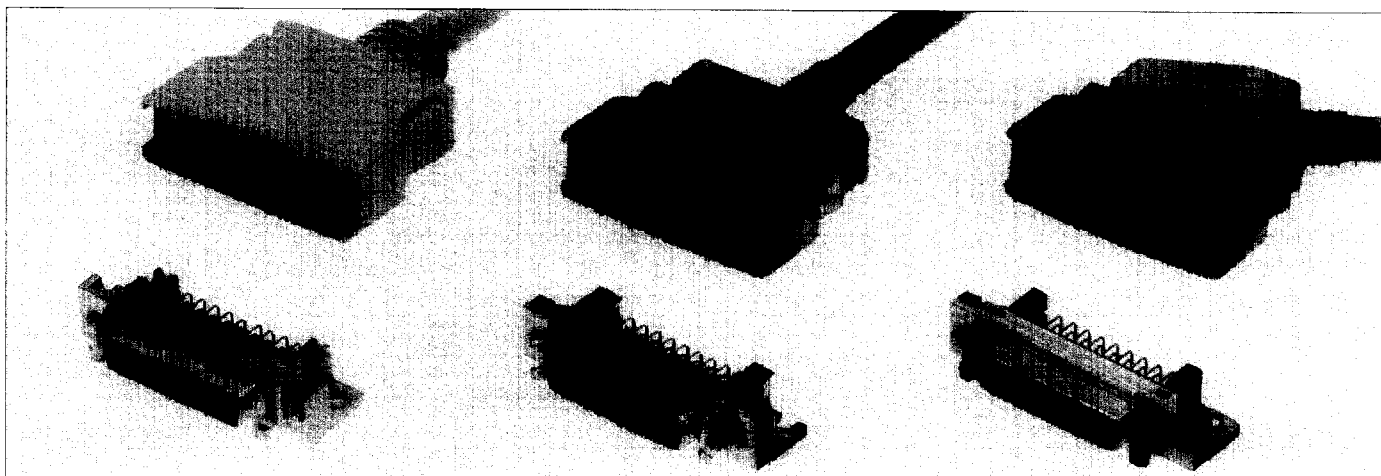


Conforming to IEEE-1284-C



Bitronics Connectors DHA Series

EE-ODHA-2B

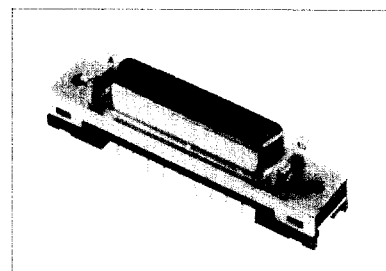


APPLICATION

Interface connections for printers and computers etc. per IEEE-1284-C Bitronics standard.

FEATURES

- Space saving 1.27mm (.050") centerline
- Highly-reliable, scoop-proof cantilever contact design
- IDC termination for plug
- "D"-shape shell polarization to eliminate connector mis-mating
- Quick and secure mating lock design
- Closed insulator face for ESD protection
- Solid metal shells for EMI suppression
- Per IEC specification



SPECIFICATION

Rated voltage 250V AC (r.m.s.)
Rated current 0.5A/contact
Dielectric withstanding 500V AC (r.m.s.)
voltage 1 minute
Insulation resistance 500M Ω min.
at 500V DC
Contact resistance 35m Ω max.
Applicable cable AWG # 28, # 30
(for plugs only) Insulator O.D. : 0.58 (.023)

MATERIAL/FINISH

Contact Copper alloy/
Gold over Nickel plate
Shell Brass/Nickel plate
Insulator PBT resin (UL94V-0)
PPS resin (UL94V-0) for DHA-RS
Hood (metal) Zinc cast/Non-conductive
paint finish (color: grey)
Hood (plastic) ABS resin (UL94V-0)



SALES OFFICES

- | | | |
|---|----------------------|--------------------|
| • DDK Ltd. (JAPAN) | | |
| MOKA, JAPAN | : Tel. 0285-84-7861 | Fax. 0285-82-9036 |
| HONG KONG | : Tel. 2369-7028 | Fax. 2369-7392 |
| SINGAPORE | : Tel. 271-1311 | Fax. 273-6532 |
| • DDK ELECTRONICS, INC. (U.S.A.) | | |
| SANTA CLARA, CALIFORNIA | : Tel. 408-980-8344 | Fax. 408-980-9750 |
| TORONTO LIAISON, CANADA | : Tel. 905-470-1346 | Fax. 905-470-1479 |
| • DDK ELECTRONICS (EUROPE), LTD. (LONDON) | : Tel. 01959-5-61224 | Fax. 01959-5-61034 |
| • DDK (THAILAND) LTD. | : Tel. 02-529-1428 | Fax. 02-529-1427 |

Ordering Information

2

Right Angle Receptacle

- Stamped metal shell with plastic mating locks and high temperature plastic, PPS resin insulator for reflow soldering

DHA-RS series

Ordering Information

DHA-RS36-R212N

NO. OF CONTACTS

36 : 36 contacts

CONTACT TAIL STYLE

R : Right angle thru

CONTACT TAIL LENGTH

2 : 2.16mm (.085in.)

REAR COVER

N : Without cover

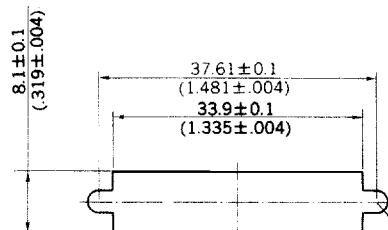
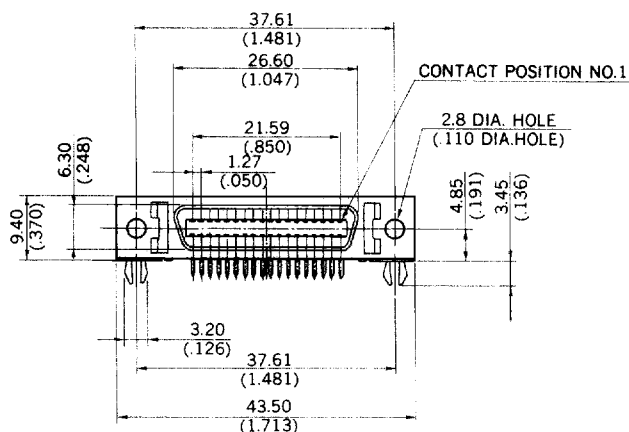
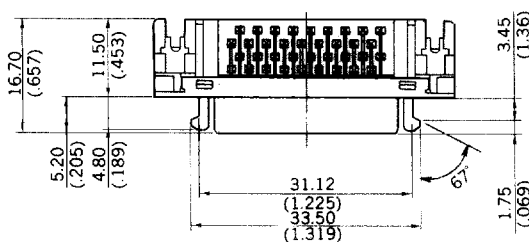
MOUNTING STYLE ON PCB

- 1 : M2.6×0.45 tapped ground tab
- 2 : Board lock PCB thickness : $1.6 \pm 0.19\text{mm}$ (.063±.007in.)

CONTACT PLATING

- 1 : $0.76\mu\text{m}$ (30μin.) gold
 - 2 : $0.25\mu\text{m}$ (10μin.) gold
 - 3 : Gold flash
- Tail...Solder plating

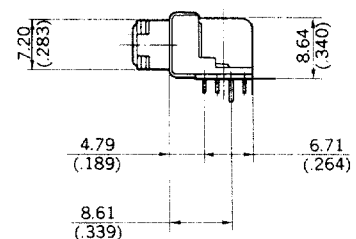
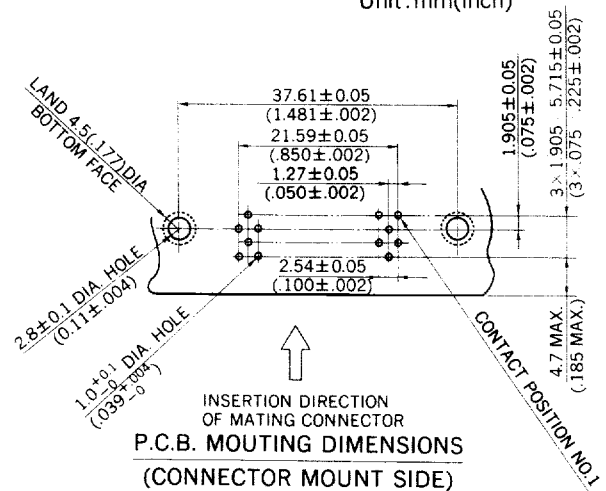
Dimensions



PANEL CUT-OUT DIMENSIONS

2mm (.079in.) MAX. THICKNESS

Unit:mm(inch)



$R1.5 \pm 0.05$
(R.059±.002)

Right Angle Receptacle

- Stamped metal shell with plastic mating locks, PBT plastic

DHA-RA series

Ordering Information

DHA-RA36-R132N

NO. OF CONTACTS

36 : 36 contacts

CONTACT TAIL STYLE

R : Right angle thru

CONTACT TAIL LENGTH

1 : 3.5mm (.138in.)

REAR COVER

N : Without cover C : With cover

MOUNTING STYLE ON PCB

1 : M2.6×0.45 tapped ground tab

2 : Board lock PCB thickness : $1.6 \pm 0.19\text{mm}$ (.063±.007in.)

CONTACT PLATING

1 : $0.76\mu\text{m}$ (30μin.) gold

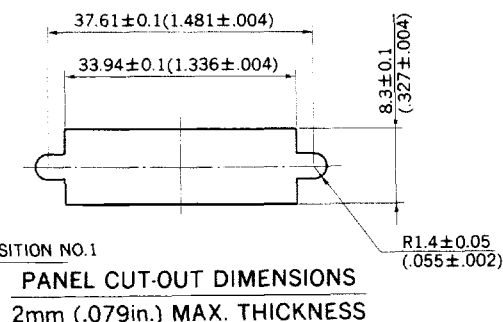
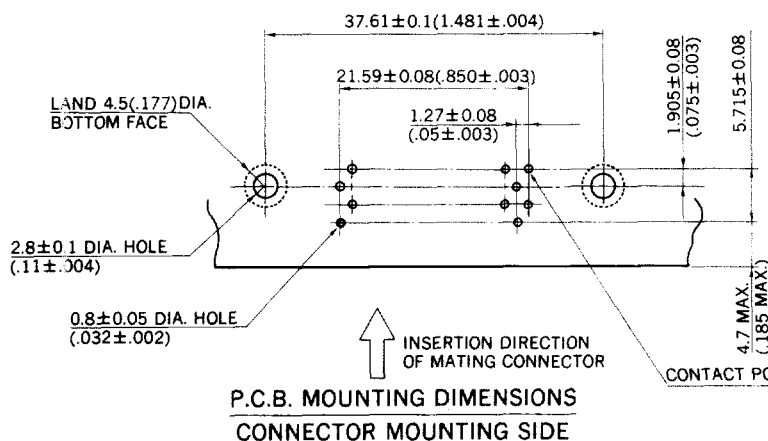
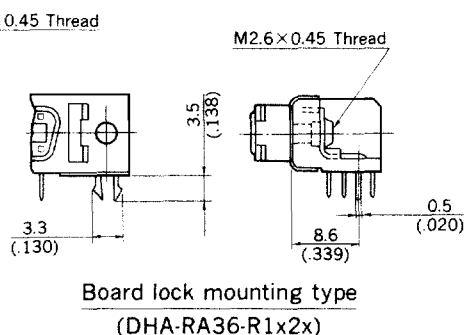
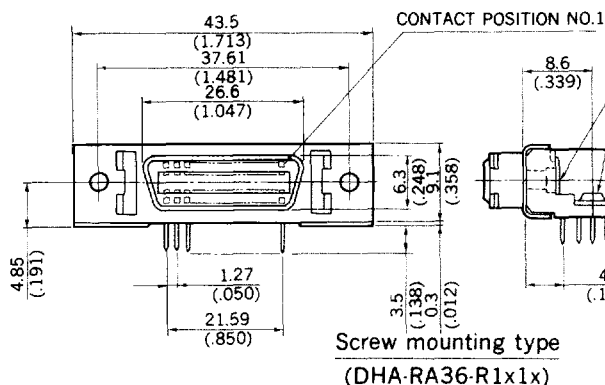
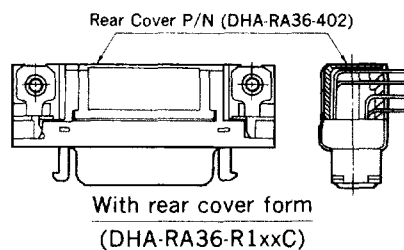
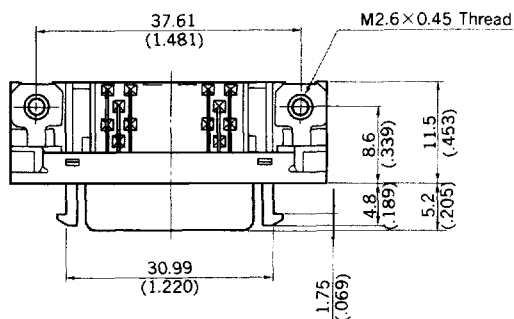
2 : $0.25\mu\text{m}$ (10μin.) gold

3 : Gold flash

Tail...Solder plating

Dimensions

Unit:mm(inch)



Right Angle Receptacle

- Solid die cast metal shell with metal mating locks

DHA-RC series

Ordering Information

DHA-RC36-R132N

NO. OF CONTACTS
36 : 36 contacts

CONTACT TAIL STYLE
R : Right angle thru

CONTACT TAIL LENGTH
1 : 3.5mm (.138in.)

REAR COVER

N : Without cover C : With cover

MOUNTING STYLE ON PCB

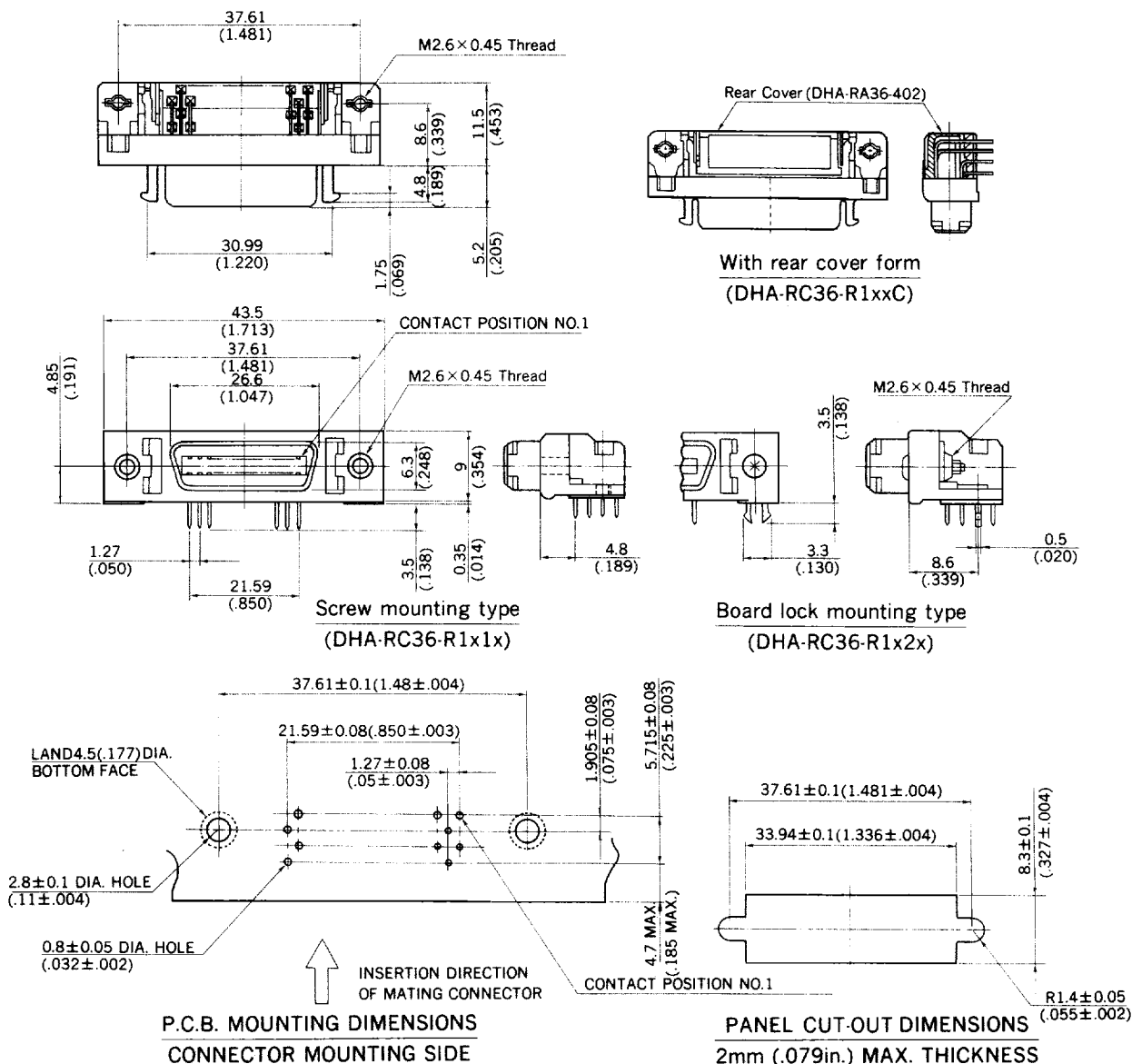
1 : M2.6×0.45 tapped ground tab
2 : Board lock PCB thickness : $1.6 \pm 0.19\text{mm}$ (.063±.007in.)

CONTACT PLATING

1 : $0.76\mu\text{m}$ (30μin.) gold
2 : $0.25\mu\text{m}$ (10μin.) gold
3 : Gold flash
Tail...Solder plating

Dimensions

Unit: mm(inch)



Vertical Receptacle

- Stamped metal shell with metal mating locks

DHA-RV series

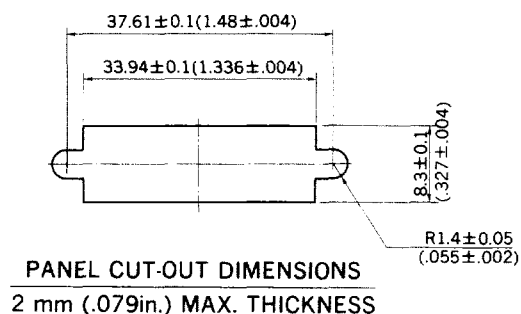
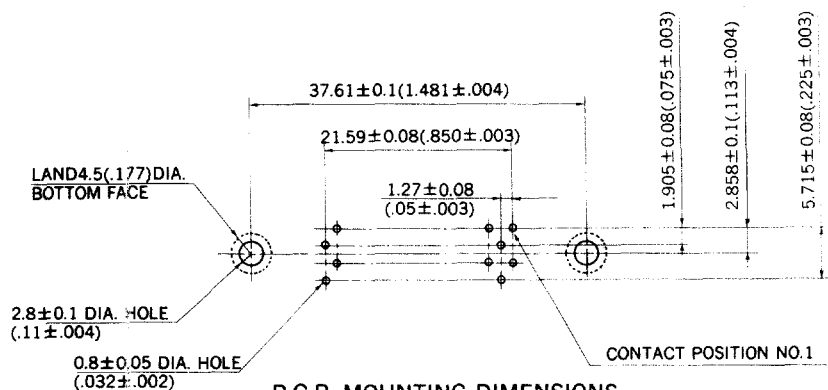
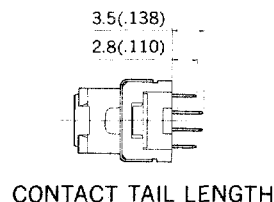
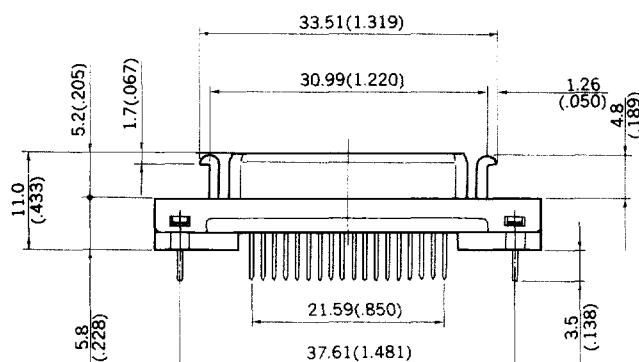
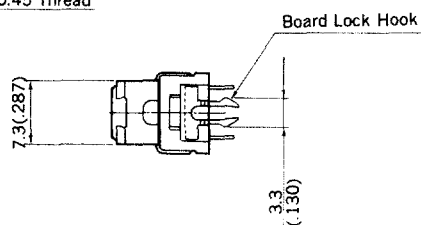
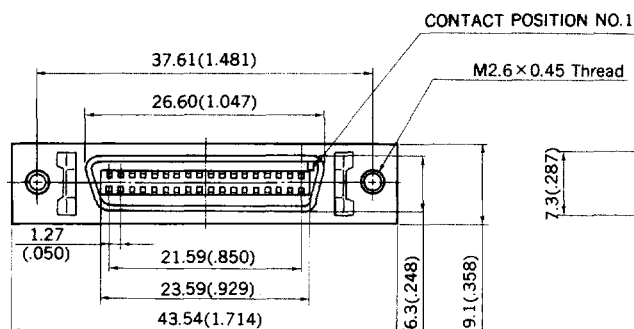
Ordering Information

DHA-RV36-S13TN

NO. OF CONTACTS 36 : 36 contacts	REAR COVER N : Without cover
CONTACT TAIL STYLE S : Straight thru	MOUNTING STYLE ON PCB T : M2.6×0.45 tapped ground tab S : Board lock PCB thickness : 1.2—1.6mm (.047—.063in.)
CONTACT TAIL LENGTH 1 : 3.5mm (.138in.) and 2.8mm (.110in.)	CONTACT PLATING 1 : 0.76μm (30μin.) gold 2 : 0.25μm (10μin.) gold 3 : Gold flash Tail...solder plating

Dimensions

Unit:mm(inch)



Discrete IDC Plug

- Low-cost type connector for DHA-HPM series plastic hood

DHA-PE series

Ordering Information

DHA-PE36-3TA

NO. OF CONTACTS

36 : 36 contacts

CONTACT PLATING

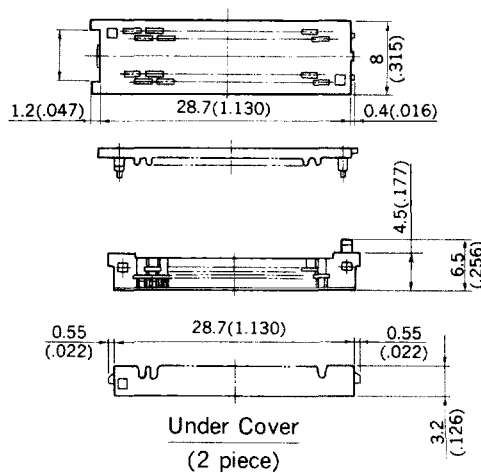
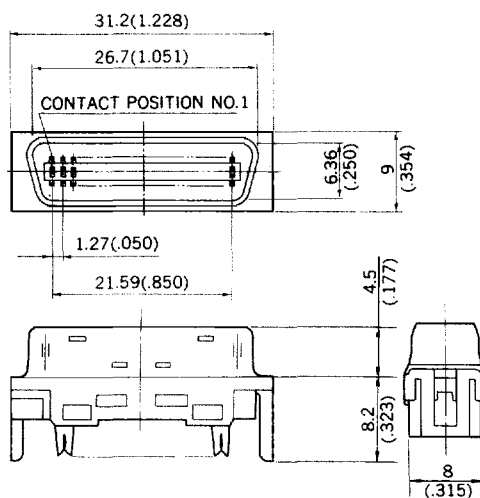
1 : 0.76 μ m (30 μ m.) gold
2 : 0.25 μ m (10 μ m.) gold
3 : Gold flash

CONTACT PLATING (IDC AREA)

T : Solder plating

Dimensions

Unit : mm(inch)



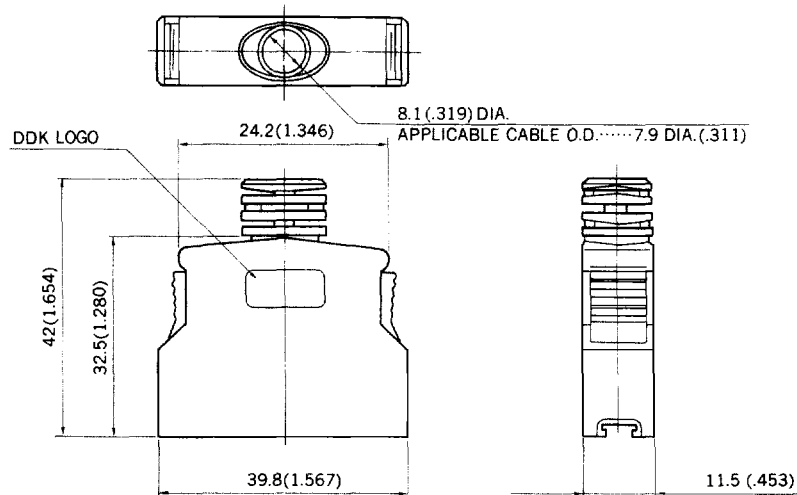
● 1-piece type plastic hood for DHA-PE series connector
DHA-HPM series
Ordering Information

DHA-HPM36-10CC

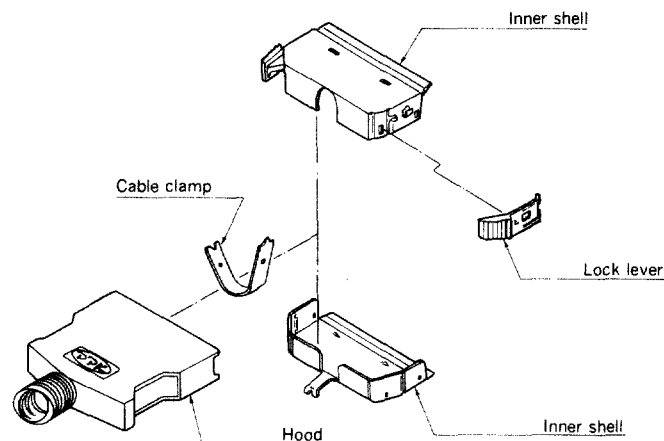
NO. OF CONTACTS 36 : 36 contacts		CABLE CLAMP SIZE C : Cable O.D. 7.9mm (.311in.)
DDK MARK 0 : Without mark 1 : With mark		APPLICABLE CABLE O.D. C : 7.9mm (.311in.)
HOOD COLOR 0 : Black 3 : Dark gray 1 : Beige 4 : Light gray 2 : Gray 5 : Natural light gray		

Dimensions

Unit: mm(inch)



Assembly Diagram



Discrete IDC Plug

- Connector for DHA-HPD, DHA-HPF, DHA-HPA and DHA-HPC series hoods
DHA-PC series

Ordering Information

DHA-PC36-3G

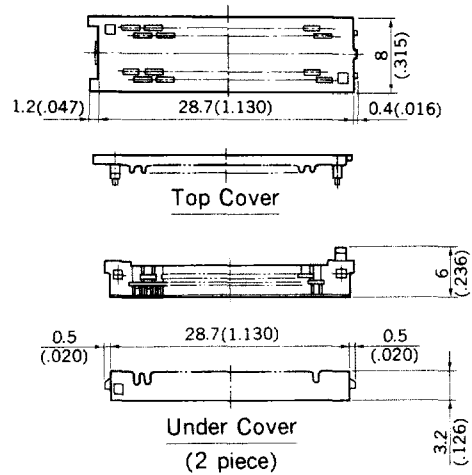
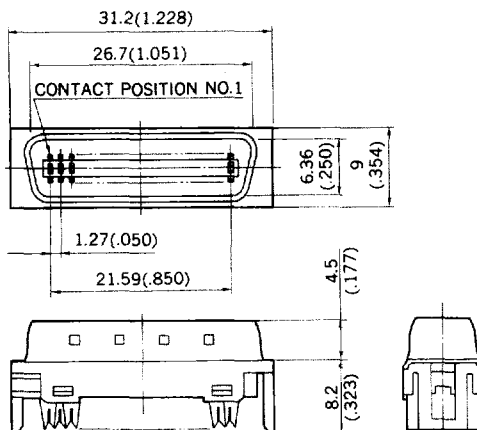
NO. OF CONTACTS
36 : 36 contacts

CONTACT PLATING (IDC AREA)
G : Gold flash

CONTACT PLATING
1 : 0.76 μ m (30 μ in.) gold
2 : 0.25 μ m (10 μ in.) gold
3 : Gold flash

Dimensions

Unit:mm(inch)



● 1-piece type plastic hood for DHA-PC series

DHA-HPD series

Ordering Information

DHA-HPD36-10

NO. OF CONTACTS

36 : 36 contacts

DDK MARK

0 : Without mark 1 : With mark

HOOD COLOR

0 : Black

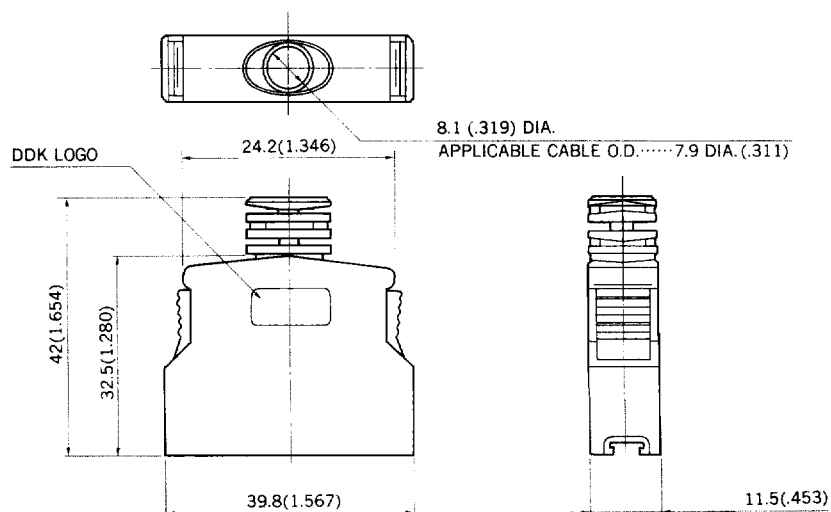
1 : Beige

2 : Gray

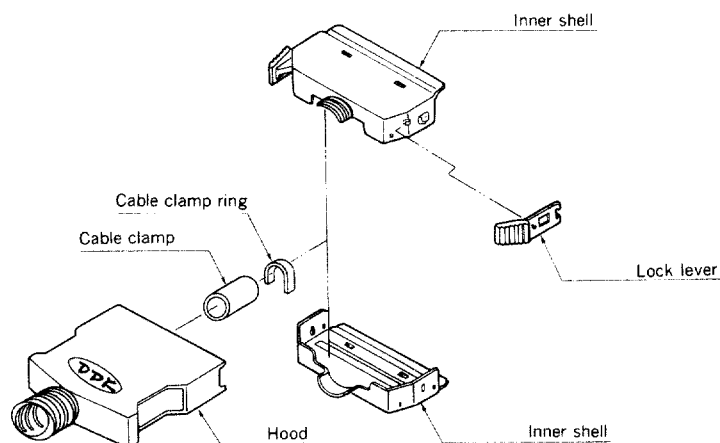
Applicable Cable O.D. 7.9mm (.311in.)

Dimensions

Unit: mm(inch)



Assembly Diagram



DHA Series



- 2-piece type plastic hood for DHA-PC series
DHA-HPF series
Ordering Information

DHA-HPF36-10GG

NO. OF CONTACTS
36 : 36 contacts

DDK MARK
0 : Without mark 1 : With mark

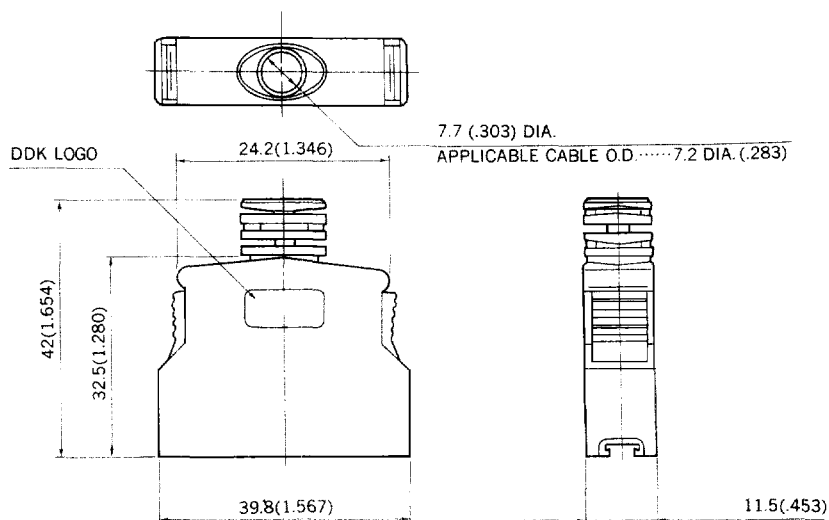
HOOD COLOR
0 : Black 2 : Gray
1 : Beige 3 : Dark gray

CABLE CLAMP SIZE
G : Cable O.D. 7.2mm (.283in.)

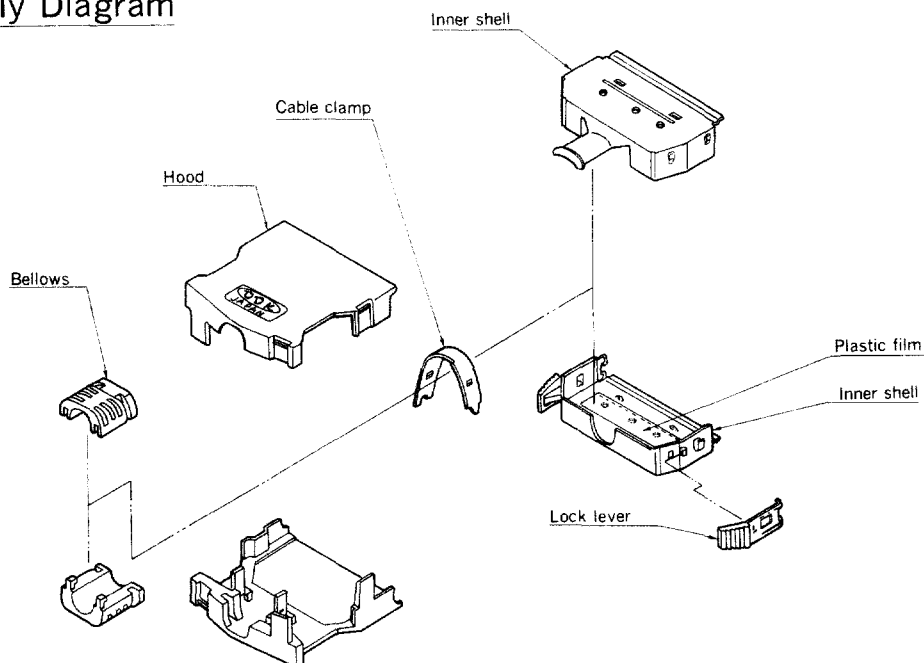
APPLICABLE CABLE O.D.
G : 7.2mm (.283in.)

Dimensions

Unit: mm(inch)



Assembly Diagram



- Straight type metal hood for DHA-PC series
DHA-HPA series
Ordering Information

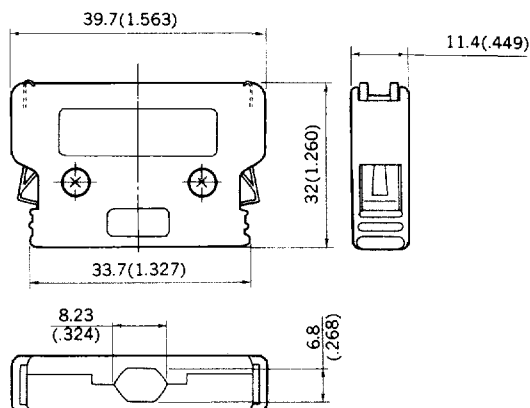
DHA-HPA36

Dimensions

NO. OF CONTACTS
36 : 36 contacts

Applicable Cable O.D. ... 7.2mm (.283in.)

Unit: mm(inch)



- 60° angle type metal hood for DHA-PC series
DHA-HPC series
Ordering Information

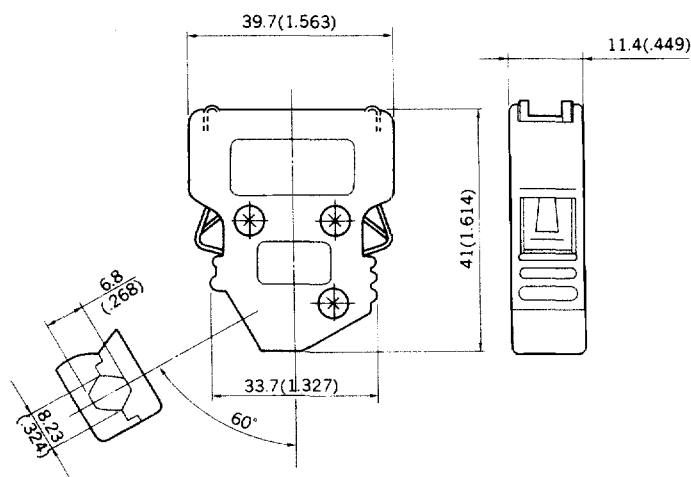
DHA-HPC36

Dimensions

NO. OF CONTACTS
36 : 36 contacts

Applicable Cable O.D. ... 7.2mm (.283in.)

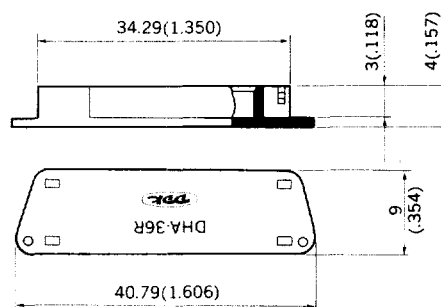
Unit: mm(inch)



Dust Cover for Receptacle

P/N...DHA-36RB-405

Material...Polyamide (UL94V-0)/Black



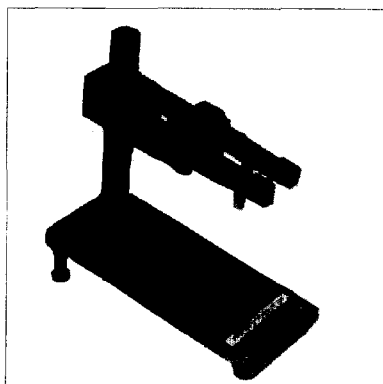
Assembly Equipment

Process Application \ Plug P/N	[Connector] DHA-PE36-XXX [Hood] DHA-HPM36-XXXX	[Connector] DHA-PC36-XX [Hood] DHA-HPD36-XX	[Connector] DHA-PC36-XX [Hood] DHA-HPF36-XXXX	[Connector] DHA-PC36-XX [Hood] DHA-HPA36	[Connector] DHA-PC36-XX [Hood] DHA-HPC36
Cable Wiring	357J-14431	357J-14431	357J-14431	357J-14431	357J-14431
Cover Assembly	357J-14433-36	357J-8599N	357J-8599N	357J-8599N	357J-8599N
Cable Cutting	357J-14423	357J-13957	357J-13957	357J-13957	357J-13957
Termination	357J-14433-36	357J-8599N	357J-8599N	357J-8599N	357J-8599N
Cable Clamp Ring Assembly	-----	357J-11668-2	-----	-----	-----
Cable Clamp Assembly	357J-12252-36	357J-10365-036	357J-12252-36	-----	-----

● **Cable Wiring Tool**

P/N: 357J-14431

for DHA-PE and
DHA-PC series



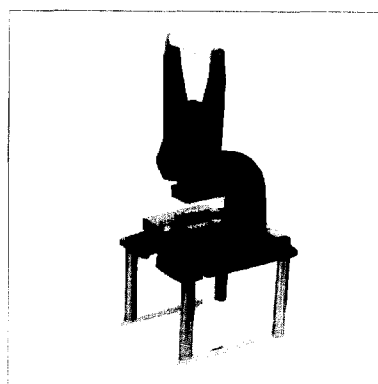
● **Cover Assembly and Termination Tool**

P/N: 357J-14433-36

for DHA-PE36 series

P/N: 357J-8599N

for DHA-PC36 series



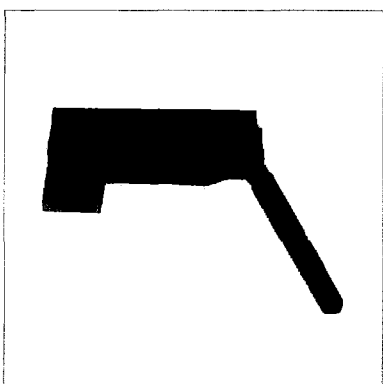
● **Cable Cutting Tool**

P/N: 357J-14423

for DHA-PE series

P/N: 357J-13957

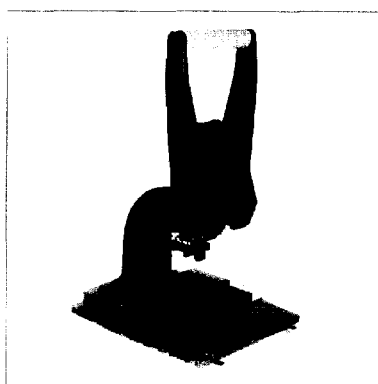
for DHA-PC series



● **Cable Clamp Ring Assembly Tool**

P/N: 357J-11668-2

for DHA-HPD36 series



● **Cable Clamp Assembly Tool**

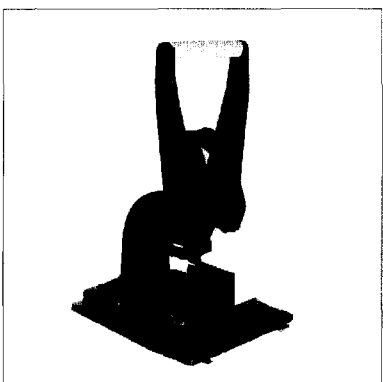
P/N: 357J-12252-36

for DHA-HPM36

and DHA-HPF36 series

P/N: 357J-10365-036

for DHA-HPD36 series

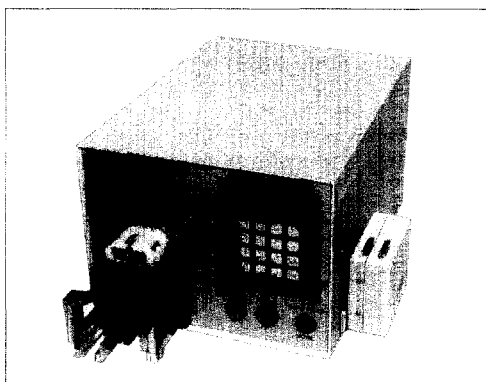


● **Semi-Automatic Wiring Tool**

P/N: 357J-15289

for DHA-PE series

Low-cost type



● IEEE-1284 Cable Assembly Ordering Information

80-535-7410-100

COLOR

0 : Beige
1 : Natural light gray

ASSEMBLY STYLE

0 : IEEE-1284-C to C
1 : IEEE-1284-C to A
2 : IEEE-1284-C to B

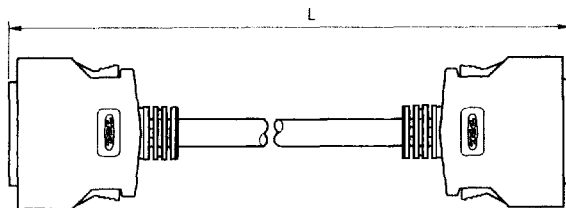
Contact plating(mating area) : Gold flash

CABLE LENGTH

100 : L = 1000mm (39.37 inches)
150 : L = 1500mm (59.05 inches)
200 : L = 2000mm (78.74 inches)

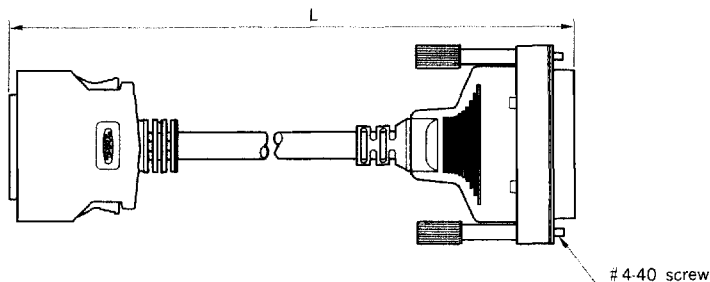
P/N 80-535-74X0-XXX

IEEE-1284 style C-C cable assembly (36-pin half-pitch + 36-pin half-pitch)



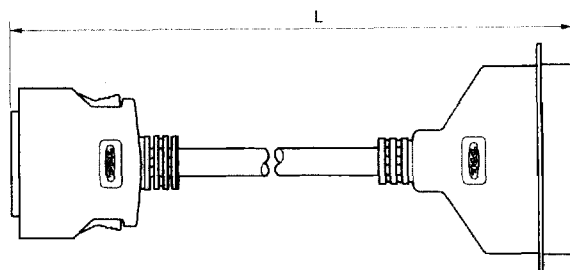
P/N 80-535-74X1-XXX

IEEE-1284 style C-A cable assembly (36-pin half-pitch + 25pin D-sub)



P/N 80-535-74X2-XXX

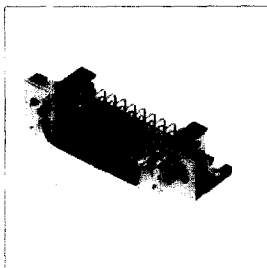
IEEE-1284 style C-B cable assembly (36-pin half-pitch + 36-pin centronics .085" centerline)



※ All cables meet IEEE-1284 requirements.

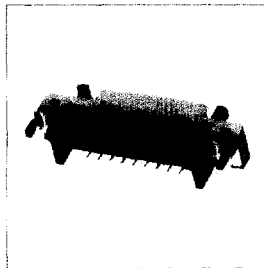
DHA Series Connectors

● DHA-RP Series



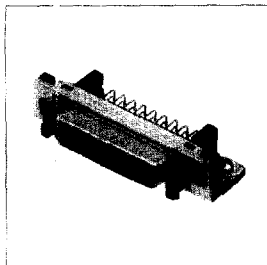
Right angle receptacle.
Stamped metal shell with
metal mating locks.
Number of Contacts
14, 26, 36

● DHA-RS Series



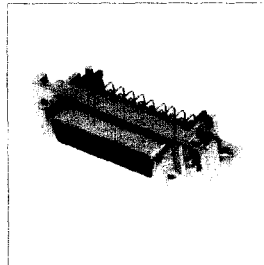
Right angle receptacle.
Stamped metal shell with
plastic mating locks and
high temperature PPS plastic
insulator for reflow soldering.
Number of Contacts
36

● DHA-RA Series



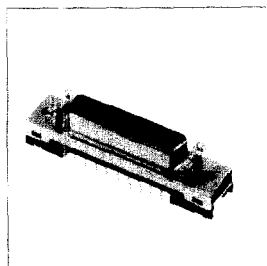
Right angle receptacle.
Stamped metal Shell with
plastic mating locks,
PBT plastic.
Number of Contacts
26, 30, 36, 40, 50, 68

● DHA-RC Series



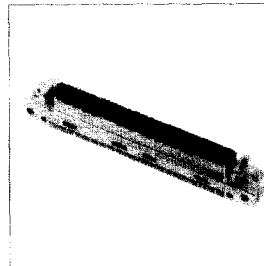
Right angle receptacle.
Solid die cast metal shell
with metal mating locks.
Number of Contacts
14, 20, 26, 36, 40, 50,
60, 68, 80, 100

● DHA-RV Series



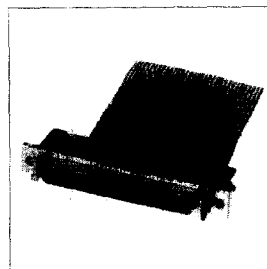
Vertical receptacle.
Stamped metal shell with
metal mating locks.
Number of Contacts
36, 50

● DHA-RB Series



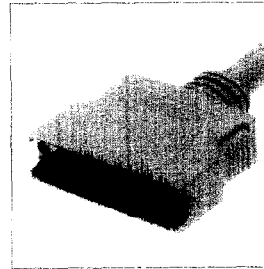
Vertical receptacle.
Solid die cast metal shell
with metal mating locks.
Number of Contacts
20, 26, 40, 50, 68, 80

● DHA-RE Series



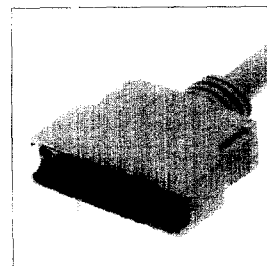
IDC receptacle
Solid die cast metal shell
with metal mating locks.
Number of Contacts
50, 68

● DHA-PC/HPD Series



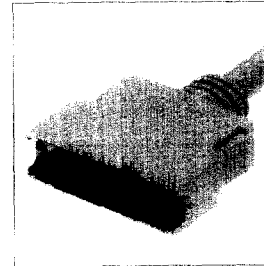
ESD protection plug,
1-piece hood type
Number of Contacts
14, 20, 26, 36, 50, 68,
80, 100

● DHA-PE/HPM Series



ESD protection plug,
1-piece hood, low cost type
Number of Contacts
26, 36, 50

● DHA-PC/HPF Series



ESD protection plug,
2-piece hood type
Number of Contacts
14, 20, 26, 36, 40, 50,
68