

# M40-600/620 Connectors Specification

## ► Materials

Mouldings:	High Temp Thermoplastic, UL94V-0
Contacts:	Phosphor Bronze
Finish:	Tin

## ► Electrical

Current rating:	0.5A per contact
Voltage rating:	150V AC
Voltage proof:	250V AC
Contact resistance:	50 mΩ max
Insulation resistance:	500 MΩ min

## ► Environmental

Operating temperature:	-20°C to +125°C
Solderability:	210°C for 5 seconds
Soldering heat resistance:	260°C for 10 seconds

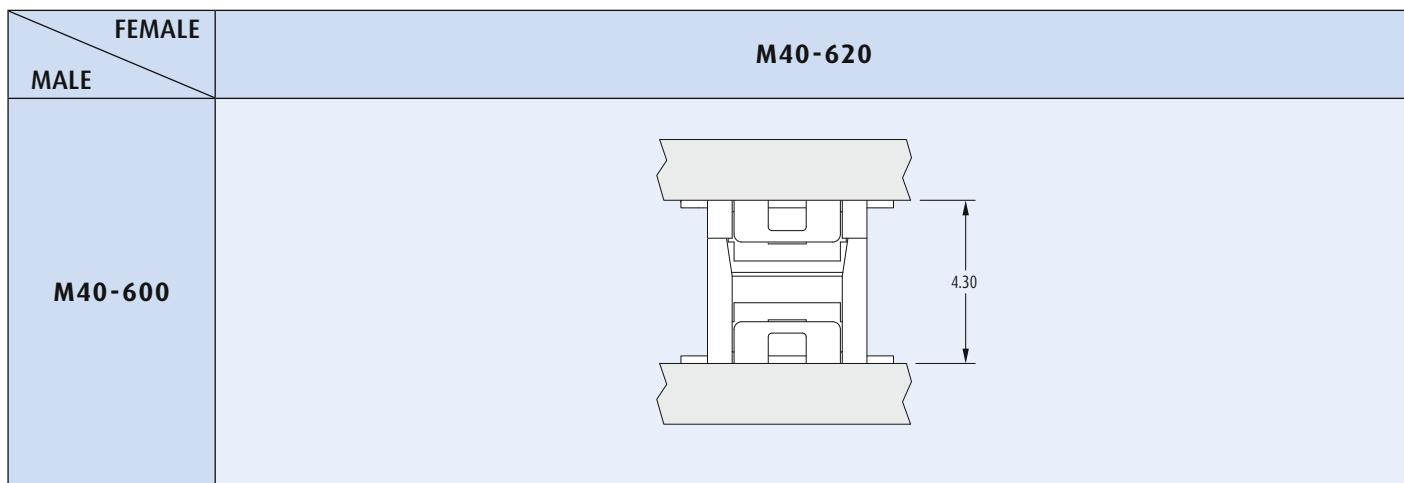
## ► Mechanical

Durability:	30 operations
Insertion force (max):	2.7N per contact
Withdrawal force (min):	0.4N per contact

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

1.0mm (.039") PITCH

## Mating Profiles



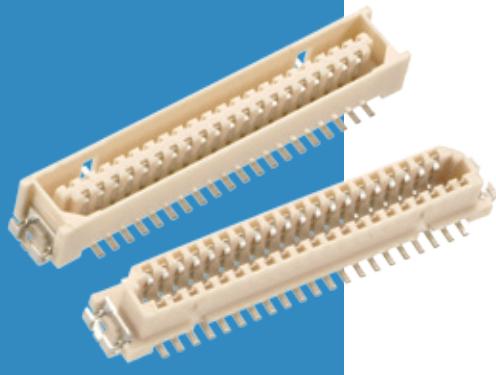
All dimensions in mm.

# M40 Connectors

## Vertical Surface Mount

A range of double row 1.00mm pitch SMT male and female connectors for board-to-board stacking.

- Locating pegs to ensure correct positioning onto the board.
- Polarised to prevent mis-mating.
- Staggered pin-out to help board layout.



FEMALE	
MALE	
CALCULATION	
<b>A</b>	$B + 7.1$
<b>B</b>	$(\text{Total No. Of Contacts} - 3) / 2$
<b>C</b>	$B + 4.1$
<b>D</b>	1.0mm for 9, 15, 21, 25 way; otherwise 0.80mm
<b>E</b>	1.84mm for 9, 15, 21, 25 way; otherwise 3.00mm
HOW TO ORDER	
<b>SERIES CODE</b>	<b>M40 - 6 X 0 XX XX X</b>
<b>GENDER</b>	
0	Male
2	Female
<b>PACKAGING</b>	
Blank	Loose
R	Tape & Reeled
<b>FINISH</b>	
46	Tin
<b>TOTAL NO. OF CONTACTS</b>	
<b>09, 15, 21, 25, 31, 41, 51</b>	

All dimensions in mm.

# M40-310/320 Connectors Specification

## ► Materials

Mouldings:	High Temp Thermoplastic, UL94V-0
Contacts:	Male: Brass Female: Phosphor Bronze
Finish:	Gold

## ► Electrical

Current rating:	1.0A per contact
Voltage proof:	500V AC
Contact resistance:	30 mΩ max
Insulation resistance:	1,000 MΩ min

## ► Environmental

Operating temperature:	-40°C to +105°C
Solderability:	245°C for 5 seconds
Soldering heat resistance:	260°C for 10 seconds

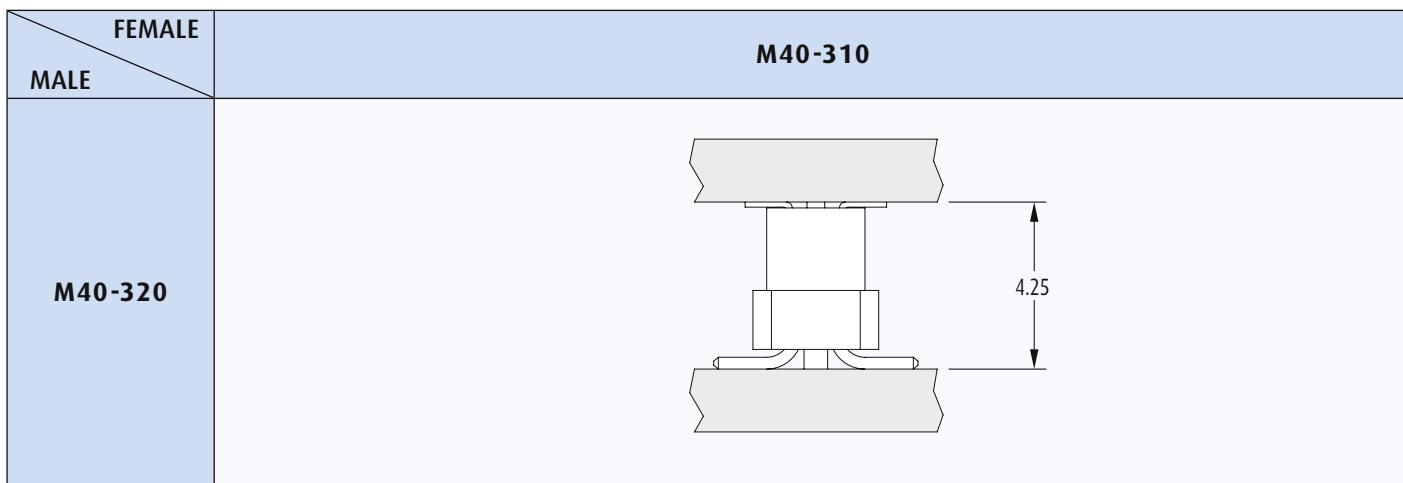
## ► Mechanical

Durability:	300 operations
Insertion force (max.):	1.5N per contact
Withdrawal force (min.):	0.1N per contact
Vibration sensitivity:	50 – 2000Hz, 45 minutes duration
Shock severity:	294m/s <sup>2</sup> (30G) for 11ms

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

1.0mm (.039") PITCH

## Mating Profiles



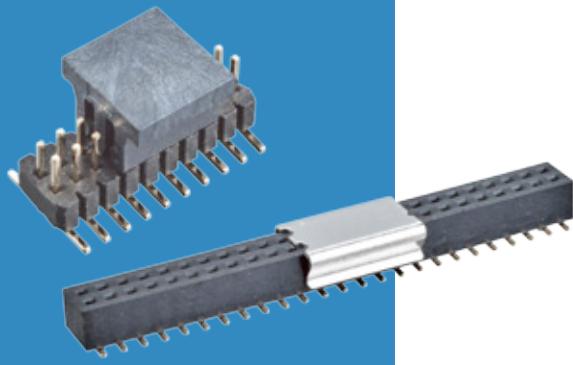
All dimensions in mm.

# M40 Connectors

## Vertical Surface Mount

A range of double row 1.00mm pitch SMT male and female connectors for board-to-board stacking.

- Locating pegs to ensure correct positioning onto the board.
- Supplied in tape and reel packaging with pick and place caps as standard.
- Twin beam female connector for higher durability.



FEMALE		CALCULATION	
		<b>A</b>	$B + 1.40$
		<b>B</b>	No. of contacts per row - 1
		<b>C</b>	No. of contacts per row - 2
		Recommended PC Board Pattern	
MALE		CALCULATION	
		<b>A</b>	No. of contacts per row
		<b>B</b>	No. of contacts per row - 1
		<b>C</b>	No. of contacts per row - 2
		Recommended PC Board Pattern	
HOW TO ORDER			
<b>SERIES CODE</b>	<b>M40 - 3</b>	<b>X 0 XX</b>	<b>45 R</b>
<b>GENDER</b>			<b>TAPE &amp; REELED</b>
1 Female			<b>FINISH</b>
2 Male			45 Gold
			<b>TOTAL NO. OF CONTACTS</b>
			03, 04, 05, 06, 08, 10, 20, 25

All dimensions in mm.