

SW IP67 Series Part Numbering



Features

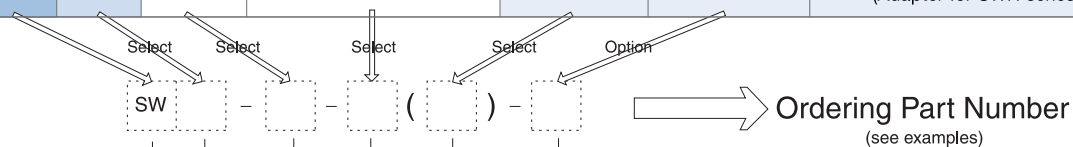
- Excellent performance at low cost
- Screw mounting assures solid connection
- Rubber gasket assures water resistance
- Manufactured with precision
- Protection rating of IP67 with over molding

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

Product Number		Size	Number of Contacts	Suffix	Optional Suffix	Notes
Series	Prefix				S	
SW		8W, 10W, 16W	8W size : 4,5,6 10W size : 2,3,4,9,10,12 16W size : 28	P	•	Main SW Series
				R / RPCB	•	
	H			P	•	SWH Series (SW with reverse contacts)
	A			R / RPCB	•	
					•	SWA Series (Adapter for SW series)
	HA				•	SWHA Series (Adapter for SWH series)



Examples

SW - 8W - 4 (P)

SW Waterproof series - Size 8 Plug - 4 Male Contact

SW - 10W - 12 (RPCB) - S

SW Waterproof series - Size 10 Receptacle - 12 PCB Termination Contact - Silver Plating Contact

SWHA - 10W - 12

SWH Waterproof series - Size 10 Adapter - 12 Male Contact

Connector Series

SW

SWH - reverse contact

SWA - adapter for SN series

SWHA - adapter for SNH series

Size

8W,10W,16W

No. of Contacts

8 Size : 4,5,6

10 Size : 2,3,4,9,10,12

16 Size : 28

Body Type

P : Plug

R : Receptacle (solder termination)

PR : Receptacle (Flange type)

RPCB : Receptacle (PCB termination)

blank : Adapter

Optional

S : Silver Plating Contact

■ Major Performances / Contact Arrangements

Size / No. of Contacts		Size 8			Size 16	
Performance		4	5	6	28	
Withstanding Voltage (per min) ¹		AC 300V	AC 300V	AC 300V	AC 300V	
Current		2A	2A	2A	2A	
Insulation Resistance (Minimum) ²		1,000M Ω	1,000M Ω	1,000M Ω	1,000M Ω	
Contact Resistance (Maximum) ³		10m Ω	10m Ω	10m Ω	10m Ω	
Solder Pot Inside Diameter		ø 0,7	ø 0,7	ø 0,7	ø 0,7	
Wire Gauge(Maximum)		AWG26	AWG26	AWG26	AWG26	
Contact Arrangement						
Environmental Protection		IP 67				

Size / No. of Contacts		Size 10					
Performance		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		1,000M Ω	1,000M Ω	1,000M Ω	1,000M Ω	1,000M Ω	1,000M Ω
Contact Resistance (Maximum) ³		10m Ω	10m Ω	10m Ω	10m Ω	10m Ω	10m Ω
Solder Pot Inside Diameter		ø 1,0	ø 1,0	ø 1,0	ø 0,7	ø 0,7	ø 0,7
Wire Gauge(Maximum)		AWG20	AWG20	AWG20	AWG26	AWG26	AWG26
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.

⁴ Connector contact arrangement is from mating surface.

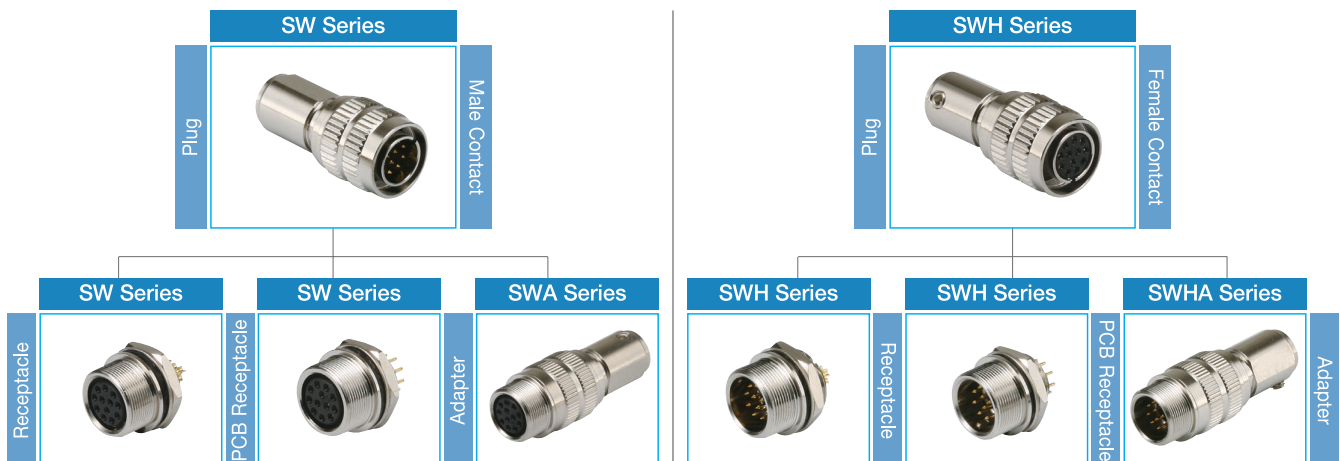
Contact Diameter

• 0.55mm • 1.0mm

■ Material Used / Finish

		Material	Finish
Body		Brass	Ni Plating
Insulator		PA	Black
Contacts	Male	Brass	Gold Plating
	Female	Phosphor bronze	Gold Plating

■ SW Series Mini-map



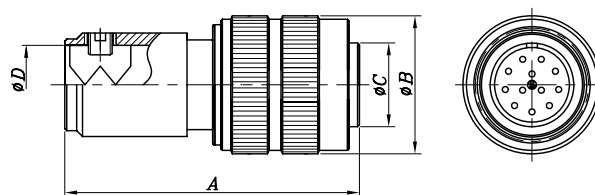
SW IP67 Series

Male Plug, Female Receptacle/Adapter



SW-10W-12(P)

SW Plug



Product Number	A	φ B	φ C	φ D
SW-8W-4 (P)	24,5	12	6,7	6,0
SW-8W-5 (P)				
SW-8W-6 (P)				

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

Product Number	A	φ B	φ C	φ D
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)				

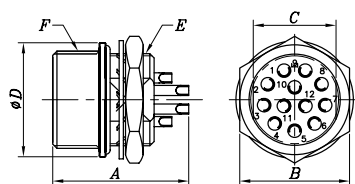
Silver Plating Contact

Include '-S' at end of Product Number.
EX) SW-8W-4 (P)-S
SW-10W-12 (P)-S

SW Solder Type Receptacle



SW-10W-12 (R)

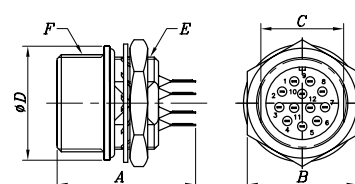


Product Number	A	B	C	φ D	E	F
SW- 8W-4 (R)	14,2	10	7,5	11	M8×0,5P	M10×0,5P
SW- 8W-5 (R)						
SW- 8W-6 (R)						
SW-10W-2 (R)	15,8	13	9,8	14,5	M11×0,75P	M12,5×0,5P
SW-10W-3 (R)						
SW-10W-4 (R)						
SW-10W-9 (R)	16,2					
SW-10W-10 (R)						
SW-10W-12 (R)						

SW PCB Type Receptacle



SW-10W-12 (RPCB)

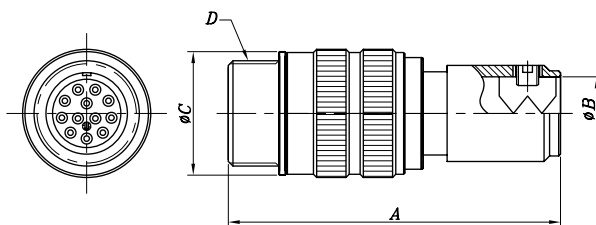


Product Number	A	B	C	φ D	E	F
SW- 8W-4 (RPCB)	15,7	10	7,5	11	M8×0,5P	M10×0,5P
SW- 8W-5 (RPCB)						
SW- 8W-6 (RPCB)						
SW-10W-9(RPCB)	16,4	13	9,8	14,5	M11×0,75P	M12,5×0,5P
SW-10W-10(RPCB)						
SW-10W-12(RPCB)						

Silver Plating Contact

Include '-S' at end of Product Number.
EX) SW-8W-4 (RPCB)-S
SW-10W-12 (R)-S

SWA Adapter



Product Number	A	φ B	φ C	D
SWA-8W-4	31	6,0	11	M10×0,5P
SWA-8W-5				
SWA-8W-6				

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

Product Number	A	φ B	φ C	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

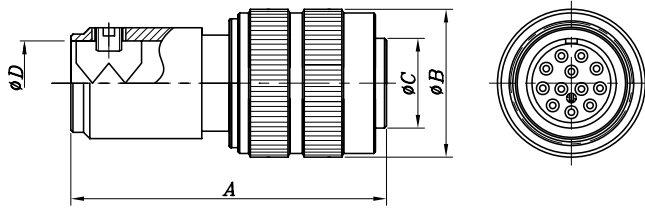
Silver Plating Contact

Include '-S' at end of Product Number.
EX) SWA-8W-4-S
SWA-10W-12-S

Female Plug, Male Receptacle/Adapter

SW IP67 Series

SWH Plug



SWH-10W-12(P)

Silver Plating Contact
Include '-S' at end of Product Number.
EX) SWH-8W-4 (P)-S
SWH-10W-12 (P)-S

Product Number	A	ø B	ø C	ø D
SWH-8W-4 (P)	24,5	12	6,7	6,0
SWH-8W-5 (P)				
SWH-8W-6 (P)				

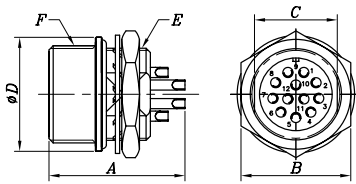
→ SWH Series
→ Size & Type
→ No. of Contacts

Product Number	A	ø B	ø C	ø D
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)				

SWH Solder Type Receptacle



SWH-10W-12 (R)

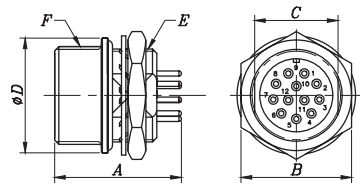


Product Number	A	B	C	ø D	E	F
SWH- 8W- 4 (R)	14,2	10	7,5	11	M8 × 0,5P	M10 × 0,5P
SWH- 8W- 5 (R)						
SWH- 8W- 6 (R)						
SWH-10W- 2 (R)	16,3	13	9,8	14,5	M11 × 0,75P	M12,5 × 0,5P
SWH-10W- 3 (R)						
SWH-10W- 4 (R)						
SWH-10W- 9 (R)						
SWH-10W-10 (R)						
SWH-10W-12 (R)						

SWH PCB Type Receptacle



SWH-10W-12 (RPCB)



Product Number	A	B	C	ø D	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)						

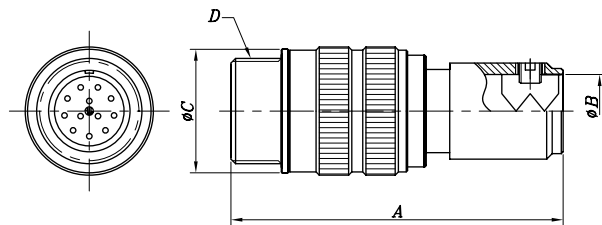
Silver Plating Contact

Include '-S' at end of Product Number.
EX) SWH-8W-4 (RPCB)-S
SWH-10W-12 (R)-S



SWHA-10W-12

SWHA Adapter



Product Number	A	ø B	ø C	D
SWHA-8W-4	31	6,0	11	M10 × 0,5P
SWHA-8W-5				
SWHA-8W-6				

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

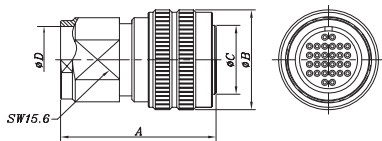
Product Number	A	ø B	ø C	D
SWHA-10W- 2	37	7	14,5	M12,5 × 0,5P
SWHA-10W- 3				
SWHA-10W- 4				
SWHA-10W- 9				
SWHA-10W-10				
SWHA-10W-12				

Silver Plating Contact

Include '-S' at end of Product Number.
EX) SWHA-8W-4-S
SWHA-10W-12-S

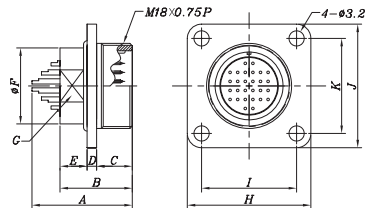
SW IP67 Series Female Plug, Male Receptacle

■ SWH-16W Plug



Product Number	A	ø B	ø C	ø D
SWH-16W-28 (P)	32,8	21	14,5	14

■ SWH-16W Receptacle



Product Number	A	B	C	D	E	ø F	G	H	I	J	K
SWH-16W-28(PR)	21	15,2	7,5	2	5,7	16	14,5	26	20	26	20

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.
- Specification of Nut

Size	Nut Specification	Nut tightening force
SW - 8W	M8 × 0,5P	15~18(kgf · cm)
SW - 10W	M11 × 0,75P	20~23(kgf · cm)

Wiring Sequence

- ① Select cable according to outer diameter and cross section, lower than 0.129mm²(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

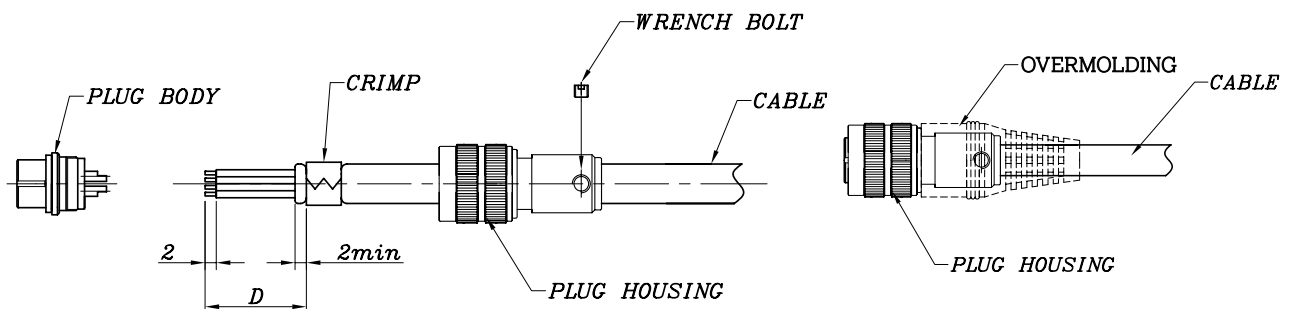


Table 1

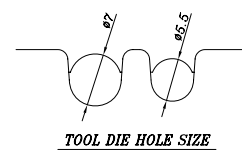
unit : mm

Size	Spanner Jaw	D (Dimension)	Tightening Force	Notes
SW - 8	8	10	1,5N · m (15kgf · cm)	SA-HCT size ϕ 5,5
SW - 10	10	16	2,0N · m (20kgf · cm)	SA-HCT size ϕ 7,0

SA-HCT (Hand Crimp Tool)



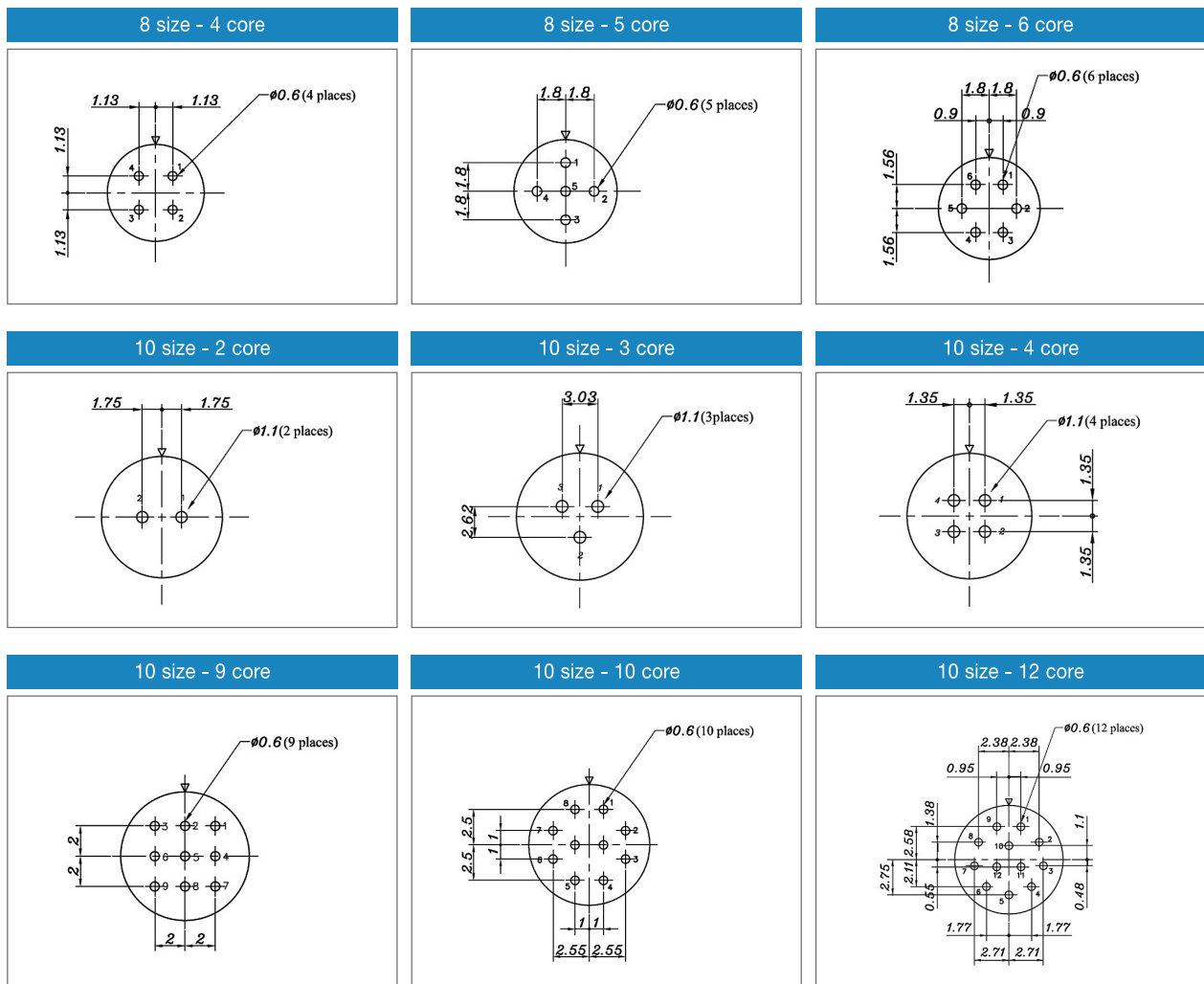
Specially designed for Sam Woo's connector, the low-cost and efficient SA-HCT provides the best crimping results.



TOOL DIE HOLE SIZE

SW IP67 Series Mounting Hole Layout

SW Receptacle PCB Hole Layout



SW Receptacle Panel Layout

