

ST Series – Part Numbering



Features

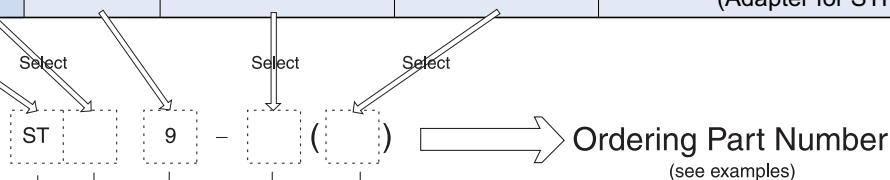
- Super-miniature size with multiple contact
- Safe insert system preventing pin damage

Applications

- Professional A/V
- Measuring equipment
- Sensors
- Wireless radio
- Medical

Part Numbering

Part Number		Size	Number of Contact	Suffix	Notes	Page
Series	Prefix					
ST		9	12,16,20	P	Main ST series Plug	56
				PLM1	Molding Type ST Plug	56
				R	ST Receptacle	56
	H			P	STH Series Plug	57
				PLM1	Molding Type STH Plug	57
				R	STH Receptacle	57
	A			STA Series (Adapter for ST series)	56	
	HA			STHA Series (Adapter for STH series)	57	



Connector Series

ST series
STH - reverse contact
STA - adapter for ST series
STHA - adapter for STH series

Size

9

No. of Contact

12,16,20

Shell Type

P : Plug
 R : Receptacle (solder termination)
 RPCB : Receptacle (PCB termination)
 PLM1 : Plug (Molding type)
 blank : Adapter

Examples

ST - 9 - 12 (P)

ST series - Size 9 - 12 contact (Plug)

ST - 9 - 16 (R)

ST series - Size 9 - 16 contacts (Receptacle/Solder contact termination)

ST - 9 - 16 (RPCB)

ST series - Size 9 - 16 contacts (Receptacle / PCB contact termination)

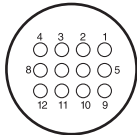
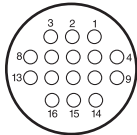
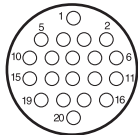
STA - 9 - 20

Adapter for ST series - Size 9 - 20 contacts

STHA - 9 - 20

Adapter for STH series - Size 9 - 20 contacts

Major Performances / Contact Arrangements

Performance	Size / No of Pin	Size 9		
		12	16	20
Withstanding Voltage (per min) ¹		AC 300V	AC 300V	AC 300V
Current		1A	1A	1A
Insulation Resistance (Minimum) ²		1,000MΩ	1,000MΩ	1,000MΩ
Contact Resistance (Maximum) ³		30mΩ	30mΩ	30mΩ
Solder Pot Inside Diameter		Ø0.5	Ø0.5	Ø0.5
Contact Arrangement				

- 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.

Material Used / Finishing Material

		Material	Finish
Body		Brass & Zinc alloy	Ni plate
Insulator		PPS resin	Black
Contacts	Pin	Phosphor bronze and Beryllium	Gold plate
	Socket	Phosphor bronze	Gold plate

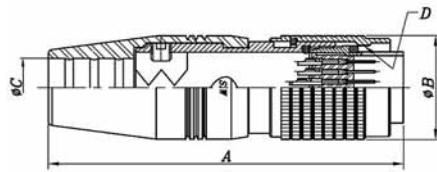
ST Series Mini-map



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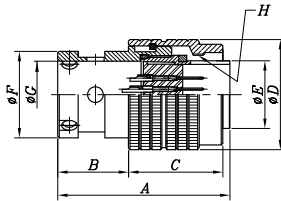
ST Series – ST Plug, Receptacle, Adapter

ST Plug



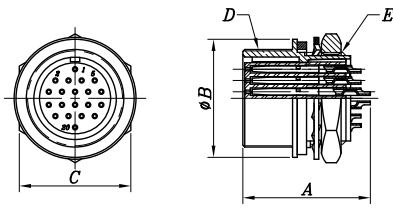
Part Number	A	ØB	ØC	D
ST-9-12(P)	43.0	12.5	7.0	M10.5×0.5P
ST-9-16(P)				
ST-9-20(P)				

ST Molding Type Plug



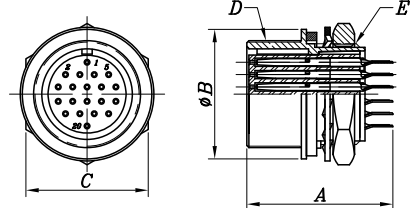
Part Number	A	B	C	ØD	ØE	ØF	ØG	H
ST-9-12(PLM1)	22	9	12	14	12.8	11	8.5	M10.5×0.5P
ST-9-16(PLM1)								
ST-9-20(PLM1)								

ST Solder Type Receptacle



Part Number	A	ØB	C	D	E
ST-9-12(R)	13.6	12.6	12.0	M10.5×0.5P	M10×0.75P
ST-9-16(R)					
ST-9-20(R)					

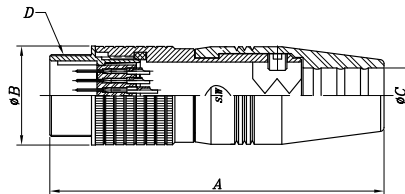
ST PCB Type Receptacle



Part Number	A	ØB	C	D	E
ST-9-12(RPCB)	14.1	12.6	12.0	M10.5×0.5P	M10×0.75P
ST-9-16(RPCB)					
ST-9-20(RPCB)					

STA Adapter

Part Number	A	ØB	ØC	D
STA-9-12	42.6	12.6	7.0	M10.5×0.5P
STA-9-16				
STA-9-20				

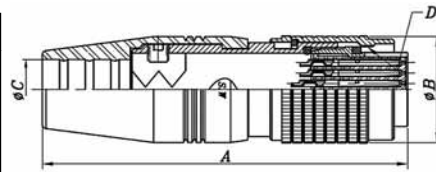


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STH Plug, Receptacle, Adapter – ST Series

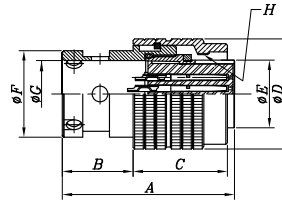
STH Plug

Part Number	A	ØB	ØC	D
STH-9-12(P)	43.0	12.5	7.0	M10.5×0.5P
STH-9-16(P)				
STH-9-20(P)				

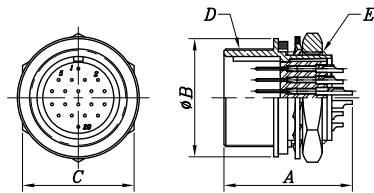


STH Molding Type Plug

Part Number	A	B	C	ØD	ØE	ØF	ØG	H
STH-9-12(PLM1)	22	9	12	14	12.8	11	8.5	M10.5×0.5P
STH-9-16(PLM1)								
STH-9-20(PLM1)								

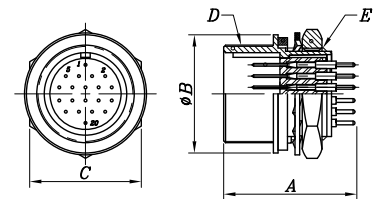


STH Solder Type Receptacle



Part Number	A	ØB	C	D	E
STH-9-12(R)	13.6	12.6	12.0	M10.5×0.5P	M10×0.75P
STH-9-16(R)					
STH-9-20(R)					

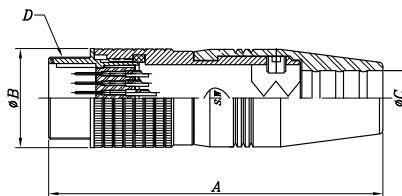
STH PCB Type Receptacle



Part Number	A	ØB	C	D	E
STH-9-12(RPCB)	14.1	12.6	12.0	M10.5×0.5P	M10×0.75P
STH-9-16(RPCB)					
STH-9-20(RPCB)					



STHA Adapter



Part Number	A	ØB	ØC	D
STHA-9-12	42.6	12.6	7.0	M10.5×0.5P
STHA-9-16				
STHA-9-20				

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

ST Series – Cable Assembly Instruction

General Instruction / Information

- Diagram 1 show a sample wiring for ST series.
- Soldering must be done as quickly and carefully as possible 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 RUBBER BUSHING to cable.
- ③ Insert PLUG HOUSING to cable.
- ④ Strip cable per dimension given and loosen braid.
- ⑤ Secure PLUG BODY to jig for soldering.
- ⑥ Solder stripped cable to pin.
- ⑦ Fasten CRIMP using hand crimp tool (SA-HCT^①).
- ⑧ Lock PLUG HOUSING and PLUG BODY using tightening force displayed on Table 1.
- ⑨ Tighten WRENCH BOLT using 0.3N force onto one of two embossed parts of crimp.
- ⑩ Cover RUBBER BUSHING onto PLUG HOUSING.

^① See below for information on SA-HCT.

Diagram 1

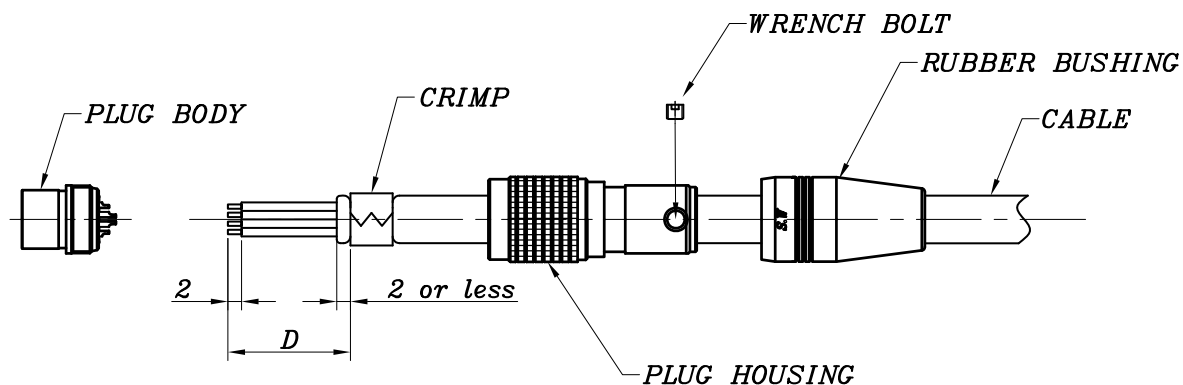


Table 1

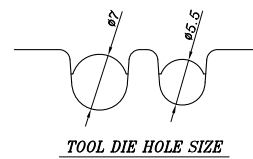
unit : mm

Size	Spanner Jaw	D (Dimension)	Tightening Force	Notes
ST	8	10	1.5N · m (15kg · cm)	SA-HCT size Ø7.0

SA-HCT (Hand Crimp Tool)

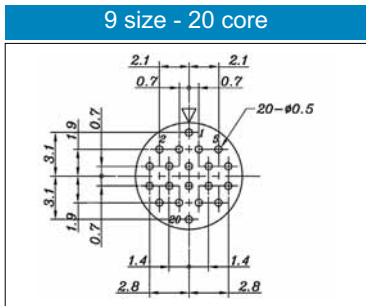
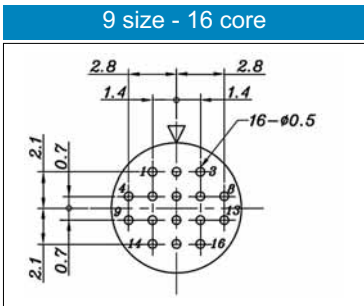
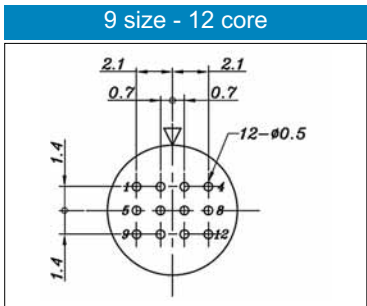


Specially designed for Sam Woo's connector, the low-cost and efficient SA-HCT provides the best crimping results.

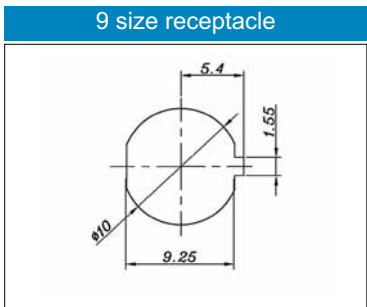


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ST Receptacle PCB Hole Layout



ST Receptacle Panel Layout



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