

# MR1 & MP1 MICRO M&M CONNECTORS™

## STANDARD UN THREAD MATING



TopFlite's cornerstone to its M&M Connector™ series is the MR1 Receptacle & MP1 Plug Micro Connector series. This series utilizes standard UN style thread mating, features the smallest package TopFlite offers for its connector lines, and can be made in variety of styles and finishes. Like all of TopFlite's M&M Connector™ series, these are intermatable with competitor industry equivalent connectors. Plug connectors can be purchased with standard or hex style coupling nuts and with standard or anti-decoupling mating styles. Further, the customer may choose from a multitude of contact styles and rear-end termination designs, including TopFlite's Integrated Termination Tail (ITT) to negate the need for backshell hardware. Crimp-style contacts can be installed and removed with standard industry tooling. Ask your TopFlite sales representative about adding TopFlite's stainless steel termination bands (which use standard industry tooling for installation) and/or backshell hardware to couple with your connector purchase.

PART NUMBER BUILDER											
EXAMPLE PART NUMBER	TFC-	MR1	24	IT	F	06-07	P	N	-020500	-W	-ZXXX
STANDARD PREFIX											
CONNECTOR TYPE	MR1 - JAM NUT RECEPTACLE MP1 - PLUG										
STYLE	06 - STANDARD PLUG 08 - HEX NUT PLUG 16 - ANTI-DECOUPLING PLUG 18 - ANTI-DECOUPLING HEX PLUG 24 - JAM NUT RECEPTACLE 22 - INLINE RECEPTACLE 20 - BOX MOUNT RECEPTACLE										
BACKEND STYLE	TH - THREADED BACK IT - INTEGRATED TERMINATION TAIL CS - CASTLE BACK										
MATERIAL/ FINISH	F - ALUMINUM W/ ELECTROLESS NICKEL Z - ALUMINUM W/ BLACK ZINC NICKEL A - ALUMINUM W/ BLACK ANODIZE D - ALUMINUM W/ OLIVE DRAB CADMIUM T - ALUMINUM W/ NICKEL TEFLON/PTFE K - STAINLESS W/ PASSIVATION TREATMENT (SEE PAGE 4 FOR MATERIAL AND FINISH SPECIFICATIONS & ADDITIONAL FINISHES)										
SIZE & INSERT ARRANGEMENT	06-07 09-10 10-26 ETC. (SEE APPENDIX A FOR ALL OPTIONS. CONSULT FACTORY FOR CUSTOM ARRANGEMENTS)										
CONTACT STYLE	P - CRIMP PIN S - CRIMP SOCKET PCP - PC TAIL PIN PCS - PC TAIL SOCKET PS - SOLDER CUP PIN SS - SOLDER CUP SOCKET XP - NO PIN CONTACTS XS - NO SOCKET CONTACTS										
POLARIZATION	N = NORMAL X Y Z (SEE TABLE II & III)										
PC TAIL CONTACT SIZE	FIRST 3 DIGITS ARE THE DIAMETER, EX. 020 = .020" DIAMETER TAIL SECOND 3 DIGITS ARE THE LENGTH FROM REAR OF CONNECTOR, EX. 400 = .400" THUS, FOR EXAMPLE, -018300 WOULD EQUATE TO .018" DIAMETER & .300" LENGTH (OMIT FOR NON-PC TAIL CONTACT VERSIONS)										
WIRE HOLES	W - WITH WIRE HOLES (OMIT FOR NONE)										
Z-CODE	Z112 Z090 Z030 ETC. (CONTACT SALES STAFF IF A Z-CODE IS REQUIRED FOR A CUSTOM CONFIGURATION/OPTION(S). OMIT FOR NONE)										

TABLE II: PLUG KEYWAY POLARIZATIONS

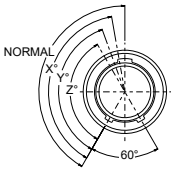
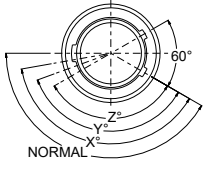
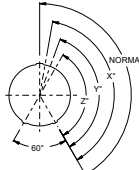
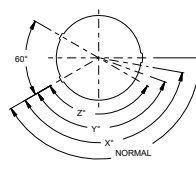
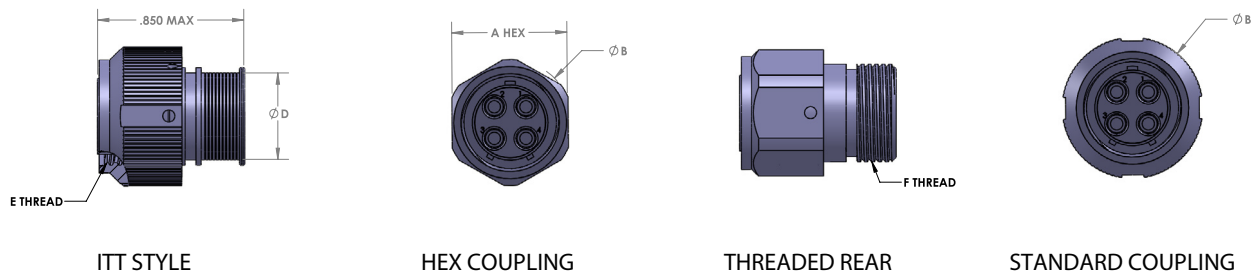
SHELL SIZE 5 AND 6	SHELL SIZE 7 THRU 12
	
Key Position	Key Rotation
N Normal	150°
X	140°
Y	130°
Z	120°

TABLE III: RECEPTACLE KEY POLARIZATIONS

SHELL SIZE 5 AND 6	SHELL SIZE 7 THRU 12
	
Key Position	Key Rotation
N Normal	150°
X	140°
Y	130°
Z	120°

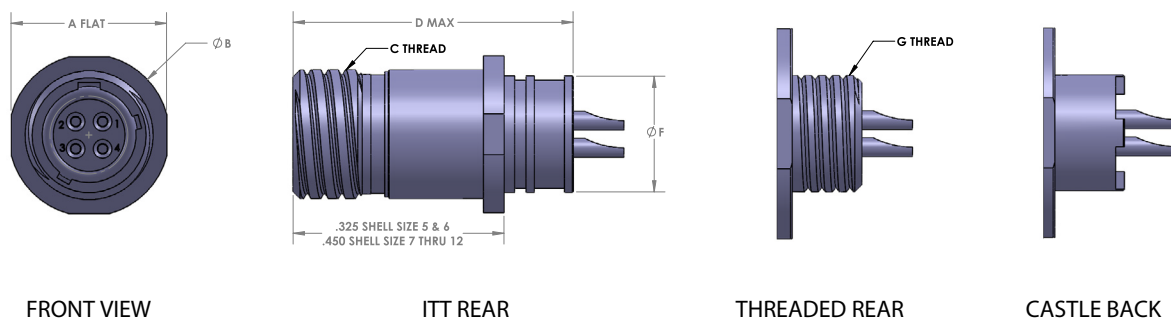


PLUG CONNECTOR DIMENSIONS (IN)							
SHELL SIZE	STANDARD COUPLING		ANTI-DECOUPLING		Ø D	E THREADS COUPLING NUT	F THREADS ACCESSORY
	A HEX	Ø B	A HEX	B Ø			
5	.430 (10.92)	.47 (11.94)	.495 (12.57)	.54 (13.72)	.230 (5.84)	.3125-28 UN-2B	.250-32 UNEF-2A
6	.500 (12.70)	.55 (13.97)	.563 (14.30)	.62 (15.75)	.286 (7.26)	.3750-28 UN-2B	.3125-32 UNEF-2A
7	.625 (15.88)	.68 (17.27)	.720 (18.29)	.80 (20.32)	.390 (9.91)	.4375-28 UNEF-2B	.4375-28 UNEF-2A
8	.680 (17.27)	.75 (19.05)	.743 (18.87)	.83 (21.08)	.445 (11.30)	.5000-32 UN-2B	.5000-28 UNEF-2A
9	.750 (19.05)	.83 (21.08)	.813 (20.65)	.89 (22.61)	.500 (12.70)	.5625-32 UN-2B	.5625-24 UNEF-2A
10	.812 (20.62)	.90 (22.86)	.875 (22.23)	.96 (24.38)	.565 (14.35)	.6250-32 UN-2B	.6250-24 UNEF-2A
12	.875 (22.23)	.97 (24.64)	.938 (23.83)	1.03 (26.16)	.650 (16.51)	.7500-28 UN-2B	.6875-24 UNEF-2A

#### Notes

- Contacts are size 23 crimp type, and used in a rear release retention system (unless otherwise noted)
- Shell sizes 5 thru 6 and insert arrangement 8-13: master key is located at top dead center (TDC) for normal (N) position.
- Shell size 7 thru 12: master key is rotated 90° from TDC for normal position

## INLINE CABLE RECEPTACLE - SHELL STYLE 22

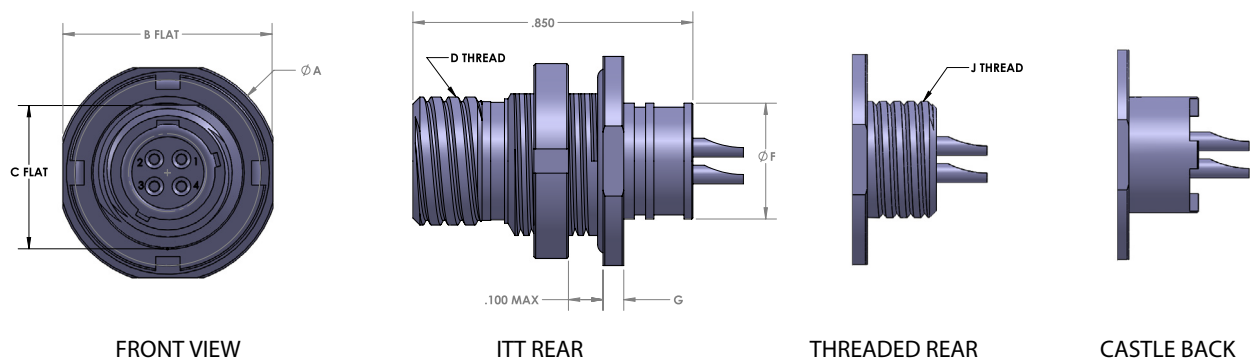


DIMENSIONS (IN)						
SHELL SIZE	A FLATS	Ø B	C THREADS (MATING)	D MAX.	Ø F	G THREADS (ACCESSORY)
5	.312 (7.92)	.355 (9.02)	.3125-28 UN-2A	.750 (19.05)	.230 (5.84)	.250-32 UNEF-2A
6	.375 (9.52)	.400 (10.16)	.3750-28 UN-2A	.750 (19.05)	.286 (7.26)	.3125-32 UNEF-2A
7	.445 (11.30)	.490 (12.45)	.4375-28 UNEF-2A	.825 (20.96)	.390 (9.91)	.4375-28 UNEF-2A
8	.550 (13.97)	.600 (15.24)	.5000-32 UN-2A	.825 (20.96)	.445 (11.30)	.5000-28 UNEF-2A
9	.613 (15.57)	.663 (16.84)	.5625-32 UN-2A	.825 (20.96)	.500 (12.70)	.5625-24 UNEF-2A
10	.675 (17.15)	.725 (18.42)	.6250-32 UN-2A	.825 (20.96)	.565 (14.35)	.6250-24 UNEF-2A
12	.800 (20.32)	.850 (21.59)	.7500-28 UN-2A	.825 (20.96)	.650 (16.51)	.6875-24 UNEF-2A

#### Notes

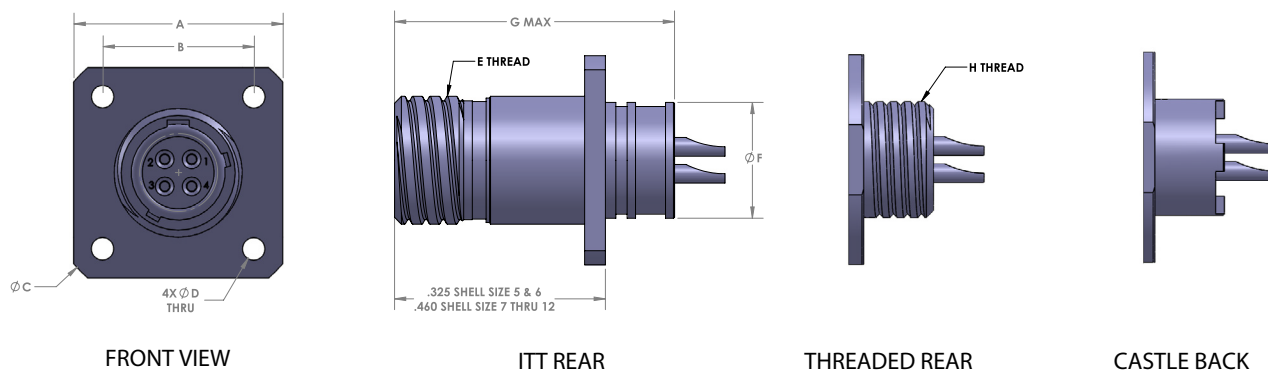
- Shell sizes 5 thru 6 and insert arrangement 8-13: master key is located at top dead center (TDC) for normal (N) position.
- Shell size 7 thru 12: master key is rotated 90° from TDC for normal position

## JAM NUT RECEPTACLE - SHELL STYLE 24



DIMENSIONS (IN)							
SHELL SIZE	Ø A	B FLAT	C FLAT	D THREADS (MATING)	Ø F	G	J THREADS (ACCESSORY)
5	.541 (13.74)	.500 (12.70)	.285 (7.24)	.3125-28 UN-2A	.230 (5.84)	.051 (1.30)	.250-32 UNEF-2A
6	.610 (15.49)	.562 (14.27)	.352 (8.94)	.3750-28 UN-2A	.286 (7.26)	.051 (1.30)	.3125-32 UNEF-2A
7	.670 (17.02)	.635 (16.13)	.418 (10.62)	.4375-28 UNEF-2A	.390 (9.91)	.093 (2.36)	.4375-28 UNEF-2A
8	.775 (19.68)	.735 (18.67)	.473 (12.01)	.5000-32 UN-2A	.445 (11.30)	.093 (2.36)	.5000-28 UNEF-2A
9	.875 (22.23)	.806 (20.47)	.530 (13.46)	.5625-32 UN-2A	.500 (12.70)	.093 (2.36)	.5625-24 UNEF-2A
10	.980 (24.89)	.940 (23.88)	.604 (15.34)	.6250-32 UN-2A	.565 (14.35)	.093 (2.36)	.6250-24 UNEF-2A
12	1.062 (26.97)	.986 (25.04)	.712 (18.08)	.7500-28 UN-2A	.650 (16.51)	.093 (2.36)	.6875-24 UNEF-2A

## BOX MOUNT RECEPTACLE - SHELL STYLE 20



DIMENSIONS (IN)								
SHELL SIZE	A SQ	B	Ø C	Ø D ± .005	E THREADS (MATING)	Ø F	G MAX.	H THREADS (ACCESSORY)
5	.527 (13.39)	.363 (9.22)	.680 (17.27)	.094 (2.39)	.3125-28 UN-2A	.230 (5.84)	.730 (18.54)	.250-32 UNEF-2A
6	.588 (14.94)	.423 (10.74)	.750 (19.05)	.094 (2.39)	.3750-28 UN-2A	.286 (7.26)	.730 (18.54)	.3125-32 UNEF-2A
7	.650 (16.51)	.483 (12.27)	.830 (21.08)	.128 (3.25)	.4375-28 UNEF-2A	.390 (9.91)	.805 (20.45)	.4375-28 UNEF-2A
8	.710 (18.03)	.542 (13.77)	.938 (23.83)	.128 (3.25)	.5000-32 UN-2A	.445 (11.30)	.805 (20.45)	.5000-28 UNEF-2A
9	.938 (23.83)	.719 (18.26)	1.250 (31.75)	.128 (3.25)	.5625-32 UN-2A	.500 (12.70)	.805 (20.45)	.5625-24 UNEF-2A
10	.938 (23.83)	.719 (18.26)	1.250 (31.75)	.128 (3.25)	.6250-32 UN-2A	.565 (14.35)	.805 (20.45)	.6250-24 UNEF-2A
12	1.031 (26.19)	.812 (20.62)	1.375 (34.92)	.128 (3.25)	.7500-28 UN-2A	.650 (16.51)	.805 (20.45)	.6875-24 UNEF-2A