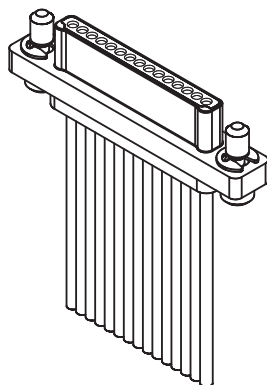


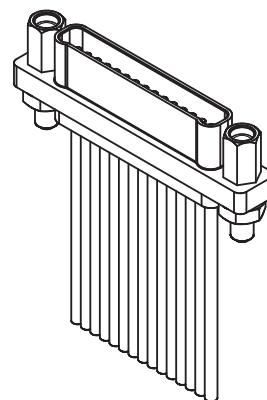
Cable to Cable (1 Row)

.050"
4 thru 25 Contacts

MM

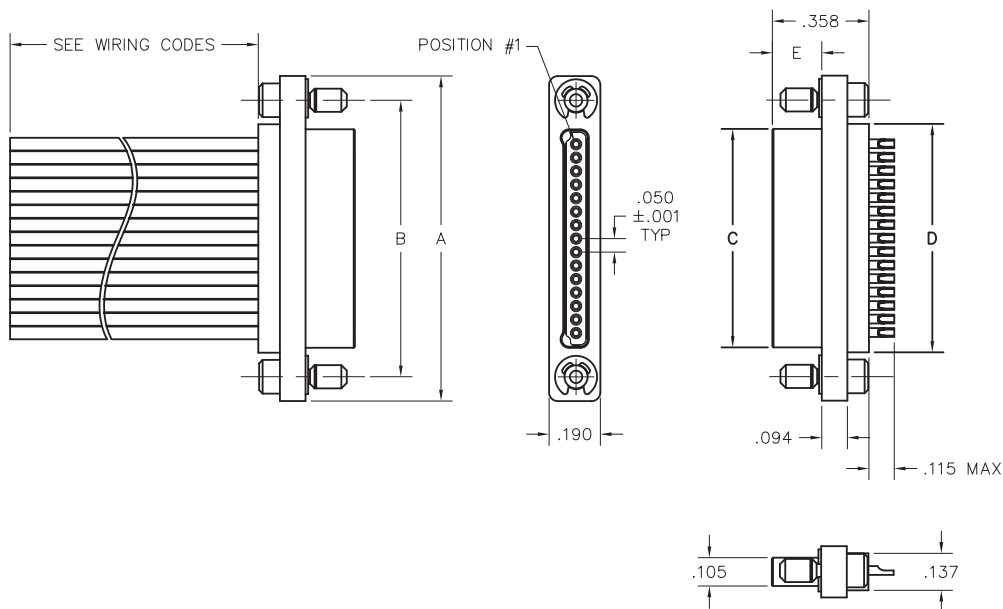


MM-112-015-161-41WQ
(PLUG)



MM-122-015-261-22WQ
(RECEPTACLE)

MATING MATRIX	
CONNECTOR	MATES WITH
MM-11...	MM-12, MK-16, MK-18 receptacles
MM-12...	MM-11, MK-15, MK-17 plugs



SIZE	DIMENSIONS						HARDWARE	
	A	B	C		D	E		
			PLUG MAX	RCPT MAX		PLUG MAX		RCPT MAX
4	.655	.475	.260	.263	.297	.186	.198	#2-56 UNC THD Ø.092 THRU
5	.705	.525	.310	.313	.347			
6	.755	.575	.360	.363	.397			
9	.905	.725	.510	.513	.547			
12	1.055	.875	.660	.663	.697			
15	1.205	1.025	.810	.813	.847			
21	1.505	1.325	1.110	1.113	1.147			
25	1.705	1.525	1.310	1.313	1.347			

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PLUG: MM-112-006-113-2200
RECEPTACLE: MM-122-006-2A3-4100

XX-XXX-XXX-XXX-XXXX-XXX
|
BODY
|
CONTACTS
|
OPTIONS

|
|
|
|
|
|

SERIES SIZE HARDWARE

PLUG

RECEPTACLE

SERIES

MM .050" Rugged Metal I/O Connector
(MM mates to MK & MM)

BODY

- 1 1-Row (Sizes 4 thru 25)
 BODY STYLE:
1 Plug, straight
 BODY MATERIAL:
2 Electroless nickel shell w/ PPS insert
3 Electrodeposited cadmium shell w/ PPS insert
- 5 Stainless Steel shell w/ PPS insert

SIZE

XXX 004, 005, 006, 009, 012, 015, 021, 025

CONTACTS

TYPE CONTACTS/TERMINATIONS:

- 11 Pin, straight, 26 awg solder cup
- 1A Pin, straight, 24 awg solder cup
- 12 Pin, straight, 0.150" pigtails (.018 dia)
- 13 Pin, straight, 0.250" pigtails (.018 dia)
- 14 Pin, straight, 0.500" pigtails (.018 dia)
- 16 Pin, straight, crimped wire

PLATING OPTIONS:

- 1 50 u" Au contacts (Crimped Wire)
- 3 50 u" Au contacts; Au terminations
(solder cup, pigtail)
- 5 50 u" Au contacts; Sn/Pb alloy terminations
(pigtail)
- 7 50 u" Au contacts; SAC305 terminations (pigtail)

HARDWARE

STYLE OF HARDWARE:

- 00 None
- 22 Two fixed jacknut assemblies
- 41 Two turning jackscrews, allen head, retaining ring

WIRING

XX For wiring codes, see page MA-3 & MA-4

OPTIONS

= Option not RoHS compliant

SERIES

MM .050" Rugged Metal I/O Connector
(MM mates to MK & MM)

BODY

- 1 1-Row (Sizes 4 thru 25)
 BODY STYLE:
2 Receptacle, straight
 BODY MATERIAL:
2 Electroless nickel shell w/ PPS insert
3 Electrodeposited cadmium shell w/ PPS insert
- 5 Stainless Steel shell w/ PPS insert

SIZE

XXX 004, 005, 006, 009, 012, 015, 021, 025

CONTACTS

TYPE CONTACTS/TERMINATIONS:

- 21 Skt, straight, 26 awg solder cup
- 2A Skt, straight, 24 awg solder cup
- 22 Skt, straight, 0.150" pigtails (.018 dia)
- 23 Skt, straight, 0.250" pigtails (.018 dia)
- 24 Skt, straight, 0.500" pigtails (.018 dia)
- 26 Skt, straight, crimped wire

PLATING OPTIONS:

- 1 50 u" Au contacts (Crimped Wire)
- 3 50 u" Au contacts; Au terminations
(solder cup, pigtail)
- 5 50 u" Au contacts; Sn/Pb alloy terminations
(pigtail)
- 7 50 u" Au contacts; SAC305 terminations (pigtail)

HARDWARE

STYLE OF HARDWARE:

- 00 None
- 22 Two fixed jacknut assemblies
- 41 Two turning jackscrews, allen head, retaining ring

WIRING

XX For wiring codes, see page MA-3 & MA-4

900 Interfacial Seal

Specifications

Materials and Finishes *

Contacts:	Pins: BeCu alloy strip per ASTM B194 Sockets: Brass per ASTM B121 / B121M or ASTM B16 / B16M or ASTM B453
Contact Finish:**	Gold plate per ASTM B488
Shells:	Aluminum Alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8 or Stainless Steel 300 series per ASTM A484 / A484M and ASTM A582 / A582M Passivated per SAE AMS2700
Aluminum Shell Finishes:**	Electroless Nickel per SAE AMS2404 Electrodeposited Cadmium per SAE AMS-QQ-P-416 Black Anodized per MIL-A-8625 Gold per MIL-DTL-45204
Molded Insulators:	Glass filled polyphenylene sulfide per MIL-M-24519
Embedment:	Insulating compound per MIL-I-16923
Jackscrews, Jackposts and Nuts:	Corrosion resistant steel per ASTM A320 or ASTM A484 / A484M and ASTM A582 / A582M Passivated per SAE AMS2700
Clips and Washers:	Corrosion resistant steel per ASME 18.24 or NASM35333 Passivated per ASME 18.24 or NASM35333
Guide Pins	Corrosion resistant steel per ASTM A484 / A484M and ASTM A582 / A582M Passivated per SAE AMS2700
Latches	Beryllium copper in accordance with ASTM B194 Electroless Nickel plate per SAE AMS2404
Interfacial Seal Gaskets:	Fluorosilicone per SAE AMS-R-25988
Tolerances:**	Unless otherwise specified: Fractions = $\pm 1/64$ " Decimals = $\pm .010$ " Angles = $\pm 5^\circ$ Wire lengths: insulated/stranded = $+1.0"/-0.0$ " uninsulated/solid = $+0.2"/-0.0$ "

Note: AirBorn can manufacture special configurations for your exact specifications.

* = Reference the above listed specifications or an equivalent industry standard when applicable

** = When ordering to Mil Spec P/N, Mil Spec requirements apply

Performance

Reference MIL-DTL-83513

AirBorn "M" Series meets or exceeds MIL-DTL-83513 Performance Specifications

Contact Rating:	3-amperes maximum
Solderability:	Terminals (except crimp) tested in accordance with MIL-STD-202, Method 208
Wire Size:	Stranded #26 AWG or solid #25 AWG standard (consult factory for other sizes and types)
Test Voltage:	600 V, RMS, 60 Hz
Operating Temperature:	-55° C to +125° C
Insulation Resistance:	5,000 megohms minimum @ 500 VDC
Durability:	500 connector mating cycles
Vibration:	Tested in accordance with MIL-STD-1344, Method 2005, Condition IV, according to MIL-83513
Shock:	Tested in accordance with MIL-STD-1344, Method 2004, Condition E, according to MIL-83513
Salt Spray:	Mated connectors tested in accordance with MIL-STD-1344, Method 1001, Test Condition B
Humidity:	Mated connectors tested in accordance with MIL-STD-1344, Method 1002, Type II (except steps 7a and 7b)
Thermal Shock:	Tested to the temperature extremes of MIL-STD-1344, Method 1003, Test Condition A (except step 3, temperature shall be 125° C)
Contact Resistance:	0.065 volt maximum drop @ 2.5 amps (.026 ohms)
Contact Engaging Force:	6.0 ounce maximum, with .0221 diameter test sleeve per contact
Contact Separating Force:	0.5 ounce minimum, with .0230 diameter test sleeve per contact
Crimp Strength:	5 pound minimum tensile strength
Mating & Unmating Force:	10 ounces maximum per contact

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Wire Codes

NEMA HP3-EXBEB (Formerly M16878/4-24 TFE 7 strand)

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
MIL-STD-681*	WA	WB	WC	UD	UE	WD	UG	UH	UJ	UK	UL	UM	UN	UP	UQ	UR
WHITE	WE	WF	WG	VD	VE	WH	VG	VH	VJ	VK	VL	VM	VN	VP	VQ	VR
YELLOW	WJ	WK	WL			WM										

NEMA HP3-EXBDB (Formerly M16878/4-26 TFE 7 strand)

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
MIL-STD-681*	WN	WP	WQ	YD	YE	WR	YG	YH	YJ	YK	YL	YM	YN	YP	YQ	YR
WHITE	WS	WT	WU	ZD	ZE	WV	ZG	ZH	ZJ	ZK	ZL	ZM	ZN	ZP	ZQ	ZR
YELLOW	WW	WX	WY			WZ										

NEMA HP3-EXBCB (Formerly M16878/4-28 TFE 7 strand)

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
MIL-STD-681*	XA	XB	XC	1D	1E	XD	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R
WHITE	XE	XF	XG	2D	2E	XH	2G	2H	2J	2K	2L	2M	2N	2P	2Q	2R
YELLOW	XJ	XK	XL			XM										

TWISTED PAIR per NEMA WC27500-XXRC2U00 (SAE AS22759/11)

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
24 AWG	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AP	AQ	AR
26 AWG	BA	BB	BC	BD	BE	BF	BG	BH	BJ	BK	BL	BM	BN	BP	BQ	BR

TWISTED PAIR per NEMA WC27500-XXSC2U00 (SAE AS22759/33)*** ☒

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
24 AWG	JA	JB	JC	JD	JE	JF	JG	JH	JJ	JK	JL	JM	JN	JP	JQ	JR
26 AWG	KA	KB	KC	KD	KE	KF	KG	KH	KJ	KK	KL	KM	KN	KP	KQ	KR

For twisted pair wire connect charts, see page MA-9
Twisted pair wire not available on MA, MC or Hybrid connectors

* = Connectors with more than 100 contacts will repeat color code after 100 colors.

*** = Per M83513, corrosion has been experienced on connectors that are pre-wired with 22759/33 and stored in sealed environments. Caution should be exercised when using this wire.

☒ = Option not RoHS compliant

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Wire Codes

SAE AS22759/11-24

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
M83513**	5A	5B	5C	5D	5E	5F	5G	5H	5J	5K	5L	5M	5N	5P	5Q	5R
MIL-STD-681*	CA	CB	CC	CD	CE	CF	CG	CH	CJ	CK	CL	CM	CN	CP	CQ	CR
WHITE	DA	DB	DC	DD	DE	DF	DG	DH	DJ	DK	DL	DM	DN	DP	DQ	DR

SAE AS22759/11-26

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
M83513**	6A	6B	V1	6D	6E	V2	6G	6H	6J	6K	6L	Y6	6N	6P	6Q	6R
MIL-STD-681*	X3	X4	W3	ED	EE	W4	EG	EH	EJ	EK	EL	EM	EN	EP	EQ	ER
WHITE	X1	X2	W1	FD	FE	W2	FG	FH	FJ	FK	FL	Y5	FN	FP	FQ	FR

SAE AS22759/33-24***

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
M83513**	LA	LB	LC	LD	LE	LF	LG	LH	LJ	LK	LL	LM	LN	LP	LQ	LR
WHITE	MA	MB	MC	MD	ME	MF	MG	MH	MJ	MK	ML	MM	MN	MP	MQ	MR

SAE AS22759/33-26***

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
M83513**	NA	NB	Y3	ND	NE	Y4	NG	NH	NJ	NK	NL	Y8	NN	NP	NQ	NR
WHITE	PA	PB	Y1	PD	PE	Y2	PG	PH	PJ	PK	PL	Y7	PN	PP	PQ	PR

* = Connectors with more than 100 contacts will repeat color code after 100 colors.

** = Wire colors per M83513 are ten solid colors repeating.

*** = Per M83513, corrosion has been experienced on connectors that are pre-wired with 22759/33 and stored in sealed environments. Caution should be exercised when using this wire.

= Option not RoHS compliant

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