



S 3 Series Plastic Push-pull Connectors

S3-EN-ver1.1

S3 series plastic circular connector is a push-pull connector with self-latching system. It is compact, light, durable and simple to operate. It is RoHS compliant and has been exported to a number of countries.

S3 series can be further divided into S3A and S3B sub-series. S3A's panel mounting size is M14, with contact number 2~8. It is compatible with Swiss Lemo's Redel 1 P series. S3B's mounting size is M17, with contact 2~19. It is not compatible with Lemo's products. Comparing with S3A series, S3B can accommodate more contacts or carry stronger current load.

Technical Parameters

Environmental

Working temperature: $-50^{\circ}\text{C} \sim +105^{\circ}\text{C}$

IP degree: IP50 (before coupling); IP65 (after coupling)

Mechanical

Cycles: > 1,000

Electrical

Insulation resistance: $\geq 2,000\text{M}\Omega$

Contact resistance:

$\phi 1.25$ contact $\leq 3 \text{ m}\Omega$

$\phi 0.9$ contact $\leq 5 \text{ m}\Omega$

$\phi 0.7$ contact $\leq 7 \text{ m}\Omega$

Current and voltage:



S3A



S3B

Number of contacts	S3A					S3B				
	Contact diameter(mm)	AWG. max	Rated current (A)	Rated voltage (V)		Contact diameter(mm)	AWG. max	Rated current (A)	Rated voltage (V)	
				VDC	VAC				VDC	VAC
2	$\phi 1.25$	20	9	500	350	$\phi 1.25$	20	10	600	400
4	$\phi 0.9$	22	7	500	350	$\phi 1.25$	20	10	600	400
5	$\phi 0.9$	22	6	400	250	$\phi 1.25$	20	9	500	350
6	$\phi 0.7$	26	5	400	250	$\phi 1.25$	20	9	500	350
7	$\phi 0.7$	26	4	400	250	-	-	-	-	-
8	$\phi 0.7$	26	4	400	250	$\phi 0.9$	22	8	450	280
10	-	-	-	-	-	$\phi 0.9$	22	8	400	250
14	-	-	-	-	-	$\phi 0.7$	26	5	300	150
19	-	-	-	-	-	$\phi 0.7$	26	5	300	150



Keying

	S3A		S3B
Key angle (From front of plug)			
Code	N (Normal)	B	C

Material and treatment

Part	Material	Treatment
Insulator	PA66	-
Receptacle shell/front nut	PC	-
Plug shell/tail nut	PC	-
Pin contact (solder type)	Brass	Gold plating
Socket contact (solder type)	Phosphor bronze	Gold plating
Hex back nut	Brass	Nickel plating

Nomenclature

S3A - 14 PA N -M 06 A - C A- B (5.2)
 1 2 3 4 5 6 7 8 9 10 11

1. Seires

S3A, S3B

2. Mounting size

S3A, M14; S3B, M17

3. Connector model

PA-straight plug, with tail nut

RA-fixed receptacle, front and back nut mounting

(New models can be developed to customer requirements, please contact us)

4. Keying code

S3A, N, B; S3B, C

5. Insulator type

M-multi-pole type

6. Number of contacts

S3A, 2, 4, 5, 6, 7, 8; S3B, 2, 4, 5, 6, 8, 10, 14, 19

7. Contact style

A-pin contact; V-socket contact

8. Shell material

C-PC

9. Insulation material

A-PA66

10. Color identification

The front plastic nut of receptacle has the same color as the tail nut of plug, therefore faulty insertion is prevented by distinguishing from neighbouring connectors. Color coding is as follows.

B-blue, G-grey, K-black, Y-yello, O-orange, N-Green, R-Red.

11. Maximum cable O.D.

Please specify cable outer diameter when ordering. "5.2" means accomodates up to 5.2mm cable. Please refer to page 4 "Accessories•Collet" to see adaptable cable O.D. ranges.



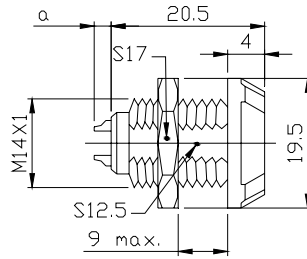
S3A RA receptacle



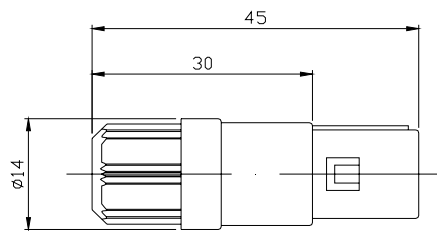
S3A PA plug



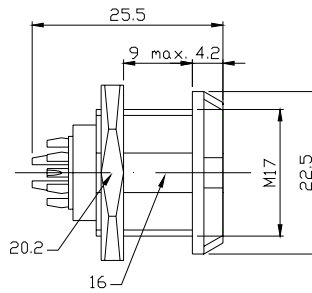
Outer Dimensions



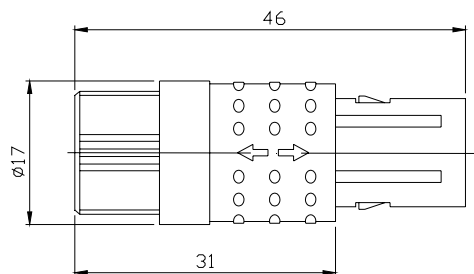
S3A RA receptacle



S3A PA plug



S3B RA receptacle

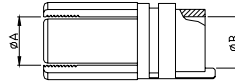


S3B PA plug



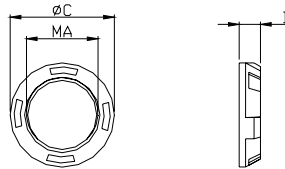
Accessories

1. Collet



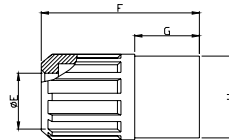
Part Number	ΦA (mm)	ΦB (mm)	Cable O.D. (mm)	
			Min	Max
S3A-C-1	3.9	6.5	2.7	3.9
S3A-C-2	5.2	6.5	4.0	5.2
S3A-C-3	6.5	6.5	5.3	6.5
S3B-C-1	3.5	9.5	2.5	3.5
S3B-C-2	5.5	9.5	3.6	5.5
S3B-C-3	8.5	9.5	5.6	8.5

2. Plastic front nut



Part No.	MA(mm)	ΦC(mm)	D(mm)	Part No.	MA (mm)	ΦC (mm)	D (mm)	Color
S3A-FN-G	14	18.5	4.0	S3B-FN-G	17	22.6	4.2	Grey
S3A-FN-K	14	18.5	4.0	-				Black
S3A-FN-R	14	18.5	4.0	-				Red
S3A-FN-N	14	18.5	4.0	-				Green
S3A-FN-B	14	18.5	4.0	S3A-FN-B	17	22.6	4.2	Blue
S3A-FN-Y	14	18.5	4.0	-				Yellow
S3A-FN-O	14	18.5	4.0	-				Orange

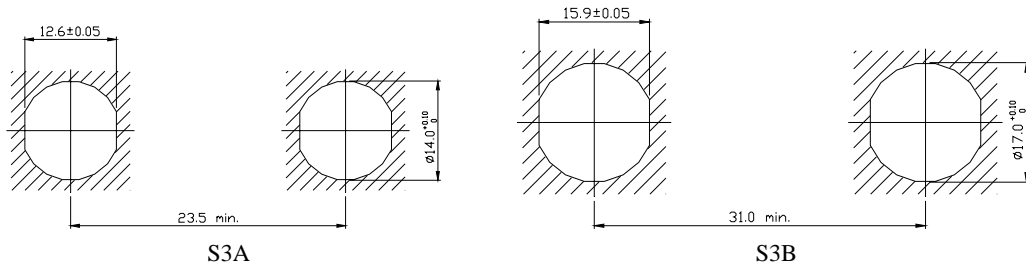
3. Tail nut



Part No.	ΦE (mm)	F (mm)	G (mm)	H (mm)	Part No.	ΦE (mm)	F (mm)	G (mm)	H (mm)	Color
S3A-TN-G	6.5	22.2	9.3	11.4	S3B-TN-G	9.4	23.2	10.4	14.2	Grey
S3A-TN-K	6.5	22.2	9.3	11.4	-					Black
S3A-TN-R	6.5	22.2	9.3	11.4	-					Red
S3A-TN-N	6.5	22.2	9.3	11.4	-					Green
S3A-TN-B	6.5	22.2	9.3	11.4	S3B-TN-B	9.4	23.2	10.4	14.2	Blue
S3A-TN-Y	6.5	22.2	9.3	11.4	-					Yellow
S3A-TN-O	6.5	22.2	9.3	11.4	-					Orange

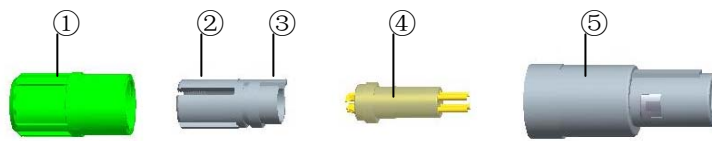


Panel cut-out



Hex nut torque = 1.5Nm

Contact solering



1. Process cable as following table and tin the conductor.



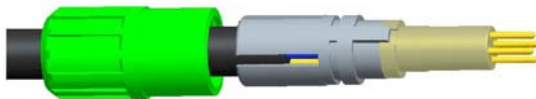
Object	Stripping (mm)	
	Sheathe	Wire
S3A 2-pole	14.0	4.0
S3A 4、5 pole	13.0	3.0
S3A 6、7、8 pole	12.5	2.5
S3B 2~6 pole	18	4.0
S3B 8、10 pole	17.5	3.5
S3B 14、19 pole	17	3.0



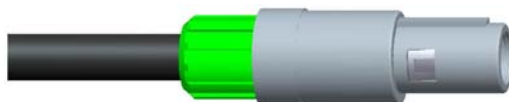
2. Put tail nut① and collet ② through cable;



3. Solder to contact, and be careful not to spill tin onto plug insulator or wire;



4. Insert front tip ③ of collet into duct of insulator④;



5. Slide tail nut① into collet ②, then push all of the assembly into plug shell ⑤, then fix tail nut①.