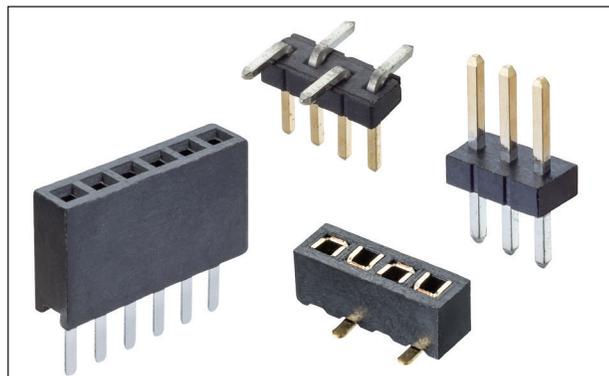


Archer - 1.27mm Pitch

PCB Connectors for industrial and commercial use

The Archer range is a series of 1.27mm (0.05") pitch connectors in single and double row options. These industry standard connectors are an ideal choice for a miniature alternative to larger pin header and socket combinations:

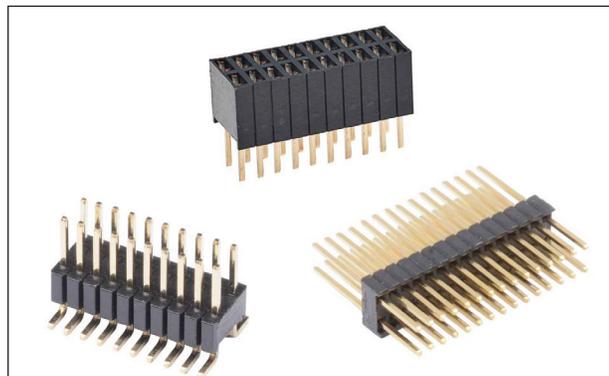
- **M50** - Board-to-Board pin headers and sockets in vertical and horizontal orientations (0.4mm square pins), and jumper sockets
- **M50 Polarized** - Board-to-Board double-row connectors with shrouding and polarization
- **M50 IDC** - Board-to-Cable double row for 0.635mm pitch ribbon cable with securing latches and polarization, including ready-made cable assemblies
- **M52** - Board-to-Board pin headers and sockets in vertical and horizontal orientation, 1.27 x 2.54mm pitch (0.46mm square pins)



Single row M50 connectors with 0.40mm square male pins



M50 IDC ready-made cable assembly with male and female connectors



M52 double row connectors, 2.54mm pitch between rows

Features and Benefits

Board-to-Board and Cable-to-Board	Design flexibility for application requirements
Off-the-shelf cable assemblies	Stocked, ready-to-use complete solutions, no tooling required
Pin Header variants in M50 and M52	Customised male connectors for varying mating heights and longer tail requirements
50% space saving against 2.54mm pitch, 37% against 2mm pitch	Gives additional real estate space availability over larger industry standard pitches
Tape and reel packaging options on SMT product	Enables fast & low cost automated PCB assembly
Compatible with industry standard connectors	Allows simple product replacement or intermateability with existing equipment or modules
Options for dual entry, shrouded, polarized connectors, location pegs, ejector systems	A variety of options to assist with design for manufacture and promote ease of assembly
Jumper sockets	Allows on-board programming with pin headers

Key Applications

Industrial	Drives and controls, fire alarm panels, robotics, monitoring equipment, meters
Consumer Electronics	Set-top boxes and consoles, home appliances, home automation systems
Telecoms	Hubs, routers, hand-held equipment, wireless modules, IoT
Retail	Point-of-sale equipment, warehouse inventory systems
Instrumentation	Test equipment, mobile monitoring devices, laboratory measurement systems
Medical	Diagnostic equipment, patient monitoring systems

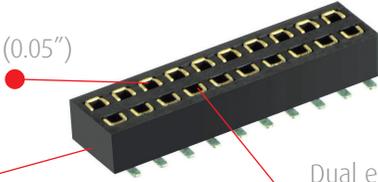
Product Features

M50 Board-to-Board

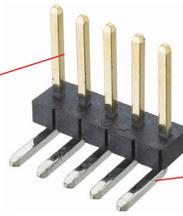
Miniature 1.27mm (0.05") pitch along and between rows

Location peg options

0.4mm square male pins



Dual entry and low profile sockets available



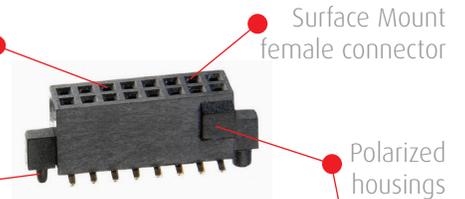
Simple pin header and socket designs

M50 Polarized

Miniature 1.27mm (0.05") pitch along and between rows

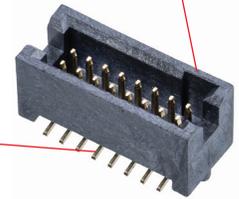
Location peg options

Choice of vertical SMT, vertical or horizontal throughboard male connectors

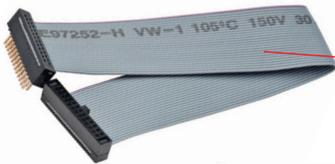


Surface Mount female connector

Polarized housings



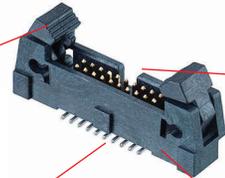
M50 IDC



Cable connectors available loose or as complete cable assemblies

Latching with ejector system

Miniature 1.27mm (0.05") pitch along and between rows

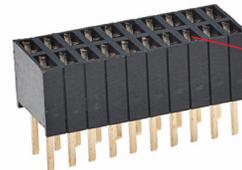


Polarized housings

Surface Mount or Throughboard male connector

M52 Board-to-Board

Simple pin header and socket designs



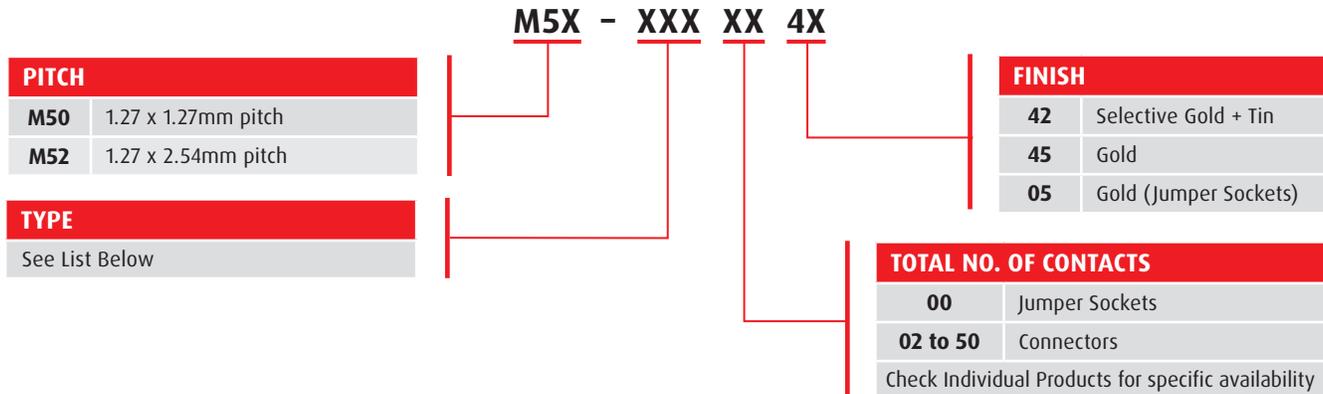
0.46mm square male pins

1.27mm (0.05") pitch along rows, 2.54mm (0.1") pitch between rows

Specifications

Electrical		Mechanical & Environmental		Physical	
Current Rating	1A per contact typical (check individual products)	Number of mating cycles	Up to 600 (check individual products)	Housing	UL94V-0 rated thermoplastic
Maximum Voltage	300V for 1 minute min (check individual products)	Temperature Range	-40°C to +105°C (Ribbon cable assembly -20°C to +105°C)	Contacts	Copper alloy
Contact Resistance	30mΩ max	Insertion Force	2.0N max (Jumper sockets 10N max)	Plating	Gold or selective plating
Insulation Resistance	500MΩ min	Withdrawal Force	0.1N min		

How to Order



TYPE

M50 BOARD-TO-BOARD

M50-303	Female Vertical Single Row PCT
M50-300	Female Vertical Double Row PCT
M50-320	Female Horizontal Double Row PCT
M50-310	Female Vertical Double Row SMT, 4.6mm high
M50-311	Female Vertical Double Row SMT (pegs), 4.6mm high
M50-314	Female Vertical Single Row SMT, 3.6mm high
M50-312	Female Vertical Double Row SMT, 3.6mm high
M50-313	Female Vertical Single Row SMT, 2.1mm high
M50-315	Female Vertical Double Row SMT (pegs), 2.2mm high
M50-190	Jumper Socket (Black)
M50-192	Jumper Socket (Red)
M50-193	Jumper Socket (Blue)
M50-200	Jumper Socket with handle (Black)
M50-202	Jumper Socket with handle (Red)
M50-203	Jumper Socket with handle (Blue)
M50-353	Male Vertical Single Row PCT
M50-350	Male Vertical Double Row PCT
M50-393	Male Horizontal Single Row PCT
M50-390	Male Horizontal Double Row PCT
M50-363	Male Vertical Single Row SMT
M50-360	Male Vertical Double Row SMT
M50-361	Male Vertical Double Row SMT (pegs)

PCT = Throughboard termination, SMT = Surface mount termination

M50 POLARIZED

M50-430	Female Vertical Double Row SMT (pegs)
M50-490	Male Vertical Double Row SMT
M50-491	Male Vertical Double Row SMT (pegs)
M50-470	Male Vertical Double Row PCT
M50-480	Male Horizontal Double Row PCT

M50 IDC

M50-330	Female Double Row IDC Cable Connector
M50-910	Female-to-Female Double Row 150mm Cable Assy
M50-911	Female-to-Female Double Row 300mm Cable Assy
M50-355	Male Vertical Double Row PCT (pegs)
M50-365	Male Vertical Double Row SMT (pegs)
M50-380	Male Double Row IDC Cable Connector
M50-900	Male-to-Female Double Row 150mm Cable Assy
M50-901	Male-to-Female Double Row 300mm Cable Assy

M52 BOARD-TO-BOARD

M52-500	Female Vertical Single Row PCT, 4.6mm high
M52-501	Female Vertical Single Row PCT, 8.5mm high
M52-510	Female Vertical Double Row PCT, 4.6mm high
M52-511	Female Vertical Double Row PCT, 8.5mm high
M52-505	Female Vertical Single Row SMT
M52-515	Female Vertical Double Row SMT

Male connectors - See next page

How to Order

M52 Board-to-Board Male

M52 - 040 XXX X XX 45

TERMINATION LENGTH

000	Surface Mount
023	Throughboard, 2.3mm

NUMBER OF CONTACTS PER ROW

05, 10, 20, 25

TYPE

S	Single Row Surface Mount
P	Double Row Surface Mount
V	Single Row Throughboard
W	Double Row Throughboard

CONTACT US

**Harwin Europe
(Global Headquarters)**
Portsmouth, Hampshire, UK
E: mis@harwin.co.uk
T: +44 (0)23 9231 4545

Harwin Inc (Americas)
New Albany, Indiana, USA
E: mis@harwin.com
T: +1 603 893 5376

**Harwin Asia Pte Ltd
(Asia, Australasia)**
Singapore
E: mis@harwinasia.com
T: +65 6 779 4909