

SW IP67 Waterproof Series Part Numbering



Features

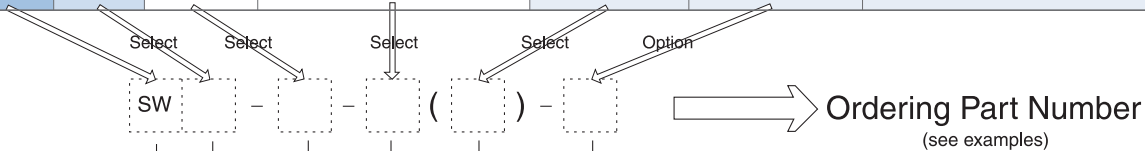
- Excellent performance at low cost
- Screw mounting assures solid connection
- Rubber gasket assures water resistance
- Manufactured with precision
- Protection rating of IP67 with over molding

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	•	
	HA				•	SWA Series (Adapter for SW series)
					•	SWHA Series (Adapter for SWH series)



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

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

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

Major Performances / Contact Arrangements

Performance	Size 8		Size 16			
	4	5	6	28		
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	1,000M 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	
Solder Pot Inside Diameter	∅ 0,7	∅ 0,7	∅ 0,7	∅ 0,7	∅ 0,7	
Wire Gauge(Maximum)	AWG24	AWG24	AWG24	AWG24	AWG24	
Contact Arrangement						
Environmental Protection	IP 67					

Performance	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	1,000M 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	∅ 1,0	∅ 1,0	∅ 1,0	∅ 0,7	∅ 0,7	∅ 0,7
Wire Gauge(Maximum)	AWG20	AWG20	AWG20	AWG24	AWG24	AWG24
Contact Arrangement						
Environmental Protection	IP 67					

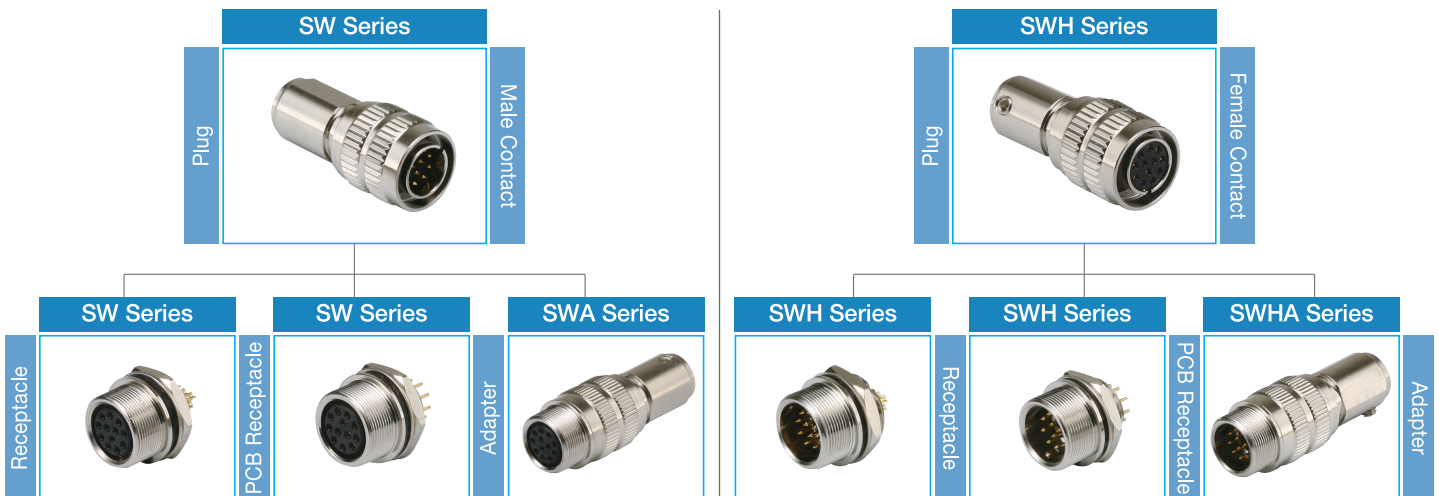
¹ Withstanding voltage is the tested voltage value in this table.
² Insulation resistance is measured at DC 100V.
³ Contact resistance is measured at DC 1A.
 • Values are from tested items and may not apply to all connectors.
 • Specifications subject to change without notice.
 • Consult Sam Woo Electronics 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
	Female	Phosphor bronze
		Gold Plating

SW Series Mini-map

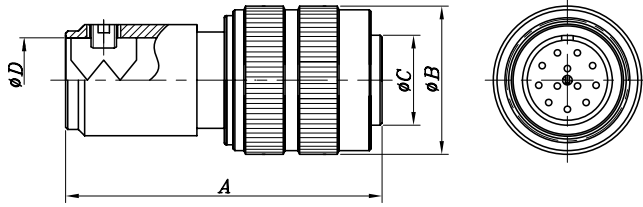


SW IP67 Waterproof Series Male Plug, Female Receptacle/Adapter



SW-10W-12(P)

SW Plug

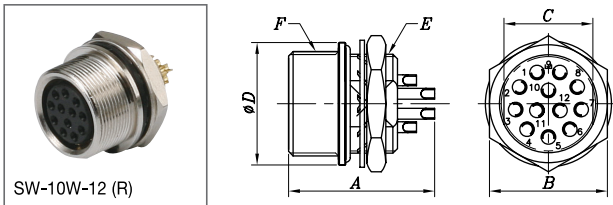


Product Number	A	Ø B	Ø C	Ø D	Product Number	A	Ø B	Ø C	Ø D
SW-8W-4 (P)	24,5	12	6,7	6,0	SW-10W- 2 (P)	30	15	9,5	7
SW-8W-5 (P)					SW-10W- 3 (P)				
SW-8W-6 (P)					SW-10W- 4 (P)				
	SW-10W- 9 (P)								
	SW-10W-10 (P)								
					SW-10W-12 (P)				

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

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

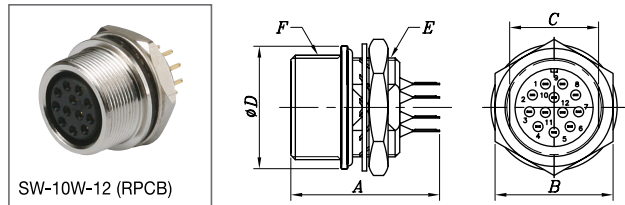
SW Solder Type Receptacle



SW-10W-12 (R)

Product Number	A	B	C	Ø 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)						
SW-10W-10 (R)	16,2					
SW-10W-12 (R)						

SW PCB Type Receptacle

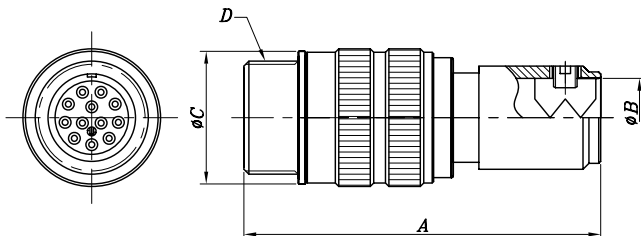


SW-10W-12 (RPCB)

Product Number	A	B	C	Ø 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



SWA-10W-12

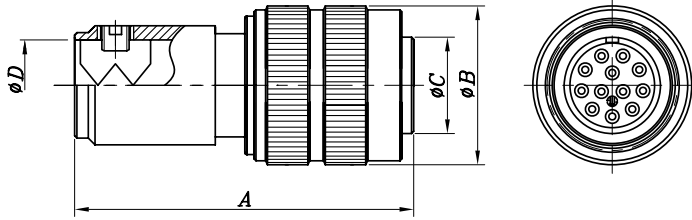
Product Number	A	Ø B	Ø C	D	Product Number	A	Ø B	Ø C	D
SWA-8W-4	31	6,0	11	M10×0,5P	SWA-10W-2	37	7	14,5	M12,5×0,5P
SWA-8W-5					SWA-10W-3				
SWA-8W-6					SWA-10W-4				
	SWA-10W-9								
	SWA-10W-10								
					SWA-10W-12				

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

Silver Plating Contact
 Include '-S' at end of Product Number,
 EX) SWA-8W-4-S
 SWA-10W-12-S

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

■ SWH Plug



SWH-10W-12(P)

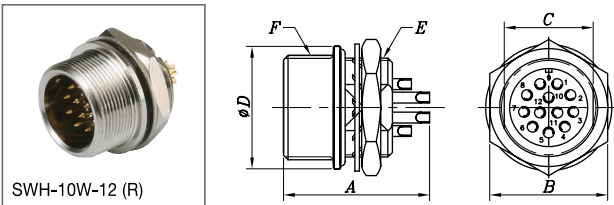
Product Number	A	ø B	ø C	ø D	Product Number	A	ø B	ø C	ø D
SWH-8W-4 (P)	24,5	12	6,7	6,0	SWH-10W- 2 (P)	30	15	9,5	7
SWH-8W-5 (P)					SWH-10W- 3 (P)				
SWH-8W-6 (P)					SWH-10W- 4 (P)				
	SWH-10W- 9 (P)								
	SWH-10W-10 (P)								
	SWH-10W-12 (P)								

Silver Plating Contact

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

SWH Series
Size & Type
No. of Contacts

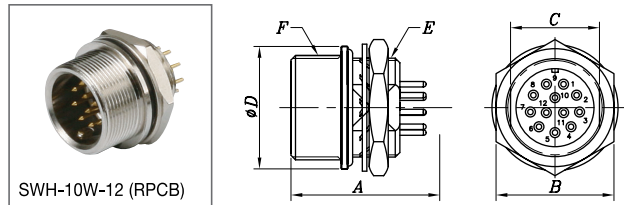
■ SWH Solder Type Receptacle



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)						

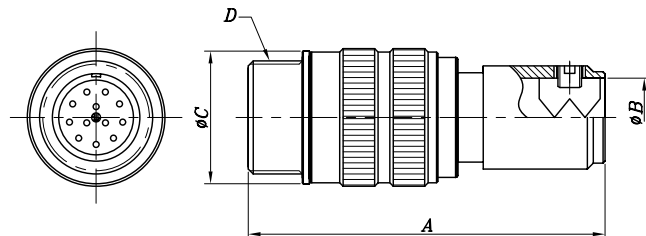
Silver Plating Contact

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	Product Number	A	ø B	ø C	D
SWHA-8W-4	31	6,0	11	M10×0,5P	SWHA-10W- 2	37	7	14,5	M12,5×0,5P
SWHA-8W-5					SWHA-10W- 3				
SWHA-8W-6					SWHA-10W- 4				
	SWHA-10W- 9								
	SWHA-10W-10								
	SWHA-10W-12								

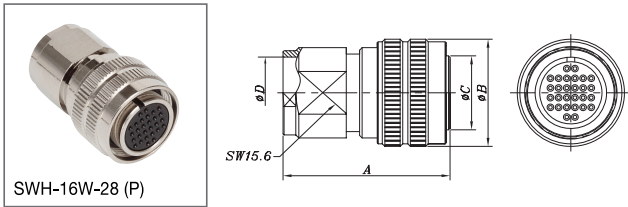
Silver Plating Contact

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

SWHA Series
Size & Type
No. of Contacts

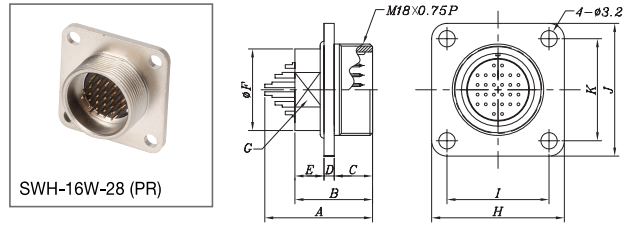
Specifications subject to change without notice. Consult Sam Woo Electronics for the latest specifications.

SWH-16W Plug



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

SWH-16W Receptacle



Product Number	A	B	C	D	E	∅ 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.

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

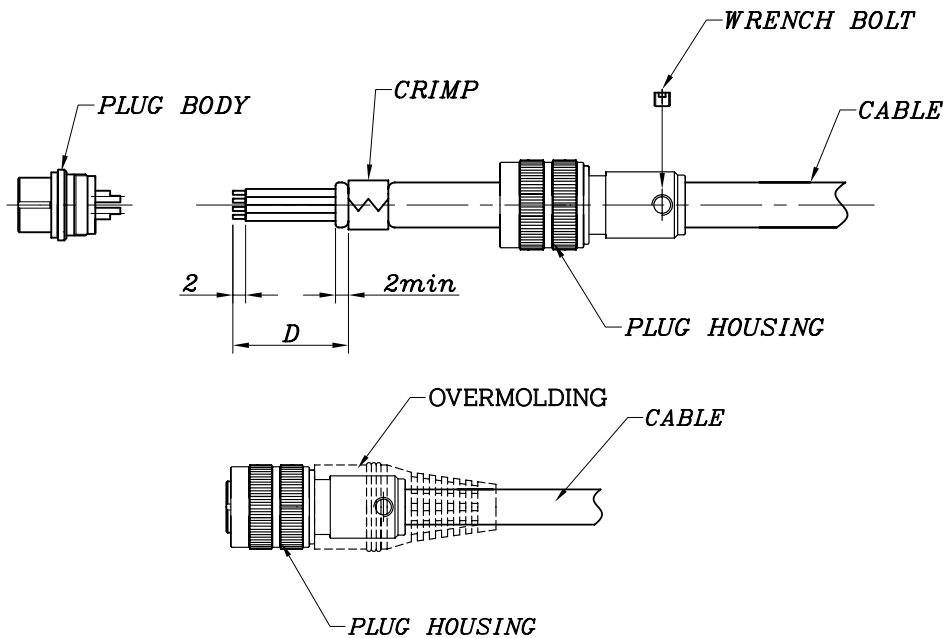


Table 1

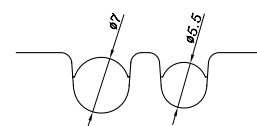
unit : mm

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.

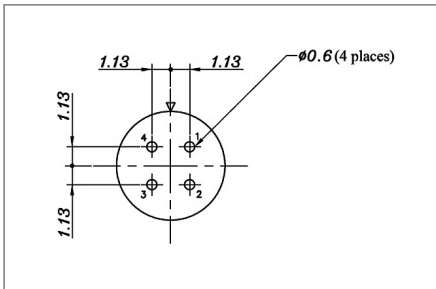


TOOL DIE HOLE SIZE

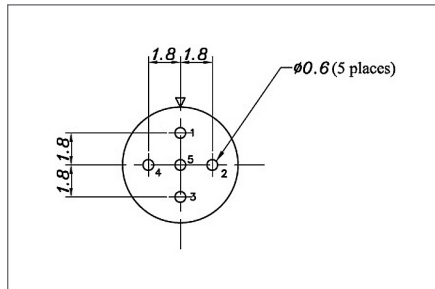
Specifications subject to change without notice. Consult Sam Woo Electronics for the latest specifications.

SW Receptacle PCB Hole Layout

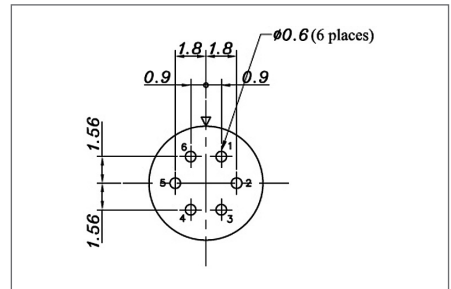
8 size - 4 core



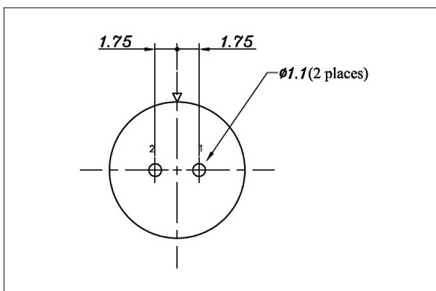
8 size - 5 core



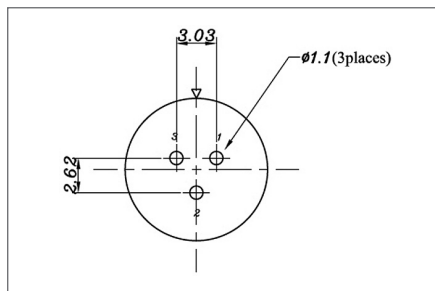
8 size - 6 core



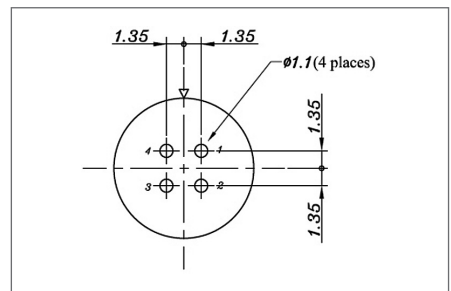
10 size - 2 core



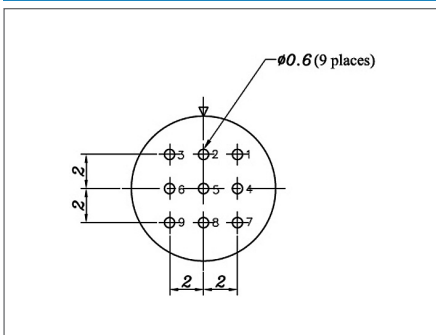
10 size - 3 core



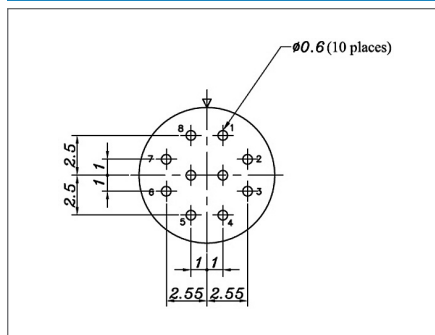
10 size - 4 core



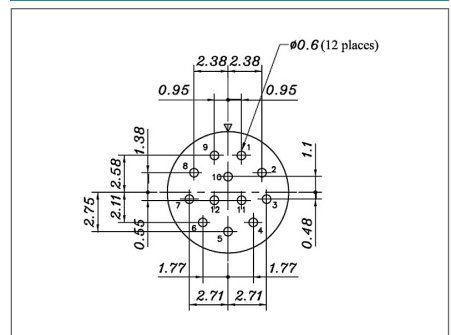
10 size - 9 core



10 size - 10 core

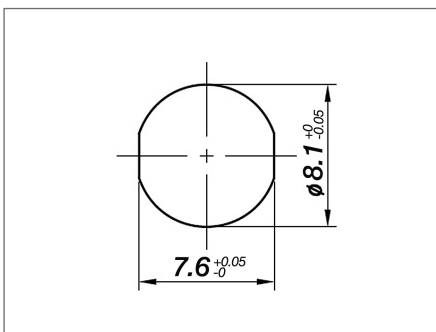


10 size - 12 core

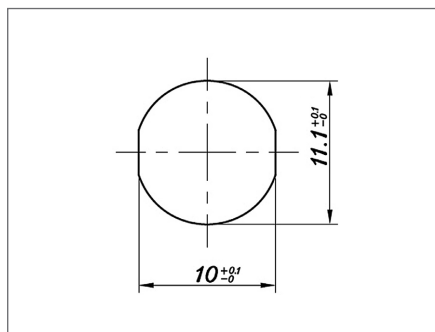


SW Receptacle Panel Layout

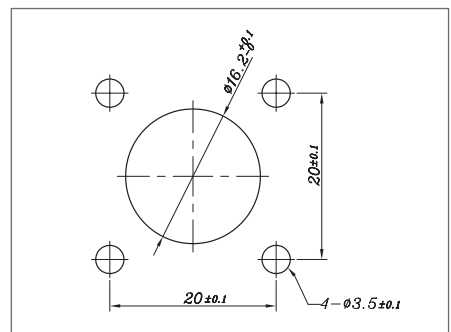
8 size panel layout



10 size panel layout



16 size panel layout



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



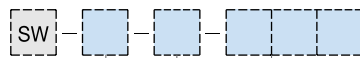
Features

- 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
- Standard and Custom Design

Applications

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

Part Numbering



Drawing Number

Optional Suffix (Omissible)

1,2,3

To indicate modification of original

Cable Length : 3 Digits

Unit Plug : m

Recep : cm

Ex) Using 3m Cable for Plug : 003

Using 30cm Cable for Recep : 030

Plug Cable Assembly



Type	Construction
A	SW Connector + Cable + Housing
B	SW Connector + Cable + SW Connector

※ Design and Customization Service Available

Receptacle Cable Assembly



Type	Construction
A	SW Connector + wire + open end
B	SW Connector + wire + Housing
C	SW Connector + wire + Housing with core

※ Design and Customization Service Available