	30	15	9.5	7
SW-10W-3 (P)				
SW-10W-4 (P)				
SW-10W-9 (P)				
SW-10W-10 (P)				
SW-10W-12 (P)				

Silver contact
Include '-S' at end of part number.
EX) SW-8W-4 (P)-S
SW-10W-12 (P)-S

SW Solder Type Receptacle



SW-10W-12 (R)

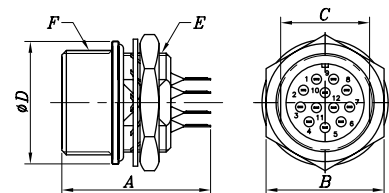


Part Number	A	B	C	ØD	E	F
SW-8W-4 (R)	14.2	10	7.5	11	M8×0.5P	M10×0.5P
SW-8W-5 (R)						
SW-8W-6 (R)						
SW-10W-2 (R)	15.8	13	9.8	14.5	M11×0.75P	M12.5×0.5P
SW-10W-3 (R)						
SW-10W-4 (R)	16.2	13	9.8	14.5	M11×0.75P	M12.5×0.5P
SW-10W-9 (R)						
SW-10W-10 (R)						
SW-10W-12 (R)						

SW PCB Type Receptacle



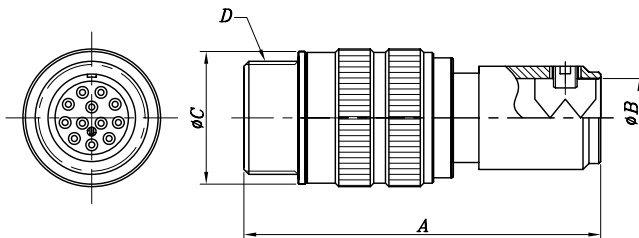
SW-10W-12 (RPCB)



Part Number	A	B	C	ØD	E	F
SW-8W-4 (RPCB)	15.7	10	7.5	11	M8×0.5P	M10×0.5P
SW-8W-5 (RPCB)						
SW-8W-6 (RPCB)						
SW-10W-9 (RPCB)	16.4	13	9.8	14.5	M11×0.75P	M12.5×0.5P
SW-10W-10 (RPCB)						
SW-10W-12 (RPCB)						

Silver contact
Include '-S' at end of part number.
EX) SW-8W-4 (RPCB)-S
SW-10W-12 (R)-S

SW Adapter



Part Number	A	ØB	ØC	D
SWA-8W-4	31	5.1	11	M10×0.5P
SWA-8W-5				
SWA-8W-6				

→ SWA Series
→ Size & Type
→ No. of Contacts

Part Number	A	ØB	ØC	D
SWA-10W-2	37	7	14.5	M12.5×0.5P
SWA-10W-3				
SWA-10W-4				
SWA-10W-9				
SWA-10W-10				
SWA-10W-12				



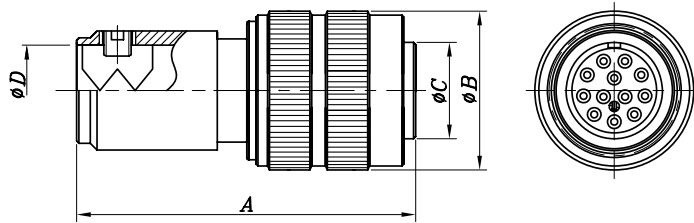
SWA-10W-12

Silver contact
Include '-S' at end of part number.
EX) SWA-8W-4-S
SWA-10W-12-S

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Female Plug, Male Receptacle/Adapter – SW IP67 Waterproof Series

SWH Plug



SWH-10W-12(P)

Part Number	A	ØB	ØC	ØD
SWH-8W-4 (P)	24.5	12	6.7	5.1
SWH-8W-5 (P)				
SWH-8W-6 (P)				

Part Number	A	ØB	ØC	ØD
SWH-10W-2 (P)	30	15	9.5	7
SWH-10W-3 (P)				
SWH-10W-4 (P)				
SWH-10W-9 (P)				
SWH-10W-10 (P)				
SWH-10W-12 (P)				

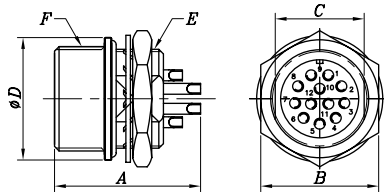
Silver contact
 Include '-S' at end of part number.
 EX) SWH-8W-4 (P)-S
 SWH-10W-12 (P)-S

→ SWH Series
 → Size & Type
 → No. of Contacts

SWH Solder Type Receptacle



SWH-10W-12 (R)

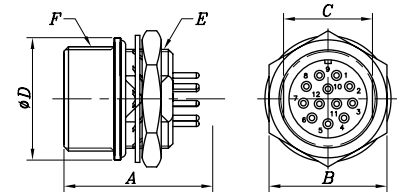


Part Number	A	B	C	ØD	E	F
SWH- 8W- 4 (R)	14.2	10	7.5	11	M8×0.5P	M10×0.5P
SWH- 8W- 5 (R)						
SWH- 8W- 6 (R)						
SWH-10W- 2 (R)	16.3	13	9.8	14.5	M11×0.75P	M12.5×0.5P
SWH-10W- 3 (R)						
SWH-10W- 4 (R)						
SWH-10W- 9 (R)						
SWH-10W-10 (R)						
SWH-10W-12 (R)						

SWH PCB Type Receptacle



SWH-10W-12 (RPCB)



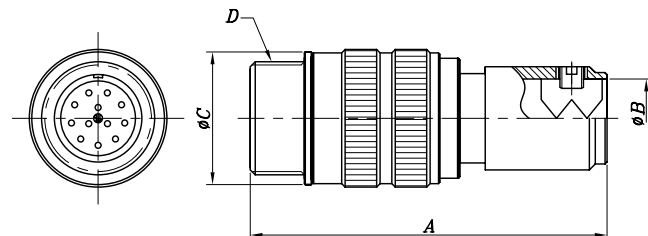
Part Number	A	B	C	ØD	E	F
SWH- 8W- 4 (RPCB)	15.1	10	7.5	11	M8×0.5P	M10×0.5P
SWH- 8W- 5 (RPCB)						
SWH- 8W- 6 (RPCB)						
SWH-10W- 9 (RPCB)	15.1	13	9.8	14.5	M11×0.75P	M12.5×0.5P
SWH-10W-10 (RPCB)						
SWH-10W-12 (RPCB)						

Silver contact
 Include '-S' at end of part number.
 EX) SWH-8W-4 (RPCB)-S
 SWH-10W-12 (R)-S



SWHA-10W-12

SWHA Adapter



Part Number	A	ØB	ØC	D
SWHA-8W-4	31	5.1	11	M10×0.5P
SWHA-8W-5				
SWHA-8W-6				

Part Number	A	ØB	ØC	D
SWHA-10W-2	37	7	14.5	M12.5×0.5P
SWHA-10W-3				
SWHA-10W-4				
SWHA-10W-9				
SWHA-10W-10				
SWHA-10W-12				

Silver contact
 Include '-S' at end of part number.
 EX) SWHA-8W-4-S
 SWHA-10W-12-S

→ SWHA Series
 → Size & Type
 → No. of Contacts

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SW IP67 Waterproof Series – Cable Assembly Instruction

General Instruction / Information

- Diagram 1 shows a sample wiring for SW IP67 Waterproof Series.
- Soldering must be done quickly and carefully to prevent damage to insulator.
- Receptacles do not require additional instructions.

Wiring Sequence

- ① Select cable according to outer diameter and cross section, lower than 0.129mm^2 (AWG#26).
- ② Insert PLUG HOUSING to cable.
- ③ Strip cable per dimension given and loosen braid.
- ④ Secure PLUG BODY to jig for soldering.
- ⑤ Solder stripped cable to pin.
- ⑥ Fasten CRIMP using hand crimp tool (SA-HCT^①).
- ⑦ Lock PLUG HOUSING and PLUG BODY using tightening force displayed on Table 1.
- ⑧ Tighten WRENCH BOLT using 0.3N force onto one of two embossed parts of crimp.
- *⑨ Plug Housing must be overmolded in order to achieve IP67 rating.

^① See below for information on SA-HCT.

Diagram 1

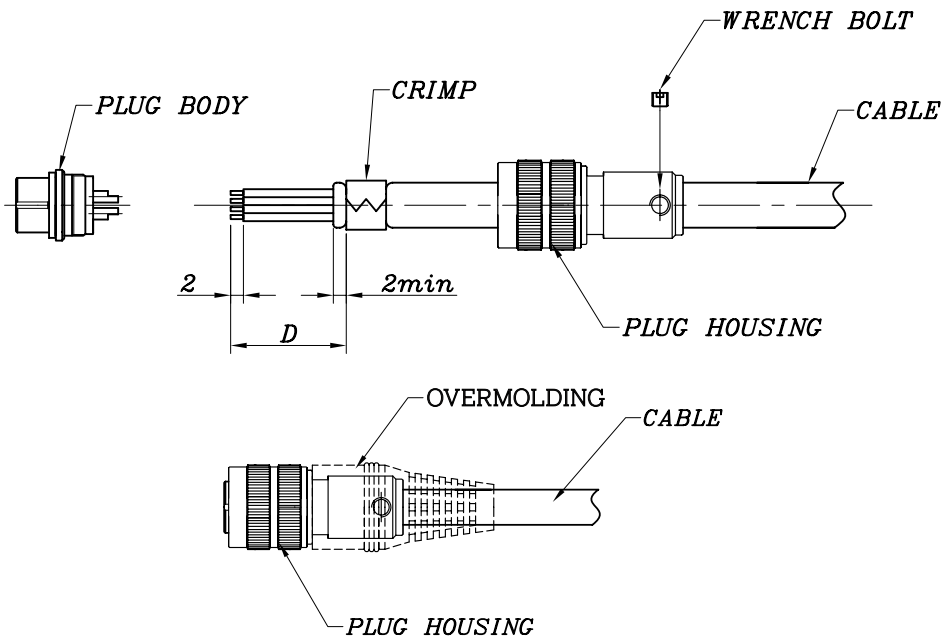


Table 1

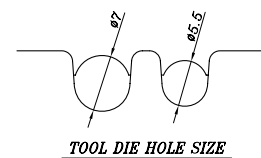
unit : mm

Size	Spanner Jaw	D (Dimension)	Tightening Force	Notes
SW - 8	8	10	1.5N · m (15kg · cm)	SA-HCT size $\varnothing 5.5$
SW - 10	10	16	2.0N · m (20kg · cm)	SA-HCT size $\varnothing 7.0$

SA-HCT (Hand Crimp Tool)

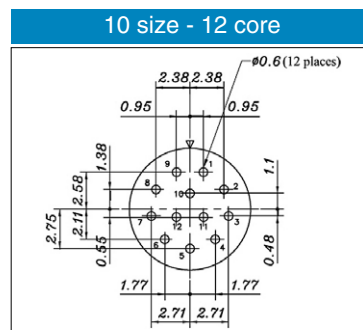
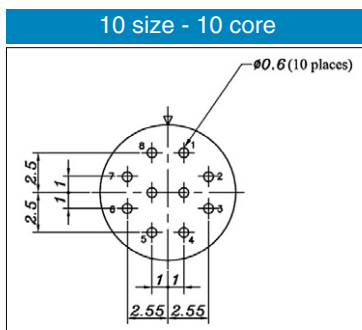
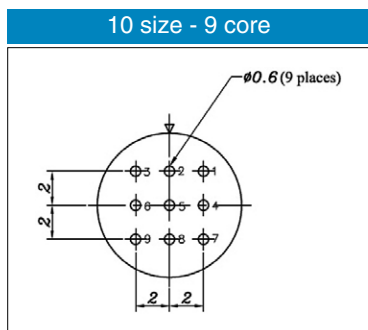
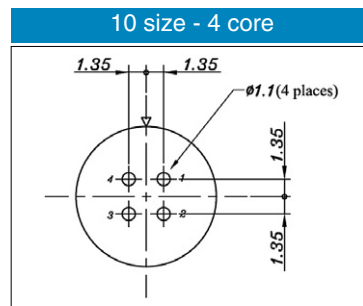
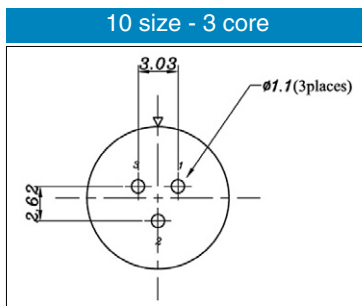
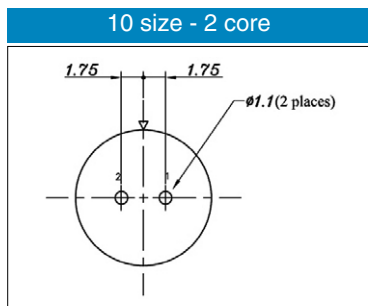
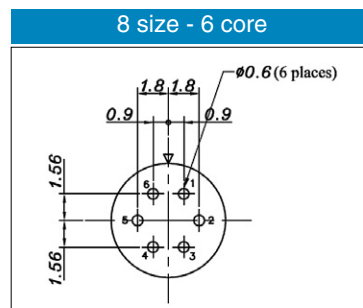
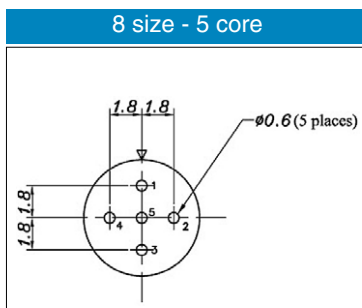
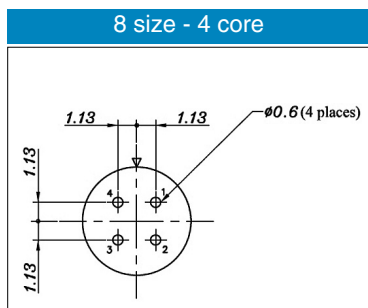


Specially designed for Sam Woo's connector, the low-cost and efficient SA-HCT provides the best crimping results.

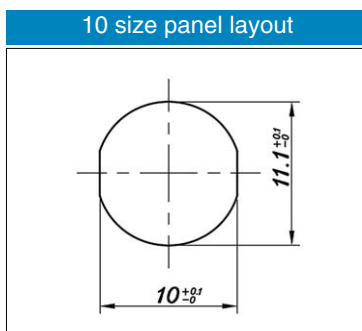
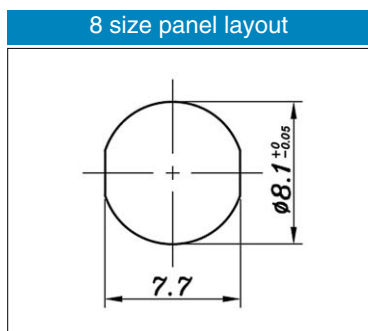


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SW Receptacle PCB Hole Layout



SW Receptacle Panel Layout



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