

DIN CONNECTORS

KEL has successfully produced a new economical DIN connector by utilizing the original design technology and accumulated production experience. DIN offers lower cost and higher contact performance than card edge connectors. DIN's mating reliability is independent of board thickness, surface treatment, and dimensional accuracy easing board requirements. This advantage combined with low connector cost offers substantial advantages. KEL, whose 8300 series complies with DIN41612/IEC603-2 standards, has responded to the need for diversified mating combinations (horizontal, vertical, and stacked mating) with the addition of its inverse type 8400 series. KEL's new "VA" type is completely changing the image of DIN connectors by offering superior performance with polarity variations at an economical price.

FEATURES

- A total price advantage over card-edge type connectors.
- Allows standardization to DIN41612 and IEC603-2
- Several varieties satisfying most applications.
- Horizontal, Vertical, and Stacked mating combinations.
- Mating is easy and reliable due to
- unique contact design.
- RoHS compliance

- 8330-8340 SERIES, VA product (Standard type, Complies with DIN/IEC)
 - 2 rows : 32, 44, 50, 64, 90, 100 contacts
 - 3 rows : 48, 96 contacts
- 8430-8440 SERIES, VA product (Inverse type, Complies with DIN)
 - 2 rows : 32, 44, 50, 64, 90, 100 contacts
 - 3 rows : 48, 96 contacts
- 8300-8310 SERIES (Standard type, Complies with DIN/IEC)
 - 2 rows : 32, 50, 64 contacts
 - 3 rows : 48, 96 contacts
- 8400-8410 SERIES (Inverse type, Complies with DIN)
 - 2 rows : 64 contacts
 - 3 rows : 96 contacts

SPECIFICATIONS

MATERIAL

- Insulator :
(Glass-filled P.B.T. (UL94V-0))
(Glass-filled P.E.T. (UL94V-0))
8400-8410 series
- Contact : Copper alloy
- Contact finish :
Contact area - Gold plating over nickel
Terminal - Tin plating over nickel

ELECTRIC ABILITY

- Current rating :
2A/1 pin (VA type = 1A/1 pin)
- Contact resistance :
20 mΩ Max.
- Dielectric withstanding voltage :
1,000V AC/1 minute
- Insulation resistance :
10⁶ MΩ Min. 500V DC
10⁵ MΩ Min. 500V DC (after test)

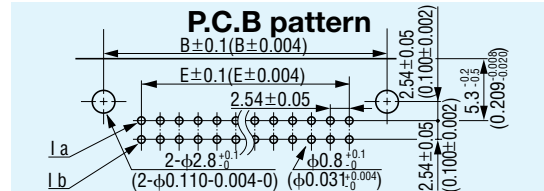
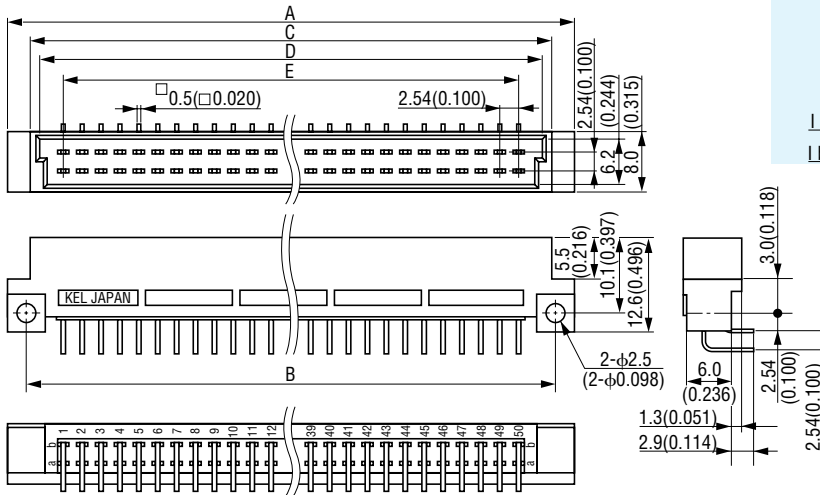
MECHANICAL ABILITY

- Insertion force :
120g MAX./1 pin
- Withdrawal force :
15g MIN./1 pin
- Withdrawal force per 1 pin with
0.56mm steel gage :
0.15N (15.3g) MIN.
- Contact retention :
20N (2.04kg) MIN.
- Operating temperature :
-55~+85°C

connector by utilizing our originality in

8331-□□□-294□-□□□-N

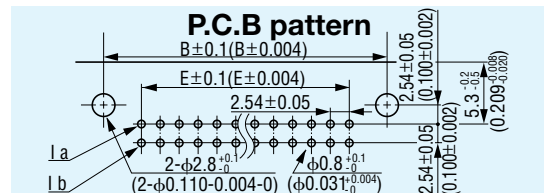
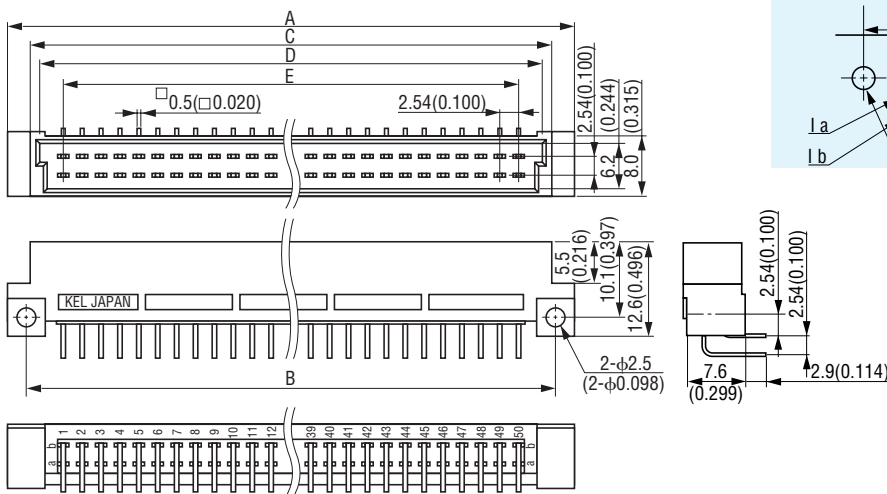
R/A Pin Header, 2 row type


■ Dimensions

No. of contacts	A	B	C	D	E
32	53.26 (2.097)	48.26 (1.900)	46.86 (1.845)	44.66 (1.758)	38.10 (1.500)
44	68.50 (2.697)	63.50 (2.500)	62.10 (2.445)	59.90 (2.358)	53.34 (2.100)
50	76.12 (2.839)	71.12 (2.800)	69.72 (2.745)	67.52 (2.658)	60.96 (2.400)
64	93.90 (3.697)	88.90 (3.500)	87.50 (3.445)	85.30 (3.358)	78.74 (3.100)
90	126.92 (4.997)	121.92 (4.800)	120.52 (4.745)	118.32 (4.658)	111.76 (4.400)
100	139.62 (5.497)	134.62 (5.300)	133.22 (5.245)	131.02 (5.158)	124.46 (4.900)

8341-□□□-294□-□□□-N

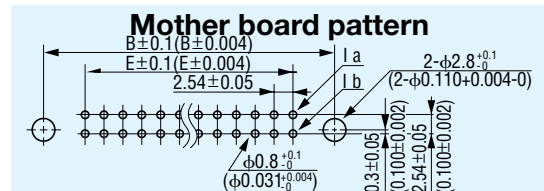
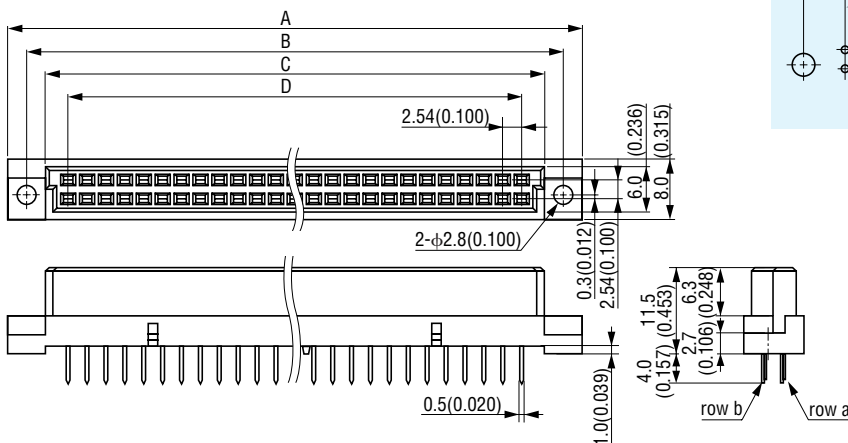
R/A Pin Header (Flush Mounting), 2 row type


■ Dimensions

No. of contacts	A	B	C	D	E
32	53.26 (2.097)	48.26 (1.900)	46.86 (1.845)	44.66 (1.758)	38.10 (1.500)
44	68.50 (2.697)	63.50 (2.500)	62.10 (2.445)	59.90 (2.358)	53.34 (2.100)
50	76.12 (2.839)	71.12 (2.800)	69.72 (2.745)	67.52 (2.658)	60.96 (2.400)
64	93.90 (3.697)	88.90 (3.500)	87.50 (3.445)	85.30 (3.358)	78.74 (3.100)
90	126.92 (4.997)	121.92 (4.800)	120.52 (4.745)	118.32 (4.658)	111.76 (4.400)
100	139.62 (5.497)	134.62 (5.300)	133.22 (5.245)	131.02 (5.158)	124.46 (4.900)

8330-□□□-283□-□□□-N

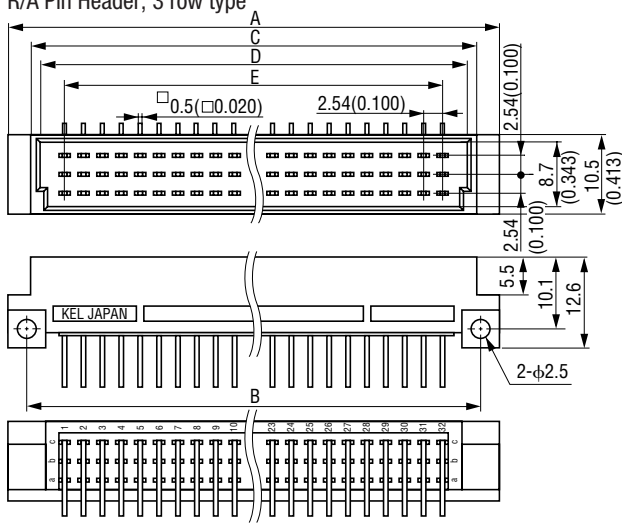
Socket Receptacle, 2 row type


■ Dimensions

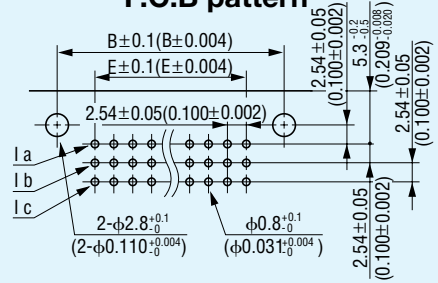
No. of contacts	A	B	D	E
32	54.36 (2.140)	49.36 (1.943)	44.26 (1.743)	38.10 (1.500)
44	69.60 (2.740)	64.60 (2.543)	59.50 (2.343)	53.34 (2.100)
50	77.22 (3.040)	72.22 (2.843)	67.12 (2.643)	60.96 (2.400)
64	95.00 (3.740)	90.00 (3.543)	84.90 (3.343)	78.74 (3.100)
90	128.02 (5.040)	123.02 (4.843)	117.92 (4.643)	111.76 (4.400)
100	140.72 (5.540)	135.72 (5.343)	130.62 (5.143)	124.46 (4.900)

8331-□□□-294□-□□□-N

R/A Pin Header, 3 row type



P.C.B pattern

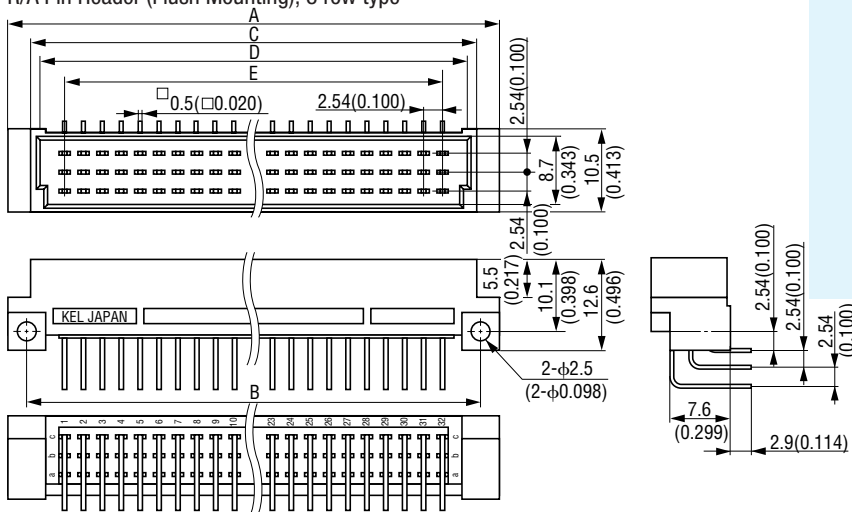


■ Dimensions

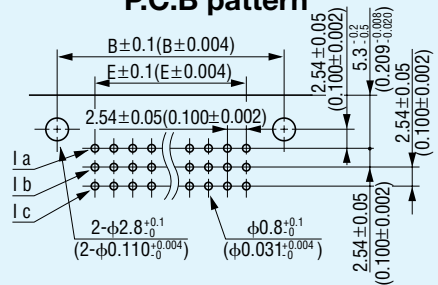
No. of contacts	A	B	C	D	E
48	53.26 (2.097)	48.26 (1.900)	46.86 (1.845)	44.66 (1.758)	38.10 (1.500)
96	93.90 (3.697)	88.90 (3.500)	87.50 (3.445)	85.30 (3.358)	78.74 (3.100)

8341-□□□-294□-□□□-N

R/A Pin Header (Flush Mounting), 3 row type



P.C.B pattern

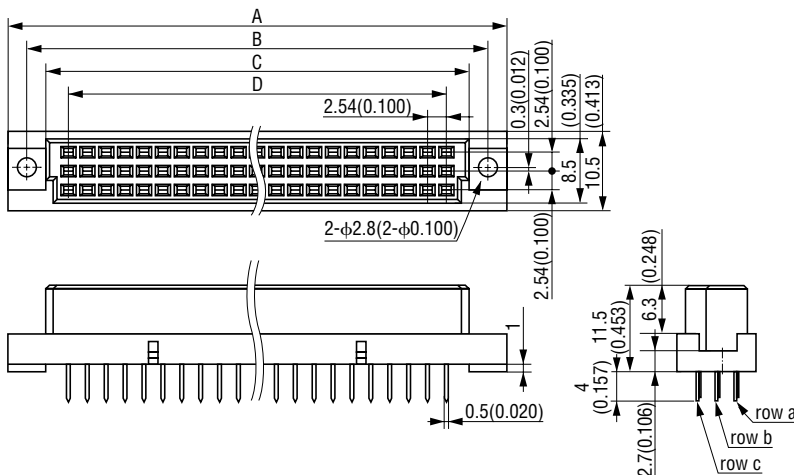


■ Dimensions

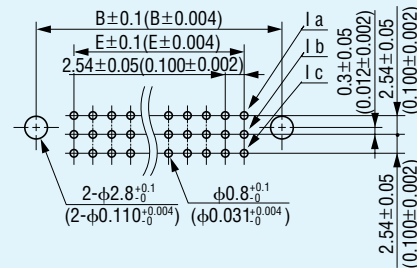
No. of contacts	A	B	C	D	E
48	53.26 (2.097)	48.26 (1.900)	46.86 (1.845)	44.66 (1.758)	38.10 (1.500)
96	93.90 (3.697)	88.90 (3.500)	87.50 (3.445)	85.30 (3.358)	78.74 (3.100)

8330-□□□-283□-□□□-N

Socket Receptacle, 3 row type



Mother board pattern

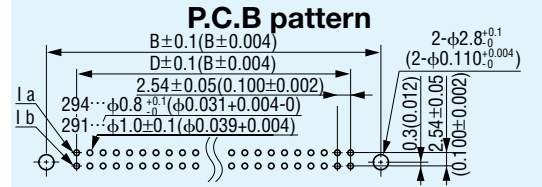
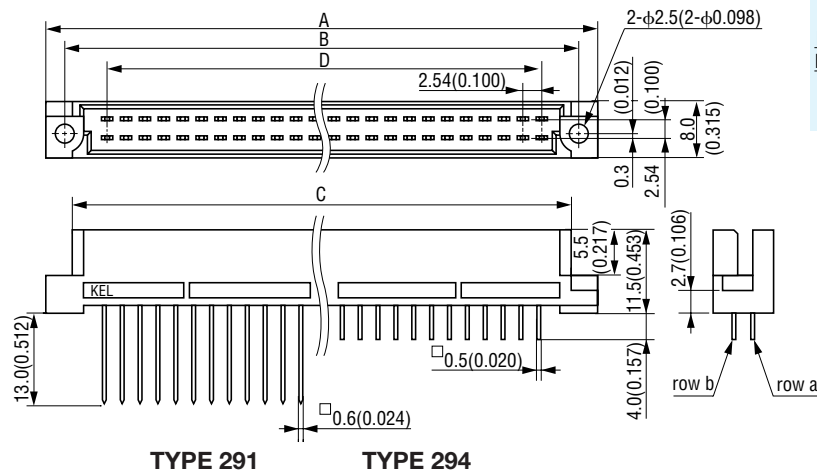


■ Dimensions

No. of contacts	A	B	D	E
48	54.36 (2.140)	49.36 (1.943)	44.26 (1.743)	38.10 (1.500)
96	95.00 (3.740)	90.00 (3.543)	84.90 (3.343)	78.74 (3.100)

8431-□□□-291□-□□□-N

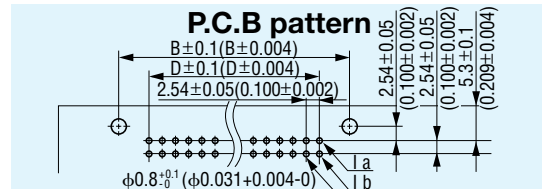
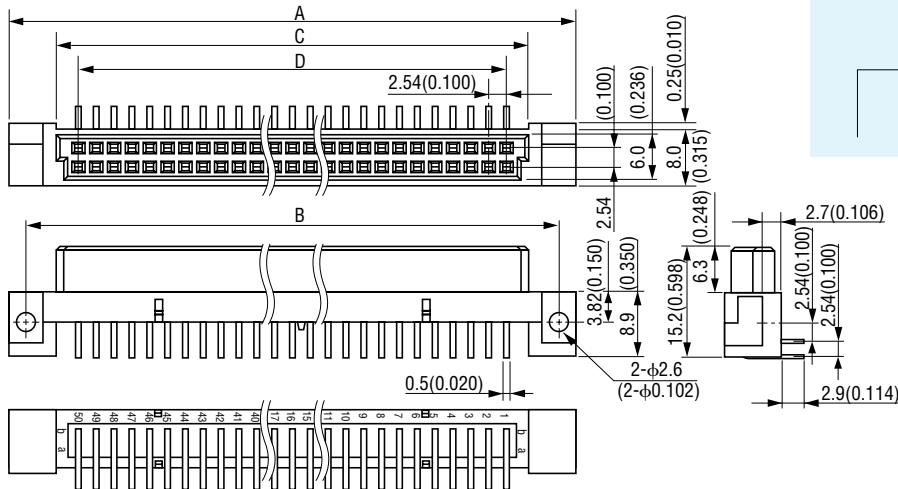
Pin Receptacle, 2 row type


Dimensions

No. of contacts	A	B	C	D
32	53.26 (2.097)	49.36 (1.943)	46.86 (1.845)	38.10 (1.500)
44	68.50 (2.697)	64.60 (2.543)	62.10 (2.445)	53.34 (2.100)
50	76.12 (2.839)	72.22 (2.843)	69.72 (2.745)	60.96 (2.400)
64	93.90 (3.697)	90.00 (3.543)	87.50 (3.445)	78.74 (3.100)
90	126.92 (4.997)	123.02 (4.843)	120.52 (4.745)	111.76 (4.400)
100	139.62 (5.497)	135.72 (5.343)	133.22 (5.245)	124.46 (4.900)

8440-□□□-284□-□□□-N

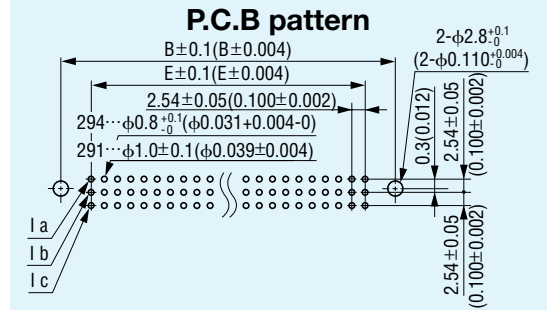
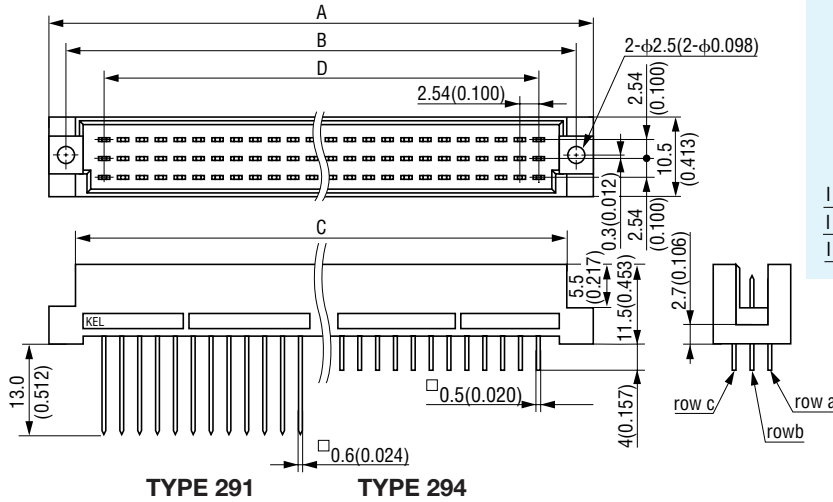
R/A Socket Header (Flush Mounting), 2 row type


Dimensions

No. of contacts	A	B	C	D
32	58.34 (2.297)	53.34 (2.100)	44.26 (1.743)	38.10 (1.500)
44	73.58 (2.897)	68.58 (2.700)	59.50 (2.343)	53.34 (2.100)
50	81.20 (3.197)	76.20 (3.000)	67.12 (2.643)	60.96 (2.400)
64	98.98 (3.897)	93.98 (3.700)	84.90 (3.343)	78.74 (3.100)
90	132.00 (5.197)	127.00 (5.000)	117.92 (4.643)	111.76 (4.400)
100	144.70 (5.697)	139.70 (5.500)	130.62 (5.143)	124.46 (4.900)

8431-□□□-291□-□□□□-N

Pin Receptacle, 3 row type

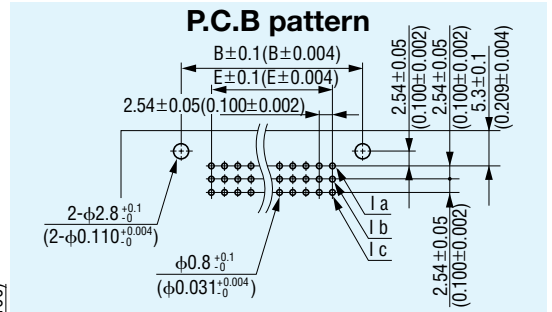
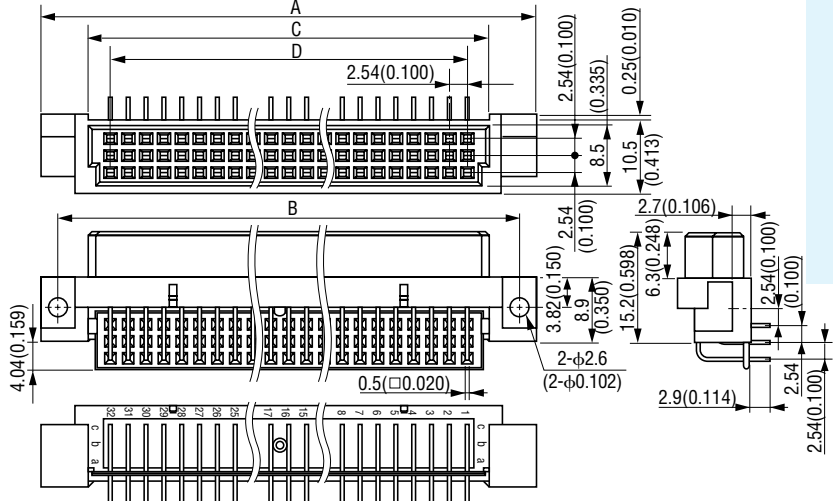


■ Dimensions

No. of contacts	A	B	C	E
48	53.36 (2.101)	49.36 (1.943)	46.86 (1.845)	38.10 (1.500)
96	94.00 (3.701)	90.00 (3.543)	87.50 (3.045)	78.74 (3.100)

8440-□□□-284□-□□□□-N

R/A Pin Header (Flush Mounting), 3 row type



■ Dimensions

No. of contacts	A	B	C	E
48	58.34 (2.297)	53.34 (2.100)	44.26 (1.743)	38.10 (1.500)
96	98.98 (3.897)	93.98 (3.700)	84.90 (3.343)	78.74 (3.100)

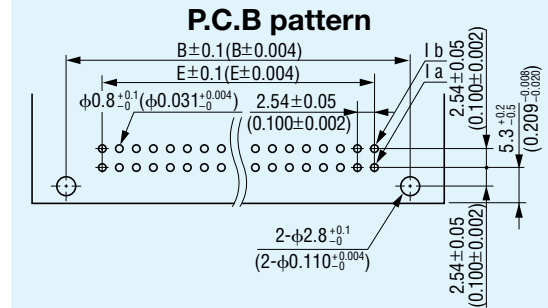
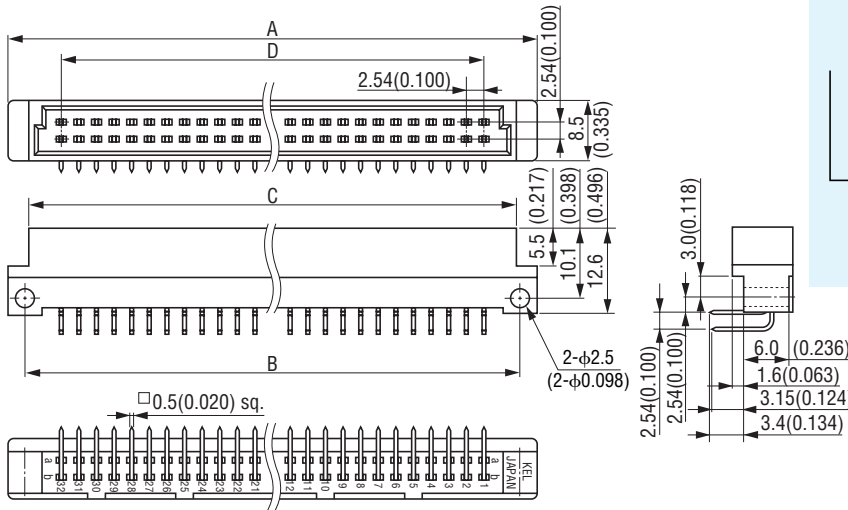
● ORDER CODE

8 □ □ □ - 2 □ □ □ - N

- N : RoHS Compliance
- Option
- H : With hooks (8330,8331,8341 series only)
- Insulator color
- Omit : Black
- Plating of contact area
- Omit : Au0.01μm
- Contact Terminal Style
- 283 : Straight · Dip Solder (8330 Series Socket Receptacle)
- 284 : R/A · Dip Solder (8440 Series Socket Header)
- 291 : Straight · W/W (8431 Series Pin Receptacle)
- 294 : R/A · Dip Solder (8331,8341 Series Pin Header)
- 294 : Straight · Dip Solder (8431 Pin Receptacle)
- Number of contacts
- 032,044,050,064,090,100 : 2 row type
- 048,096 : 3 row type
- Series
- 8330 : Standard Din (Socket Receptacle)
- 8331 : Standard Din (Pin Header)
- 8341 : Standard Din (Pin Header for Flush Mounting)
- 8431 : Inverse Din (Pin Receptacle for Flush Mounting)
- 8440 : Inverse Din (Socket Header)

8301-□□□-290□□-N

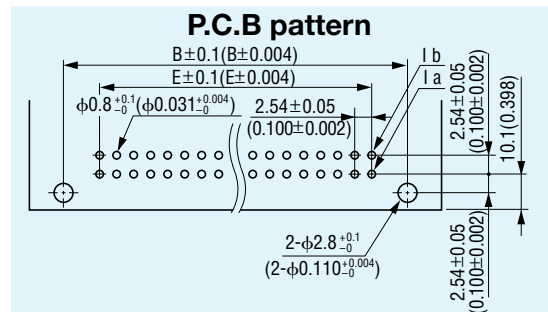
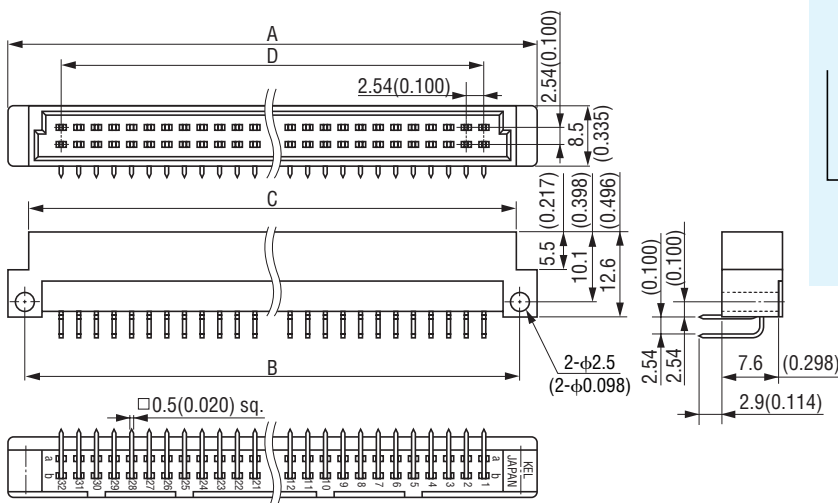
R/A Pin Header, 2 row type


■ Dimensions

No. of contacts	A	B	C	E
32	53.26 (2.097)	48.26 (1.900)	46.86 (1.845)	38.10 (1.500)
50	76.12 (2.997)	71.12 (2.800)	69.72 (2.745)	60.96 (2.400)
64	93.90 (3.697)	88.90 (3.500)	87.50 (3.445)	78.74 (3.100)

8311-□□□-290□□-N

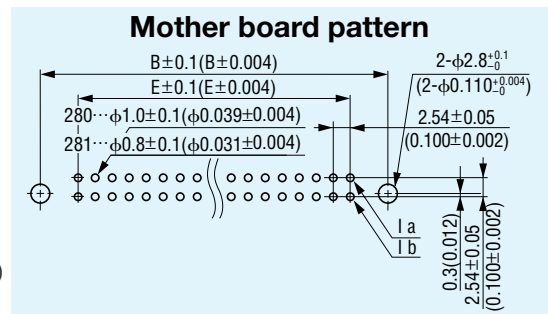
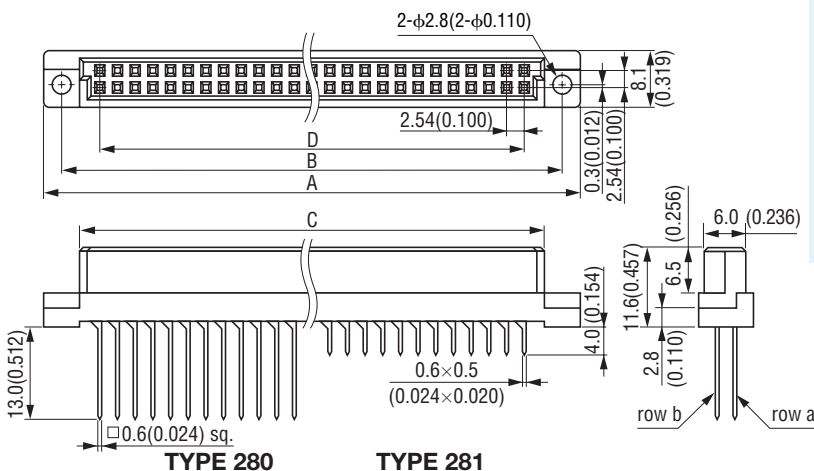
R/A Pin Header (Flush Mounting), 2 row type


■ Dimensions

No. of contacts	A	B	C	E
32	53.26 (2.097)	48.26 (1.900)	46.86 (1.845)	38.10 (1.500)
50	76.12 (2.997)	71.12 (2.800)	69.72 (2.745)	60.96 (2.400)
64	93.90 (3.697)	88.90 (3.500)	87.50 (3.445)	78.74 (3.100)

8300-□□□-280/281□□-N

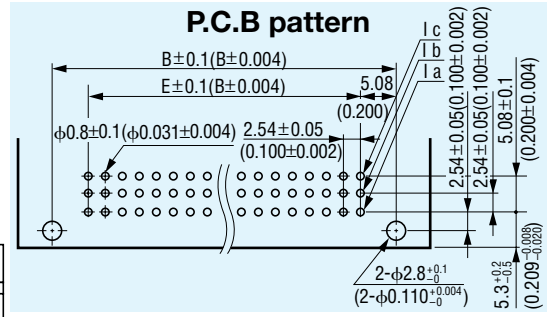
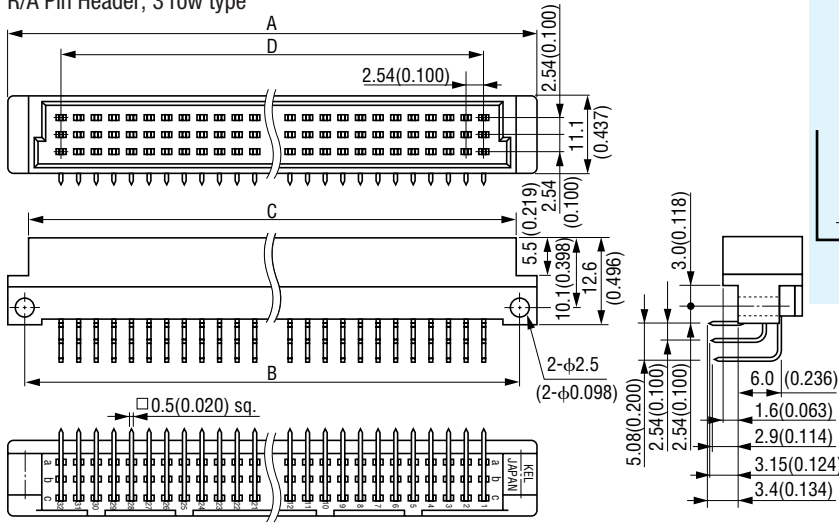
Socket Receptacle, 2 row type


■ Dimensions

No. of contacts	A	B	C	E
32	54.36 (2.140)	49.36 (1.943)	44.36 (1.746)	38.10 (1.500)
50	77.22 (3.040)	72.22 (2.843)	67.22 (2.646)	60.96 (2.400)
64	95.00 (3.740)	90.00 (3.543)	85.00 (3.346)	78.74 (3.100)

8301-□□□-290□□-N

R/A Pin Header, 3 row type

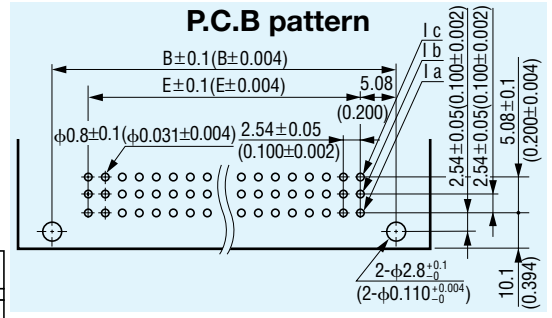
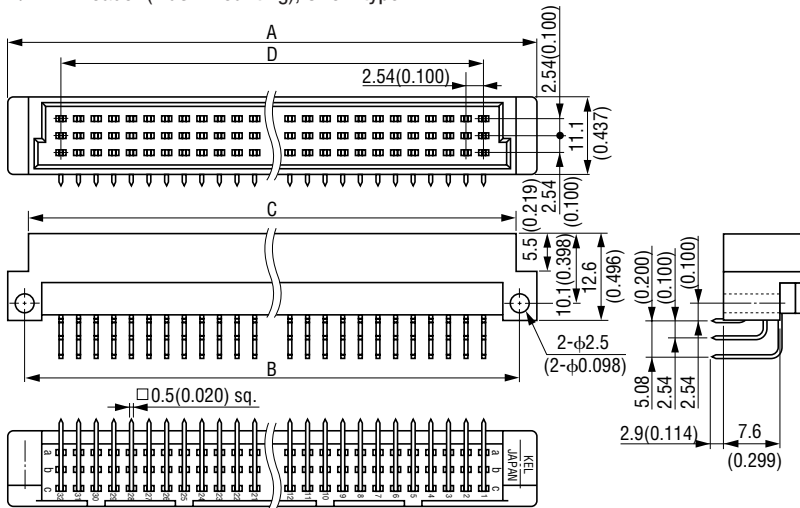


■ Dimensions

No. of contacts	A	B	C	E
48	53.26 (2.097)	48.26 (1.900)	46.86 (1.845)	38.10 (1.500)
96	93.90 (3.697)	88.90 (3.500)	87.50 (3.445)	78.74 (3.100)

8311-□□□-290□□-N

R/A Pin Header (Flush Mounting), 3 row type

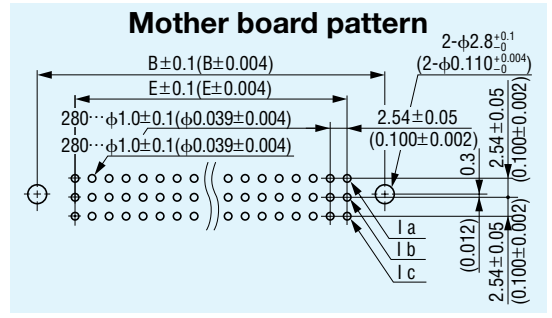
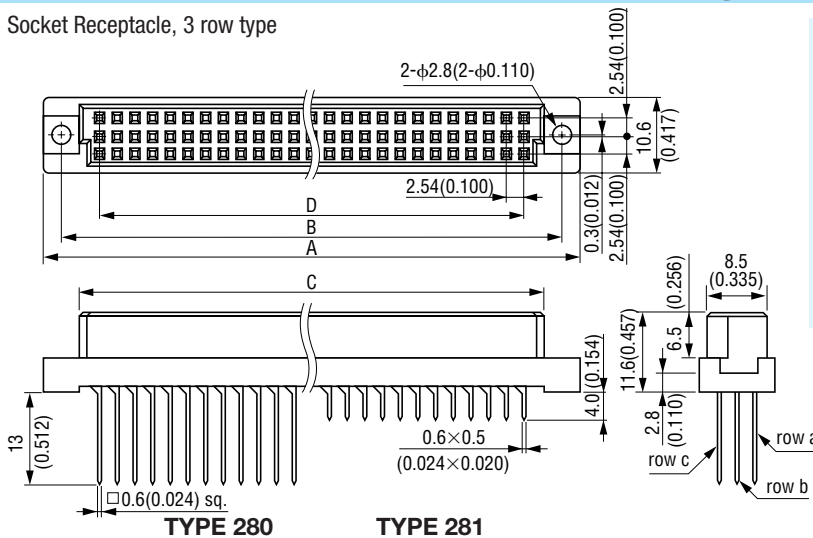


■ Dimensions

No. of contacts	A	B	C	E
48	53.26 (2.097)	48.26 (1.900)	46.86 (1.845)	38.10 (1.500)
96	93.90 (3.697)	88.90 (3.500)	87.50 (3.445)	78.74 (3.100)

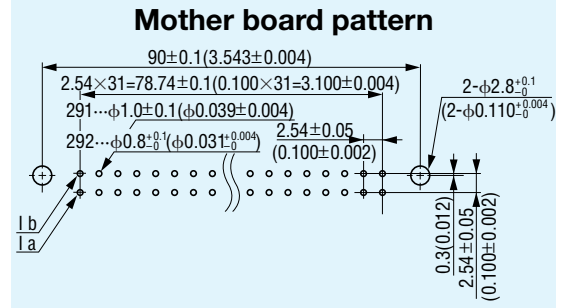
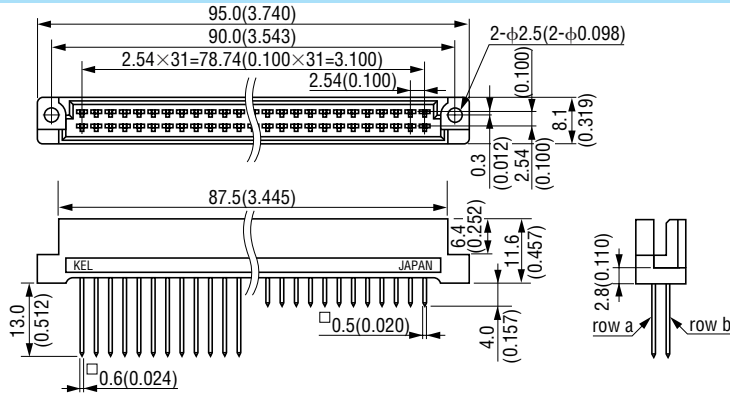
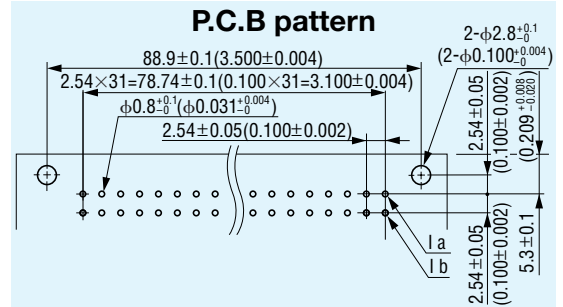
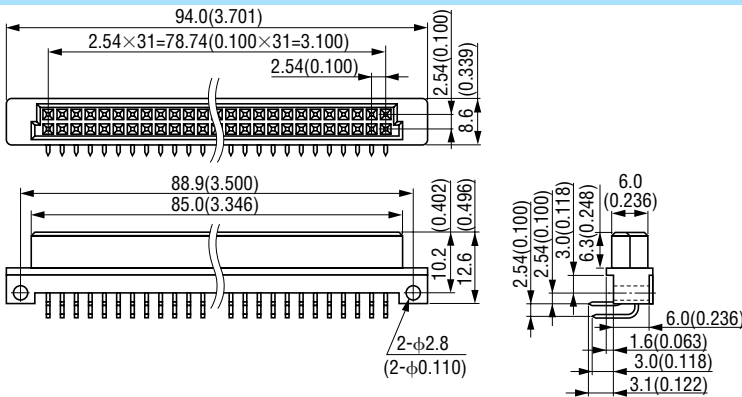
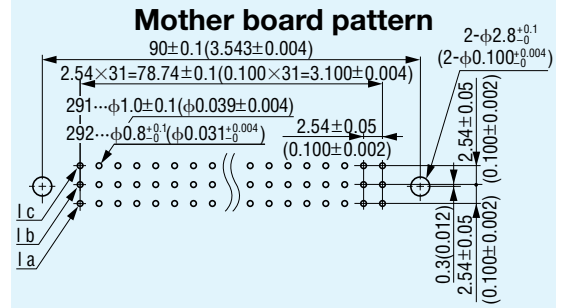
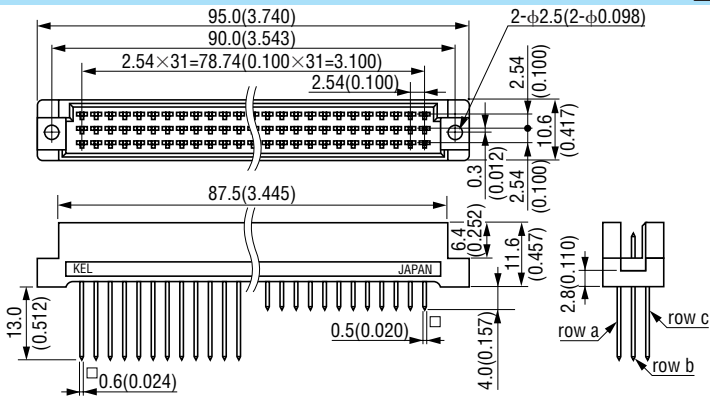
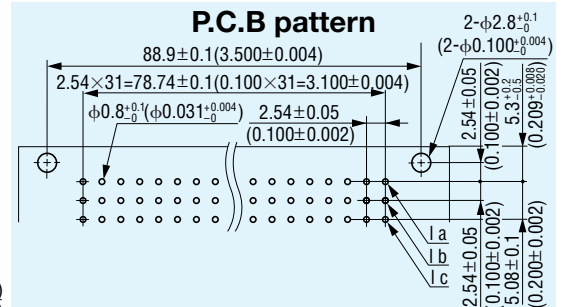
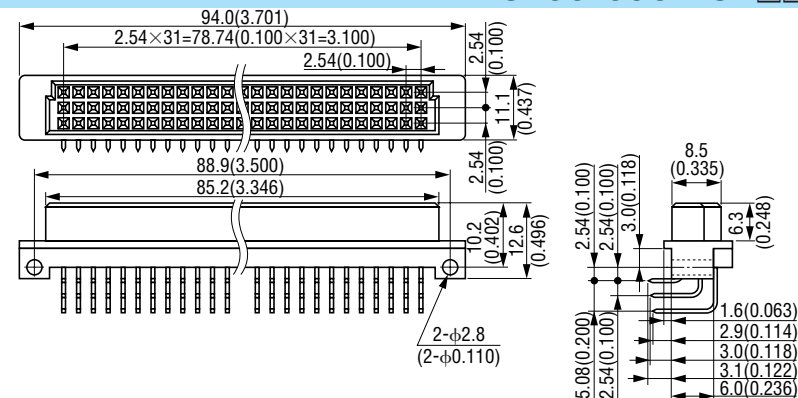
8300-□□□-280/281□□-N

Socket Receptacle, 3 row type



■ Dimensions

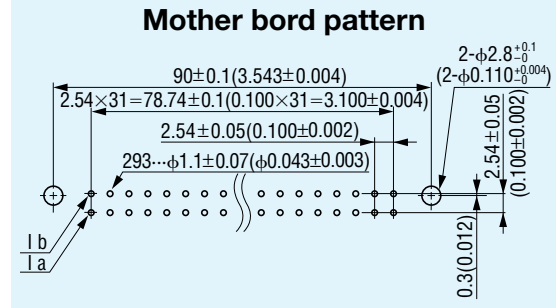
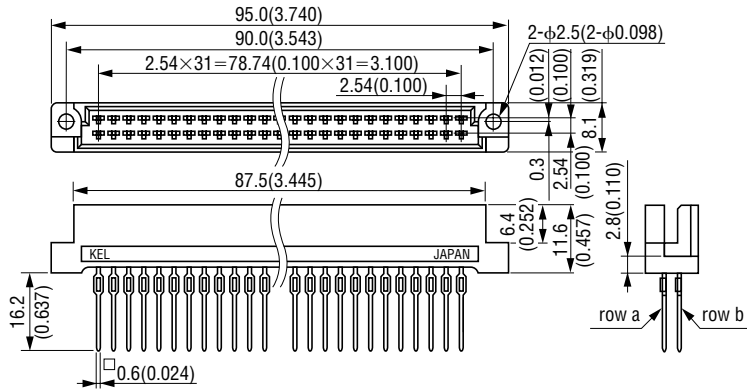
No. of contacts	A	B	C	E
48	54.36 (2.140)	49.36 (1.943)	44.36 (1.746)	38.10 (1.500)
96	95.00 (3.740)	90.00 (3.543)	85.00 (3.346)	78.74 (3.100)

8401-064-291□□-N

8400-064-282□□-N

8401-096-291□□-N

8400-096-282□□-N


8401-064-293□□-N

Pin Receptacle (Press-fit), 2 row type

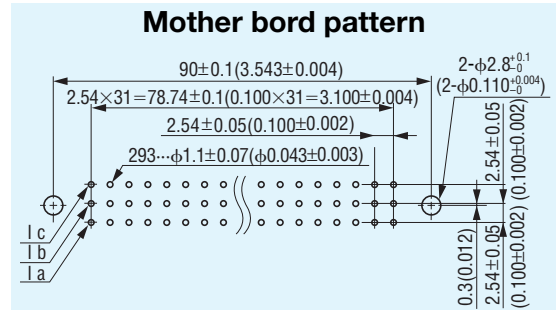
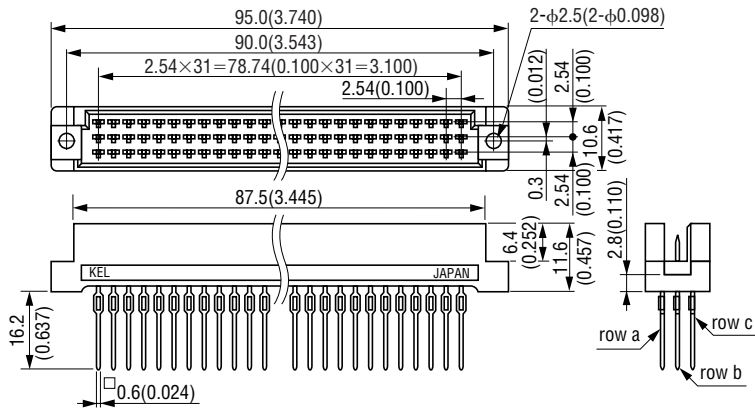
Unit:mm(inch)



8401-096-293□□-N

Pin Receptacle (Press-fit), 3 row type

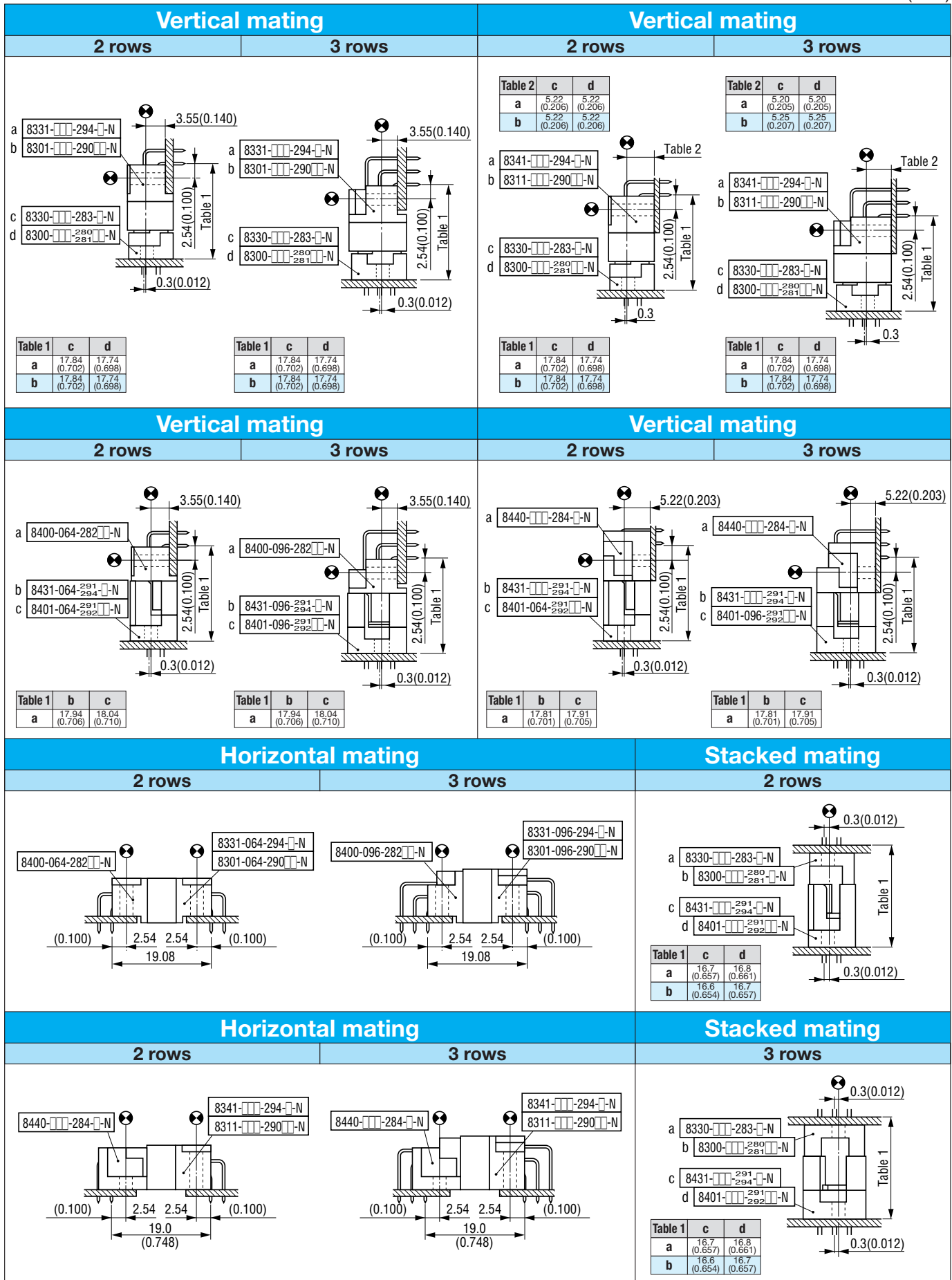
Unit:mm(inch)



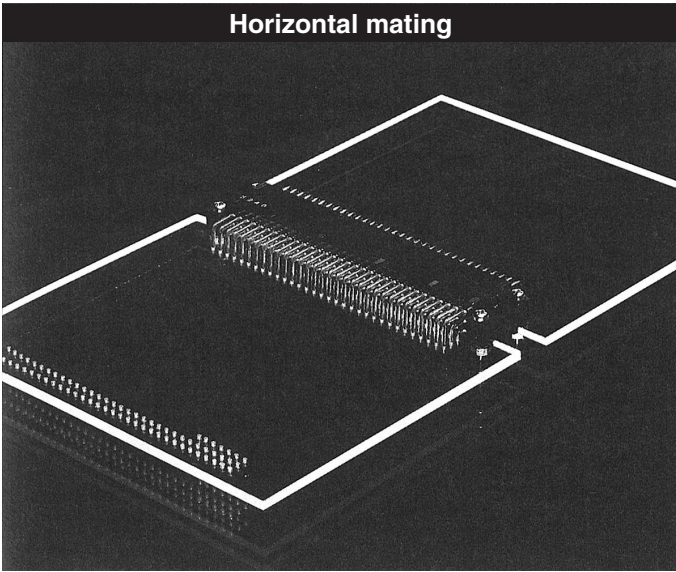
● ORDER CODE

8□□-0□□-2□□□-N

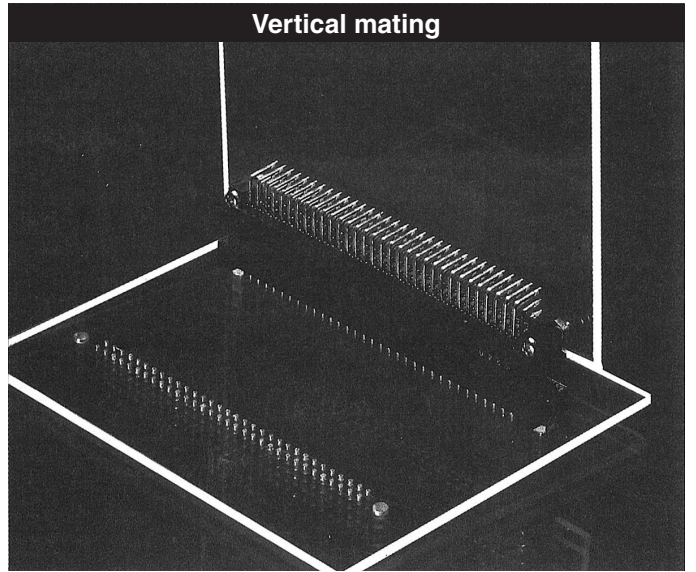
- Series
 - 8300 : Standard Din (Socket Receptacle)
 - 8301 : Standard Din (Pin Header)
 - 8311 : Standard Din (Pin Header for Flush Mounting)
 - 8400 : Inverse Din (Socket Header)
 - 8401 : Inverse Din (Pin Receptacle for)
- Number of contacts
 - 032,050,064 : 2 row type
 - 048,096 : 3 row type
- Terminal Style
 - 280 : Straight · Wire Wrap (8300 Series Socket Receptacle)
 - 281 : Straight · Dip Solder (8300 Series Socket Receptacle)
 - 282 : Right Angle · Dip Solder (8400 Series Socket Header)
 - 290 : Right Angle · Dip Solder (8301, 8311 Series Pin Header)
 - 291 : Straight · Wire Wrap (8401 Series Pin Receptacle)
 - 292 : Straight · Dip Solder (8401 Series Pin Receptacle)
 - 293 : Press-fit Wire Wrap (8401 Series Pin Receptacle)
- Plating thickness
 - Omit : Au 0.2μm (Standard)
- Contact arrangement
 - Omit : row a,b,c
- N : RoHS Compliance



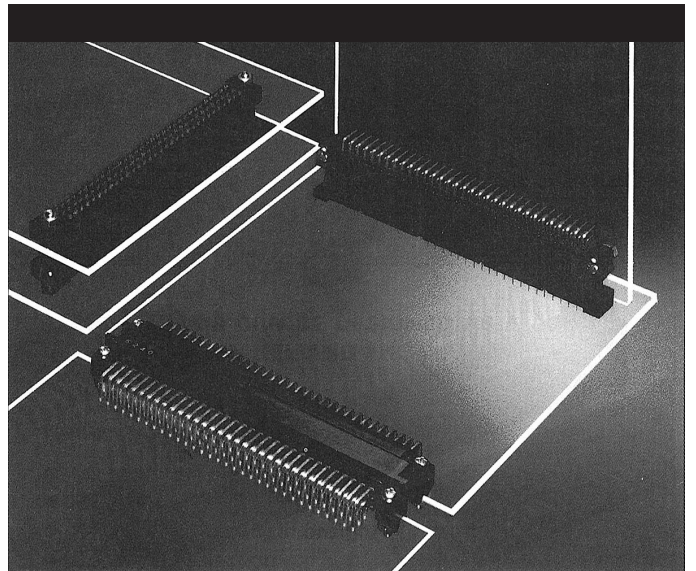
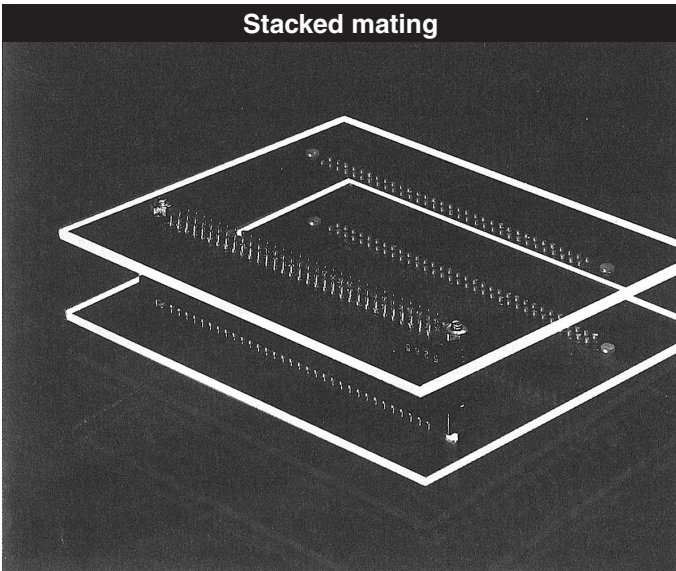
Horizontal mating



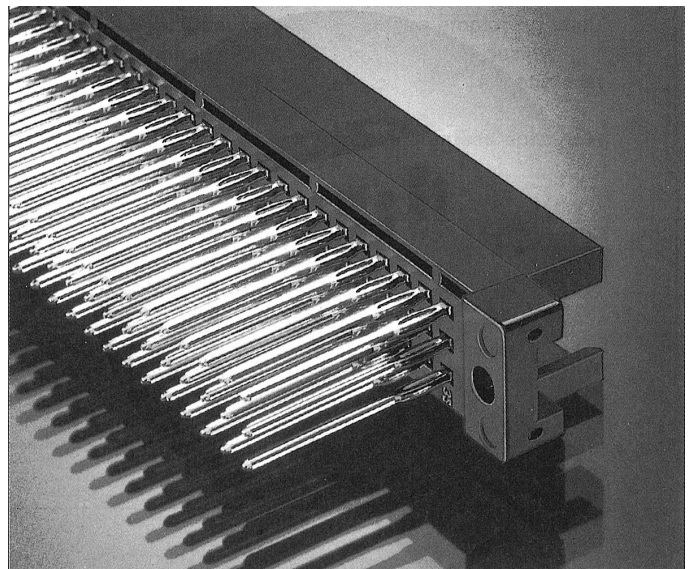
Vertical mating



Stacked mating



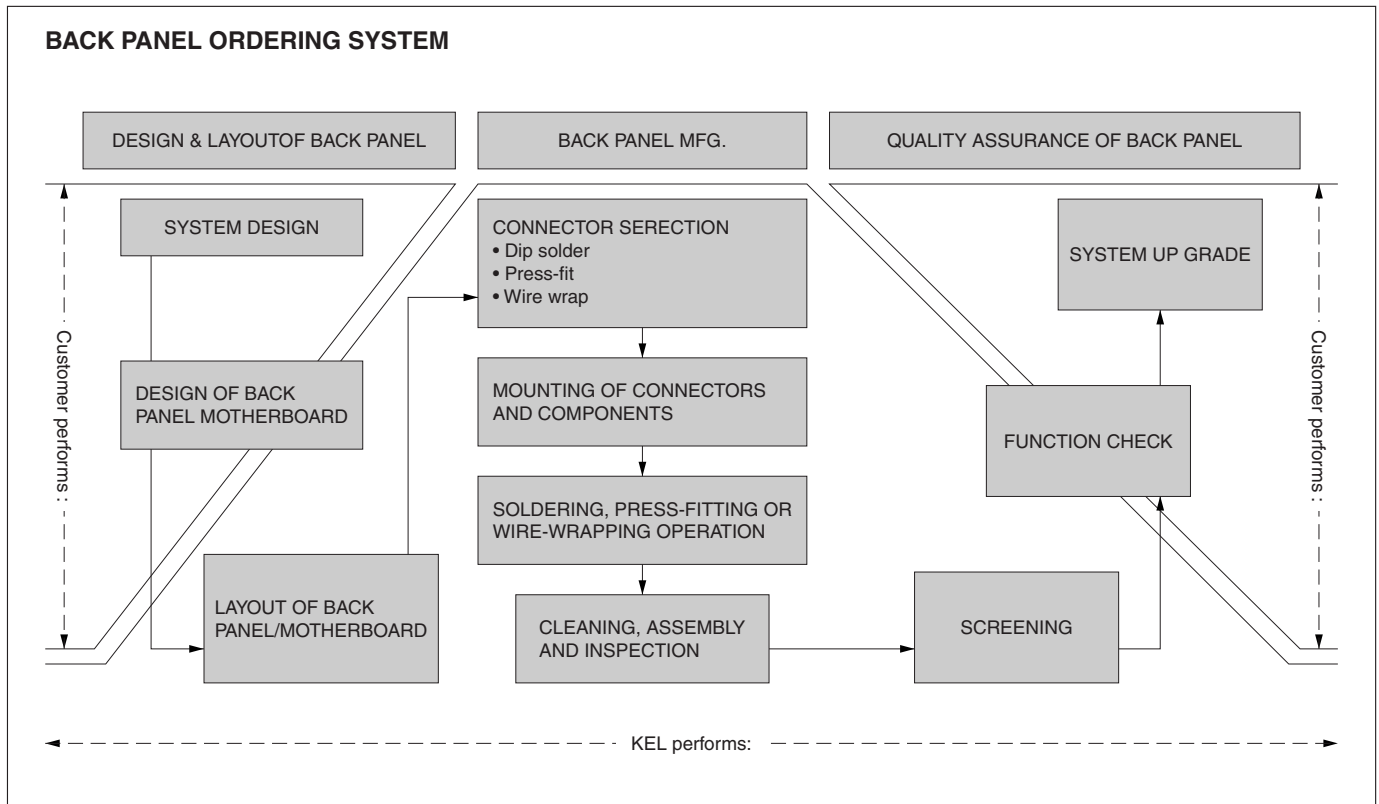
■ Compliant Part of Press-fit Contacts



MICROSYSTEM BUS PACKAGING



KEL supplies DIN connectors to be integrated with multi-layer backpanels, power supplies into the KELRACK® system.



FEATURES OF MICROSYSTEM BUS PACKAGING (MBP)

- Back panels can be purchased as components
- Net cost savings by reducing design assembly and inspection cost
- Complete system of components from one source
- The appearance gives added value to the delivered product
- System design will meet industry standards
- Units can be designed and manufactured based on drawings submitted by the customer

RACK SYSTEMS CAN BE DESIGNED AS A JOINT EFFORT BETWEEN KEL AND THE CUSTOMER

TECHNICAL SUPPORT

- Microsystem bus selection
- Motherboard layout
- Rack design (strength design)
- Connector selection

ACCUMULATED KNOW-HOW AND EXPERIENCE

- Established parts inspection system.
- High-level manufacturing expertise employing standardization achieves high reliability and quality.
- Electrical circuitry is inspected by automatic test equipment and in-circuit check.
- Pre-shipment testing system guarantees specifications.



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