



Cable to Cable

.050"

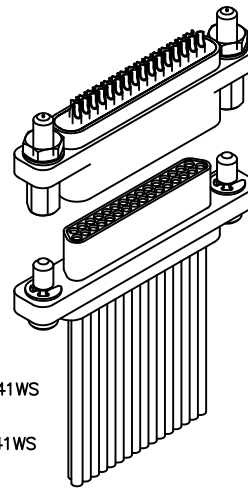
9 thru 51 Contacts

Low Profile Metal

MQ

Low Profile Plastic

MP



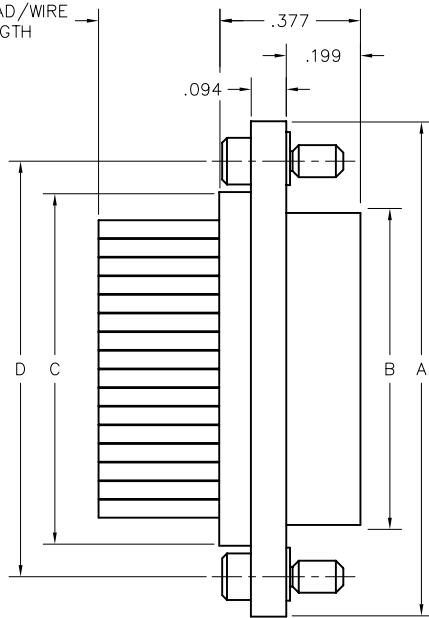
MQ-222-031-2A3-2200
(METAL)

MP-221-031-2A3-2200
(PLASTIC)

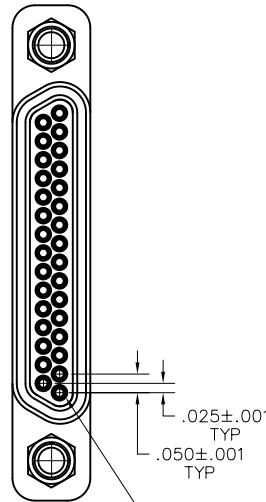
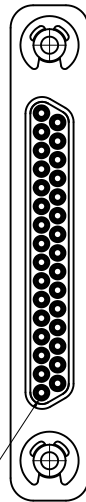
MQ-212-031-161-41WS
(METAL)

MP-211-031-161-41WS
(PLASTIC)

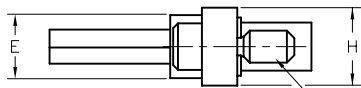
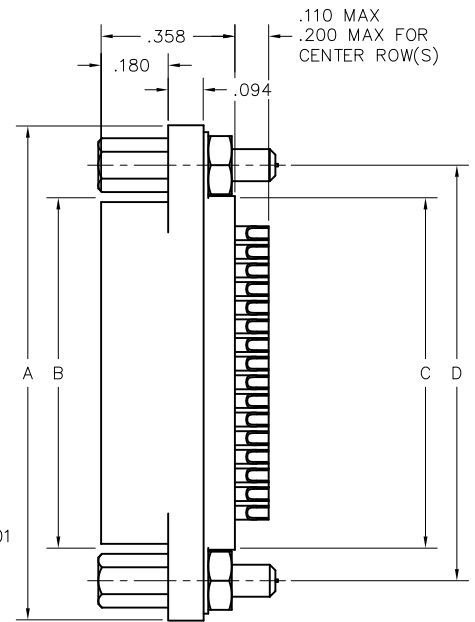
SEE LEAD/WIRE
LENGTH



POSITION #1

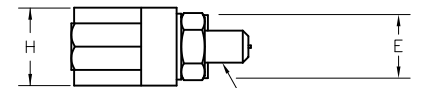


POSITION #1



PLUG

#2-56 JACKSCREW
(2 PLCS)
SEE PAGE MA-5



RECEPTACLE

#2-56 JACKPOST
(2 PLCS)
SEE PAGE MA-5

DIMENSIONS									
SIZE	CONTACT ROWS	A	B		C	D	E	H	HARDWARE
			PLUG MAX	RCPT MAX					
9	2	.778	.292	.378	.398	.565	.173	.208	#2-56 UNC THD (.092 DIA THRU)
15		.928	.442	.528	.548	.715			
21		1.078	.592	.678	.698	.865			
25		1.178	.692	.778	.798	.965			
31		1.328	.842	.928	.948	1.115			
37		1.478	.992	1.078	1.098	1.265			
51	3	1.428	.942	1.028	1.048	1.215	.220	.250	

PLUG: MQ-212-031-161-41WS
RECEPTACLE: MQ-222-031-2G3-4500
PLUG: MP-211-031-161-41WS
RECEPTACLE: MP-221-031-2G3-4500
 XX-XXX-XXX-XXX-XXXX-XXX

PLUG		RECEPTACLE	
SERIES			
MQ .050" Low Profile Metal I/O Connector	MP .050" Low Profile Plastic I/O Connector	MQ .050" Low Profile Metal I/O Connector	MP .050" Low Profile Plastic I/O Connector
(MQ & MP mate with MP, MQ, MR, MS receptacles)		(MQ & MP mate with MP, MQ, MR, MS plugs)	
BODY			
2 2-Row (Sizes 9 thru 37)	3 3-Row (Size 51)	2 2-Row (Sizes 9 thru 37)	3 3-Row (Size 51)
BODY STYLE:		BODY STYLE:	
1 Plug, straight, with ears		2 Receptacle, straight, with ears	
BODY MATERIAL:		BODY MATERIAL:	
1 Polyphenylene Sulfide (MN only)	2 Polyphenylene Sulfide with electroless nickel shell	1 Polyphenylene Sulfide (MN only)	2 Polyphenylene Sulfide with electroless nickel shell
3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/>	4 Polyphenylene Sulfide with hard anodized black shell	3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/>	4 Polyphenylene Sulfide with hard anodized black shell
SIZE			
XXX 009, 015, 021, 025, 031, 037, 051		XXX 009, 015, 021, 025, 031, 037, 051	
CONTACTS			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
11 Pin, straight, 26 awg solder cup	1A Pin, straight, 24 awg solder cup	21 Socket, straight, 26 awg solder cup	2A Socket, straight, 24 awg solder cup
1D Pin, straight, .109" Lead Length (.018 dia) SEE NOTE 1	1E Pin, straight, .125" Lead Length (.018 dia) SEE NOTE 1	2D Socket, straight, .109" Lead Length (.018 dia)	2E Socket, straight, .125" Lead Length (.018 dia)
1F Pin, straight, .140" Lead Length (.018 dia) SEE NOTE 1	1G Pin, straight, .156" Lead Length (.018 dia) SEE NOTE 1	2F Socket, straight, .140" Lead Length (.018 dia)	2G Socket, straight, .156" Lead Length (.018 dia)
12 Pin, straight, .150" Lead Length (.018 dia) SEE NOTE 1	1H Pin, straight, .172" Lead Length (.018 dia) SEE NOTE 1	22 Socket, straight, .150" Lead Length (.018 dia)	2H Socket, straight, .172" Lead Length (.018 dia)
1J Pin, straight, .187" Lead Length (.018 dia) SEE NOTE 1	1K Pin, straight, .250" Lead Length (.018 dia) SEE NOTE 1	2J Socket, straight, .187" Lead Length (.018 dia)	2K Socket, straight, .250" Lead Length (.018 dia)
13 Pin, straight, .375" Lead Length (.018 dia) SEE NOTE 1	14 Pin, straight, .500" Lead Length (.018 dia) SEE NOTE 1	2L Socket, straight, .375" Lead Length (.018 dia)	2M Socket, straight, .500" Lead Length (.018 dia)
15 Pin, straight, 1.000" Lead Length (.018 dia) SEE NOTE 1	16 Pin, straight, crimped wire	2N Socket, straight, 1.000" Lead Length (.018 dia)	2P Socket, straight, .500" Lead Length (.018 dia) SEE NOTE 1
		25 Socket, straight, 1.000" Lead Length (.018 dia) SEE NOTE 1	26 Socket, straight, crimped wire
PLATING OPTIONS:		PLATING OPTIONS:	
1 50 μ" Au contacts (crimp wire)	3 50 μ" Au contacts (solder cup, pigtail)	1 50 μ" Au contacts (crimp wire)	3 50 μ" Au contacts (solder cup, pigtail)
5 50 μ" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	7 50 μ" Au contacts; SAC305 terminations	5 50 μ" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	7 50 μ" Au contacts; SAC305 terminations
HARDWARE			
STYLE OF HARDWARE:		STYLE OF HARDWARE:	
00 None	22 Two fixed jacknut assemblies (62°)	00 None	22 Two fixed jacknut assemblies (62°)
41 Two turning jackscrews, allen head, retaining ring (81°)	42 Two long turning jackscrews, allen head, retaining ring (82°)	41 Two turning jackscrews, allen head, retaining ring (81°)	42 Two long turning jackscrews, allen head, retaining ring (82°)
43 Two turning jackscrews, slot head, retaining ring (83°)	44 Two long turning jackscrews, slot head, retaining ring (84°)	43 Two turning jackscrews, slot head, retaining ring (83°)	44 Two long turning jackscrews, slot head, retaining ring (84°)
45 Two turning jackscrews, allen head, captivated** (85°)	99 Keying hardware, see options below. (Body material 2, 3 and 4 only)	45 Two turning jackscrews, allen head, captivated** (85°)	99 Keying hardware, see options below. (Body material 2, 3 and 4 only)
POLARIZATION / WIRING		POLARIZATION / WIRING	
00 None	XX For wiring codes, see page MA-3 & MA-4	00 None	XX For wiring codes, see page MA-3 & MA-4
OPTIONS			
KSXX Two turning jackscrews. See page MA-6 for keying options		KSXX Two turning jackscrews and interfacial sealing gasket. See page MA-6 for keying options	
KPXX Two fixed jacknuts. See page MA-6 for keying options		KPXX Two fixed jacknuts and interfacial sealing gasket. See page MA-6 for keying options	

** = Captive hardware is factory installed and non-removable.

NOTE 1 = The leads on these contacts are soft copper suitable for forming.

= Option not RoHS compliant

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

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