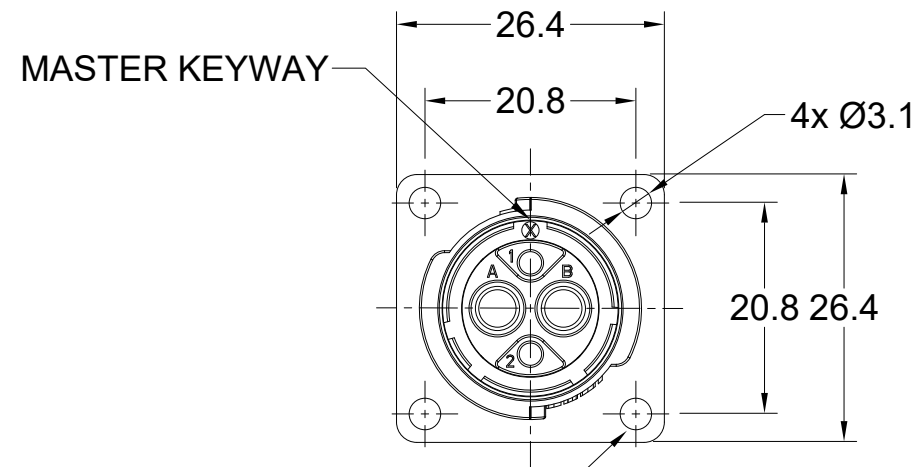
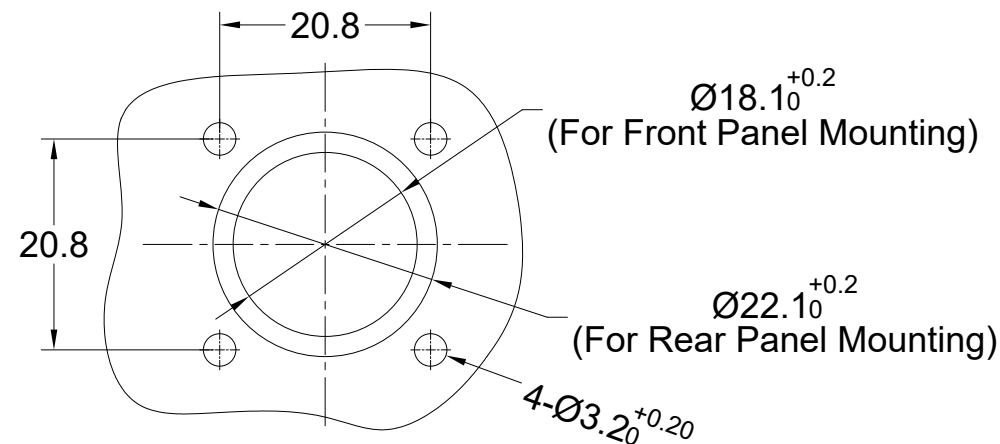
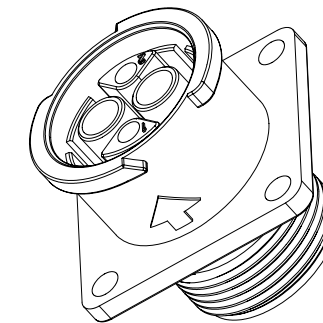
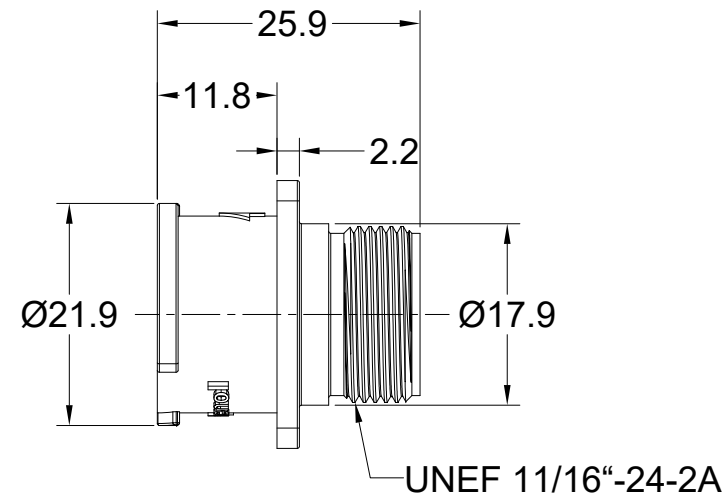


REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	APPR
A1	--	FIRST RELEASED	NOV-23-2021	BLINK	TOMMY
A2	--	ADD IP68	APR-26-2023	JUN	TOMMY
A3	--	UPDATED SUITABLE CONTACT NOTE	MAY-16-2023	RO	RO

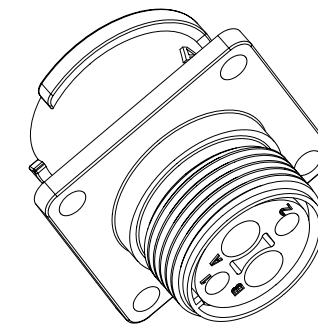


TIGHTEN SCREW M2.5;  
(RECOMMENDED TORQUE:0.3~0.4Nm)



RECOMMENDED PANEL  
MOUNTING HOLE

RECOMMENDED PANEL  
THICKNESS 5.0MM MAX



NOTES: (UNLESS OTHERWISE SPECIFIED)

- MATERIAL:  
SHELL: THERMOPLASTIC, BLACK, UL94 V-0.  
INSERT: THERMOPLASTIC, BLACK, UL94 V-0.
- SPECIFICATIONS:  
2.1 RATED CURRENT: SEE TABLE1.  
2.2 RATED VOLTAGE: SEE TABLE1.  
2.3 OPERATING TEMPERATURE: -40°C~125°C.  
2.4 DIELECTRIC WITHSTANDING VOLTAGE: SEE TABLE1.  
2.5 INSULATION RESISTANCE: 5000 MEGOHMS MIN.  
2.6 IP--CLASS: IP67 ,IP68 AND IP69K IN MATED CONDITION.  
2.7 MATING CYCLES DURABILITY: 500 CYCLES MIN.  
2.8 RoHS COMPLIANT.
- SUITABLE CONTACTS : SEE TABLE1.
- ALL DIMENSIONS ARE FOR REFERENCE USE ONLY.

QUANTITY	PART NUMBER	DESCRIPTION	ITEM														
<b>MATERIALS LIST</b>																	
UNLESS OTHERWISE SPECIFIED 1) All dimensions are in metric(mm). 2) Tolerances are as follows: 1 PL DEC ±0.30 2 PL DEC ±0.15 3 PL DEC ±0.08 Fractions ±1/64 Angles ±1° 3) Note reference =		<table border="1"> <thead> <tr> <th>SIGNATURES</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>DRAWN: JUN</td> <td>APR-26-2023</td> </tr> <tr> <td>CHECKED: JOE</td> <td>APR-28-2023</td> </tr> <tr> <td>ENGINEER:</td> <td></td> </tr> <tr> <td>APPROVAL: TOMMY</td> <td>MAY-02-2023</td> </tr> </tbody> </table>		SIGNATURES	DATE	DRAWN: JUN	APR-26-2023	CHECKED: JOE	APR-28-2023	ENGINEER:		APPROVAL: TOMMY	MAY-02-2023				
SIGNATURES	DATE																
DRAWN: JUN	APR-26-2023																
CHECKED: JOE	APR-28-2023																
ENGINEER:																	
APPROVAL: TOMMY	MAY-02-2023																
MATERIAL SPECIFICATIONS:		<p style="text-align: center;"><b>Amphenol</b></p> <p>Sine Systems - www.amphenol-sine.com 44724 Morley Drive Clinton Township, MI 48036</p>															
PROCESS SPECIFICATIONS:		<p>EcoMate Aquarius,RECEPTACLE, SQUARE FLANGE, xx POSITION, FEMALE,SHELL SIZE 12</p>															
NEXT ASSY:		<table border="1"> <tr> <td>SIZE</td> <td>TYPE</td> <td>DWG NO.</td> <td>REVISION</td> </tr> <tr> <td>B</td> <td>C-</td> <td>FLS012xxxS03</td> <td>A3</td> </tr> </table>	SIZE	TYPE	DWG NO.	REVISION	B	C-	FLS012xxxS03	A3	<table border="1"> <tr> <td>SCALE:</td> <td>SHEET</td> <td>OF</td> </tr> <tr> <td>NONE</td> <td>1</td> <td>4</td> </tr> </table>	SCALE:	SHEET	OF	NONE	1	4
SIZE	TYPE	DWG NO.	REVISION														
B	C-	FLS012xxxS03	A3														
SCALE:	SHEET	OF															
NONE	1	4															

TITLE: EcoMate Aquarius RECEPTACLE, SQUARE FLANGE, xx POSITION, FEMALE, SHELL SIZE 12

DWG NO:

FLS012xxxS03

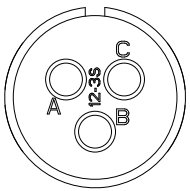
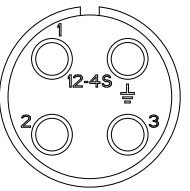
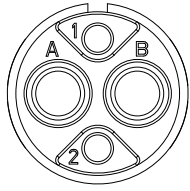
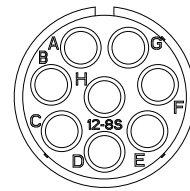
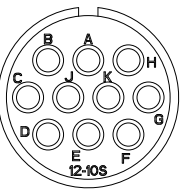
REV: A3

SH: 1

OF: 2

REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	APPR
A1	--	FIRST RELEASED	NOV-23-2021	BLINK	TOMMY
A2		ADD IP68	APR-26-2023	JUN	TOMMY
A3	--	UPDATED SUITABLE CONTACT NOTE	MAY-16-2023	RO	RO

TABLE 1:

PART NUMBER	FLS012x3S03	FLS012x4S03	FLS012x2S03	FLS012x8S03	FLS012x10S03
FEMALE INSERT ARRANGEMENT FRONT VIEW					
SUITABLE CONTACTS	3 x Size 16 (1.5mm <sup>2</sup> )	4 x Size 16 (1.5mm <sup>2</sup> )	2 x Size 20 (0.5mm <sup>2</sup> ) 2 x Size 12 (2.5mm <sup>2</sup> )	8 x Size 16 (1.5mm <sup>2</sup> )	10 x Size 20 (0.5mm <sup>2</sup> )
RATED CURRENT	13A	13A	(2.5mm) 25A-MACHINED CONT. (2.5mm) 23A-STAMPED CONT. (20#)7.5A-MACHINED CONT. (20#)5A-STAMPED CONT.	13A	7.5A-MACHINED CONT. 5A-STAMPED CONT.
RATED VOLTAGE	600V AC/DC	500V AC/DC	500V AC/DC	500V AC/DC	250V AC/DC
DIELECTRIC WITHSTANDING VOLTAGE	2200V AC	2000V AC	2000V AC	2000V AC	1500V AC

TITLE: EcoMate Aquarius,RECEPTACLE, SQUARE FLANGE, xx POSITION, FEMALE,SHELL SIZE 12

DWG NO.:

FLS012xxxxS03

REV: A3

SH: 2

OF: 2

ORDERING INFORMATION:

FLS012xxxxS03

PROTECTION KEY:(SEE TABLE 2):  
N KEY(STANADRD VERSION)  
W KEY  
X KEY  
Y KEY  
Z KEY

STANDS FOR INSERT ARRANGEMENT:  
2 - 4(2+2) CORES.  
3 - 3 CORES.  
4 - 4 CORES.  
8 - 8 CORES.  
10 - 10 CORES.

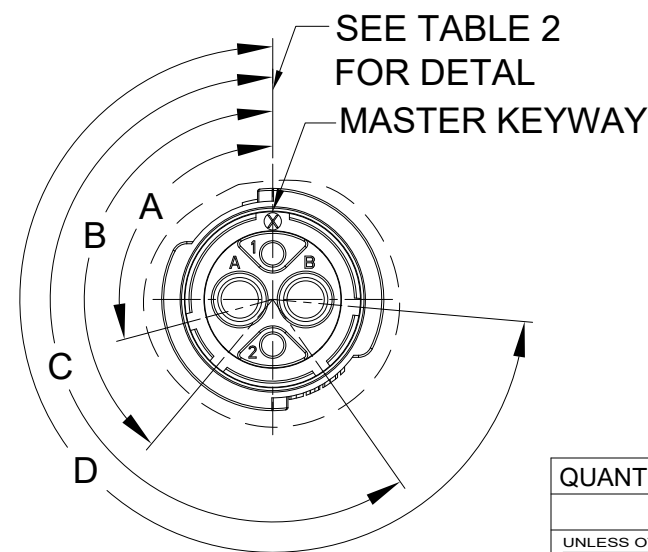



TABLE 2:

KEY POS	A	B	C	D
N	105°	140°	215°	265°
W	60°	140°	215°	265°
X	105°	155°	215°	265°
Y	105°	140°	225°	265°
Z	105°	140°	215°	295°

QUANTITY	PART NUMBER	DESCRIPTION	ITEM
<b>MATERIALS LIST</b>			
UNLESS OTHERWISE SPECIFIED 1) All dimensions are in metric(mm). 2) Tolerances are as follows: 1 PL DEC ±0.30 2 PL DEC ±0.15 3 PL DEC ±0.08 3) Note reference = 		SIGNATURES DRAWN: JUN CHECKED: JOE ENGINEER: APPROVAL: TOMMY	DATE APR-26-2023 APR-28-2023 MAY-02-2023
MATERIAL SPECIFICATIONS:		<b>Amphenol</b>	
PROCESS SPECIFICATIONS:		Sine Systems - www.amphenol-sine.com 44724 Morley Drive Clinton Township, MI 48036	
NEXT ASSY:		EcoMate Aquarius,RECEPTACLE, SQUARE FLANGE, xx POSITION, FEMALE,SHELL SIZE 12	
		THIS DRAWING IS SUPPLIED FOR INFORMATION ONLY. DESIGN FEATURES, SPECIFICATIONS AND PERFORMANCE DATA SHOWN HEREON ARE THE PROPERTY OF THE AMPHENOL CORPORATION. NO RIGHTS OF REPRODUCTION ARE IMPLIED. ALL DIMENSIONS ARE SUBJECT TO NORMAL MANUFACTURING VARIATIONS.	REVISION <b>A3</b>
		SIZE <b>B C-</b>	DWG NO. <b>FLS012xxxxS03</b>
		SCALE <b>NONE</b>	SHEET <b>2</b> OF <b>4</b>

# ecomate® RM/RSSM/Aquarius™ - Contact Size 16 Options

Machined, Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm <sup>2</sup> )	Plating
Male	Female			
MP14M23F	MS14M23F	14AWG	2.0-2.5mm <sup>2</sup>	Gold Flash
MP14M23G5	MS14M23G5	14AWG	2.0-2.5mm <sup>2</sup>	Gold 5μ"
MP14M23G10	MS14M23G10	14AWG	2.0-2.5mm <sup>2</sup>	Gold 10μ"
MP14M23G15	MS14M23G15	14AWG	2.0-2.5mm <sup>2</sup>	Gold 15μ"
MP14M23G30	MS14M23G30	14AWG	2.0-2.5mm <sup>2</sup>	Gold 30μ"
MP16M23F	MS16M23F	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold Flash
MP16M23G5	MS16M23G5	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold 5μ"
MP16M23G10	MS16M23G10	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold 10μ"
MP16M23G15	MS16M23G15	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold 15μ"
MP16M23G30	MS16M23G30	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold 30μ"
MP20M23F	MS20M23F	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold Flash
MP20M23G5	MS20M23G5	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold 5μ"
MP20M23G10	MS20M23G10	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold 10μ"
MP20M23G15	MS20M23G15	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold 15μ"
MP20M23G30	MS20M23G30	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold 30μ"
MP24M23F	MS24M23F	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold Flash
MP24M23G5	MS24M23G5	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold 5μ"
MP24M23G10	MS24M23G10	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold 10μ"
MP24M23G15	MS24M23G15	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold 15μ"
MP24M23G30	MS24M23G30	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold 30μ"

Stamped & Formed, Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm <sup>2</sup> )	Plating
Male	Female			
SP14M2F	SS14M2F	14AWG	2.0-2.5mm <sup>2</sup>	Gold Flash
SP14M2G5	SS14M2G5	14AWG	2.0-2.5mm <sup>2</sup>	Gold 5μ"
SP14M2G10	SS14M2G10	14AWG	2.0-2.5mm <sup>2</sup>	Gold 10μ"
SP14M2G15	SS14M2G15	14AWG	2.0-2.5mm <sup>2</sup>	Gold 15μ"
SP14M2G30	SS14M2G30	14AWG	2.0-2.5mm <sup>2</sup>	Gold 30μ"
SP16M2F	SS16M2F	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold Flash
SP16M2G5	SS16M2G5	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold 5μ"
SP16M2G10	SS16M2G10	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold 10μ"
SP16M2G15	SS16M2G15	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold 15μ"
SP16M2G30	SS16M2G30	18-16AWG	0.75-1.5mm <sup>2</sup>	Gold 30μ"
SP20M2F	SS20M2F	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold Flash
SP20M2G5	SS20M2G5	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold 5μ"
SP20M2G10	SS20M2G10	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold 10μ"
SP20M2G15	SS20M2G15	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold 15μ"
SP20M2G30	SS20M2G30	22-20AWG	0.34-0.50mm <sup>2</sup>	Gold 30μ"
SP24M2F	SS24M2F	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold Flash
SP24M2G5	SS24M2G5	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold 5μ"
SP24M2G10	SS24M2G10	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold 10μ"
SP24M2G15	SS24M2G15	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold 15μ"
SP24M2G30	SS24M2G30	26-24AWG	0.14-0.25mm <sup>2</sup>	Gold 30μ"

Machined, Tooling	
Part Number	Description
QXRT16	Contact Extraction Tool, #16 (Ø 1.6) Contact
MFX-3959	Hand Crimp Tool for Machined Contacts
MFX-3960	Pneumatic Crimp Tool for Machined Contact

Stamped & Formed, Tooling	
Part Number	Description
QXRT16	Contact Extraction Tool, #16 (Ø 1.6) Contact
MFX-3954	Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG
MFX-3957	Crimp Die, Stamped & Formed Contact

Plating Options, All	
Symbol	Plating
T	Tin Plated (for Stamped & Formed Contacts)
S	Silver Plated 5Um (for Machined Contacts)
F	Gold Plated
G5	Gold Plated (Thickness 5μ")
G10	Gold Plated (Thickness 10μ")
G15	Gold Plated (Thickness 15μ")
G30	Gold Plated (Thickness 30μ")

Misc Tooling, All	
Part Number	Description
CA-4020-59	Sealing Plug, Size 16 & 20

Standard Quantity Order Options	
Machined	Bulk Package, 500 Pieces
Stamped & Formed	Reel, 3000 Pieces

# ecomate® RM/RSSM - Contact Size 16, PC Tail Options

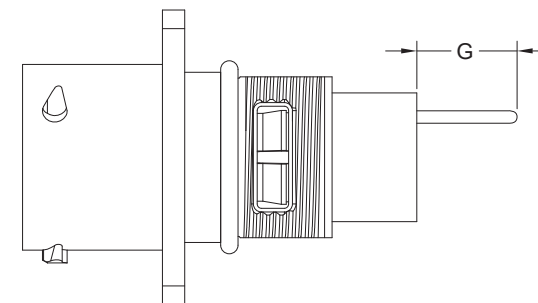
Machined, PC Tail Contacts				
Part Number		Contact Size (AWG)	Description	Plating
Male	Female			
MP16M12E06F	MS16M12E06F	16AWG	Short Version	Gold Flash
MP16M12E06G5	MS16M12E06G5	16AWG	Short Version	Gold 5µ"
MP16M12E06G10	MS16M12E06G10	16AWG	Short Version	Gold 10µ"
MP16M12E06G15	MS16M12E06G15	16AWG	Short Version	Gold 15µ"
MP16M12E06G30	MS16M12E06G30	16AWG	Short Version	Gold 30µ"
MP16M12E09F	MS16M12E09F	16AWG	Long Version	Gold Flash
MP16M12E09G5	MS16M12E09G5	16AWG	Long Version	Gold 5µ"
MP16M12E09G10	MS16M12E09G10	16AWG	Long Version	Gold 10µ"
MP16M12E09G15	MS16M12E09G15	16AWG	Long Version	Gold 15µ"
MP16M12E09G30	MS16M12E09G30	16AWG	Long Version	Gold 30µ"

Stamped & Formed , PC Tail Contacts				
Part Number		Contact Size (AWG)	Description	Plating
Male	Female			
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

PCB Contact Dimensions - Nominal Length G (Size 20 PC Tail dimensions for ecomate® RM and ecomate® RSSM connectors only.)						
Pin Contact						
Shell Size	MP20W12E06xx	MP20W12E09xx	MP16M12E04xx	MP16M12E06xx	MP10B12E05xx	MP10B12E08xx
10	4.0mm	9.5mm	4.0mm	8.0mm	-	-
12	4.0mm	9.5mm	4.0mm	8.0mm	5.0mm	-
14	4.0mm	9.5mm	4.0mm	8.0mm	5.2mm	-
16	4.0mm	9.5mm	4.0mm	8.0mm	-	-
18	-	9.5mm	4.0mm	8.0mm	-	-
20	-	9.5mm	4.0mm	8.0mm	-	-
24	-	-	-	3.9mm	-	-

Socket Contact						
Shell Size	MP20W12E06xx	MP20W12E09xx	MP16M12E04xx	MP16M12E06xx	MP10B12E05xx	MP10B12E08xx
10	3.3mm	8.5mm	2.4mm	3.0mm	-	-
12	3.3mm	8.5mm	2.4mm	3.0mm	-	-
14	3.3mm	8.5mm	2.4mm	3.0mm	-	-
16	3.3mm	8.5mm	2.4mm	3.0mm	-	-
18	--	8.5mm	2.4mm	-	-	-
20	--	8.5mm	2.4mm	-	-	-
24	-	-	-	-	-	-

Standard Quantity Order Options	
Machined	Bulk, 500 Pieces
Stamped & Formed	-



**NOTE:** For ecomate® Aquarius™ PC Tail options, see our ecomate® Aquarius™ PCB Mount Jam Nut Receptacles Flyer online at [www.amphenol-sine.com](http://www.amphenol-sine.com).