

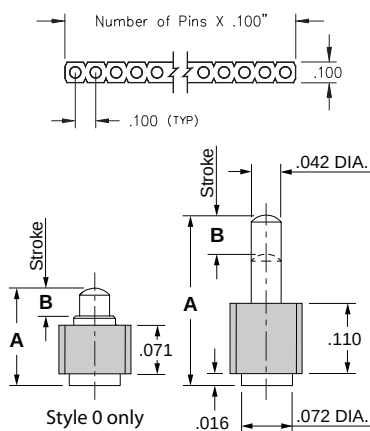
SPRING-LOADED CONNECTORS

SERIES 811 & 813 • .100" GRID SURFACE MOUNT, LOW PROFILE • SINGLE AND DOUBLE ROW STRIPS

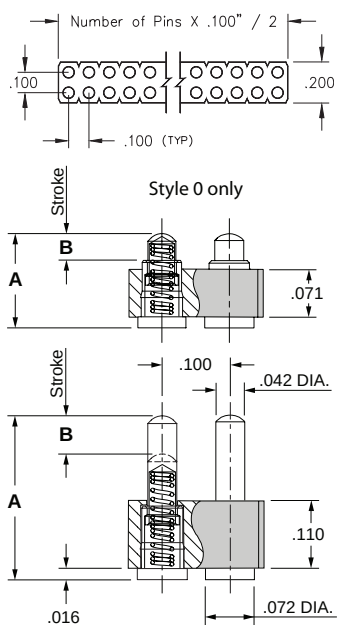


- Modular contacts for use on .100" grid, available in five heights from .137" to .236", supplied in single and double row contact strips
- Precision-machined piston / base and gold-plated components assure a 1,000,000 cycle life durability
- Pistons have a long stroke relative to the low profile of the assembly
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak
- High temperature thermoplastic insulators are suitable for surface mount processes
- Both 811 & 813 series, contact styles 1 through 4, are available on 32mm wide carrier tape and fitted with vacuum pick-up clips for automated pick and place assembly. Tape and Reel packaging per EIA-481. See page 12 for strip lengths available and ordering information

SINGLE ROW Series 811



DOUBLE ROW Series 813



ORDERING INFORMATION

Single Row Series 811

811-22-0XX-30-00X101

Specify number of contacts 01-64 Specify contact style 0-4

Double Row Series 813

813-22-0XX-30-00X101

Specify number of contacts 04-72 Specify contact style 0-4

For 811 and 813 Tape & Reel packaging, see page 12

CONTACT STYLE	INITIAL HEIGHT A	MAX. STROKE B
0	.137	.039
1	.177	.045
2	.197	.055
3	.217	.055
4	.236	.055

Technical Specifications

Materials:

Contact piston & base: Machined copper alloy plated 20μ" gold over 100μ" nickel
 Spring: Beryllium copper-plated 10μ" gold
 Insulator: High temperature thermoplastic, rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams
 Spring force @ mid stroke (B/2): 60 grams
 Durability: 1,000,000 cycles
 Coplanarity: .005" (Single Row up to 10 pins; Double Row up to 20 pins),
 For higher pin counts, contact Technical Support

Electrical:

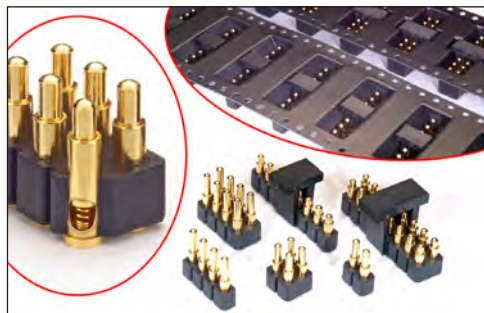
Voltage rating: 100Vrms/150Vdc
 Current rating: 2A (continuous), 3A (peak) per contact
 Contact resistance: 20mΩ max.
 Insulation resistance: 10,000MΩ min.
 Dielectric strength: 700Vrms min.
 Capacitance: 1pF max.

RoHS-2
2011/65/EU



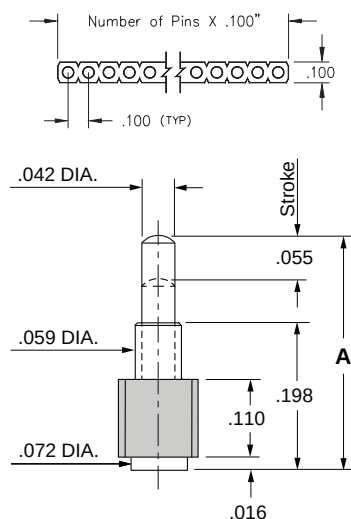
SPRING-LOADED CONNECTORS

SERIES 812 & 814 • .100" GRID SURFACE MOUNT, MID PROFILE • SINGLE AND DOUBLE ROW STRIPS

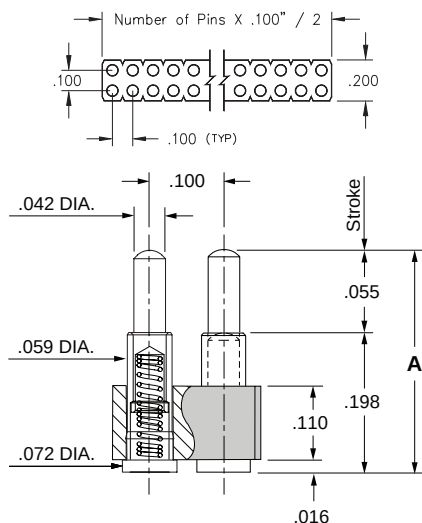


- Modular contacts for use on .100" grid, available in ten heights from .255" to .430", supplied in single and double row contact strips
- Precision-machined piston / base and gold-plated components assure a 1,000,000 cycle life durability
- Extended body provides greater bearing surface for increased strength & plunger protection
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak
- High temperature thermoplastic insulators are suitable for surface mount processes
- Both 812 & 814 series, contact styles 0 through 9, are available on 32mm or 44mm wide carrier tape and fitted with vacuum pick-up clips for automated pick and place assembly. Tape and Reel packaging per EIA-481. See page 12 for strip lengths available and ordering information

SINGLE ROW Series 812



DOUBLE ROW Series 814



ORDERING INFORMATION

Single Row Series 812

812-22-0XX-30-00X101

Specify number of contacts 02-64

Specify contact style 0-9

Double Row Series 814

814-22-0XX-30-00X101

Specify number of contacts 04-72

Specify contact style 0-9

For 812 and 814 Tape & Reel packaging, see page 12

CONTACT STYLE	INITIAL HEIGHT A	CONTACT STYLE	INITIAL HEIGHT A
0	.255	5	.350
1	.275	6	.370
2	.295	7	.390
3	.315	8	.410
4	.335	9	.430

Technical Specifications

Materials:

Contact piston & base: Machined copper alloy plated 20μ" gold over 100μ" nickel
 Spring: Beryllium copper-plated 10μ" gold
 Insulator: High temperature thermoplastic, rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams
 Spring force @ mid stroke (.0275"): 60 grams
 Durability: 1,000,000 cycles
 Coplanarity: .005" (Single Row up to 10 pins; Double Row up to 20 pins),
 For higher pin counts, contact Technical Support

Electrical:

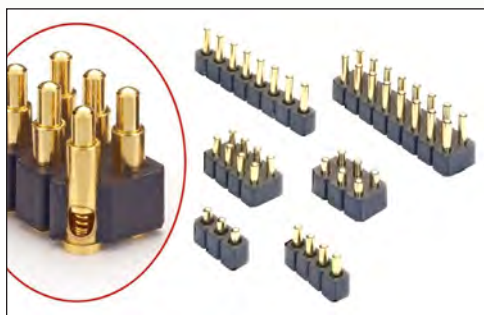
Voltage rating: 100Vrms/150Vdc
 Current rating: 2A (continuous), 3A (peak) per contact
 Contact resistance: 20mΩ max.
 Insulation resistance: 10,000MΩ min.
 Dielectric strength: 700Vrms min.
 Capacitance: 1pF max.

RoHS-2
2011/65/EU



SPRING-LOADED CONNECTORS

SERIES 819 & 820 • .100" GRID SURFACE MOUNT, LONG STROKE • SINGLE AND DOUBLE ROW STRIPS



- Modular contacts for use on .100" grid, available in a height of .288", supplied in single and double row contact strips
- Precision-machined piston / base and gold-plated components assure a 1,000,000 cycle life durability
- Pistons have a .045" mid. stroke and a .090" max. stroke
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak
- High temperature thermoplastic insulators are suitable for surface mount processes
- Both 819 & 820 series contact strips are designed for placement onto a Ø.082" solder pad prior to reflow soldering
- Tape and Reel packaging available, contact Technical Support

ORDERING INFORMATION

Single Row Series 819

819-22-0XX-30-001101

Specify number of contacts 01-64

Double Row Series 820

820-22-0XX-30-001101

Specify number of contacts 04-72

Technical Specifications

Materials:

Contact piston & base: Machined copper alloy plated 20μ" gold over 100μ" nickel
 Spring: Beryllium copper-plated 10μ" gold
 Insulator: High temperature thermoplastic, rated UL94 V-0

Mechanical:

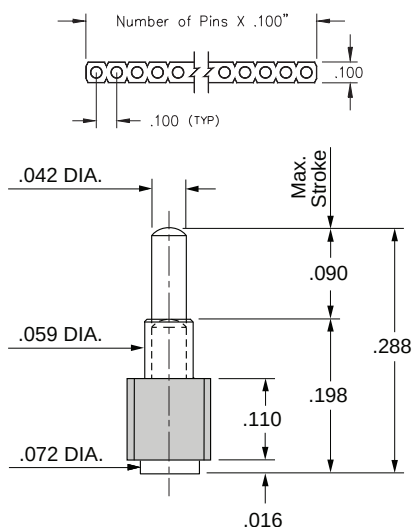
Spring force @ initial height: 25 grams
 Spring force @ mid stroke (.045"): 60 grams
 Durability: 1,000,000 cycles

Electrical:

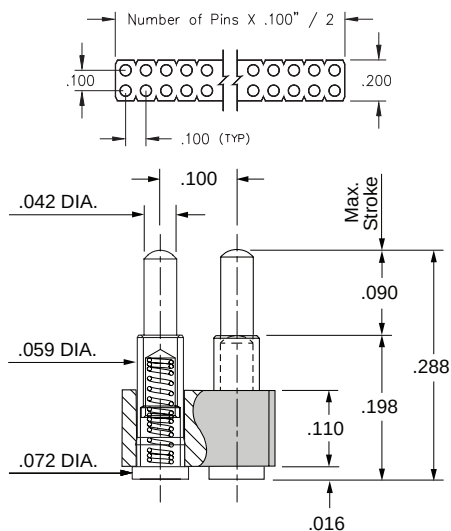
Voltage rating: 100Vrms/150Vdc
 Current rating: 2A (continuous), 3A (peak) per contact
 Contact resistance: 20mΩ max.
 Insulation resistance: 10,000MΩ min.
 Dielectric strength: 700Vrms min.
 Capacitance: 1pF max.

RoHS-2
2011/65/EU

SINGLE ROW Series 819

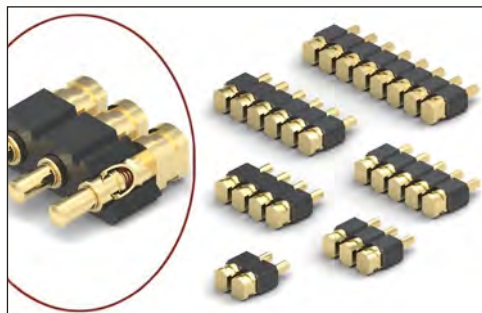


DOUBLE ROW Series 820



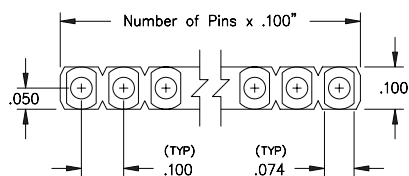
SPRING-LOADED CONNECTORS

SERIES 810 • .100" GRID HORIZONTAL SURFACE MOUNT • SINGLE ROW STRIPS

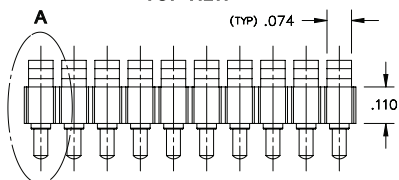


- Modular contacts for use on .100" grid, supplied in single row contact strips. Piston action is parallel to the board surface
- Ideal for daisy chaining of P.C.B.'s when mated with right angle target connectors (series 399...10-008) or for mating boards in a perpendicular orientation
- Precision-machined piston / base and gold-plated components assure a 1,000,000 cycle life durability
- Pistons have a .045" mid. stroke & .090" max. stroke
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak
- High temperature thermoplastic insulators are suitable for surface mount processes
- 810 series contact strips are designed for manual placement onto solder pads

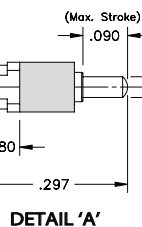
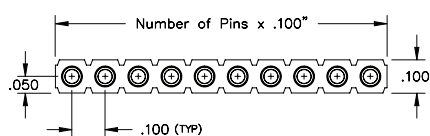
SINGLE ROW Series 810



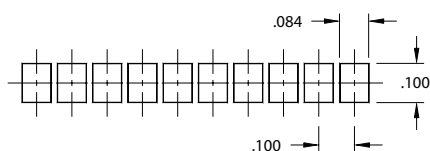
TOP VIEW



FRONT VIEW



Suggested P.C.B. FOOTPRINT



Coplanarity .005". For Pin Counts >10 positions consult Technical Support

ORDERING INFORMATION

Single Row Series 810

810-22-0XX-40-001101

Specify number of contacts 01-10

Technical Specifications

Materials:

Contact piston & base: Machined copper alloy plated 20μ" gold over 100μ" nickel
Spring: Beryllium copper-plated 10μ" gold
Insulator: High temperature thermoplastic, rated UL94 V-0

Mechanical:

Spring force @ initial height: 25 grams
Spring force @ mid stroke (.045"): 60 grams
Durability: 1,000,000 cycles

Electrical:

Voltage rating: 100Vrms/150Vdc
Current rating: 2A (continuous), 3A (peak) per contact
Contact resistance: 20mΩ max.
Insulation resistance: 10,000MΩ min.
Dielectric strength: 700Vrms min.
Capacitance: 1pF max.

RoHS - 2
2011/65/EU



Mill-Max Mfg. Corp. • 190 Pine Hollow Road, P.O. Box 300, Oyster Bay, NY 11771 • 516-922-6000 • Fax: 516-922-9253 • www.mill-max.com

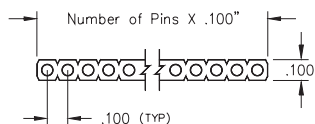
SPRING-LOADED CONNECTORS

SERIES 812 & 814 • .100" GRID SURFACE MOUNT WITH ALIGNMENT PINS • SINGLE AND DOUBLE ROW STRIPS

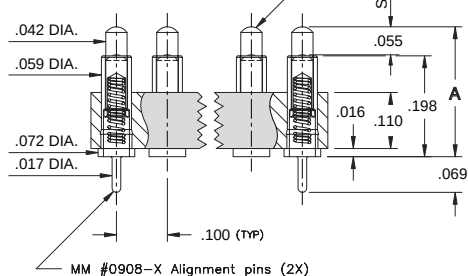


- Modular contacts for use on .100" grid, available in ten heights from .255" to .430", supplied in single and double row contact strips
- Precision-machined piston / base and gold-plated components assure a 1,000,000 cycle life durability
- Pistons have a .0275" mid stroke & .055" max. stroke
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak
- High temperature thermoplastic insulators are suitable for surface mount processes
- Both 812 & 814 series contact strips are designed for manual placement, .023 ±.003" plated through-holes in the circuit board are required for the alignment pins prior to intrusive reflow soldering

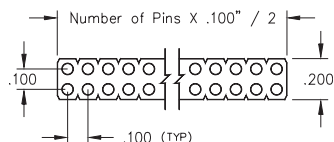
SINGLE ROW Series 812



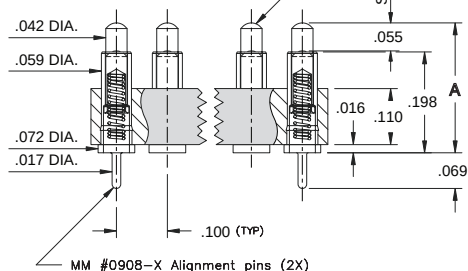
MM #0907-X Spring Loaded Connector



DOUBLE ROW Series 814



MM #0907-X Spring Loaded Connector



ORDERING INFORMATION

Single Row Series 812...01X101

812-22-0XX-30-01X101

Specify number of contacts 03-64

Specify contact style 0-9

Double Row Series 814...01X101

814-22-0XX-30-01X101

Specify number of contacts 06-72

Specify contact style 0-9

CONTACT STYLE	INITIAL HEIGHT A	CONTACT STYLE	INITIAL HEIGHT A
0	.255	5	.350
1	.275	6	.370
2	.295	7	.390
3	.315	8	.410
4	.335	9	.430

Technical Specifications

Materials:

Contact piston & base: Machined copper alloy plated 20μ" gold over 100μ" nickel
 Spring: Beryllium copper-plated 10μ" gold
 Insulator: High temperature thermoplastic, rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams
 Spring force @ mid stroke (.0275"): 60 grams
 Durability: 1,000,000 cycles

Electrical:

Voltage rating: 100Vrms/150Vdc
 Current rating: 2A (continuous), 3A (peak) per contact
 Contact resistance: 20mΩ max.
 Insulation resistance: 10,000MΩ min.
 Dielectric strength: 700Vrms min.
 Capacitance: 1pF max.

RoHS-2
2011/65/EU



SPRING-LOADED CONNECTORS

SERIES 811, 812, 813, 814 • .100" GRID SURFACE MOUNT • CARRIER TAPE AND PACKAGING

Ordering Information for Series 811/812/813/814 in Carrier Tape

Single Row Series 811	Double Row Series 813
811-22-0XX-30-00X191 Specify contact style 0-4 Specify number of contacts 02-08 (32mm wide tape, 400 parts per 13" reel)	813-22-0XX-30-00X191 Specify contact style 0-4 Specify number of contacts 04-16 (32mm wide tape, 400 parts per 13" reel)
Single Row Series 811	Double Row Series 813
811-22-0XX-30-00X191 Specify contact style 1-4 Specify number of contacts 09-12 (44mm wide tape, 200 parts per 13" reel)	813-22-0XX-30-00X191 Specify contact style 1-4 Specify number of contacts 18-24 (44mm wide tape, 200 parts per 13" reel)
Single Row Series 812	Double Row Series 814
812-22-0XX-30-00X191 Specify contact style 0-2 Specify number of contacts 02-08 (32mm wide tape, 400 parts per 13" reel)	814-22-0XX-30-00X191 Specify contact style 0-2 Specify number of contacts 04-16 (32mm wide tape, 400 parts per 13" reel)
Single Row Series 812	Double Row Series 814
812-22-0XX-30-00X191 Specify contact style 0-2 Specify number of contacts 09-12 (44mm wide tape, 200 parts per 13" reel)	814-22-0XX-30-00X191 Specify contact style 0-2 Specify number of contacts 18-24 (44mm wide tape, 200 parts per 13" reel)
Single Row Series 812	Double Row Series 814
812-22-0XX-30-00X191 Specify contact style 3-9 Specify number of contacts 02-12 (44mm wide tape, 200 parts per 13" reel)	814-22-0XX-30-00X191 Specify contact style 3-9 Specify number of contacts 04-24 (44mm wide tape, 200 parts per 13" reel)
