

Archer Connectors - M50 IDC Specification

Material

Mouldings:	PC Tail, SMT: LCP, UL94V-0 IDC Cable: PBT, UL94V-0
Contacts:	Copper Alloy
Finish:	M50-380: Gold on contact area Others: Gold on contact area, Tin on tails

Environmental

Operating temperature:	PC Tail, SMT: -55°C to +125°C IDC Cable Connectors: -40°C to +105°C Cable Assembly: -20°C to +105°C
Solderability:	245°C for 5 seconds
Soldering heat resistance:	260°C for 10 seconds

Electrical

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

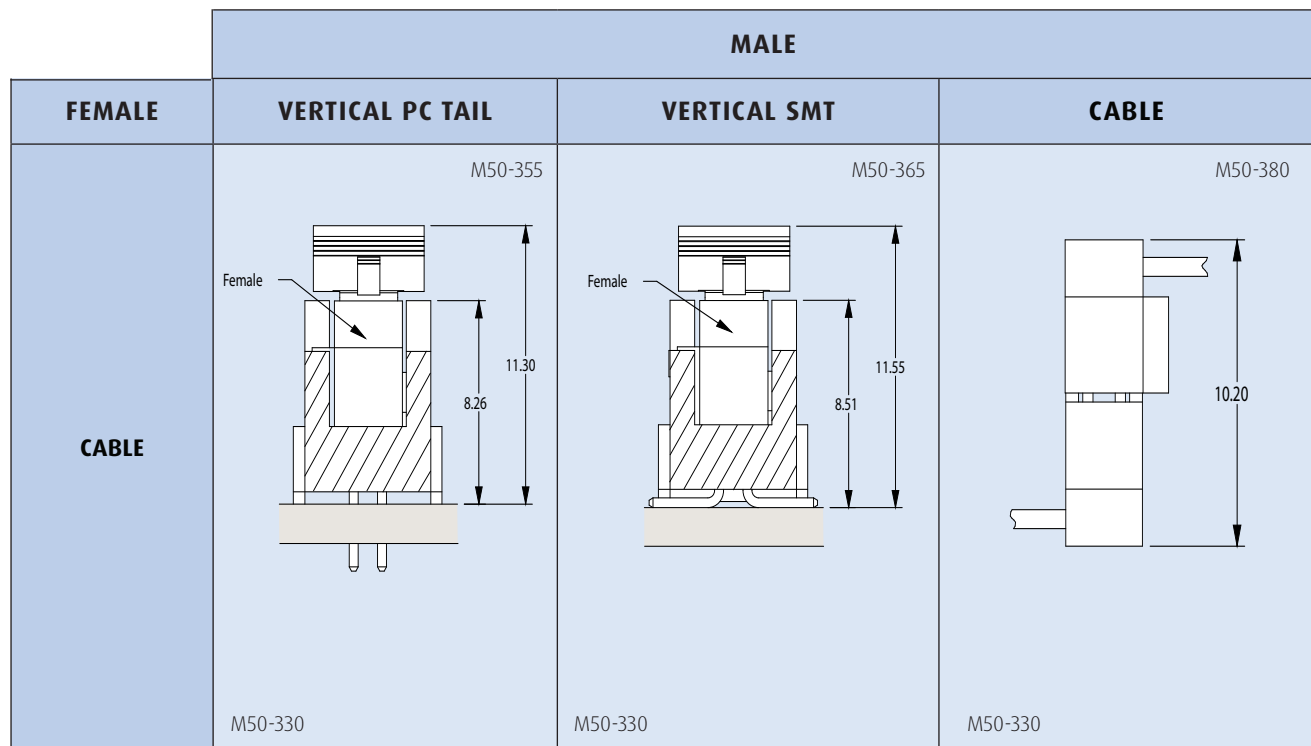
Mechanical

Durability:	100 operations
Insertion force (max.):	1.0N per contact
Withdrawal force (min.):	0.15N per contact

All preferred sizes of this range are held in stock.
Check www.harwin.com for availability.

1.27mm (.050") PITCH

MATING PROFILES



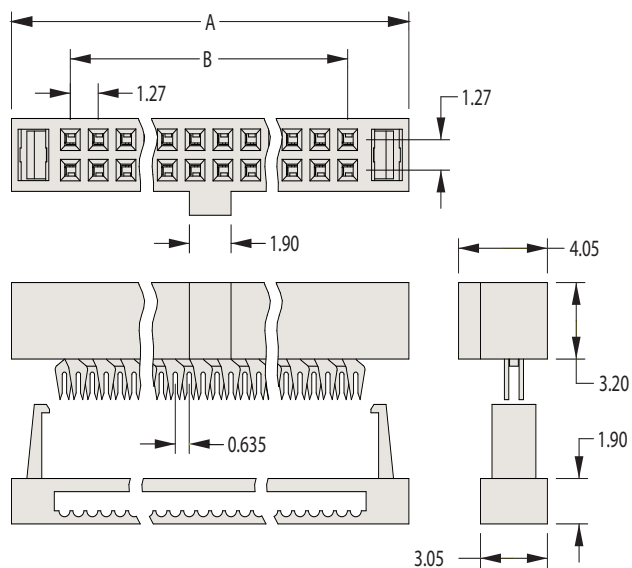
All dimensions in mm.

Female Cable Connector & Cable Assembly

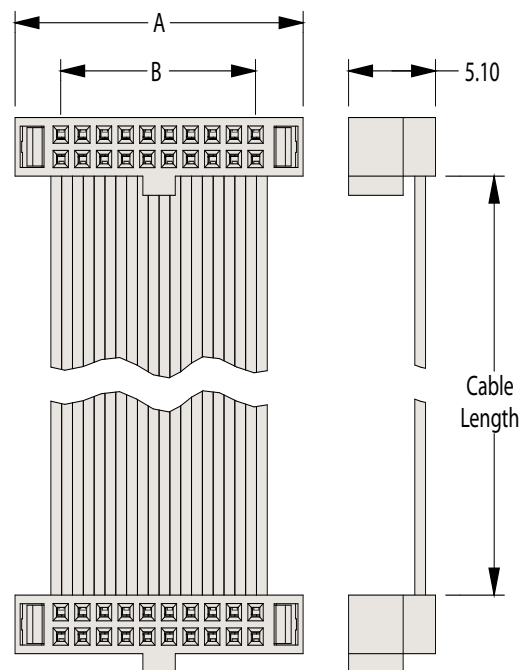
- ❖ Suitable for use with male vertical latching connectors shown on page 115.
- ❖ IDC Contact for high speed termination.
- ❖ Polarized to prevent mis-mating.
- ❖ Secure cable retention with positive latching to header.
- ❖ Standard cable assembly lengths from stock.



FEMALE IDC



FEMALE-TO-FEMALE CABLE



CALCULATION

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

HOW TO ORDER

M50 - XXX XX 42

SERIES CODE

TYPE

330	Female IDC Connector
910	150mm Cable Assembly
911	300mm Cable Assembly

FINISH

42 Gold + Tin

NO. OF CONTACTS PER ROW

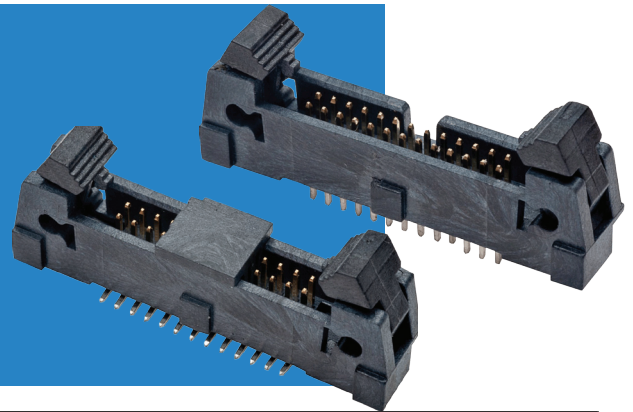
05, 10, 13, 17, 20, 25

All dimensions in mm.

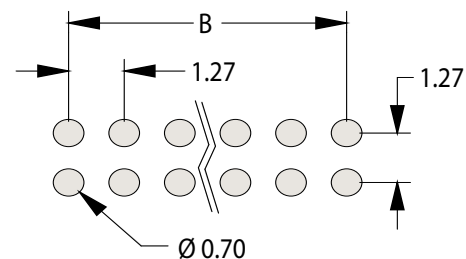
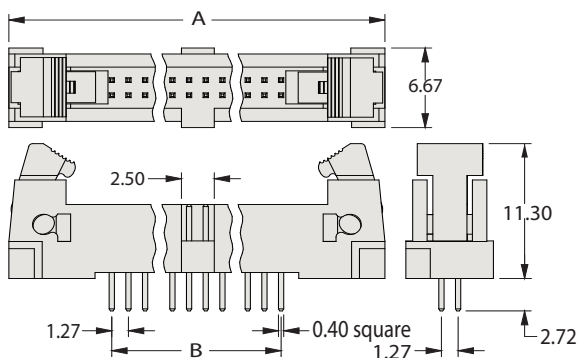
1.27mm (.050") PITCH

Male Vertical Latching Connectors

- Suitable for use with female cable connectors shown on page 114.
- Small footprint.
- Shrouded for robust pin protection.
- Polarized to prevent mis-mating .
- Secure, positive latch & ejection system.
- Through PCB and SMT in tape and reel.



PC TAIL

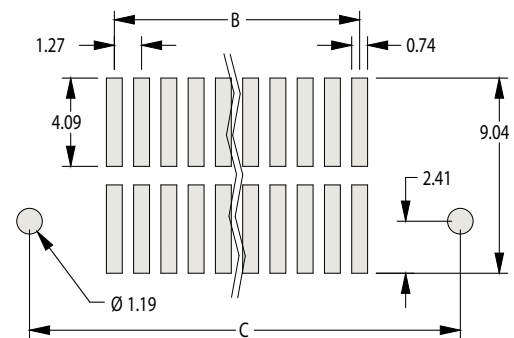
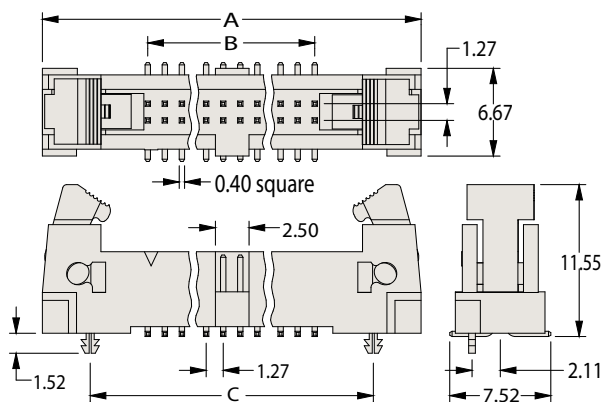


Recommended PC Board Pattern

CALCULATION

A	$B + 15.75$
B	$1.27 \times (\text{Number of Contacts per row} - 1)$
C	$B + 8.64$

SURFACE MOUNT



Recommended PC Board Pattern

HOW TO ORDER

M50 - 3 X 5 XX 42 R

SERIES CODE

TYPE	
5	PC Tail
6	Surface Mount

NO. OF CONTACTS PER ROW

05, 10, 13, 17, 20, 25

PACKAGING

R	Tape and Reeled (M50-365)
Blank	Loose (M50 - 355)

FINISH

42 Gold + Tin

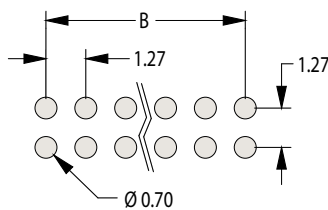
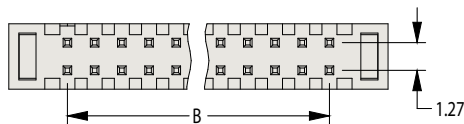
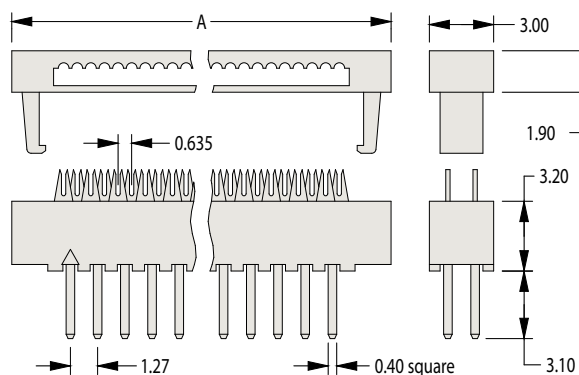
1.27mm (.050") PITCH

Male Cable Connectors & Cable Assembly

- Male transitional cable connector suitable for soldering directly to PCB, permits cost effective cable to PCB attachment.
- IDC Contact for high speed termination.
- Suitable for mating with other sockets from the Archer range.
- Low profile, small footprint.

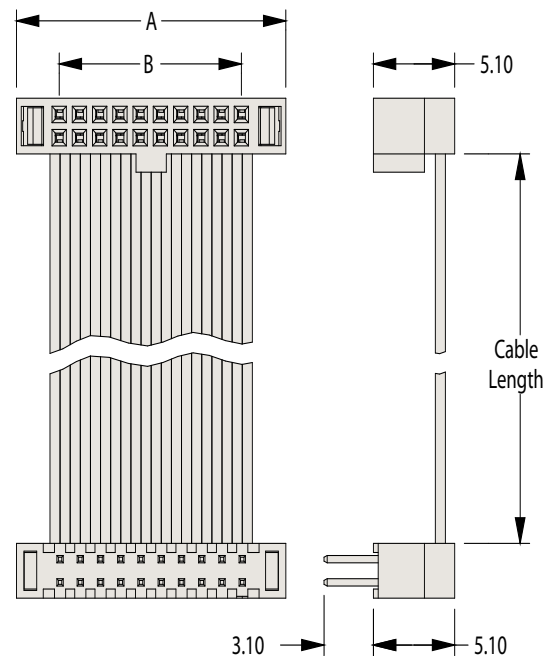


MALE IDC



Recommended PC Board Pattern

MALE-TO-FEMALE CABLE



CALCULATION

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

HOW TO ORDER

M50 - XXX XX 42

SERIES CODE

TYPE

380	Male IDC Connector
901	150mm Cable Assembly
902	300mm Cable Assembly

FINISH

42 Gold + Tin

NO. OF CONTACTS PER ROW

05, 10, 13, 17, 20, 25

All dimensions in mm.

1.27mm (.050") PITCH