

# M30 Connectors Specification

- A range of 1.25mm pitch male and female connectors, for cable-to-board applications.

## Material

Housings	
SMT:	Nylon 6T, UL94V-0
Others:	Nylon 66, UL94V-0
Contacts	
Male:	Brass
Female:	Phosphor Bronze
Finish:	Tin

## Electrical

Current:	1A per contact
Working voltage:	150V AC
Voltage proof:	500V AC/DC
Contact resistance:	30mΩ max
Insulation resistance:	500MΩ min

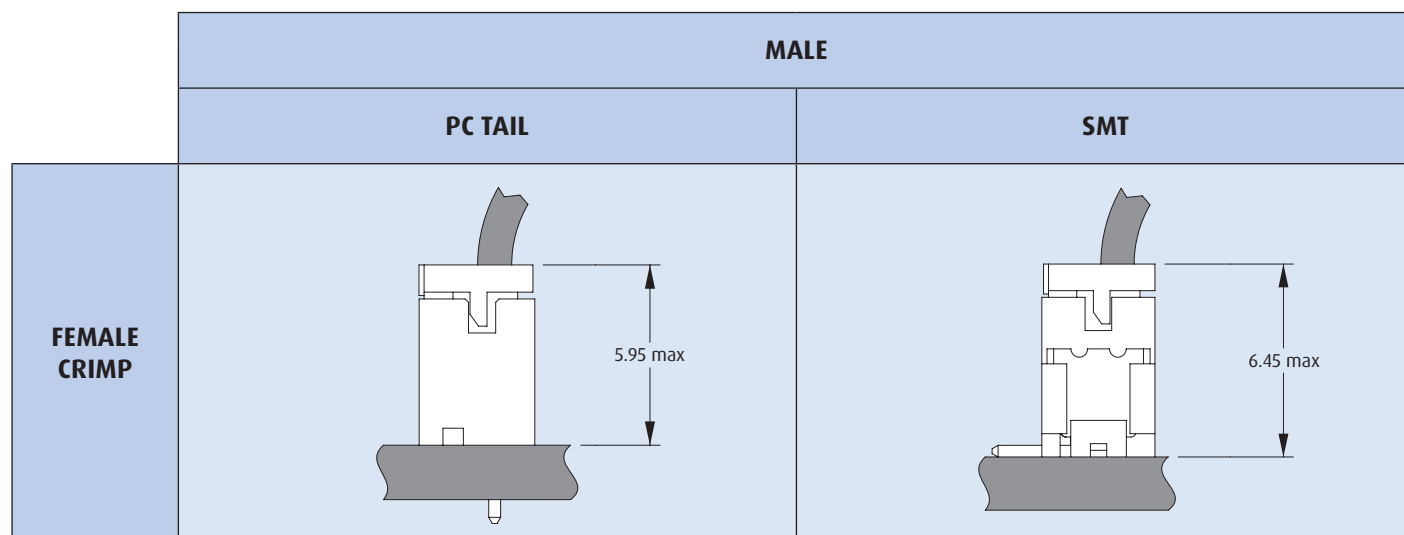
## Mechanical

Durability:	50 operations
Insertion force (max):	4.9N per contact
Withdrawal force (min):	0.5N per contact
Crimp retention (min):	4.9N per contact
Crimped wire retention (min)	
26 AWG wire:	19.6N
28 AWG wire:	9.8N
30 AWG wire:	7.8N
Vibration sensitivity:	10 – 55Hz, 1.5mm, 6 hours duration
Shock severity:	490m/s <sup>2</sup> (50G) for 11ms

## Environmental

Operating temperature:	-25°C to +85°C
Solderability:	245°C for 5 seconds
Soldering heat resistance	
PC Tail:	250°C for 5 seconds
SMT:	260°C for 10 seconds

## Mating Profiles

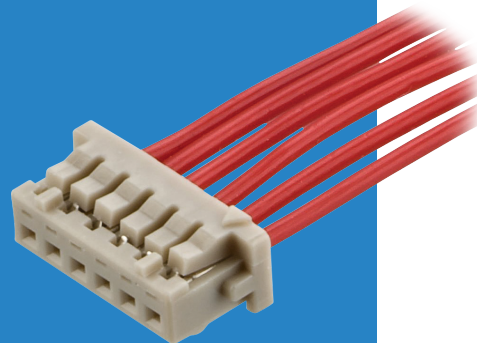


All dimensions in mm.

# M30 Connectors

## Female Crimp Housing

- ❖ Loose or reeled contacts.
- ❖ Crimp contacts or pre-cabled contacts are ordered separately - see the following pages.

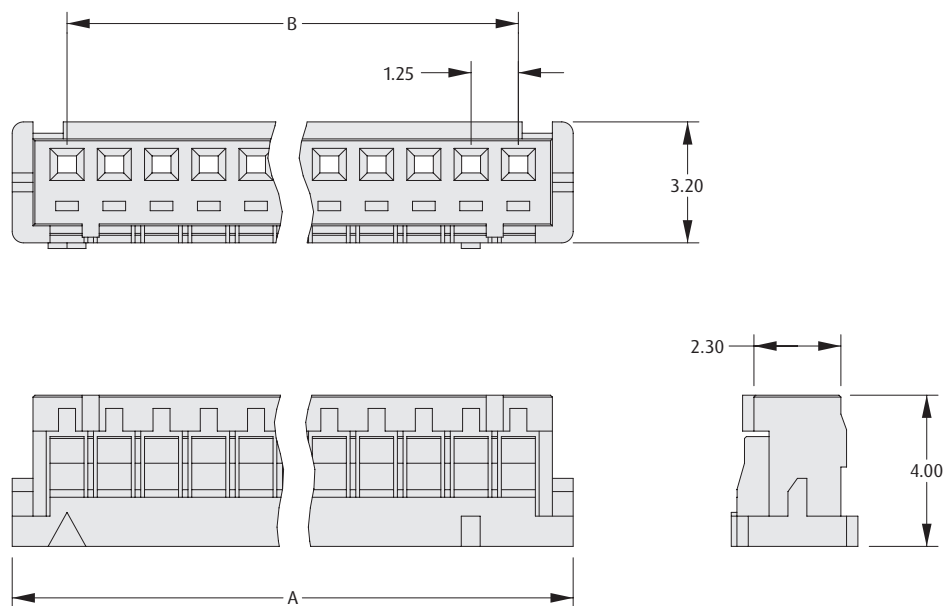


1.25mm (.049") PITCH

### HOUSING

### CALCULATION

<b>A</b>	$B + 2.9$
<b>B</b>	$1.25 \times (\text{No. of contacts per row} - 1)$



### HOW TO ORDER

**M30 - 110 XX 00**

**SERIES CODE**

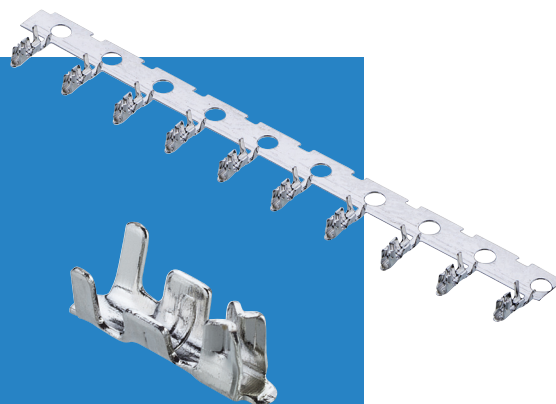
**NO. OF CONTACTS PER ROW**  
02 to 15

All dimensions in mm.

# M30 Connectors

## Female Crimp Contacts

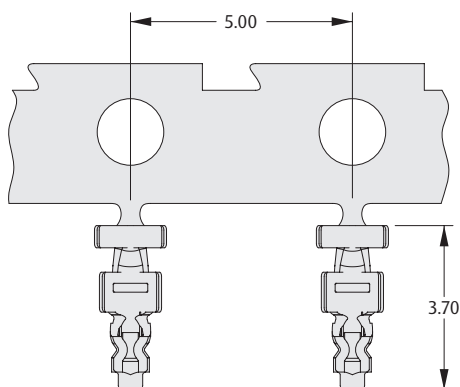
- ❖ Loose or reeled contacts.
- ❖ Open crimp design, ideal for automation.
- ❖ Use with female crimp housings shown on previous page.
- ❖ Pre-crimped contacts with wire attached shown on following page.



### CONTACTS

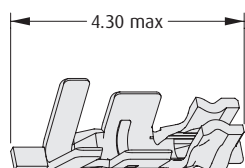
#### Reeled (continuous strip)

- ❖ Order code is for one reel of 10,000 contacts.



#### Loose (cropped)

- ❖ Order code is for one pack of 100 contacts.



### HAND CRIMP TOOL

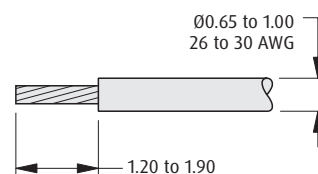
- ❖ Instruction sheet is available at [www.harwin.com/instructions](http://www.harwin.com/instructions).
- ❖ For use with loose contacts.



#### ORDER CODE

Z30-021

### WIRE STRIPPING DETAILS



### HOW TO ORDER

**M30 - 10 X 00 46**

#### SERIES CODE

#### TYPE

5	Reeled contact
6	Loose contact

#### FINISH

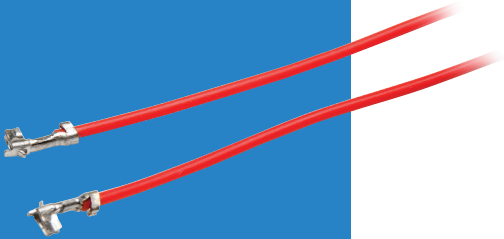
46 Tin

All dimensions in mm.

# M30 Connectors

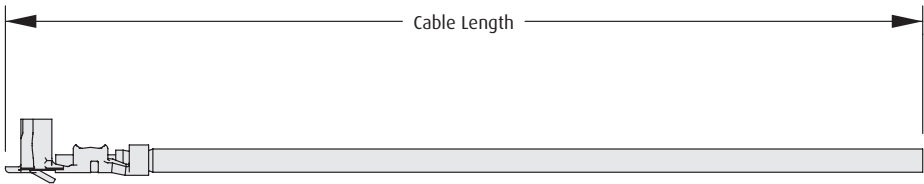
## Female Crimp Contacts – Pre-Crimped Wires

- ❖ Female crimp contacts pre-assembled with a choice of wire sizes and lengths.
- ❖ PTFE-insulated, multi-strand silver-plated copper conductor equipment wire.
- ❖ Use with female crimp housings shown on previous page.
- ❖ Ideal for prototype and pre-production applications.
- ❖ Individual contacts without wire shown on previous page.

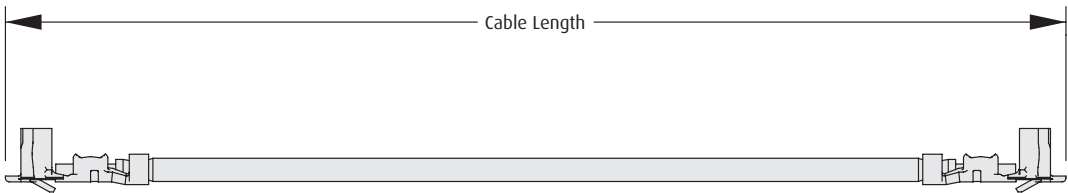


1.25mm (.049") PITCH

### FEMALE SINGLE ENDED



### FEMALE - FEMALE



### HOW TO ORDER

**M30 - 9XX 00 99**

**SERIES CODE**

**CABLE COLOR**

**99** Red

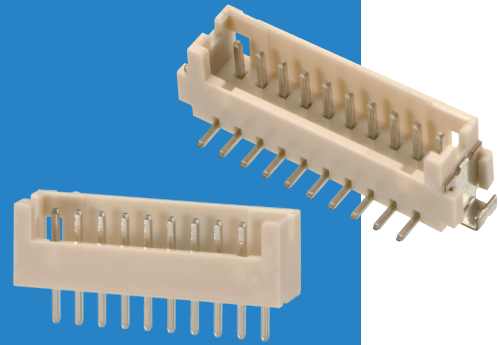
SINGLE ENDED	FEMALE - FEMALE	
900	904	26 AWG cable, 150mm length
901	905	30 AWG cable, 150mm length
902	906	26 AWG cable, 300mm length
903	907	30 AWG cable, 300mm length

All dimensions in mm.

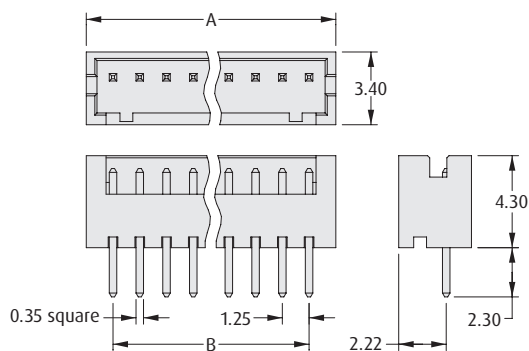
# M30 Connectors

## Male Vertical

- ❖ Shrouded male connectors.
- ❖ SMT version features metal solder-down tabs and locating pegs to ensure correct positioning onto the board.
- ❖ Tape and Reel option supplied fitted with Pick and Place cap.

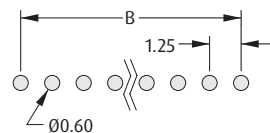


### THROUGHBOARD



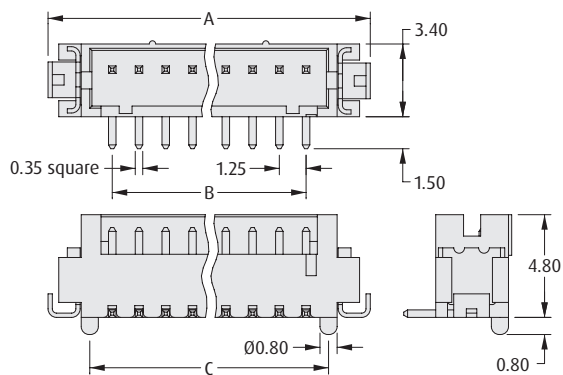
### CALCULATION

<b>A</b>	$1.25 \times (\text{No. of contacts per row} + 1)$
<b>B</b>	$1.25 \times (\text{No. of contacts per row} - 1)$



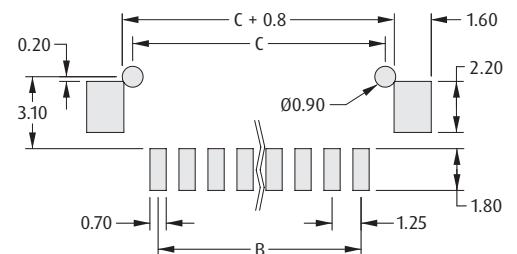
Recommended PC Board Pattern

### SURFACE MOUNT



### CALCULATION

<b>A</b>	$B + 6$
<b>B</b>	$1.25 \times (\text{No. of contacts per row} - 1)$
<b>C</b>	$B + 2.1$



Recommended PC Board Pattern

### HOW TO ORDER

**M30 - 6 X 0 XX XX X**

#### SERIES CODE

#### TYPE

<b>0</b>	Surface Mount
<b>1</b>	PC Tail

#### PACKAGING

<b>Blank</b>	Loose
<b>R</b>	Tape & Reeled (M30-600)

#### FINISH

<b>46</b>	Tin
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#### NO. OF CONTACTS PER ROW

**02 to 15**

All dimensions in mm.