

# Archer Connectors – M50 IDC Specification

- 1.27mm pitch cable-to-board connectors, with latching and polarization.

## Materials

<b>Housings</b>	
PCB Connectors:	LCP, UL94V-0
IDC Cable Connectors:	PBT, UL94V-0
<b>Contacts:</b>	Copper Alloy
<b>Finish</b>	
M50-380:	Gold on contact area
Others:	Gold on contact area, Tin on tails

## Electrical

<b>Current</b>	
M50-330, 91X:	1A per contact
M50-355, 365:	1.75A per contact
M50-380, 90X:	0.5A per contact
<b>Voltage proof</b>	
M50-90X/91X:	300V DC for 1 minute
Others:	1,000V AC for 1 minute
<b>Contact resistance:</b>	30mΩ max
<b>Insulation resistance</b>	
M50-90X, 91X:	5MΩ min
Others:	1,000MΩ min

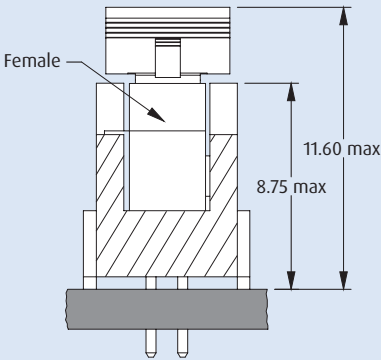
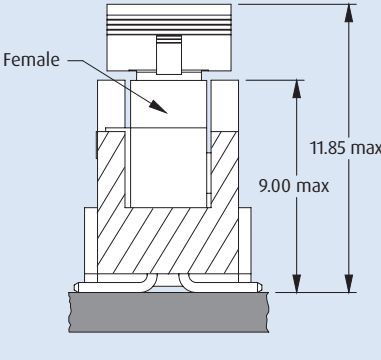
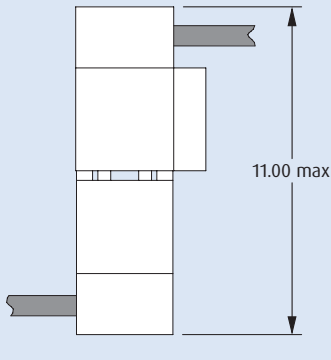
## Mechanical

<b>Durability:</b>	100 operations
<b>Insertion force (max):</b>	1.0N per contact
<b>Withdrawal force (min):</b>	0.15N per contact

## Environmental

<b>Operating temperature</b>	
PCB Connectors:	-55°C to +125°C
IDC Cable Connectors:	-40°C to +105°C
Cable Assembly:	-20°C to +105°C
<b>Solderability:</b>	245°C for 5 seconds
<b>Soldering heat resistance:</b>	260°C for 10 seconds

## Mating Profiles

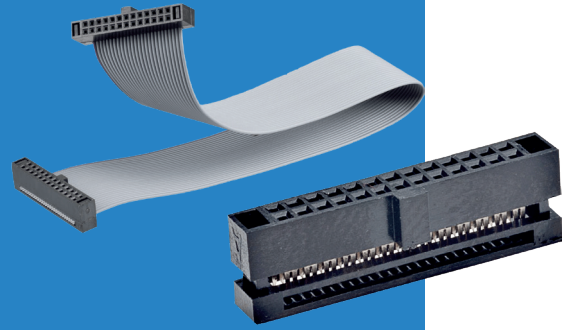
MALE			
	VERTICAL THROUGHBOARD	VERTICAL SMT	CABLE
FEMALE CABLE			

All dimensions in mm.

# Archer Connectors – M50 IDC

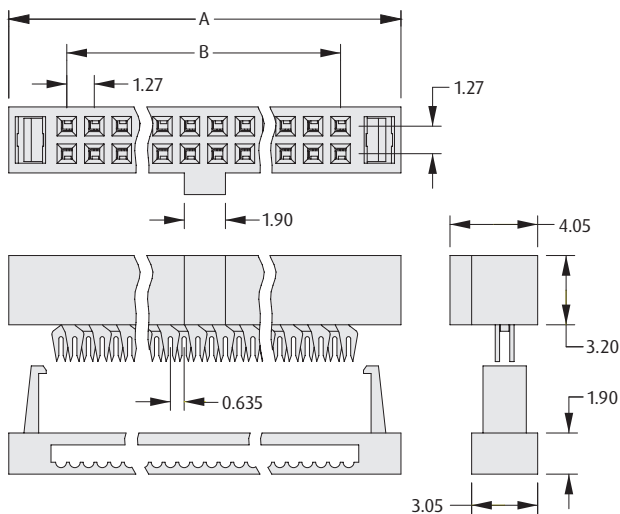
## Female Cable Connector & Cable Assembly

- ❖ Suitable for use with male vertical latching connectors shown on the following page.
- ❖ IDC connection for fast termination of multiple contacts.
- ❖ Polarized to prevent mis-mating.
- ❖ Secure cable retention with positive latching to header.
- ❖ Standard cable assembly lengths from stock.
- ❖ Instruction sheet for Hand Tool is available at [www.harwin.com/instructions](http://www.harwin.com/instructions).



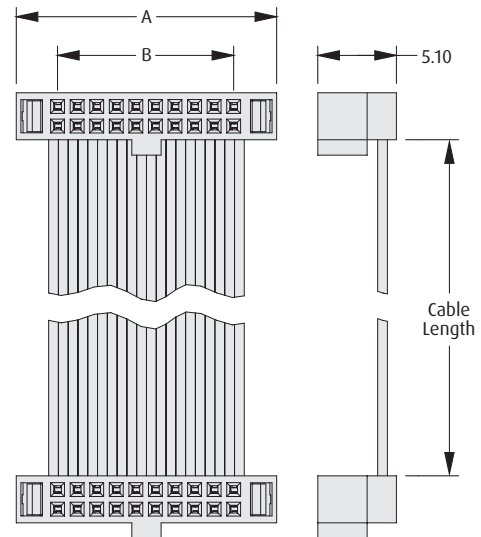
1.27mm (.050") PITCH

### FEMALE IDC



### FEMALE-TO-FEMALE CABLE

- ❖ Uses 0.635mm pitch 30 AWG Ribbon cable to UL2678.
- ❖ Constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.



### HAND TOOL



**ORDER CODE**  
**Z50-020**

### CALCULATION

<b>A</b>	$B + 5.47$
<b>B</b>	$1.27 \times (\text{No. of contacts per row} - 1)$

### HOW TO ORDER

#### SERIES CODE

#### TYPE

<b>330</b>	Female IDC Connector
<b>910</b>	150mm Cable Assembly
<b>911</b>	300mm Cable Assembly

**M50 - XXX XX 42**

#### FINISH

<b>42</b>	Gold + Tin
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#### NO. OF CONTACTS PER ROW

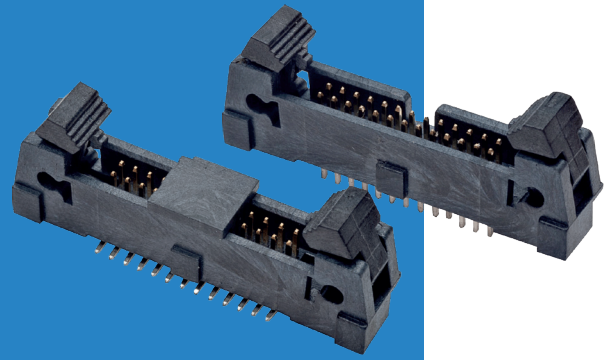
<b>05, 10, 13, 17, 20, 25</b>	All
<b>06, 07, 08</b>	M50-330 only

All dimensions in mm.

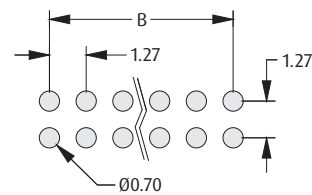
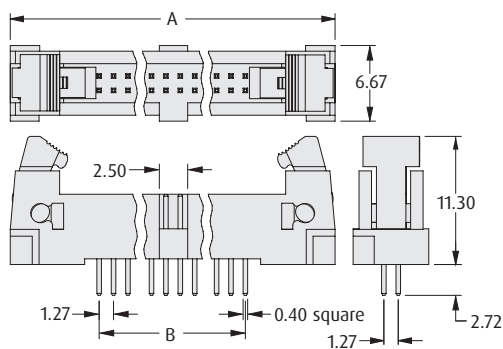
# Archer Connectors – M50 IDC

## Male Vertical Latching Connectors

- ❑ Suitable for use with female cable connectors shown on previous page.
- ❑ Surface mount option has locking pegs for location and retention.
- ❑ Shrouded for robust pin protection.
- ❑ Polarized to prevent mis-mating.
- ❑ Secure, positive latch & ejection system.
- ❑ Tape and Reel packaging option includes Pick and Place cap for automated assembly.



### THROUGHBOARD

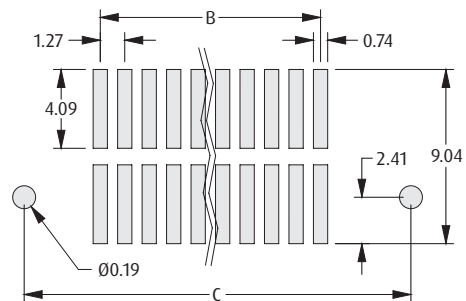
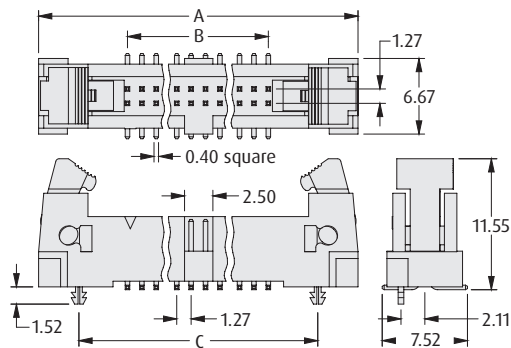


Recommended PC Board Pattern

#### CALCULATION

<b>A</b>	$B + 15.75$
<b>B</b>	$1.27 \times (\text{No. of contacts per row} - 1)$
<b>C</b>	$B + 8.64$

### SURFACE MOUNT



Recommended PC Board Pattern

### HOW TO ORDER

**M50 - 3 X 5 XX 42 X**

#### SERIES CODE

#### TYPE

<b>5</b>	Throughboard
<b>6</b>	Surface Mount

#### NO. OF CONTACTS PER ROW

<b>05, 06, 08, 10, 13, 17, 20, 25</b>	Throughboard
<b>05 to 08, 10, 13, 17, 20, 25</b>	Surface Mount

#### PACKAGING

<b>R</b>	Tape & Reeled (M50-365)
<b>Blank</b>	Loose (M50-355)

#### FINISH

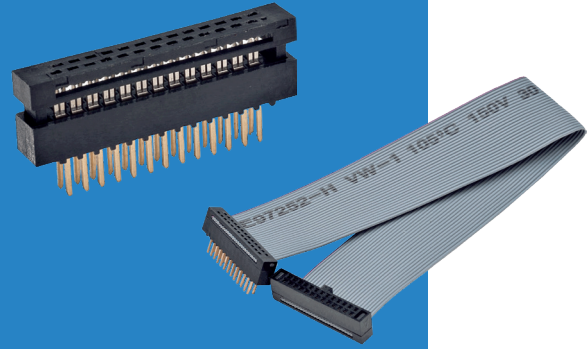
<b>42</b>	Gold + Tin
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All dimensions in mm.

# Archer Connectors – M50 IDC

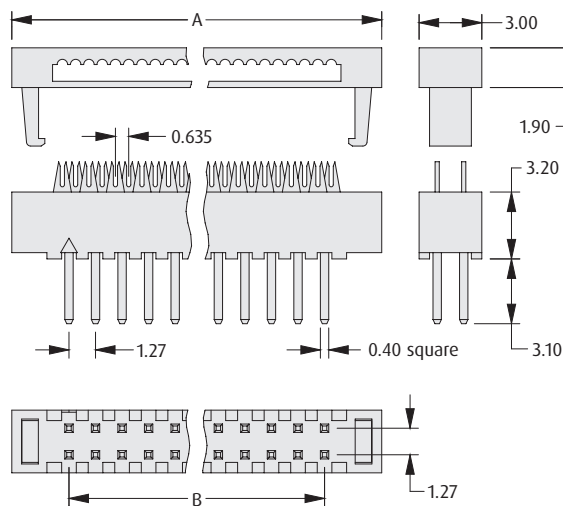
## Male Cable Connector & Cable Assembly

- Male transitional cable connector suitable for soldering directly to PCB, permits cost effective cable to PCB attachment.
- IDC connection for fast termination of multiple contacts.
- Suitable for mating with other sockets from the Archer range.
- Low profile, small footprint.
- Instruction sheet for Hand Tool is available at [www.harwin.com/instructions](http://www.harwin.com/instructions).



1.27mm (.050") PITCH

### MALE IDC



### HAND TOOL



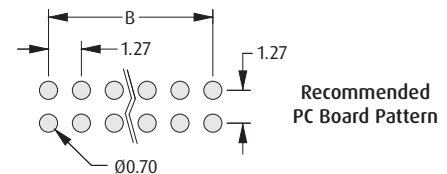
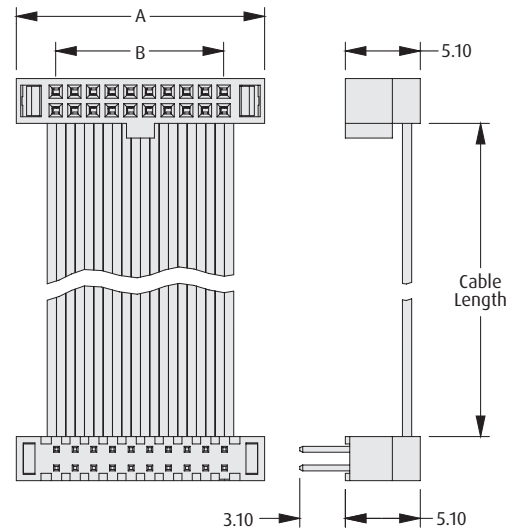
**ORDER CODE**  
**Z50-030**

### CALCULATION

<b>A</b>	$B + 5.47$
<b>B</b>	$1.27 \times (\text{No. of contacts per row} - 1)$

### MALE-TO-FEMALE CABLE

- Uses 0.635mm pitch 30 AWG Ribbon cable to UL2678.
- Constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.



Recommended  
PC Board Pattern

### HOW TO ORDER

#### SERIES CODE

#### TYPE

<b>380</b>	Male IDC Connector
<b>901</b>	150mm Cable Assembly
<b>902</b>	300mm Cable Assembly

**M50 - XXX XX 42**

#### FINISH

<b>42</b>	Gold + Tin
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#### NO. OF CONTACTS PER ROW

<b>05, 10, 13, 17, 20, 25</b>	All
<b>06, 07, 08</b>	M50-380 only

All dimensions in mm.