

| 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.

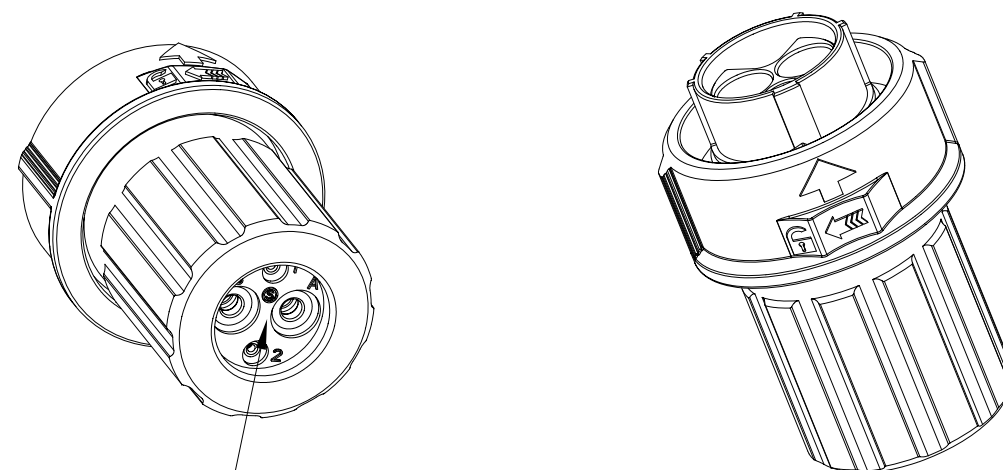
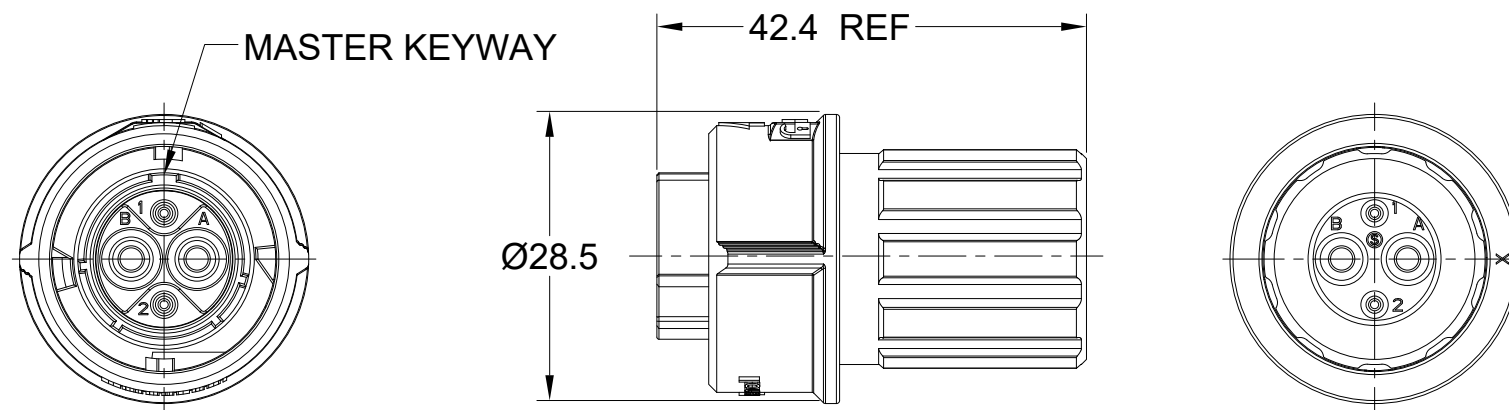
2.8 RoHS COMPLIANT.

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 = X | SIGNATURES | DATE | <h1>Amphenol</h1> 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, MALE, 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 | TYPE | DWG NO. | REVISION |
| B | C- | FLS612xxxPHEC03 | A4 |
| SCALE: | NONE | SHEET 1 OF 2 | |

TITLE: EcoMate Aquarius, PLUG, xx POSITION, MALE, SHELL SIZE 12, END CAP. DWG NO.: FLS612xxxPHEC03 REV: A4 SH: 1 OF: 2

| 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 | FLS612x3PHEC03 | FLS612x2PHEC03 | FLS612x8PHEC03 | FLS612x10PHEC03 |
|------------------------------------|-----------------------------------|--|-----------------------------------|---|
| MALE INSERT ARRANGEMENT FRONT VIEW | | | | |
| MALE INSERT ARRANGEMENT REAR VIEW | | | | |
| SUITABLE CONTACTS | 3 x Size 16 (1.5mm ²) | 2 x Size 20 (0.5mm ²) 2 x Size 12 (2.5mm 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 |

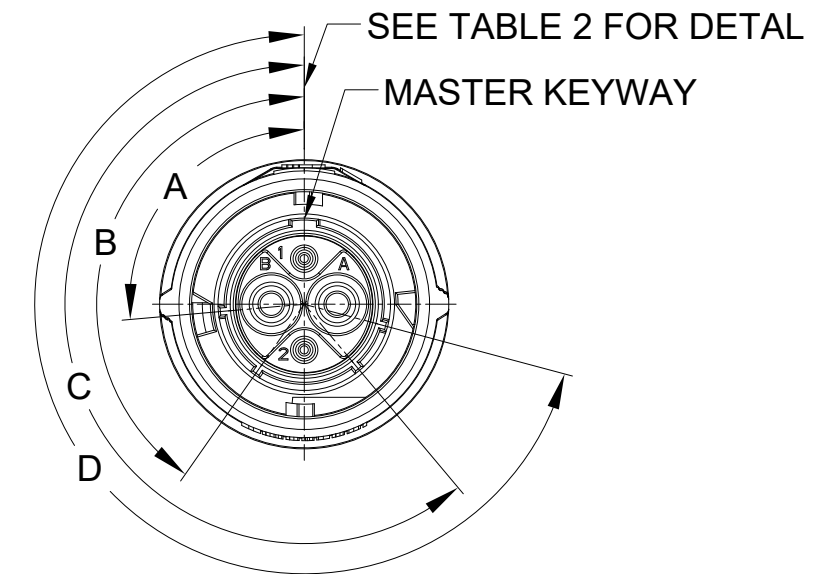


TABLE 2:

| 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:

FLS612xxxPHEC03

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 - www.amphenol-sine.com 44724 Morley Drive Clinton Township, MI 48036 | |
| PROCESS SPECIFICATIONS: | | EcoMate Aquarius, PLUG,xx POSITION, MALE, SHELL SIZE 12, END CAP. | |
| NEXT ASSY: | | SIZE: B TYPE: C- DWG NO.: FLS612xxxPHEC03 REVISION: A4 | |
| | | SCALE: NONE | SHEET 2 OF 2 |

TITLE: EcoMate Aquarius, PLUG,xx POSITION,MALE SHELL SIZE 12, END CAP.
 DWG NO.: FLS612xxxPHEC03
 REV: A4
 SH: 2
 OF: 2

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 |