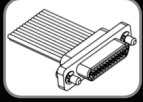




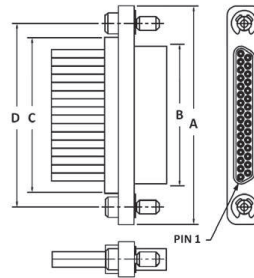
**M** **MICRO**  
**SERIES** **0.050"**  
**(1.27 mm)**



## 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

<b>MQHT</b>	<b>ENTER CODE</b>	<b>ENTER CODE</b>	<b>ENTER CODE</b>	<b>ENTER CODE</b>	<b>ENTER CODE</b>	<b>ENTER CODE</b>	<b>ENTER CODE</b>	<b>ENTER CODE</b>
<b>SERIES</b> 0.050" Low-Profile Metal I/O Connector (Male)	<b>ROWS</b> 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	<b>BODY STYLE</b> 1 – Plug	<b>BODY MATERIAL</b> 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	<b>SIZE</b> 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	<b>CONTACT/TERMINATION TYPE</b> 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	<b>PLATING</b> 1 – 50 μ" Au contacts (crimp wire) 3 – 50 μ" Au contacts; Au terminations (solder cup, pigtail)	<b>HARDWARE</b> 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	<b>WIRING</b> 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.

## 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"  
 uninsulated/solid: +0.027/-0.0"

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

## PERFORMANCE

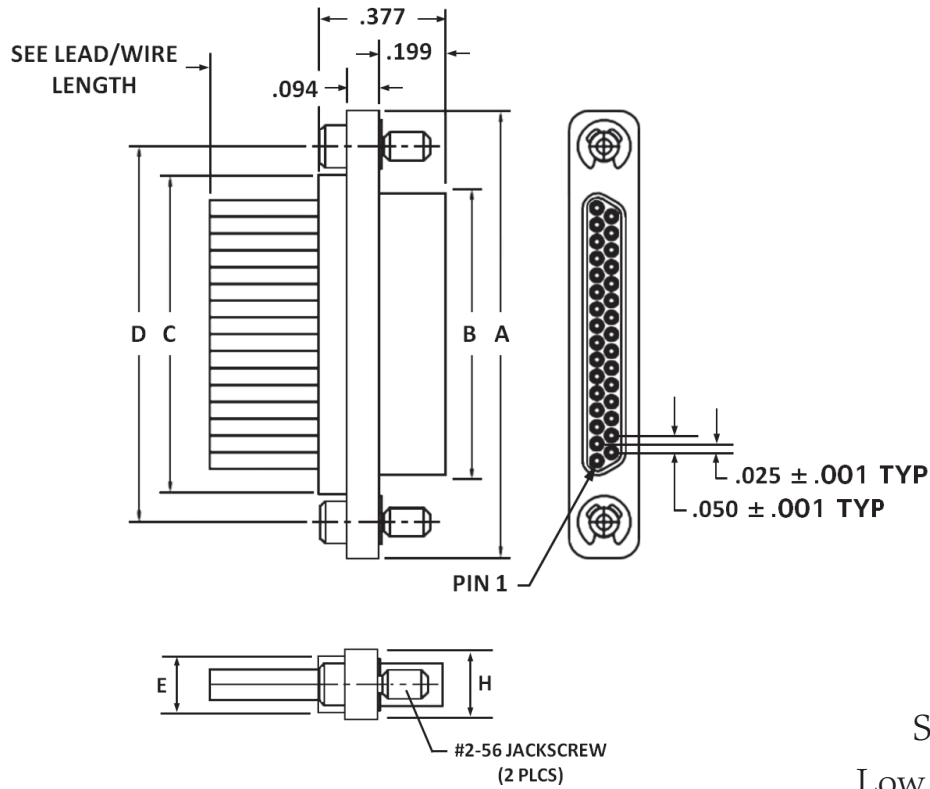
Contact Rating: ..... 3 amperes maximum  
 Operating Temperature: ..... -55° C to 205° C  
 Test Voltage: ..... 600V, RMS, 60Hz  
 Insulation Resistance ..... 5,000 megohms minimum @ 500 VDC  
 Durability: ..... 500 connector mating cycles  
 Contact Engaging Force: ..... 6.0 ounces maximum/contact 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

**MQHT-212-031-161-41WS**




**High-Reliability Contact**  
 MIL-DTL-83513

## 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