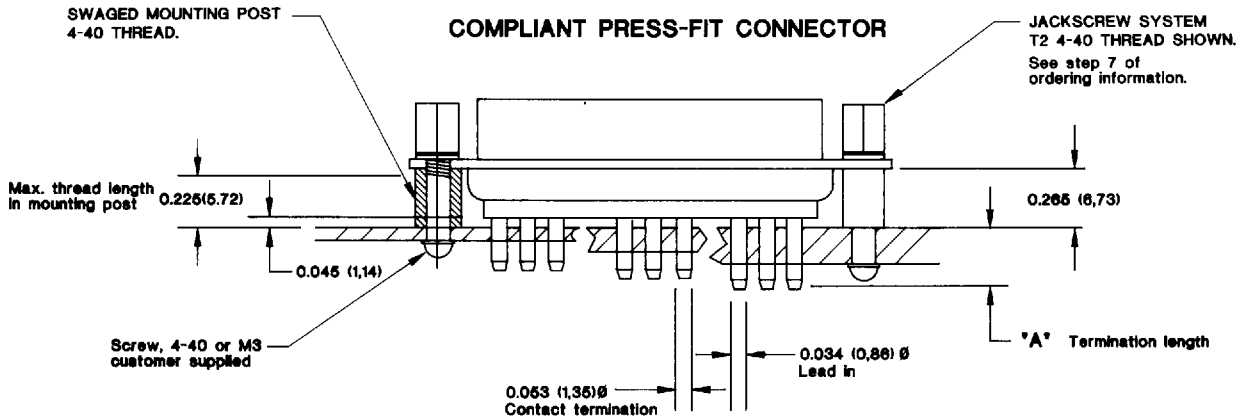


PROFESSIONAL QUALITY, COMPLIANT TERMINATION REPAIRABLE CONTACT, PRESS-FIT SUBMINIATURE-D CONNECTOR FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

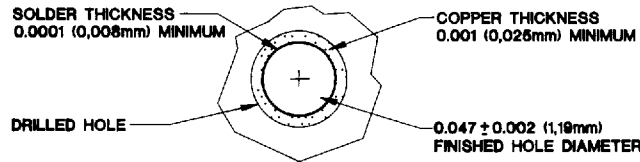


TYPICAL PART NUMBER: PCD9M9SOT20

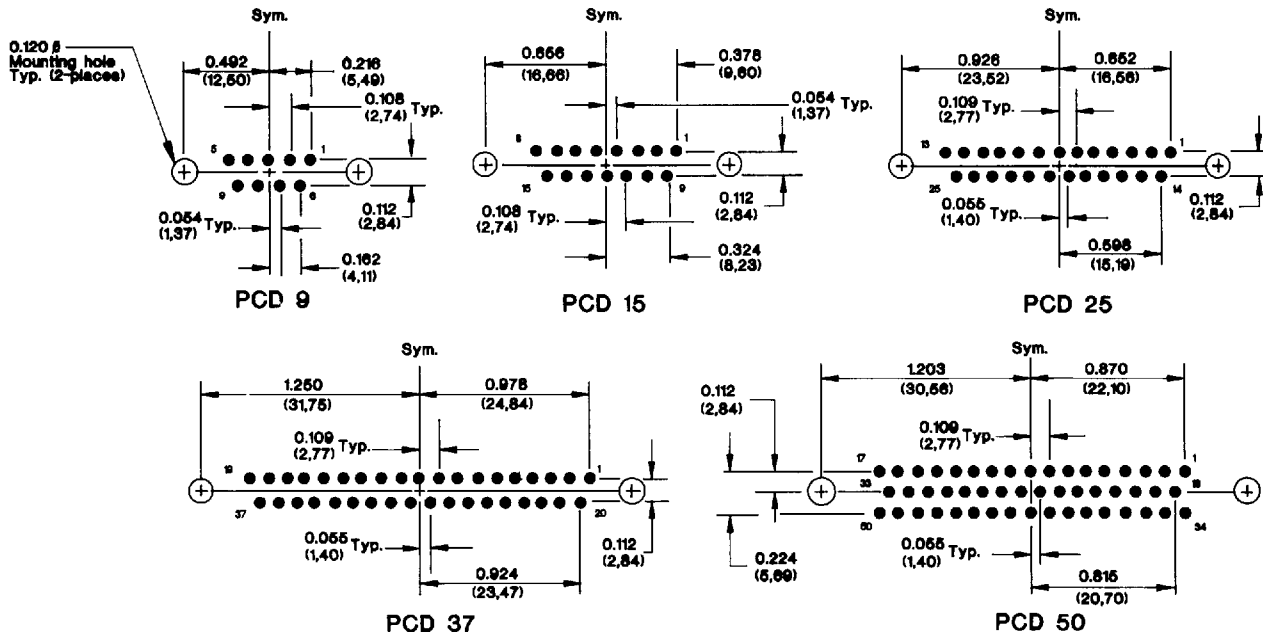
CONTACT TERMINATION LENGTH

BOARD THICKNESS	"A"	CONTACT TYPE
0.063 (1,60)	0.153 (3,89)	9
0.093 (2,36)	0.183 (4,65)	92
0.125 (3,18)	0.218 (5,54)	93

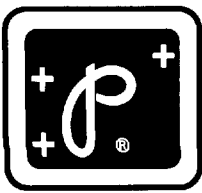
COMPLIANT CONTACT HOLE REQUIREMENT



COMPLIANT PRESS-FIT CONNECTOR PRINTED BOARD CONTACT HOLE PATTERN



DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE



Positronic Industries

Professional Quality, **Compliant** Termination

Repairable Contact **PRESS-FIT** Sub-D Connectors

IEC 807-2

IEC 352-5

MIL-STD-2166

U.L. Recognized

File #E49351

Telecommunications

U.L. File #140980

PCD Series

PRESS-FIT

Machined Contact, "Bi-Spring"

Compliant Termination

Professional Quality Connector

Low press-in and push-out forces, one pound (4.2 N) to two pounds (8.4 N), eliminates printed board pressure-warp and twisting stresses which can cause damage to strip-line traces and cause conductor line breakage resulting in expensive repair or replacement of printed boards and back panels.

There is no plated-through-hole damage or deformation of the plated-through-hole when the connector Bi-Spring contacts are installed in or removed from the printed board. The Bi-Spring contact Press-Fit section will permit up to three replacement operations of the contact or connector without damage or deformation to the plated-through-hole.

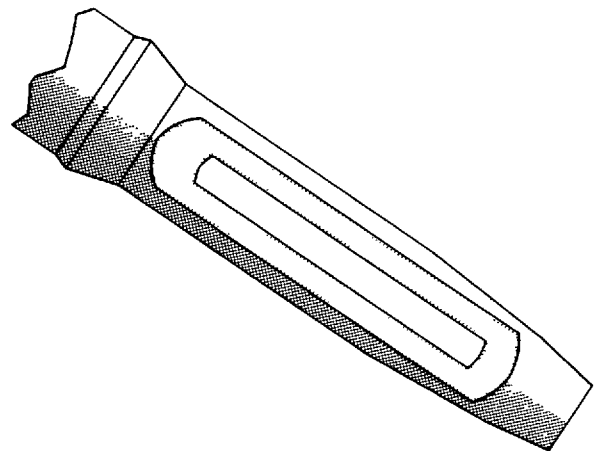
The contact retention system of the Press-Fit connector body permits the removal and replacement of individual contacts from both the plated-through-hole and the connector body by applying a minimum axial push-out force of 5 lbs (21 N). A virgin contact may then be pushed into the connector body and plated-through-hole, thereby accomplishing the repair of the connection without removal of the connector from the printed board.

Several Press-Fit termination lengths, which accommodate printed board thicknesses from 0.063 inches (1.6mm) to 0.125 inches (3.2mm), are made possible through a special automatic machining technique developed especially for the production of Bi-Spring compliant Press-Fit terminations. Shorter or longer termination lengths are also possible.

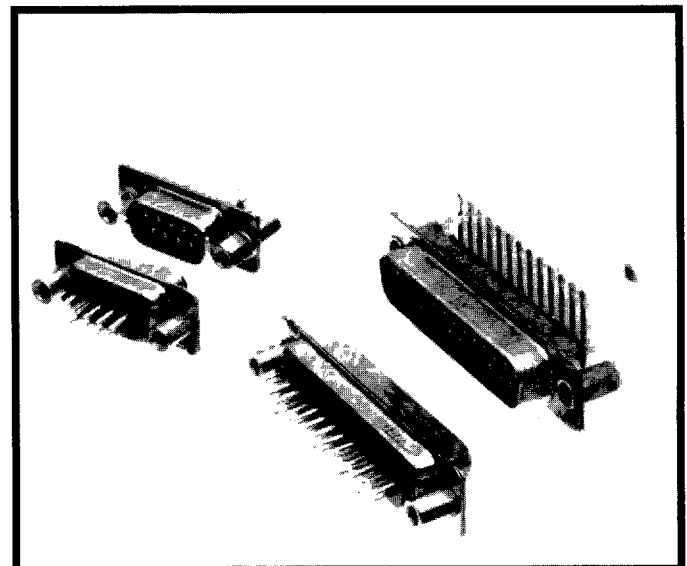
The effective Press-Fit length of the compliant contact termination may also be varied (longer or shorter) and can be selectively positioned and centered at several points along the contact termination length, permitting high or low profile mounting of the connector on printed boards.

Extensive laboratory corrosion tests have verified the gas-tight integrity of the contact surfaces between the effective Press-Fit length of the contact and the plated surfaces of the plated-through-hole.

The connector Bi-Spring Press-Fit connections maintain electrical integrity during shock and vibration testing, there being no electrical discontinuity of 1 μ s or greater during the life of tests.



Exploded view of "Bi-Spring"
Compliant Section of Contact



COMPLIANT PRESS-D CONNECTOR TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulators:	Glass filled polyester per MIL-M-24519, U.L. 94V-0, blue color.
Contacts:	Male and female contacts are precision machined-high tensile phosphor bronze.
Contact plating:	Gold 0.000030 inch (0,75 microns) over nickel plate or gold flash over nickel plate.
Shells:	Steel or brass with tin plate or zinc plate with dichromate seal.
Mounting spacers and brackets:	Brass with tin plate; zinc plate with dichromate seal.
Jackscrew system:	Steel; zinc plate with dichromate seal.
Vibration lock systems:	Lock tabs, nickel plated steel.

MECHANICAL CHARACTERISTICS:

Repairable Contacts Solid Metal Construction:	Size 20 contact male – 0.040 inch (1.0mm) diameter: female contact – rugged open-entry design or closed entry design.
Contact Retention in Insulator:	5 lbs (21 N) minimum.
Compliant Press-Fit Termination Bi-Spring Construction:	0.053 inch (1.35mm) diameter with 0.034 inch (0.86mm) lead-in diameter. Offered with three termination lengths for 0.063 inch (1.6mm) 0.093 in (2.4mm) 0.125 (3.2mm) thick printed boards or back planes.
Press-In Force of Contact into plated-through-hole:	1 lb (4.2 N) to 2 lbs (8.4 N).
Push-Out Force of Contact from plated-through-hole:	1 lb (4.2 N) to 2 lbs (8.4 N).
Vibration Test per MIL-STD 1344, Method 2005, Test Conditioning:	No electrical discontinuity of 1 μ s or greater.
Connector Polarization:	Trapezoidal shaped shells and polarized jackscrews.
Locking System:	Jackscrews and vibration locking systems.
Mechanical Operations:	500 operations per IEC 512.5.

ELECTRICAL CHARACTERISTICS OF COMPLIANT PRESS-FIT CONNECTION TO PLATED-THROUGH-HOLE OF PRINTED BOARD:

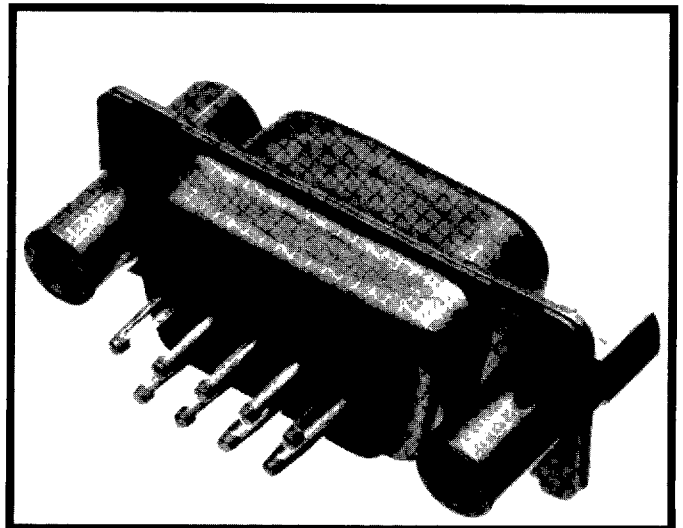
Initial Contact Resistance of Connection:	0.001 Ω per IEC 512-2, Test 2a.
Change in Contact Resistance of Connection after Mechanical, Electrical or Climatic Conditioning:	Less than 0.001 Ω increase Per IEC 512-2, Test 2a.
Gas-tight Connections Test:	Less than 0.001 Ω increase in contact resistance after 1 hour per EIA 364, TP36, Method One.

CLIMATIC CHARACTERISTICS:

Temperature Range: -55°C to +125°C.

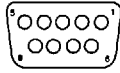
ELECTRICAL CHARACTERISTICS OF CONNECTOR:

Contact Current Rating:	7.5 amperes.
Initial Contact Resistance:	0.008 ohms maximum per IEC 512-2, Test 2a.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.039 inch (1.0 mm)
Working Voltage:	300 V.

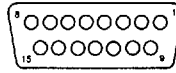


PROFESSIONAL QUALITY, COMPLIANT TERMINATION REPAIRABLE CONTACT, PRESS-FIT SUBMINIATURE-D CONNECTOR FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

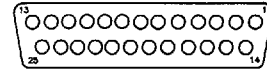
PCD CONTACT VARIANTS FACE VIEW OF FEMALE CONNECTOR



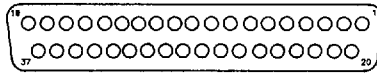
PCD 9



PCD 15



PCD 25

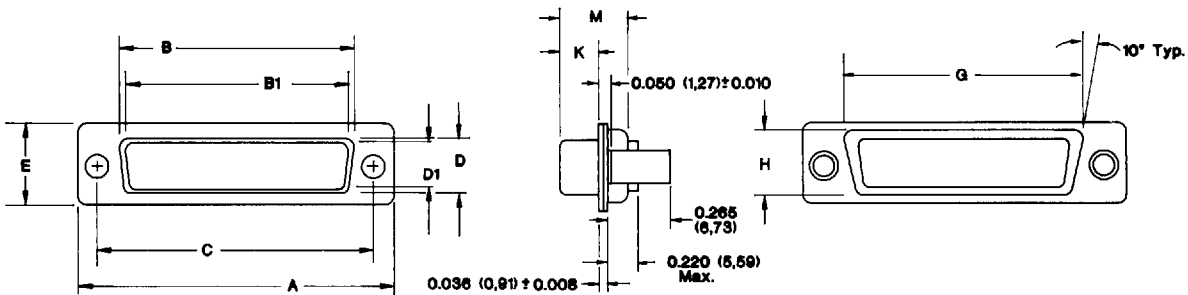


PCD 37



PCD 50

STANDARD SHELL ASSEMBLY



CONNECTOR VARIANT SIZES	A ± 0.015	B ± 0.005	B1 ± 0.005	C ± 0.005	D ± 0.005	D1 ± 0.005	E ± 0.015	G ± 0.010	H ± 0.010	K ± 0.005	M ± 0.010
PCD 9 M	1.213 (30,81)		0.666 (16,92)	0.984 (24,99)		0.329 (8,36)	0.494 (12,56)	0.759 (19,28)	0.422 (10,72)	0.233 (5,92)	0.422 (10,72)
PCD 9 F	1.213 (30,81)	0.843 (21,33)		0.984 (24,99)	0.311 (7,90)		0.494 (12,56)	0.759 (19,28)	0.422 (10,72)	0.243 (6,17)	0.429 (10,90)
PCD 15 M	1.541 (39,14)		0.994 (25,26)	1.312 (33,32)		0.329 (8,36)	0.494 (12,56)	1.083 (27,51)	0.422 (10,72)	0.238 (5,92)	0.422 (10,72)
PCD 15 F	1.541 (39,14)	0.971 (24,66)		1.312 (33,32)	0.311 (7,90)		0.494 (12,56)	1.083 (27,51)	0.422 (10,72)	0.243 (6,17)	0.429 (10,90)
PCD 25 M	2.088 (53,04)		1.534 (38,98)	1.852 (47,04)		0.329 (8,36)	0.494 (12,56)	1.626 (41,28)	0.422 (10,72)	0.230 (5,84)	0.429 (10,90)
PCD 25 F	2.088 (53,04)	1.511 (38,38)		1.852 (47,04)	0.311 (7,90)		0.494 (12,56)	1.626 (41,28)	0.422 (10,72)	0.243 (6,17)	0.429 (10,90)
PCD 37 M	2.729 (69,32)		2.182 (55,42)	2.500 (63,50)		0.329 (8,36)	0.494 (12,56)	2.272 (57,71)	0.422 (10,72)	0.230 (5,84)	0.429 (10,90)
PCD 37 F	2.729 (69,32)	2.159 (54,84)		2.500 (63,50)	0.311 (7,90)		0.494 (12,56)	2.272 (57,71)	0.422 (10,72)	0.243 (6,17)	0.429 (10,90)
PCD 50 M	2.635 (66,93)		2.079 (52,81)	2.406 (61,11)		0.441 (11,20)	0.805 (20,37)	2.178 (55,32)	0.534 (13,56)	0.230 (5,84)	0.429 (10,90)
PCD 50 F	2.635 (66,93)	2.064 (52,43)		2.406 (61,11)	0.423 (10,74)		0.805 (20,37)	2.178 (55,32)	0.534 (13,56)	0.243 (6,17)	0.429 (10,90)

DIMENSIONS ARE IN INCHES (MILLIMETERS).
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PROFESSIONAL QUALITY, COMPLIANT TERMINATION REPAIRABLE CONTACT, PRESS-FIT SUBMINIATURE-D CONNECTOR FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

ORDERING INFORMATION – CODE NUMBERING SYSTEM
SPECIFY COMPLETE CONNECTOR BY FOLLOWING STEPS 1 THROUGH 9
INSERT "0" WHEN STEP IS NOT USED.

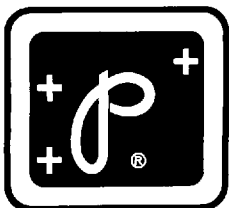
	STEP	1	2	3	4	5	6	7	8	9
<p>STEP 1 Basic Series PCD Series</p> <hr/> <p>STEP 2 PCD Series Connector Variants 9, 15, 25, 37, 50</p> <hr/> <p>STEP 3 Connector Gender M – Male F – Female FC – Female, Closed Entry</p> <hr/> <p>STEP 4 Type of Contacts – Compliant Press-Fit 9 – Termination length 0.153 (3,89) 92 – Termination length 0.183 (4,65) 93 – Termination length 0.218 (5,54)</p> <hr/> <p>STEP 5 Mounting Style S – Swaged Mounting Post 4-40 Threads 0.265 (5,71) length</p>	EXAMPLE/PN	PCD	25	M	9	S	0	T2	X	9
<p>STEP 9 Special Options Consult Sales Department</p> <hr/> <p>STEP 8 Shell Options O – Zinc Plated with Dichromate Seal X – Tin Plated Z – Tin Plated and Dimpled</p> <hr/> <p>STEP 7 Locking and Polarizing Systems O – None V3 – Lock Tab T6 – Fixed Male and Female Polarized Jackscrews T2 – Fixed Female Jackscrews, 4-40 Thread</p> <p>NOTE: These options must be ordered with connector and cannot be ordered separately.</p> <hr/> <p>STEP 6 Hoods O – None</p>										

REPLACEMENT CONTACTS PART NUMBERS

CODE	MALE	OPEN ENTRY FEMALE	CLOSED ENTRY FEMALE
9	4305-13-1-*	4306-14-1-*	4306-139-1-*
92	4305-13-2-*	4306-14-2-*	4306-139-2-*
93	4305-13-3-*	4306-14-3-*	4306-139-3-*

* – PLATING OPTIONS FOR REPLACEMENT CONTACTS

- 14 GOLD 0.000030 (0,75 MICRONS) OVER NICKEL PLATE
- 51 GOLD FLASH OVER NICKEL PLATE



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