REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	APPR
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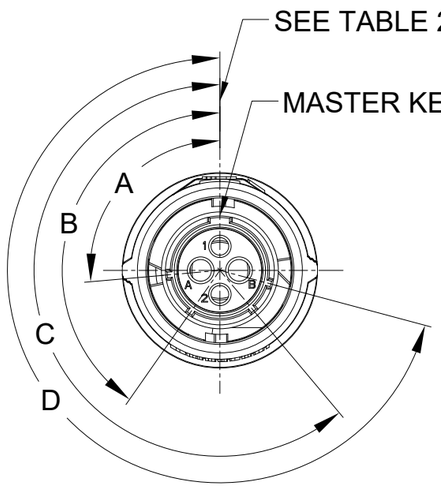
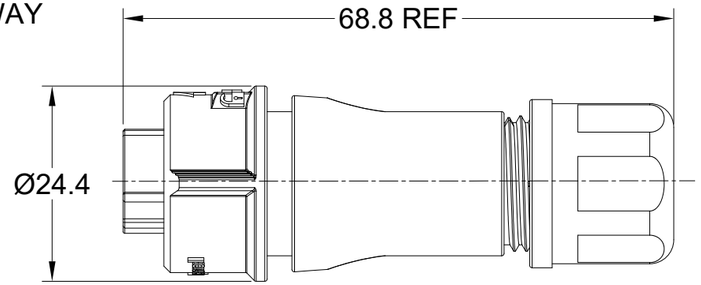
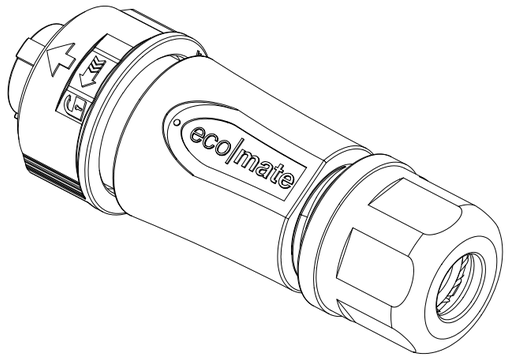
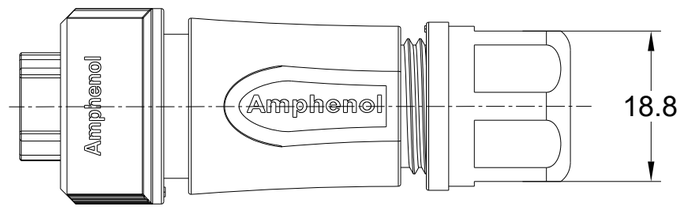
A2	--	UPDATED NOTE 2.6	APR-26-2023	RO	RO

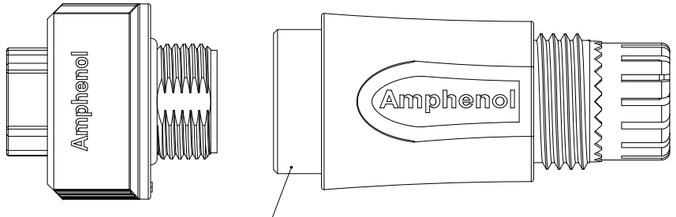












BACK SHELL
(TIGHTENING TORQUE:1.5~1.7Nm)

NUT
(TIGHTENING TORQUE:1.0~1.2Nm)

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. MATERIAL:
   - SHELL/COUPLING NUT: THERMOPLASTIC, BLACK, UL94 V-0.
   - INSERT: THERMOPLASTIC, BLACK, UL94 V-0.
   - SPRING: STAINLESS STEEL.
   - O-RING: SILICONE RUBBER.
   - BACK SHELL/CLAMP NUT: THERMOPLASTIC, BLACK, UL94 V-0.
   - CLAMP RING: THERMOPLASTIC, BLACK, UL94 V-0.
   - CABLE SEAL: EPDM, BLACK.
2. 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 AND IP69K IN MATED CONDITION. IP68, 1.8M (1 FATHOM) FOR A PERIOD OF 1 HOUR IN MATED CONDITION
   - 2.7 MATING CYCLES DURABILITY: 500 CYCLES MIN.
   - 2.8 RoHS COMPLIANT.
3. SUITABLE CONTACTS : SEE TABLE1.
4. ALL DIMENSIONS ARE FOR REFERENCE USE ONLY.

DIMENSION ØA	CABLE OD RANGE
7.0MM	4.0-6.5mm
8.8MM	5.0-8.8mm

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 | Fractions ±1/64
2 PL DEC ±0.15 | Angles ±1°
3 PL DEC ±0.08
3) Note reference = X

MATERIAL SPECIFICATIONS:

PROCESS SPECIFICATIONS:

NEXT ASS'Y:

SIGNATURES		DATE
DRAWN:	BLINK	NOV-23-21
CHECKED:	ORION	NOV-24-21
ENGINEER:		
APPROVAL:	TOMMY	NOV-25-21
CUSTOMER:		

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Amphenol

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

EcoMate Aquarius,PLUG,xx POSITION, FEMALE,SHELL SIZE 10,BACK SHELL.

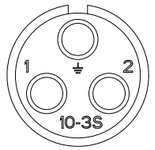
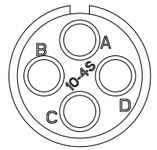
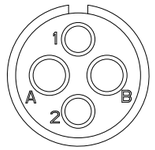
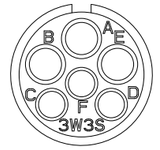
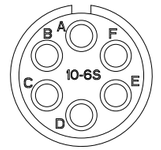
SIZE	TYPE	DWG NO:	REVISION
B	C-	FLS6BS10xxxS03	A2

SCALE: NONE SHEET 1 OF 4

TITLE: EcoMate Aquarius,PLUG,xx POSITION,FEMALESHELL SIZE 10,BACK SHELL.
DWG NO: FLS6BS10xxxS03
REV: A2
SH: 1
OF: 1

REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	APPR
A1	--	RELEASED DRAWING	NOV-23-2021	BLINK	TOMMY
A2	--	UPDATED NOTE 2.6	APR-26-2023	RO	RO

TABLE 1:

PART NUMBER	FLS6BS10x3S03	FLS6BS10x4S03	FLS6BS10x2S03	FLS6BS10x3W3S03	FLS6BS10x6S03
FEMALE INSERT ARRANGEMENT FRONT VIEW					
SUITABLE CONTACTS	3 x Size 16 (1.5mm²)	4 x Size 16 (1.5mm²)	2 x Size 16 (1.5mm²) 2 x Size 20 (0.5mm²)	3 x Size 16 (1.5mm²) 3 x Size 20 (0.5mm²)	6 x Size 20 (0.5mm²)
RATED CURRENT	13A	13A	(16#)13A (20#)7.5A-MACHINED CONT. (20#)5A-STAMPED CONT.	(16#)13A (20#)7.5A-MACHINED CONT. (20#)5A-STAMPED CONT.	7.5A-MACHINED CONT. 5A-STAMPED CONT.
RATED VOLTAGE	500V AC/DC	500V AC/DC	500V AC/DC	500V AC/DC	250V AC/DC
DIELECTRIC WITHSTANDING VOLTAGE	2000V AC	2000V AC	2000V AC	2000V AC	1500V AC

ORDERING INFORMATION：

FLS6BS10xxxS03

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.
3W3 - 6(3+3) CORES.
6 - 6 CORES.

TABLE 2:

KEY POS	A	B	C	D
N	105°	140°	215°	265°
W	45°	140°	215°	265°
X	105°	160°	215°	265°
Y	105°	140°	225°	265°
Z	105°	140°	215°	295°

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 | Fractions ±1/64
2 PL DEC ±0.15 | Angles ±1°
3 PL DEC ±0.08
3) Note reference = X

MATERIAL SPECIFICATIONS:

PROCESS SPECIFICATIONS:

NEXT ASS'Y:

SIGNATURES		DATE
DRAWN:	BLINK	NOV-23-21
CHECKED:	ORION	NOV-24-21
ENGINEER:		
APPROVAL:	TOMMY	NOV-25-21
CUSTOMER:		

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Amphenol

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

EcoMate Aquarius,PLUG,xx POSITION, FEMALE,SHELL SIZE 10,BACK SHELL.

SIZE	TYPE	DWG NO:	REVISION
B	C-	FLS6BS10xxxS03	A2

SCALE: NONE SHEET 2 OF 4

TITLE: EcoMate Aquarius,PLUG,xx POSITION,FEMALE,SHELL SIZE 10,BACK SHELL.
DWG NO: FLS6BS10xxxS03
REV: A2
SH: 1
OF: 1

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

Machined, Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm²)	Plating
Male	Female			
MP20W23F	MS20W23F	22-20AWG	0.34-0.50 mm²	Gold Flash
MP20W23G5	MS20W23G5	22-20AWG	0.34-0.50 mm²	Gold 5µ"
MP20W23G10	MS20W23G10	22-20AWG	0.34-0.50 mm²	Gold 10µ"
MP20W23G15	MS20W23G15	22-20AWG	0.34-0.50 mm²	Gold 15µ"
MP20W23G30	MS20W23G30	22-20AWG	0.34-0.50 mm²	Gold 30µ"
MP24W23F	MS24W23F	26-24AWG	0.14-0.25 mm²	Gold Flash
MP24W23G5	MS24W23G5	26-24AWG	0.14-0.25 mm²	Gold 5µ"
MP24W23G10	MS24W23G10	26-24AWG	0.14-0.25 mm²	Gold 10µ"
MP24W23G15	MS24W23G15	26-24AWG	0.14-0.25 mm²	Gold 15µ"
MP24W23G30	MS24W23G30	26-24AWG	0.14-0.25 mm²	Gold 30µ"
MP28W23F	MS28W23F	30-28AWG	0.05-0.08 mm²	Gold Flash
MP28W23G5	MS28W23G5	30-28AWG	0.05-0.08 mm²	Gold 5µ"
MP28W23G10	MS28W23G10	30-28AWG	0.05-0.08 mm²	Gold 10µ"
MP28W23G15	MS28W23G15	30-28AWG	0.05-0.08 mm²	Gold 15µ"
MP28W23G30	MS28W23G30	30-28AWG	0.05-0.08 mm²	Gold 30µ"

Stamped & Formed , Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm²)	Plating
Male	Female			
SP20W2F	SS20W2F	22-20AWG	0.34-0.50 mm²	Gold Flash
SP20W2G5	SS20W2G5	22-20AWG	0.34-0.50 mm²	Gold 5µ"
SP20W2G10	SS20W2G10	22-20AWG	0.34-0.50 mm²	Gold 10µ"
SP20W2G15	SS20W2G15	22-20AWG	0.34-0.50 mm²	Gold 15µ"
SP20W2G30	SS20W2G30	22-20AWG	0.34-0.50 mm²	Gold 30µ"
SP24W2F	SS24W2F	26-24AWG	0.14-0.25 mm²	Gold Flash
SP24W2G5	SS24W2G5	26-24AWG	0.14-0.25 mm²	Gold 5µ"
SP24W2G10	SS24W2G10	26-24AWG	0.14-0.25 mm²	Gold 10µ"
SP24W2G15	SS24W2G15	26-24AWG	0.14-0.25 mm²	Gold 15µ"
SP24W2G30	SS24W2G30	26-24AWG	0.14-0.25 mm²	Gold 30µ"
SP28W2F	SS28W2F	30-28AWG	0.05-0.08 mm²	Gold Flash
SP28W2G5	SS28W2G5	30-28AWG	0.05-0.08 mm²	Gold 5µ"
SP28W2G10	SS28W2G10	30-28AWG	0.05-0.08 mm²	Gold 10µ"
SP28W2G15	SS28W2G15	30-28AWG	0.05-0.08 mm²	Gold 15µ"
SP28W2G30	SS28W2G30	30-28AWG	0.05-0.08 mm²	Gold 30µ"

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

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

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

Machined, Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm²)	Plating
Male	Female			
MP14M23F	MS14M23F	14AWG	2.0-2.5mm²	Gold Flash
MP14M23G5	MS14M23G5	14AWG	2.0-2.5mm²	Gold 5µ"
MP14M23G10	MS14M23G10	14AWG	2.0-2.5mm²	Gold 10µ"
MP14M23G15	MS14M23G15	14AWG	2.0-2.5mm²	Gold 15µ"
MP14M23G30	MS14M23G30	14AWG	2.0-2.5mm²	Gold 30µ"
MP16M23F	MS16M23F	18-16AWG	0.75-1.5mm²	Gold Flash
MP16M23G5	MS16M23G5	18-16AWG	0.75-1.5mm²	Gold 5µ"
MP16M23G10	MS16M23G10	18-16AWG	0.75-1.5mm²	Gold 10µ"
MP16M23G15	MS16M23G15	18-16AWG	0.75-1.5mm²	Gold 15µ"
MP16M23G30	MS16M23G30	18-16AWG	0.75-1.5mm²	Gold 30µ"
MP20M23F	MS20M23F	22-20AWG	0.34-0.50mm²	Gold Flash
MP20M23G5	MS20M23G5	22-20AWG	0.34-0.50mm²	Gold 5µ"
MP20M23G10	MS20M23G10	22-20AWG	0.34-0.50mm²	Gold 10µ"
MP20M23G15	MS20M23G15	22-20AWG	0.34-0.50mm²	Gold 15µ"
MP20M23G30	MS20M23G30	22-20AWG	0.34-0.50mm²	Gold 30µ"
MP24M23F	MS24M23F	26-24AWG	0.14-0.25mm²	Gold Flash
MP24M23G5	MS24M23G5	26-24AWG	0.14-0.25mm²	Gold 5µ"
MP24M23G10	MS24M23G10	26-24AWG	0.14-0.25mm²	Gold 10µ"
MP24M23G15	MS24M23G15	26-24AWG	0.14-0.25mm²	Gold 15µ"
MP24M23G30	MS24M23G30	26-24AWG	0.14-.025mm²	Gold 30µ"

Stamped & Formed , Crimp Contacts				
Part Number		Contact Size (AWG)	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14AWG	2.0-2.5mm²	Gold Flash
SP14M2G5	SS14M2G5	14AWG	2.0-2.5mm²	Gold 5µ"
SP14M2G10	SS14M2G10	14AWG	2.0-2.5mm²	Gold 10µ"
SP14M2G15	SS14M2G15	14AWG	2.0-2.5mm²	Gold 15µ"
SP14M2G30	SS14M2G30	14AWG	2.0-2.5mm²	Gold 30µ"
SP16M2F	SS16M2F	18-16AWG	0.75-1.5mm²	Gold Flash
SP16M2G5	SS16M2G5	18-16AWG	0.75-1.5mm²	Gold 5µ"
SP16M2G10	SS16M2G10	18-16AWG	0.75-1.5mm²	Gold 10µ"
SP16M2G15	SS16M2G15	18-16AWG	0.75-1.5mm²	Gold 15µ"
SP16M2G30	SS16M2G30	18-16AWG	0.75-1.5mm²	Gold 30µ"
SP20M2F	SS20M2F	22-20AWG	0.34-0.50mm²	Gold Flash
SP20M2G5	SS20M2G5	22-20AWG	0.34-0.50mm²	Gold 5µ"
SP20M2G10	SS20M2G10	22-20AWG	0.34-0.50mm²	Gold 10µ"
SP20M2G15	SS20M2G15	22-20AWG	0.34-0.50mm²	Gold 15µ"
SP20M2G30	SS20M2G30	22-20AWG	0.34-0.50mm²	Gold 30µ"
SP24M2F	SS24M2F	26-24AWG	0.14-0.25mm²	Gold Flash
SP24M2G5	SS24M2G5	26-24AWG	0.14-0.25mm²	Gold 5µ"
SP24M2G10	SS24M2G10	26-24AWG	0.14-0.25mm²	Gold 10µ"
SP24M2G15	SS24M2G15	26-24AWG	0.14-0.25mm²	Gold 15µ"
SP24M2G30	SS24M2G30	26-24AWG	0.14-.025mm²	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