



# SLS

Derived from SL Series industrial connectors with ground contact

- First mate last break earth (FMLB) contact bonded to the connector shell.
- Conductive plating on backshells to ensure electrical continuity through in the cable assembly.
- Metallised cable clamps with adaptable capacity.
- Angular rotation of the contact insulator to prevent SLS connectors mating with corresponding SL or derived SL series.
- Trapezoidal thread screw-locking.
- Connector shell in aluminium which provides an excellent strength.
- 1/2 shell backshell ensuring simple wiring and maintenance.
- Nominal current:  
10, 25 and 50 A.
- Nominal voltage:  
to 600 Vrms.
- Inserts moulded in Alkyde.
- Closed entry female contacts.
- Rugged mating nut.
- Gold plated machined contact with solder terminations.



The SLS circular connectors are principally aimed at I/O applications, which require a total security in use.

Derived from SL series, SLS connectors have the particularity to provide an earth contact bonded to the connector shell.

SLS connectors are available as SL connectors in 4 shell sizes (10, 20, 30 and 40) in 11 contact arrangements from 3 to 26 mixed brazed contacts.

Additionally, their metallised cable clamps offer a total security and an outstanding EMI/RFI capability.

Shells are available in the following configurations :

- Straight or right angle plug
- Square flange receptacle
- In-line receptacle
- Square flange receptacle with mating nut

*One FMLB  
earth contact  
bonded to  
the shell*

SLS

- Automation
- Instrumentation
- Robotics
- Power
- Nuclear equipment



**Amphenol**

## Contacts dimensional characteristics

Contact type	Solder bucket inside diam (mm)	Solder bucket depth (mm)	Max wire cross. section (mm <sup>2</sup> )
10 A	1,7 minimum	6 minimum	1,75
25 A	3,1 minimum	8 minimum	5,1
50 A	4 minimum	10 minimum	9

## Available contacts arrangements

SLS arrangements	Corresponding SL arrangements
14 S	14 V
23 S	23 C
27 S	27 E
212 S	212 AF
34 S	34 H
315 S	315 K
319 S	319 L
419 S *	419 AR
48 S	48 M
426 S	426 P

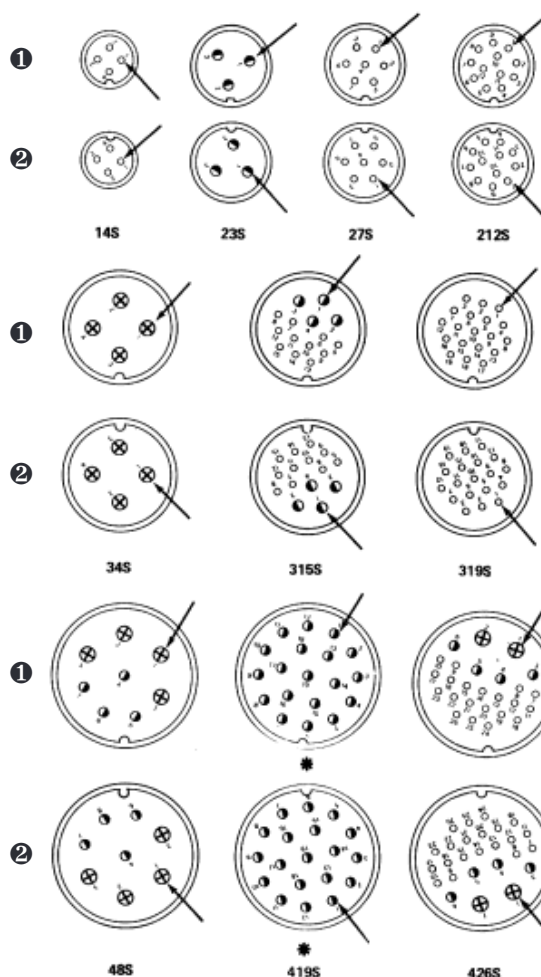
\* This arrangement is available only in the following versions: BF, BMR, EFE, EM.

① Male connectors, mating face

② Female connectors, mating face

The arrow indicates the contact bonded to the shell.

Contact type	○	◐	⊕
Pin's diameter (mm)	1.5	3	5
Nominal current (A)	10	25	50
Contact resistance (Ω)	≤ 0.002	≤ 0.002	≤ 0.002



## Straight or right-angle backshell

Standard olive drab cadmium backshells		
Connector size	Shell reference	
	Straight Green	90° angled Green
10	21458 N	21462 N
20	21459 N	21463 N
30	21460 N	21464 N
40	21461 N	21465 N

Only the conductive backshells are compatible with SLS Series. Consult us for Nickel plated version.

## Accessories

### Plug and receptacle protection caps:

SLB	F	M	3B
F: Plug E: Receptacle			
M: Pin connector F: Socket connector			
Plug and receptacle: none Line mount receptacle: R			
Size			
1B: 10    2B: 20    3B: 30    4B: 40			



### Receptacle with locking ring protection caps:

BF	F	3B
M: Pin connector F: Socket connector		
Size		
1B: 10    3B: 30 2B: 20    4B: 40		



### Sealing sleeve:

Connector	Size	Ref.
Straight	10	43458
Right-angle	10	43473
Straight	20	43456
or	30	44666
Right-angle	40	43457



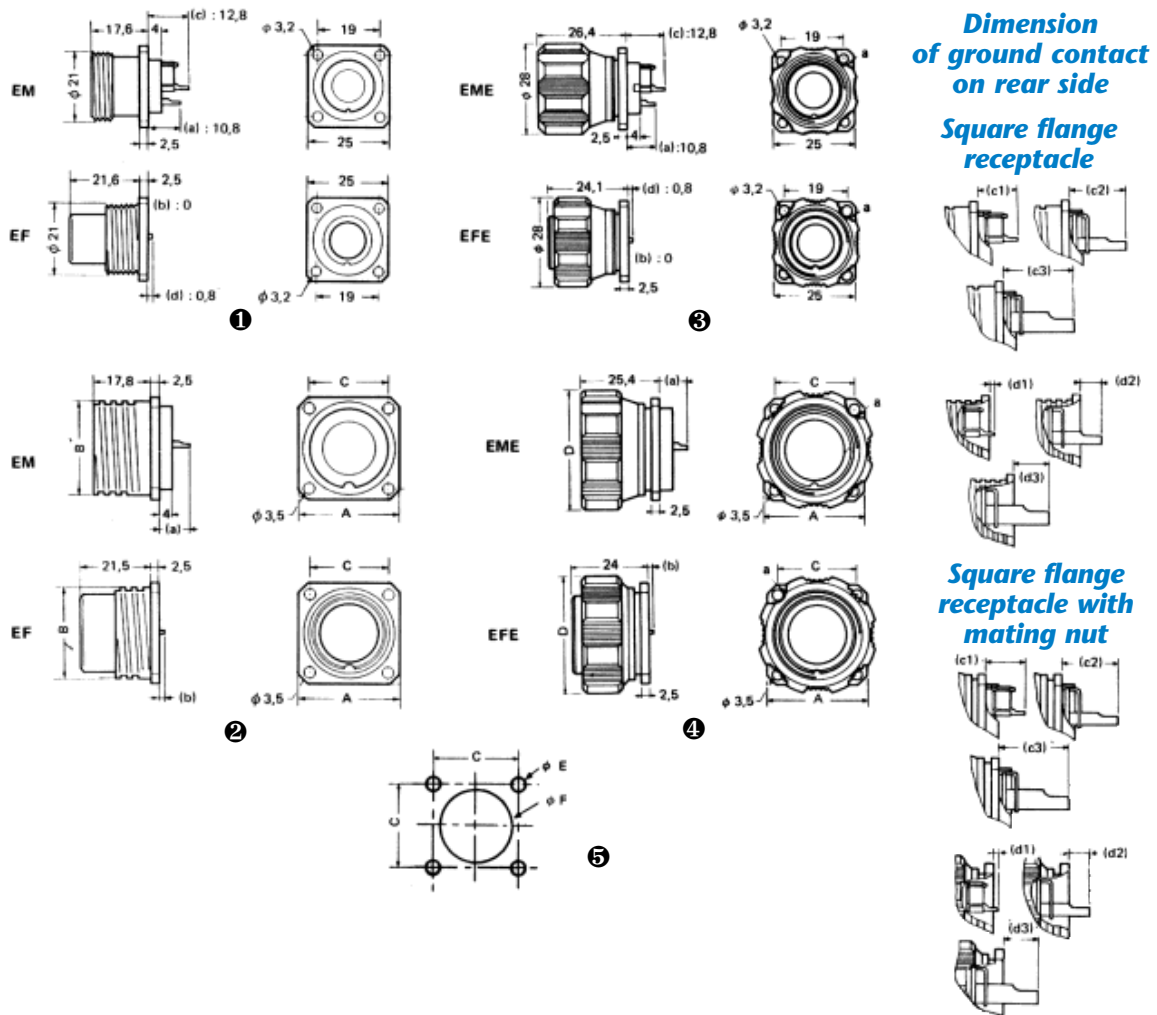
for plug or line mount receptacle

### Adaptator for flexible conduit and PG:

	Connector size	PG thread
SL RF 209N	20	9
SL RF 211N	20	11
SL RF 313N	30	13
SL RF 316N	30	16
SL RF 416N	40	16
SL RF 421N	40	21
SL RF 429N	40	29



## Dimensional characteristics



### Dimensions (in mm)

#### Receptacle

Figure 1: size 10

Figure 2: sizes 20-30-40

#### Receptacle with locking ring

Figure 3: size 10

Figure 4: sizes 20-30-40

a : Slot enabling screw driver to be passed during mounting of the receptacle with locking ring.

### Dimension of contact terminations on rear side:

The neoprene gasket supplied with the receptacle is not shown in the figures 1 to 4.

- Gasket thickness : 1.5 mm.

#### Panel drilling

See figure 5.

Mounting from the front of the panel.

### Standard contacts:

Dimension (a): pins

Dimension (b): sockets

### Contacts bonded to the shell:

Dimensions (c) (c1) (c2) (c3): pin  
 Dimensions (d) (d1) (d2) (d3): socket  
 (c) and (d) dimensions are not mentioned in the chart but are directly written on the figures.

Please refer to Standard SL data sheet for plugs or in-line receptacles dimensions.

1 to 5 receptacle dimensions

1 to 5 figures dimensions

Receptacle sizes	Dimensions (mm)					
	A	Ø B	C	Ø D	Ø E	Ø F min
10	25	21	19	28	3,2	16,5
20	31	28,1	24	37	3,5	25,5
30	46	42,2	34	52	3,5	35,5
40	56	52,2	41	65	3,5	47

Contact types	Dimension of ground contact on rear side sizes 20-30-40* (mm)							
	Standard contacts				Contact bonded to the shell			
	(a)	(b)	(c1)	(c2)	(c3)	(d1)	(d2)	(d3)
○ : 10 A	10	0	12			1,5		
● : 25 A	12	1,5		17			6,5	
⊕ : 50 A	14	3,5			21			10,5

\* For 10 size, the dimensions are given on the figures 1 and 3.

## Connectors

### In-line receptacle or plug body

SLS series	SLS	B	M	-	4	26	S
Plug or in-line-receptacle							
Type of contacts: M: Pin F: Socket							
For in-line-receptacle only: R							
Shell size: 1: 10; 2: 20; 3: 30; 4: 40							
Number of contacts of the arrangement							
Arrangement details							

### Plug and backshell set

SLS series	SLS	F	M	D	4	26	S
F: Plug or line mount receptacle							
Type of contacts: M : Male F : Female							
D : Plug + straight backshell DR : Line mount receptacle + backshell C : Plug + right angle backshell							
Shell size: 1: 10; 2: 20; 3: 30; 4: 40							
Contacts number of arrangement							
Arrangement particularity							

Comment: SLS backshell is available only with olive drab cadmium version conductive and metallized cable clamp.

### Square flange receptacle or square flange receptacle with mating nut

SLS series	SLS	E	M	-	4	26	S
Receptacle or receptacle with Mating nut: E							
Types of contacts: M: Pin F: Socket							
For receptacle with locking ring only: E							
Shell size: 1: 10; 2: 20; 3: 30; 4: 40							
Number of contacts for the arrangement							
Arrangement details							

Do not hesitate to contact us for further information



# Amphenol

**Amphenol Socapex**  
**Mil/Aero & Industrial Business Unit**

948, Promenade de l'Arve - BP 29

F - 74311 Thyez Cedex

Tel.: +33 (0) 4 50 89 28 00 - Fax: +33 (0) 4 50 96 19 41

<http://www.amphenol.com>

**Sales office**

Tel.: +33 (0) 1 49 05 30 00 - Fax: +33 (0) 1 49 05 30 43