COMPLETE 2M SERIES BY AMPHENOL

Selection table

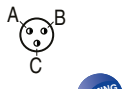
SERIES	2M801	2M805	2M804	2M803
Type	Dual-Start ACME Thread	Tri-Start ACME Thread	Push-Pull	Bayonet
Description	More rugged keys and threads. Faster mating.	"Anti-Decoupling" ratchet mechanism and ground spring for military airframes and avionics boxes. Fast mating	Breakaway connector for headsets and tactical equipment. Gold-plated spring for long mating life and superior EMI shielding.	Quick-mating, light duty, general purpose. Not rated for immersion, 50 milliohms shell-to-shell resistance.
Contacts	1 to 130	1 to 130	1 to 85	1 to 55
Coupling	Threaded Coupling with 1 ½ Turns to Full Mate	Tri-Start Thread	Push-Pull Quick-Disconnect	¼ turn lock Bayonet
Water immersion, mated	MIL-STD-810 Method 512 1 Meter for 1 Hour IPX8	MIL-STD-810 Method 512 1 Meter for 1 Hour IPX8	MIL-STD-810 Method 512 1 Meter for 1 Hour IPX8	Splashproof IPX6
EMI Shielding	Very Good	Excellent	Excellent	Fair
Vibration and shock	43.9 g's Random Vibration, Sine Vibration 60 g; 300 g's Shock	43.9 g's Random Vibration, Sine Vibration 60 g; 300 g's Shock	37 g's Random Vibration; 300 g's Shock	37 g's Random Vibration; 300 g's Shock
Mating cycles	2000 Cycles (-16 Plugs) 500 Cycles (-26 Plugs)	500 Cycles	2000 Cycles	1000 Cycles Aluminum 2000 Cycles Stainless Steel
Electrical performance	#12: 23 AMP, 1800 VAC #16: 13 AMP, 1800 VAC #20: 7.5 AMP, 750 VAC #23: 5 AMP, 500 VAC	#12: 23 AMP, 1800 VAC #16: 13 AMP, 1800 VAC #20: 7.5 AMP, 750 VAC #23: 5 AMP, 500 VAC	#12: 23 AMP, 1800 VAC #16: 13 AMP, 1800 VAC #20: 7.5 AMP, 750 VAC #23: 5 AMP, 500 VAC	#12: 23 AMP, 1800 VAC #16: 13 AMP, 1800 VAC #20: 7.5 AMP, 750 VAC #23: 5 AMP, 500 VAC

Available at Amphenol Aerospace
Please consult us for resales

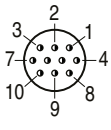
SELECTION OF INSERT ARRANGEMENTS

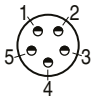
Front face of male insert shown

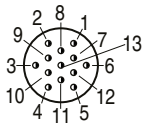
Contact Size	12	16	20HD	23
Caption	◒	⊕	◓	◑

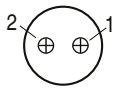


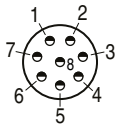
2M801	5-3	6-1	6-23	6-4	6-6	6-7
2M805	NA	8-1	8-23	8-4	8-6	8-7
Nbr of contacts	3	1	3	4	6	7
Contacts sizes	#23	#16	#20HD	#23	#23	#23
DWV Voltage (VAC)	750	1800	1000	750	750	750
Current Rating (Amps)	5	13	7.5	5	5	5

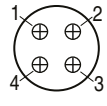




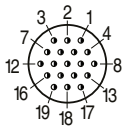


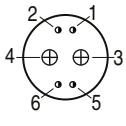


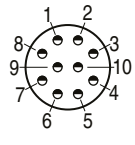




2M801	7-10	7-25	8-13	8-2	8-28	9-4
2M805	9-10	9-25	10-13	10-2	10-28	11-4
Nbr of contacts	10	5	13	2	8	4
Contacts sizes	#23	#20HD	#23	#16	#20HD	#16
DWV Voltage (VAC)	750	1000	750	1800	1000	1800
Current Rating (Amps)	5	7.5	5	13	7.5	13







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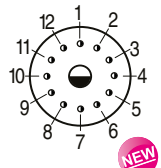

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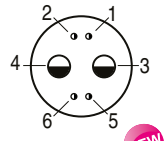
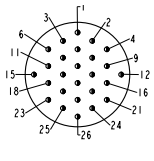
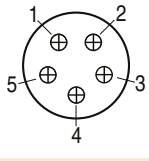
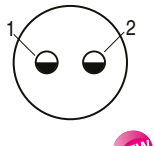


NEW

2M801	9-19	9-200	9-210	10-2	10-200	10-201
2M805	11-19	11-200	11-210	12-2	12-200	12-201
Nbr of contacts	19	2 4	10	2	1 4	2 4
Contacts sizes	#23	#16 #23	#20HD	#12	#12 #23	#12 #23
DWV Voltage (VAC)	750	1800 750	1000	1800	1800 750	1800 750
Current Rating (Amps)	5	5 13	7,5	13	23 5	23 5







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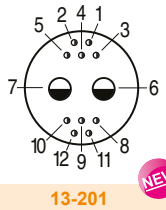

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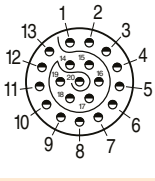


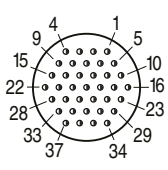
2M801	10-26	10-5	13-2	13-201	13-220
2M805	12-26	12-5	15-2	15-201	15-220
Nbr of contacts	26	5	2	2 10	20
Contacts sizes	#23	#16	#12	#12 #23	#20HD
DWV Voltage (VAC)	750	1800	1800	1800 750	1000
Current Rating (Amps)	5	13	23	23 5	7.5

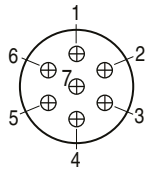
All dimensions are given for information only and are in mm

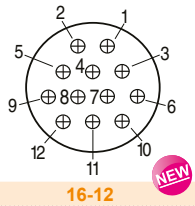
SELECTION OF INSERT ARRANGEMENTS

Front face of male insert shown

Contact Size	12	16	20HD	23
Caption	◒	⊕	◓	◑







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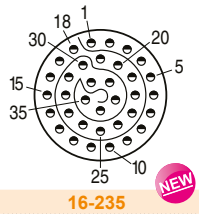
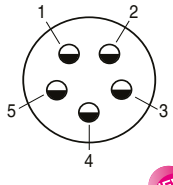


NEW

2M801	13-37	13-7	16-12	16-235
2M805	15-37	15-7	18-12	18-235
Nbr of contacts	37	7	12	35
Contacts sizes	#23	#16	#16	#20HD
DWV Voltage (VAC)	750	1800	1800	1000
Current Rating (Amps)	5	13	13	5



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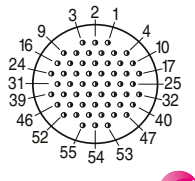

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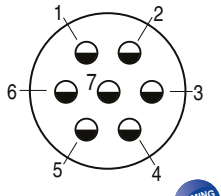
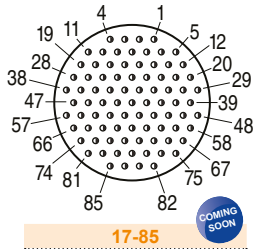
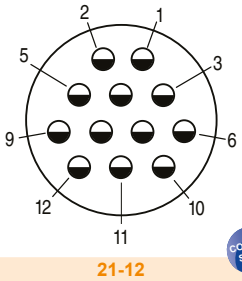


COMING SOON

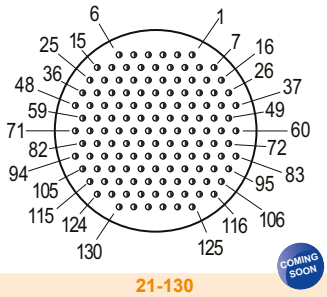


COMING SOON

2M801	16-5	16-55	17-7	17-85
2M805	18-5	18-55	19-7	19-85
Nbr of contacts	5	55	7	85
Contacts sizes	#12	#23	#12	#23
DWV Voltage (VAC)	1800	750	1800	750
Current Rating (Amps)	23	5	23	5



COMING SOON



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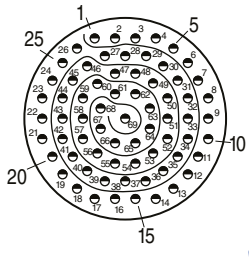


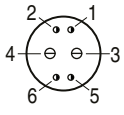
COMING SOON

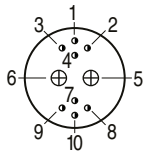
2M801	21-12	21-130	21-269
2M805	23-12	23-130	21-269
Nbr of contacts	12	130	69
Contacts sizes	#12	#23	#20HD
DWV Voltage (VAC)	1800	750	750
Current Rating (Amps)	23	5	7.5

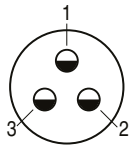
All dimensions are given for information only and are in mm

SELECTION OF INSERT ARRANGEMENTS

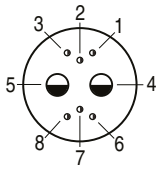
Not tooled insert arrangements (contact us for availability)

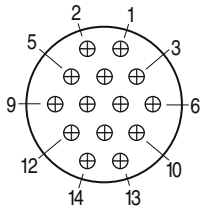


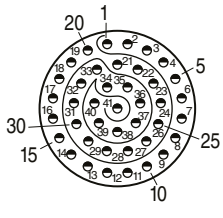


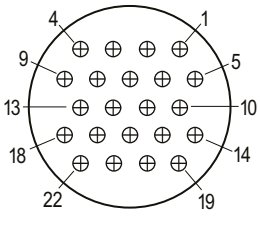


2M801	7-1	8-200		10-202		13-3
2M805	9-1	10-200		12-202		15-3
Nbr of contacts	1	2	4	2	8	3
Contacts sizes	#12	#20	#23	#16	#23	#12
DWV Voltage (VAC)	1800	1000	750	1800	750	1800
Current Rating (Amps)	23	7	5	13	5	23









2M801	13-200		17-14	17-241	21-22
2M805	15-200		19-14	19-241	23-22
Nbr of contacts	2	6	14	41	22
Contacts sizes	#12	#23	#16	#20HD	#16
DWV Voltage (VAC)	1800	750	1800	750	1800
Current Rating (Amps)	23	5	13	7.5	13

All dimensions are given for information only and are in mm

SELECTION OF INSERT ARRANGEMENTS

Insert arrangements table

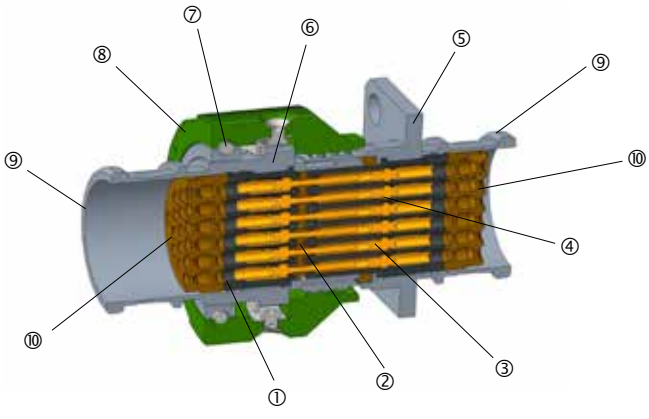
Inserts Arrangements		Contact Quantity				Dielectric withstanding voltage (VAC)	Current rating
2M801	2M805	#23	#20HD	#16	#12		
5-3	-	3				750 VAC	5 A
6-4	8-4	4					
6-6	8-6	6					
6-7	8-7	7					
7-10	9-10	10					
8-13	10-13	13					
9-19	11-19	19					
10-26	12-26	26					
13-37	15-37	37					
16-55	18-55	55					
17-85	19-85	85					
21-130	23-130	130					
6-23	8-23		3			100 VAC	7,5 A
7-25	9-25		5				
8-28	10-28		8				
9-210	11-210		10				
13-220	15-220		20				
16-235	18-235		35				
17-241	19-241		41				
21-269	23-269		69				
6-1	8-1			1		1800 VAC	13 A
8-2	10-2			2			
9-4	11-4			4			
10-5	12-5			5			
13-7	15-7			7			
16-12	18-12			12			
17-14	19-14			14			
21-22	23-22			22			
10-2	12-2				2	1800 VAC	23 A
13-2	15-2				2		
16-5	18-5				5		
7-1	9-1				1		
13-3	15-3				3		
17-7	19-7				7		
21-12	23-12				12		
9-200	11-200	4		2		Insert arrangements with mixed size (combo) layouts Consult insert tables page 16 to 19	
10-201	12-201	4			2		
13-201	15-201	23			2		
8-200	10-200	4					
10-202	12-202	8		2			
13-200	15-200	6			2		
10-200	12-200	12			0		

All dimensions are given for information only and are in mm

GENERAL INFORMATION

Description

- Heavy Dual-Start ACME Thread
- Most durable of the 2M series
- Up to 2,000 mating cycles
- Ratcheting Anti-Decoupling Plug



① Pin insert
② Interfacial seal
③ Socket insert
④ Contact retention clip
⑤ Receptacle shell
⑥ Plug shell
⑦ Torlon rod
⑧ Coupling nut
⑨ Integrated Backshell
⑩ Grommet

MATERIALS AND FINISHES	
Shells	Aluminum Alloy
Shell finish	- Electroless Nickel ✓ - Olive Drab Cadmium - Black Zinc Nickel ✓ - Durmalon (Ni-PTFE) ✓
Contacts	Copper Alloy, gold plated
Insulators	Polyphenylene sulfide (PPS)
Contact retention	Beryllium Copper Alloy
Grommet, Interfacial Seal, O-Ring	Fluorosilicone rubber

✓ : RoHS compliant

2M801 vs MIL-DTL-38999		
Specification	**2M801**	**MIL-DTL-38999**
Signal Count	1 to 130	1 to 187
Insulation Resistance (MΩ)	5 000	5 000
Operating Temperature	-65°C to +150°C	-65°C to +175°C / 200°C
Shock	300 G ± 15	300 G ± 15
Vibration	« 43.9 G Random 60.0 G Sine »	« 43.9 G Random 60.0 G Sine »
Shielding Effectiveness	« 55 dB min. from 100 MHz to 1000 MHz »	« 50 dB min. from 100 MHz to 1000 MHz »
Durability	500 mating cycles min	500 mating cycles min
Shell to Shell Conductivity	2.5 mV drop max	2.5 mV drop max
Contacts	Per AS39029	Per AS39029

All dimensions are given for information only and are in mm, except as otherwise specified | *in mm: 1mm=0.03937 inch

HOW TO ORDER - 2M801 DUAL-START

1.	2.	3.	4.	5.	6.	7.
Series	Connector type	Shell type	Service Class	Shell size & arrangement	Contacts	Keying
2M801	-007	-26	M	6-1	P	A

1. Series

2M801	2M801 Dual-start

2. Connector type

-007	Crimp	Plug	Integrated backshell
-009		Receptacle	
-011	Straight PCB	Receptacle	Epoxy potting
-017			Epoxy potting, open face immersion

3. Shell type

-26	Plug	Self-Locking Ratchet
-02	Receptacle	Square Flange
-07		Jam Nut

4. Service class

M	Electroless Nickel ✓
NF	Olive Drab Cadmium
ZNU	Black Zinc Nickel ✓
MT	Durmalon (Ni-PTFE) ✓

✓ : RoHS compliant

5. Shell Size & Insert arrangement

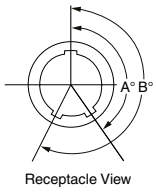
	See tables on page xx (début du catalogue)

6. Contacts

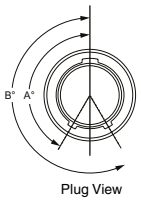
P	Pin
S	Socket
A	Without Pin contacts
B	Without Socket contacts

7. Keying

A	A°	B°
	150°	210°



Receptacle View



Plug View

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2M801 Configurator

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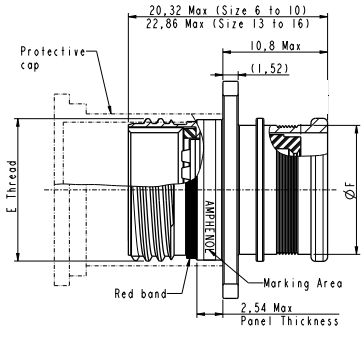
All dimensions are given for information only and are in mm, except as otherwise specified | *in mm: 1mm=0.03937 inch

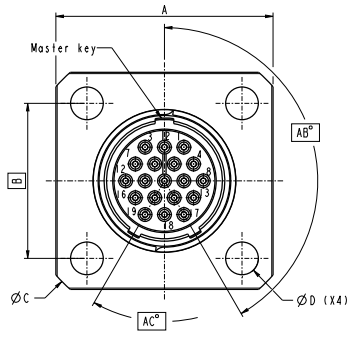
SELECTION OF 2M801 DUAL-START

Overall dimensions

Square flange receptacle with integrated backshell - Crimp version

2M801-009-02

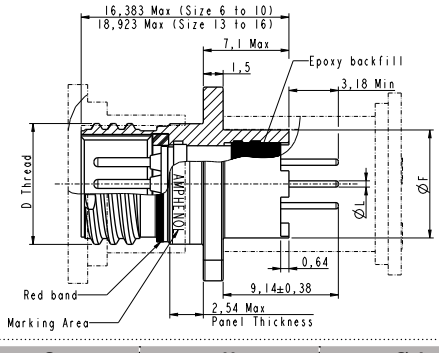


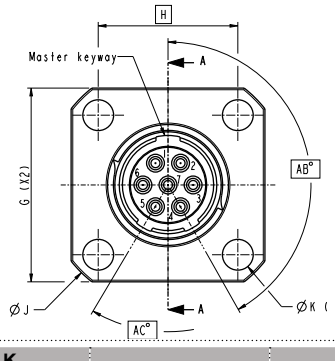


Shell Size	A (mm)	B (mm)	Ø C (mm)	Ø D (mm)	E Thread	Ø F (mm)
5	13,46	9,22	17,27	2,36	.3125-.05P-.1L-2A	6,22
6	14,99	10,74	19,05	2,36	0.3750-.05P-.1L-2A	7,37
7	16,51	12,27	21,59	2,36	0.4375-.05P-.1L-2A	9,91
8	18,08	13,84	23,88	2,36	0.5000-.05P-.1L-2A	11,3
9	21,59	15,42	28,58	3,25	0.5625-.05P-.1L-2A	12,7
10	22,61	17,02	30,23	3,25	0.6250-.05P-.1L-2A	14,22
13	26,16	20,62	34,93	3,25	0.8125-.1P-.2L-2A	16,51
16	30,96	24,92	41,28	3,25	1.0000-.1P-.2L-2A	20,45
17	32,51	26,92	43,18	3,25	1.0625-.1P-.2L-2A	21,59
21	36,32	30,61	49,28	3,25	1.3125-.1P-.2L-2A	28,83

Square Flange receptacle - PCB version

2M801-011-02
2M801-033-02





Shell Size	G (mm)	H (mm)	Ø J (mm)	Ø K (mm)	D Thread	Ø F (mm)	L Dia. Tail
5	13,46	9,22	17,27	2,36	.3125-.05P-.1L-2A	6,22	
6	14,99	10,74	19,05	2,36	0.3750-.05P-.1L-2A	8,38	**#23** 0,46/0,56
7	16,51	12,27	21,59	2,36	0.4375-.05P-.1L-2A	10,97	
8	18,08	13,84	23,88	2,36	0.5000-.05P-.1L-2A	12,52	**#20/20HD** 0,64/0,69
9	21,56	15,42	28,58	3,25	0.5625-.05P-.1L-2A	14	
10	22,61	17,02	30,23	3,25	0.6250-.05P-.1L-2A	15,75	**#16** 1,52/1,63
13	26,16	20,62	34,93	3,25	0.8125-.1P-.2L-2A	17,86	
16	30,96	24,92	41,28	3,25	1.0000-.1P-.2L-2A	21,92	**#12** 2,34/2,44
17	32,51	26,92	43,18	3,25	1.0625-.1P-.2L-2A	21,59	
21	36,32	30,61	49,28	3,25	1.3125-.1P-.2L-2A	28,83	

Others shell styles available from Amphenol Aerospace (USA), please consult us for more information.

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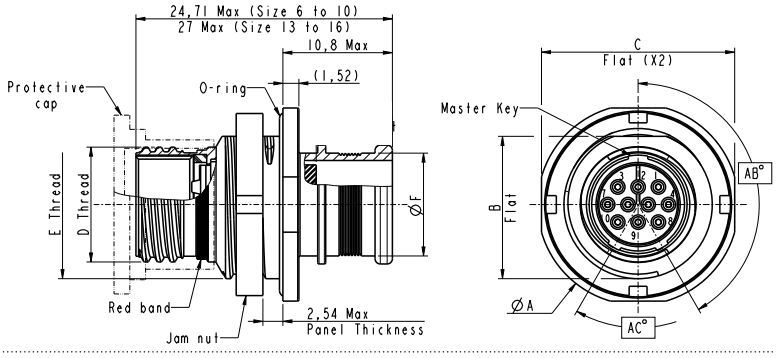
Amphenol SOCAPEX

SELECTION OF 2M801 DUAL-START

Overall dimensions

Jam Nut Receptacle with integrated backshell - Crimp version

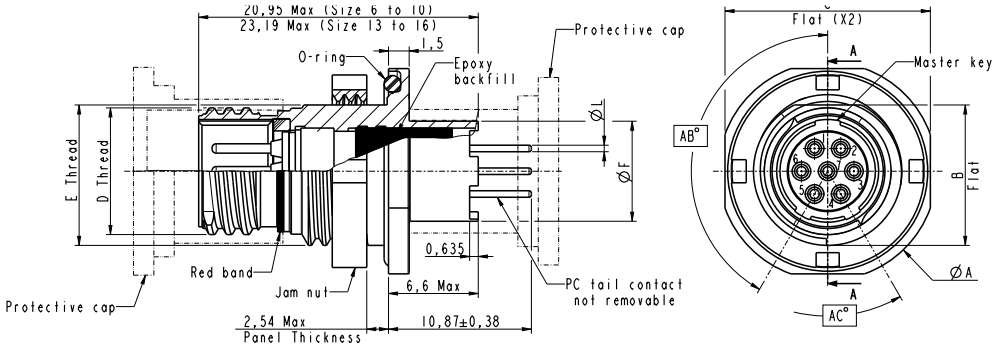
2M801-009-07



Shell Size	Ø A (mm)	B Flat (mm)	C Flat (mm)	D Thread	E Thread	Ø F (mm)
5	14,61	8,89	13,84	.3125-.05P-.1L-2A	.3750-28 UN-2A	6,22
6	16,13	10,41	15,11	0.3750-.05P-.1L-2A	.4375-28 UNEF-2A	7,37
7	19,18	13,61	18,36	0.4375-.05P-.1L-2A	.5625-32 UN-2A	9,91
8	19,18	13,61	18,36	0.5000-.05P-.1L-2A	.5625-32 UN-2A	11,3
9	21,08	15,14	20,07	0.5625-.05P-.1L-2A	.6250-28 UN-2A	12,7
10	22,61	16,71	21,72	0.6250-.05P-.1L-2A	.6875-28 UN-2A	14,22
13	27,38	21,46	26,52	0.8125-.1P-.2L-2A	.8750-28 UN-2A	16,51
16	32,11	25,96	31,24	1.0000-.1P-.2L-2A	1.0625-20 UN-2A	20,45
17	33,66	27,84	32,77	1.0625-.1P-.2L-2A	1.125-28 UN-2A	21,59
21	41,28	34,16	40,06	1.3125-.1P-.2L-2A	1.375-28 UN-2A	28,83

Jam Nut receptacle - PCB version

2M801-011-07
2M801-033-07



Shell Size	Ø A (mm)	B Flat (mm)	C Flat (mm)	D Thread	E Thread	Ø F (mm)	Ø L (mm)
5	14,61	8,89	13,84	.3125-.05P-.1L-2A	.3750-28 UN-2A	6,2	
6	16,13	10,41	15,11	0.3750-.05P-.1L-2A	.4375-28 UNEF-2A	8,38	**#23** 0,46/0,56
7	19,18	13,61	18,36	0.4375-.05P-.1L-2A	.5625-32 UN-2A	10,97	
8	19,18	13,61	18,36	0.5000-.05P-.1L-2A	.5625-32 UN-2A	12,52	**#20/20HD** 0,64/0,69
9	21,08	15,14	20,07	0.5625-.05P-.1L-2A	.6250-28 UN-2A	14	
10	22,61	16,71	21,72	0.6250-.05P-.1L-2A	.6875-28 UN-2A	15,75	**#16** 1,52/1,63
13	27,38	21,46	26,52	0.8125-.1P-.2L-2A	.8750-28 UN-2A	17,86	
16	32,11	25,96	31,24	1.0000-.1P-.2L-2A	1.0625-20 UN-2A	21,92	**#12** 2,34/2,44
17	33,66	27,84	32,77	1.0625-.1P-.2L-2A	1.125-28 UN-2A	23,16	
21	41,28	34,16	40,06	1.3125-.1P-.2L-2A	1.375-28 UN-2A	29,72	

Others shell styles available from Amphenol Aerospace (USA), please consult us for more information.

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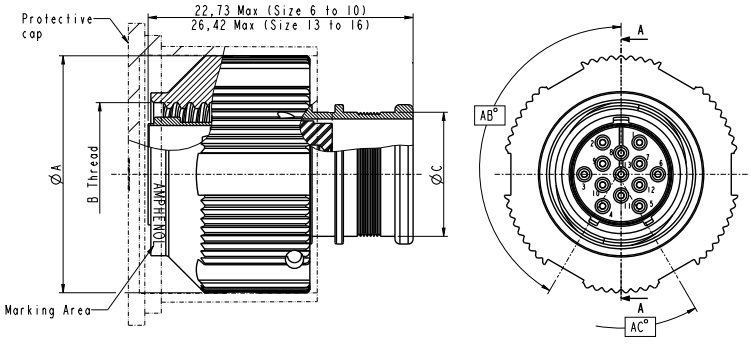
SELECTION OF 2M801 DUAL-START

Overall dimensions

Straight Plug with integrated backshell

2M801-007-26



Shell Size	Ø A (mm)	B (mm)	Ø C (mm)
5	13,84	.3125-.05P-.1L-2B	6,22
6	18,03	0.3750-.05P-.1L-2B	7,37
7	20,07	0.4375-.05P-.1L-2B	9,91
8	21,84	0.5000-.05P-.1L-2B	11,3
9	23,37	0.5625-.05P-.1L-2B	12,7
10	25,02	0.6250-.05P-.1L-2B	14,22
13	29,21	0.8125-.1P-.2L-2B	16,51
16	34,16	1.0000-.1P-.2L-2B	20,45
17	35,56	1.0625-.1P-.2L-2B	21,59
21	42,16	1.3125-.1P-.2L-2B	28,83

Others shell styles available from Amphenol Aerospace (USA), please consult us for more information.

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SELECTION OF 2M801 DUAL-START

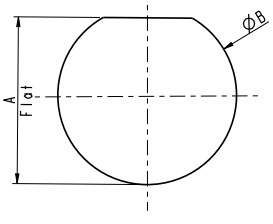
Panel drilling

Jam Nut Receptacle Crimp version:

2M801-009-07

Jam Nut Receptacle PCB version:

2M801-011-07
2M801-033-07



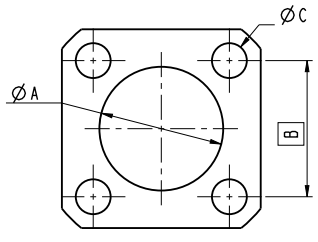
Panel Cutout		
Shell Size	A Flat ± 0,05 (mm)	Ø B ± 0,05 (mm)
6	10,57	11,35
7	13,77	14,53
8	13,77	14,53
9	15,29	16,13
10	16,62	17,70
13	21,62	22,48
16	26,11	27,31
17	27,99	28,83
21	34,39	35,18

Square Flange Receptacle Crimp version:

2M801-009-02

Square Flange Receptacle PCB version:

2M801-033-02
2M801-033-02



Panel Cutout			
Shell Size	Ø A (mm)	B (mm)	Ø C ± 0,08 (mm)
6	9,91	10,74	2,36
7	11,43	12,27	2,36
8	12,95	13,84	2,36
9	14,61	15,42	3,25
10	16,26	17,02	3,25
13	20,96	20,65	3,25
16	25,78	24,92	3,25
17	27,31	26,92	3,25
21	33,66	30,61	3,25

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