

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

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. MATERIAL:

SHELL/COUPLING NUT: THERMOPLASTIC, BLACK, UL94 V-0.

INSERT: THERMOPLASTIC, UL94 V-0.

SPRING: STAINLESS STEEL.

O-RING: SILICONE RUBBER.

END CAP: THERMOPLASTIC, BLACK, UL94 V-0.

PLASTIC RING: THERMOPLASTIC, BLACK, UL94 V-0.

WIRE SEAL: SILICONE RUBBER, RED.

2. SPECIFICATIONS:

2.1 RATED CURRENT: SEE TABLE 2.

2.2 RATED VOLTAGE: SEE TABLE 2.

2.3 OPERATING TEMPERATURE: -40°C~125°C.

2.4 DIELECTRIC WITHSTANDING VOLTAGE: SEE TABLE 1.

2.5 INSULATION RESISTANCE: 5000 MEGOHMS MIN.

2.6 IP--CLASS: IP67, IP68 AND IP69K IN THE MATED CONDITION.

2.7 MATING CYCLES DURABILITY: 500 CYCLES MIN.

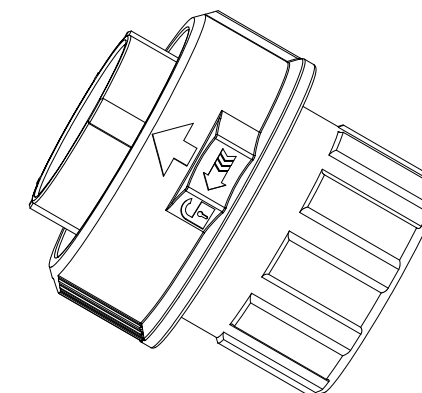
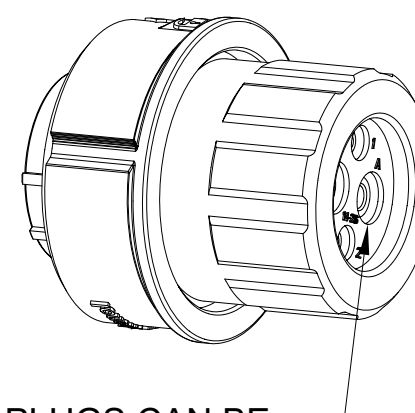
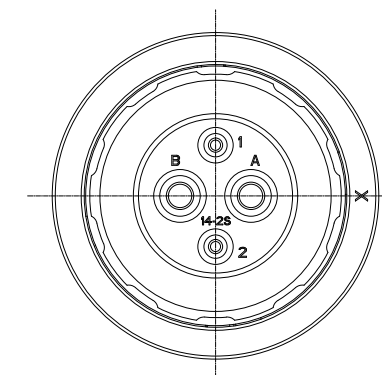
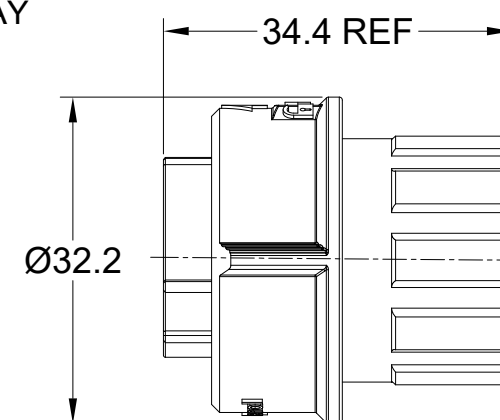
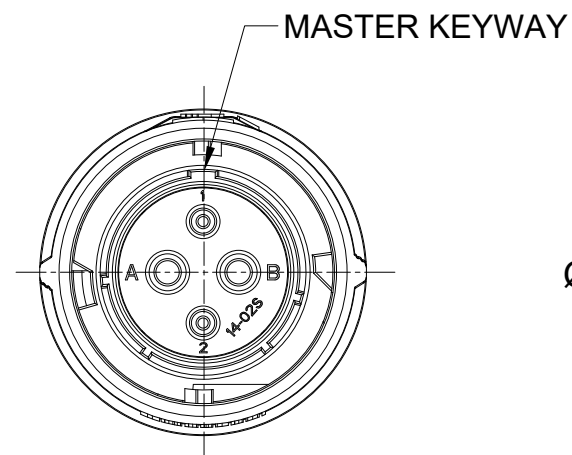
2.8 RoHS COMPLIANT.

3. SUITABLE CONTACTS : SEE TABLE 2.

4. ALL DIMENSIONS ARE FOR REFERENCE USE ONLY.

5. CONTACT SIZE AND REAR SEAL WIRE RANGE:

CONTACT SIZE	MIN. INSUL O.D.	MAX. INSUL O.D.	WIRE RANGE
8#	Ø2.8mm	Ø5.2mm	10 - 12AWG
2.5mm	Ø3.3mm	Ø4.3mm	4mm²&12 - 14AWG
16#	Ø2.0mm	Ø3.2mm	14 - 24AWG
20#	Ø1.4mm	Ø2.1mm	20 - 30AWG



SEALING PLUGS CAN BE PURCHASED SEPARATELY

QUANTITY	PART NUMBER	DESCRIPTION	ITEM
<b>MATERIALS LIST</b>			
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MATERIAL SPECIFICATIONS:		CUSTOMER:	
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NEXT ASSY:		SCALE: NONE	
		SHEET 1 OF 4	

**Amphenol**

Sine Systems - www.amphenol-sine.com  
44724 Morley Drive  
Clinton Township, MI 48036

EcoMate Aquarius, PLUG, xx POSITION,  
FEMALE, SHELL SIZE 14, END CAP.

SIZE: B    TYPE: C-    DWG NO: FLS614xxxSHEC03    REVISION: A3

TITLE: EcoMate Aquarius, PLUG, xx POSITION, FEMALE SHELL, SIZE 14, END CAP  
DWG NO: FLS614xxxSHEC03  
REV: A3  
SH: 1  
OF: 1

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ORDERING INFORMATION:

FLS614xxxSHEC03

PROTECTION KEY:(SEE TABLE 1):  
 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.  
 12 - 12 CORES.  
 19 - 19 CORES.

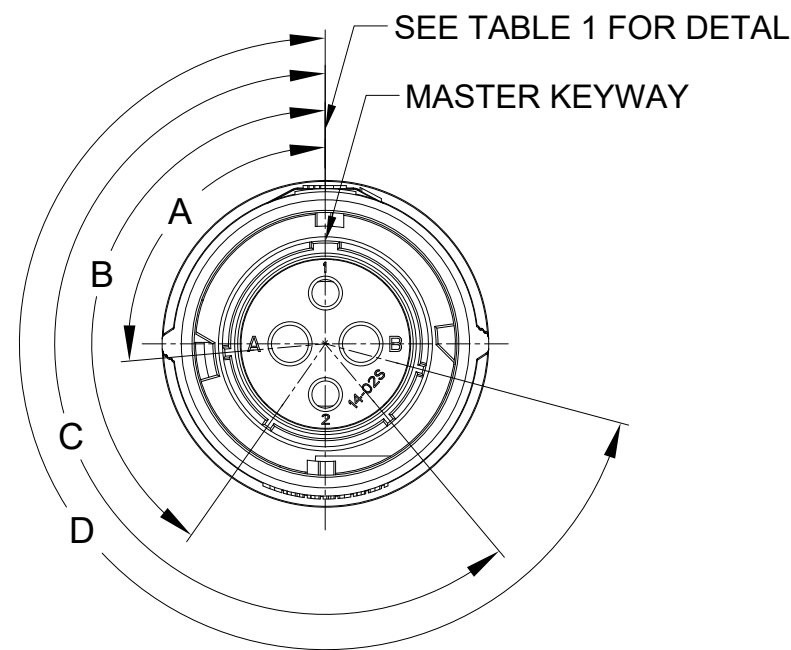


TABLE 1:

KEY POS	A	B	C	D
N	105°	140°	215°	265°
W	60°	140°	215°	265°
X	105°	160°	215°	265°
Y	105°	140°	225°	265°
Z	105°	140°	215°	295°

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		<small>DWG NO.</small> <b>FLS614xxxSHEC03</b>	<small>REVISION</small> <b>A3</b>
		<small>SCALE:</small> <b>NONE</b>	<small>SHEET</small> <b>2</b> <small>OF</small> <b>4</b>

TITLE: EcoMate Aquarius,PLUG,xx POSITION,FEMALE,SHELL SIZE 14, END CAP

DWG NO: FLS614xxxSHEC03

REV: A3

SH: 1

OF: 1

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TABLE 2:

PART NUMBER	FLS614x3SHEC03	FLS614x4SHEC03	FLS614x2SHEC03	FLS614x8SHEC03	FLS614x12SHEC03	FLS614x19SHEC03
FEMALE INSERT ARRANGEMENT FRONT VIEW						
FEMALE INSERT ARRANGEMENT REAR VIEW						
SUITABLE CONTACTS	3 x Size 8 (3.6mm <sup>2</sup> )	4 x Size 12 (2.5mm <sup>2</sup> )	2 x Size 16 (1.5mm <sup>2</sup> ) 2 x Size 12 (2.5mm <sup>2</sup> )	8 x Size 16 (1.5mm <sup>2</sup> )	12 x Size 16 (2.0mm <sup>2</sup> )	20 x Size 14 (1.4mm <sup>2</sup> )
RATED CURRENT	45A	25A-MACHINED CONT. 23A-STAMPED CONT.	(2.5mm) 25A-MACHINED CONT. (2.5mm) 23A-STAMPED CONT. (16#)13A	13A	13A	7.5A-MACHINED CONT. 5A-STAMPED CONT.
RATED VOLTAGE	600V AC/DC	500V 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	2000V AC	1500V AC

TITLE: EcoMate Aquarius, PLUG,xx POSITION, FEMALE SHELL SIZE 14, END CAP  
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B	C-	FLS614xxxSHEC03	A3												
NEXT ASSY:		SCALE: NONE	SHEET 3 OF 4												

# ecomate® RM/RSSM/Aquarius™ - Contact Size 20 Options

Machined, Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm <sup>2</sup> )	Plating
Male	Female			
MP20W23F	MS20W23F	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold Flash
MP20W23G5	MS20W23G5	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold 5μ"
MP20W23G10	MS20W23G10	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold 10μ"
MP20W23G15	MS20W23G15	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold 15μ"
MP20W23G30	MS20W23G30	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold 30μ"
MP24W23F	MS24W23F	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold Flash
MP24W23G5	MS24W23G5	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold 5μ"
MP24W23G10	MS24W23G10	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold 10μ"
MP24W23G15	MS24W23G15	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold 15μ"
MP24W23G30	MS24W23G30	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold 30μ"
MP28W23F	MS28W23F	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold Flash
MP28W23G5	MS28W23G5	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold 5μ"
MP28W23G10	MS28W23G10	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold 10μ"
MP28W23G15	MS28W23G15	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold 15μ"
MP28W23G30	MS28W23G30	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold 30μ"

Stamped & Formed, Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm <sup>2</sup> )	Plating
Male	Female			
SP20W2F	SS20W2F	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold Flash
SP20W2G5	SS20W2G5	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold 5μ"
SP20W2G10	SS20W2G10	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold 10μ"
SP20W2G15	SS20W2G15	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold 15μ"
SP20W2G30	SS20W2G30	22-20AWG	0.34-0.50 mm <sup>2</sup>	Gold 30μ"
SP24W2F	SS24W2F	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold Flash
SP24W2G5	SS24W2G5	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold 5μ"
SP24W2G10	SS24W2G10	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold 10μ"
SP24W2G15	SS24W2G15	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold 15μ"
SP24W2G30	SS24W2G30	26-24AWG	0.14-0.25 mm <sup>2</sup>	Gold 30μ"
SP28W2F	SS28W2F	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold Flash
SP28W2G5	SS28W2G5	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold 5μ"
SP28W2G10	SS28W2G10	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold 10μ"
SP28W2G15	SS28W2G15	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold 15μ"
SP28W2G30	SS28W2G30	30-28AWG	0.05-0.08 mm <sup>2</sup>	Gold 30μ"

Machined, Tooling	
Part Number	Description
QXRT20	Contact Extraction Tool, #20 (Ø 1.0) Contact
MF3-3959	Hand Crimp Tool for Machined Contacts
MF3-3960	Pneumatic Crimp Tool for Machined Contact

Stamped & Formed, Tooling	
Part Number	Description
QXRT20	Contact Extraction Tool, #20 (Ø 1.0) Contact
MF3-3958	Hand Tool, Stamped & Formed Contact, Size 20, 20-28AWG
MF3-3957	Crimp Die for 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