

# DS 5015

## MIL-C-5015 Style Circular Connectors

PRELIMINARY  
DATA SHEET



### MAIN CHARACTERISTICS

#### Characteristics

- Intermateable and intermountable with other MIL-C-5015 (Style) connectors.
- Several kinds of plating, all cadmium free (olive drab zinc alloy, black zinc alloy, electroless nickel upon request).
- Solder contacts, silver plated copper alloy, from AWG 16 to AWG 0.
- Polychloropren (rubber) inserts (A, E, F and R classes).
- Thermoplastic inserts (B class).
- Threaded coupling
- Coding by insert rotation (4 positions).
- Operating temperature from -55°C to +125°C.
- Insulation resistance 5 000 MW minimum (at 25°C).
- 500 mating cycles.
- Selection of connectors with First Mate / Last Break earth contact (DL Series).
- CE & VDE approved, UL approval pending.

#### Electrical Characteristics

- DS Standard Solder Contacts

Contact Size AWG	16	12	8	4	0
Contact Pin Diameter (mm)	1.6	2.4	3.6	5.7	9.1
Current Rating (A)	13	23	46	80	150
Wire Section (mm²)	0,5 to 1,5	2 to 4	6 to 10	16 to 25	35 to 60
Dielectric Material Outer Diameter (mm)	1.6	2.8	5.2	8.3	11.8

- Insert Arrangement Service Rating

Service Rating	Inst.	A	D	E	B	C
Test Voltage AC (RMS)	1000	2000	2800	3500	4500	7000
Operating Voltage (AC)	250	700	1250	1750	2450	4200
Operating Voltage (DC)	200	500	900	1250	1750	3000

### DESCRIPTION

The DS5015 Series is the new Amphenol MIL-C-5015 style connectors range for industrial and commercial applications.

Intended for general-purpose applications, these connectors are widely used in automotive, robotics, machine tool and welding industries, as well as in numerous other commercial and industrial applications, ranging from heavy equipment to ECG monitoring cables.

Shell components are made of high grade aluminium alloy to provide strength and environmental protection. This serie offers a wide variety of shell styles, contact patterns and accessories. The DS series is available in class A, B, E, F, and R, depending on the conditions and performance required.

The DS5015 SERIES also offers a range of connectors with First-Mate Last-Break earth contact.

DS 5015



Amphenol

## Insert Arrangements

A, E, F and R classes connectors arrangements. B Class connectors arrangements : Consult Amphenol.  
Other Arrangements : Consult Amphenol.

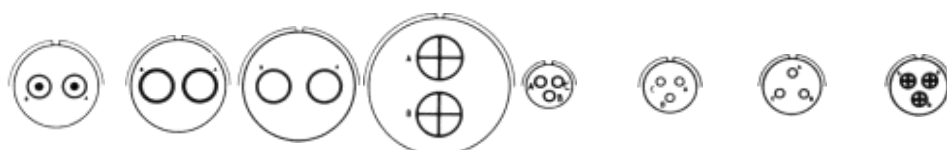
### Front Face view of Inserts.

- Contact legend:

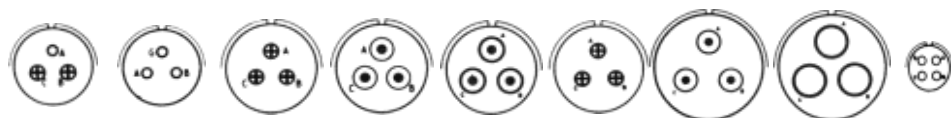
Symbol					
Contact Size AWG	16	12	8	4	0



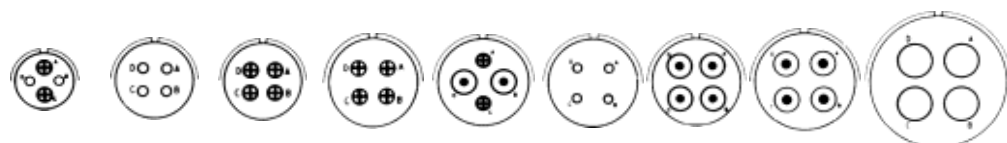
Insert Arrangement	16-12	22-7	10SL-4	12S-3	14S-9	16S-4	16-11	18-3	20-23
Service Rating	A	E	A	A	A	D	A	D	A
Number of Contacts	1	1	2	2	2	2	2	2	2
Contact Size AWG	4	0	16	16	16	16	12	12	8



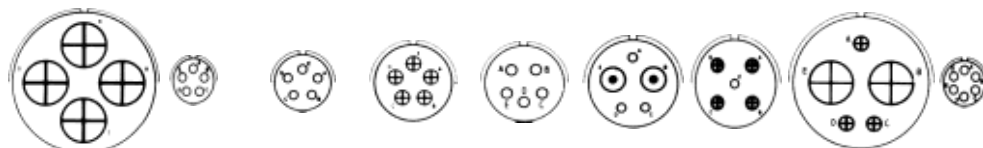
Insert Arrangement	22-8	24-9	28-7	32-5	10SL-3	14S-7	16S-5	16-10
Service Rating	E	A	D	D	A	A	A	A
Number of Contacts	2	2	2	2	3	3	3	3
Contact Size AWG	12	4	4	0	16	16	16	12



Insert Arrangement	18-5	18-22	20-3	20-19	22-2	22-9	28-3	28-6	14S-2
Service Rating	D	D	D	D	E	E	E	D	Inst.
Number of Contacts	3	3	3	3	3	3	3	3	4
Contact Size AWG	16/12	12	8	8	8	12	8	4	16



Insert Arrangement	16-9	18-4	18-10	20-4	22-4	22-10	22-22	24-22	32-17
Service Rating	A	D	A	D	A	E	A	D	D
Number of Contacts	2 2	4	4	4	2 2	4	4	4	4
Contact Size AWG	16 12	16	12	12	12 8	16	8	8	4



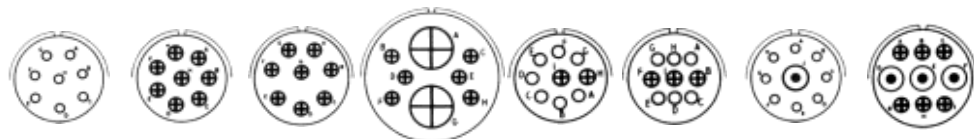
Insert Arrangement	36-5	14S-5	16S-8	18-11	18-20	22-12	22-13	32-1	14S-6
Service Rating	A	Inst.	A	A	A	D	A & D (E)	D & A (E)	Inst.
Number of Contacts	4	5	5	5	5	3 2	1 4	3 2	6
Contact Size AWG	0	16	16	12	16	16 8	16 12	12 0	16



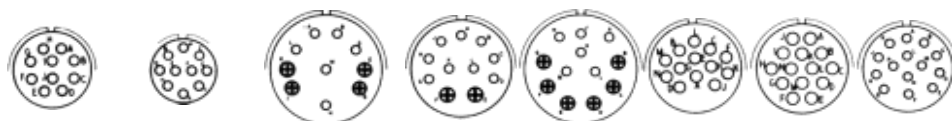
Insert Arrangement	18-12	20-8	20-17	20 22	22 15	28 22	16S-1	18-9	20-15
Service Rating	A	Inst.	A	A	A & E (D)	D	A	Inst.	A
Number of Contacts	6	4 2	1 5	3 3	1 5	3 3	7	5 2	7
Contact Size AWG	16	16 8	16 12	16 8	16 12	16 4	16	16 12	12



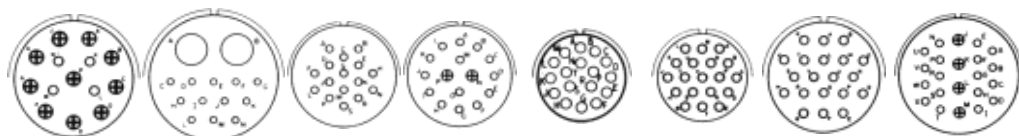
Insert Arrangement	24-2	24-10	28-10	18-8	20-7
Service Rating	D	A	A & D (G)	A	D & A (C,D,E,F)
Number of Contacts	7	7	3 2 2	7 1 8	
Contact Size AWG	12	8	12 8 4	16 12 16	



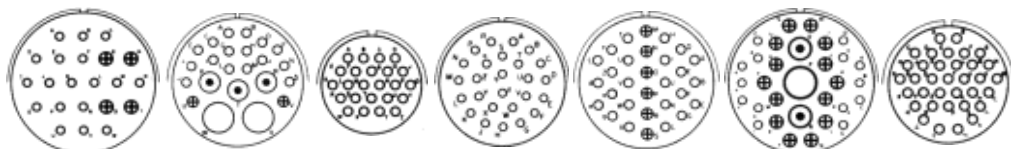
Insert Arrangement	22-18	22-23	24-6	32-15	20-16	20-18	22-27	24-11
Service Rating	D & A (C,D,E)	A & D (H)	A & D (A,G,H)	D	A	A	A & D (F)	A
Number of Contacts	8	8	8	6 2	7 2	6 3	8 1	6 3
Contact Size AWG	16	12	12	12 0	16 12	16 12	16 8	12 8



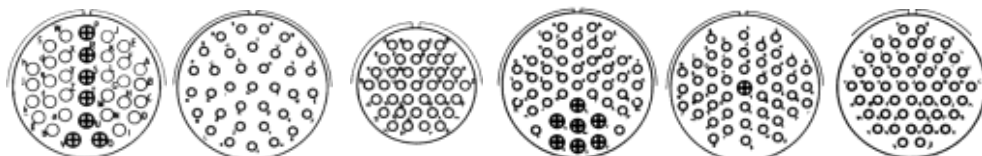
Insert Arrangement	18-1	18-19	28-19	24-20	28-9	20-11	20-27	22-19
Service Rating	Inst. & A (B,C,F,G)	A	A, D (A,B) & B (H,M)	D	D	Inst.	A	A
Number of Contacts	10	10	6 4	9 2	6 6	13	14	14
Contact Size AWG	16	16	16 12	16 12	16 12	16	16	16



Insert Arrangement	28-20	32-9	24-5	24-7	20-29	22-14	28-16	28-11
Service Rating	A	D	A	A	A	A	A	A
Number of Contacts	4 10	12 2	16	14 2	17	19	20	18 4
Contact Size AWG	16 12	16 4	16	16 12	16	16	16	16 12



Insert Arrangement	36-1	32-6	24-28	28-12	32-8	36-9	28-15
Service Rating	D	A	Inst.	A	A	A	A
Number of Contacts	18 4	16 3 2 2	24	26	24 6	14 2 14 1	35
Contact Size AWG	16 12	16 8 12 4	16	16	16 12	16 8 12 4	16



Insert Arrangement	32-7	36-15	28-21	36-7	36-8	36-10
Service Rating	Inst. & Bal (A)	D (M) & Bal (A)	A	A	A	A
Number of Contacts	28 7	35	37	40 7	46 1	48
Contact Size AWG	16 12	16	16	16 12	16 12	16

## DL Serie: Contact Arrangements

First Mate / Last Break earth contact indicated with black color.



Insert Arrangement	10SL-3	18-10	22-22	24-10
Number of Contacts	2 + T	3 + T	3 + T	6 + T
Contact Size AWG	16	12	8	8

The DL connectors are available in the following arrangements:

- Box mounting receptacle, socket contacts (DL 3102A \_\_-\_\_-S)
- Straight Plug, pin contacts (DL 3106A \_\_-\_\_-P)
- 90° angle plug, pin contacts (DL 3108A \_\_-\_\_-P)



## Connectors:

### DS 5015 Series Connectors

DS 3100

A

18

3

S

—

—

#### Series Designation:

DS: Amphenol DS 5015 Series (MIL-C-5015 Style)

DL: Amphenol DL Series

(First Mate / Last Break earth contact).

#### Shell Style:

3100: Wall Mounting Receptacle

3101: Cable Connecting Receptacle

3102: Box Mounting Receptacle

3106: Straight Plug

3108: 90° Angle Plug

#### Connector Class:

A: General purpose applications. Solid back Shell.  
Polychloropren insert.B: General purpose applications. Split back Shell.  
Thermo plastic Insert. Consult Amphenol.E: Environmental resisting with grommet and strain relief  
backshell (Cable clamp integrated). Polychloropren insert.F: Environmental resisting with grommet, "O" ring seal and strain  
relief backshell (Integrated Cable clamp). Polychloropren insert.R: Environmental resisting, lightweight and shorter overall  
length (Integrated Cable clamp). Polychloropren insert.

#### Shell Size:

See inside pages

10SL, 12S, 14S, 16S, 16, 18, 20, 22, 24, 28, 32, 36

#### Contact arrangements:

See inside pages

#### Contact Type:

P: Pin contact (male)

S: Socket contact (female)

#### Coding:

No suffix: Standard Position

W, X, Y, Z : Consult Amphenol

#### Finish:

No suffix: Olive Drab Zinc Alloy

BZ: Black Zinc Alloy

NI: Electroless Nickel. Consult Amphenol

## Accessories:

### Cable clamp

(including bushing)

DS 3057 4A

#### Cable Clamp Designation:

DS 3057: For DS 5015 series, A &amp; B class

DL 3057: For DL Series

#### Cable Clamp Size:

According to shell size. See Inside pages.

4A (10SL, 12S), 6A (14S), 8A (16S,16), 10A (18),

12A (20,22), 16A (24,28), 20A (32), 24A (36).

### Protection cap

DS 25042 10SL

#### Cap Designation :

DS 25042: For Plug

DS 25043: For Receptacle

#### Cap Size:

Same as shell size. See Inside pages.

10SL, 12S, 14S, 16S, 16, 18, 20,

22, 24, 28, 32, 36.

Do not hesitate to contact us for further information

# Amphenol

Amphenol Socapex

Mil/Aero &amp; 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