

REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	APPR
A1	--	RELEASED DRAWING	NOV-23-2021	BLINK	TOMMY
A2	--	REVISE ONE TYPO	MAY-25-2022	BLINK	TOMMY
A3	--	ADD IP68	APR-26-2023	JUN	TOMMY
A4	--	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 1.

2.2 RATED VOLTAGE: SEE TABLE 1.

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.

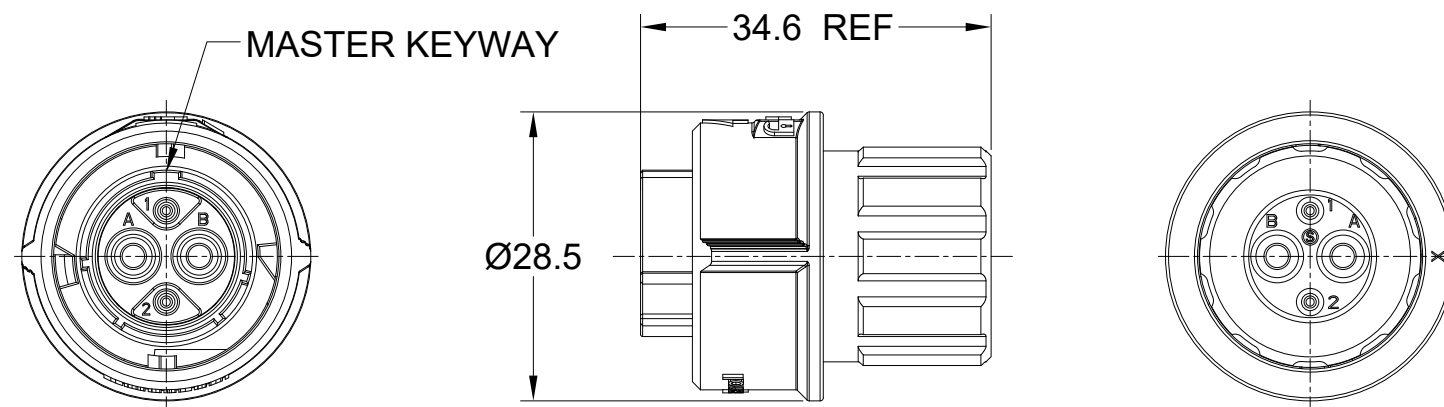
2.8 RoHS COMPLIANT.

3. SUITABLE CONTACTS : SEE TABLE 1.

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
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
----------	-------------	-------------	------

MATERIALS LIST			
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 = \triangle X	SIGNATURES	DATE	Amphenol Sine Systems - www.amphenol-sine.com 44724 Morley Drive Clinton Township, MI 48036
	DRAWN: JUN	APR-26-2023	
	CHECKED: JOE	APR-28-2023	EcoMate Aquarius, PLUG, xx POSITION, FEMALE, SHELL SIZE 12, END CAP.
	ENGINEER:		
	APPROVAL: TOMMY	MAY-02-2023	
MATERIAL SPECIFICATIONS:	CUSTOMER:		
PROCESS SPECIFICATIONS:	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.		
NEXT ASSY:			
	SIZE: B	TYPE: C-	DWG NO: FLS612xxxSHEC03
	SCALE: NONE		REVISION: A4
		SHEET 1	OF 3

TITLE: EcoMate Aquarius, PLUG, xx POSITION, FEMALE, SHELL SIZE 12, END CAP
 DWG NO: FLS612xxxSHEC03
 REV: A4
 SH: 1
 OF: 1

REVISIONS

REV	ECO	DESCRIPTION	DATE	BY	APPR
A1	--	RELEASED DRAWING	NOV-23-2021	BLINK	TOMMY
A2	--	REVISE ONE TYPO	MAY-25-2022	BLINK	TOMMY
A3	--	ADD IP68	APR-26-2023	JUN	TOMMY
A4	--	UPDATED SUITABLE CONTACT NOTE	MAY-16-2023	RO	RO

TABLE 1:

PART NUMBER	FLS612x3SHEC03	FLS612x2SHEC03	FLS612x8SHEC03	FLS612x10SHEC03
FEMALE INSERT ARRANGEMENT FRONT VIEW				
FEMALE INSERT ARRANGEMENT REAR VIEW				
SUITABLE CONTACTS	3 x Size 16 (1.5mm ²)	4 x Size 16 (1.5mm ²)	8 x Size 16 (1.5mm ²)	10 x Size 20 (0.5mm ²)
RATED CURRENT	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	250V AC/DC
DIELECTRIC WITHSTANDING VOLTAGE	2200V AC	2000V AC	2000V AC	1500V AC

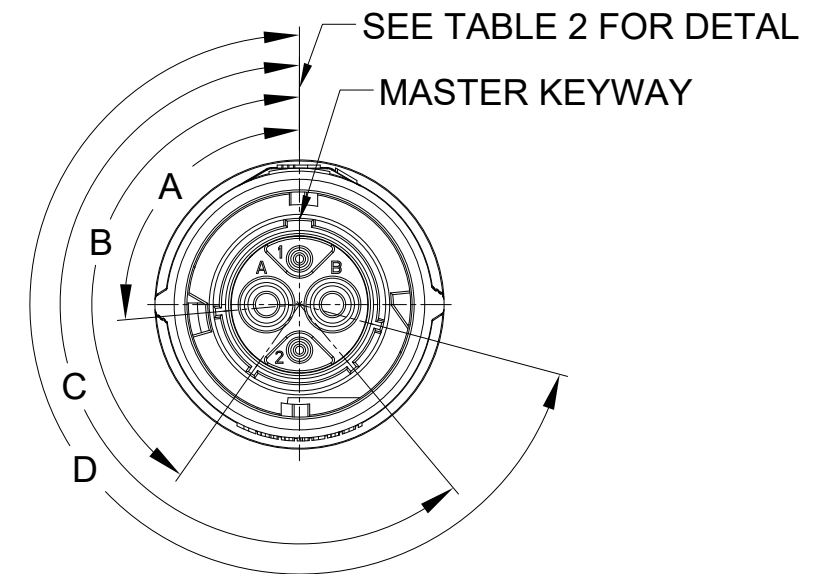


TABLE 2:

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°

ORDERING INFORMATION:

FLS612xxxSHEC03

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.
 8 - 8 CORES.
 10 - 10 CORES.

QUANTITY	PART NUMBER	DESCRIPTION	ITEM
MATERIALS LIST			
UNLESS OTHERWISE SPECIFIED		SIGNATURES DATE	
1) All dimensions are in metric(mm).		DRAWN: JUN	APR-26-2023
2) Tolerances are as follows:		CHECKED: JOE	APR-28-2023
1 PL DEC ±0.30		ENGINEER:	
2 PL DEC ±0.15		APPROVAL: TOMMY	MAY-02-2023
3 PL DEC ±0.08		CUSTOMER:	
3) Note reference =		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.	
MATERIAL SPECIFICATIONS:		SINE SYSTEMS	
PROCESS SPECIFICATIONS:		Sine Systems - www.amphenol-sine.com 44724 Morley Drive Clinton Township, MI 48036	
NEXT ASSY:		EcoMate Aquarius, PLUG, xx POSITION, FEMALE, SHELL SIZE 12, END CAP .	
SIZE	TYPE	DWG NO.	REVISION
B	C-	FLS612xxxSHEC03	A4
SCALE:	NONE	SHEET	2 OF 3

TITLE: EcoMate Aquarius, PLUG, xx POSITION, FEMALE, SHELL SIZE 12, END CAP

DWG NO.: FLS612xxxxSHEC03

REV: A4

SH: 1

OF: 1

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

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

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

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

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