

# M30 Connectors Specification

## Material

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

## Electrical

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

## Environmental

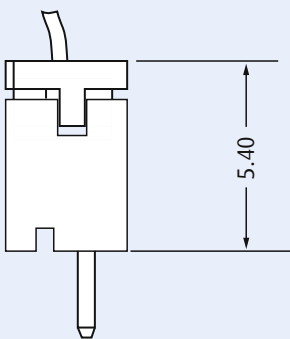
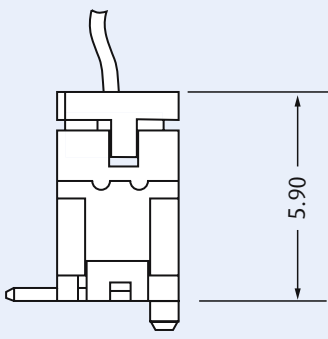
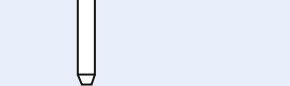
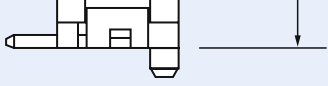
Operating temperature:	-25°C to +85°C
Solderability:	245°C for 5 seconds
Soldering heat resistance:	PC Tail: 250°C for 5 seconds SMT: 260°C for 10 seconds

## 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

All preferred sizes of this range are held in stock.  
Check [www.harwin.com](http://www.harwin.com) for availability.

## Mating Profiles

MALE FEMALE	PC TAIL	SMT
CRIMP	M30-110 	M30-110 
	M30-610 	M30-600 

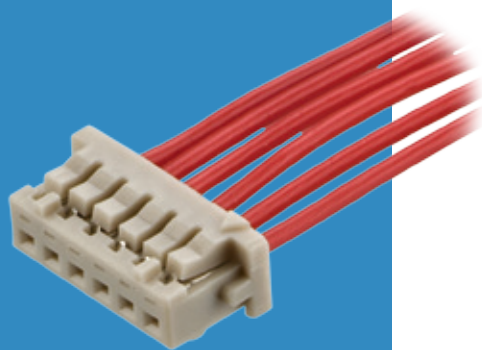
All dimensions in mm.

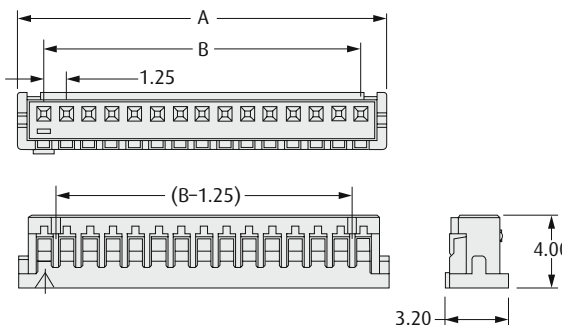

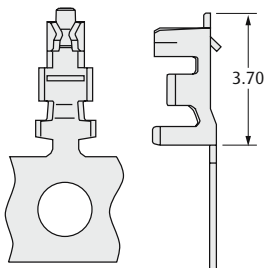
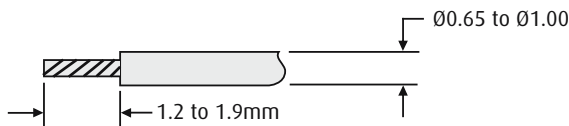






## M30 Connectors

## Female Crimp Housing and Contacts

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

- ❖ Loose or reeled contacts.
- ❖ Suitable for use with male connectors shown on page 102.



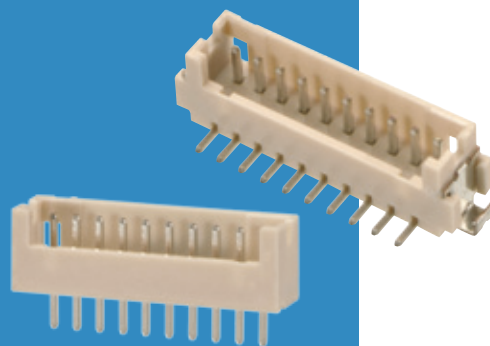
HOUSING		CALCULATION		HAND CRIMP TOOL																			
		<b>A</b>	$B + 2.9$																				
		<b>B</b>	$1.25 \times (\text{No. of contacts per row} - 1)$																				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #0070C0; color: white; padding: 5px; text-align: center; width: 20%;">ORDER CODE</div> <div style="background-color: #0070C0; color: white; padding: 5px; text-align: center; width: 20%;">Z30-021</div> </div>																							
<a href="http://www.harwin.com/downloads/instructions">Instruction sheets available at www.harwin.com/downloads/instructions</a>																							
CONTACTS		WIRE STRIPPING DETAILS																					
 <table style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr style="background-color: #0070C0; color: white;"> <th>TYPE</th> <th>AWG</th> <th>ORDER CODE</th> </tr> <tr> <td>Reeled</td> <td>26 - 30</td> <td><b>M30-1050046</b></td> </tr> <tr> <td>Loose</td> <td>26 - 30</td> <td><b>M30-1060046</b></td> </tr> </table> <ul style="list-style-type: none"> <li>❖ Order codes for reeled contacts refer to one reel of 10,000 contacts.</li> <li>❖ Order codes for loose contacts refer to one pack of 100 contacts.</li> </ul>		TYPE	AWG	ORDER CODE	Reeled	26 - 30	<b>M30-1050046</b>	Loose	26 - 30	<b>M30-1060046</b>													
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<div style="background-color: #0070C0; color: white; padding: 5px; text-align: center; margin-bottom: 5px;">SERIES CODE</div> <table style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #0070C0; color: white;"> <th colspan="2">TYPE</th> </tr> <tr> <td style="text-align: center;"><b>05</b></td> <td>Reeled contact</td> </tr> <tr> <td style="text-align: center;"><b>06</b></td> <td>Loose contact</td> </tr> <tr> <td style="text-align: center;"><b>10</b></td> <td>Housing</td> </tr> </table>		TYPE		<b>05</b>	Reeled contact	<b>06</b>	Loose contact	<b>10</b>	Housing	<div style="text-align: center; font-size: 1.2em; font-weight: bold; margin-bottom: 10px;">M30 - 1 XX XX XX</div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="background-color: #0070C0; color: white; padding: 5px; text-align: center; margin-bottom: 5px;">FINISH</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><b>00</b></td> <td>Housing</td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"><b>46</b></td> <td>Tin (Contacts)</td> <td style="text-align: center;"></td> </tr> </table> </div> <div style="width: 45%;"> <div style="background-color: #0070C0; color: white; padding: 5px; text-align: center; margin-bottom: 5px;">NO. OF CONTACTS PER ROW</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><b>02 to 15</b></td> <td>Housing</td> </tr> <tr> <td style="text-align: center;"><b>00</b></td> <td>Contacts</td> </tr> </table> </div> </div>				<b>00</b>	Housing		<b>46</b>	Tin (Contacts)		<b>02 to 15</b>	Housing	<b>00</b>	Contacts
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All dimensions in mm.

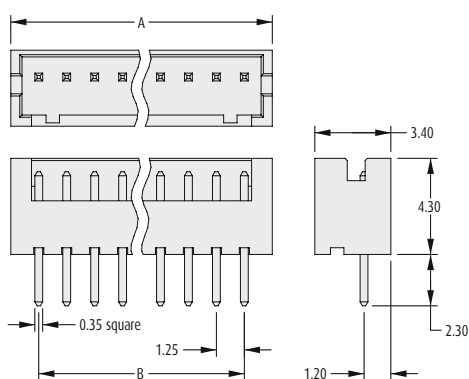
# M30 Connectors

## Male Vertical

- Shrouded male connectors.
- Suitable for use with female connectors on page 101.
- SMT version features metal solder-down tabs and locating pegs to ensure correct positioning onto the board.

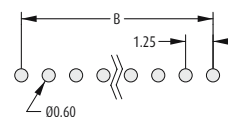


### PC TAIL



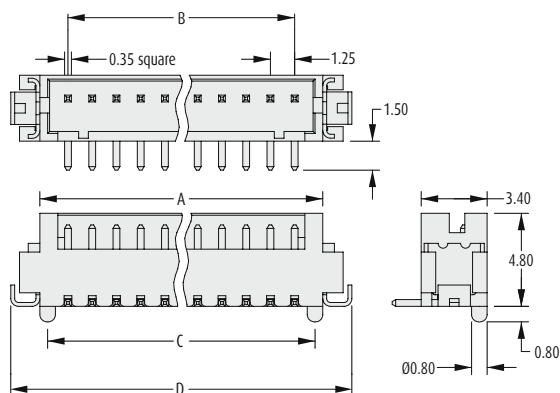
### CALCULATION

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



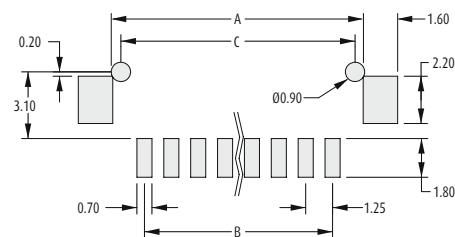
Recommended PC Board Pattern

### SURFACE MOUNT



### CALCULATION

A	$B + 2.9$
B	$1.25 \times (\text{No. of contacts per row} - 1)$
C	$B + 2.1$
D	$B + 6.0$



Recommended PC Board Pattern

### HOW TO ORDER

#### SERIES CODE

#### TYPE

0	Surface Mount
1	PC Tail

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

#### NO. OF CONTACTS PER ROW

02 to 15

#### PACKAGING

Blank	Loose
R	Tape & Reeled (M30-600)

#### FINISH

46 Tin

All dimensions in mm.