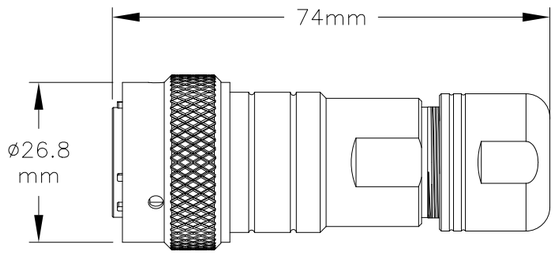
REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	APPR
01	–	CUSTOMER DRAWING	–	–	–
02		ADDED IP69K RATING	4/21/2020	RO	DR
03		CHANGED AMPERAGE FROM 5A TO 7.5A	2/21/2023	RO	RO



ASSEMBLED VIEW

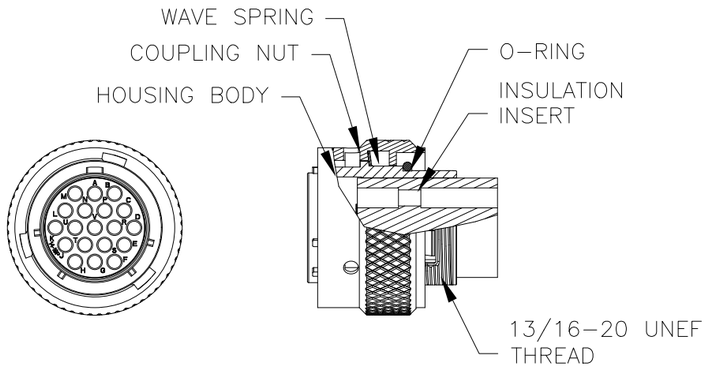
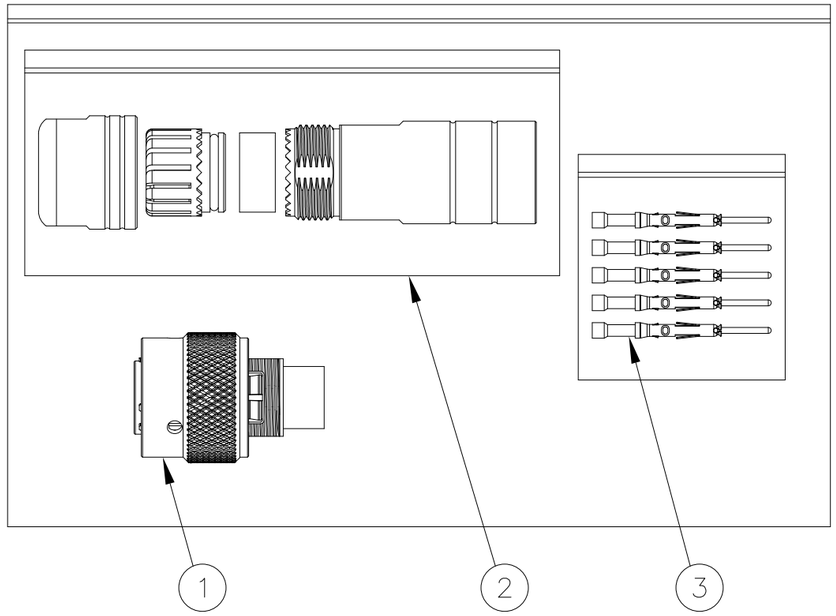


ILLUSTRATION: COMPLETE KIT



NOTES:

1) CORD GRIP RANGE: 6.5mm TO 10mm

2) CONTACT BARREL RANGE: 20AWG TO 22AWG

3) RECOMMENDED CRIMP TOOLS:
   HAND CRIMPER: MFX-3959
   PNEUMATIC CRIMPER: MFX-3960

4) EXTRACTION TOOL: QXRT20

5) MATERIALS:
   HOUSING BODY: ZINC DIE CAST, NICKEL PLATED
   COUPLING NUT: ALUMINUM ALLOY, NICKEL PLATED
   WAVE SPRING: STAINLESS STEEL
   INSULATION INSERT: PA66, UL94/V-0
   CONTACT: BRASS, GOLD FLASH PLATED
   SEAL AND O-RING:
   CONNECTOR: SILICONE
   CORD GRIP: NBR (NITRILE BUTADIENE RUBBER)

6) ELECTRICAL DATA:
   a) CURRENT (MAX): 7.5A
   b) VOLTAGE (MAX): 250VAC
   c) INSULATION RESISTANCE (MIN): 5000M OHMS
   d) TEST VOLTAGE (BETWEEN CONTACTS): 3050V

7) TECHNICAL DATA:
   a) TEMPERATURE RANGE: -40°C TO 105°C
   b) PROTECTION: IP67 (IP69K WHEN IN MATED CONDITION)
   c) MATING CYCLES: >500
   d) VIBRATION RESISTANCE PER MIL-STD-202 METHOD 204
   e) THERMAL SHOCK PER MIL-STD-202 METHOD 207
   f) 48 HOUR SALT SPRAY PER MIL-STD-202 METHOD 101

8) RoHS COMPLIANT

QUANTITY	PART NUMBER	DESCRIPTION	ITEM
19	MP20W23F	CONTACT, PIN, SIZE 20	3
1	RTOL–14CG–NS1	CORD GRIP	2
1	RT0W61419PNH03SS	CONNECTOR	1

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:	MRF	20AUG18
CHECKED:		
ENGINEER:		
APPROVAL:		
CUSTOMER:		

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Amphenol

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

KIT, ECO-MATE RM

SIZE	TYPE	DWG NO:	REVISION
B	C-	RT0W61419PNH03SS-K	03

SCALE: NONE SHEET 1 OF 1

TITLE: KIT, ECO-MATE RM
DWG NO:
REV: 03
SH: 1
OF: 1

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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

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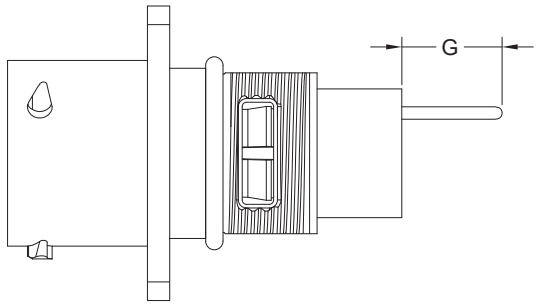
ecomate® RM/RSSM - Contact Size 20, PC Tail Options

Machined, PC Tail Contacts				
Part Number		Contact Size (AWG)	Description	Plating
Male	Female			
MP20W12E06F	MS20W12E06F	20AWG	Short Version	Gold Flash
MP20W12E06G5	MS20W12E06G5	20AWG	Short Version	Gold 5µ"
MP20W12E06G10	MS20W12E06G10	20AWG	Short Version	Gold 10µ"
MP20W12E06G15	MS20W12E06G15	20AWG	Short Version	Gold 15µ"
MP20W12E06G30	MS20W12E06G30	20AWG	Short Version	Gold 30µ"
MP20W12E09F	MS20W12E09F	20AWG	Long Version	Gold Flash
MP20W12E09G5	MS20W12E09G5	20AWG	Long Version	Gold 5µ"
MP20W12E09G10	MS20W12E09G10	20AWG	Long Version	Gold 10µ"
MP20W12E09G15	MS20W12E09G15	20AWG	Long Version	Gold 15µ"
MP20W12E09G30	MS20W12E09G30	20AWG	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.

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