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**CIRH SERIES**  
(MIL-C-5015 STYLE)  
Modular Bayonet Lock Connector



# CIRH SERIES

(MIL-C-5015 STYLE)

## HALOGEN FREE BAYONET LOCK CONNECTOR SERIES

The Connectors for Industrial Range (CIR) (H - halogen free) is based on the products covered by the American MilC-5015 and the German VG95234 specifications. These connectors are used extensively throughout the mass transportation, entertainment and general industrial markets.

CIRH connectors are interchangeable with all corresponding types and feature contact arrangements from Mil-STD-1651. Positive coupling is indicated by an audible 'snap' and by the alignment of three coloured dots on the receptacle and on the coupling nut of the plug connector.

To enhance service life in applications where the connectors are likely to experience severe vibration or repeated mating, CIRH connectors feature stainless steel anti-wear pins at the critical point of the receptacle coupling ramps.

In response to safety and environmental requirements, CIRH connectors have as standard, low fire hazard/halogen free rubber insulators which have been independently tested and shown to conform with the requirements of European specification EN 45545-2 (HL3, R22/R23), French specification NF F 16-101 classification 12 F1 and to British specification BS 6853 app. A clause A.9 and app. B clause B.5.1. Connector shells can also be supplied with cadmium free plating finishes.

Protection against water and dust ingress is provided by the use of a dynamic seal ring under the coupling nut and by an individual wire seal grommet at the rear of the connector. A wavy washer assembly, also under the coupling nut and a comprehensive range of back shells and accessories, ensure excellent continuity and shielding characteristics between mated connectors where the effects of EMI and RFI must be eliminated.



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## Standard Data

### Materials:

Connector metalwork:	Aluminium alloy
Insulator, grommet & bushing:	Low Fire Hazard, rubber
Contacts:	Copper alloy
Accessory hardware:	Aluminium alloy

### Standard Plating Finishes:

Aluminium parts:	Olive drab chromate over zinc cobalt or Olive drab chromate over cadmium plate.*
Contacts:	Silver or Gold.

\* Consult TE for alternative finishes.

### Environmental Ratings:

Temperature range:	-55°C to + 200°C
Shock severity:	75g
Vibration:	5-500 Hz long endurance. 30 hour test at 10g.
Acceleration:	50g

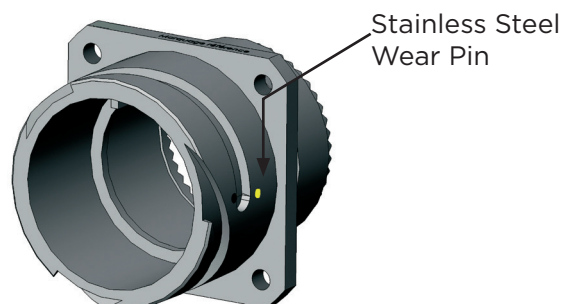
### Mechanical Features:

Coupling:	3 pin bayonet.
Number of contacts:	2 to 85
Contact termination:	Crimp or p.c. tail.
Sealing:	Dynamic sealing ring & individual wire seal grommet. When mated and used with appropriate sealed backshell, IP67 rated.
Matings:	2000.

### CIRH Connectors:

CIRH connectors feature stainless steel pins at critical wear points of the cam tracks of all receptacle shells, to protect from wear inflicted by continuous mating/de-mating and vibration.

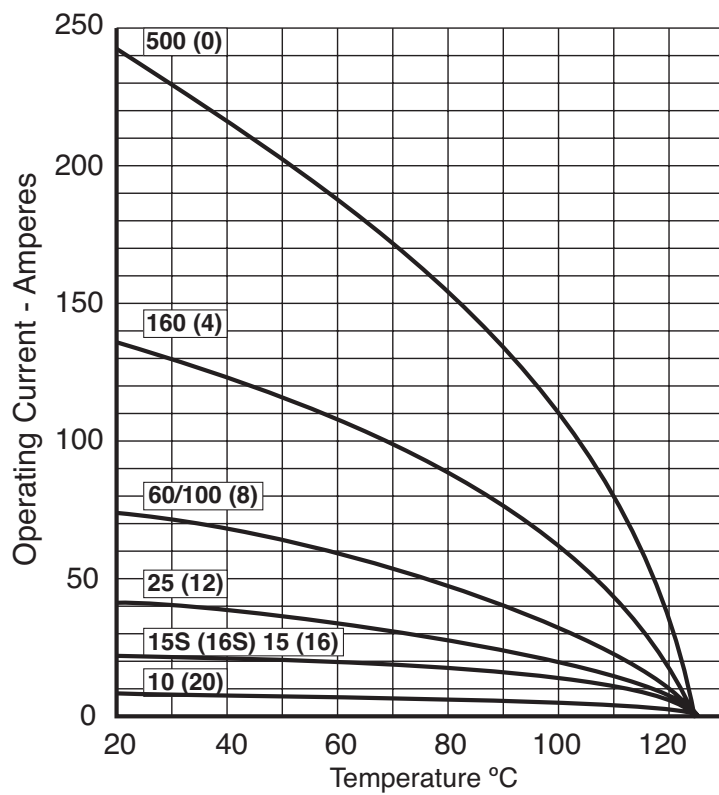
**Note:** The company reserves the right and may change or vary specification without prior written notice.



### Contact Current Ratings

AWG	Contact Size Metric	*Maximum Current @ 20°C (68°F)	* Rated Current @ 85°C (185°F)	** De-rated Current @ 85°C (185°F)
16/16S	15/15S	22A	13A	10A
12	25	41A	23A	20A
8	100	73A	46A	42A
4	160	135A	80A	75A
0	500	245A	150A	135A

### Contact Current De-Rating Curve



### Contact Arrangement Service Ratings

Service Rating	Inst.	A	D	E
Working Voltage DC or AC Peak	350 V	700 V	1,250 V	1,750 V
Voltage Proof AC RMS	1,000 V	2,000 V	2,800 V	3,500 V
Minimum Flashover AC RMS	1,400 V	2,800 V	3,600V	4,500 V

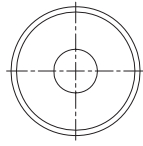
# PART NUMBER EXPLANATION

CIRH	06	F	28	21	P	C	N	F80	**	**
Series Prefix		Accessory Type		Contact Arrangement		Contact Termination		Contact Style		Contact Supply
	Shell Style		Shell Size		Contact Type		Insert Orientation		Modification Code	

<b>Series Prefix:</b>	CIRH	Low Fire Hazard
<b>Shell Style:</b>	00	4 Hole Square flange receptacle, front panel mounted.
	01	Cable mounted receptacle.
	03	4 Hole Square flange receptacle, rear panel mounted.
	06	Plug. No RFI grounding.
	P06	Plug, rubber covered coupling nut. No RFI grounding.
	SE06	Plug with RFI grounding.
	07	Through bulkhead receptacle
	08	Plug with 90° angle outlet. No RFI grounding.
	SE08	Plug with 90° angle outlet. RFI grounding.
	09	Single hole mounted receptacle.
<b>Accessory Type:</b>		See relevant catalogue pages.
<b>Shell Size:</b>	10SL- 49.	
<b>Contact Arrangement:</b>	See pages 5 - 22	
<b>Contact Type:</b>	P = Pin, S = Socket, H pin/socket assembly for bulkhead connector 07.	
<b>Contact Termination:</b>	C crimp removeable, (except for style 07 no designation in part number).	
<b>Insert orientation:</b>	N normal, WXYZ alternative insert positions. See pages 25 & 26	
<b>Contact style:</b>	F80	
<b>Modification Code:</b>	<b>M11</b> Zinc Colbalt Plating with Green passivate finish	
	<b>M32</b> Zinc Colbalt Plating with Black passivate finish	
	<b>M14</b> Zinc Colbalt Plating with Black passivate finish and tapped mounting holes	
	<b>M35</b> Zinc Colbalt Plating with Green passivate finish and tapped mounting holes	
	<b>Others</b> Consult TE	
<b>Contact Supply:</b>	Leave blank for connectors supplied with silver contacts <b>P3</b> for gold contacts. <b>V0</b> for connectors supplied without contacts.	

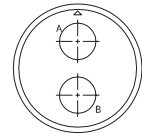
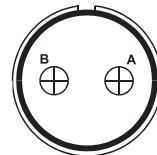
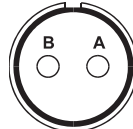
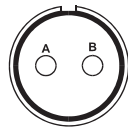


## 1 Contact

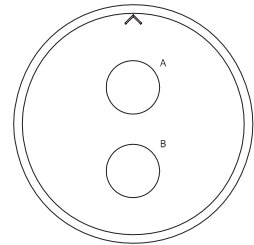
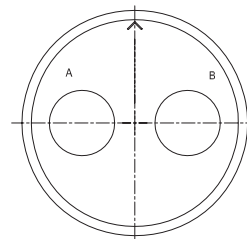
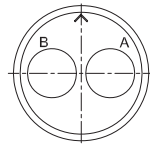
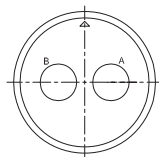


Contact Arrangement	22-7
No. Contacts x Size AWG (Metric)	1 x #0 (100)

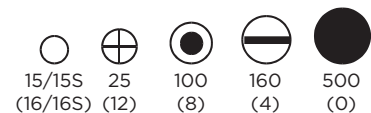
## 2 Contacts



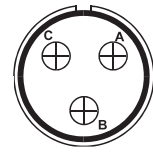
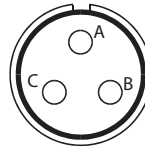
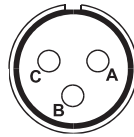
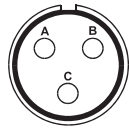
Contact Arrangement	10SL-4	14S-9	18-3	20-23
No. Contacts x Size AWG (Metric)	2 x #16S (15S)	2 x #16S (15S)	2 x #12 (25)	2 x #0 (100)
Service Rating	A	A	D	A



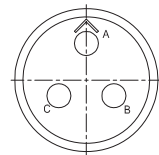
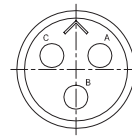
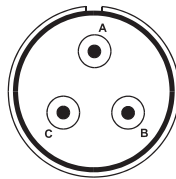
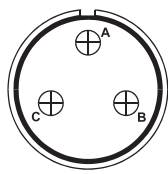
Contact Arrangement	22-1	24-9	28-T2	32-5
No. Contacts x Size AWG (Metric)	2 x #8 (100)	2 x #4 (160)	2 x Co Ax	2 x #0 (500)



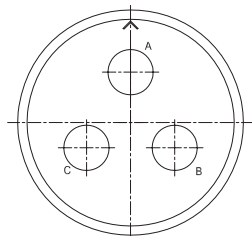
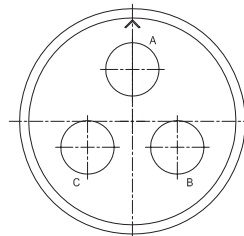
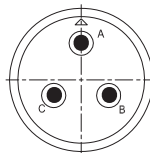
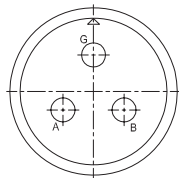
## 3 Contacts



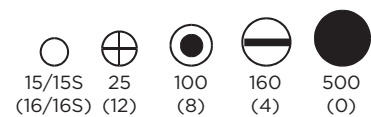
Contact Arrangement	10SL-3	14S-7	16S-5	16-10
No. Contacts x Size AWG (Metric)	3 x #16S (15S)	3 x #16S (15S)	3 x #16S (15S)	3 x #12 (25)
Service Rating	A	A	A	A



Contact Arrangement	20-3	22-2	14S-1	16S-5
No. Contacts x Size AWG (Metric)	3 x #12 (25)	3 x #8 (100)	3 x #16S (15S)	3 x #16S (15S)
Service Rating	D	D		

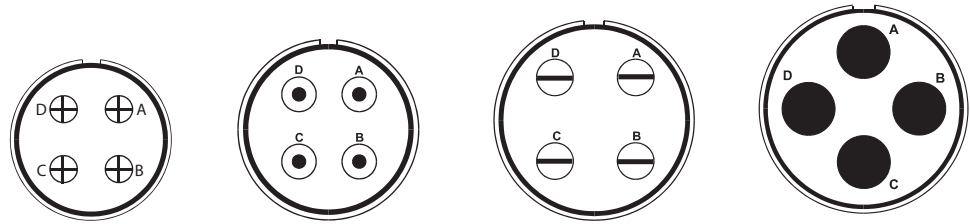


Contact Arrangement	18-22	20-19	28-6	28-3
No. Contacts x Size AWG (Metric)	3 x #16 (15)	3 x #8 (100)	3 x #4 (160)	3 x #8 (100)

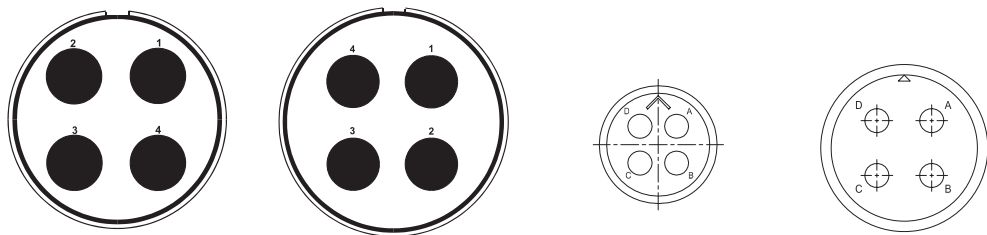


# F80 CONTACT ARRANGEMENTS

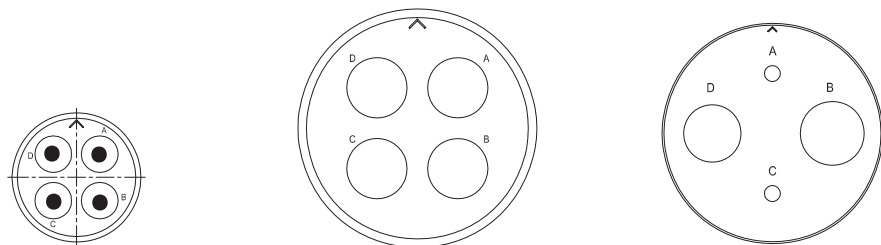
## 4 Contacts



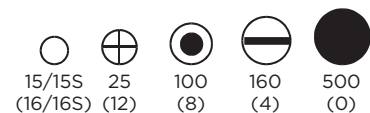
Contact Arrangement	20-4	24-22	32-17	36-5
No. Contacts x Size AWG (Metric)	4 x #12 (25)	4 x #8 (100)	4 x #4 (160)	4 x #0 (500)
Service Rating	D	D	D	A



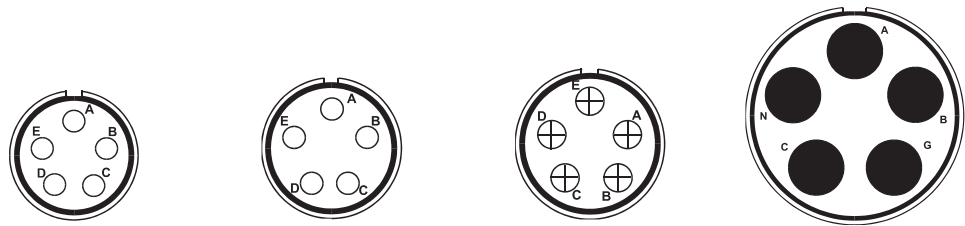
Contact Arrangement	40-E4	49-A4	14S-2	18-4
No. Contacts x Size AWG (Metric)	4 x #0 (500)	4 x #0 (500)	4 x #16S (15S)	4 x #16 (15)
Service Rating	E	D		



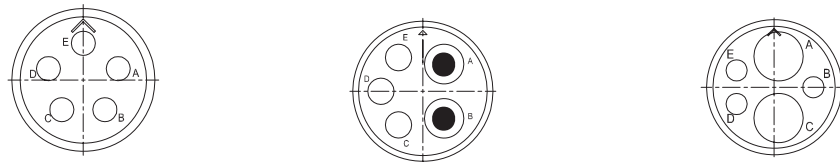
Contact Arrangement	22-22	32-C17	49-D4
No. Contacts x Size AWG (Metric)	4 x #8 (100)	4 x COAX	2 x #0000 2 x #12 (25)



5 Contacts

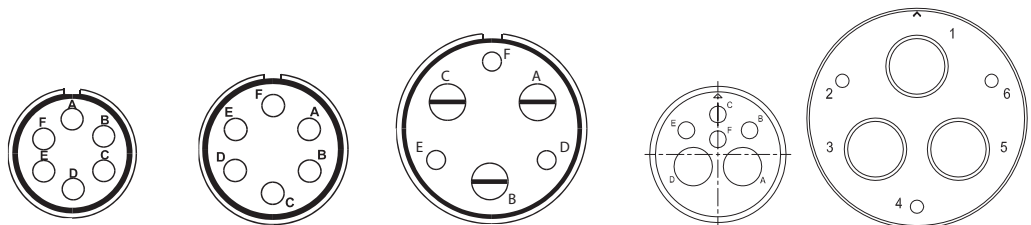


Contact Arrangement	14S-5	16S-8	18-11	40-A5
No. Contacts x Size AWG (Metric)	5 x #16S (15S)	5 x #16S (15S)	5 x #12 (25)	5 x #0 (500)
Service Rating	Inst.	A	D	A

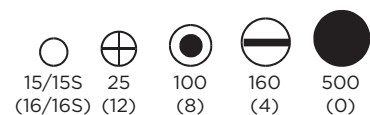


Contact Arrangement	16S-8	20-14	24-12
No. Contacts x Size AWG (Metric)	5 x #16 (15)	3 x #12 (25) 2 x #8 (100)	2 x #4 (160) 3 x #12 (25)

6 Contacts

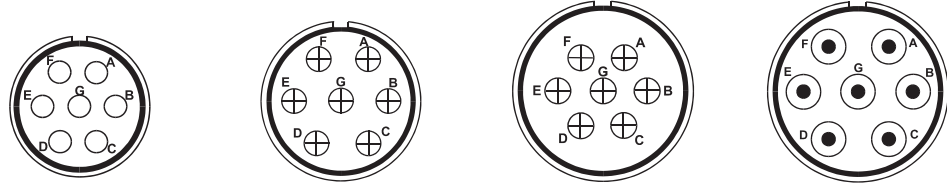


Contact Arrangement	14S-6	18-12	28-22	20-8	40-D6
No. Contacts x Size AWG (Metric)	6 x #16S (15S)	6 x #16 (15)	3 x #16 (15) 3 x #4 (160)	4 x #16 (15) 2 x #8 (100)	3 #16 (15) 3 #0 (500)
Service Rating	Inst.	A	D		

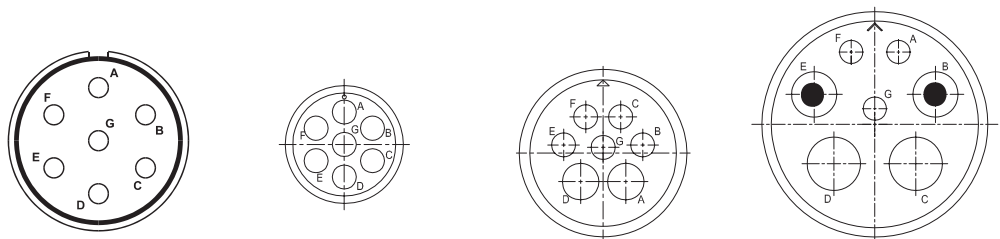


# F80 CONTACT ARRANGEMENTS

## 7 Contacts

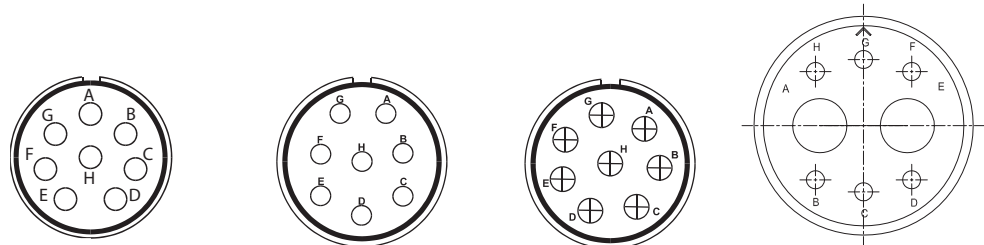


Contact Arrangement	16S-1	20-15	24-2	24-10
No. Contacts x Size AWG (Metric)	7 x #16S (15S)	7 x #12 (25)	7 x #12 (25)	7 x #8 (100)
Service Rating	A	A	D	A

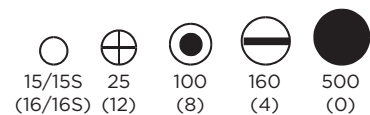


Contact Arrangement	24-27	14S-A7	18-9	28-10
No. Contacts x Size AWG (Metric)	7 x #16 (15)	7 x #16S (15S)	5 x #16 (15) 2 x #12 (25)	3 x #12 (25) 2 x #8 (100) 2 x #4 (160)
Service Rating	A			

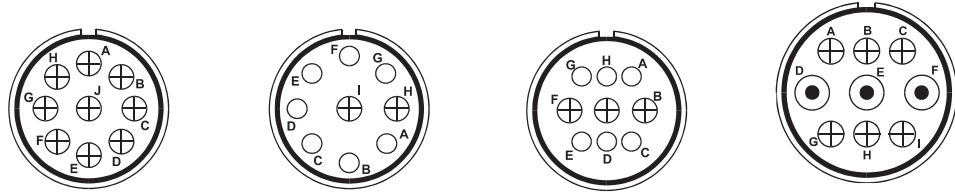
## 8 Contacts



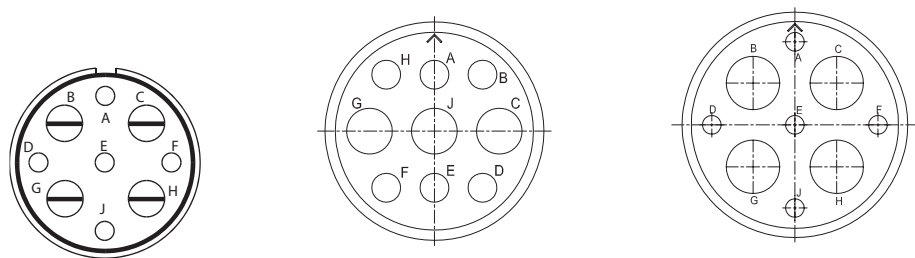
Contact Arrangement	20-7	22-18	22-23	28-8
No. Contacts x Size AWG (Metric)	8 x #16 (15)	8 x #16 (15)	8 x #12 (25)	2 x #4 (160) 6 x #16 (15)
Service Rating	A,B,H,G = D, Balance = A	A,B,F,G,H = D, Balance = A	H = D, Balance = A	



## 9 Contacts

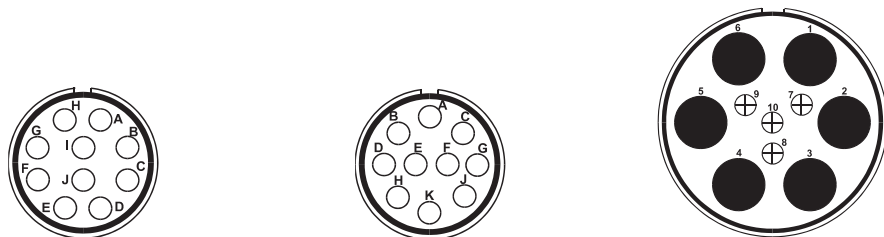


Contact Arrangement	20-A9	20-16	20-18	24-11
No. Contacts x Size AWG (Metric)	9 x #12 (25)	2 x #12 (25)	6x #16 (15) 3 x #12 (25)	6 x #12 (25) 3 x #8 (100)
Service Rating	J = D. Balance = Inst.	A	A	

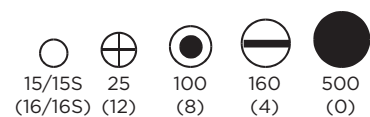


Contact Arrangement	28-A9	28-1	28-T9
No. Contacts x Size AWG (Metric)	4 x #4 (160) 5 x #16 (15)	3 x #8 (100) 6x #12 (25)	5 x #16 (15) 4 x COAX
Service Rating	A		

## 10 Contacts

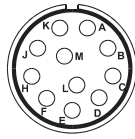


Contact Arrangement	18-1	18-19	49-10
No. Contacts x Size AWG (Metric)	10 x #16 (15)	10 x #16 (15)	4 x #12 (25) 6 x # 0 (500)
Service Rating	B,C,F,G = A. Balance = Inst.	A	D



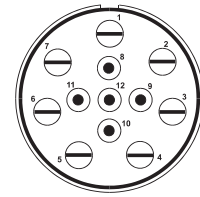
# F80 CONTACT ARRANGEMENTS

## 11 Contacts



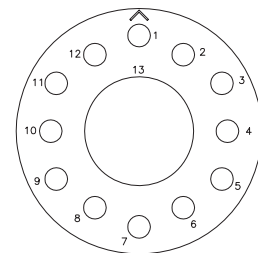
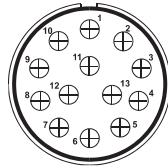
Contact Arrangement	20-33
No. Contacts x Size AWG (Metric)	11 x #16 (15)
Service Rating	A

## 12 Contacts



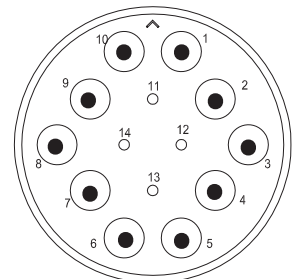
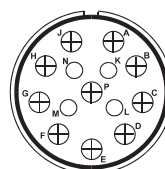
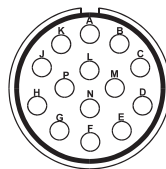
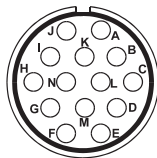
Contact Arrangement	49-A12
No. Contacts x Size AWG (Metric)	5 x #8 (100) 7 x #4 (160)
Service Rating	D

## 13 Contacts

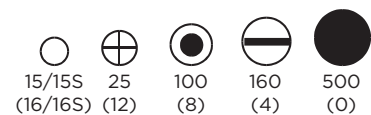


Contact Arrangement	32-A13	20-11	28-C1
No. Contacts x Size AWG (Metric)	13 x #12 (25)	13 x #16 (15)	12 x #16 (15) 1 x COAX
Service Rating	D		

## 14 Contacts

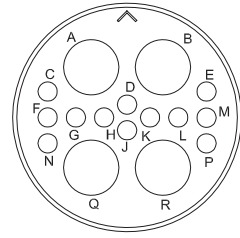
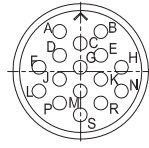
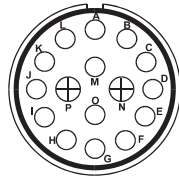


Contact Arrangement	20-27	22-19	28-20	36-D78
No. Contacts x Size AWG (Metric)	14 x #16 (15)	14 x #16 (15)	4 x #16 (15) 10 x #12 (25)	10 x #8 (100) 4 x #16 (15)
Service Rating	A	A	A	



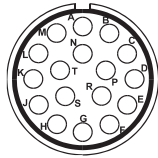
# F80 CONTACT ARRANGEMENTS

## 16 Contacts



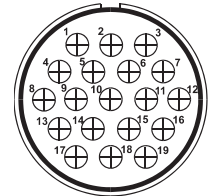
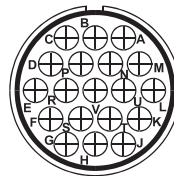
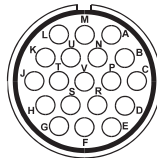
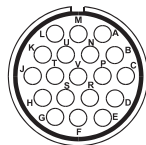
Contact Arrangement	24-7	24-5	32-68
No. Contacts x Size AWG (Metric)	14 x #16 (15) 2 x #12 (25)	16 x #16 (15)	4 x #4 (160) 12 x #16 (15)
Service Rating	A		

## 17 Contacts

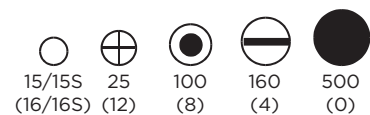


Contact Arrangement	20-29
No. Contacts x Size AWG (Metric)	17 x #16 (15)
Service Rating	A

## 19 Contacts



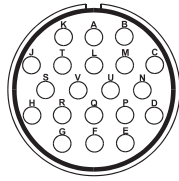
Contact Arrangement	20-A48	22-14	24-67	32-76
No. Contacts x Size AWG (Metric)	19 x #16 (15)	19 x #16 (15)	19 x #12 (25)	19 x #12 (25)
Service Rating	Inst.	A	A	A





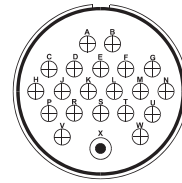
# F80 CONTACT ARRANGEMENTS

## 20 Contacts



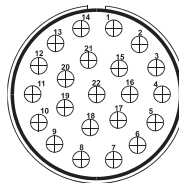
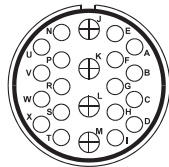
Contact Arrangement	28-16
No. Contacts x Size AWG (Metric)	20 x #16 (15)
Service Rating	A

## 21 Contacts



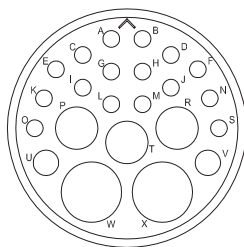
Contact Arrangement	40-D21
No. Contacts x Size AWG (Metric)	20 x #12 (25) 1 x #8 (100)
Service Rating	D

## 22 Contacts



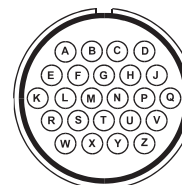
Contact Arrangement	28-11	36-A22
No. Contacts x Size AWG (Metric)	18 x # 16 (15) 4 x # 12 (25)	22 x # 12 (25)
Service Rating	A	

## 23 Contacts

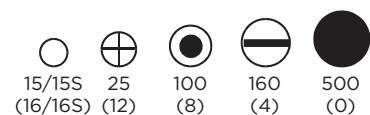


Contact Arrangement	32-6
No. Contacts x Size AWG (Metric)	2 x #4 (160) 3 x #8 (100) 2 x #12 (25) 16 x #16 (15)

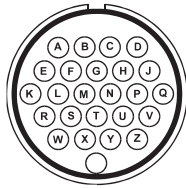
## 24 Contacts



Contact Arrangement	24-28
No. Contacts x Size AWG (Metric)	24 x #16 (15)
Service Rating	Inst.

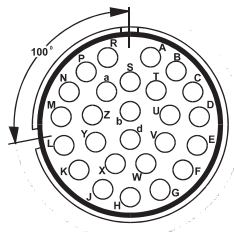
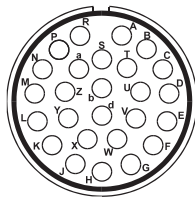


## 25 Contacts



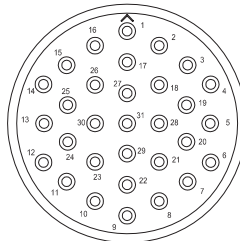
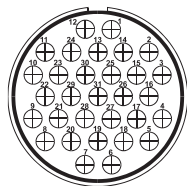
Contact Arrangement	24-A25
No. Contacts x Size AWG (Metric)	25 x #16 (15)
Service Rating	A

## 26 Contacts

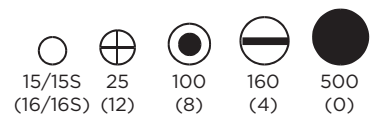


Contact Arrangement	28-12	28-13
No. Contacts x Size AWG (Metric)	26 x #16 (15)	28-12 Rotated by 100° 26 x #16 (15)
Service Rating	A	A

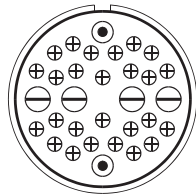
## 31 Contacts



Contact Arrangement	40-A31	32-31
No. Contacts x Size AWG (Metric)	31 x #12 (25)	31 x #16 (15)
Service Rating	D	

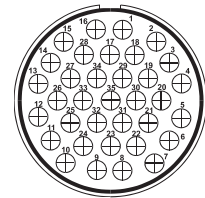
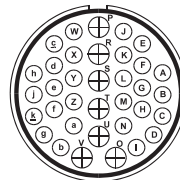


## 32 Contacts



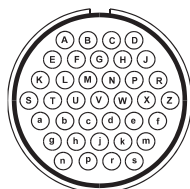
Contact Arrangement	49-D32
No. Contacts x Size AWG (Metric)	26 x #12 (25) 2 x #8 (100) 4 x Coax
Service Rating	D

## 35 Contacts

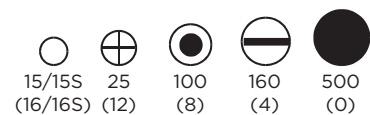


Contact Arrangement	28-15	32-7	40-A35
No. Contacts x Size AWG (Metric)	35 x #16 (15)	28 x #16 (15) 7 x #12 (25)	35 x #12 (25)
Service Rating	A	A,B,H & J = Inst. Balance = A	D

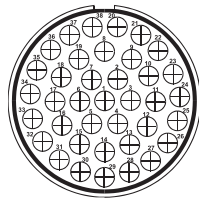
## 37 Contacts



Contact Arrangement	28-21
No. Contacts x Size AWG (Metric)	37 x #16 (15)
Service Rating	A

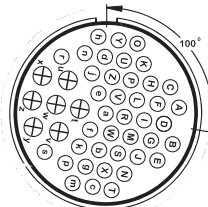
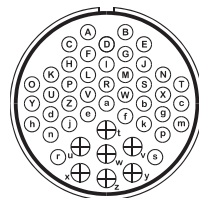


## 38 Contacts

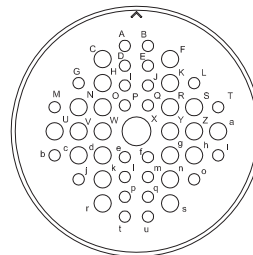
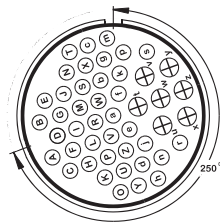


Contact Arrangement	40-A38
No. Contacts x Size AWG (Metric)	38 x #12 (25)
Service Rating	A

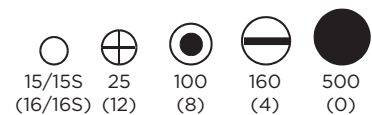
## 47 Contacts



Contact Arrangement	36-7	36-16
No. Contacts x Size AWG (Metric)	40 x #16 (15) 7 x #12 (25)	36-7 Rotated by 100°
Service Rating	A	A

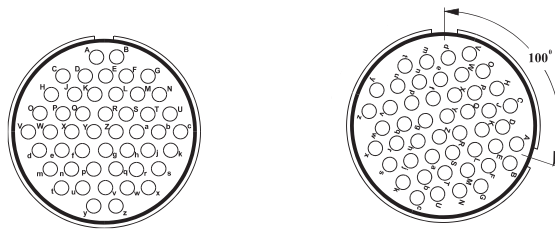


Contact Arrangement	36-17	40-9
No. Contacts x Size AWG (Metric)	36-7 Rotated by 250°	1 x #8 (100) 22 x #12 (25) 24 x #16 (15)
Service Rating	A	

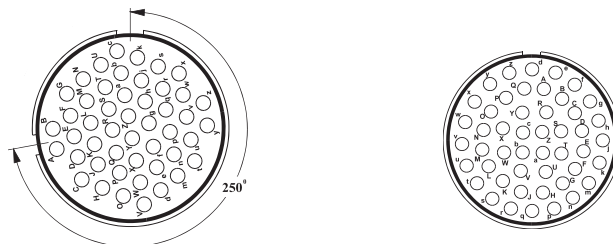


# F80 CONTACT ARRANGEMENTS

## 48 Contacts



Contact Arrangement	36-10	36-11
No. Contacts x Size AWG (Metric)	48 x #16 (15)	36-10 Rotated by 100°
Service Rating	A	A

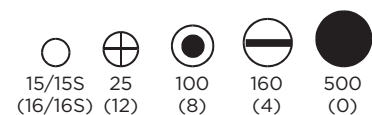


Contact Arrangement	36-12	36-A48
No. Contacts x Size AWG (Metric)	36-10 Rotated by 250°	48 x # 16 (15)
Service Rating	A	Inst.

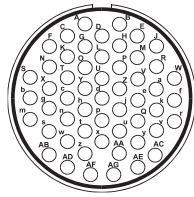
## 49 Contacts



Contact Arrangement	49-A49	49-D1
No. Contacts x Size AWG (Metric)	38 x #16 (15), 4 x #12 (25) 5 x #8 (100), 2 x #4 (160)	44 x #16 (15) 5 x #4 (160)
Service Rating	D	D

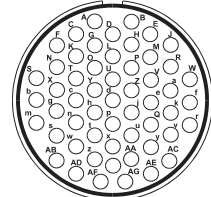


## 54 Contacts



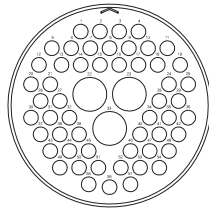
Contact Arrangement	32-22
No. Contacts x Size AWG (Metric)	54 x #16 (15)
Service Rating	A

## 55 Contacts



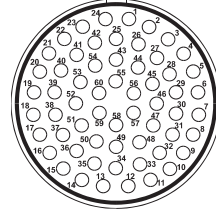
Contact Arrangement	32-A55
No. Contacts x Size AWG (Metric)	55 x #16 (15)

## 57 Contacts



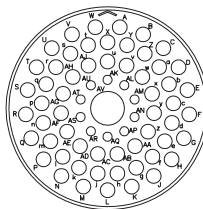
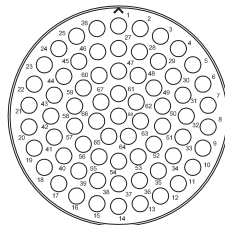
Contact Arrangement	49-A57
No. Contacts x Size AWG (Metric)	54 x #12 (25) 3 x Coax

## 60 Contacts

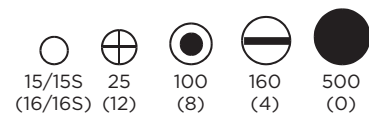


Contact Arrangement	40-A60
No. Contacts x Size AWG (Metric)	60 x #16 (15)
Service Rating	A

## 68 Contacts

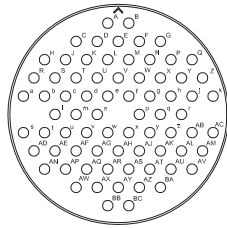


Contact Arrangement	49-A68	49-D68
No. Contacts x Size AWG (Metric)	68 x #12 (25)	57 x #12 (25) 10 x #16 (15) 1 x Coax



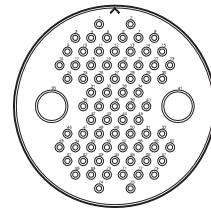
# F80 CONTACT ARRANGEMENTS

## 74 Contacts



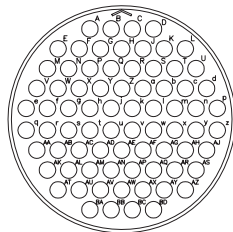
Contact Arrangement	49-74
No. Contacts x Size AWG (Metric)	74 x # 16 (15)

## 75 Contacts



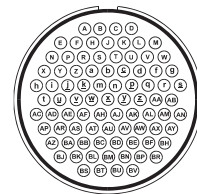
Contact Arrangement	49-D75
No. Contacts x Size AWG (Metric)	73 x # 16 (15) 2 x Coax

## 76 Contacts



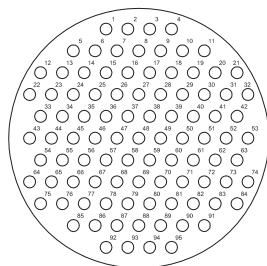
Contact Arrangement	49-A76
No. Contacts x Size AWG (Metric)	76 x # 12 (25)

## 85 Contacts

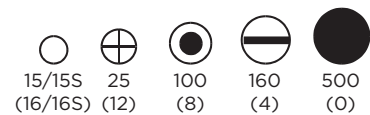


Contact Arrangement	40-56
No. Contacts x Size AWG (Metric)	85 x # 16 (15)
Service Rating	A

## 95 Contacts



Contact Arrangement	49-A95
No. Contacts x Size AWG (Metric)	95 x # 16 (15)



# F80 CONTACT ARRANGEMENTS SELECTION CHART

Contact Size AWG(Metric) & Current Rating (Derated)									
Amps at 85° C									
Shell Size	Cont. Arr.	No. of Cts.	6/16S (15/15S)	12 (25)	8 (100)	4 (160)	0 (500)	Shell Orientation	Service Rating
10SL	3	3	3x10A					N	A
10SL	4	2	2x10A					N	A
14S	1	3	3x10A						
14S	2	4	4x10A						
14S	5	5	5x10A					NX	Inst.
14S	6	6	6x10A					NW	Inst.
14S	7	3	3x10A					NWXY	A
14S	A7	7	7x10A						
14S	9	2	2x10A					NWXYZ	A
16S	1	7	7x10A					NWZ	A
16S	5	3	3x10A					NWXYZ	A
16S	8	5	5x10A					NWY	A
16	10	3		3x20A				NWXY	A
18	1	10	10x10A					NWXYZ	*A&Inst
18	3	2		2x20A				NWXYZ	D
18	4	4	4x10A						
18	9	7	5x10A	2x20A					
18	11	5		5x20A				NXY	A
18	12	6	6x10A					NWZ	A
18	19	10	10x10A					NXY	A
18	22	3	3x10A					NXY	A
20	3	3		3x20A				NWXYZ	D
20	4	4		4x20A				NWXY	D
20	7	8	8x10A					NWXYZ	*A&D
20	8	6	4x10A	2x20A					
20	A9	9		9x20A				NXY	*D&Inst
20	11	13	13x10A					NWZ	A
20	14	5		3x20A	2x42A				
20	15	7		7x20A				NWZ	A
20	16	9	7x10A	2x20A				NWXYZ	A
20	18	9	6x10A	3x20A				NWXYZ	A
20	19	3			3x42A				
20	23	2			2x42A				
20	27	14	14x10A					NWXYZ	A
20	29	17	17x10A					NWZ	A
20	33	11	11x10A					NZ	A
20	A48	19	19x10A					NXY	Inst
22	1	2			2x42A				
22	2	3			3x42A			NWXYZ	D
22	7	1					1x135A		
22	14	19	19x10A					NWXYZ	A
22	18	8	8x10A					NWXYZ	*A&D
22	19	14	14x10A					NWXY	A
22	22	4			4x42A				
22	23	8		8x20A				NWY	*A&D
24	2	7		7x20A				NWZ	D
24	5	16	16x10A						
24	7	16	14x10A	2x20A				NWXYZ	A
24	9	2				2x75A			
24	10	7			7x42A			NWZ	A
24	11	9		6x20A	3x42A			NWXYZ	A
24	12	5		3x20A		2x75A			
24	22	4			4x42A			NWXY	D
24	A25	25	25x10A					NWXYZ	A
24	27	7	7x10A					NWZ	E
24	28	24	24x10A					NWXYZ	Inst.
24	67	19		19x20A				NWXYZ	A

**\*Contact Arrangements/Service Ratings**

- |                                     |                 |
|-------------------------------------|-----------------|
| <b>18-1</b> Contacts B,C,F,G = A.   | Balance = Inst. |
| <b>20-7</b> Contacts C,D,E,F = A    | Balance = D     |
| <b>22-23</b> Contact H = D          | Balance = A     |
| <b>20-A9</b> Contact J = D          | Balance = Inst. |
| <b>22-18</b> Contacts A,B,F,G,H = D | Balance = A     |



# F80 CONTACT ARRANGEMENTS SELECTION CHART

Contact Size AWG(Metric) & Current Rating (Derated) Amps at 85° C									
Shell Size	Cont. Arr.	No. of Cts.	6/16S (15/15S)	12 (25)	8 (100)	4 (160)	0 (500)	Shell Orientation	Service Rating
28	1	9		6x20A	3x42A				
28	C1	13	12x10A						
28	T2	2							
28	3	3			3x42A				
28	6	3				3x75A			
28	8	8	6x10A			2x75A			
28	T9	9	5x10A						
28	10	7		3x20A	2x42A	2x75A			
28	11	22	18x10A	4x20A				NWXYZ	A
28	12	26	26x10A					NWXY	A
28	13	26	26x10A					-	A
28	15	35	35x10A					NWXYZ	A
28	16	20	20x10A					NWXYZ	A
28	20	14	4x10A	10x20A				NWXYZ	A
28	21	37	37x10A					NWXYZ	A
28	22	6	3x10A			3x75A		NWXYZ	D
28	A9	9	5x10A			4x75A		NWXYZ	A
32	5	2					2x135A		
32	6	23	16x10A	2x20A	3x42A	2x75A			
32	7	35	28x10A	7x20A				NWXYZ	*A&Inst
32	A13	13		13x20A				NWXYZ	D
32	17	4				4x75A		NWXY	D
32	C17	4							
32	22	54	54x10A					NWXYZ	A
32	31	31	31x10A						
32	A55	55	55x10A					NWXYZ	A
32	68	16	12x10A			4x75A			
32	76	19		19x20A				NWXYZ	A
36	5	4					4x135A	NXY	A
36	7	47	40x10A	7x20A			4x135A	NWXYZ	A
36	10	48	48x10A					NWXYZ	A
36	11	48	48x10A					-	A
36	12	48	48x10A					-	A
36	16	47	40x10A	7x20A				-	A
36	17	47	40x10A	7x20A				-	A
36	A22	22		22x20A				NWXYZ	D
36	A48	48	48x10A					NW	Inst
36	54	39	31x10A	8x42A				NW	A
36	D68	14	4x10A		10x42A				
36	D78	14	4x10A		10x42A				
40	56	85	85x10A					NWXYZ	A
40	A5	5					5x135A	NWZ	A
40	D6	6	3x10A				3x135A		
40	9	47	24x10A	22x20A	1x42A				
40	D21	21		20x20A	1x42A			NW	D
40	A31	31		31x20A				NWXYZ	D
40	A35	35		35x20A				NWXYZ	D
40	A38	38		38x20A				NWXYZ	A
40	A60	60	60x10A					NWXYZ	A
40	E4	4					4x135A	NWX	E
49	D1	49	44x10A			5xCoax		NW	D
49	A4	4					4x135A	NW	D
49	D4	4		2x20A					
49	A10	10		4x20A			6x135A	NWX	D
49	A12	12			5x42A	7x75A		NW	D
49	D32	32		26x20A	2x42A	4xCoax		NW	D
49	A49	49	38x10A	4x20A	5x42A	2xCoax		NW	D
49	A57	57		54x20A					
49	A68	68		68x20A					
49	D68	68	10x10A	57x20A					
49	74	74	74x10A						
49	D75	75	73x10A						
49	A76	76		76x20A					
49	A95	95	95x10A						

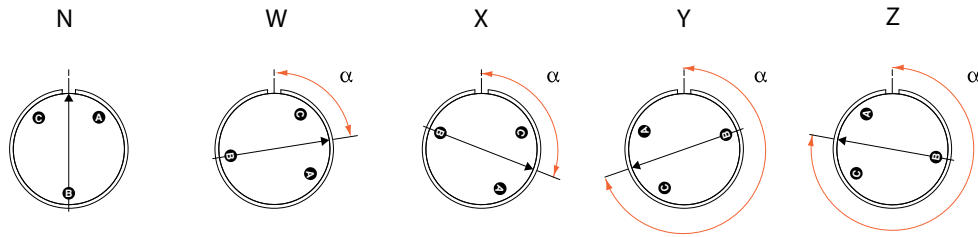
**\*Contact Arrangements/Service Ratings**

32-7 Contacts A,B,H,J = Inst

Balance = A

# ALTERNATIVE INSERT ORIENTATIONS

## View on Mating Face of Pin Inserts



Contact Arrangement	Angular Displacement Of Insert				
	N Yellow	W Blue	X Green	Y Purple	Z White
10SL-3	0				
10S-4	0				
14S-1					
14S-2					
14S-5	0		110		
14S-6	0	90			
14S-7	0	90	180	270	
14S-A7					
14S-9	0	70	145	215	290
16S-1	0	80			280
16S-5	0	70	145	215	290
16S-8	0		170	265	
16-10	0	90	180	270	
18-1	0	70	145	215	290
18-3	0	35	110	250	325
18-4					
18-9					
18-11	0		170	265	
18-12	0	80			280
18-19	0		120	240	
18-22					
20-3	0	70	145	215	290
20-4	0	45	110	250	
20-7	0	80	110	250	280
20-8					
20-A9	0		110	250	
20-11					
20-14					
20-15	0	80			280
20-16	0	80	110	250	280
20-18	0	35	110	250	325
20-19					
20-23					
20-27	0	35	110	250	325
20-29	0	80			280
20-33	0				280
20-A48	0		80	280	
22-1					
22-2	0	70	145	215	290
22-7					
22-14	0	80	110	250	280
22-18	0	80	110	250	280
22-19	0	80	110	250	280
22-22					
22-23	0	35		250	
24-1	0	80			280
24-5					
24-7	0	80	110	250	280
24-9					
24-10	0	80			280
24-11	0	35	110	250	325
24-12					
24-22	0	45	110	250	
24-A25	0	80	110	250	280
24-27	0	80			280
24-28	0	80	110	250	280
24-67	0	80			335