

# 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](http://www.3M.com/Interconnects) for compliance information (RIA E1 & C1 apply)

Date Modified: February 2, 2010

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## Physical

### Insulation:

Material: Glass Filled Polyester (PBT)  
Flammability: UL 94V-0  
Color: Gray

### Contact:

Material: Copper Alloy

### Plating:

Underplating: 50  $\mu$ ” 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:  $\leq 20$  m $\Omega$   
Insulation Resistance:  $\geq 1,000$  M $\Omega$ , 100V<sub>DC</sub>  
Withstanding Voltage: 1,000 V<sub>AC</sub> 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



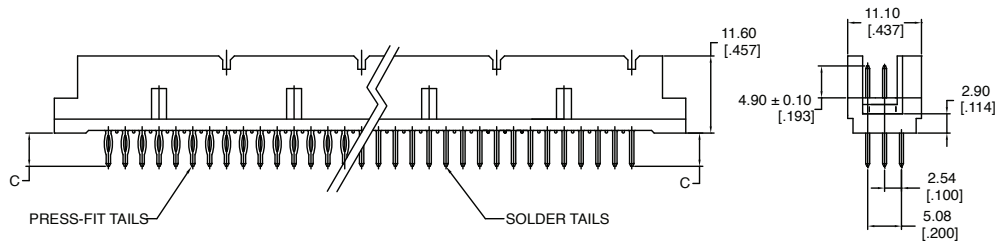
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Table 1

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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## 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  $\mu$ " Gold on Contact  
120 - 200  $\mu$ " Matte Tin on Terminal
- FJ = 10 - 20  $\mu$ " Gold on Contact  
120 - 200  $\mu$ " Matte Tin on Terminal
- KR = 30 - 40  $\mu$ " Gold on Contact  
120 - 200  $\mu$ " Matte Tin on Terminal
- HM = 3  $\mu$ " Gold on Contact, 7  $\mu$ " Min. PdNi  
120 - 200  $\mu$ " Matte Tin on Terminal
- KV = 30  $\mu$ " Gold on contact area, 1 - 3  $\mu$ " 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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