

PicoBlade Connector System

molex

Molex's bestseller wire-to-board and wire-to-wire connector series in 1.25mm pitch with four header options for a wide variety of applications and industries across the world.

Features and Benefits

Compact and Small 1.25mm pitch WTB/WTB connectors for Space Saving

Molex's best seller WTB/WTW basic standard line in wide variety of industries across the world

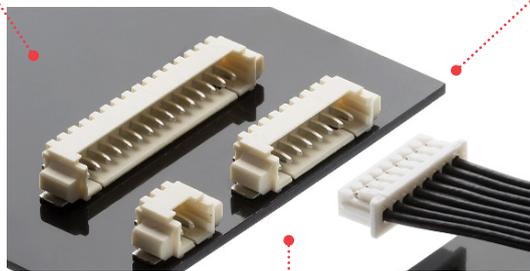
Over 20 years high volume sales history to various applications and industries proves product reliability and performance.

Friction Lock

The crimp receptacle is equipped with two latching ramps to minimize the chance of accidental unmating due to vibration or mishandling.

Wide variety choices

WTB and WTW solution. Through Hole and SMT headers with straight and right-angle orientations.

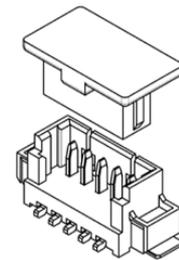


Reliable Terminal

The two-point-contact design assures a reliable electrical connection under low current, low voltage and high-vibration conditions.



PicoBlade 1.25mm connectors with Straight and Right-Angle Headers



Optional vacuum caps

Optional vacuum caps for the vertical surface mount headers allow high volume placement using industry standard pick-up nozzles.

Applications

Automotive

In-vehicle comfort and infotainment, Body Control Module, Shifters, Steering wheel, Instrument Cluster, combination switches

Consumer

Smart TV, LED TV, Set Top Box, Air conditioners, White goods, Gaming machines

Industrial

Security, Drones, Electric test equipment

Data Communications

Laser Printers, Inkjet Printers, Servers, Computer screen

Healthcare

Hearing aid, Medical Monitors



Automotive



Smart TV



Air Conditioners



Drone

Specifications

REFERENCE INFORMATION

Packaging: Reel (Terminal); Embossed (SMT Header Assembly); Tray (Through Hole Header Assembly), Bag (Receptacle Housing);
Designed In: Millimeters
RoHS: Yes

PHYSICAL

Housing: Receptacle – PBT (51021/51047)
Header – PA66(53047/53048), PA46(53261/53398)
Contact*: Phosphor Bronze
Plating*: Contact Area* – Tin
Underplating – Nickel for SMT headers (53398/53261)
– None for TH headers (53047/53048) and Crimp terminals (50079/50058/50133/50125)
Operating Temperature: -40 to +105°C (53398/53261)
-40 to +85°C (53047/53048)

MECHANICAL

Crimp Terminal Insertion Force (max.): 4.9N
Crimp Terminal Retention to Housing (min.): 4.9N
Mating Force(1st): 19.6N (2 Circuit)
Unmating Force (1st): 2.8N (2 Circuit)
Durability: 30 Cycles

ELECTRICAL

Voltage (max.): 125V
Current (max.): 2.5A at 2 Circuit/26 AWG
Contact Resistance (max.): 20 milliohms
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance (min.): 100 Megaohms

*Crimp terminal(Female), WTW terminal(Male), Header pin and Header nail.

Wire Size	Wire-to-Board			Wire-to-Wire		
	Housing + Terminal (female)	MATES TO	PCB Header	Housing + Terminal (female)	MATES TO	Housing + Terminal (male)
	51021 + 50058 50079	MATES TO	53398 53261 53047 53048	51021 + 50058 50079	MATES TO	51047 + 50125 50133
	2-circuit	8-circuit	15-circuit	2-circuit	6-circuit	10-circuit
26AWG	2.5A	1.5A	1.0A	2.5A	2.0A	1.0A
28AWG	2.0A	1.5A	1.0A	2.0A	1.5A	1.0A
30AWG	1.5A	1.0A	1.0A	1.5A	1.0A	1.0A
32AWG	1.5A	1.0A	0.8A	1.3A	1.0A	0.8A

(1) Values are for REFERENCE ONLY.

(2) Current deratings are based on not exceeding 30°C temperature rise.

(3) Temperature Rise is measured in barrel area of crimp terminal.

(4) PCB trace design can greatly affect temperature rise results.

(5) Data is for all circuits powered.

Ordering Information

Series No.	Component	Circuits	Description	Color
50058	Crimp Terminal, Female	-	28 to 32 AWG	-
50079	Crimp Terminal, Female	-	26 to 28 AWG	-
50125	Crimp Terminal, Male	-	Wire-to-Wire, 26 to 28 AWG	-
50133	Crimp Terminal, Male	-	Wire-to-Wire, 28 to 32 AWG	-
51021	Housing	2 to 15 and 17	Wire-to-Wire / Wire-to-Board	Natural / Black
51047	Plug Housing	2 to 10	Wire-to-Wire	Natural
53047	Header	2 to 15	Wire-to-Board, T/H, Vertical	Natural
53048	Header	2 to 15	Wire-to-Board, T/H, R/A	Natural
53261	Header	2 to 15 and 17	SMT, R/A	Natural / Black
53398	Header	2 to 15	SMT, Vertical	Natural / Black

*For 53398, optional vacuum cap : 2 to 6 Circuit/Natural

*Please contact Molex for available color in circuit size

www.molex.com/product/picoblade.html

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