

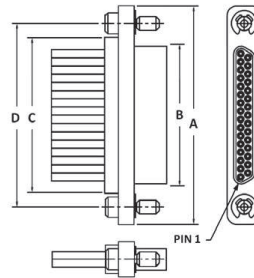


M **MICRO**
SERIES **0.050"**
(1.27 mm)

MQHT – Low-Profile I/O Cable (Male)

MQHT interconnects are used in high-temperature applications. These low-profile connectors come with a variety of termination, hardware and wiring options. Custom lengths are available on wire termination products.

DIMENSIONS



DIMENSIONS					
SIZE	ROWS	A	B (MAX)	C	D
9	2	.778	.292	.398	.565
15		.928	.442	.548	.715
21		1.078	.592	.698	.865
25		1.178	.692	.798	.965
31		1.328	.842	.948	1.115
37	3	1.478	.992	1.098	1.265
51		1.428	.942	1.048	1.215

Please reference MQHTM-DIM-1 for more detail.

ORDER FORM

Sample Part Number Format: MQHT-212-031-161-41WS

MQHT	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
SERIES 0.050" Low-Profile Metal I/O Connector (Male)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	BODY STYLE 1 – Plug	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	CONTACT/TERMINATION TYPE 11 – Pin, straight, 26 awg solder cup 1A – Pin, straight, 24 awg solder cup 1E – Pin, straight, 0.125" lead length† 13 – Pin, straight, 0.250" lead length† 14 – Pin, straight, 0.500" lead length† 16 – Pin, straight, crimped wire	PLATING 1 – 50 μ" Au contacts (crimp wire) 3 – 50 μ" Au contacts; Au terminations (solder cup, pigtail)	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies 41 – Two turning jackscrews, allen head, retaining ring 42 – Two long turning jackscrews, allen head, retaining ring 43 – Two turning jackscrews, slot head, retaining ring 44 – Two long turning jackscrews, slot head, retaining ring 45 – Two turning jackscrews, allen head, captivated** FF – Float-mount: front panel mounting FR – Float-mount: rear panel mounting	WIRING 00 – None XX – See Wiring Codes

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

- * 0.018 diameter
- ** Captivated hardware is factory-installed and non-removable
- † Leads are soft copper, suitable for forming.

MQHT-212-031-161-41WS

High-Reliability Contact
MIL-DTL-83513

MATERIALS and FINISHES

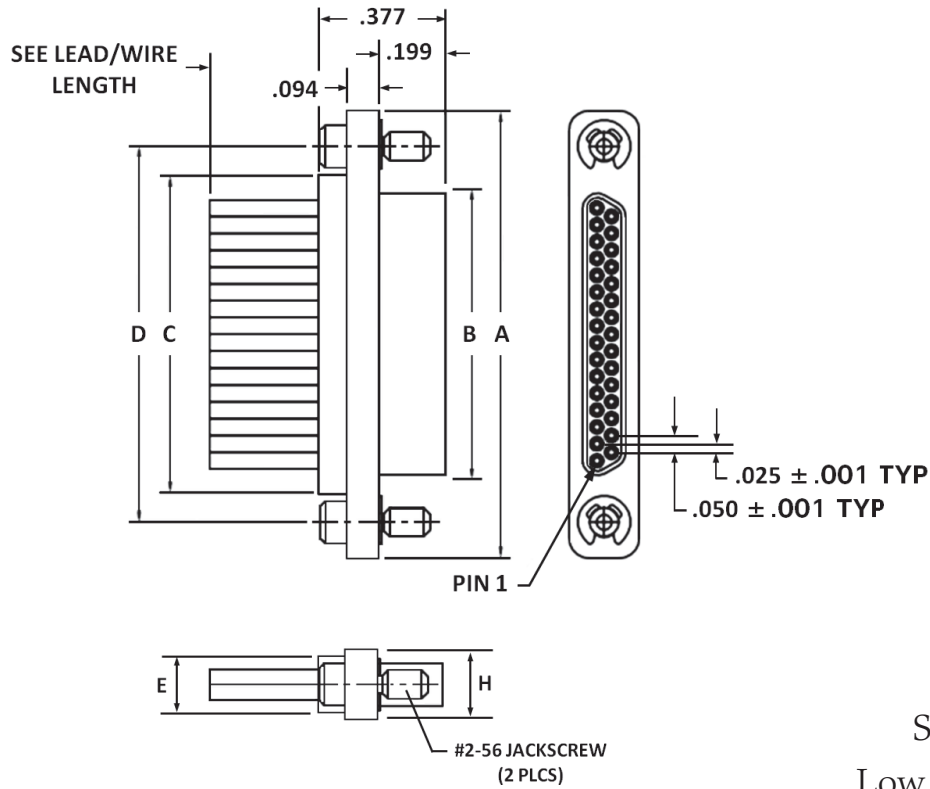
Pin Contacts: Copper-based alloy strip
 Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
 Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8
 Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
 Molded Insulators: High-temp thermoplastic
 Embedment: High-temp epoxy
 Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
 Tolerances: Angles: ±5°
 (unless otherwise specified) Decimals: ±0.010"; Fractions: ±1/64"
 Wire lengths – insulated/stranded: +1.0/-0.0" insulated/solid: +0.02/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes maximum
 Operating Temperature: -55° C to 205° C
 Test Voltage: 600V, RMS, 60Hz
 Insulation Resistance 5,000 megohms minimum @ 500 VDC
 Durability: 500 connector mating cycles
 Contact Engaging Force: 6.0 ounces maximum/contact
 Contact Separating Force: 0.5 ounces minimum/contact
 Mating and Unmating Force: 10 ounces maximum/contact

MQHT MALE DRAWINGS



Straight
 Low Profile
 Cable-to-Cable

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

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



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

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[550S008M3F0K0F04](#) [550S086M5R3J0L](#) [550S100NF3F0E](#) [550T001M2R7E0L](#) [550T001NF1F0B1L](#) [550T001NF1R1K0G](#)
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