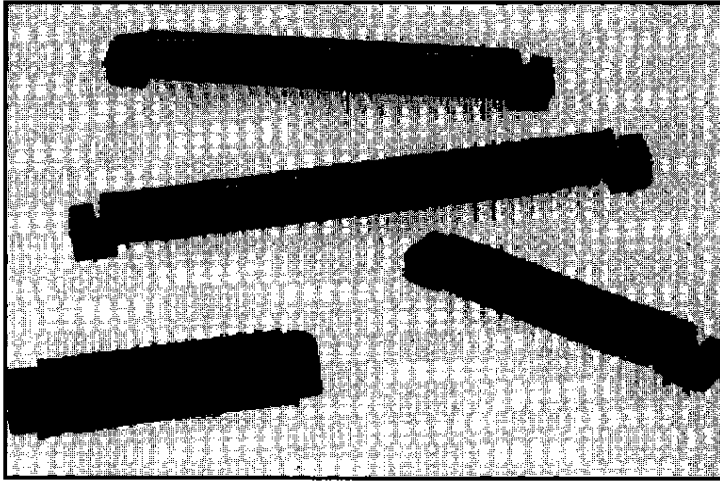


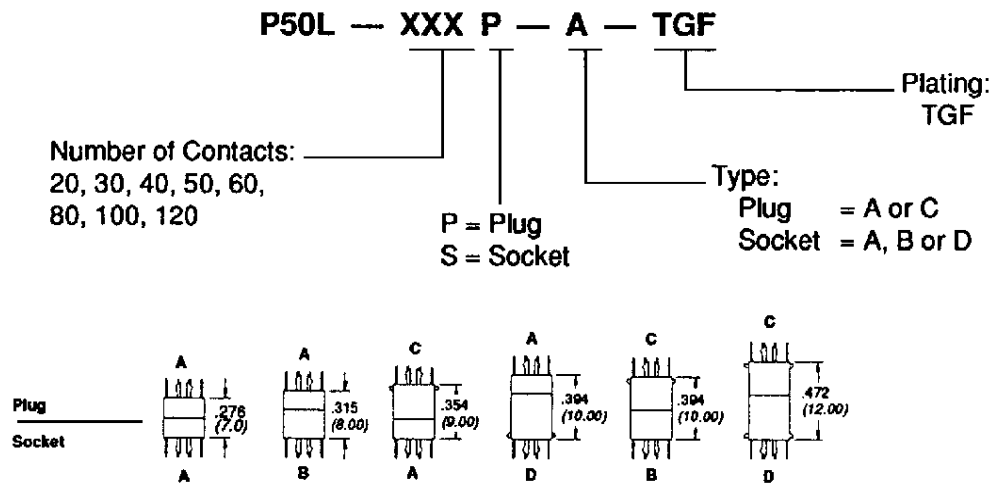
## Low Profile 2-Piece Connectors

### P50L Series



- Low profile .276" - .472" (7-12mm) mated heights to address board stacking applications
- Eight sizes, 20-120 contacts
- High-temp insulator compatible with IR and wave soldering
- Low insertion/withdrawal forces
- Audible "click" ensures complete mating
- Retention clips maintain stability to board under wave solder

### How to Order P50L Series



MATED HEIGHT	.276" (7.0 mm)	.315" (8.0 mm)	.354" (9.0 mm)	.394" (10.0 mm)	.394" (10.0 mm)	.472" (12.0 mm)
PLUG	P50L-XXXXP-A-TGF	P50L-XXXXP-A-TGF	P50L-XXXXP-C-TGF	P50L-XXXXP-A-TGF	P50L-XXXXP-C-TGF	P50L-XXXXP-C-TGF
SOCKET	P50L-XXXXS-A-TGF	P50L-XXXXS-B-TGF	P50L-XXXXS-A-TGF	P50L-XXXXS-D-TGF	P50L-XXXXS-B-TGF	P50L-XXXXS-D-TGF

#### Materials:

Body: PPS  
Oxygen Index Rating: 45%  
Contacts: Phosphor Bronze

#### Performance Characteristics:

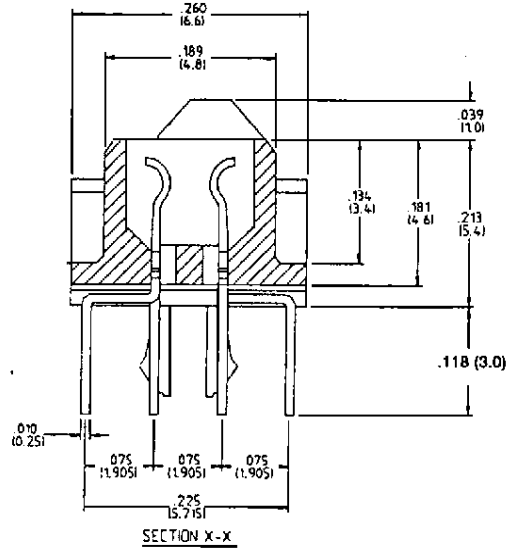
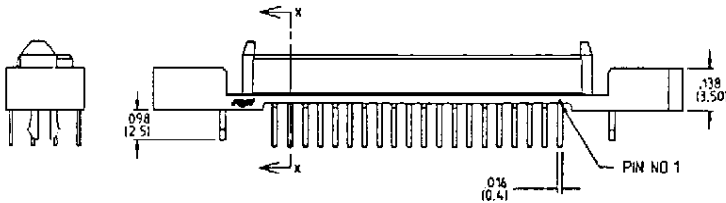
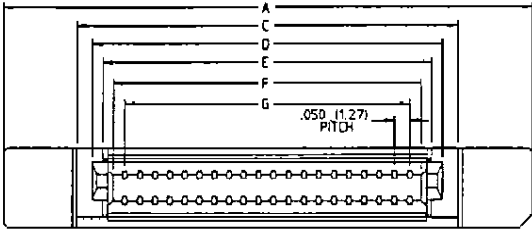
Insertion Force: 3.36 oz./pin maximum  
Withdrawal Force: 0.49 oz./pin minimum  
Contact Resistance: 40 milliohms maximum  
Insulation Resistance: 1000 milliohms minimum  
Dielectric Withstanding Voltage: 650 volts AC  
Current Rating: 0.5 ampere/pin  
Flammability: UL 94V-0  
Temperature Ranges: -55°C to + 105°C

#### Plating Description:

Suffix TGF = 3 μinch (.076 μm) minimum  
Gold on contact area  
80 μinch (2.03 μm) minimum  
Tin on terminal area  
Underplate of 80 μinch (2.03 μm) minimum  
Nickel

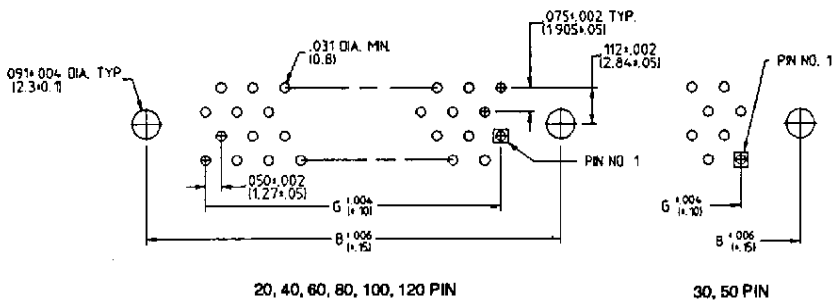
## SOCKETS (Type A)

## P50L-XXXS-A-TGF



No. of Positions	A	B	C	D	E	F	G	H
20	1.001 (26.43)	.900 (20.32)	.757 (19.23)	.670 (17.03)	.607 (15.43)	.529 (13.43)	.450 (11.43)	.560 (14.23)
30	1.251 (31.78)	1.050 (26.67)	1.007 (25.58)	.920 (23.38)	.857 (21.78)	.779 (19.78)	.700 (17.78)	.810 (20.58)
40	1.501 (38.13)	1.300 (33.02)	1.257 (31.93)	1.170 (29.73)	1.107 (28.13)	1.029 (26.13)	.950 (24.13)	1.060 (26.93)
50	1.751 (44.48)	1.550 (39.37)	1.507 (38.28)	1.420 (36.08)	1.357 (34.48)	1.279 (32.48)	1.200 (30.48)	1.310 (33.28)
60	2.001 (50.83)	1.800 (45.72)	1.757 (44.63)	1.670 (42.43)	1.607 (40.83)	1.529 (38.83)	1.450 (36.83)	1.560 (39.63)
80	2.501 (63.53)	2.300 (49.53)	2.257 (51.53)	2.170 (55.13)	2.107 (53.53)	2.029 (51.53)	1.950 (49.53)	2.060 (52.33)
100	3.001 (76.23)	2.800 (71.12)	2.757 (70.03)	2.670 (67.83)	2.607 (66.23)	2.529 (64.23)	2.450 (62.23)	2.560 (65.03)
120	3.501 (88.93)	3.300 (83.82)	3.257 (82.73)	3.170 (80.53)	3.107 (78.93)	3.029 (76.93)	2.950 (74.93)	3.060 (77.73)

## Printed Circuit Board Layout

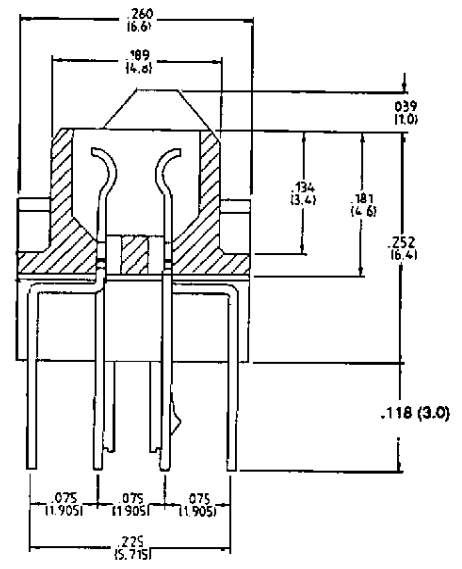
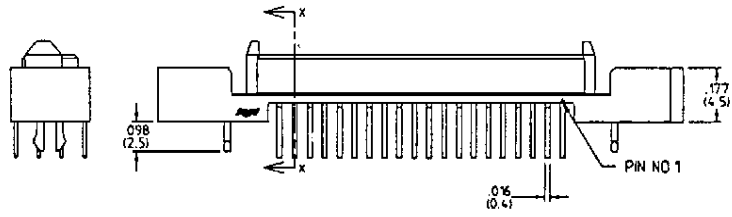
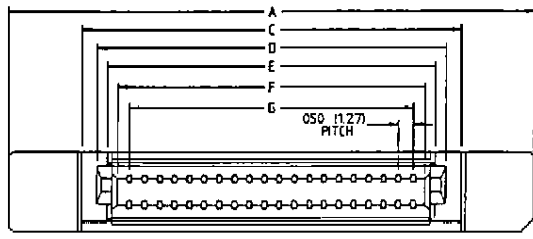


## Pin Out Identification

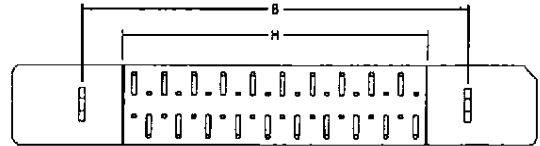


## SOCKETS (Type B)

## P50L-XXXS-B-TGF

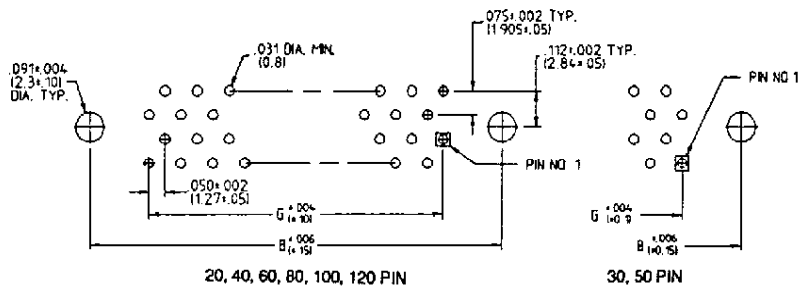


SECTION X-X



No. of Positions	A	B	C	D	E	F	G	H
20	1.001 (25.43)	.800 (20.32)	.757 (19.23)	.870 (21.93)	.607 (15.43)	.529 (13.43)	.450 (11.43)	.580 (14.23)
30	1.251 (31.78)	1.050 (26.67)	1.007 (25.58)	.920 (23.38)	.857 (21.78)	.779 (19.78)	.700 (17.78)	.810 (20.58)
40	1.501 (38.13)	1.300 (33.02)	1.257 (31.93)	1.170 (29.73)	1.107 (28.13)	1.029 (26.13)	.950 (24.13)	1.060 (26.93)
50	1.751 (44.48)	1.550 (39.37)	1.507 (38.28)	1.420 (36.08)	1.357 (34.48)	1.279 (32.48)	1.200 (30.48)	1.310 (33.28)
60	2.001 (50.83)	1.800 (45.72)	1.757 (44.63)	1.670 (42.43)	1.607 (40.83)	1.529 (38.83)	1.450 (36.83)	1.560 (39.63)
80	2.501 (63.53)	2.300 (58.43)	2.257 (57.33)	2.170 (55.13)	2.107 (53.53)	2.029 (51.53)	1.950 (49.53)	2.060 (52.33)
100	3.001 (76.23)	2.800 (71.12)	2.757 (70.03)	2.670 (67.83)	2.607 (66.23)	2.529 (64.23)	2.450 (62.23)	2.560 (65.03)
120	3.501 (88.93)	3.300 (83.82)	3.257 (82.73)	3.170 (80.53)	3.107 (78.93)	3.029 (76.93)	2.950 (74.93)	3.060 (77.73)

## Printed Circuit Board Layout



## Pin Out Identification

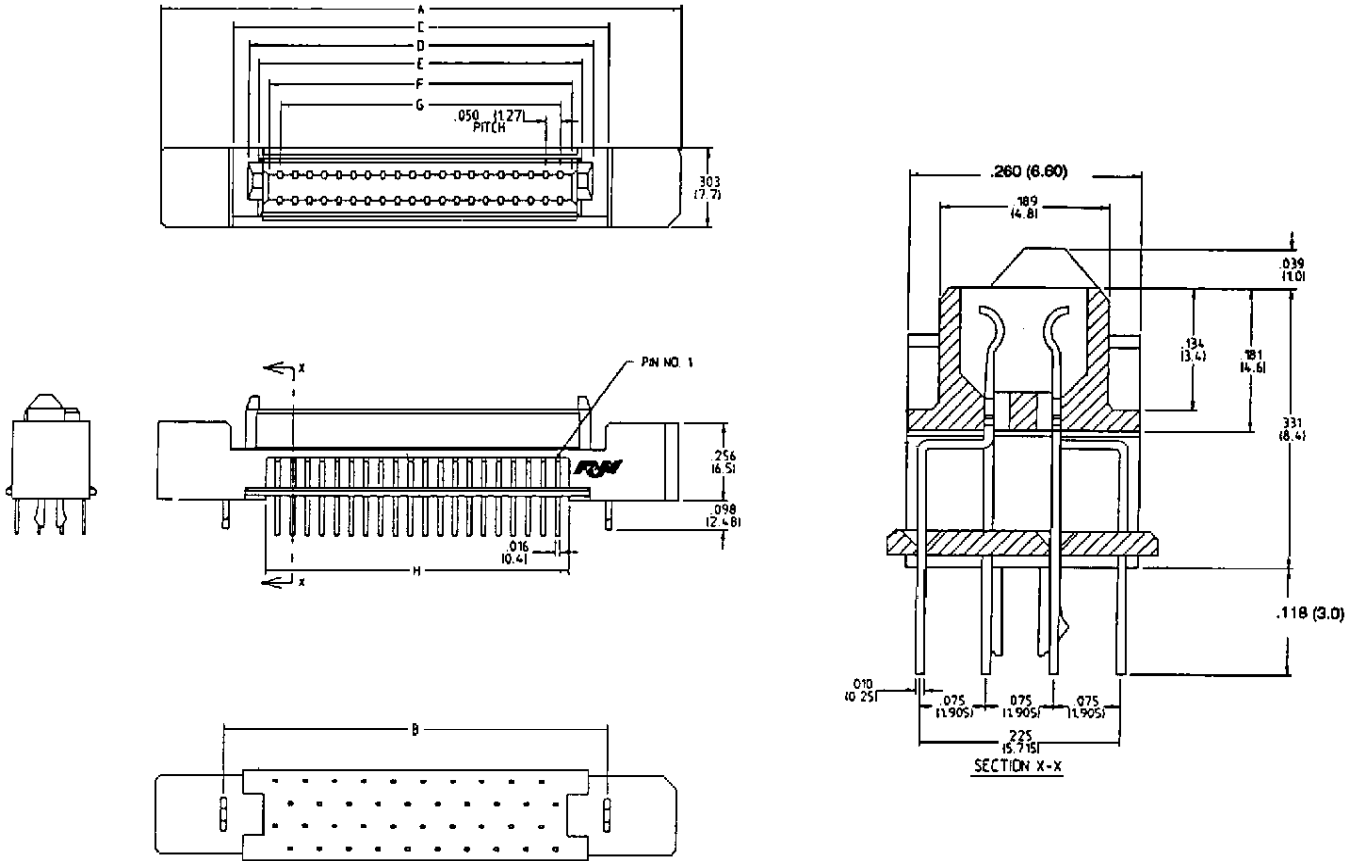


20, 40, 60, 80, 100, 120 PIN

30, 50 PIN

## SOCKETS (Type D)

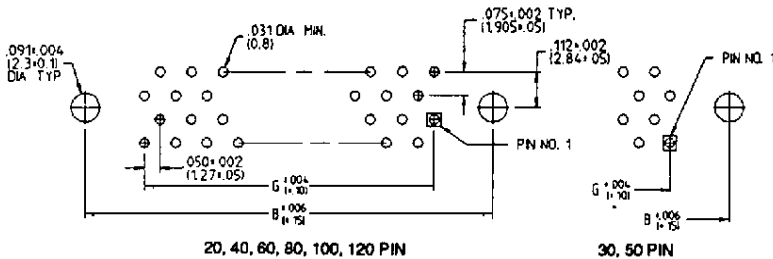
## P50L-XXXS-D-TGF



No. of Positions	A	B	C	D	E	F	G	H
20	1.001 (25.43)	.800 (20.32)	.757 (19.23)	.670 (17.03)	.607 (15.43)	.529 (13.43)	.450 (11.43)	.360 (9.14)
30	1.251 (31.78)	1.050 (26.67)	1.007 (25.58)	.920 (23.38)	.857 (21.78)	.779 (19.78)	.700 (17.78)	.610 (15.49)
40	1.501 (38.13)	1.300 (33.02)	1.257 (31.93)	1.170 (29.73)	1.107 (28.13)	1.029 (26.13)	.950 (24.13)	.860 (21.84)
50	1.751 (44.48)	1.550 (39.37)	1.507 (38.28)	1.420 (36.08)	1.357 (34.48)	1.279 (32.48)	1.200 (30.48)	1.110 (28.19)
60	2.001 (50.83)	1.800 (45.72)	1.757 (44.63)	1.670 (42.43)	1.607 (40.83)	1.529 (38.83)	1.450 (36.83)	1.360 (34.54)
80	2.501 (63.53)	2.300 (58.43)	2.257 (57.33)	2.170 (55.13)	2.107 (53.53)	2.029 (51.53)	1.950 (49.53)	1.860 (47.24)
100	3.001 (76.23)	2.800 (71.12)	2.757 (70.03)	2.670 (67.83)	2.607 (66.23)	2.529 (64.23)	2.450 (62.23)	2.360 (60.03)
120	3.501 (88.93)	3.300 (83.82)	3.257 (82.73)	3.170 (80.53)	3.107 (78.93)	3.029 (76.93)	2.950 (74.93)	2.860 (72.73)

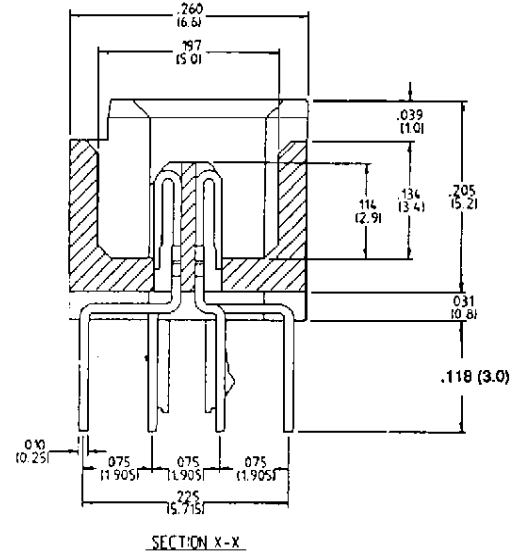
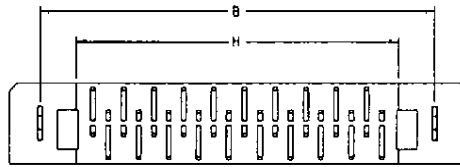
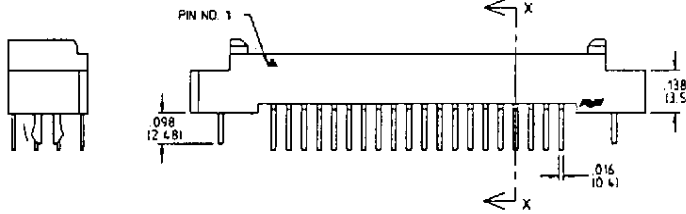
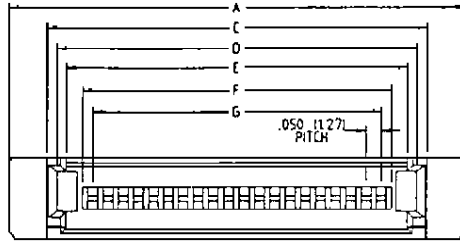
## Printed Circuit Board Layout

## Pin Out Identification



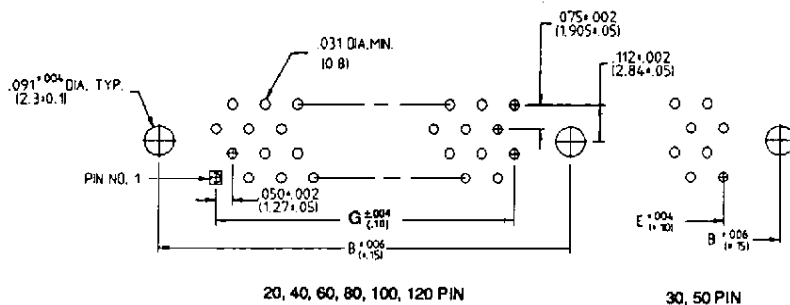
## PLUGS (Type A)

## P50L-XXXP-A-TGF

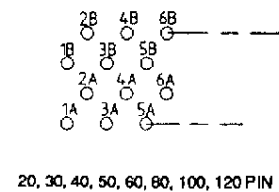


No. of Positions	A	B	C	D	E	F	G	H
20	1.001 (25.43)	.800 (20.32)	.741 (18.83)	.686 (17.43)	.623 (15.83)	.517 (13.13)	.450 (11.43)	.560 (14.23)
30	1.251 (31.78)	1.050 (26.67)	.991 (25.18)	.936 (23.79)	.873 (22.18)	.767 (19.48)	.700 (17.78)	.810 (20.58)
40	1.501 (38.13)	1.300 (33.02)	1.241 (31.53)	1.186 (30.13)	1.123 (28.53)	1.017 (25.83)	.950 (24.13)	1.060 (26.93)
50	1.751 (44.48)	1.550 (39.37)	1.491 (37.88)	1.436 (36.48)	1.373 (34.88)	1.267 (32.18)	1.200 (30.48)	1.310 (33.28)
60	2.001 (50.83)	1.800 (45.72)	1.741 (44.23)	1.686 (42.83)	1.623 (41.23)	1.517 (38.53)	1.450 (36.83)	1.560 (39.63)
80	2.501 (63.53)	2.300 (58.42)	2.241 (56.93)	2.186 (55.53)	2.123 (53.93)	2.017 (51.23)	1.950 (49.53)	2.060 (52.33)
100	3.001 (76.23)	2.800 (71.12)	2.741 (69.63)	2.686 (68.23)	2.623 (66.63)	2.517 (63.93)	2.450 (62.23)	2.560 (65.03)
120	3.501 (88.93)	3.300 (83.82)	3.241 (82.33)	3.186 (80.93)	3.123 (79.33)	3.017 (76.63)	2.950 (74.93)	3.060 (77.73)

### Printed Circuit Board Layout



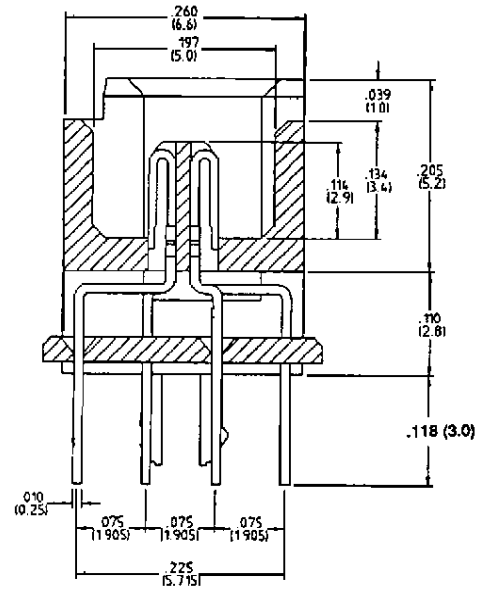
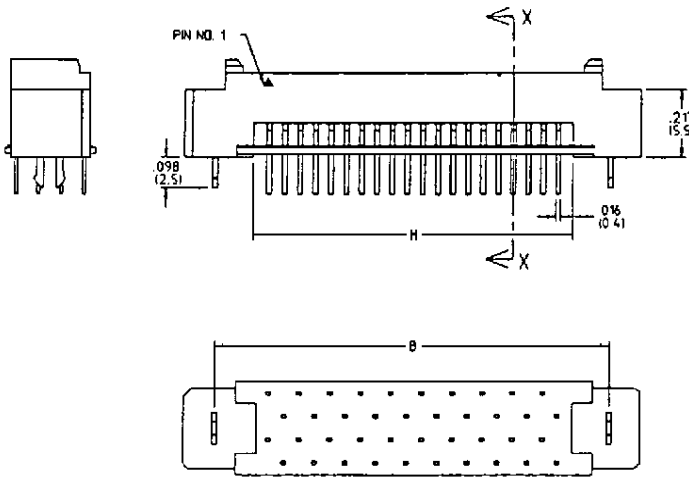
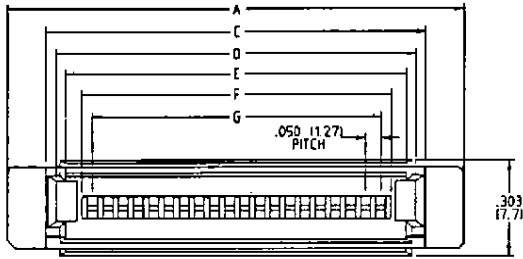
### Pin Out Identification



20, 30, 40, 50, 60, 80, 100, 120 PIN

## PLUGS (Type C)

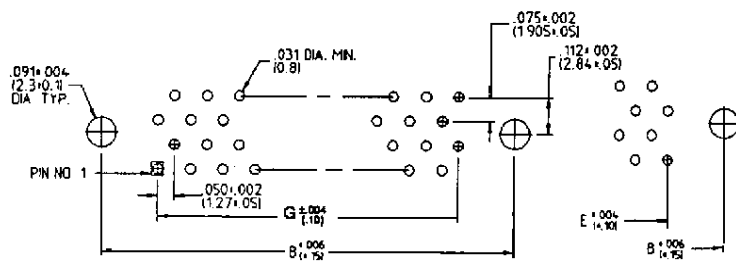
## P50L-XXXP-C-TGF



SECTION X-X

No. of Positions	A	B	C	D	E	F	G	H
20	1.001 (25.43)	.800 (20.32)	.741 (18.83)	.686 (17.43)	.623 (15.83)	.517 (13.13)	.450 (11.43)	.560 (14.23)
30	1.251 (31.78)	1.050 (26.67)	.901 (22.18)	.836 (21.18)	.773 (19.48)	.667 (17.78)	.600 (20.58)	.710 (20.58)
40	1.501 (38.13)	1.300 (33.02)	1.241 (31.53)	1.186 (30.13)	1.123 (28.53)	1.017 (25.83)	.950 (24.13)	1.060 (26.93)
50	1.751 (44.48)	1.550 (39.37)	1.491 (37.88)	1.435 (36.48)	1.373 (34.88)	1.267 (32.18)	1.200 (30.48)	1.310 (33.28)
60	2.001 (50.83)	1.800 (45.72)	1.741 (44.23)	1.686 (42.83)	1.623 (41.23)	1.517 (38.53)	1.450 (36.83)	1.560 (39.63)
80	2.501 (63.53)	2.300 (58.42)	2.241 (56.83)	2.186 (55.53)	2.123 (53.93)	2.017 (51.23)	1.950 (49.53)	2.060 (52.33)
100	3.001 (76.23)	2.800 (71.12)	2.741 (69.63)	2.686 (68.23)	2.623 (66.63)	2.517 (63.93)	2.450 (62.23)	2.560 (65.03)
120	3.501 (88.93)	3.300 (83.82)	3.241 (82.33)	3.186 (80.93)	3.123 (79.33)	3.017 (76.63)	2.950 (74.93)	3.060 (77.73)

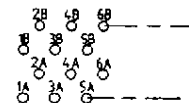
## Printed Circuit Board Layout



20, 40, 60, 80, 100, 120 PIN

30, 50 PIN

## Pin Out Identification



20, 30, 40, 50, 60, 80, 100, 120 PIN