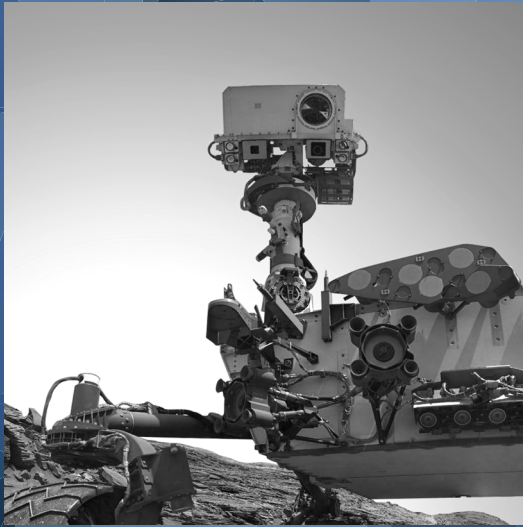


OMNETICS

CONNECTOR CORPORATION



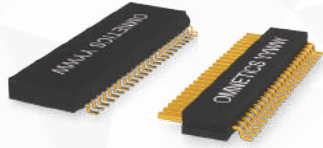
MICRO & NANO STRIP CONNECTORS

Micro .050" (1.27mm) & Nano .025" (.64mm) Catalog

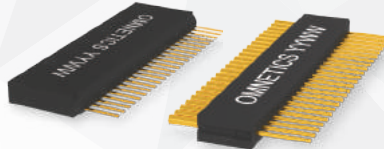


Nano Strip Picture Index

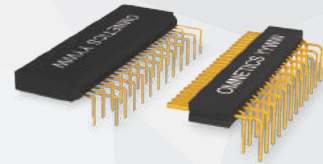
SINGLE ROW NANO STRIP (NPS/NSS) SERIES:



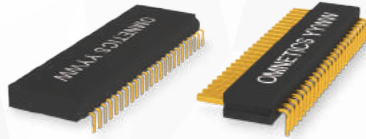
Horizontal SMT (AA)
Pages 89-92



Straight Tail (DD)
Pages 93-96



Short/Long Alt. Thru-Hole (H2)
Pages 97-100

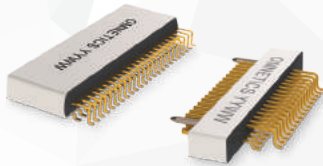


Vertical SMT (VV)
Pages 101-104

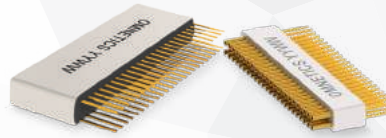


Pre-Wired (WD)
Pages 105-108

DUAL ROW NANO STRIP (NPD/NSD) SERIES:



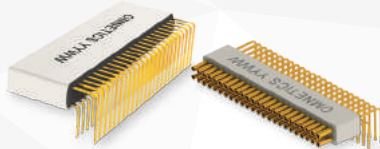
Horizontal SMT (AA)
Pages 109-112



Straight Tail (DD)
Pages 113-116



Flex Tail (FF)
Pages 117-120



Short/Long Alt. Thru-Hole (H2)
Pages 121-124

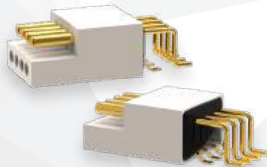


Vertical SMT (VV)
Pages 125-128

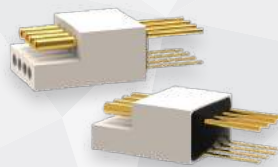


Pre-Wired (WD)
Pages 129-132

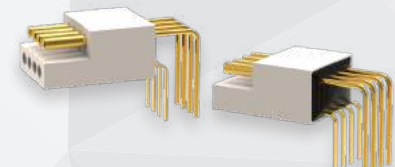
Polarized Nano (PZN)



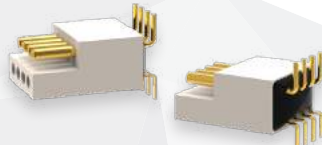
Horizontal SMT (AA)
Pages 133-135



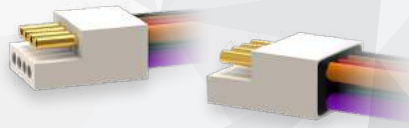
Straight Tail (DD)
Pages 136-138



Short/Long Alt. Thru-Hole (H2)
Pages 139-141



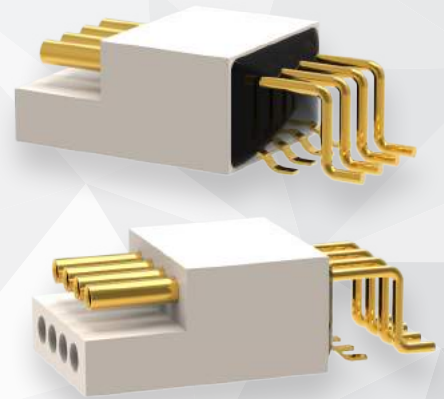
Vertical SMT (VV)
Pages 142-144



Pre-Wired (WD)
Pages 145-147

HORIZONTAL SMT (TYPE AA)

The Polarized Nano (PZN) connectors are designed to hold one row of pins and one row of sockets; this configuration polarizes the connector without the extra space needed for guide pins. The Dual Row Horizontal SMT Polarized Nano (PZN) connectors offer an extremely low profile package that is well suited to pick and place methods. They have a very tight pitch of .025" (.64 mm) centerlines. These PZN connectors feature Omnetics' highly reliable gold plated Flex Pin contact system, conforming to the requirements of MIL-DTL-32139. These durable lightweight connectors are perfect for the most demanding applications.



The PZN connectors are available in standard sizes ranging from 4 to 24 positions.

ELECTRO-MECHANICAL SPECS

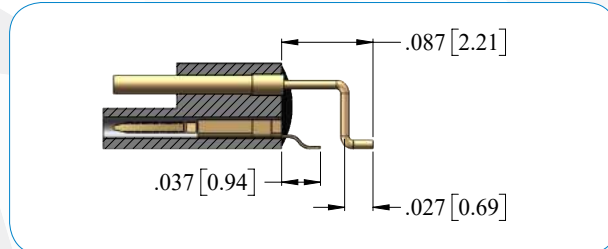
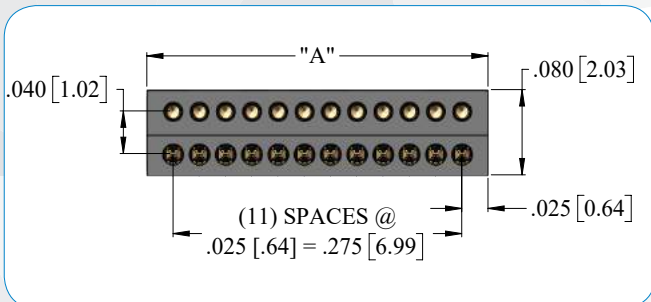
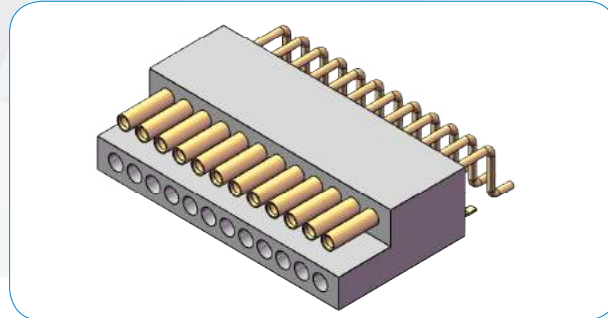
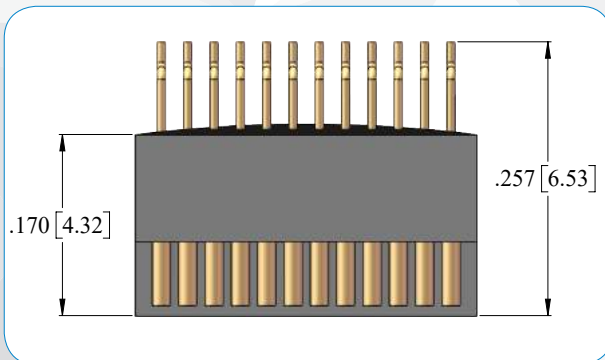
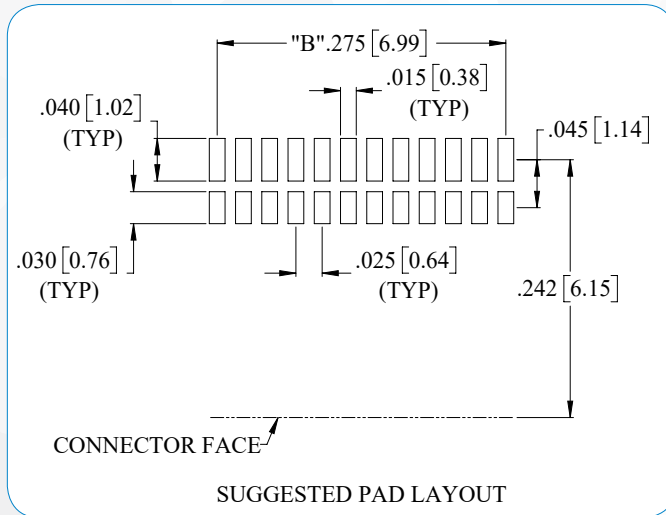
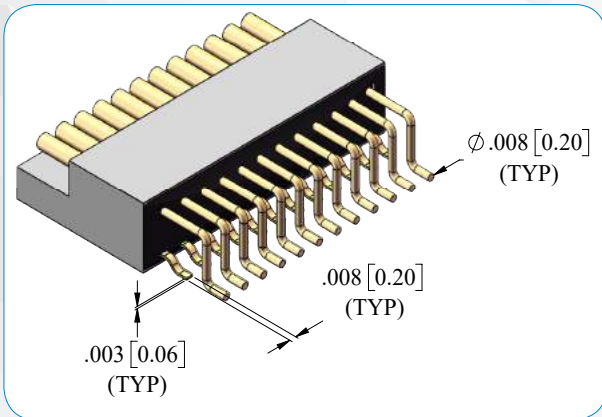
- Durability: 200 Cycles
- Temperature: -55°C to +125 °C (200 °C w/HTE)
- Current rating: 1 AMP per contact
- Voltage Rating (DWV): 250 VAC RMS Sea Level
- Insulation Resistance: 5,000 Megohms min @ 100 VDC
- Shock: 100 G's discontinuity < 10 nanoseconds
- Vibration: 20 G's discontinuity < 10 nanoseconds
- Thermal Vacuum Outgassing: NASA SP-R-0022
- Contact Resistance: 71 Milliohms max (71 mV max @ 1 AMP)
- Mating/Unmating Force: 2.5 oz (71 g) typical per contact

MATERIAL SPECIFICATIONS

- Insulator: Polyphenylene Sulfide per MIL-M-24519
- Pin: Gold Plated BeCu
- Socket: Gold Plated Copper Alloy
- Encapsulant: Epoxy

Polarized Nano

PZN-AA LAYOUT



134

DIMENSIONS FOR "A"

To determine connector length "A":

Add the total number of contacts in one row	_____
Multiply the number of contact cavities minus 1 by .025"	_____
Add fixed end length constant	.050"
Total Length (Dimension A)	_____

Notes: Maximum length .325" [8.26].

Maximum number of contact cavities is 24

DIMENSIONS FOR "B"

To determine pad pattern layout length "B":


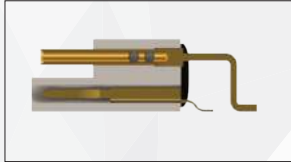

Multiply the number of contacts in one row minus 1 by .025"	_____
Total Length (Dimension B)	_____

Notes: Maximum length .275" [6.99].

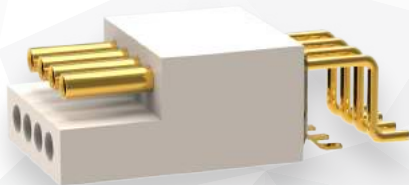
Dimensions in [] are in Millimeters unless otherwise noted and are for reference only.

Polarized Nano

HORIZONTAL SMT (TYPE AA) ORDERING GUIDE

SERIES	# OF CONTACTS	TERMINATION TYPE	COMMON OPTIONS
PZN Polarized Nano Connector	04 - 24 (EVEN NUMBERS ONLY)	AA	HT HIGH TEMP
			RoHS RoHS COMPLIANT
			

EXAMPLES:



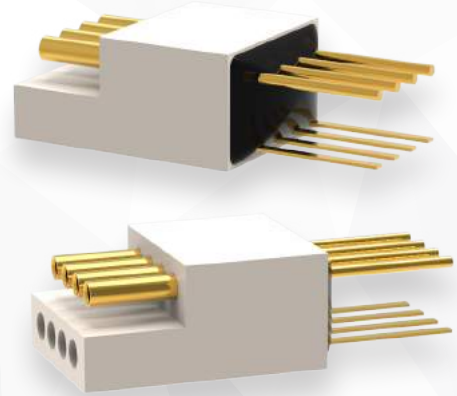
PZN-08-AA

Polarized Nano

STRAIGHT THRU-HOLE (TYPE DD)

The Polarized Nano (PZN) connectors are designed to hold one row of pins and one row of sockets; this configuration polarizes the connector without the extra space needed for guide pins. The Straight Thru-Hole (type DD) Polarized Nano (PZN) connectors are configured with simple straight tails (Integral and Crimped). Suitable for vertical thru-hole mounting to fine pitched flex circuits. These ruggedized PZN Nano connectors are designed on .025" (.64 mm) centerlines. These PZN connectors feature Omnetics' gold plated Flex Pin contact system that conforms to the requirements of MIL-DTL-32139.

The connectors are available in standard sizes ranging from 4 through 24 positions. Flex design and installation service is also available from Omnetics, please contact us for more information.



ELECTRO-MECHANICAL SPECS

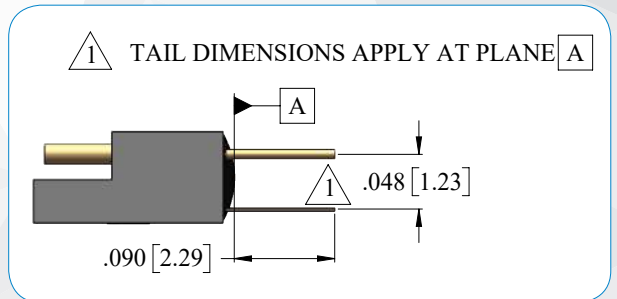
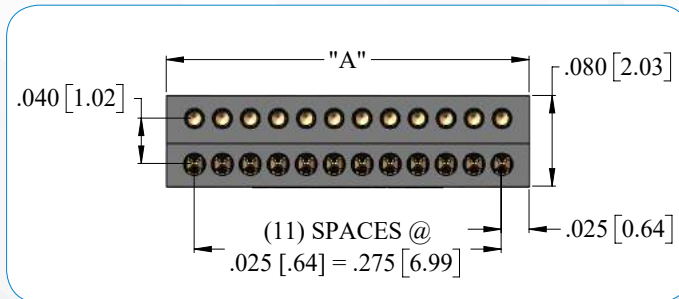
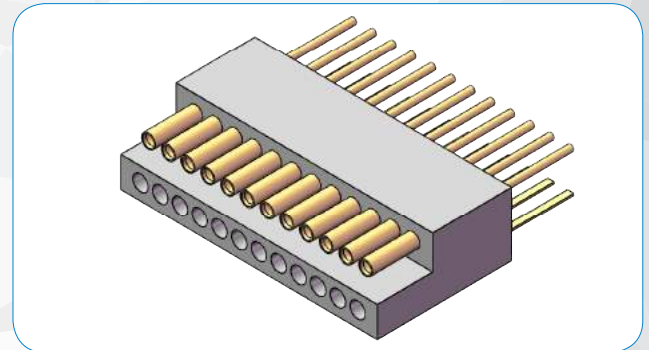
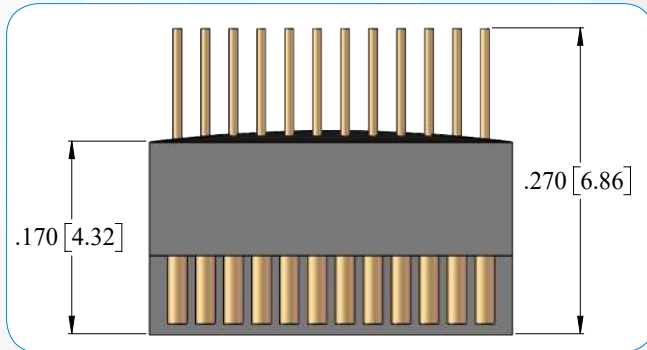
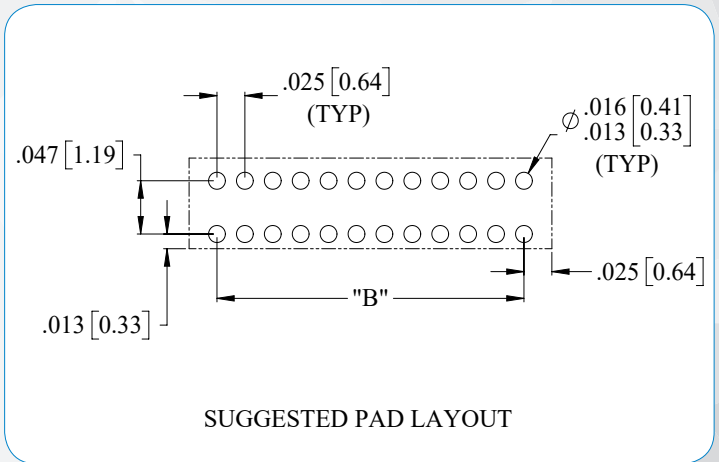
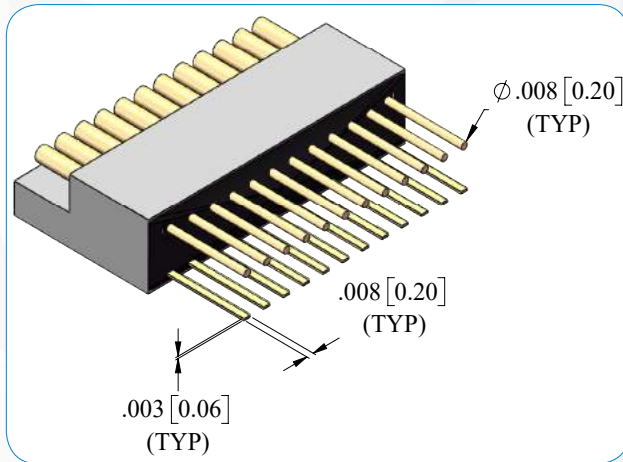
Durability:	200 Cycles
Temperature:	-55°C to +125 °C (200 °C w/HTE)
Current rating:	1 AMP per contact
Voltage Rating (DWV):	250 VAC RMS Sea Level
Insulation Resistance:	5,000 Megohms min @ 100 VDC
Shock:	100 G's discontinuity < 10 nanoseconds
Vibration:	20 G's discontinuity < 10 nanoseconds
Thermal Vacuum Outgassing:	NASA SP-R-0022
Contact Resistance:	71 Milliohms max (71 mV max @ 1 AMP)
Mating/Unmating Force:	2.5 oz (71 g) typical per contact

MATERIAL SPECIFICATIONS

Insulator:	Polyphenylene Sulfide per MIL-M-24519
Pin:	Gold Plated BeCu
Socket:	Gold Plated Copper Alloy
Encapsulant:	Epoxy

Polarized Nano

PZN-DD LAYOUT



DIMENSIONS FOR "A"

To determine connector length "A":

Add the total number of contacts in one row	_____
Multiply the number of contact cavities minus 1 by .025"	_____
Add fixed end length constant	.050"
Total Length (Dimension A)	_____

Notes: Maximum length .325" [8.26].

Maximum number of contact cavities is 24

DIMENSIONS FOR "B"

To determine pad pattern layout length "B":


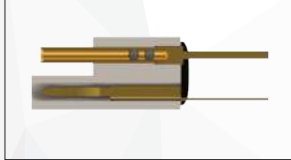

Multiply the number of contacts in one row minus 1 by .025"	_____
Total Length (Dimension B)	_____

Notes: Maximum length .275" [6.99].

Dimensions in [] are in Millimeters unless otherwise noted and are for reference only.

Polarized Nano

STRAIGHT THRU-HOLE (TYPE DD) ORDERING GUIDE

SERIES	# OF CONTACTS	TERMINATION TYPE	COMMON OPTIONS
PZN Polarized Nano Connector	04 - 24 (EVEN NUMBERS ONLY)	DD	HT HIGH TEMP
			RoHS RoHS COMPLIANT 

EXAMPLES:

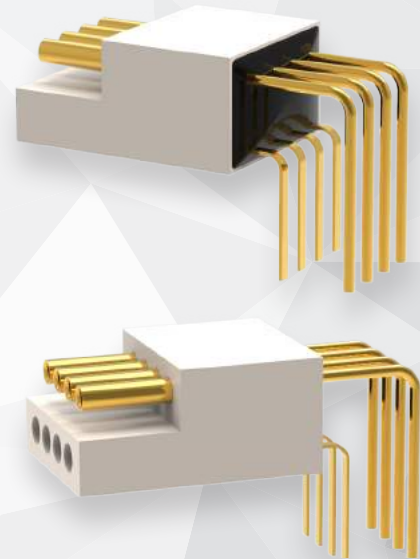


PZN-08-DD

SHORT/LONG ALT. THRU-HOLE (TYPE H2)

The Polarized Nano (PZN) connectors are designed to hold one row of pins and one row of sockets; this configuration polarizes the connector without the extra space needed for guide pins. The Horizontal Thru-Hole (type H2) PZN connectors have contacts arranged on .025 (.64 mm) centerlines. The PZN H2 thru-hole tails are arranged in a .025 x .50" grid, allowing space for traces and annular rings. These connectors feature Omnetics' highly reliable gold plated Flex Pin contact system, conforming to requirements of MIL-DTL-32139. These durable lightweight connectors are perfect for the most demanding applications.

PZN connectors are available in standard sizes ranging from 4 to 24 positions.



ELECTRO-MECHANICAL SPECS

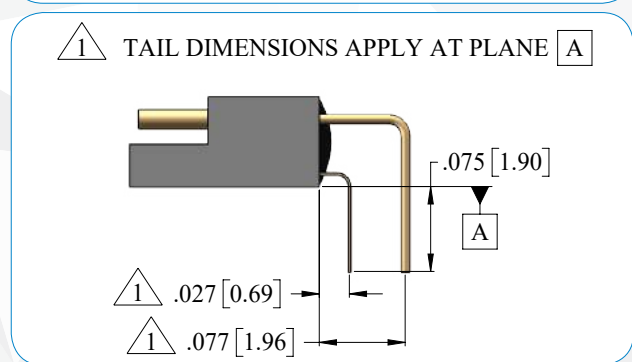
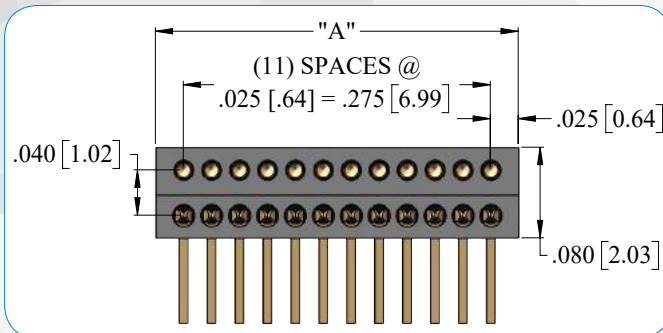
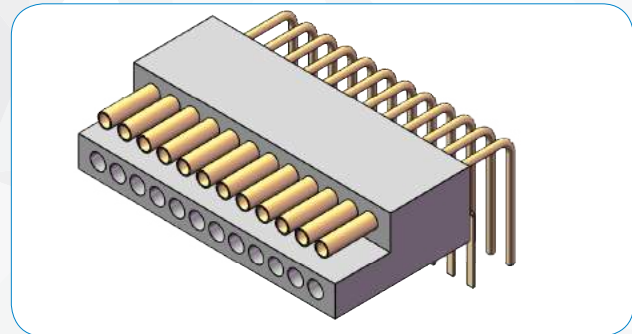
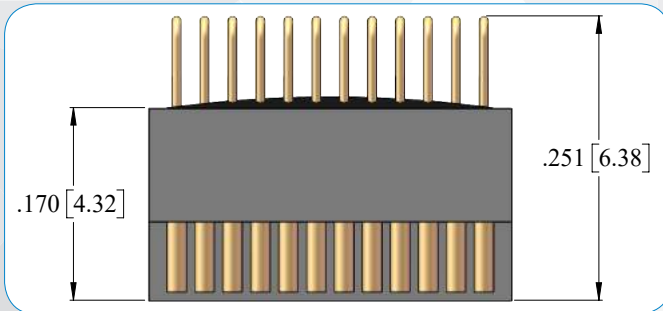
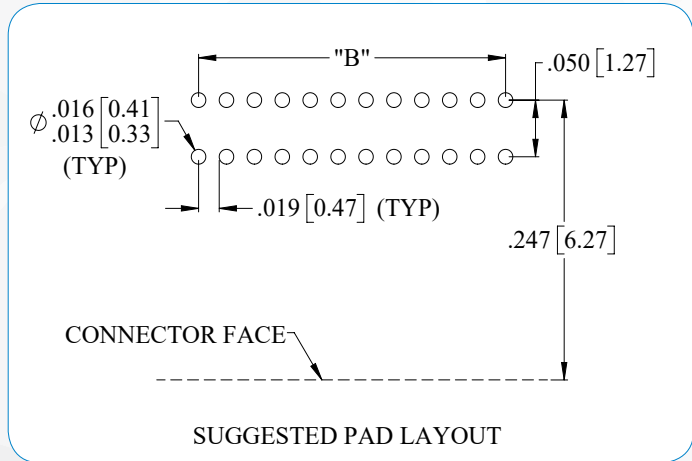
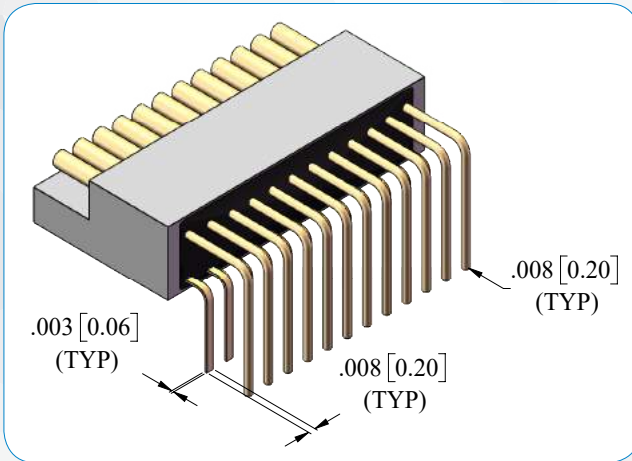
Durability:	200 Cycles
Temperature:	-55°C to +125 °C (200 °C w/HTE)
Current rating:	1 AMP per contact
Voltage Rating (DWV):	250 VAC RMS Sea Level
Insulation Resistance:	5,000 Megohms min @ 100 VDC
Shock:	100 G's discontinuity < 10 nanoseconds
Vibration:	20 G's discontinuity < 10 nanoseconds
Thermal Vacuum Outgassing:	NASA SP-R-0022
Contact Resistance:	71 Milliohms max (71 mV max @ 1 AMP)
Mating/Unmating Force:	2.5 oz (71 g) typical per contact

MATERIAL SPECIFICATIONS

Insulator:	Polyphenylene Sulfide per MIL-M-24519
Pin:	Gold Plated BeCu
Socket:	Gold Plated Copper Alloy
Encapsulant:	Epoxy

Polarized Nano

PZN-H2 LAYOUT



DIMENSIONS FOR "A"

To determine connector length "A":

Add the total number of contacts in one row	_____
Multiply the number of contact cavities minus 1 by .025"	_____
Add fixed end length constant	.050"
Total Length (Dimension A)	_____

Notes: Maximum length .325" [8.26].

Maximum number of contact cavities is 24

DIMENSIONS FOR "B"

To determine pad pattern layout length "B":

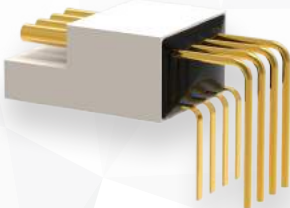
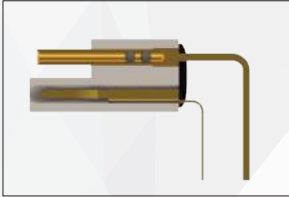

Multiply the number of contacts in one row minus 1 by .025"	_____
Total Length (Dimension B)	_____

Notes: Maximum length .275" [6.99].

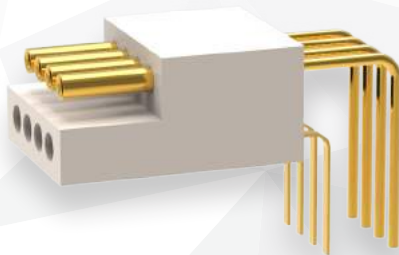
Dimensions in [] are in Millimeters unless otherwise noted and are for reference only.

Polarized Nano

SHORT/LONG ALT. THRU-HOLE (TYPE H2) ORDERING GUIDE

SERIES	# OF CONTACTS	TERMINATION TYPE	COMMON OPTIONS
PZN Polarized Nano Connector	04 - 24 (EVEN NUMBERS ONLY)	H2	HT HIGH TEMP
			RoHS RoHS COMPLIANT
			

EXAMPLES:



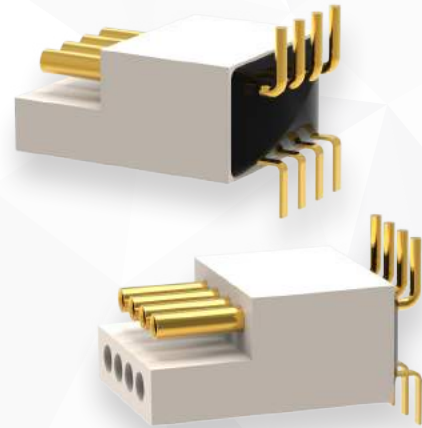
PZN-08-H2

Polarized Nano

VERTICAL SMT (TYPE VV)

The Polarized Nano (PZN) connectors are designed to hold one row of pins and one row of sockets; this configuration polarizes the connector without the extra space needed for guide pins. The Vertical SMT PZN connectors require a minimal amount of board space on flex circuits and rigid circuit boards. These connectors feature Omnetics' highly reliable gold plated Flex Pin contact system conforming to the requirements of MIL-DTL 32139. These rugged lightweight connectors are suitable for the most demanding applications.

The PZN connectors are available in standard sizes ranging from 4 to 24 positions.



ELECTRO-MECHANICAL SPECS

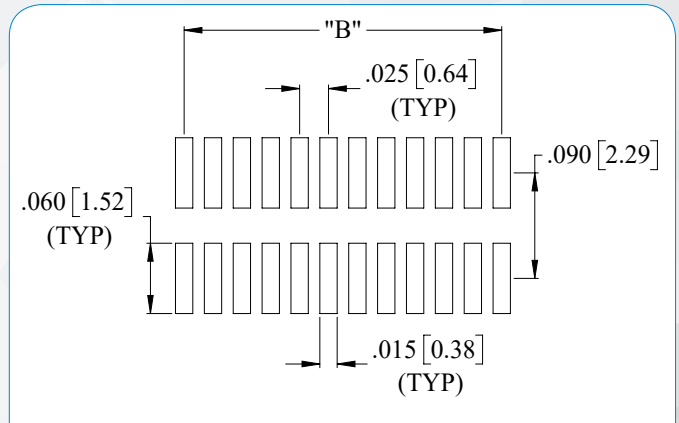
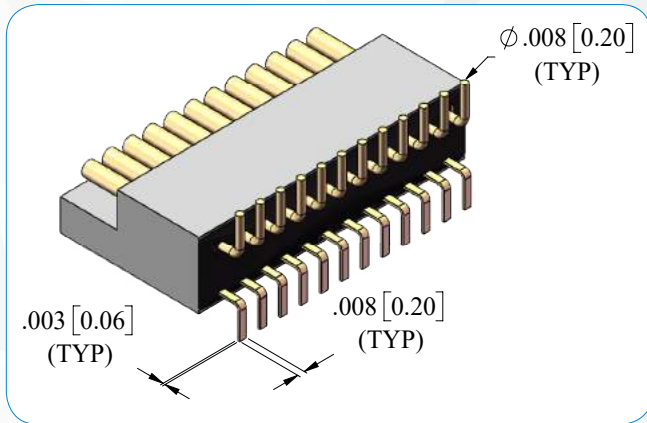
Durability:	200 Cycles
Temperature:	-55°C to +125 °C (200 °C w/HTE)
Current rating:	1 AMP per contact
Voltage Rating (DWV):	250 VAC RMS Sea Level
Insulation Resistance:	5,000 Megohms min @ 100 VDC
Shock:	100 G's discontinuity < 10 nanoseconds
Vibration:	20 G's discontinuity < 10 nanoseconds
Thermal Vacuum Outgassing:	NASA SP-R-0022
Contact Resistance:	71 Milliohms max (71 mV max @ 1 AMP)
Mating/Unmating Force:	2.5 oz (71 g) typical per contact

MATERIAL SPECIFICATIONS

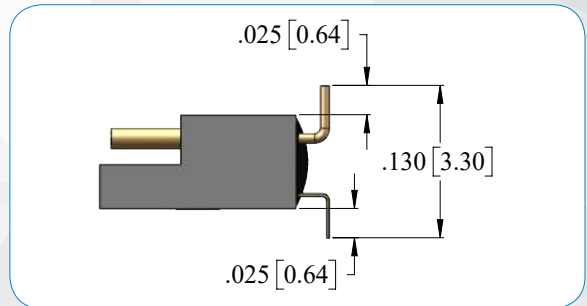
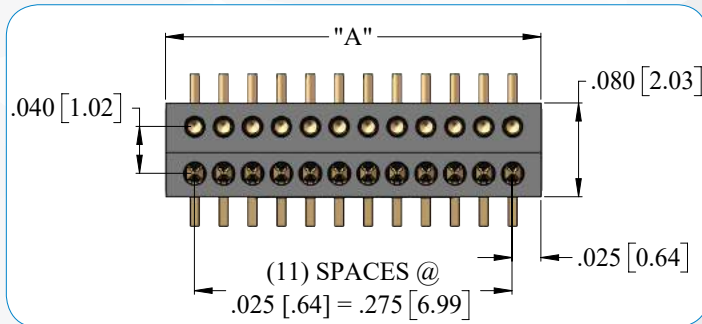
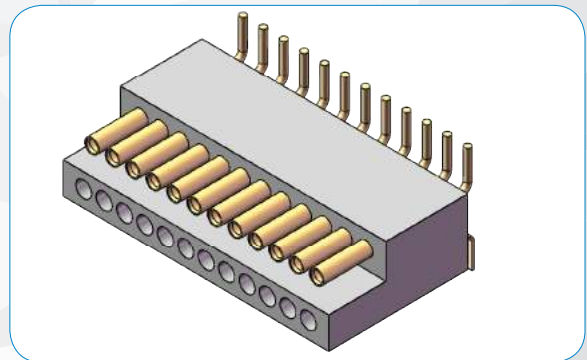
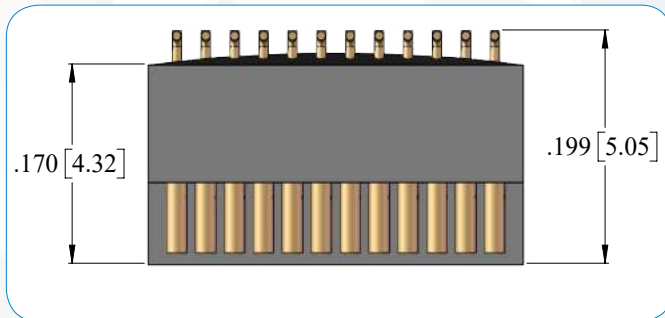
Insulator:	Polyphenylene Sulfide per MIL-M-24519
Pin:	Gold Plated BeCu
Socket:	Gold Plated Copper Alloy
Encapsulant:	Epoxy

Polarized Nano

PZN-VV LAYOUT



SUGGESTED PAD LAYOUT



DIMENSIONS FOR "A"

To determine connector length "A":

Add the total number of contacts in one row	_____
Multiply the number of contact cavities minus 1 by .025"	_____
Add fixed end length constant	.050"
Total Length (Dimension A)	_____

Notes: Maximum length .325" [8.26].

Maximum number of contact cavities is 24

DIMENSIONS FOR "B"

To determine pad pattern layout length "B":

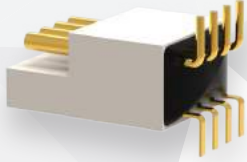
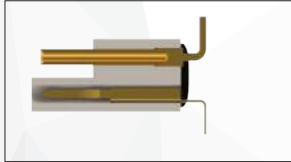

Multiply the number of contacts in one row minus 1 by .025"	_____
Total Length (Dimension B)	_____

Notes: Maximum length .275" [6.99].

Dimensions in [] are in Millimeters unless otherwise noted and are for reference only.

Polarized Nano

VERTICAL SMT (TYPE VV) ORDERING GUIDE

SERIES	# OF CONTACTS	TERMINATION TYPE	COMMON OPTIONS
PZN Polarized Nano Connector	04 - 24 (EVEN NUMBERS ONLY)	VV	HT HIGH TEMP
			RoHS RoHS COMPLIANT 

EXAMPLES:



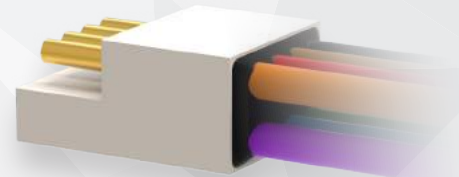
PZN-08-VV

Polarized Nano

PRE-WIRED/CABLE (TYPE WD/WC)

The Polarized Nano (PZN) connectors are designed to hold one row of pins and one row of sockets; this configuration polarizes the connector without the extra space needed for guide pins. The pre-wired PZN connector assemblies are crimped using proprietary semi-automated crimping systems. Due to their small size and precision required to make these quality crimps, hand crimping is not an option. Pre-crimped wires and contacts are potted in place further protecting the integrity of the crimp joint. Commercial Off The Shelf (COTS) versions are also available with 18" of color coded 30 AWG Teflon wire for quick turnaround.

The PZN connectors are available in standard sizes ranging from 4 through 24 positions and accept wires 30 AWG or smaller stranded wire.



ELECTRO-MECHANICAL SPECS

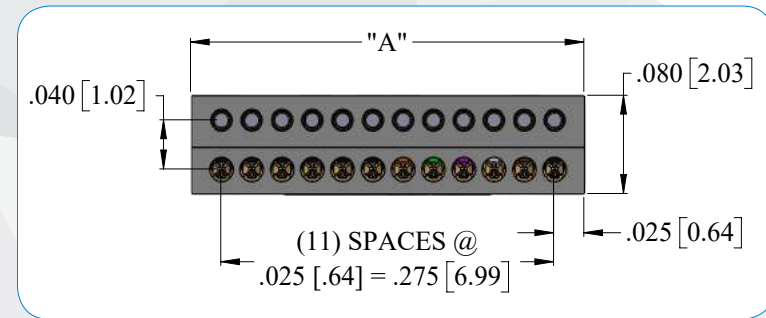
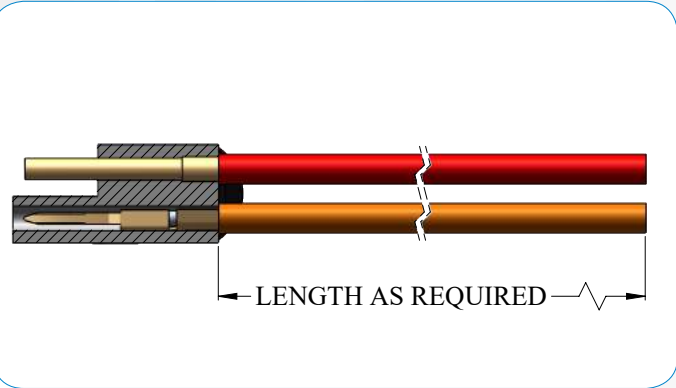
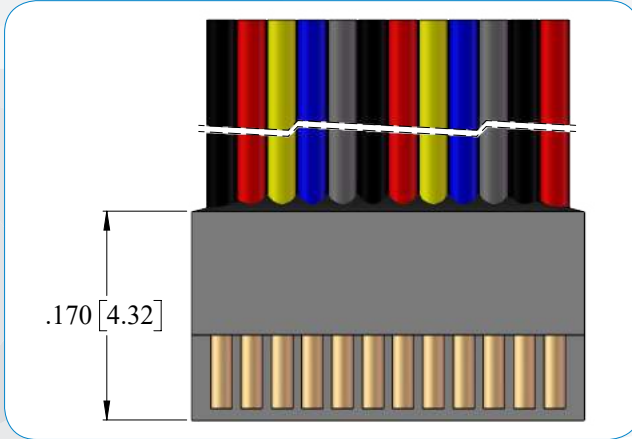
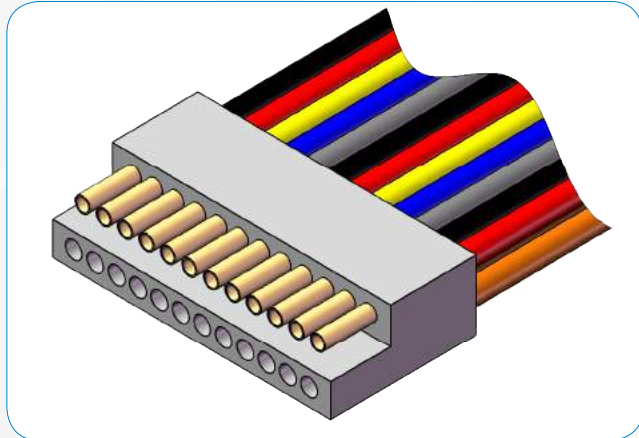
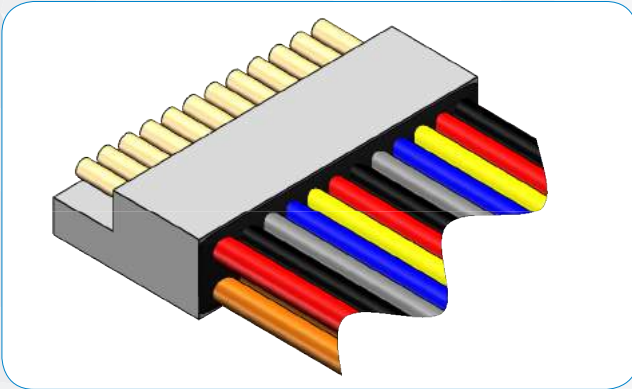
Durability:	200 Cycles
Temperature:	-55°C to +125 °C (200 °C w/HTE)
Current rating:	1 AMP per contact
Voltage Rating (DWV):	250 VAC RMS Sea Level
Insulation Resistance:	5,000 Megohms min @ 100 VDC
Shock:	100 G's discontinuity < 10 nanoseconds
Vibration:	20 G's discontinuity < 10 nanoseconds
Thermal Vacuum Outgassing:	NASA SP-R-0022
Contact Resistance:	71 Milliohms max (71 mV max @ 1 AMP)
Mating/Unmating Force:	2.5 oz (71 g) typical per contact

MATERIAL SPECIFICATIONS

Insulator:	Polyphenylene Sulfide per MIL-M-24519
Pin:	Gold Plated BeCu
Socket:	Gold Plated Copper Alloy
Encapsulant:	Epoxy

Polarized Nano

PZN-WD/WC LAYOUT



DIMENSIONS FOR "A"

To determine connector length "A":

Add the total number of contacts in one row _____

Multiply the number of contact cavities minus 1 by .025" _____

Add fixed end length constant _____ .050"

Total Length (Dimension A) _____

Notes: Maximum length .325" [8.26].

Maximum number of contact cavities is 24

DIMENSIONS FOR "B"

To determine pad pattern layout length "B":

Multiply the number of contacts in one row minus 1 by .025" _____

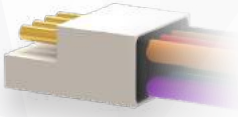
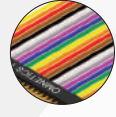

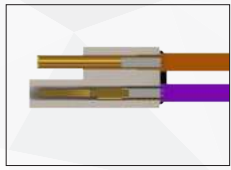
Total Length (Dimension B) _____

Notes: Maximum length .275" [6.99].

Dimensions in [] are in Millimeters unless otherwise noted and are for reference only.

Polarized Nano

PRE-WIRED/CABLE (TYPE WD/WC) ORDERING GUIDE

SERIES	# OF CONTACTS	TERMINATION TYPE	WIRE LENGTH	COLOR CODED	COMMON OPTIONS
PZN POLARIZED NANO CONNECTOR 	04 - 24 (EVEN NUMBERS ONLY)	WD DISCRETE WIRES	18.00 =18.00" STANDARD	C 10 REPEATING COLORS PER MIL-STD 681 	HT HIGH TEMP
		TW TWISTED WIRES	XX.XX CUSTOM LENGTH i.e. 23.40 =23.40"		RoHS RoHS COMPLIANT 
		WC CABLE	WX MULTIPLE WIRE TYPES 	WIRE GAUGE 30, 32 (STANDARD), 34	Y ALL OTHER WIRE COLORS CS CUSTOMER SUPPLIED MATERIAL

EXAMPLES:



PZN-08-WD-18.00-C