

"ZERO-CROSSTALK" M83513 Micro-D VersaLink™ Connectors



GVL RPM-BS, Rear Panel Mount, Straight PCB Connectors

MICRO-D VERSALINK CONNECTORS



PART NUMBER DEVELOPMENT									
Sample Part Number		GVL RPM	2	L-	2-9	P	BS	R3	C - .110
Series	GVL RPM = VersaLink Micro-D Rear Panel Mount								
Shell Finish	2 = Nickel 5 = Gold								
Insulator Material	L = LCP or PPS								
Contact Layout (V-M) ¹	1-0, 1-9, 2-0, 2-9, 2-15, 2-21, 3-9, 4-0, 4-15, 4-31, 8-9, 10-0								
Connector Type ³	P = Plug S = Receptacle								
Connector Style	BS = Straight Board Mount								
Hardware ^{4,5}	Rear panel mount jackposts (Length in Inches):								
	R1 = .032 panel R2 = .047 panel								
	R3 = .062 panel R4 = .093 panel								
O-Ring	R5 = .125 panel R6 = .080 panel								
	B = Threaded Inserts, No Hardware								
	C = Conductive N = Non-conductive (Nitrile)								
PC Tail Length ⁶	F = Fluorosilicone								
	-.080, -.110, -.140 (Length in Inches +.020/-.000)								

MATERIALS AND FINISHES

- Connector shell: aluminum alloy 6061
- Insulator (v): rigid dielectric
- Insulator (m): liquid crystal polymer (LCP) or polyphenylene sulfide (PPS)
- Flange seal: fluorosilicone rubber, blue
- O-ring: conductive elastomer or non-conductive nitrile rubber, blue
- Pin contact: copper alloy, gold over nickel plating
- Socket contact: copper alloy, gold over nickel plating
- Ground pin: copper alloy, gold plating
- Ground spring: stainless steel, gold plating
- Hardware: 300 series stainless steel, passivated
- Encapsulant: epoxy resin Hysol EE4215

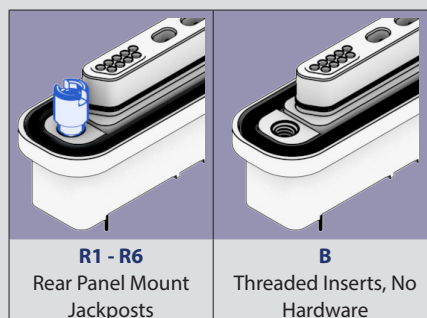
PERFORMANCE SPECIFICATIONS

- Current rating: 3 amp (Micro-D contacts)
- DWV: 600 VAC sea level
- Insulation resistance: 5000 megohms minimum
- Operating temperature: -55° C to +150° C
- Mating force (contact m): (10 ounces) x (# of contacts)
- Mating force (contact v): (5 ounces) x (# of contacts)
- Electrical performance IAW Glenair specification GT-19-230
- Interface dimensions IAW MIL-DTL-83513
- Reference application notes AN0005 for optimal performance

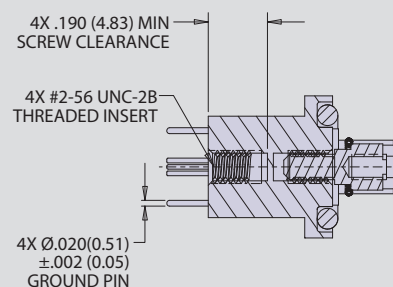
NOTES

- Refer to GHS4-M-1000 insert arrangement for insert arrangement details on page 94.
- Refer to GVLM-1000 for GVL RPM-BS PCB footprints on page 134.
- Plug connector uses pin Micro-D contacts and socket VersaLink contacts. Receptacle uses socket Micro-D contacts and pin VersaLink contacts.
- Refer to MIL-DTL-83513 panel cutout details on page 95.
- Recommended mating dimensions must be maintained when no hardware is used, see page 95.
- PC tails are solder-dipped in 60/40 tin-lead solder.
- Refer to 500-154 for protective cover on page 164.

HARDWARE



CONNECTOR CUTAWAY



INSERT ARRANGEMENTS

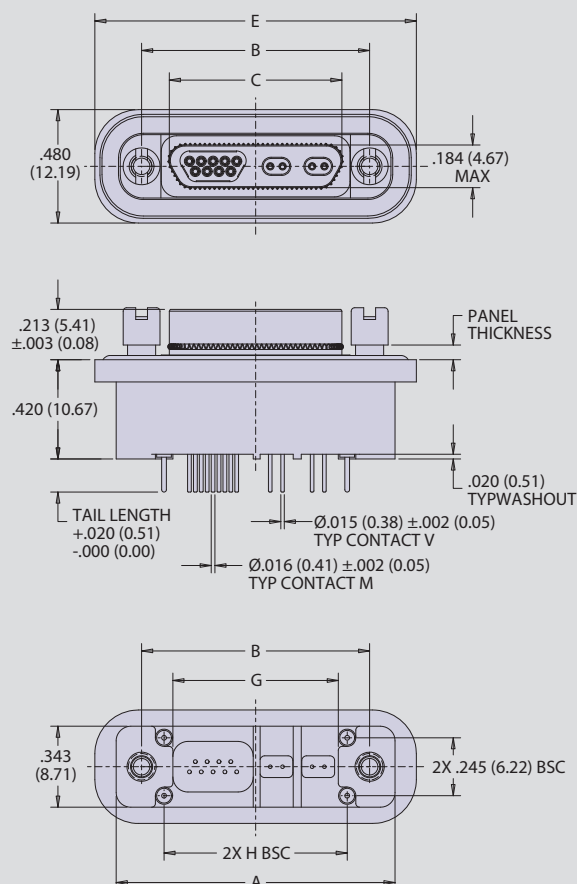
Insert Arrangements	No. of Contacts	
	VersaLink (V)	TwistPin Skt (M)
1-0	1	0
2-0	2	0
1-9	1	9
2-9	2	9
4-0	4	0
2-15	2	15
2-21	2	21
3-9	3	9
4-15	4	15
4-31	4	31
8-9	8	9
10-0	10	0

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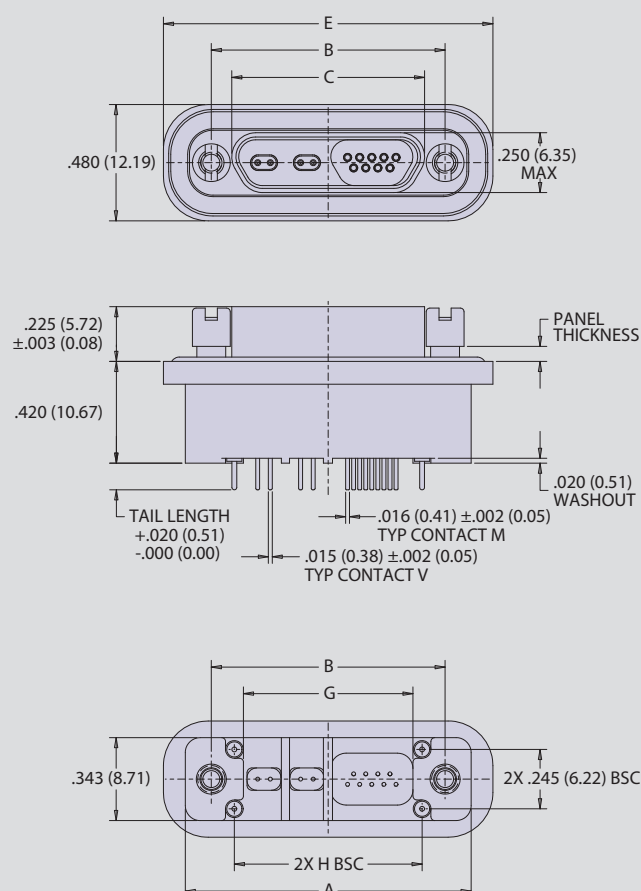


GVL RPM-BS, Rear Panel Mount, Straight PCB Connectors

GVL RPM-BS PCB STRAIGHT PLUG CONNECTOR



GVL RPM-BS PCB STRAIGHT RECEPTACLE CONNECTOR



PLUG DIMENSIONS

LAYOUT	A MAX	B ±.005	C MAX	E MAX	G ±.005	H ±.005
1-0P	0.785 (19.94)	0.565 (14.35)	0.333 (8.46)	0.965 (24.51)	0.300 (7.62)	0.375 (9.53)
2-0P	0.935 (23.75)	0.715 (18.16)	0.483 (12.27)	1.115 (28.32)	0.450 (11.43)	0.525 (13.34)
1-9P	1.085 (27.56)	0.865 (21.97)	0.633 (16.08)	1.265 (32.13)	0.600 (15.24)	0.675 (17.15)
2-9P	1.185 (30.10)	0.965 (24.51)	0.733 (18.62)	1.365 (34.67)	0.700 (17.78)	0.775 (19.69)
4-0P	1.185 (30.10)	0.965 (24.51)	0.733 (18.62)	1.365 (34.67)	0.700 (17.78)	0.775 (19.69)
2-15P	1.335 (33.91)	1.115 (28.32)	0.833 (21.16)	1.515 (38.48)	0.850 (21.59)	0.925 (23.50)
3-9P	1.485 (37.72)	1.265 (32.13)	1.033 (26.24)	1.665 (42.29)	1.000 (25.40)	1.075 (27.31)
4-15P	1.835 (46.61)	1.615 (41.02)	1.384 (35.15)	2.015 (51.18)	1.350 (34.29)	1.425 (36.20)
4-31P	2.235 (56.77)	2.015 (51.18)	1.784 (45.31)	2.415 (61.34)	1.750 (44.45)	1.825 (46.36)
8-9P	2.235 (56.77)	2.015 (51.18)	1.784 (45.31)	2.415 (61.34)	1.750 (44.45)	1.825 (46.36)
10-0P	2.235 (56.77)	2.015 (51.18)	1.784 (45.31)	2.415 (61.34)	1.750 (44.45)	1.825 (46.36)

RECEPTACLE DIMENSIONS

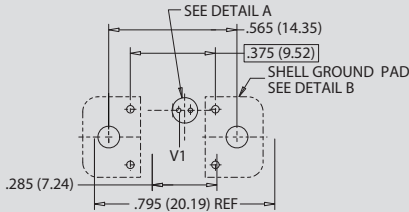
LAYOUT	A MAX	B ±.005	C MAX	E MAX	G ±.005	H ±.005
1-0S	0.785 (19.94)	0.565 (14.35)	.400 (10.16)	0.965 (24.51)	0.300 (7.62)	0.375 (9.53)
2-0S	0.935 (23.75)	0.715 (18.16)	.551 (14.00)	1.115 (28.32)	0.450 (11.43)	0.525 (13.34)
1-9S	1.085 (27.56)	0.865 (21.97)	.701 (17.81)	1.265 (32.13)	0.600 (15.24)	0.675 (17.15)
2-9S	1.185 (30.10)	0.965 (24.51)	.801 (20.35)	1.365 (34.67)	0.700 (17.78)	0.775 (19.69)
4-0S	1.185 (30.10)	0.965 (24.51)	.801 (20.35)	1.365 (34.67)	0.700 (17.78)	0.775 (19.69)
2-15S	1.335 (33.91)	1.115 (28.32)	.951 (24.16)	1.515 (38.48)	0.850 (21.59)	0.925 (23.50)
3-9S	1.485 (37.72)	1.265 (32.13)	1.101 (27.97)	1.665 (42.29)	1.000 (25.40)	1.075 (27.31)
4-15S	1.835 (46.61)	1.615 (41.02)	1.450 (36.83)	2.015 (51.18)	1.350 (34.29)	1.425 (36.20)
4-31S	2.235 (56.77)	2.015 (51.18)	1.850 (46.99)	2.415 (61.34)	1.750 (44.45)	1.825 (46.36)
8-9S	2.235 (56.77)	2.015 (51.18)	1.850 (46.99)	2.415 (61.34)	1.750 (44.45)	1.825 (46.36)
10-0S	2.235 (56.77)	2.015 (51.18)	1.850 (46.99)	2.415 (61.34)	1.750 (44.45)	1.825 (46.36)

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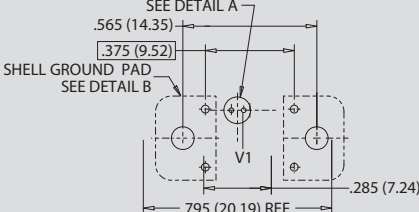
GVLM-1000: GVL RPM-BS, Rear Panel Mount, Straight PCB Connector Footprints

Plug Layout 1-0



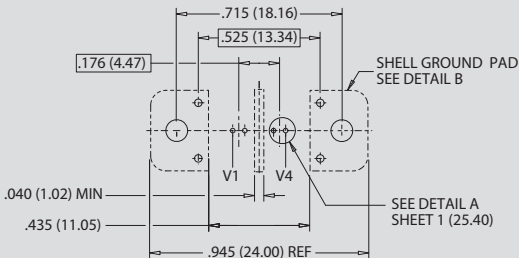
REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

Receptacle Layout 1-0



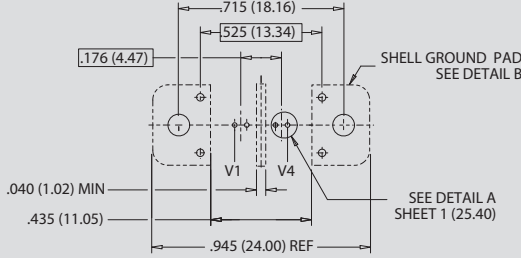
REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

Plug Layout 2-0



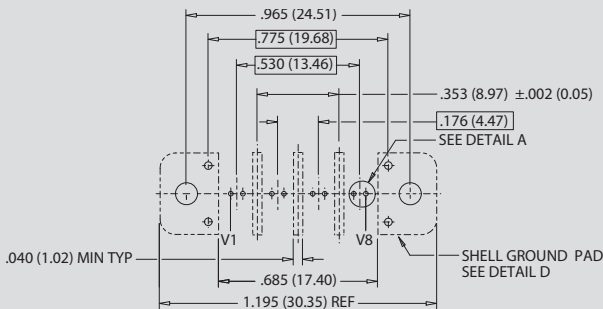
REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

Receptacle Layout 2-0



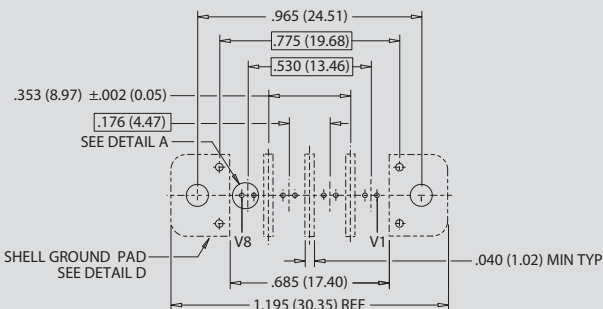
REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

Plug Layout 4-0



REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

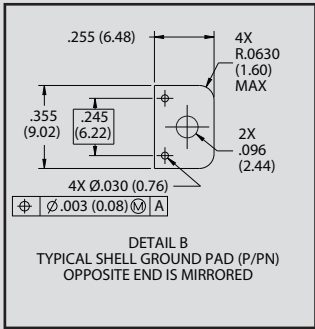
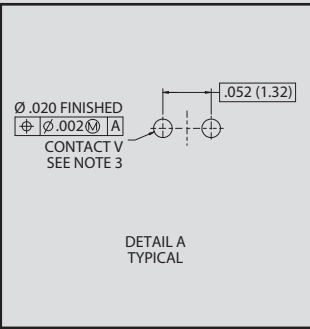
Receptacle Layout 4-0



REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

NOTES

1. Patterns shown are for connector mounting side of PC board.
2. Reference GVL RPM-BS for connector details.
3. Reference application notes AN0005 for optimal performance.

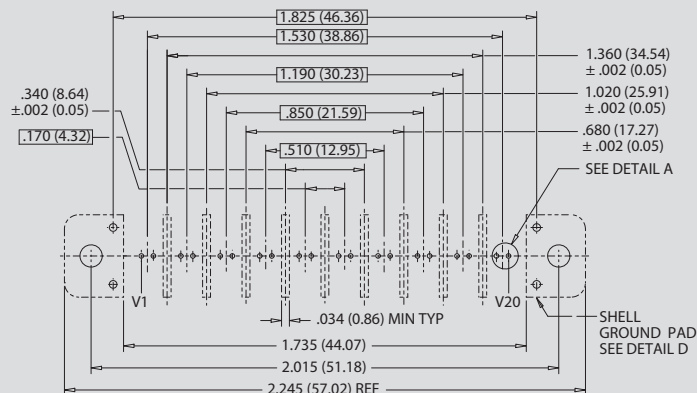


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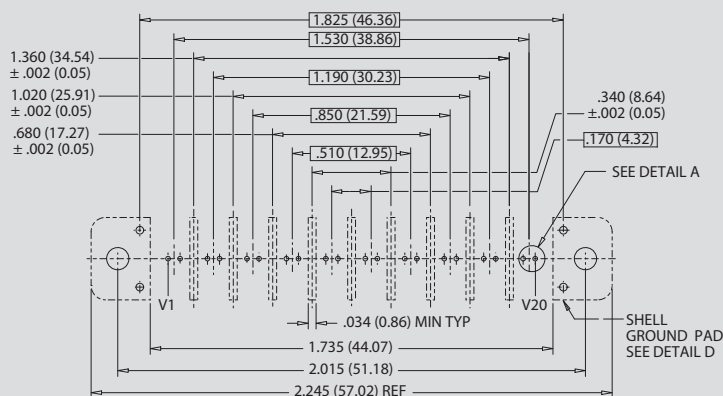


GVLM-1000: GVL RPM-BS, Rear Panel Mount, Straight PCB Connector Footprints

Plug Layout 10-0



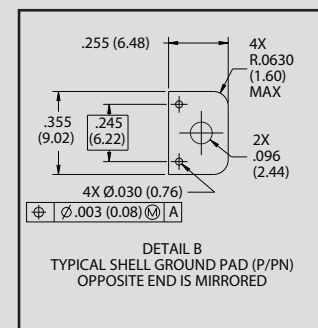
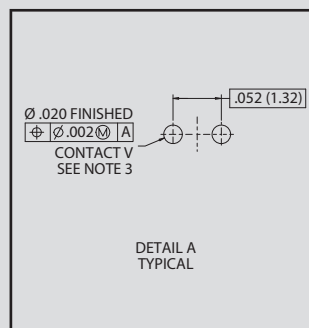
Receptacle Layout 10-0



REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

NOTES

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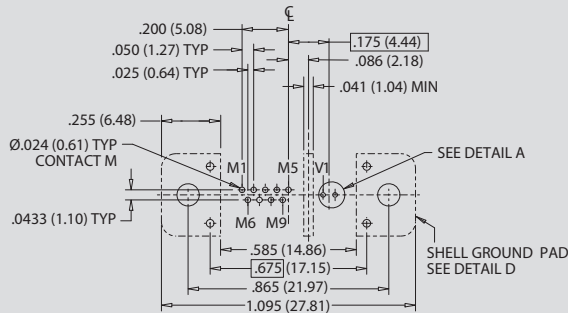
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GVLM-1000: GVL RPM-BS, Rear Panel Mount, Straight PCB Connector Footprints

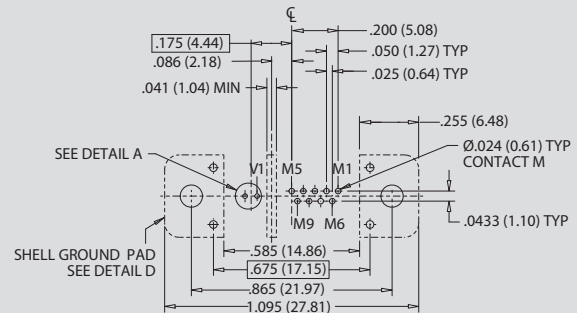
MICRO-D VERSALINK CONNECTORS

Plug Layout 1-9



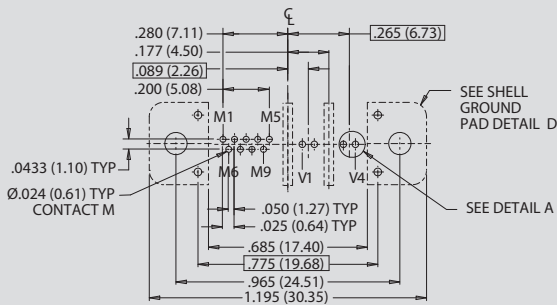
**REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)**

Receptacle Layout 1-9



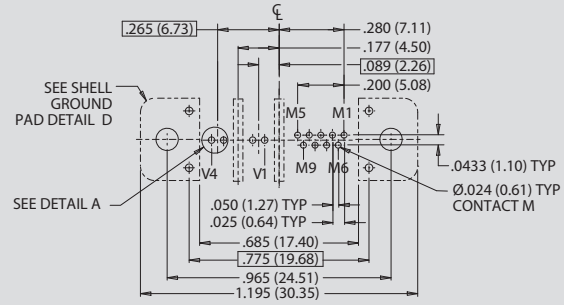
**REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)**

Receptacle Layout 2-9



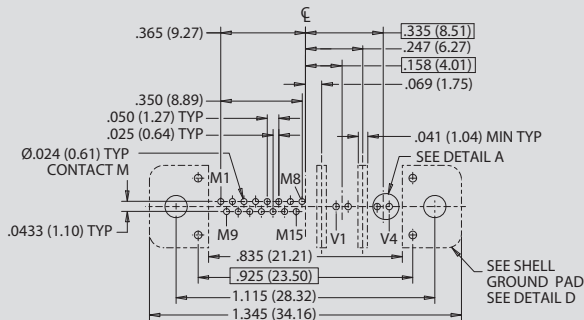
**REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)**

Receptacle Layout 2-9



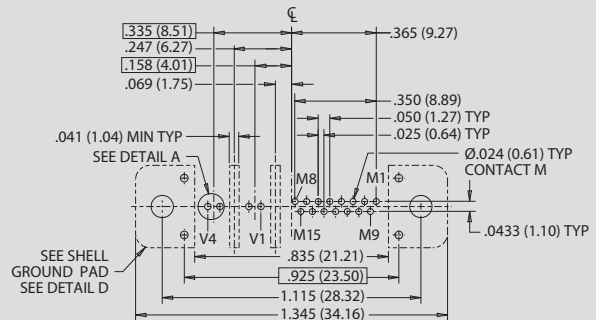
**REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)**

Plug Layout 2-15



**REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)**

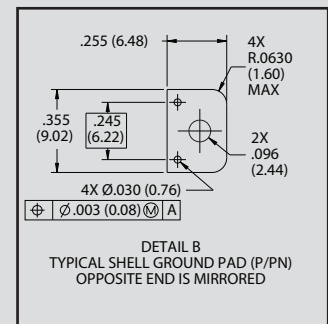
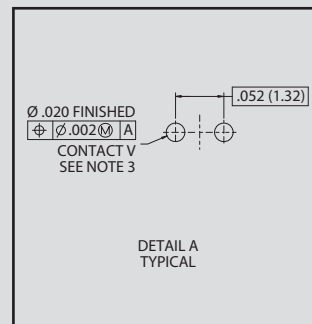
Receptacle Layout 2-15



**REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)**

NOTES

1. Patterns shown are for connector mounting side of PC board.
2. Reference GVL RPM-BS for connector details.
3. Reference application notes AN0005 for optimal performance.

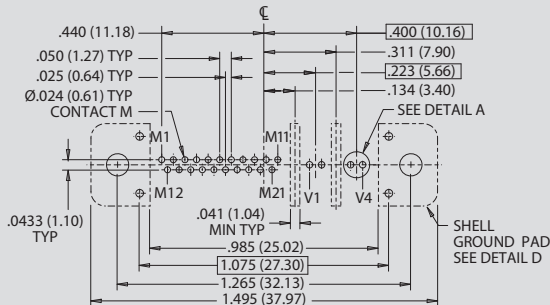


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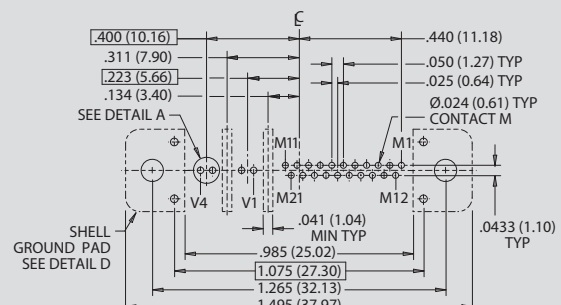
GVLN-1000: GVLNPM-BS, Rear Panel Mount, Straight PCB Connector Footprints

Plug Layout 2-21



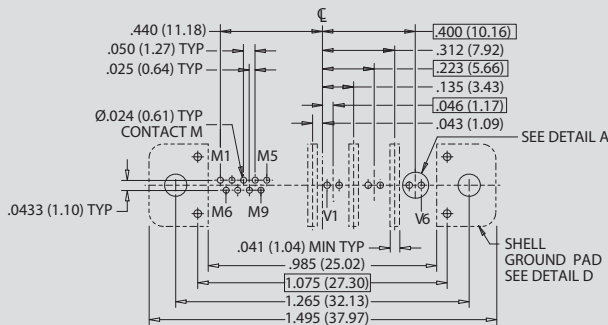
REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

Receptacle Layout 2-21



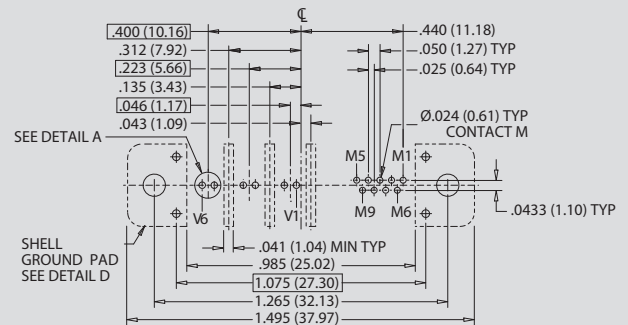
REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

Plug Layout 3-9



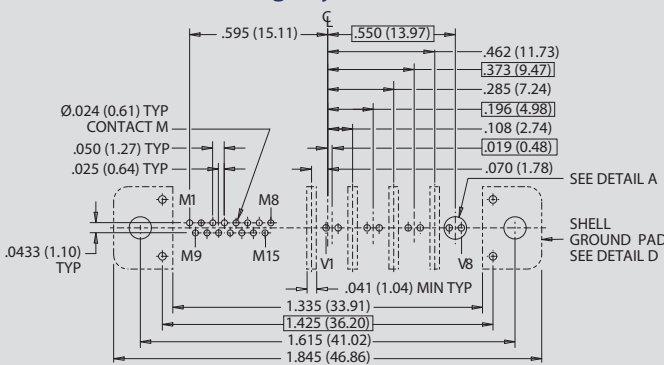
REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

Receptacle Layout 3-9



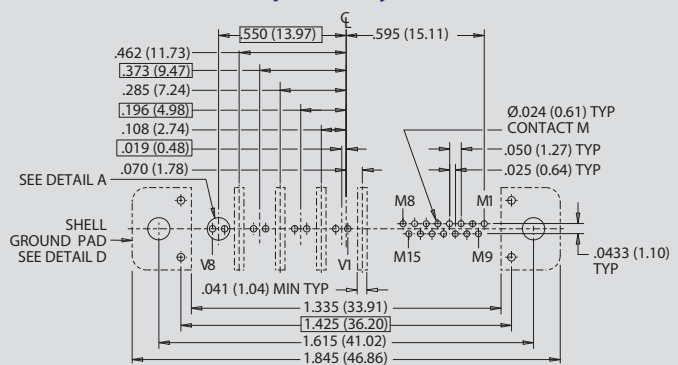
REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

Plug Layout 4-15



REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

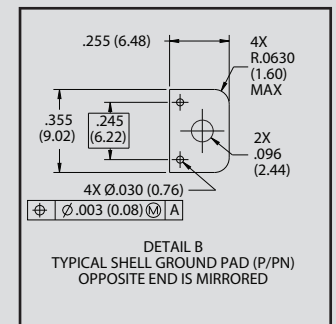
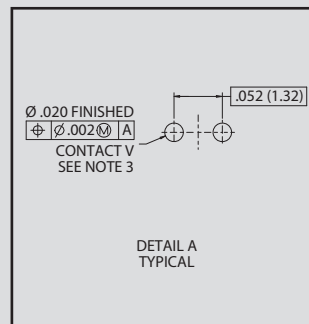
Receptacle Layout 4-15



REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

NOTES

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3. Reference application notes AN0005 for optimal performance.

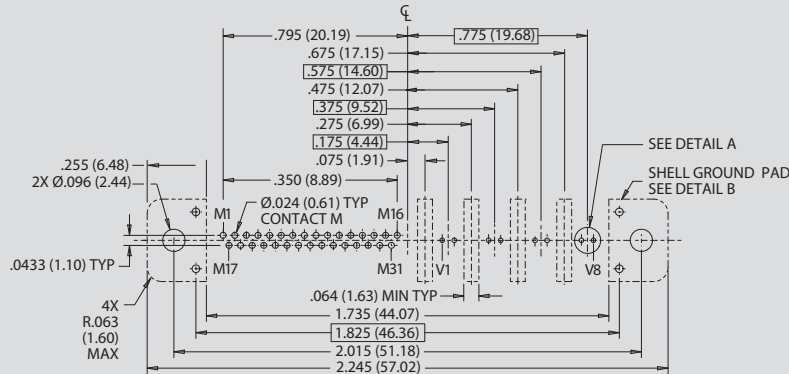


"ZERO-CROSSTALK" M83513 Micro-D VersaLink™ Connectors



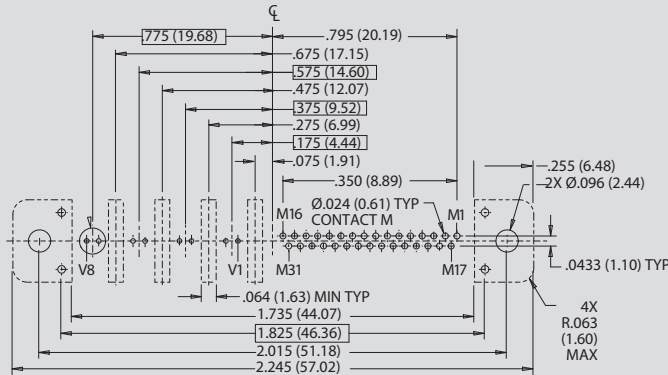
GVLM-1000: GVL RPM-BS, Rear Panel Mount, Straight PCB Connector Footprints

Pin Layout 4-31



REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

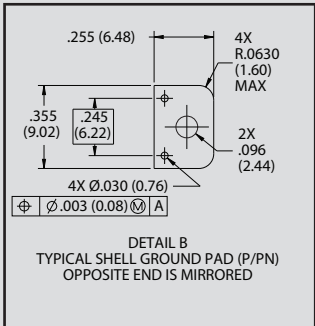
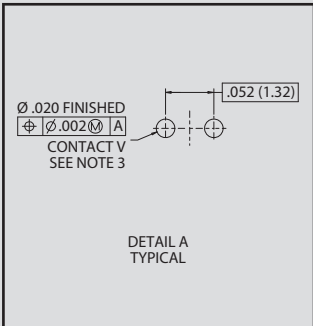
Receptacle Layout 4-31



REAR PANEL MOUNT JACKPOSTS
WHEN USING PEM NUT (R1 THRU R6)

NOTES

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MICRO-D VERSALINK CONNECTORS

REAR PANEL MOUNT JACKPOSTS WHEN USING PEM NUT (R1 THRU R6)

DETAIL B

TYPICAL SHELL GROUND PAD (P/PN)
OPPOSITE END IS MIRRORRED

The drawing shows a cross-section of a shell ground pad. Key dimensions include:

- Overall width: .255 (6.48)
- Overall height: .355 (9.02)
- Internal rectangular feature width: .245 (6.22)
- Top fillet radius: 4X R.0630 (1.60) MAX
- Bottom hole diameter: 4X Ø.030 (0.76)
- Surface texture symbol: 4X Ø.003 (0.08) [Symbol]
- Feature A: [Symbol] A
- Bottom hole depth: 2X .096 (2.44)