

MICRO-CRIMP RECTANGULAR CONNECTORS

Series 791 Scoop-Proof



791-011

Panel Receptacle, 90° PC Tails



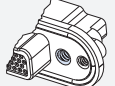
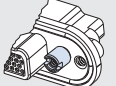
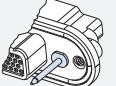
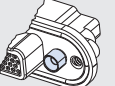
791-011 receptacle has 90° PC tails. For rear panel mounting. Mounting flange has blind threaded holes and O-ring for ingress protection. Contact tails are sealed with epoxy. Machined aluminum shell has integral standoff and threaded holes for attachment to PC board. Optional ground spring. Fluorosilicone face seal provides environmental protection. Available in 42 insert arrangements with up to 153 contacts.

- ◆ Right angle PCB termination
- ◆ Rear panel mount
- ◆ Pin contacts

- Aerospace-grade ultraminiature connector with scoop-proof duo-lobe shell
- Epoxy-sealed 90° PCB terminals
- 40 insert arrangements with M39029-type contacts
- Environmental

INSERT ARRANGEMENTS					
FULL COMPLEMENT OF CONTACTS	#8, #12 OR #16 CONTACTS PURCHASED SEPARATELY	No. of Contacts			
		#23	#16	#12	#8
A-5		5			
B-2P2	B-2W2		2		
B-9		9			
C-13		13			
D-15		15			
D-3P3	D-3W3		3		
D-7P2	D-7W2	5	2		
E-11P2	E-11W2	9	2		
E-19		19			
E-7P3	E-7W3	4	3		
F-14P3	F-14W3	11	3		
F-15P2	F-15W2	13	2		
F-23		23			
F-5P5	F-5W5		5		
G-13P2	G-13W2	11		2	
G-21P1	G-21W1	20		1	
G-3P3	G-3W3			3	
G-33		33			
H-10P4	H-10W4	6		4	
H-29P7	H-29W7	22	7		
H-36P2	H-36W2	34		2	
H-51P1	H-51W1	50		1	
H-54P2	H-54W2	52	2		
H-5P5	H-5W5			5	
H-66		66			
J-17P4	J-17W4	13	4		
J-25P2	J-25W2	23	2		
J-33		33			
J-7P7	J-7W7		7		
K-27P4	K-27W4	23	4		
K-35P2	K-35W2	33	2		
K-43		43			
K-9P9	K-9W9		9		
L-22P4	L-22W4	18		4	
L-48P2	L-48W2	46		2	
L-6P6	L-6W6			6	
L-78		78			
M-17P17	M-17W17		17		
M-102		102			
M-4P4	M-4W4				4
N-13P13	N-13W13			13	
N-153		153			

HOW TO ORDER									
Sample Part Number		791-011P	J-33	M	N	P	F	B	B
Basic Part Number	791-011P		Panel Receptacle, Pin Contacts, 90° PCB Tails						
Shell Size-Insert Arr.	See "Insert Arrangements" Table								
Shell Finish	M		Electroless Nickel						
	MT		Nickel / PTFE						
	NF		Olive Drab Cadmium						
	TZ		Tin-Zinc						
	ZR		Black Zinc-Nickel						
EMI Spring	E		EMI Spring						
	N		No EMI Spring						
Hardware Option Table 1	B		Guide Bushings <i>For blind mating</i>						
	G		Guide Pins <i>For blind mating</i>						
	N		No Hardware <i>Threaded holes</i>						
	P		Female Jackposts						
Panel O-Ring	N		No O-ring						
	C		Conductive Fluorosilicone O-ring						
	F		Fluorosilicone O-ring						
PC Tail Length	A		.125 (3.2)						
	B		.250 (6.4)						
	C		.375 (9.5)						
Polarization Key Option	Enter Letter Designator for Position A, B, C, D, E , or F per Mod Code 555 (see page B-8 for details) Omit for none								

TABLE 1 HARDWARE OPTION			
 N No Hardware	 P Female Jackpost	 G Guide Pin	 B Guide Bushing
RATINGS		CONSTRUCTION	
- Voltage (DWV): size 23 contacts 750 VAC, Size 8, 12 and 16: 1800 VAC - Current: #23 5A, #16 13A, #12 23A, #8 46A - Operating temperature: -65 to +150 °C - Durability: 500 mating cycles - Shock: 300 g - Vibration: 20 g random - Altitude immersion: 75,000 feet - Ingress protection: IP67		- Contacts: Copper alloy, gold over nickel finish - Shell, EMI shroud: Aluminum - Insulators: High performance thermoplastic - Ground spring: BeCu, electroless nickel plated - Face seal: Fluorosilicone/silicone blend - O-ring: Code F- fluorosilicone, Code C- conductive fluorosilicone - Hardware: Stainless steel	

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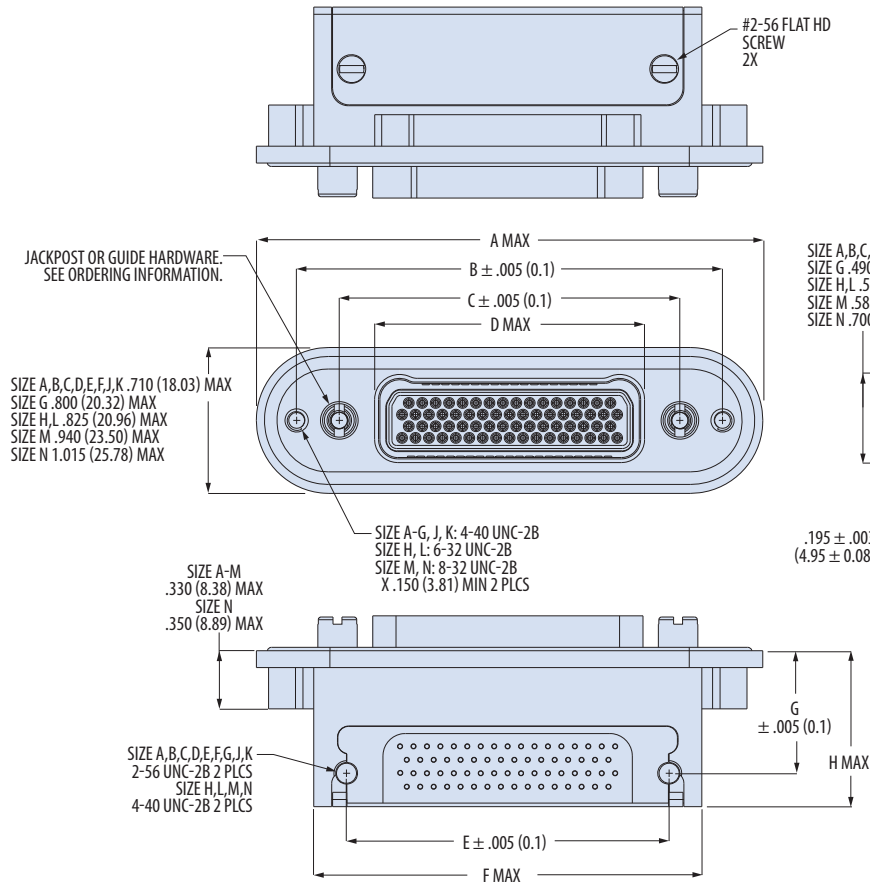
SERIES™
791
Scoop-Proof

791-011

Panel Receptacle, 90° PC Tails

- ◆ Right angle PCB termination
- ◆ Rear panel mount
- ◆ Pin contacts

SERIES 791 SCOOP-PROOF



Shell Size	A Max	B ±.005 (0.1)	C ±.005 (0.1)	D Max	E ±.005 (0.1)	F Max	G ±.005 (0.1)	H Max
	in	mm	in	mm	in	mm	in	mm
A	1.565	39.8	1.150	29.2	.750	19.1	.490	12.4
B	1.715	43.6	1.300	33.0	.900	22.9	.640	16.3
C	1.865	47.4	1.450	36.8	1.050	26.7	.790	20.1
D	1.940	49.3	1.525	38.7	1.125	28.6	.865	22.0
E	2.090	53.1	1.675	42.5	1.275	32.4	1.015	25.8
F	2.240	56.9	1.825	46.4	1.425	36.2	1.165	29.6
G	2.200	55.9	1.785	45.3	1.388	35.3	1.122	28.5
H	2.835	72.0	2.375	60.3	1.900	48.3	1.516	38.5
J	2.615	66.4	2.200	55.9	1.800	45.7	1.215	30.9
K	2.990	75.9	2.575	65.4	2.175	55.2	1.615	41.0
L	3.075	78.1	2.611	66.3	2.136	54.3	1.752	44.5
M	3.345	85.0	2.824	71.7	2.200	55.9	1.815	46.1
N	3.775	95.9	3.240	82.3	2.600	66.0	2.205	56.0

Application Note

PCB Footprints

See Section **G** for PC board layouts.

Application Note

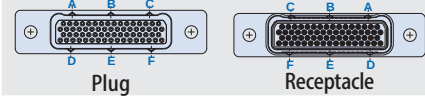
Panel Cutout

See page B-53 for recommended panel cutout dimensions for connectors.

Application Note

Polarization Key Positions

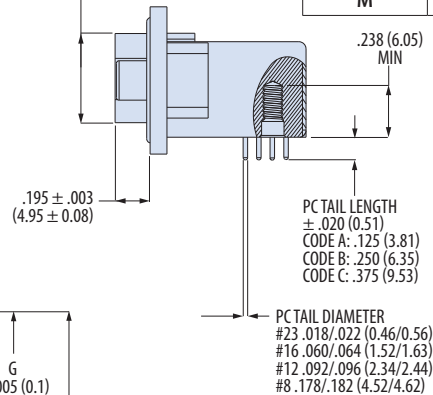
See Mod Code 555 pg. B-8 for details



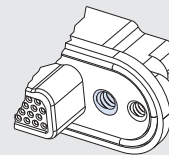
BLIND MATE TOLERANCES

Shell Size	Allowable Misalignment from Centerline
A – G, J, K	± .030 (0.8)
H, L	± .040 (1.0)
M	± .050 (1.3)

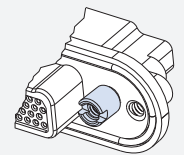
SIZE A,B,C,D,E,F,J,K .400 (10.16) MAX
SIZE G .490 (12.45) MAX
SIZE H,L .510 (12.95) MAX
SIZE M .585 (14.86) MAX
SIZE N .700 (17.78) MAX



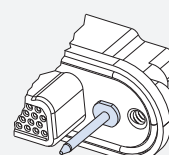
HARDWARE DETAILS



N No Hardware
Tapped holes.
Size A-G, J, K: 6-32 UNC-2B
H, L: 8-32 UNC-2B
M: 10-32 UNF-2B
N: 12-24 UNC-2B
150 (3.8) min. depth

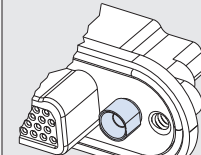


P Female Jackposts
Jackposts are non-removable.
Size A-G, J, K: 4-40 UNC-2B
H, L: 6-32 UNC-2B
M: 8-32 UNC-2B
N: 10-32 UNF-2B



Guide Pins

Guide pins for blind mate applications. Non-removable. Requires guide bushing (B) on mating plug.



Guide Bushings

Guide sockets for blind mate applications. Non-removable. Requires guide pins (G) on mating plug.

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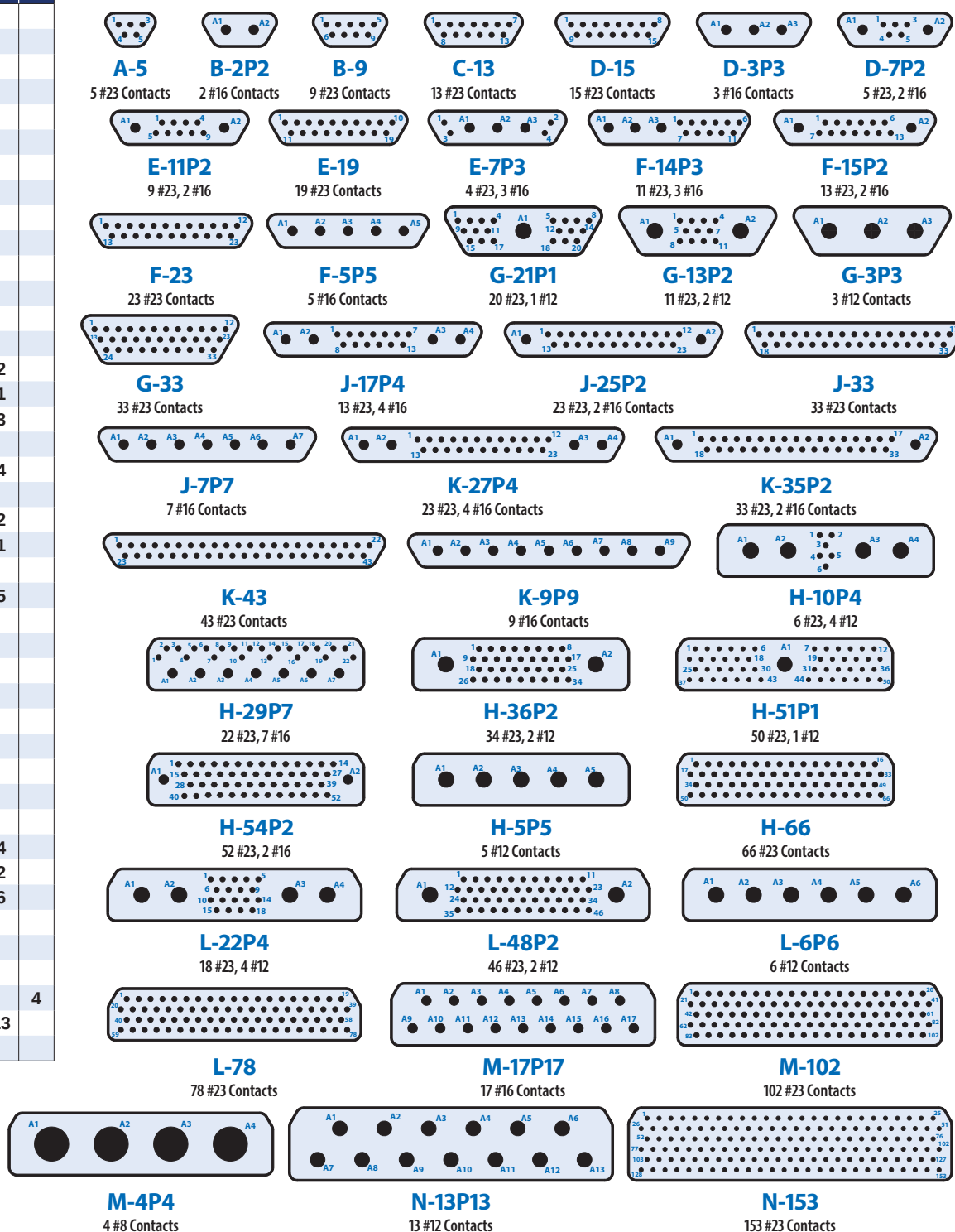


Insert Arrangements

INSERT ARRANGEMENTS				
Insert Arr.	No. of Contacts			
	#23	#16	#12	#8
A-5	5			
B-2P2		2		
B-9	9			
C-13	13			
D-15	15			
D-3P3		3		
D-7P2	5	2		
E-11P2	9	2		
E-19	19			
E-7P3	4	3		
F-14P3	11	3		
F-15P2	13	2		
F-23	23			
F-5P5		5		
G-13P2	11		2	
G-21P1	20		1	
G-3P3			3	
G-33	33			
H-10P4	6		4	
H-29P7	22	7		
H-36P2	34		2	
H-51P1	50		1	
H-54P2	52	2		
H-5P5			5	
H-66	66			
J-17P4	13	4		
J-25P2	23	2		
J-33	33			
J-7P7		7		
K-27P4	23	4		
K-35P2	33	2		
K-43	43			
K-9P9		9		
L-22P4	18		4	
L-48P2	46		2	
L-6P6			6	
L-78	78			
M-17P17		17		
M-102	102			
M-4P4				4
N-13P13			13	
N-153	153			

⚠ Cavity Numbers

Cavity numbers shown are for mating face of receptacle (pin) connector. Plug (socket) numbers are reversed.



MICRO-CRIMP RECTANGULAR CONNECTORS

Series 791 Scoop-Proof



Series 791 Material and Finish Options

SERIES 791 SCOOP-PROOF

The Series 791 Scoop-Proof connector is available in five preferred finishes: **electroless nickel, nickel-PTFE, tin-zinc, cadmium, and zinc-nickel.**

Additional material and finish options are available. Replace the preferred plating code with the alternate code from the table below.

TIN-ZINC PLATING

The United States Department of Defense (DOD) has mandated the elimination of cadmium from DOD weapons systems because of toxicity concerns. The European Union has also restricted the use of cadmium on electronics equipment (RoHS). Tin-Zinc is a RoHS cadmium-free sacrificial finish that offers high conductivity and shielding performance, corrosion resistance, solderability, and proven compatibility with legacy cadmium and zinc-nickel finishes. Tin-Zinc is DLA-qualified and RoHS compliant.

SERIES 79 SHELL FINISH OPTIONS

	Electroless Nickel	Nickel-PTFE	Tin-Zinc	Olive Drab Cadmium	Black Zinc-Nickel
Glenair Code	M	MT	TZ	N	ZR
Corrosion Resistance	Fair	Excellent	Excellent	Excellent	Excellent
Salt Spray Hours	48	500	500	500	500
Conductivity	Excellent	Excellent	Very Good	Very Good	Very Good
RoHS Compliant ⁽¹⁾	Yes	Yes	Yes	No	Yes

⁽¹⁾ Does not contain cadmium or hexavalent chromium. Meets EU requirements.

ALTERNATE SHELL MATERIAL AND FINISH CODES

Code	Shell Material	Shell Finish	Finish Specification	Salt Spray Hrs.	Electrical Conductivity	RoHS ⁽¹⁾
C	Alum	Anodize, Black	MIL-PRF-8625	48	Non-Conductive	✓
E⁽²⁾	Alum	Chem Film, Gold	MIL-DTL-5541	168	Conductive	
J	Alum	Cadmium, Yellow	AMS-QQ-P-416	500	Conductive	
Z1	SST	Passivate	AMS2700	500	Conductive	✓
Z2	Alum	Gold	MIL-DTL-45204	48	Conductive	✓
ZM	SST	Electroless Nickel	AMS-C-26074	500	Conductive	✓
ZMT	SST	Nickel-PTFE	AMS2454	1000	Conductive	✓
ZW	SST	Cadmium, Olive Drab	AMS-QQ-P-416	500	Conductive	
ZZR	SST	Zinc-Nickel, Black	ASTM B841	500	Conductive	✓

⁽¹⁾ Does not contain cadmium or hexavalent chromium. Meets EU requirements.

⁽²⁾ Maximum temperature = +125°C

MICRO-CRIMP RECTANGULAR CONNECTORS

Series 791 Scoop-Proof



Specifications

SERIES 791 SCOOP-PROOF

CONSTRUCTION

Contacts	Copper alloy, gold over nickel finish
Hood, socket contact	Stainless steel, passivated
Clip, contact retaining	Beryllium copper
Clip, insert retaining	Beryllium copper
Insulators	High performance thermoplastic
Grommet and face seal	Fluorosilicone/silicone blend
Shell	Aluminum
O-ring	Fluorosilicone
EMI spring	Beryllium copper, electroless nickel plated
EMI shroud (90° PCB)	Aluminum
Encapsulant (PCB)	Epoxy
Hardware	Stainless steel, passivated

RATINGS

Voltage (DWV)	Size 23 contacts: 750 VAC Size 8, 12 and 16 contacts: 1800 VAC	
Current Rating	Contact Size	Current (A)
	#23	5
	#16	13
	#12	23
	#8	46
Operating Temperature	-65 to +150 °C	
Ingress Protection	IP67	
Durability	500 mating cycles	

PRODUCT SPECIFICATIONS

Description	Requirement	Procedure
Contact Resistance	SAE AS39029 Table 5	EIA-364-06
Low Level Contact Resistance	SAE AS39029 Table 4	EIA-364-23
Insulation Resistance	5000 megohms minimum	EIA-364-21
Dielectric Withstanding Voltage	#23 contacts 750 volts, #8, 12 & 16 contacts 1800 volts	EIA-364-20
Current Rating	#23: 5A, #16: 13A, #12: 23A, #8: 46A	EIA-364-70 Method 1
Shell-to-shell Resistance	2.5 millivolt drop maximum (connector with EMI spring)	EIA-364-83
Shielding Effectiveness	100 – 1000MHz: >50 dB, 1 – 4GHz: >41dB, 4 – 10GHz: >35 dB	EIA-364-66
Ingress Protection	IP67 rating	IEC-60529
Vibration, Sine	20 g	EIA-364-28 Test Condition IV
Vibration, Random	16.91 g rms	EIA-364-28 Test Condition V Letter E
Mechanical Shock	300 g	EIA-364-27 Condition D
Thermal Shock	-65 to +150 °C	EIA-364-32 Test Condition IV
Humidity	10 Day, +25 to +65° C	EIA-364-31 Method IV, Step 7b vibration deleted
Mechanical Durability	500 mating cycles	EIA-364-09
Salt Spray	Plating code M: 48 hours, MT, ZR, N, TZ: 500 hours	EIA-364-26
Solderability, PC Tail Contacts	95% solder coverage. Smooth, bright and even finish.	EIA-364-52 Category 3, 8 hours steam aging
Resistance To Soldering Heat	260° C, 10 seconds	EIA-364-56
Fluid Immersion	No damage from immersion in various fuels and oils.	EIA-364-10
Altitude Immersion	75,000 feet	EIA-364-03
Contact Retention	MIL-DTL-38999 Table XVIII	EIA-364-29
Contact Separation Force	SAE AS39029 Table 9	EIA-364-37
Magnetic Permeability	2 μ maximum.	EIA-364-54

MICRO-CRIMP RECTANGULAR CONNECTORS
Series 791 Scoop-Proof



Panel Cutout, 791 Panel Mount Connectors

PANEL CUTOUT FOR SERIES 791 PANEL MOUNT CONNECTORS

This cutout is compatible with:

Panel Mount Connectors

791-019
791-020

Panel Mount PCB Connectors

791-011
791-012
791-021
791-033

$\oplus .003(0.08) \text{ (M) (A) (M) (B) (M)}$

SIZE A - G, J, K: $\phi .120 \pm .002 (3.05 \pm 0.05)$ 2X
C-SINK 82° @ $\phi .19(4.83)$ 2X

SIZE H, L: $\phi .144 \pm .003 (3.66 \pm 0.08)$ 2X
C-SINK 82° @ $\phi .239 (6.07)$ 2X

SIZE M, N: $\phi .172 \pm .003 (4.37 \pm 0.08)$ 2X
C-SINK 82° @ $\phi .330 (8.38)$ 2X

NON-STANDARD UNDERSIZED DIAMETER FOR FLATHEAD SCREW.

TWO FLATHEAD SCREWS ARE INCLUDED WITH CONNECTOR

$\oplus .003(0.08) \text{ (M) (A) (M) (B) (M)}$

ϕF
2X

G RADIUS 2X

H RADIUS 2X

E
TYP.

Shell Size	± .002 (0.05)		± .002 (0.05)		Basic		Basic		E Typ		± .002 (0.05)		± .002 (0.05)		± .002 (0.05)	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
A	.505	12.83	.418	10.62	.750	19.05	1.150	29.21	.199	5.05	.210	5.33	.110	2.79	.164	4.17
B	.655	16.64	.418	10.62	.900	22.86	1.300	33.02	.199	5.05	.210	5.33	.110	2.79	.164	4.17
C	.805	20.45	.418	10.62	1.050	26.67	1.450	36.83	.199	5.05	.210	5.33	.110	2.79	.164	4.17
D	.880	22.35	.418	10.62	1.125	28.58	1.525	38.74	.199	5.05	.210	5.33	.110	2.79	.164	4.17
E	1.030	26.16	.418	10.62	1.275	32.39	1.675	42.55	.199	5.05	.210	5.33	.110	2.79	.164	4.17
F	1.180	29.97	.418	10.62	1.425	36.20	1.825	46.36	.199	5.05	.210	5.33	.110	2.79	.164	4.17
G	1.142	29.01	.506	12.85	1.388	35.26	1.785	45.34	.244	6.20	.210	5.33	.110	2.79	.164	4.17
H	1.531	38.89	.521	13.23	1.900	48.26	2.375	60.33	.250	6.35	.236	5.99	.150	3.81	.139	3.53
J	1.555	39.50	.418	10.62	1.800	45.72	2.200	55.88	.199	5.05	.210	5.33	.110	2.79	.164	4.17
K	1.930	49.02	.418	10.62	2.175	55.25	2.575	65.41	.199	5.05	.210	5.33	.110	2.79	.164	4.17
L	1.767	44.88	.521	13.23	2.136	54.25	2.611	66.32	.250	6.35	.236	5.99	.150	3.81	.139	3.53
M	1.850	46.99	.623	15.82	2.200	55.88	2.824	71.73	.290	7.37	.262	6.65	.163	4.14	.153	3.89
N	2.244	57.00	.708	17.98	2.600	66.04	3.240	82.30	.332	8.43	.295	7.49	.163	4.14	.153	3.89

SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

PCB Footprints for Series 790 and 791

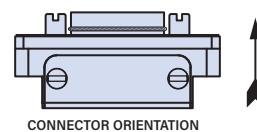
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90° PCB Footprints for Series 790 and 791 Connectors



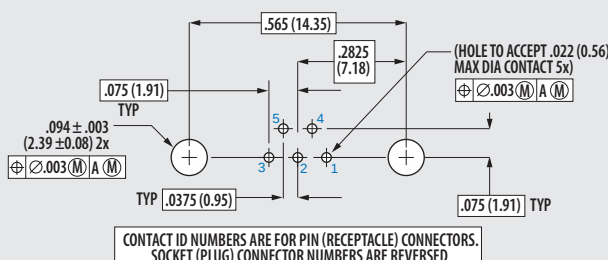
PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

PCB hole patterns are shown for the *component mounting side* of the circuit board.
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



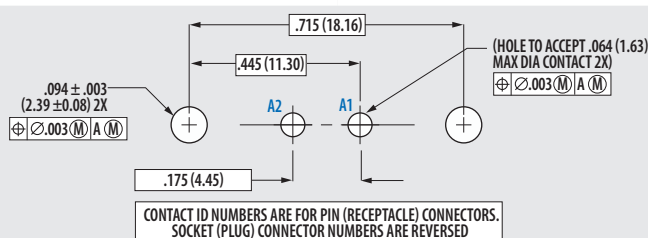
A-5

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



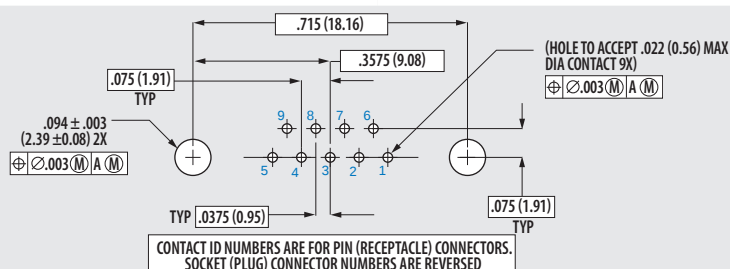
B-2P2

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



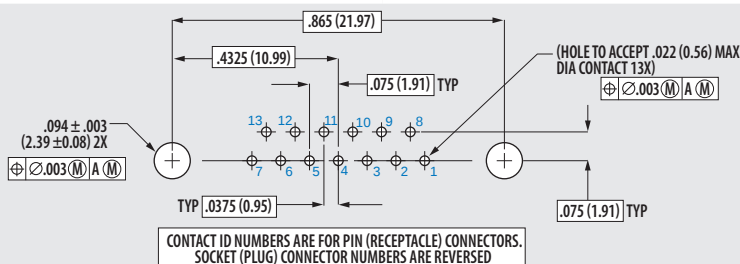
B-9

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



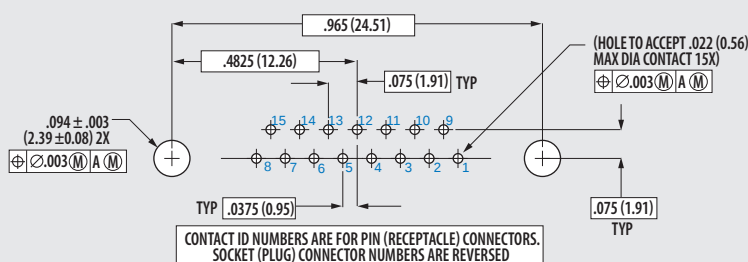
C-13

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



D-15

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

PCB Footprints for Series 790 and 791

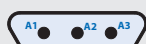
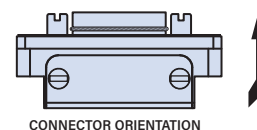


90° PCB Footprints for Series 790 and 791 Connectors

PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

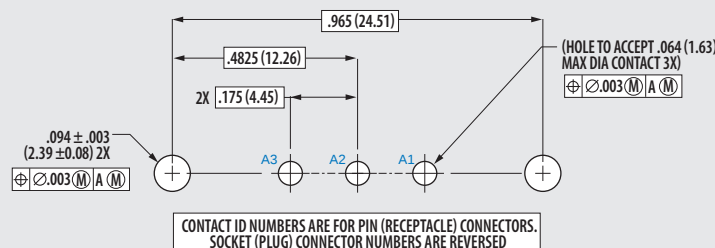


PCB hole patterns are shown for the *component mounting side* of the circuit board.
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



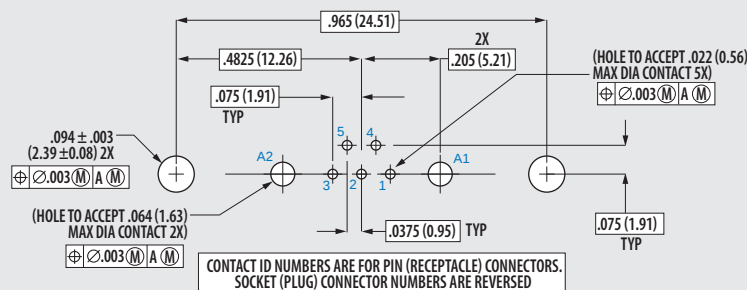
D-3P3

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



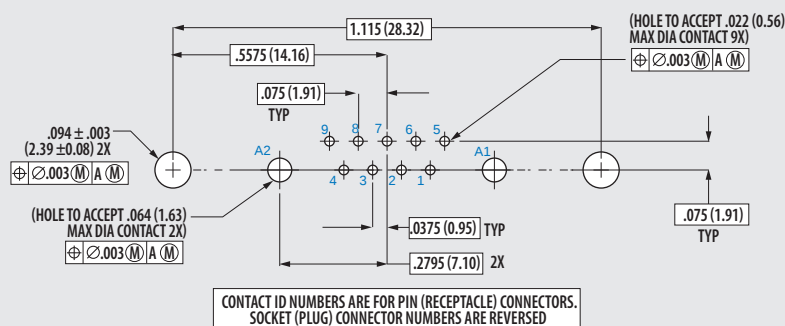
D-7P2

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



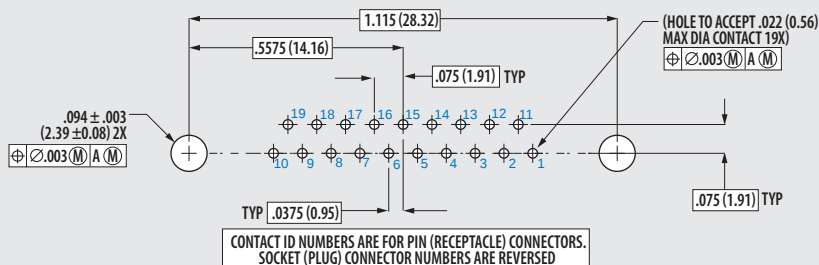
E-11P2

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



E-19

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



PCB FOOTPRINTS FOR SERIES 790, 791

CONNECTOR ORIENTATION



E-7P3

Diagram illustrating the dimensions and tolerances for a 5-pin receptacle connector. The diagram shows the pin positions and dimensions in inches and millimeters (in parentheses).

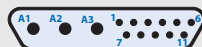
Dimensions and Tolerances:

- Pin 1 to Pin 2: $.094 \pm .003$ (2.39 $\pm$ 0.08) 2X
- Pin 2 to Pin 3: $.175$ (4.45) 2X
- Pin 3 to Pin 4: $.2975$ (7.56) 2X
- Pin 4 to Pin 5: $.075$ (1.91) TYP
- Pin 1 to Pin 5: 1.115 (28.32)
- Pin 2 to Pin 4: $.5575$ (14.16)

Pin Numbers and Contact Specifications:

- Pin 1: (HOLE TO ACCEPT .064 (1.63) MAX DIA CONTACT 3X) $\varnothing .003$ (M) A (M)
- Pin 2: (HOLE TO ACCEPT .022 (0.56) MAX DIA CONTACT 4X) $\varnothing .003$ (M) A (M)
- Pin 3: (HOLE TO ACCEPT .022 (0.56) MAX DIA CONTACT 4X) $\varnothing .003$ (M) A (M)
- Pin 4: (HOLE TO ACCEPT .022 (0.56) MAX DIA CONTACT 4X) $\varnothing .003$ (M) A (M)
- Pin 5: (HOLE TO ACCEPT .022 (0.56) MAX DIA CONTACT 4X) $\varnothing .003$ (M) A (M)

CONTACT ID NUMBERS ARE FOR PIN (RECEPTACLE) CONNECTORS, SOCKET (PLUG) CONNECTOR NUMBERS ARE REVERSED



F-14P3

Technical drawing of a 11X receptacle connector showing dimensions and hole patterns for contact IDs and sockets.

Dimensions and Hole Patterns:

- Overall Width:** 1.265 (32.13)
- Pin Spacing:** .075 (1.91)
- Pin Diameter:** .094 ± .003 (2.39 ± 0.08) 2X
- Pin Position Tolerances:**
 - Pin 1: .0375 (0.95) TYP
 - Pin 2: .075 (1.91) TYP
 - Pin 3: .166 (4.22) 2X
- Pin Positioning:** A1, A2, A3
- Pin 11 Position:** .2505 (6.36)
- Pin 12 Position:** .560 (14.22)
- Pin 13 Position:** .094 ± .003 (2.39 ± 0.08) 2X
- Pin 14 Position:** .075 (1.91)
- Pin 15 Position:** .0375 (0.95) TYP
- Pin 16 Position:** .166 (4.22) 2X
- Pin 17 Position:** .075 (1.91) TYP
- Pin 18 Position:** .0375 (0.95) TYP
- Pin 19 Position:** .075 (1.91) TYP
- Pin 20 Position:** .0375 (0.95) TYP
- Pin 21 Position:** .075 (1.91) TYP
- Pin 22 Position:** .0375 (0.95) TYP
- Pin 23 Position:** .075 (1.91) TYP
- Pin 24 Position:** .0375 (0.95) TYP
- Pin 25 Position:** .075 (1.91) TYP
- Pin 26 Position:** .0375 (0.95) TYP
- Pin 27 Position:** .075 (1.91) TYP
- Pin 28 Position:** .0375 (0.95) TYP
- Pin 29 Position:** .075 (1.91) TYP
- Pin 30 Position:** .0375 (0.95) TYP
- Pin 31 Position:** .075 (1.91) TYP
- Pin 32 Position:** .0375 (0.95) TYP
- Pin 33 Position:** .075 (1.91) TYP
- Pin 34 Position:** .0375 (0.95) TYP
- Pin 35 Position:** .075 (1.91) TYP
- Pin 36 Position:** .0375 (0.95) TYP
- Pin 37 Position:** .075 (1.91) TYP
- Pin 38 Position:** .0375 (0.95) TYP
- Pin 39 Position:** .075 (1.91) TYP
- Pin 40 Position:** .0375 (0.95) TYP
- Pin 41 Position:** .075 (1.91) TYP
- Pin 42 Position:** .0375 (0.95) TYP
- Pin 43 Position:** .075 (1.91) TYP
- Pin 44 Position:** .0375 (0.95) TYP
- Pin 45 Position:** .075 (1.91) TYP
- Pin 46 Position:** .0375 (0.95) TYP
- Pin 47 Position:** .075 (1.91) TYP
- Pin 48 Position:** .0375 (0.95) TYP
- Pin 49 Position:** .075 (1.91) TYP
- Pin 50 Position:** .0375 (0.95) TYP
- Pin 51 Position:** .075 (1.91) TYP
- Pin 52 Position:** .0375 (0.95) TYP
- Pin 53 Position:** .075 (1.91) TYP
- Pin 54 Position:** .0375 (0.95) TYP
- Pin 55 Position:** .075 (1.91) TYP
- Pin 56 Position:** .0375 (0.95) TYP
- Pin 57 Position:** .075 (1.91) TYP
- Pin 58 Position:** .0375 (0.95) TYP
- Pin 59 Position:** .075 (1.91) TYP
- Pin 60 Position:** .0375 (0.95) TYP
- Pin 61 Position:** .075 (1.91) TYP
- Pin 62 Position:** .0375 (0.95) TYP
- Pin 63 Position:** .075 (1.91) TYP
- Pin 64 Position:** .0375 (0.95) TYP
- Pin 65 Position:** .075 (1.91) TYP
- Pin 66 Position:** .0375 (0.95) TYP
- Pin 67 Position:** .075 (1.91) TYP
- Pin 68 Position:** .0375 (0.95) TYP
- Pin 69 Position:** .075 (1.91) TYP
- Pin 70 Position:** .0375 (0.95) TYP
- Pin 71 Position:** .075 (1.91) TYP
- Pin 72 Position:** .0375 (0.95) TYP
- Pin 73 Position:** .075 (1.91) TYP
- Pin 74 Position:** .0375 (0.95) TYP
- Pin 75 Position:** .075 (1.91) TYP
- Pin 76 Position:** .0375 (0.95) TYP
- Pin 77 Position:** .075 (1.91) TYP
- Pin 78 Position:** .0375 (0.95) TYP
- Pin 79 Position:** .075 (1.91) TYP
- Pin 80 Position:** .0375 (0.95) TYP
- Pin 81 Position:** .075 (1.91) TYP
- Pin 82 Position:** .0375 (0.95) TYP
- Pin 83 Position:** .075 (1.91) TYP
- Pin 84 Position:** .0375 (0.95) TYP
- Pin 85 Position:** .075 (1.91) TYP
- Pin 86 Position:** .0375 (0.95) TYP
- Pin 87 Position:** .075 (1.91) TYP
- Pin 88 Position:** .0375 (0.95) TYP
- Pin 89 Position:** .075 (1.91) TYP
- Pin 90 Position:** .0375 (0.95) TYP
- Pin 91 Position:** .075 (1.91) TYP
- Pin 92 Position:** .0375 (0.95) TYP
- Pin 93 Position:** .075 (1.91) TYP
- Pin 94 Position:** .0375 (0.95) TYP
- Pin 95 Position:** .075 (1.91) TYP
- Pin 96 Position:** .0375 (0.95) TYP
- Pin 97 Position:** .075 (1.91) TYP
- Pin 98 Position:** .0375 (0.95) TYP
- Pin 99 Position:** .075 (1.91) TYP
- Pin 100 Position:** .0375 (0.95) TYP
- Pin 101 Position:** .075 (1.91) TYP
- Pin 102 Position:** .0375 (0.95) TYP
- Pin 103 Position:** .075 (1.91) TYP
- Pin 104 Position:** .0375 (0.95) TYP
- Pin 105 Position:** .075 (1.91) TYP
- Pin 106 Position:** .0375 (0.95) TYP
- Pin 107 Position:** .075 (1.91) TYP
- Pin 108 Position:** .0375 (0.95) TYP
- Pin 109 Position:** .075 (1.91) TYP
- Pin 110 Position:** .0375 (0.95) TYP
- Pin 111 Position:** .075 (1.91) TYP
- Pin 112 Position:** .0375 (0.95) TYP
- Pin 113 Position:** .075 (1.91) TYP
- Pin 114 Position:** .0375 (0.95) TYP
- Pin 115 Position:** .075 (1.91) TYP
- Pin 116 Position:** .0375 (0.95) TYP
- Pin 117 Position:** .075 (1.91) TYP
- Pin 118 Position:** .0375 (0.95) TYP
- Pin 119 Position:** .075 (1.91) TYP
- Pin 120 Position:** .0375 (0.95) TYP
- Pin 121 Position:** .075 (1.91) TYP
- Pin 122 Position:** .0375 (0.95) TYP
- Pin 123 Position:** .075 (1.91) TYP
- Pin 124 Position:** .0375 (0.95) TYP
- Pin 125 Position:** .075 (1.91) TYP
- Pin 126 Position:** .0375 (0.95) TYP
- Pin 127 Position:** .075 (1.91) TYP
- Pin 128 Position:** .0375 (0.95) TYP
- Pin 129 Position:** .075 (1.91) TYP
- Pin 130 Position:** .0375 (0.95) TYP
- Pin 131 Position:** .075 (1.91) TYP
- Pin 132 Position:** .0375 (0.95) TYP
- Pin 133 Position:** .075 (1.91) TYP
- Pin 134 Position:** .0375 (0.95) TYP
- Pin 135 Position:** .075 (1.91) TYP
- Pin 136 Position:** .0375 (0.95) TYP
- Pin 137 Position:** .075 (1.91) TYP
- Pin 138 Position:** .0375 (0.95) TYP
- Pin 139 Position:** .075 (1.91) TYP
- Pin 140 Position:** .0375 (0.95) TYP
- Pin 141 Position:** .075 (1.91) TYP
- Pin 142 Position:** .0375 (0.95) TYP
- Pin 143 Position:** .075



F-15P2

Figure 1: Pin and Socket Dimensions. This technical drawing shows the dimensions for a 13-pin connector. It includes overall dimensions like 1.265 (32.13) and .6325 (16.07), individual pin dimensions like .094 ± .003 (2.39 ± 0.08) 2X and .075 (1.91) TYP, and hole dimensions like .094 (2.39) 2X and .075 (1.91) TYP. A note at the bottom states: "CONTACT ID NUMBERS ARE FOR PIN (RECEPTACLE) CONNECTORS, SOCKET (PLUG) CONNECTOR NUMBERS ARE REVERSED."



F-23

Technical drawing of a 23-pin connector. The drawing shows a side view of the connector with dimensions and callouts. The dimensions are as follows:

- Overall length: 1.265 (32.13)
- Distance from front face to center of pin 1: .6325 (16.07)
- Pin pitch: .075 (1.91) TYP
- Distance from front face to center of pin 23: .094 ± .003 (2.39 ± 0.08) 2X
- Distance from front face to center of pin 12: .0375 (0.95) TYP
- Distance from front face to center of pin 1: .075 (1.91) TYP

Callouts include:

- Feature 1: $\varnothing .003 (M) A (M)$
- Feature 2: $\varnothing .003 (M) A (M)$
- Feature 3: $\varnothing .003 (M) A (M)$
- Feature 4: $\varnothing .003 (M) A (M)$

CONTACT ID NUMBERS ARE FOR PIN (RECEPTACLE) CONNECTORS. SOCKET (PLUG) CONNECTOR NUMBERS ARE REVERSED.

SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

PCB Footprints for Series 790 and 791

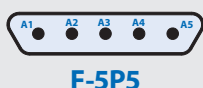
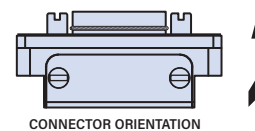


90° PCB Footprints for Series 790 and 791 Connectors

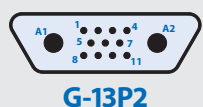
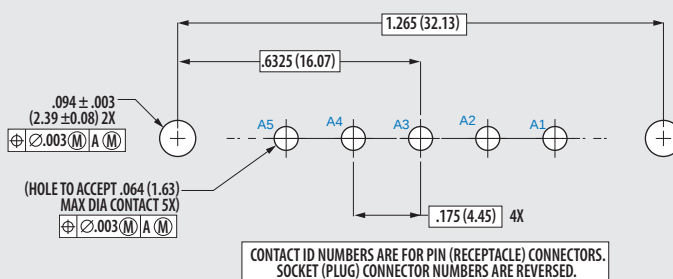
PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS



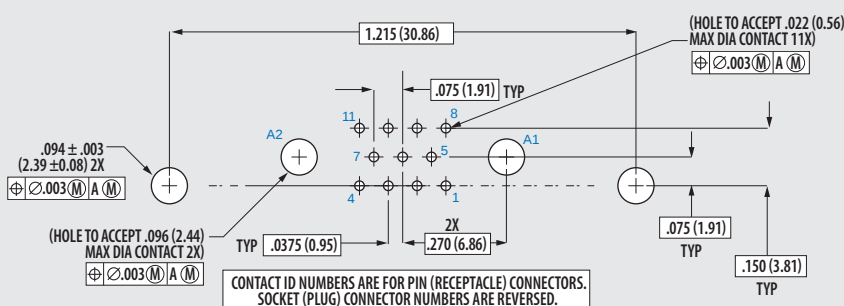
PCB hole patterns are shown for the *component mounting side* of the circuit board.
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



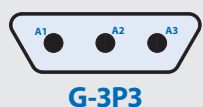
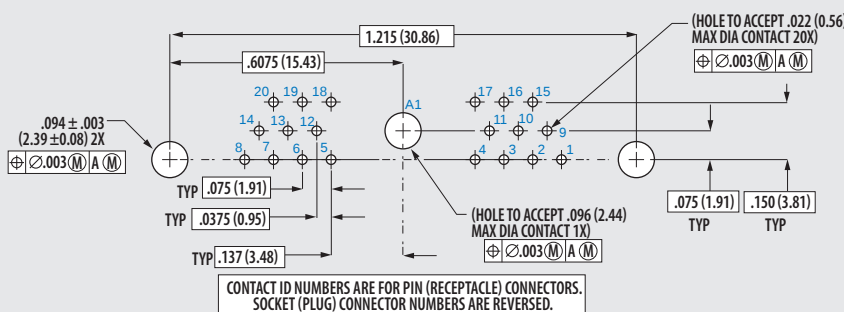
Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



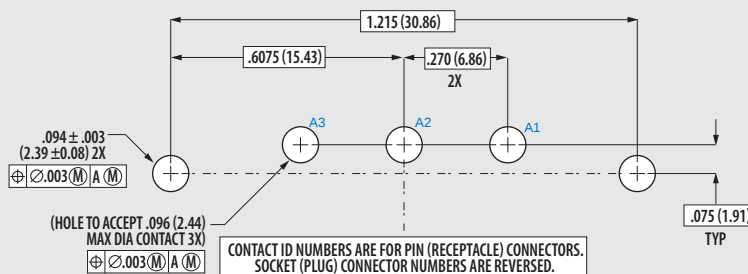
Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

PCB Footprints for Series 790 and 791

SERIES
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TM

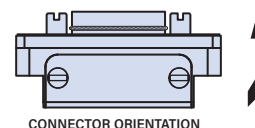
90° PCB Footprints for Series 790 and 791 Connectors



PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

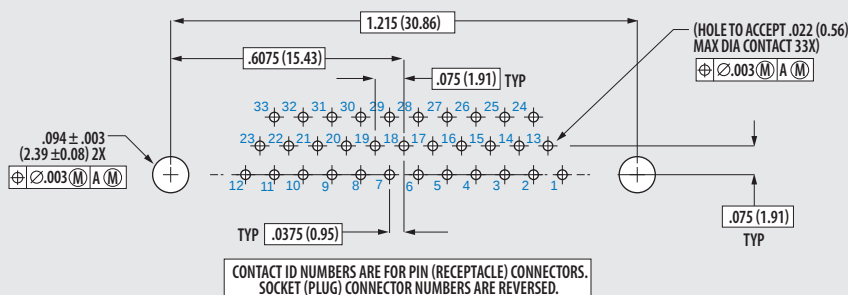
PCB hole patterns are shown for the **component mounting side** of the circuit board.

Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



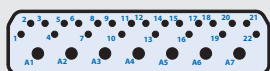
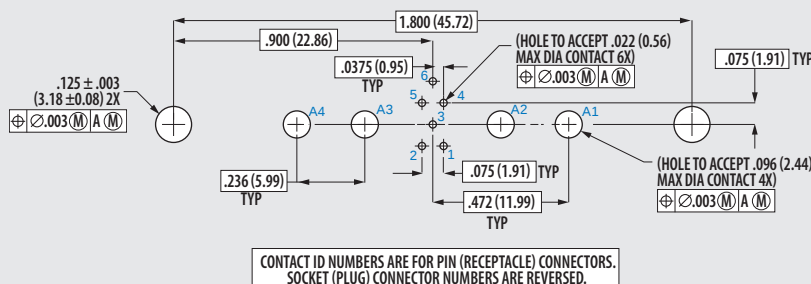
G-33

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



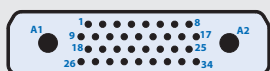
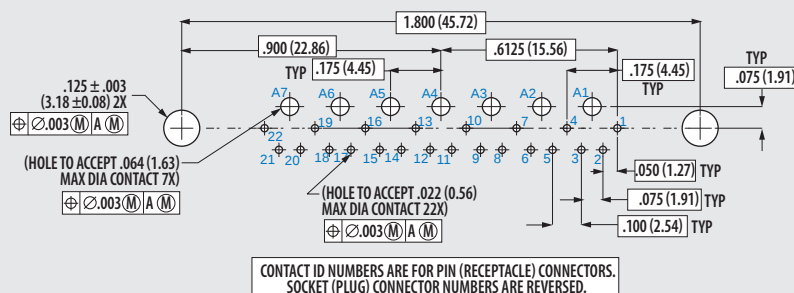
H-10P4

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



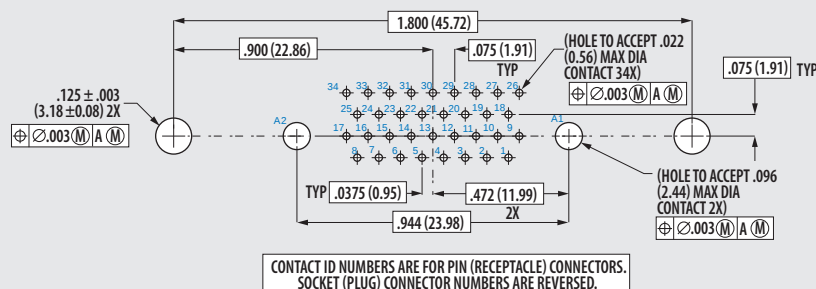
H-29P7

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



H-36P2

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

PCB Footprints for Series 790 and 791

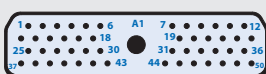
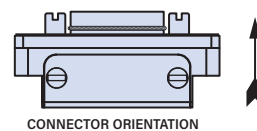


90° PCB Footprints for Series 790 and 791 Connectors

PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

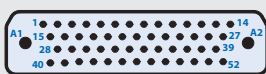
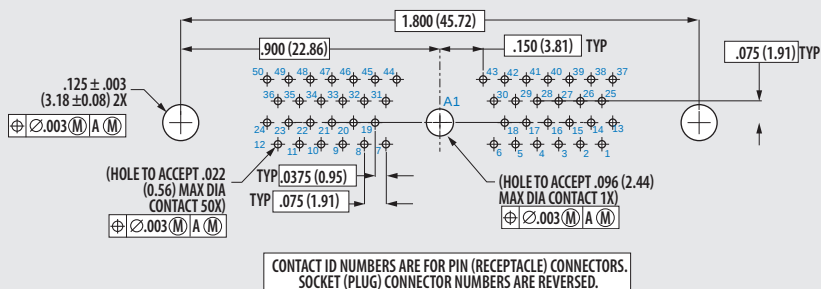


PCB hole patterns are shown for the *component mounting side* of the circuit board.
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



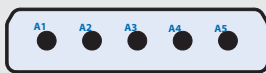
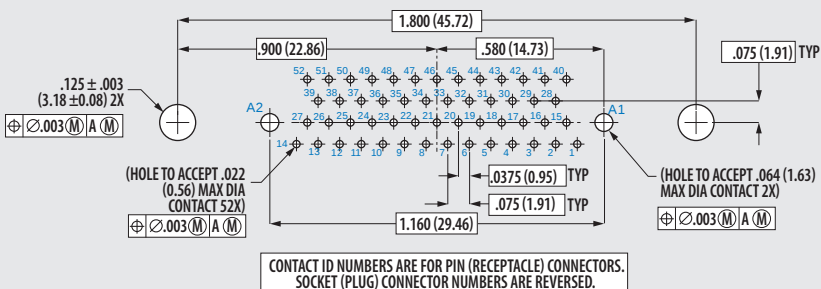
H-51P1

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



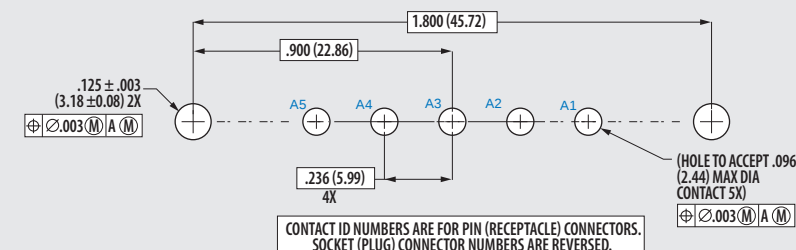
H-54P2

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



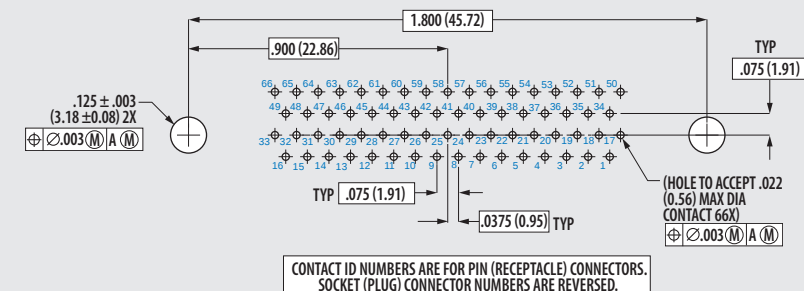
H-5P5

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



H-66

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



PCB FOOTPRINTS FOR SERIES 790, 791

SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

PCB Footprints for Series 790 and 791

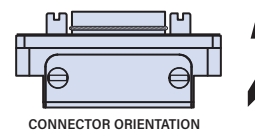
SERIES
79
TM

90° PCB Footprints for Series 790 and 791 Connectors



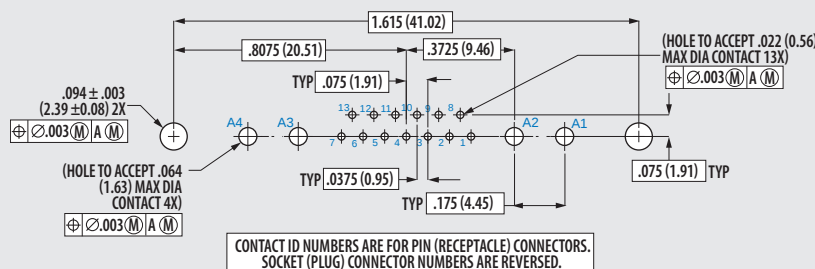
PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

PCB hole patterns are shown for the *component mounting side* of the circuit board.
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



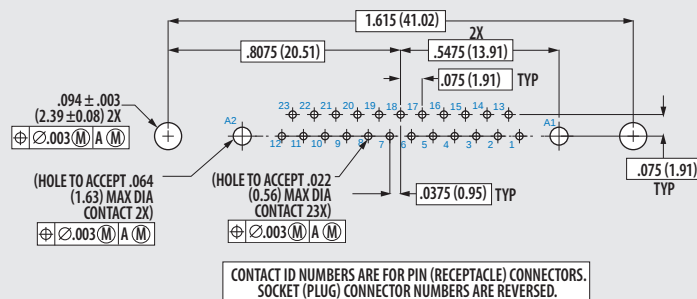
J-17P4

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



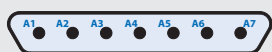
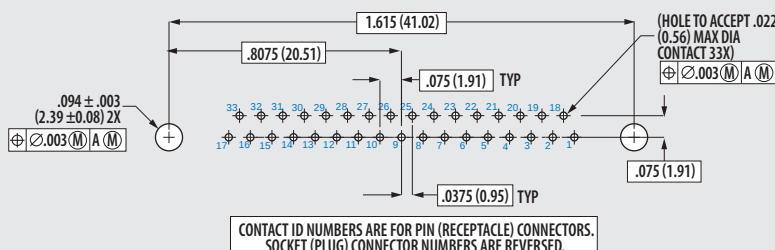
J-25P2

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



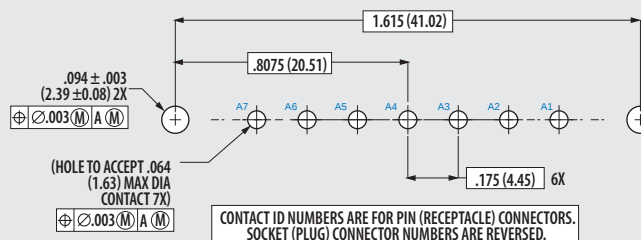
J-33

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



J-7P7

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

PCB Footprints for Series 790 and 791

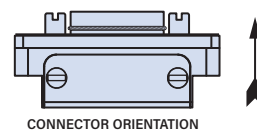


90° PCB Footprints for Series 790 and 791 Connectors

PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

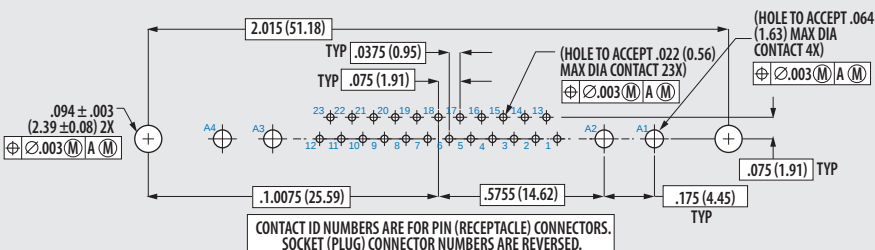


PCB hole patterns are shown for the *component mounting side* of the circuit board.
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



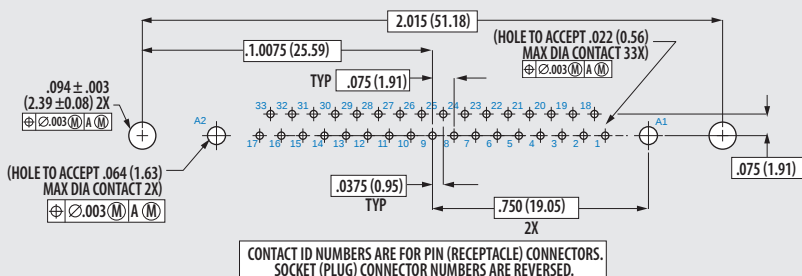
K-27P4

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



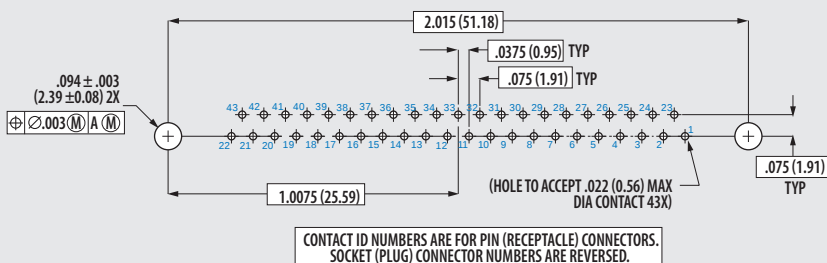
K-35P2

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



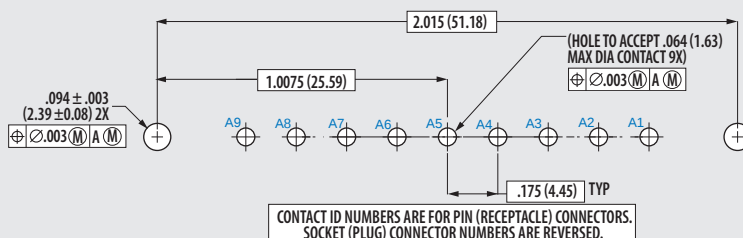
K-43

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



K-9P9

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.

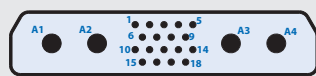
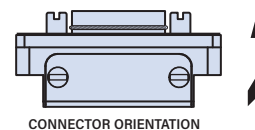


PCB FOOTPRINTS FOR SERIES 790, 791

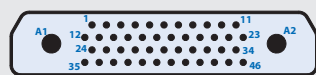
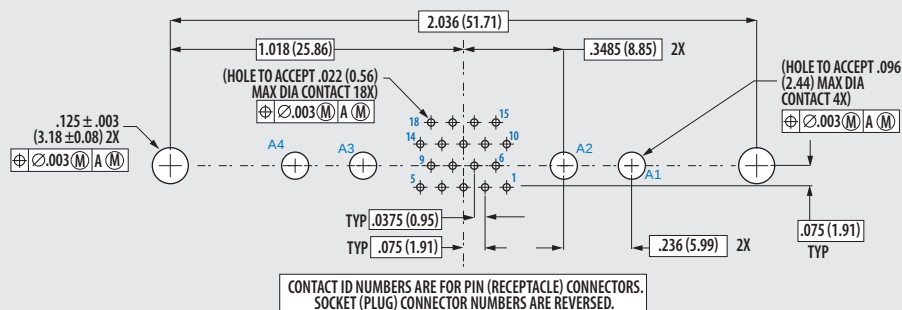
SERIES
79

PCB FOOTPRINTS FOR SERIES 790, 791

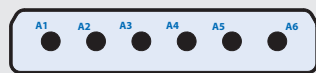
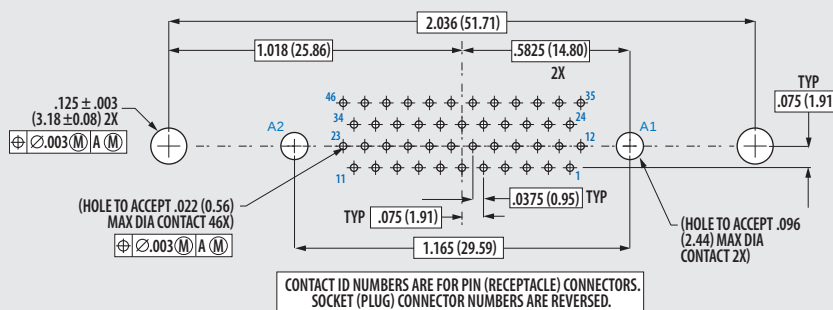
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



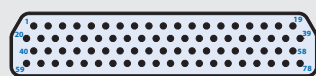
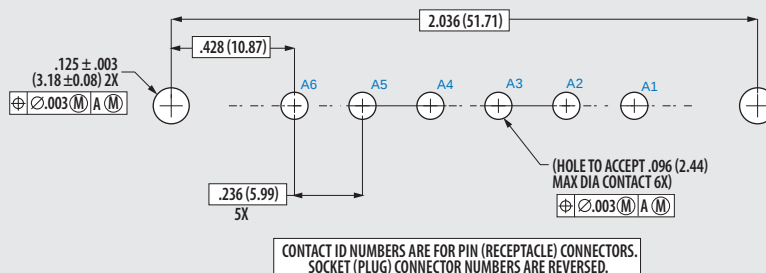
Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



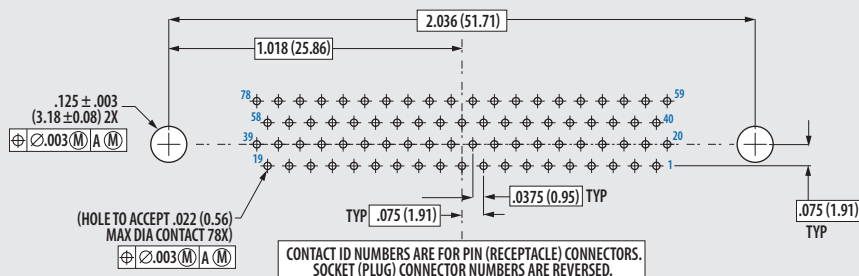
Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

PCB Footprints for Series 790 and 791

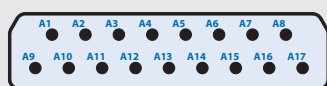
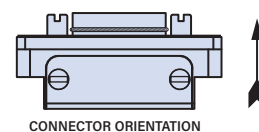


90° PCB Footprints for Series 790 and 791 Connectors

PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

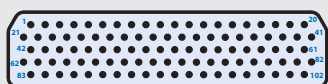
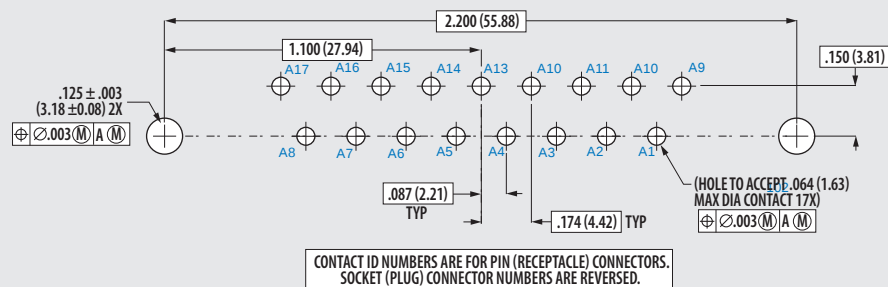


PCB hole patterns are shown for the *component mounting side* of the circuit board.
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



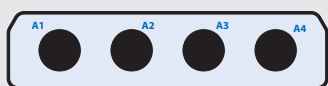
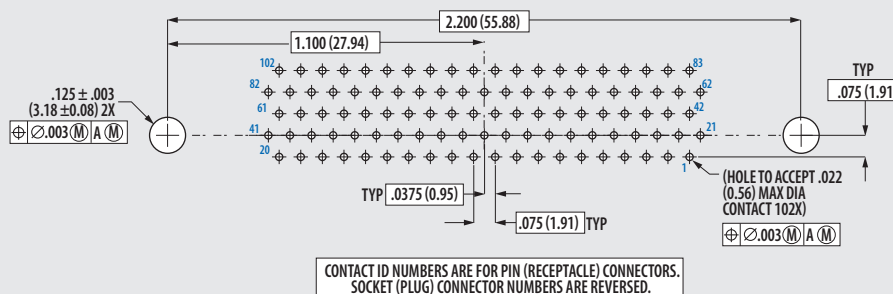
M-17P17

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



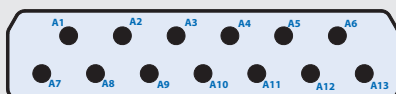
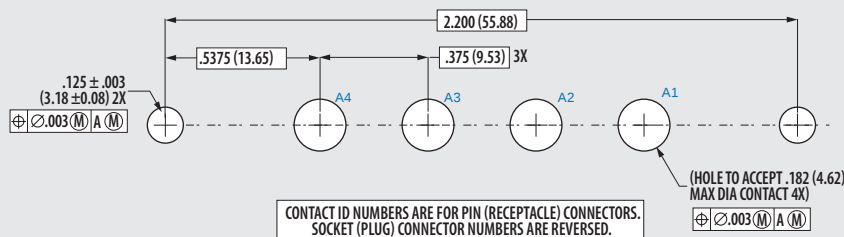
M-102

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



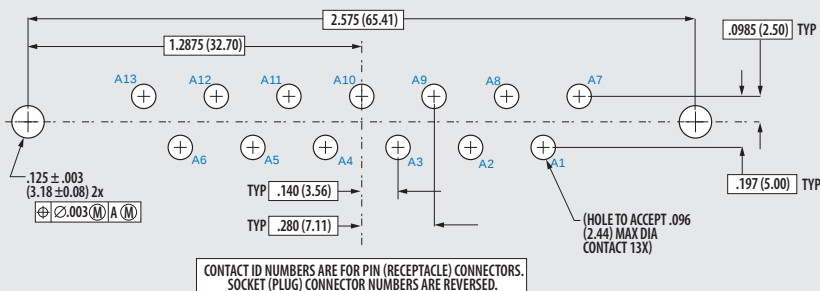
M-4P4

Contact numbers are mating face of pin connector.
Socket connector contact numbers are reversed.



N-13P13

Contact numbers are mating face of pin connector. Socket connector contact numbers are reversed.



SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

PCB Footprints for Series 790 and 791

SERIES
79

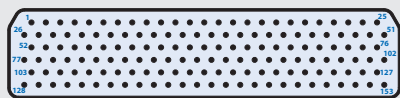
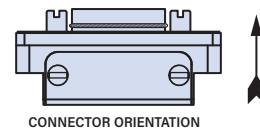
90° PCB Footprints for Series 790 and 791 Connectors



PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

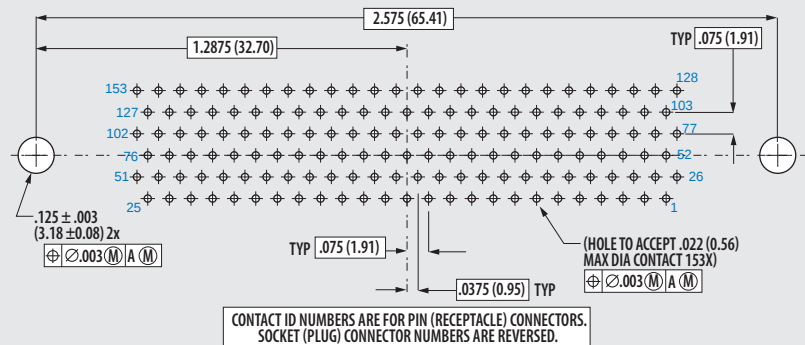
PCB hole patterns are shown for the *component mounting side* of the circuit board.

Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



N-153

Contact numbers are mating face of pin connector. Socket connector contact numbers are reversed.



PCB FOOTPRINTS FOR SERIES 790, 791

MICRO-CRIMP RECTANGULAR CONNECTORS

Series 791 Scoop-Proof



Series 791 Polarization Keying Option

OPTIONAL POLARIZATION KEYS



To prevent mis-mating of identical shell size and insert arrangement connectors

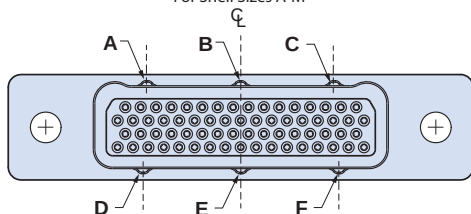
Series 791 connectors are available with an integral polarizing key. Keyed plug connectors have a raised boss on the shell. Receptacles have corresponding keyway. Ordering is simple—just add the keying position letter designator to the end of the part number.

Note: keyed receptacles will mate with unkeyed plugs. Additional polarization keying positions are available, consult the factory for designators and key locations.

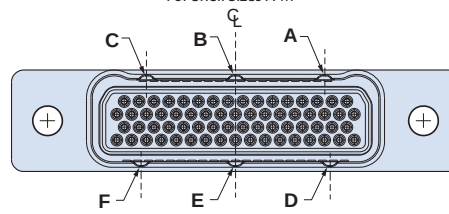
HOW TO ORDER

Step 1	Create a Series 791 connector part number:	791-003SH-66MP
Step 2	Add the keying position letter designator A, B, C, D, E, or F to the part number.	791-003SH-66MPB

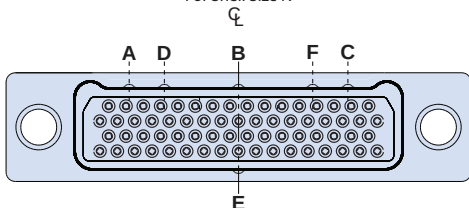
MOD-555 KEY LOCATIONS PLUG CONNECTOR MATING FACE
For Shell Sizes A-M



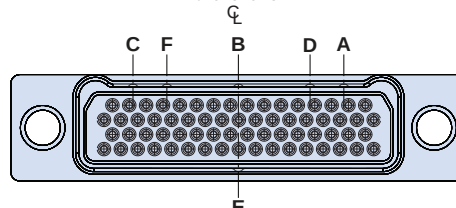
MOD-555 KEY LOCATIONS RECEPTACLE CONNECTOR MATING FACE
For Shell Sizes A-M



MOD-555 KEY LOCATIONS PLUG CONNECTOR MATING FACE
For Shell Size N



MOD-555 KEY LOCATIONS RECEPTACLE CONNECTOR MATING FACE
For Shell Size N



POLARIZING KEY LOCATIONS SHELL SIZES A-M

Shell Size	Key Position Offset From Vertical Centerline											
	Position A		Position B		Position C		Position D		Position E		Position F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
A	N/A	N/A	.000	0.00	N/A	N/A	.025	0.64	.000	0.00	.025	0.64
B	.090	2.29	.000	0.00	.090	2.29	.050	1.27	.000	0.00	.050	1.27
C	.130	3.30	.000	0.00	.130	3.30	.100	2.54	.000	0.00	.100	2.54
D	.180	4.57	.000	0.00	.180	4.57	.125	3.18	.000	0.00	.125	3.18
E	.200	5.08	.000	0.00	.200	5.08	.150	3.81	.000	0.00	.150	3.81
F	.300	7.62	.000	0.00	.300	7.62	.250	6.35	.000	0.00	.250	6.35
G	.300	7.62	.000	0.00	.300	7.62	.200	5.08	.000	0.00	.200	5.08
H	.450	11.43	.000	0.00	.450	11.43	.500	12.70	.000	0.00	.500	12.70
J	.450	11.43	.000	0.00	.450	11.43	.400	10.16	.000	0.00	.400	10.16
K	.650	16.51	.000	0.00	.650	16.51	.550	13.97	.000	0.00	.550	13.97
L	.550	13.97	.000	0.00	.550	13.97	.600	15.24	.000	0.00	.600	15.24
M	.550	13.97	.000	0.00	.550	13.97	.600	15.24	.000	0.00	.600	15.24
N	.700	17.78	.000	0.00	.700	17.78	.475	12.06	.000	0.00	.475	12.06