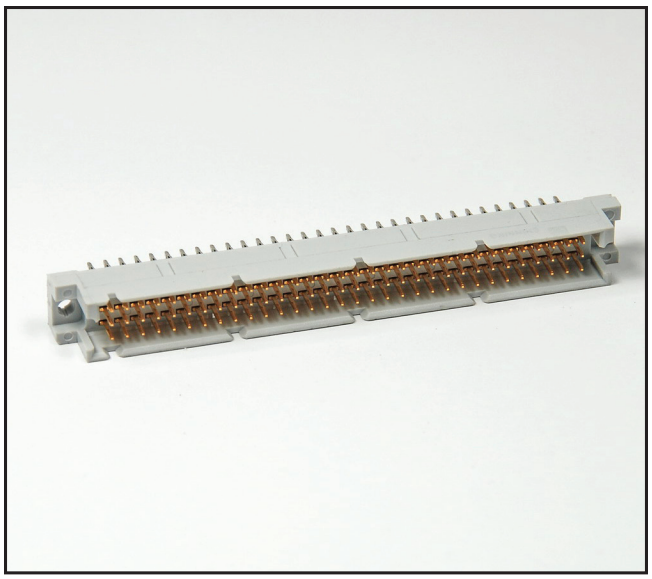
# 3M™ DIN R-Form Plug

Vertical, Solder Tail or Press-Fit Termination

DIN 41612 Series



- Early mate late break (EMLB) grounding contacts for hot swapping
- Select load capability
- Expanded pin counts
- Optional press-fit or solder tail termination
- Mates with C-form and R-form sockets
- Optional retention clip
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of www.3M.com/Interconnects for compliance information (RIA E1 & C1 apply)

Date Modified: February 2, 2010



## Physical

| | |
|---|---|
| **Insulation:** | |
| Material: | Glass Filled Polyester (PBT) |
| Flammability: | UL 94V-0 |
| Color: | Gray |
| **Contact:** | |
| Material: | Copper Alloy |
| **Plating:** | |
| Underplating: | 50 µ" Min.Nickel |
| Wiping Area: | See Ordering Information |
| Termination: | See Ordering Information |

## Electrical

| | |
|---|---|
| Current Rating: | 3.0A at 30°C T-rise above Ambient |
| Contact Resistance: | ≤20 mΩ |
| Insulation Resistance: | ≥1,000 MΩ, 100$V_{DC}$ |
| Withstanding Voltage: | 1,000 $V_{AC}$ for 1 minute |

## Environmental

| | |
|---|---|
| **Temperature Rating:** | -55°C to 125°C |
| **Process Temperature Rating:** | Maximum Insulator Temperature 191°C (solder wave process only) |

UL File No.: E68080



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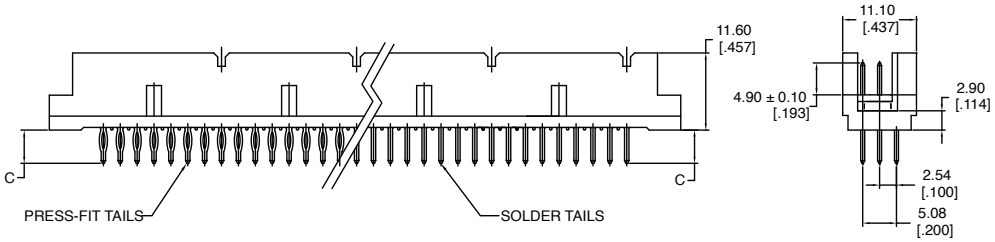
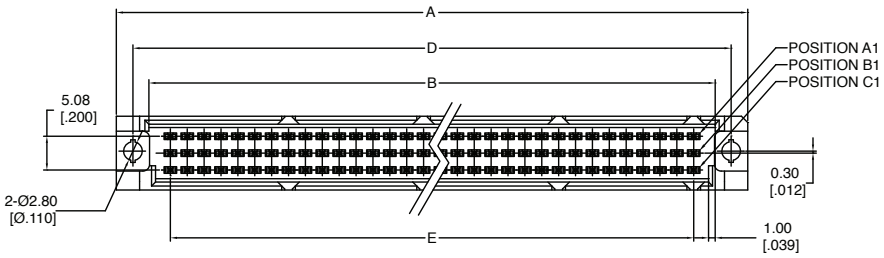
**Table 1**

| Contact Quantity | Part Number | A | B | D | E |
|---|---|---|---|---|---|
| 16 | DIN-016RPA-XXX-XXXX | 54.40 [2.142] | 44.60 [1.756] | 50.00 [1.969] | 38.10 [1.500] |
| 32 | DIN-032RPB-XXX-XXXX | 54.40 [2.142] | 44.60 [1.756] | 50.00 [1.969] | 38.10 [1.500] |
| 48 | DIN-048RPC-XXX-XXXX | 54.40 [2.142] | 44.60 [1.756] | 50.00 [1.969] | 38.10 [1.500] |
| 32 | DIN-032RPD-XXX-XXXX | 54.40 [2.142] | 44.60 [1.756] | 50.00 [1.969] | 38.10 [1.500] |
| 16 | DIN-016RPE-XXX-XXXX | 54.40 [2.142] | 44.60 [1.756] | 50.00 [1.969] | 38.10 [1.500] |
| 32 | DIN-032RPA-XXX-XXXX | 95.00 [3.740] | 85.20 [3.354] | 90.00 [3.543] | 78.74 [3.100] |
| 64 | DIN-064RPB-XXX-XXXX | 95.00 [3.740] | 85.20 [3.354] | 90.00 [3.543] | 78.74 [3.100] |
| 96 | DIN-096RPC-XXX-XXXX | 95.00 [3.740] | 85.20 [3.354] | 90.00 [3.543] | 78.74 [3.100] |
| 64 | DIN-064RPD-XXX-XXXX | 95.00 [3.740] | 85.20 [3.354] | 90.00 [3.543] | 78.74 [3.100] |
| 32 | DIN-032RPE-XXX-XXXX | 95.00 [3.740] | 85.20 [3.354] | 90.00 [3.543] | 78.74 [3.100] |
| 40 | DIN-040RPA-XXX-XXXX | 115.40 [4.543] | 105.52 [4.154] | 110.32 [4.343] | 99.06 [3.900] |
| 80 | DIN-080RPB-XXX-XXXX | 115.40 [4.543] | 105.52 [4.154] | 110.32 [4.343] | 99.06 [3.900] |
| 120 | DIN-120RPC-XXX-XXXX | 115.40 [4.543] | 105.52 [4.154] | 110.32 [4.343] | 99.06 [3.900] |
| 80 | DIN-080RPD-XXX-XXXX | 115.40 [4.543] | 105.52 [4.154] | 110.32 [4.343] | 99.06 [3.900] |
| 40 | DIN-040RPE-XXX-XXXX | 115.40 [4.543] | 105.52 [4.154] | 110.32 [4.343] | 99.06 [3.900] |

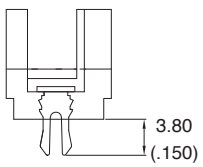



mm
[inch]

| Tolerance Unless Noted | | | |
|---|---|---|---|
| | X. | .X | .XX |
| mm | ± 0.50 | ± 0.25 | ± 0.15 |

[ ] Dimension for Reference Only




R1 with Retention Clip

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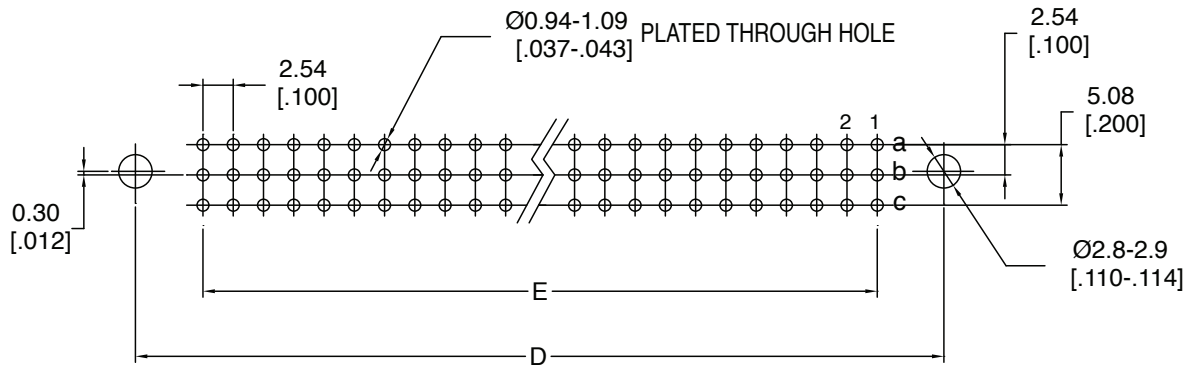
Vertical, Solder Tail or Press-Fit Termination — DIN 41612 Series




RECOMMENDED PCB LAYOUT

## Ordering Information

**DIN - XXXRP X - XXX - XX**

Contact Quantity
SEE TABLE 1

A = A Row only (see note)
B = Rows A & C Filled
C = Rows A, B & C Filled
D = Rows A & B Filled
E = B Row only (see note)

Termination Options:
SEE TABLE 2

Plating Options:
SH = 1 - 3 µ" Gold on Contact
120 - 200 µ" Matte Tin on Terminal
FJ = 10 - 20 µ" Gold on Contact
120 - 200 µ" Matte Tin on Terminal
KR = 30 - 40 µ" Gold on Contact
120 - 200 µ" Matte Tin on Terminal
HM = 3 µ" Gold on Contact, 7 µ" Min. PdNi
120 - 200 µ" Matte Tin on Terminal
KV = 30 µ" Gold on contact area, 1 - 3 µ" Gold
on Board Termination

**TABLE 2**

| SOLDER TERMINATION OPTION NO. | DIM "C" mm ( in) | Comment |
|---|---|---|
| R1 | 3.75 (.148) | with retention |
| S1 | 3.75 (.148) | no retention |
| W | 14.70 (.579) | no retention |
| PRESS-FIT TERMINATION OPTION NO. | | |
| DPS | 5.00 (.197) | |
| DPW1 | 13.25 (.522) | |

Note: A and E options are currently not covered in UL File No. E68080.

• This diagram serves only for Part Number descriptive definitions.

PLEASE CONTACT YOUR LOCAL SALES REPRESENTATIVE FOR CUSTOMER SPECIFIC PRODUCT CONFIGURATIONS.



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