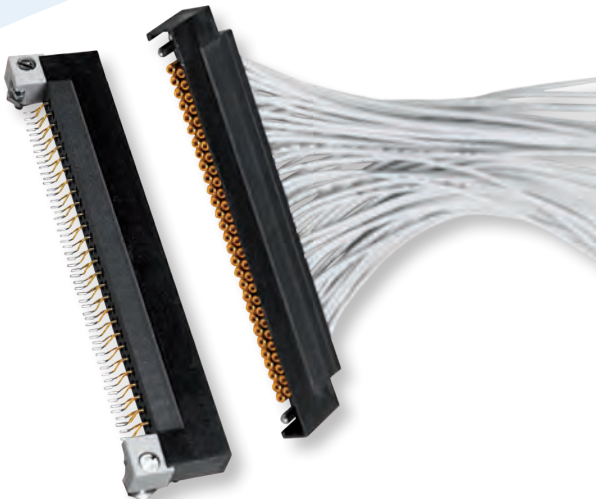


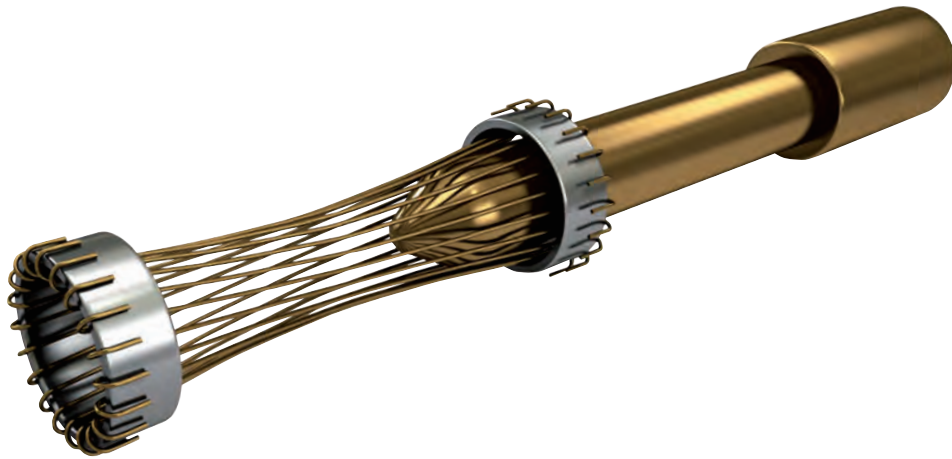
C150 & C153 CONNECTOR SERIES

High Density PCB Connectors



HYPERBOLOID TECHNOLOGY

Smiths Connectors offers an extensive range of superior contact technologies suitable for standard and custom solutions. Hypertac® (HYPERboloid conTACT) is the original superior performing hyperboloid contact technology designed for use in all applications and in harsh and demanding environments where high reliability and safety are critical. The inherent electrical and mechanical characteristics of the Hypertac hyperboloid contact ensures unrivalled performance in terms of reliability, number of mating cycles, low contact force and minimal contact resistance. The shape of the contact sleeve is formed by hyperbolically arranged contact wires, which align themselves elastically as contact lines around the pin, providing a number of linear contact paths.



FEATURE

LOW INSERTION/EXTRACTION FORCES

The angle of the socket wires allows tight control of the pin insertion and extraction forces. The spring wires are smoothly deflected to make line contact with the pin.

LONG CONTACT LIFE

The smooth and light wiping action minimizes wear on the contact surfaces. Contacts perform up to 100,000 insertion/extraction cycles with little degradation in performance.

LOWER CONTACT RESISTANCE

The design provides a far greater contact area and the wiping action of the wires insures a clean and polished contact surface. Our contact technology has half the resistance of conventional contact designs.

HIGHER CURRENT RATINGS

The design parameters of the contact (e.g., the number, diameter and angle of the wires) may be modified for any requirement. The number of wires can be increased so the contact area is distributed over a larger surface. Thus, the high current carried by each wire because of its intimate line contact, can be multiplied many times.

IMMUNITY TO SHOCK & VIBRATION

The low mass and resultant low inertia of the wires enable them to follow the most abrupt or extreme excursions of the pin without loss of contact. The contact area extends 360 degrees around the pin and is uniform over its entire length. The 3 dimensional symmetry of the Hypertac contact design guarantees electrical continuity in all circumstances.

BENEFIT

HIGH DENSITY INTERCONNECT SYSTEMS

Significant reductions in size and weight of sub-system designs. No additional hardware is required to overcome mating and un-mating forces.

LOW COST OF OWNERSHIP

The Hypertac contact technology will surpass most product requirements, thus eliminating the burden and cost of having to replace the connector or the entire subsystem.

LOW POWER CONSUMPTION

The lower contact resistance of our technology results in a lower voltage drop across the connector reducing the power consumption and heat generation within the system.

MAXIMUM CONTACT PERFORMANCE

The lower contact resistance of the Hypertac contact reduces heat build-up; therefore Hypertac contacts are able to handle far greater current in smaller contact assemblies without the detrimental effects of high temperature.

RELIABILITY UNDER HARSH ENVIRONMENTS

Harsh environmental conditions require connectors that will sustain their electrical integrity even under the most demanding conditions such as shock and vibration. The Hypertac contact provides unmatched stability in demanding environments when failure is not an option.

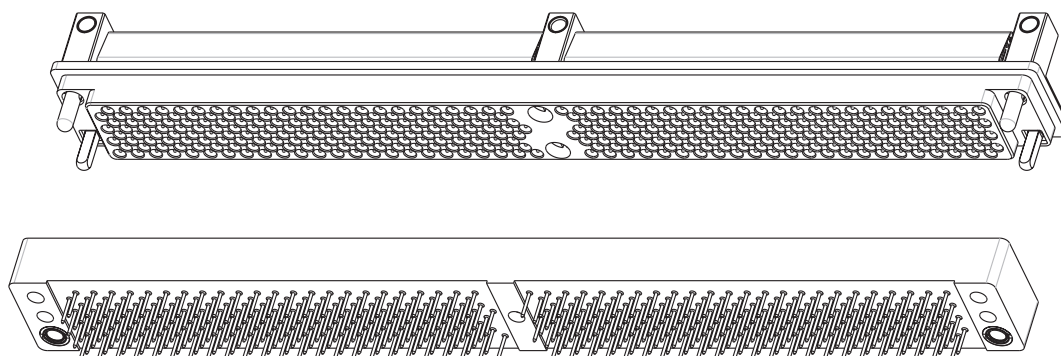
TABLE OF CONTENTS

SERIES C150	2
▶ Technical characteristics	2
▶ How to order	3
▶ Configuration available connectors:	
372 Ways Pin Connector, Flex-circuit.....	4
372 Ways Socket Connector, Flex-circuit	6
372 Ways Pin Connector, Dip Solder	8
372 Ways Socket Connector, Dip Solder.....	9
304 Ways Pin Connector, Flex-circuit.....	10
304 Ways Socket Connector, Flex-circuit	12
304 Ways Socket Connector, Dip Solder.....	14
▶ Hardware Code.....	15
▶ Polarization configuration chart.....	17
▶ Maximum Dimensions	18
▶ Halves Mating	20
SERIES C153	21
▶ Technical characteristics	21
▶ How to order.....	22
▶ Configuration available connectors:	
57 Ways Socket Connector, Crimp.....	23
57 Ways Socket Connector, Smt.....	24
57 Ways Socket Connector, Dip Solder	25
57 Ways Pin Connector, SMT.....	26
▶ Hardware Code.....	27
▶ Polarization configuration chart.....	28
▶ Maximum Dimensions	29
▶ Halves Mating	30
▶ Tools and Cross Reference.....	31

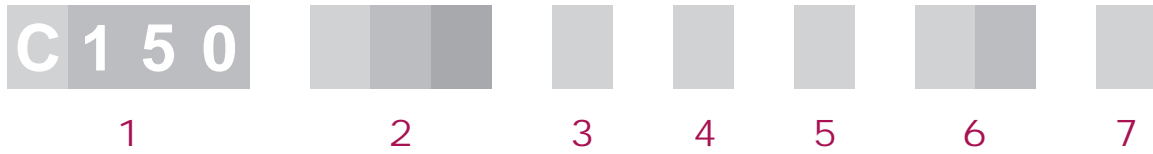
TECHNICAL CHARACTERISTICS

		STANDARDS
Contacts number	372/304	–
Contact dia	0.5 mm	–
Contact arrangement	Offset-grid	–
Pitch	2.54 mm x 1.27 mm	–
Rows	8	
MATERIAL		
Body	PPS	MIL-M-24519
Contacts	Brass CuBe Phosphor-Bronze	ASTM B16 ASTM B197 ASTM B139
Hardware	Stainless steel CuBe	ASTM A582 ASTM B196
FINISHES		
Contacts	Gold	ASTM B488
Hardware	Passivation Nichel plated	ASTM A967 QQ-N-290
MECHANICAL		
Mating/Unmating force	50 g max	–
Contact life	100.000 insertion	–
ELECTRICAL		
Current rating ⁽¹⁾	3.0 A	–
Contact resistance	≤ 5.0 mΩ	–
Dielectric withstanding voltage	1000 VRMS, 60 Hz a.s.l.	–
Insulation resistance	≥ 5000 MΩ at 500 VDC	–
PHYSICAL AND ENVIROMENTAL		
Shock	–	In accordance with MIL-STD-1344
Vibration	–	In accordance with MIL-STD-1344
Operating range	-65°C +125°C	–

⁽¹⁾ Consult factory for details



HOW TO ORDER



1 ▸ CONNECTOR FAMILY

2 ▸ CONNECTOR SIZE

372 372 VIE

304 304 VIE

3 ▸ CONNECTOR AND CONTACTS STYLE

P PIN CONNECTOR

S SOCKET CONNECTOR

4 ▸ CONTACT TERMINAL STYLE ⁽¹⁾

N FLEX-CIRCUIT (PCB thickness 1.30-2.30)

R FLEX-CIRCUIT (PCB thickness 2.00-3.00)

T FLEX-CIRCUIT (PCB thickness 2.80-4.00)

V FLEX-CIRCUIT (PCB thickness 4.00-5.00)

Z FLEX CUIT (PCB thickness 4.60-5.80)

D DIP SOLDER, STRAIGHT THRU L = 2.77 mm (.109 inch)

E DIP SOLDER, STRAIGHT THRU L = 3.56 mm (.140 inch)

G DIP SOLDER, STRAIGHT THRU L = 4.37 mm (.172 inch)

L DIP SOLDER, STRAIGHT THRU L = 5.00 mm (.197 inch)

M DIP SOLDER, STRAIGHT THRU L = 5.94 mm (.234 inch)

5 ▸ HARDWARE CODE ⁽²⁾

Y D-SHAPED GUIDE

P OMNIPOLARIZED GUIDE (for test type connector)

K SCREW LOCK

6 ▸ HARDWARE POLARIZATION

00 ONLY FOR CONNECTOR WITH FLEX CIRCUIT (pos. 01 without loctite)

17 OMNIPOLARIZED GUIDE

01 ÷ 16 D-SHAPED GUIDE

18 GUIDE (TYPE P, Y) SHIPPED LOOSE

7 ▸ CONTACT FINISHING

HS PLATING CONFORMING TO MIL-C-55302 + TIN DIPPING ⁽³⁾

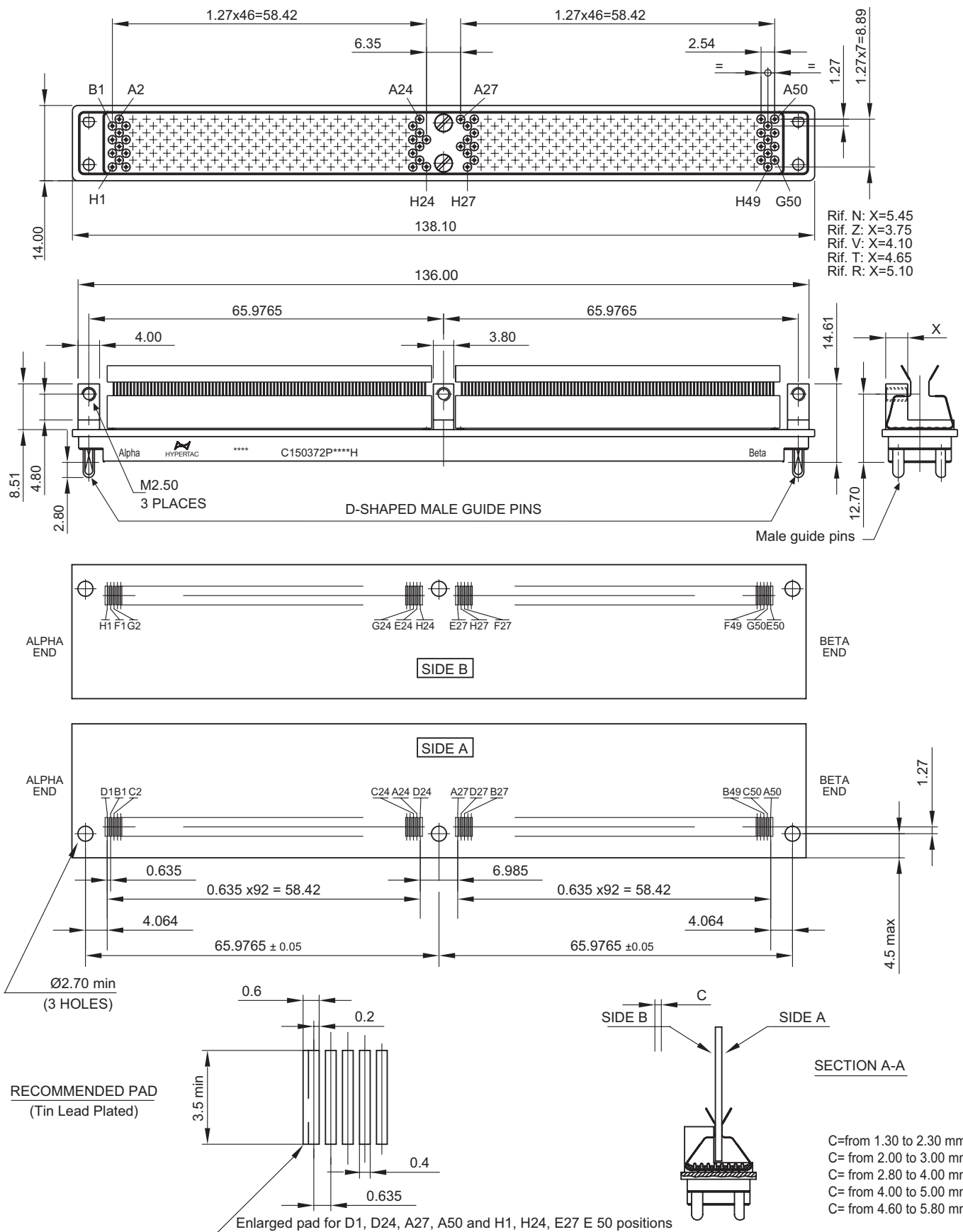
H PLATING CONFORMING TO MIL-C-55302

⁽¹⁾ Pin connector 304 contact position, straight contact terminal style equipped, is not available.

⁽²⁾ Hardware code type K for socket connector with flex circuit is not available.

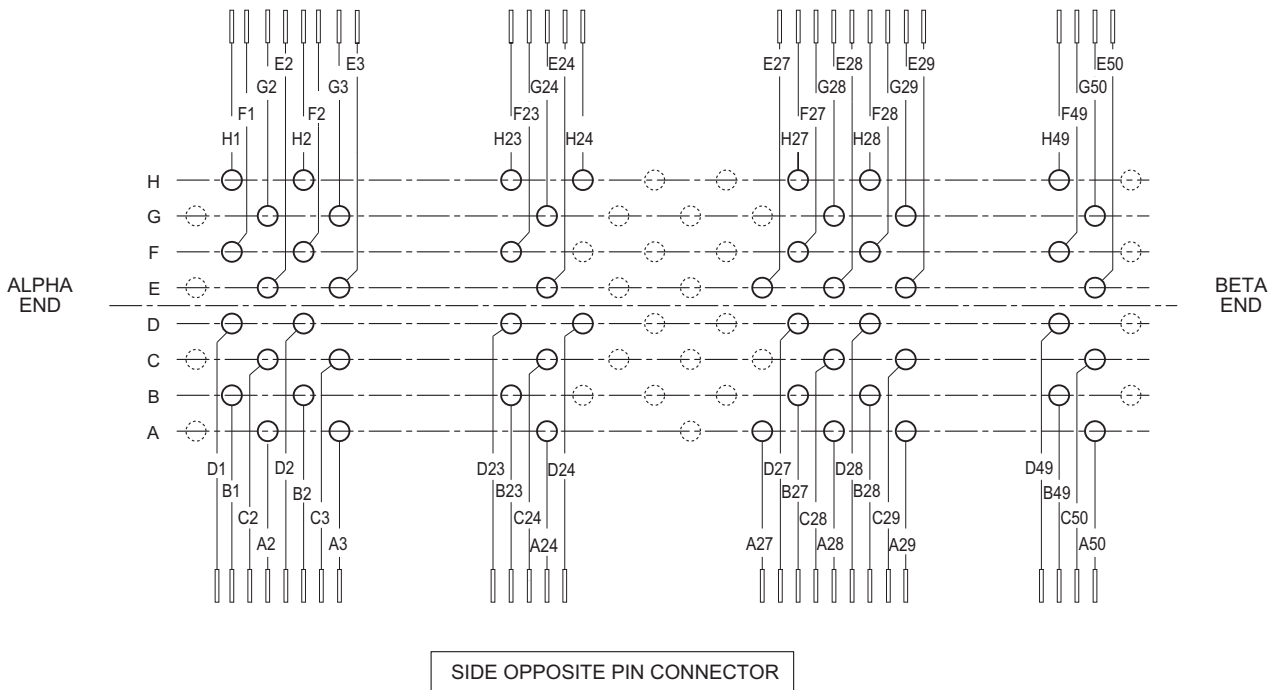
⁽³⁾ This finishing is only for contacts dip solder, straight thru

► PIN CONNECTOR, 372 CONTACT POSITIONS
SURFACE MOUNT TAIL CONTACT TERMINATION



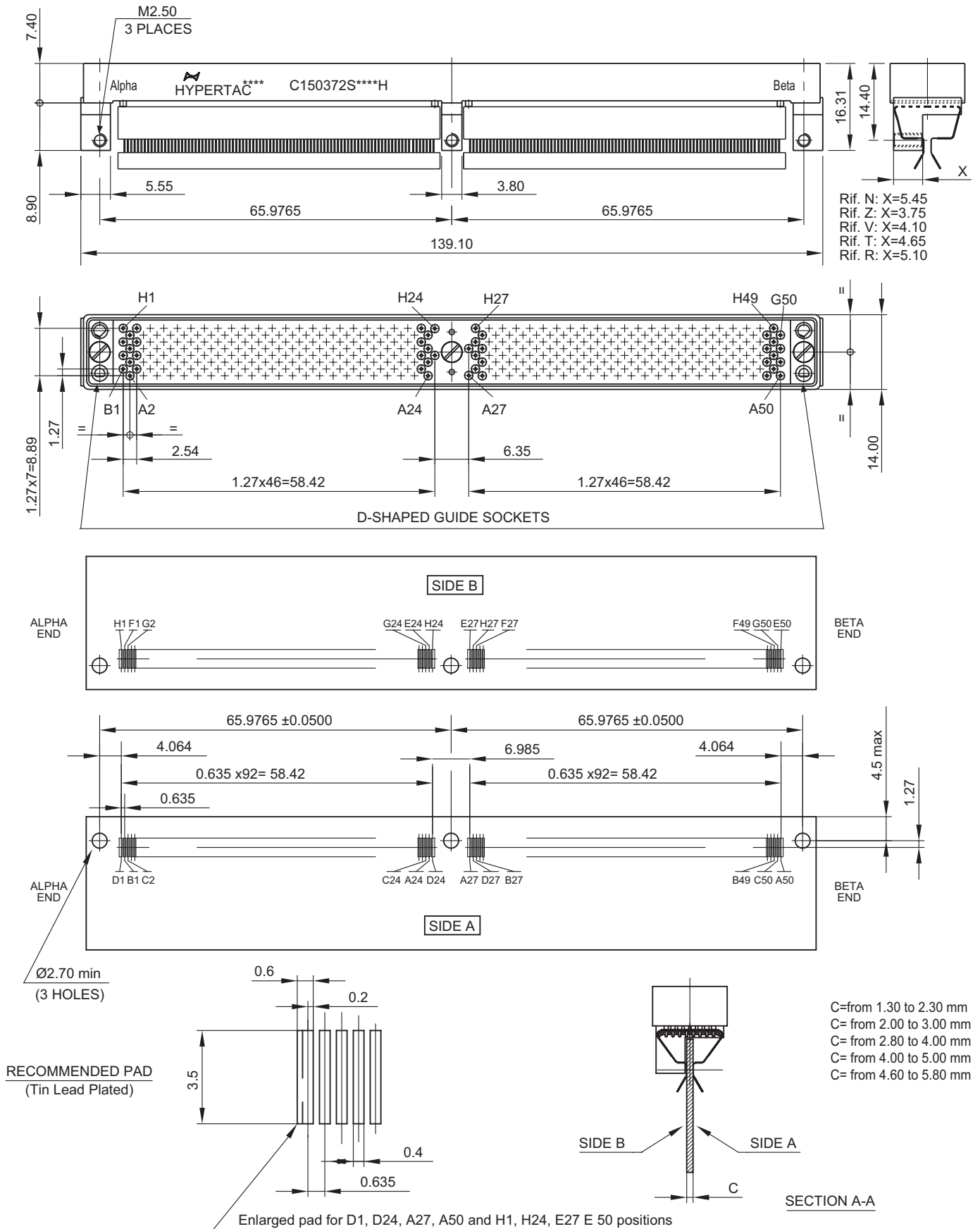
Mounting pattern daughterboard application, or in line arrangement board-to-board connection.

► PIN CONNECTOR, 372 CONTACT POSITIONS
SURFACE MOUNT TAIL CONTACT TERMINATION



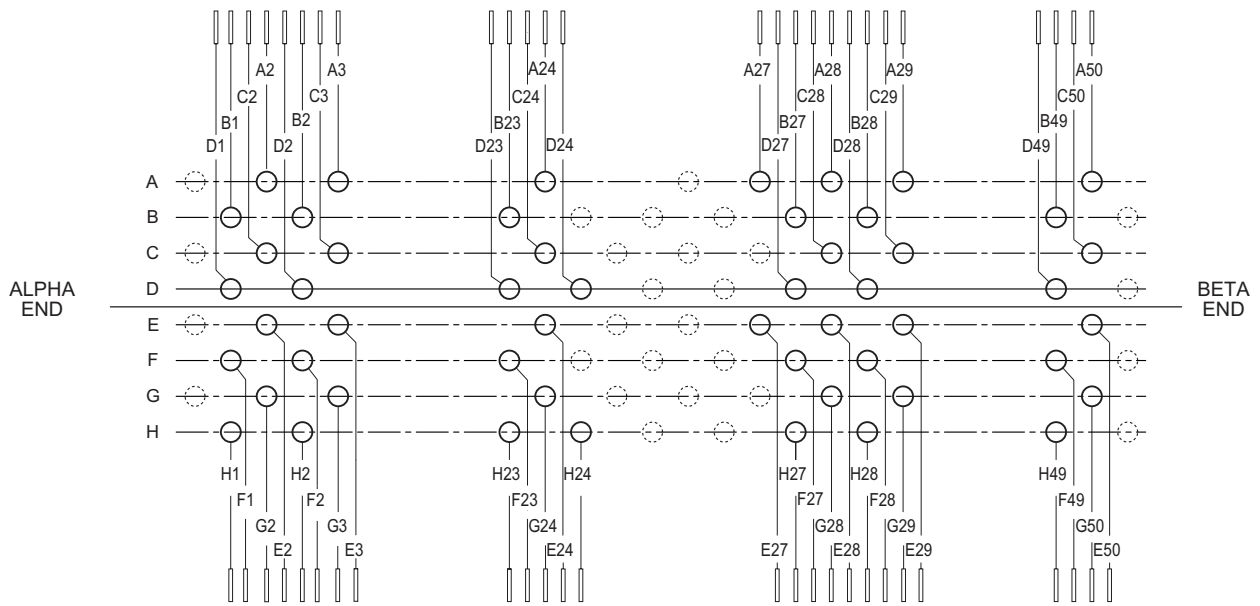
Flex-circuits contact assignment diagram

▶ **SOCKET CONNECTOR, 372 CONTACT POSITIONS**
SURFACE MOUNT TAIL CONTACT TERMINATION



Mounting pattern in line arrangement board-to-board connection, or daughterboard application when connector use reverse gender contacts.

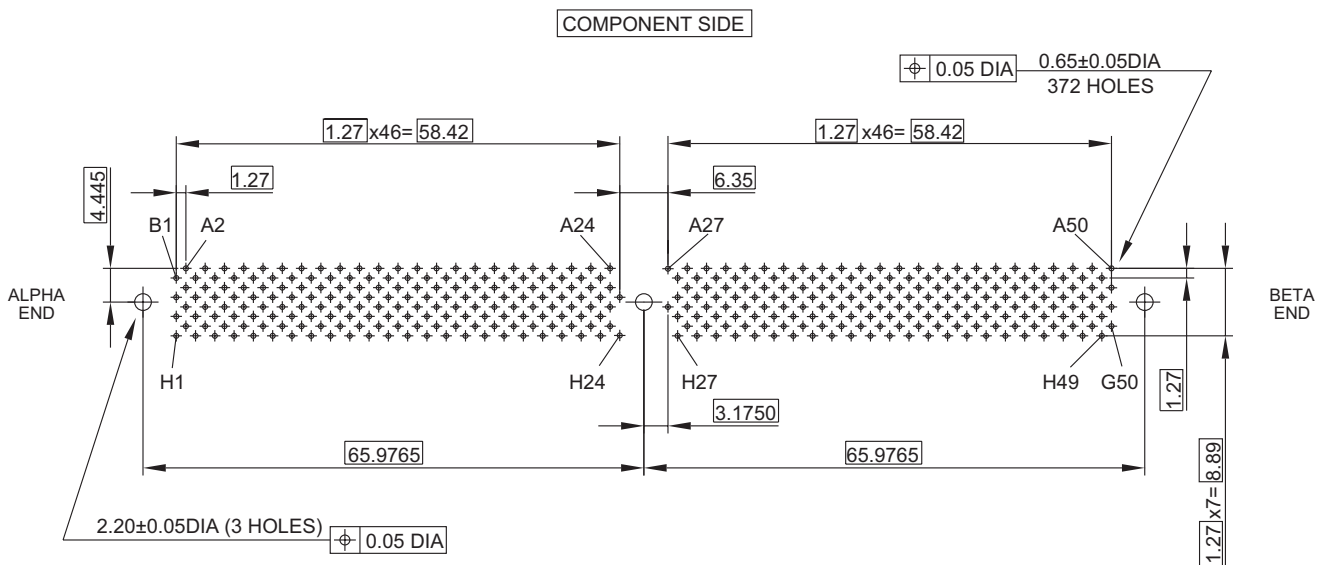
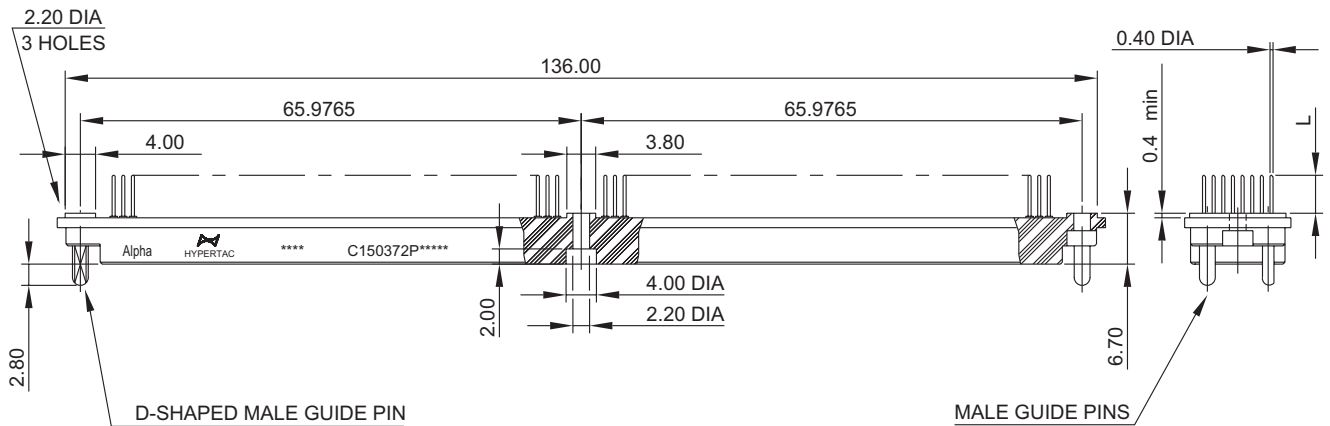
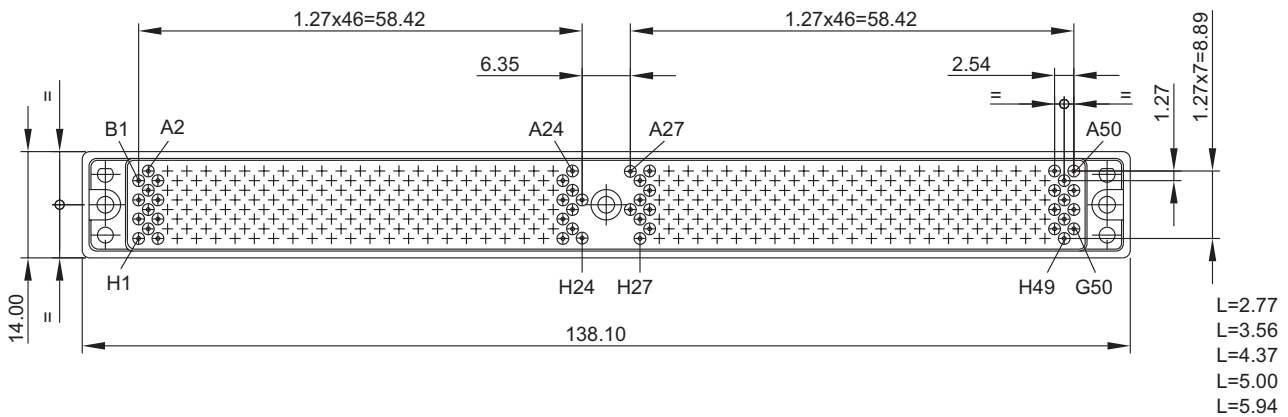
▶ **SOCKET CONNECTOR, 372 CONTACT POSITIONS
SURFACE MOUNT TAIL CONTACT TERMINATION**



SIDE OPPOSITE SOCKET CONNECTOR

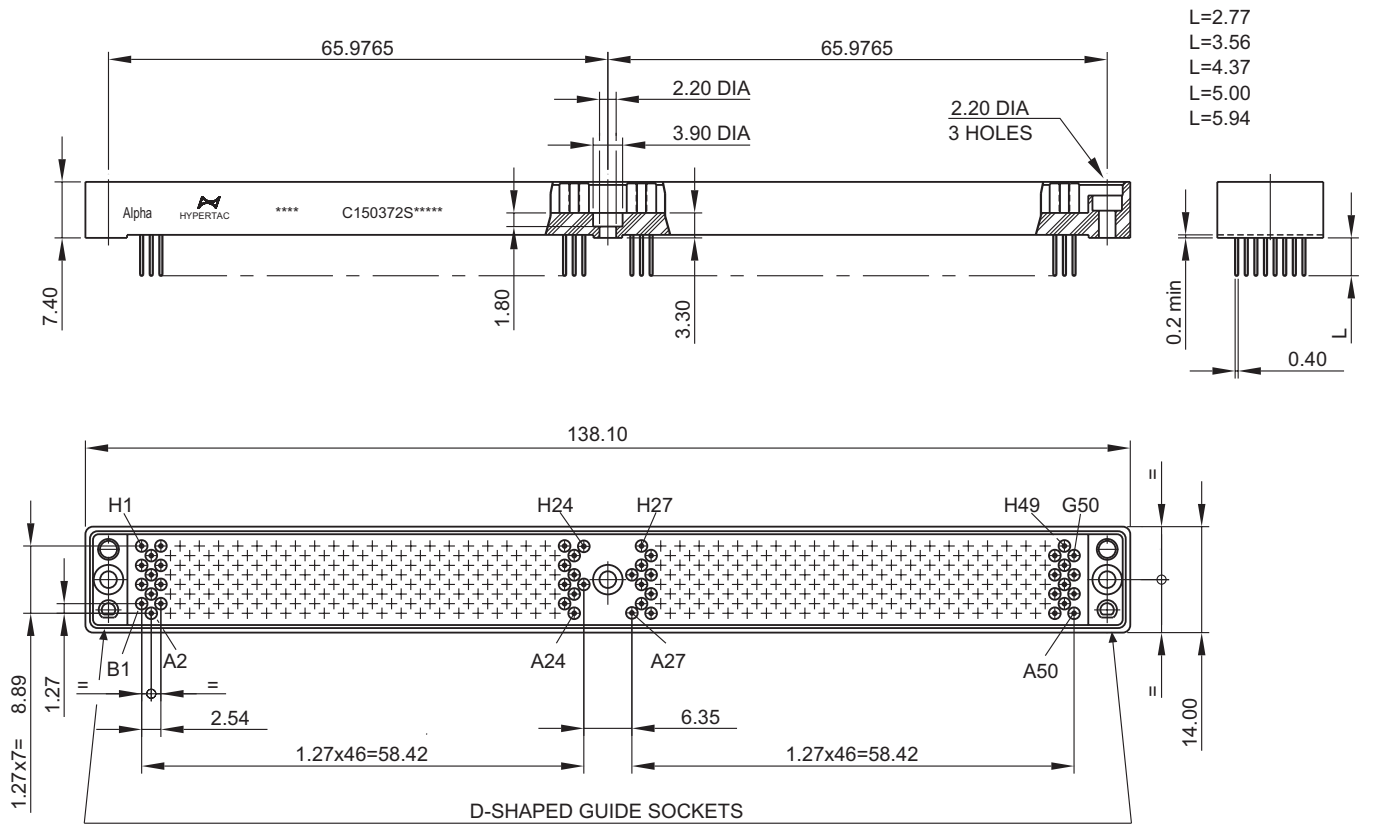
Flex-circuits contact assignment diagram

► PIN CONNECTOR, 372 CONTACT POSITIONS
DIP SOLDER CONTACT TERMINATION



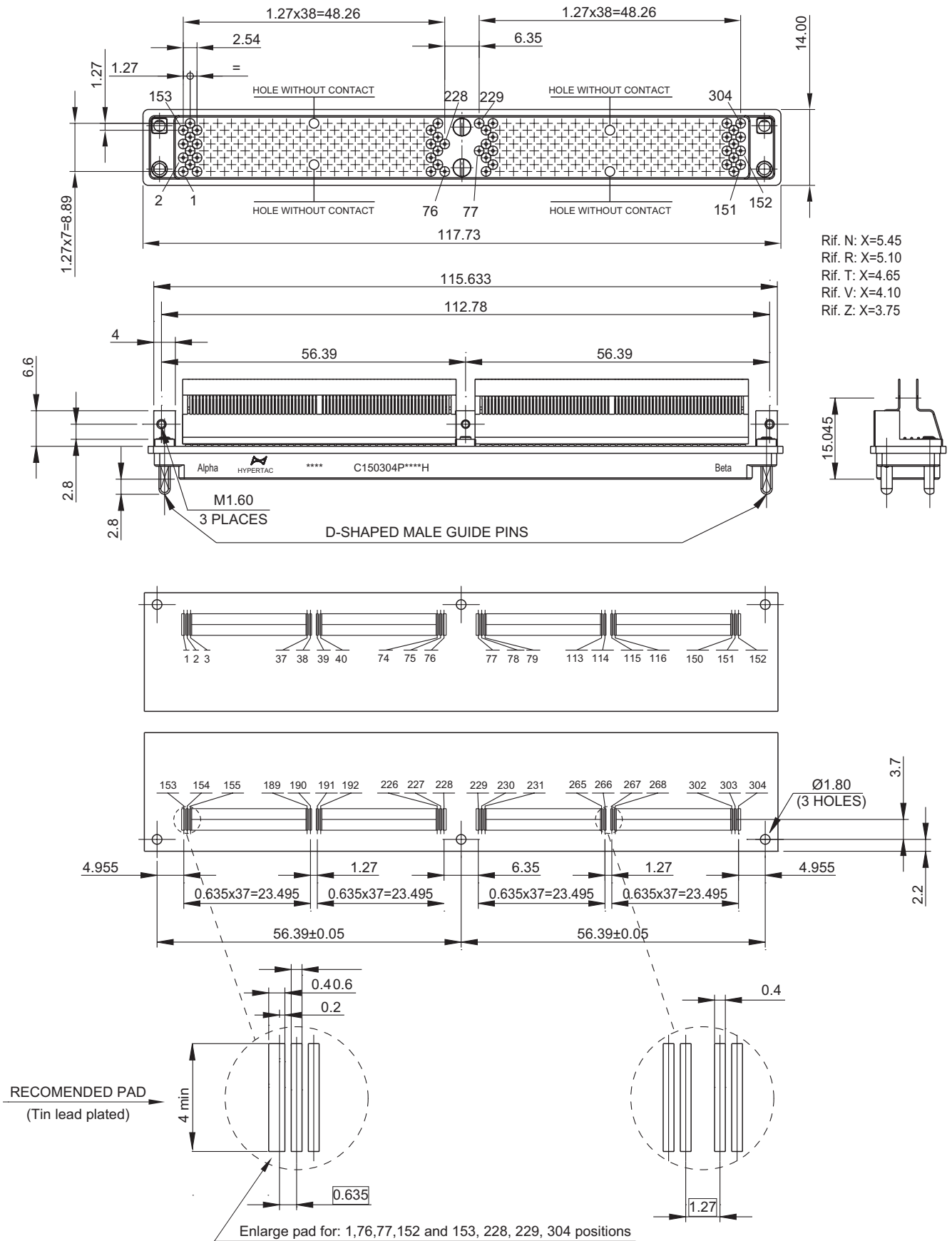
Mounting pattern, in parallel arrangement board-to-board connection, or motherboard application when connectors use reverse gender contacts, (recommended pcb hole configuration).

► PIN CONNECTOR, 372 CONTACT POSITIONS DIP SOLDER CONTACT TERMINATION



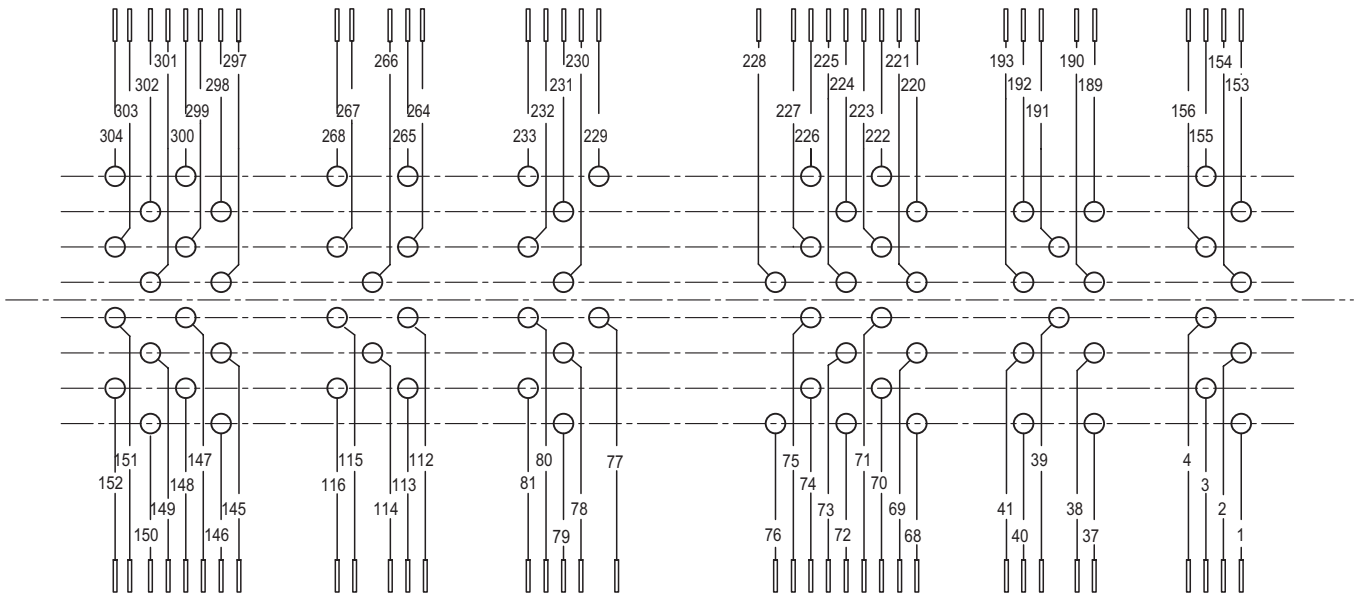
Mounting pattern, motherboard application, or in parallel arrangement board-to-board connection, (recommended pcb hole configuration)

► PIN CONNECTOR, 304 CONTACT POSITIONS
SURFACE MOUNT TAIL CONTACT TERMINATION



Mounting pattern, daughter board application, or in line arrangement board-to-board connection

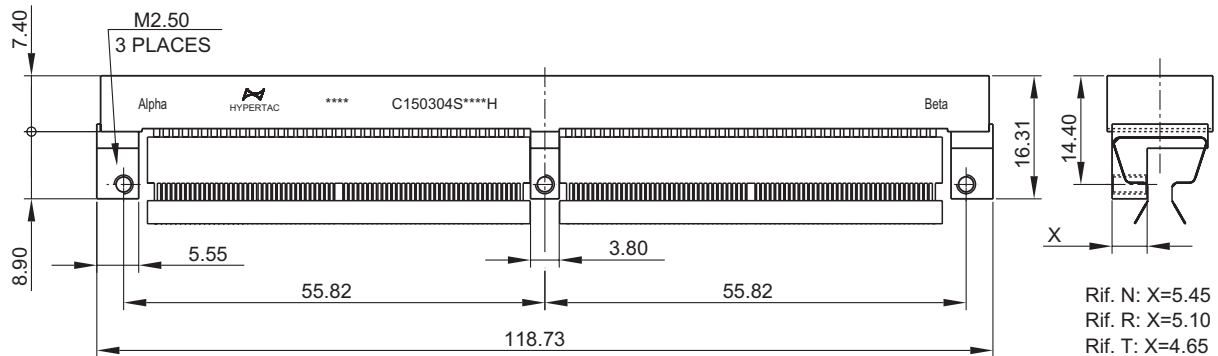
► PIN CONNECTOR, 304 CONTACT POSITIONS
SURFACE MOUNT TAIL CONTACT TERMINATION



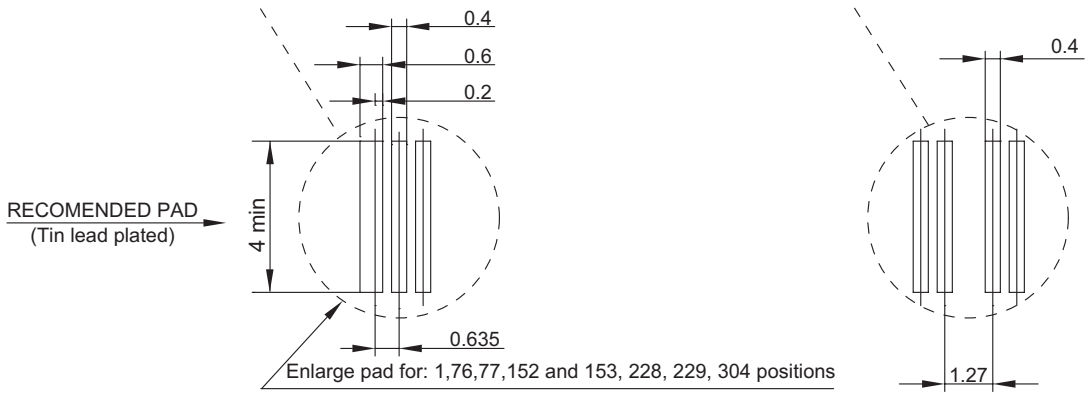
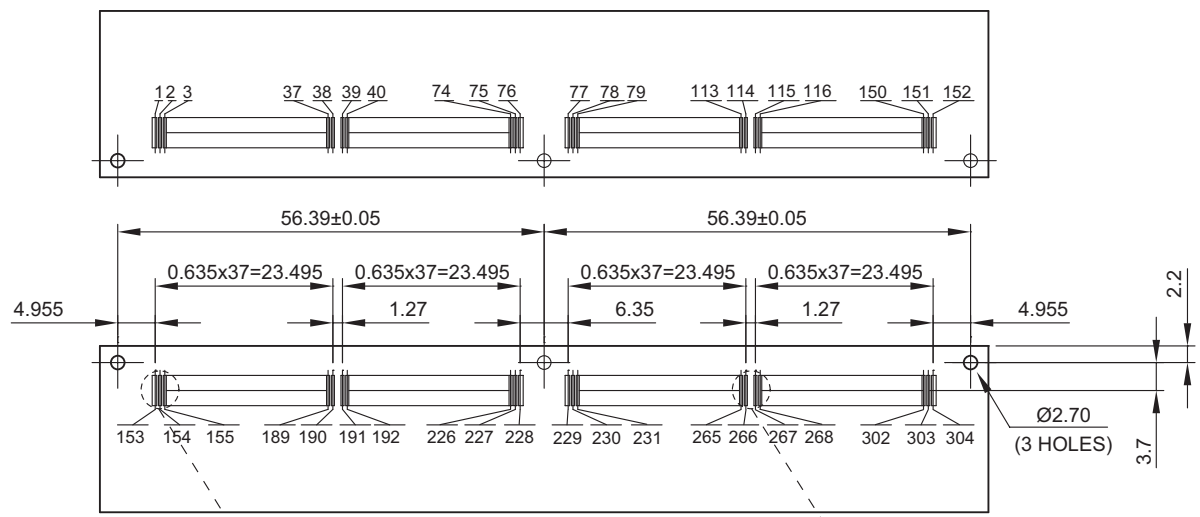
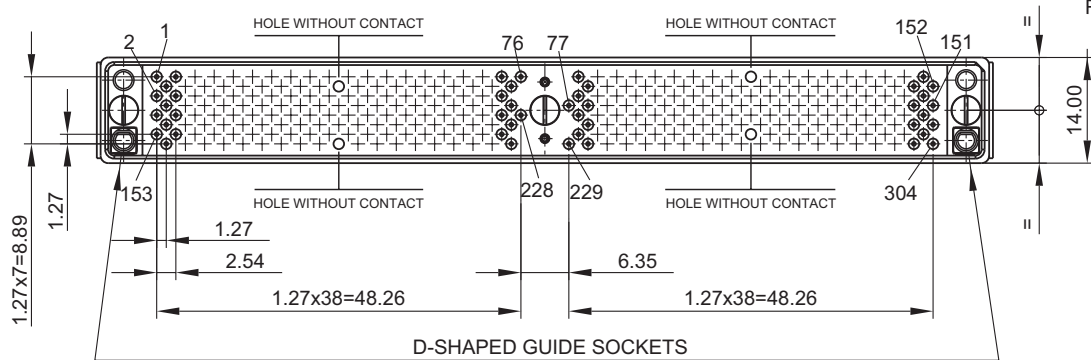
SIDE OPPOSITE PIN CONNECTOR

Flex-circuits contact assignment diagram

► **SOCKET CONNECTOR, 304 CONTACT POSITIOS**
SURFACE MOUNT TAIL CONTACT TERMINATION

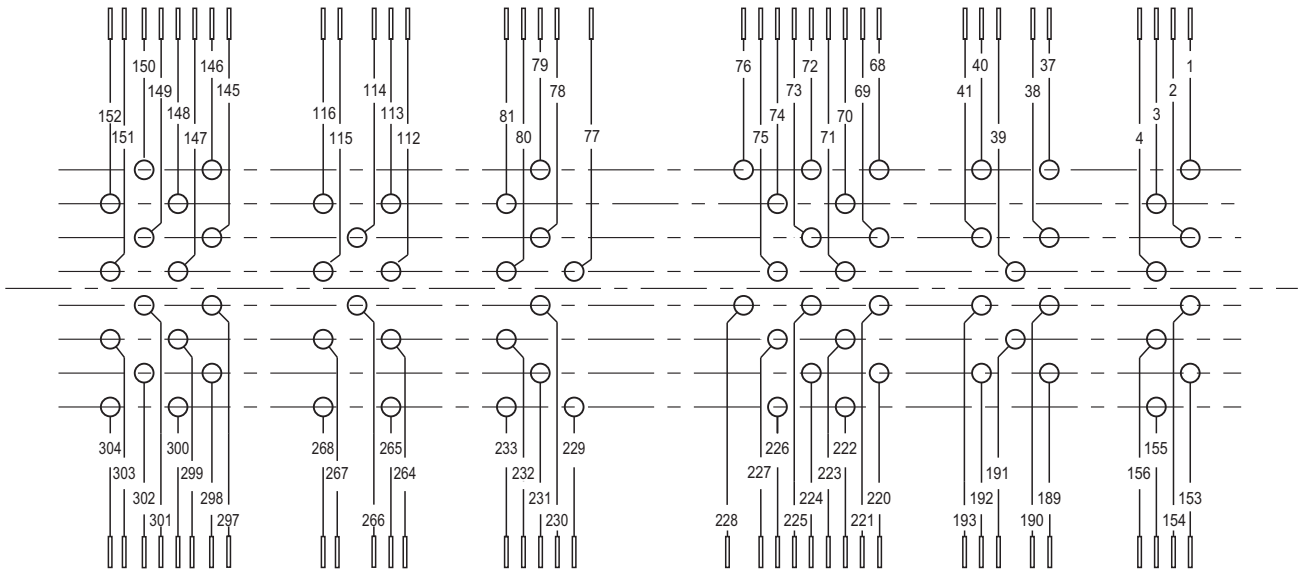


Rif. N: X=5.45
Rif. R: X=5.10
Rif. T: X=4.65
Rif. V: X=4.10
Rif. Z: X=3.75



Mounting pattern in line arrangement board-to-board connection, or daughterboard application when connector use reverse gender contacts.

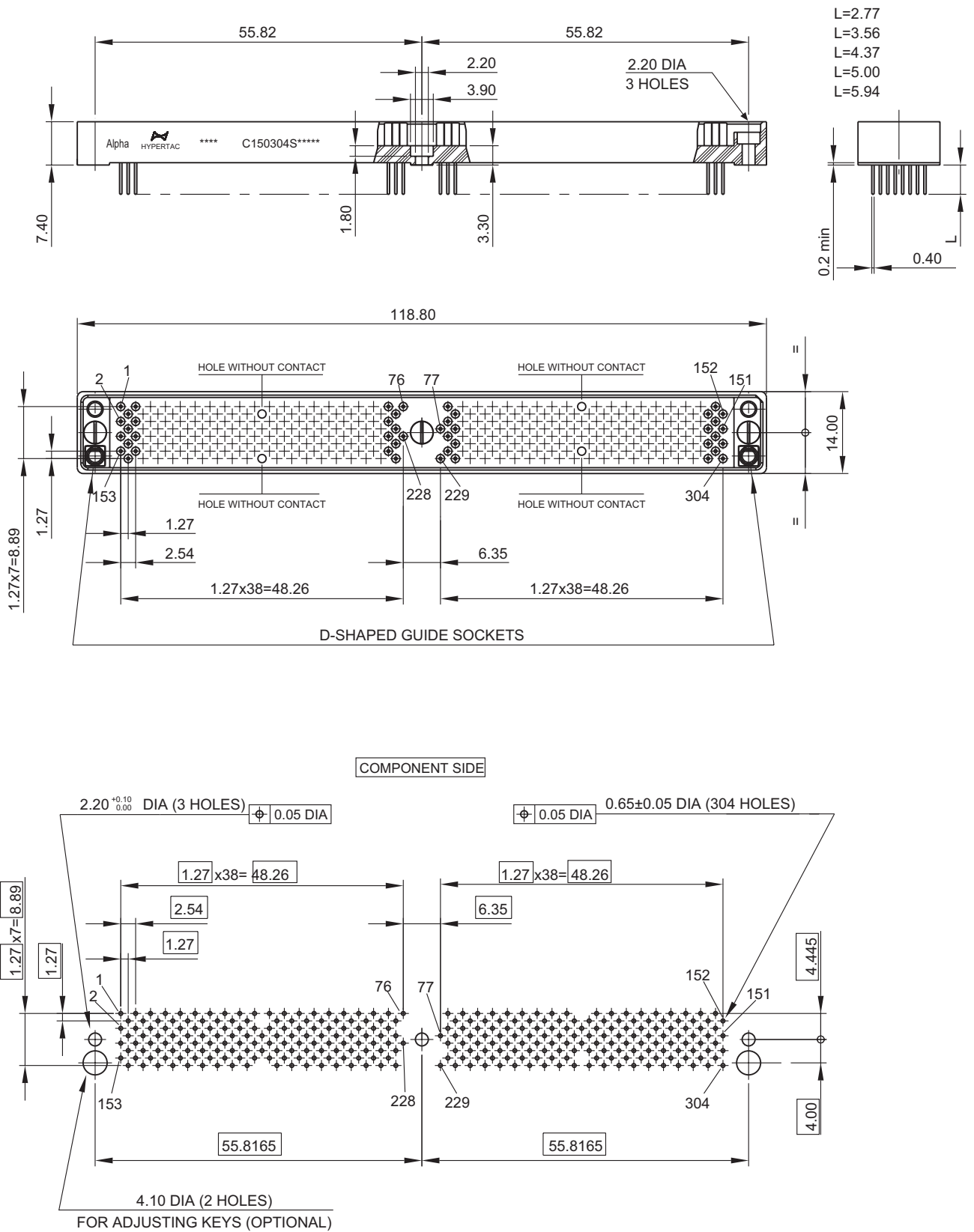
▶ **SOCKET CONNECTOR, 304 CONTACT POSITIONS
SURFACE MOUNT TAIL CONTACT TERMINATION**



SIDE OPPOSITE SOCKET CONNECTOR

Flex-circuits contact assignment diagram

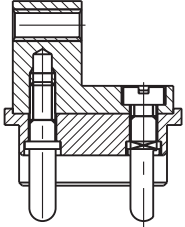
► **SOCKET CONNECTOR, 304 CONTACT POSITIONS**
DIP SOLDER CONTACT TERMINATION



Mounting pattern, motherboard application, or in parallel arrangement board-to-board connection, (recommended pcb hole configuration)

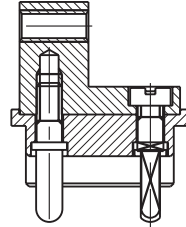
▶ **HARDWARE CODE**

LATERAL POSITION



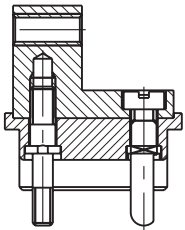
TYPE Y

- ▶ SPANNER WRENCH: ref. ord. 14613- 2
- ▶ MALE GUIDE PIN: with loctite 242 (bleu)
- ▶ POLARIZED MALE GUIDE PIN: pos. 00: without loctite pos. 01+16: with loctite 242 (bleu)



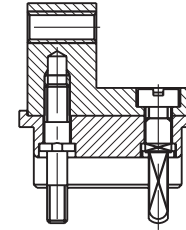
TYPE P

- ▶ SPANNER WRENCH: ref. ord. 14613- 2
- ▶ MALE GUIDE PIN: with loctite 242 (bleu)
- ▶ OMNIPOLARIZED MALE GUIDE PIN: pos. 17: with loctite 242 (bleu)



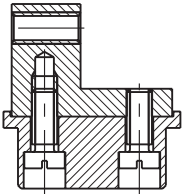
TYPE K

- ▶ SPANNER WRENCH: ref. ord. 14613- 2
- ▶ SCREW LOCK
- ▶ POLARIZED MALE GUIDE PIN: pos. 00: without loctite pos. 01+16: with loctite 242 (bleu)



- ▶ SPANNER WRENCH: ref. ord. 14613- 2
- ▶ SCREW LOCK
- ▶ OMNIPOLARIZED MALE GUIDE PIN: pos. 17: with loctite 242 (bleu)

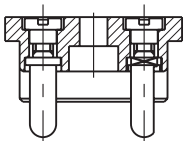
CENTRAL POSITION



- ▶ SCREW M2X5: with loctite 242 (bleu)

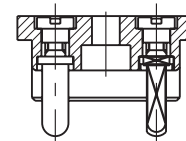
Hardware code for pin connector, surface mount tail contact terminal style

LATERAL POSITION



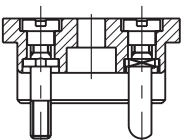
TYPE Y

- ▶ SPANNER WRENCH: ref. ord. 14613- 2
- ▶ MALE GUIDE PIN: with loctite 242 (bleu)
- ▶ POLARIZED MALE GUIDE PIN: pos. 01+16: without loctite



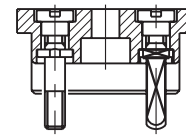
TYPE P

- ▶ SPANNER WRENCH: ref. ord. 14613- 2
- ▶ MALE GUIDE PIN: with loctite 242 (bleu)
- ▶ OMNIPOLARIZED MALE GUIDE PIN: pos. 17: with loctite 242 (bleu)



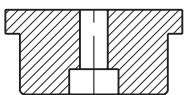
TYPE K

- ▶ SPANNER WRENCH: ref. ord. 14613- 2
- ▶ SCREW LOCK
- ▶ POLARIZED MALE GUIDE PIN: without loctite pos. 01+16: without loctite



- ▶ SPANNER WRENCH: ref. ord. 14613- 2
- ▶ SCREW LOCK
- ▶ OMNIPOLARIZED MALE GUIDE PIN: pos. 17: with loctite 242 (bleu)

CENTRAL POSITION

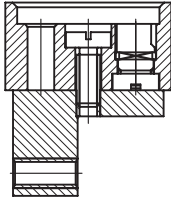


- ▶ Whitout guide

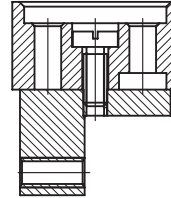
Hardware code for pin connector, dip solder contact terminal style

▶ **HARDWARE CODE**

LATERAL POSITION

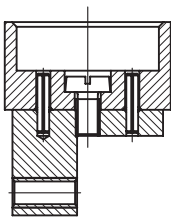


- TYPE Y**
- ▶ SPANNER WRENCH: rif. ord. 19003
 - ▶ SCREW M2x5:
 - pos. 00: without loctite
 - pos. 01÷16: with loctite 242 (bleu)
 - ▶ POLARIZED FEMALE GUIDE:
 - pos. 00: without loctite
 - pos. 01÷16: with loctite 242 (bleu)



- TYPE P**
- ▶ SCREW M2x5:with loctite 242 (bleu)
 - ▶ WITHOUT GUIDE

CENTRAL POSITION



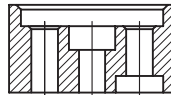
- ▶ SCREW M2x3.7:with loctite 242 (bleu)

Hardware code for socket connector, surface mount tail contact terminal style

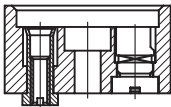
LATERAL POSITION



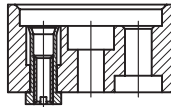
- TYPE Y**
- ▶ SPANNER WRENCH: rif. ord. 19003
 - ▶ POLARIZED FEMALE GUIDE:
 - pos. 01÷16: without loctite



- TYPE P**
- ▶ WITHOUT GUIDE



- TYPE K**
- ▶ SPANNER WRENCH: rif. ord. 19003
 - ▶ SCREW LOCK
 - ▶ POLARIZED FEMALE GUIDE:
 - pos. 01÷16: without loctite



- TYPE K**
- ▶ SCREW LOCK
 - pos. 17: without guide

CENTRAL POSITION



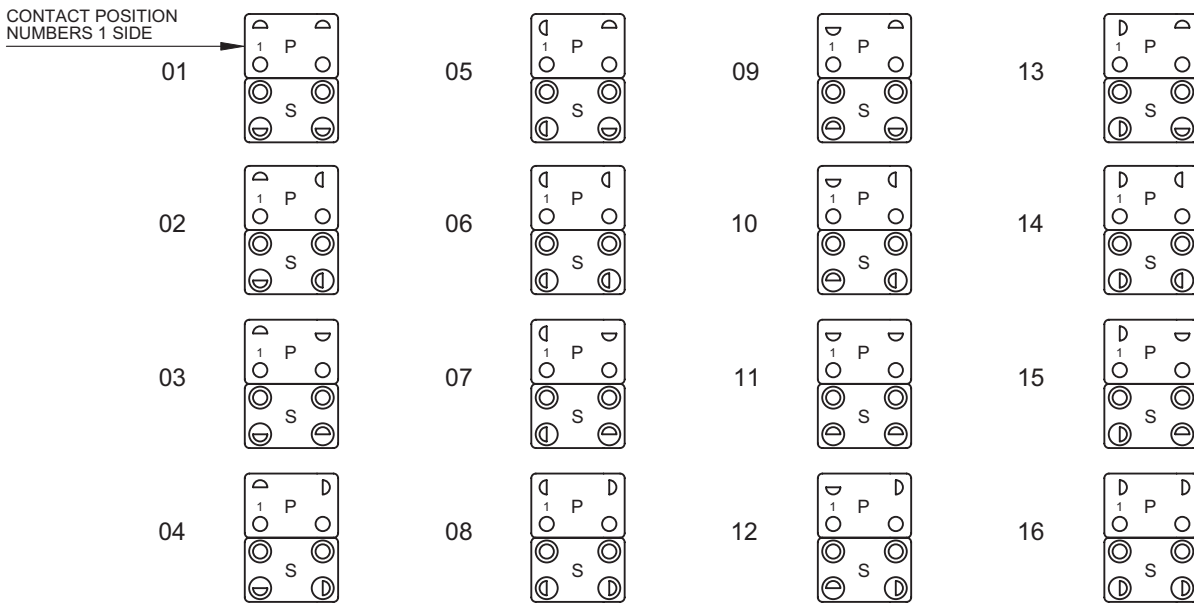
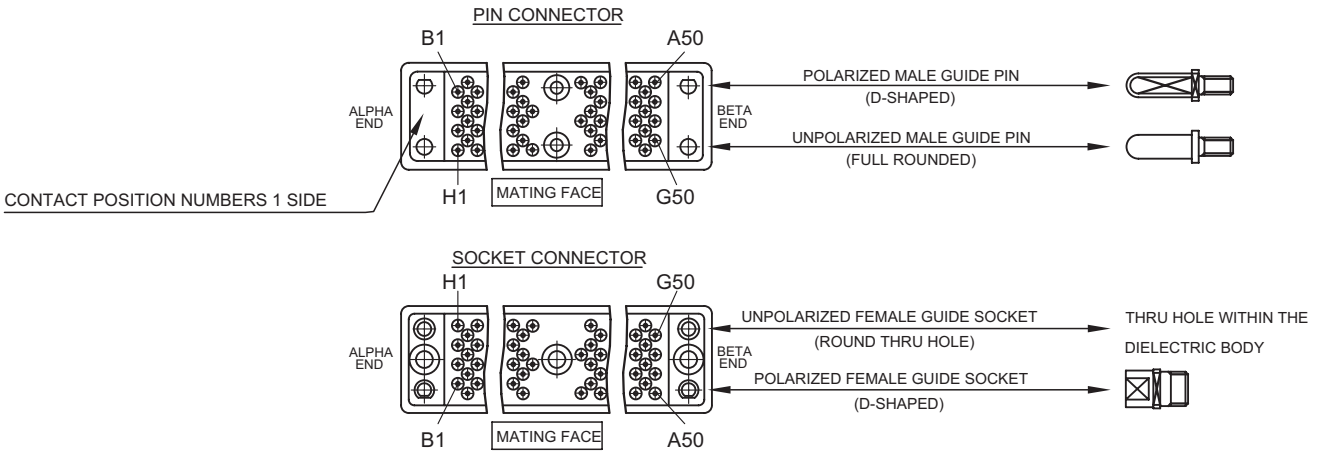
- ▶ WITHOUT GUIDE

Hardware code for socket connector, dip solder contact terminal style

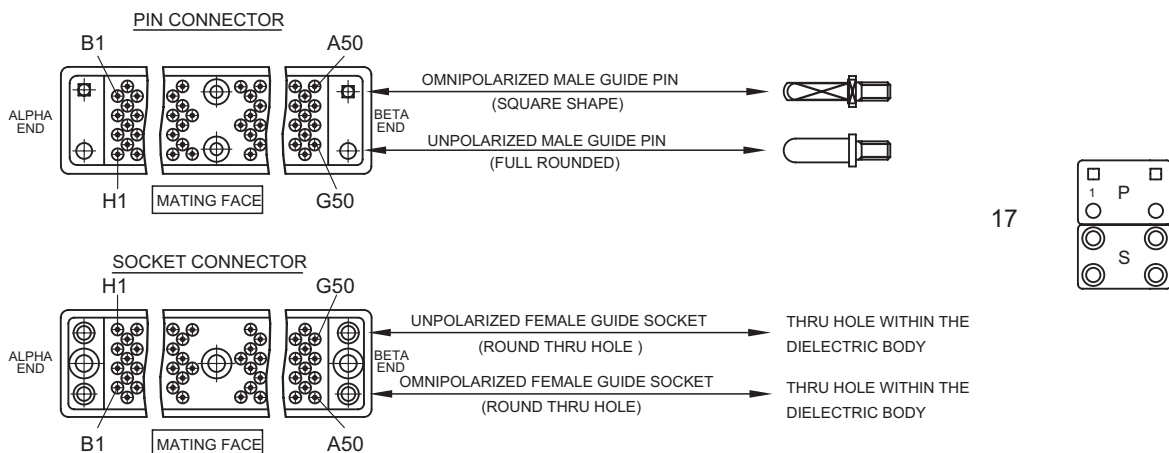
► POLARIZATION CONFIGURATION CHART

D-SHAPED GUIDE SETS

When connector is equipped with D-shaped guide hardware, any of the following polarization numbers are used, polarizing hardware will be oriented per this chart. Use appropriate number as shown, (designation 01 to 16 incl).

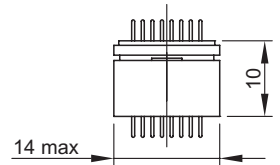
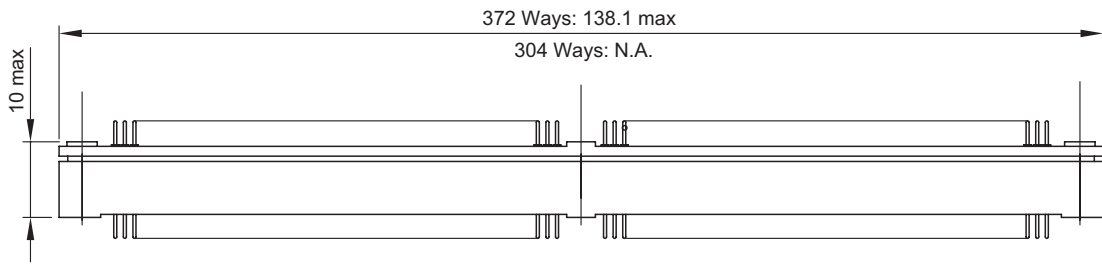


- NOTES**
1. It is recommended that the following polarization positions be chosen first: 01, 06, 11, and 16
 2. For connectors with flex-circuit it is possible polarization "00": position 01 without loctite
 3. Universal coupling guide sets, (designation 17).

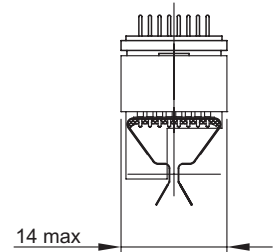
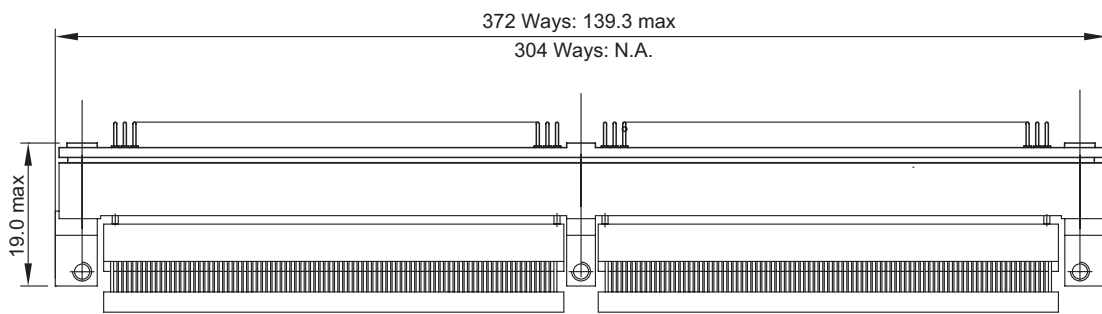


4. The tools to adjust polarization guides are shown on page 31.

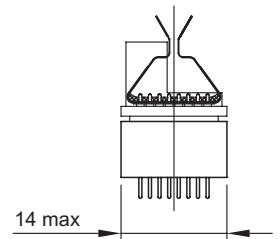
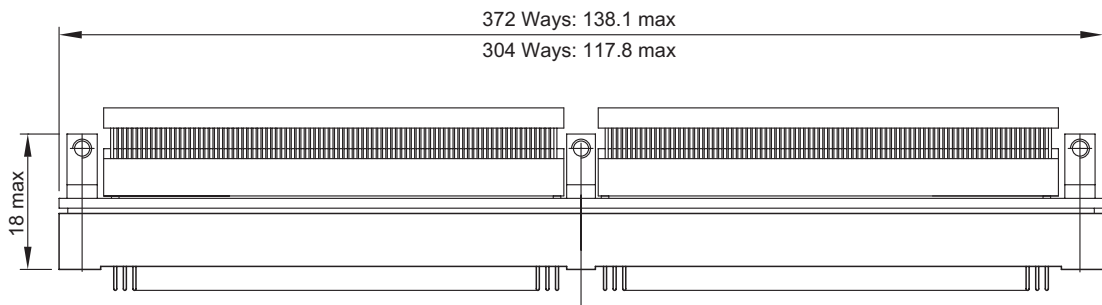
▶ MAXIMUM DIMENSIONS OF MATED CONNECTORS



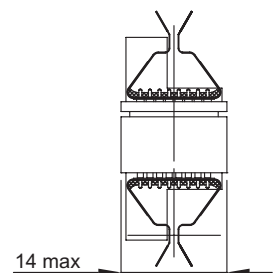
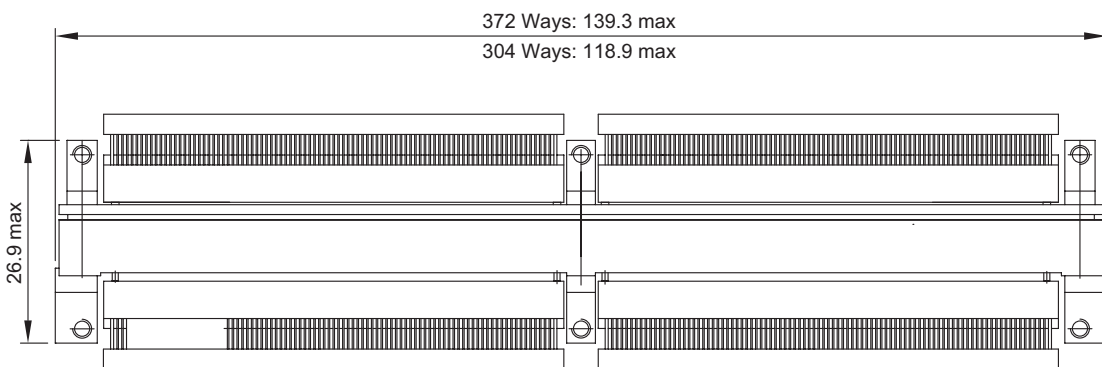
Maximum dimensions of mated connectors: pin and socket connectors dip solder (straight) contact terminal equipped



Maximum dimensions of mated connectors: pin connector dip solder (straight) contact terminal equipped, and socket connector surface mount tail contact terminal equipped

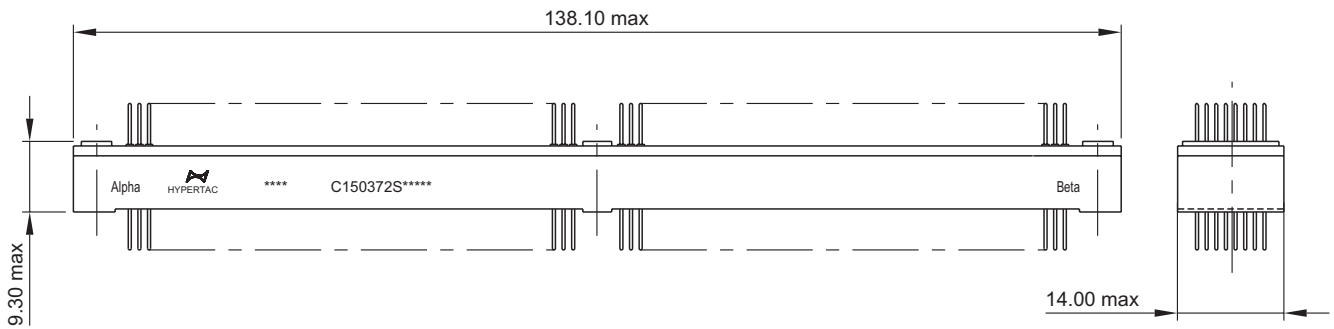


Maximum dimensions of mated connectors: pin and socket connectors surface mount tail contact terminal equipped and socket connector dip solder (straight) contact terminal equipped

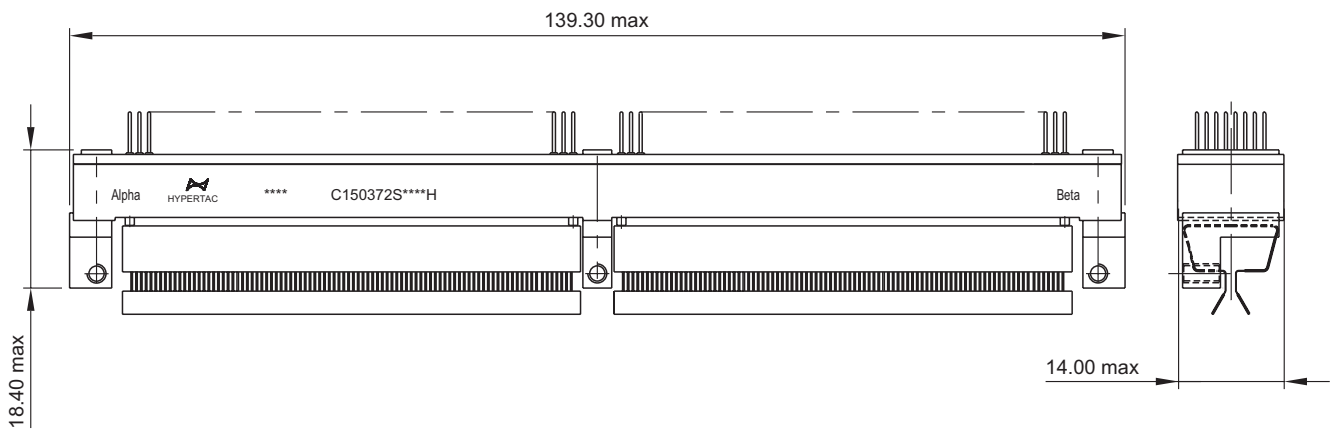


Maximum dimensions of mated connectors: pin and socket connectors surface mount tail contact terminal equipped

▶ MAXIMUM DIMENSIONS OF MATED CONNECTORS

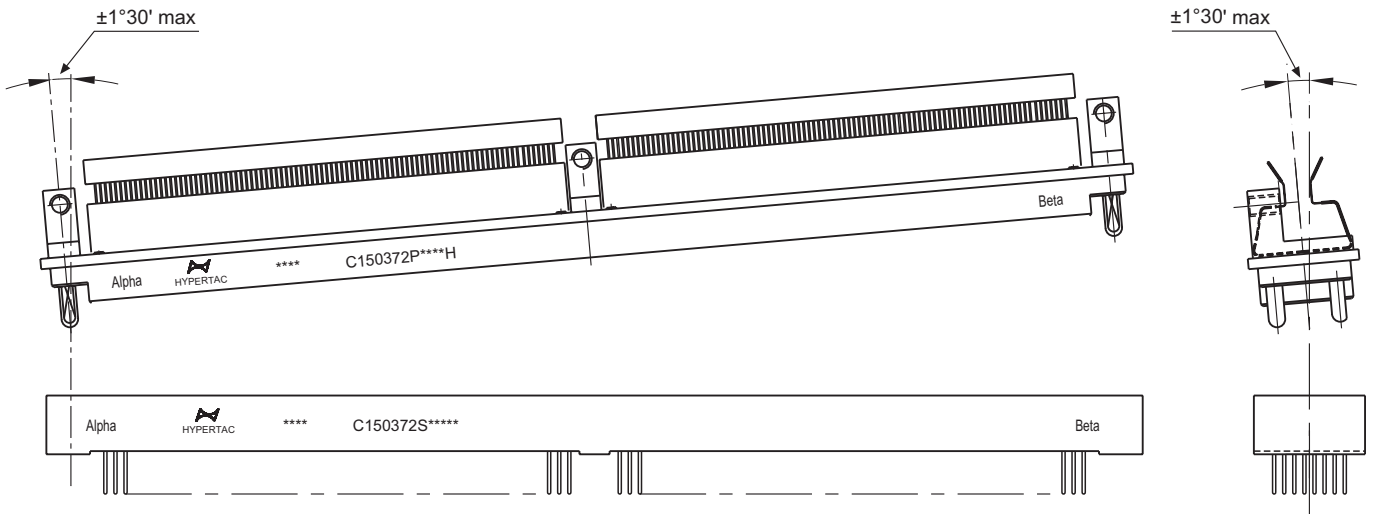


Maximum dimensions of mated connectors: pin and socket connectors dip solder (straight), contact terminals equipped.

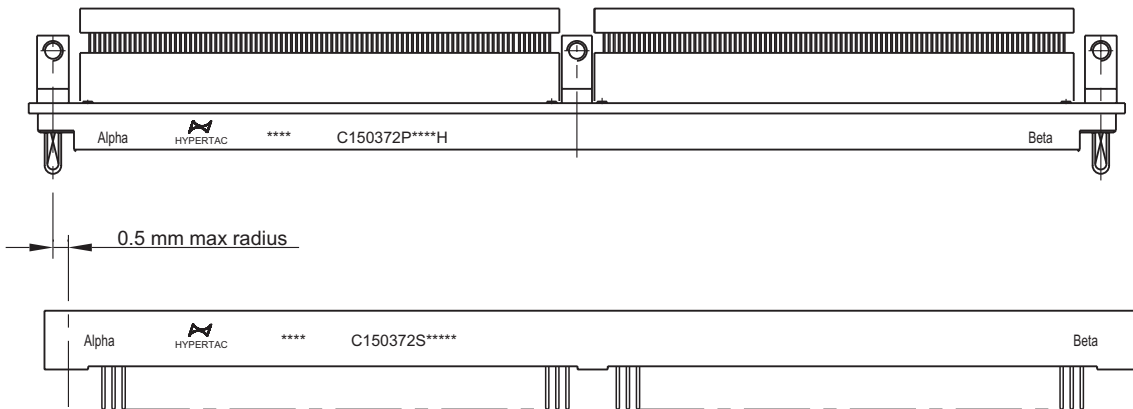


Maximum dimensions of mated connectors: pin connector dip solder (straight), contact terminals equipped, and socket connector surface mount tail contact terminals equipped.

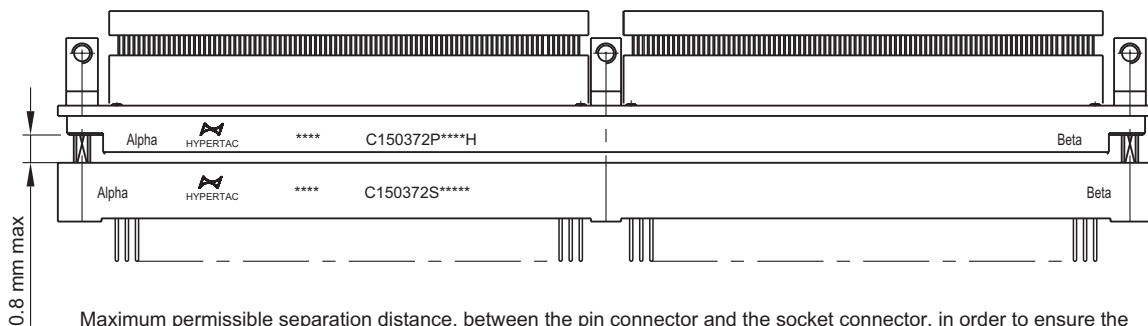
► THE CONNECTOR HALVES MATING



Maximum permissible inclination, in longitudinal and in trasversal axis, between the pin connector and the socket connector, in order to ensure the acceptable electrical engagement made by all contacts.



Maximum permissible displacement, between the pin connector and the socket connector, in order to ensure suitable fully insertion of the connector halves.

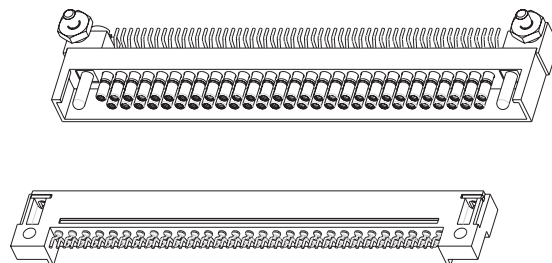


Maximum permissible separation distance, between the pin connector and the socket connector, in order to ensure the acceptable electrical engagement made by all contacts.

TECHNICAL CHARACTERISTICS

		STANDARDS
Number contacts	57	–
Contact dia	0.5 mm	–
Contact arrangement	Offset-grid	–
Pitch	1.905 mm x 1.651 mm	–
Rows	2	
MATERIAL		
Body	PPS	MIL-M-24519
Contacts	Brass	ASTM B455
	CuBe	ASTM B197
Hardware	Phosphor-Bronze	ASTM B139
	Stainless steel	ASTM A582
FINISHES		
Contacts	Gold	ASTM B488
Hardware	Passivation	ASTM A967
MECHANICAL		
Mating/Unmating force	50 g max	–
Contact life	100.000 insertion	–
ELECTRICAL		
Current rating ⁽¹⁾	3.0 A	–
Contact resistance	≤ 5.0 mΩ	–
Dielectric withstanding voltage	1000 VRMS, 60 Hz a.s.l.	–
Insulation resistance	≥ 5000 MΩ at 500 VDC	–
PHYSICAL AND ENVIROMENTAL		
Shock	–	In accordance with MIL-STD-1344
Vibration	–	In accordance with MIL-STD-1344
Operating range	-65°C +125°C	–

⁽¹⁾ Consult factory for details



HOW TO ORDER



1 ▶ CONNECTOR FAMILY

2 ▶ CONNECTOR SIZE

57

3 ▶ CONNECTOR AND CONTACT STYLE

P PLUG (socket contacts equipped)

R RECEPTACLE (pin contacts equipped)

4 ▶ CONTACT TERMINAL STYLE

W SOCKET CRIMP (AWG26)

S SOCKET SMT SOLDERING

D SOCKET STRAIGHT L=2.56

S PIN SMT SOLDERING

5 ▶ HARDWARE CODE

Y D-SHAPED (pin for plug)

Y D-SHAPED (insert for receptacle)

P OMNIPOLARIZED GUIDE ⁽¹⁾

K SCREW LOCKING FOR PLUG TYPE D

X SCREW LOCKING FOR PLUG TYPE S

K INSERT SCREW LOCKING FOR RECEPTACLE

6 ▶ HARDWARE POLARIZATION

01 ÷ **16** D-SHAPED GUIDE

00 D-SHAPED GUIDE IN POS. 1 WHITOUT LOCTITE

17 OMNIPOLARIZED GUIDE

18 GUIDE (type P or Y) SHIPPED LOOSE

19 K, X SCREW LOCKING

7 ▶ CONTACT FINISHING

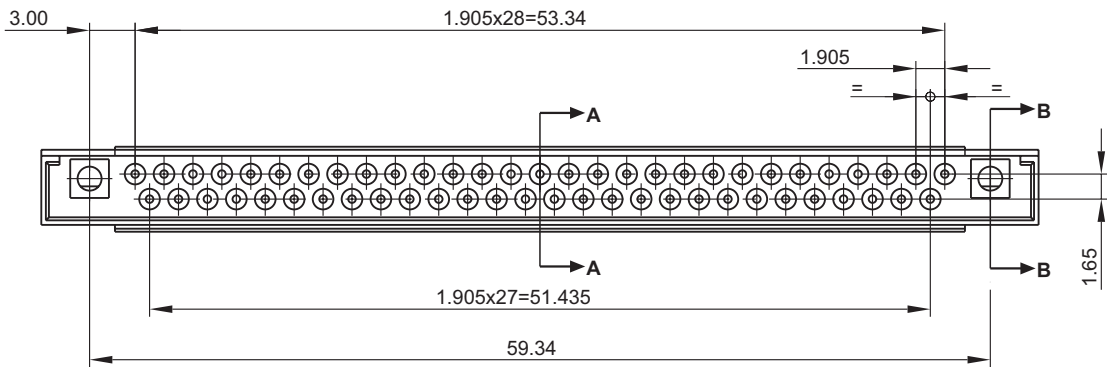
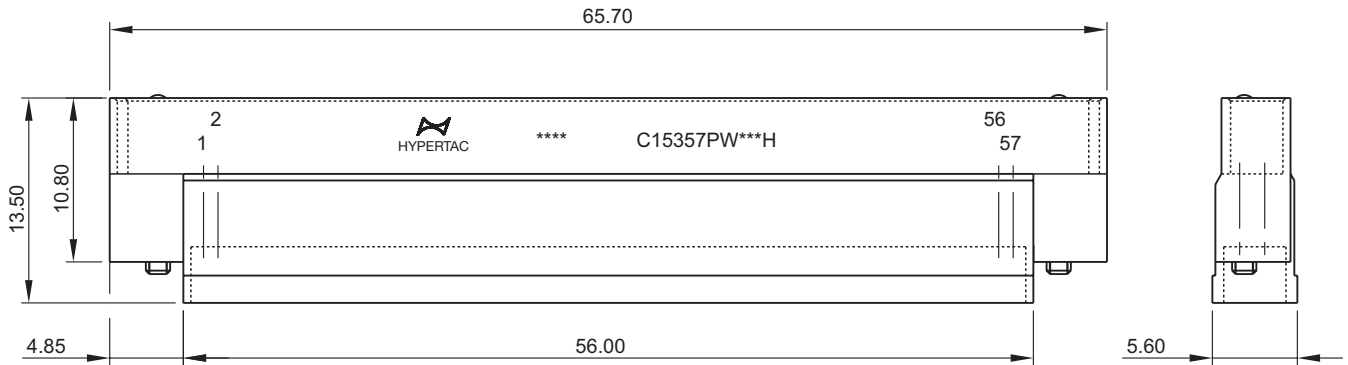
H PLATING CONFORMING TO MIL-C-55302 ⁽²⁾

HS PLATING CONFORMING TO MIL-C-55302 + TIN DIPPING

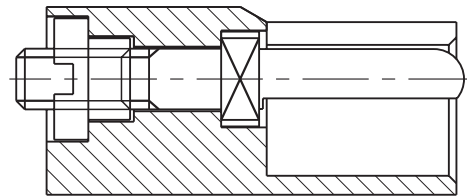
⁽¹⁾ Receptacle body using thru hole

⁽²⁾ This finishing is only for socket contacts crimp terminal style

► **PLUG CONNECTOR SOCKET CONTACT EQUIPPED
CRIMP TERMINATION, WIRED**



SECTION A-A
Rotated 90° CCW



SECTION B-B

EPOXY RESIN AND
SILICON POTTING
FILLED

CAUTION:
Color coding system is not applied.
The individual contact cavity number
provides the lead identification.

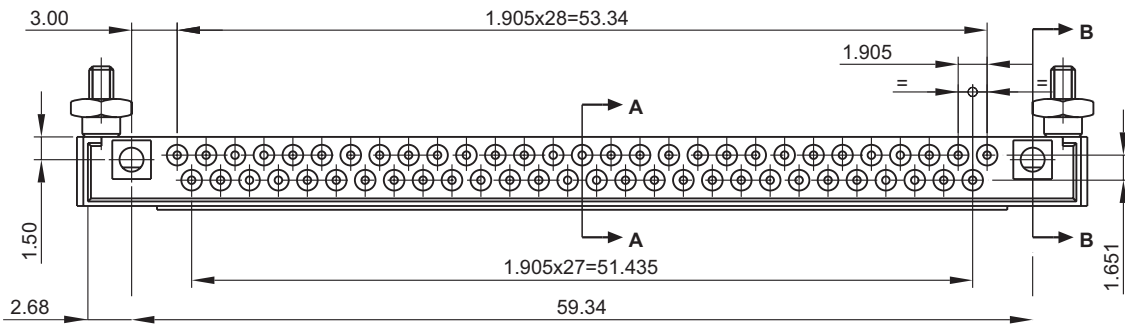
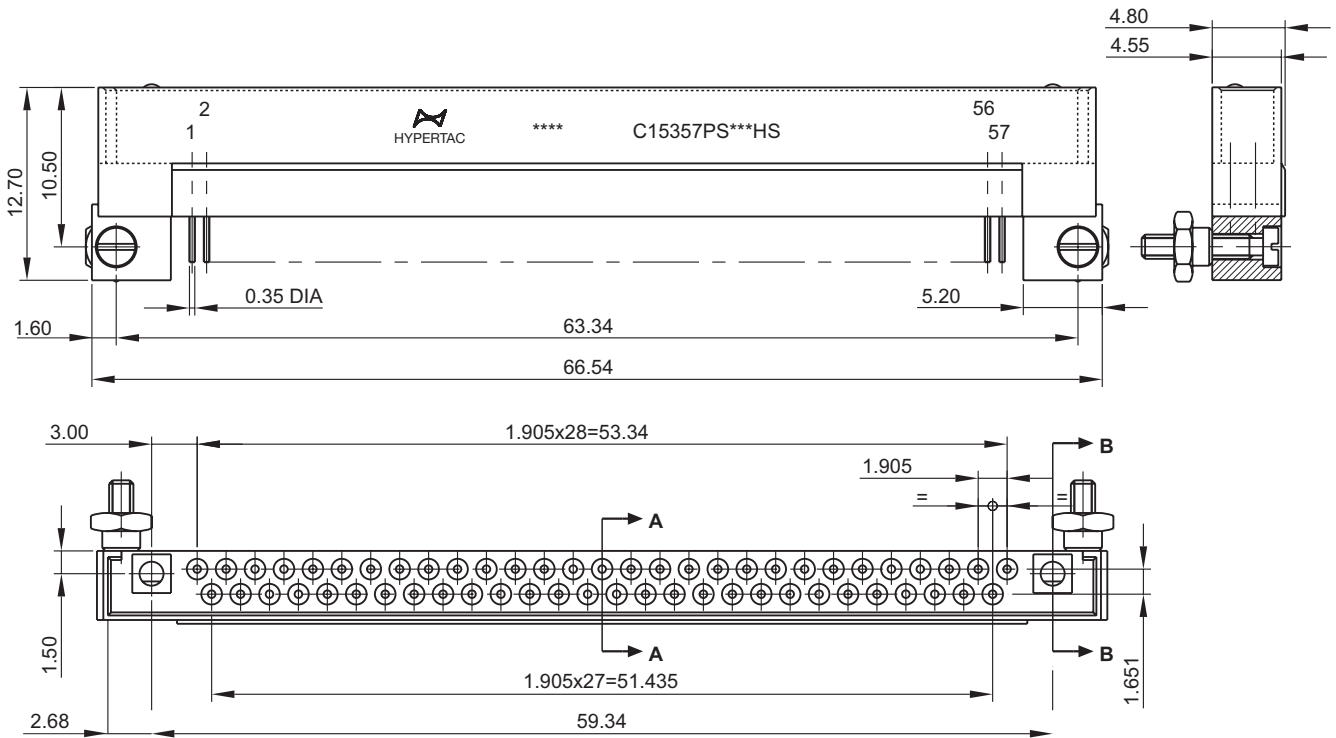
PLANE FROM WHICH THE
LEAD LENGTH IS MEASURED

Wire per MIL-W-22759/19 - Wire, Electric, Fluoropolymer-Insulated, Extruded EFTE. Light Weight, Silver-Coated High Strength Copper Alloy Conductor, 600-Volt, 150°C.

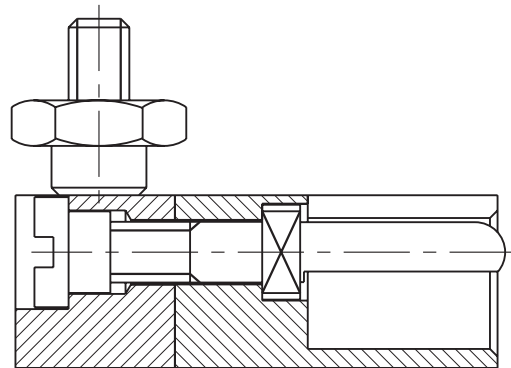
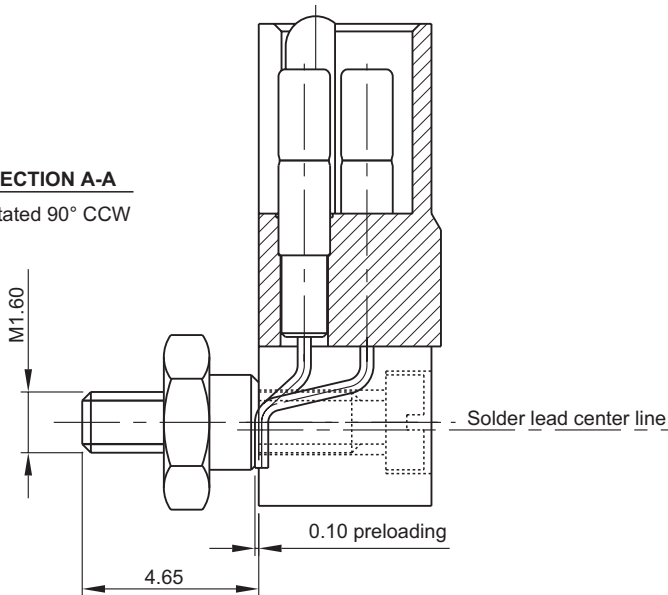
Lead length= 2 ft; lead length tolerance +1.0, -0.0 in.

Umbilical connector for measuring and test equipments 57 socket contact positions, 0.75 in x .065 in, (1.905 mm x 1.651 mm), offset grid, crimp contact terminal style, lead attached.

► **PLUG CONNECTOR, SOCKET CONTACTS
SURFACE MOUNT TAIL TERMINATION**

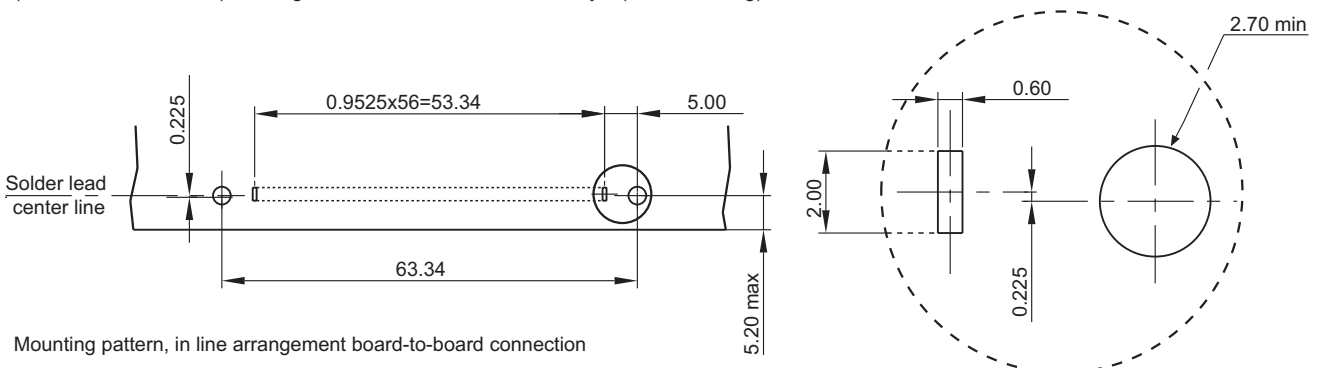


SECTION A-A
Rotated 90° CCW



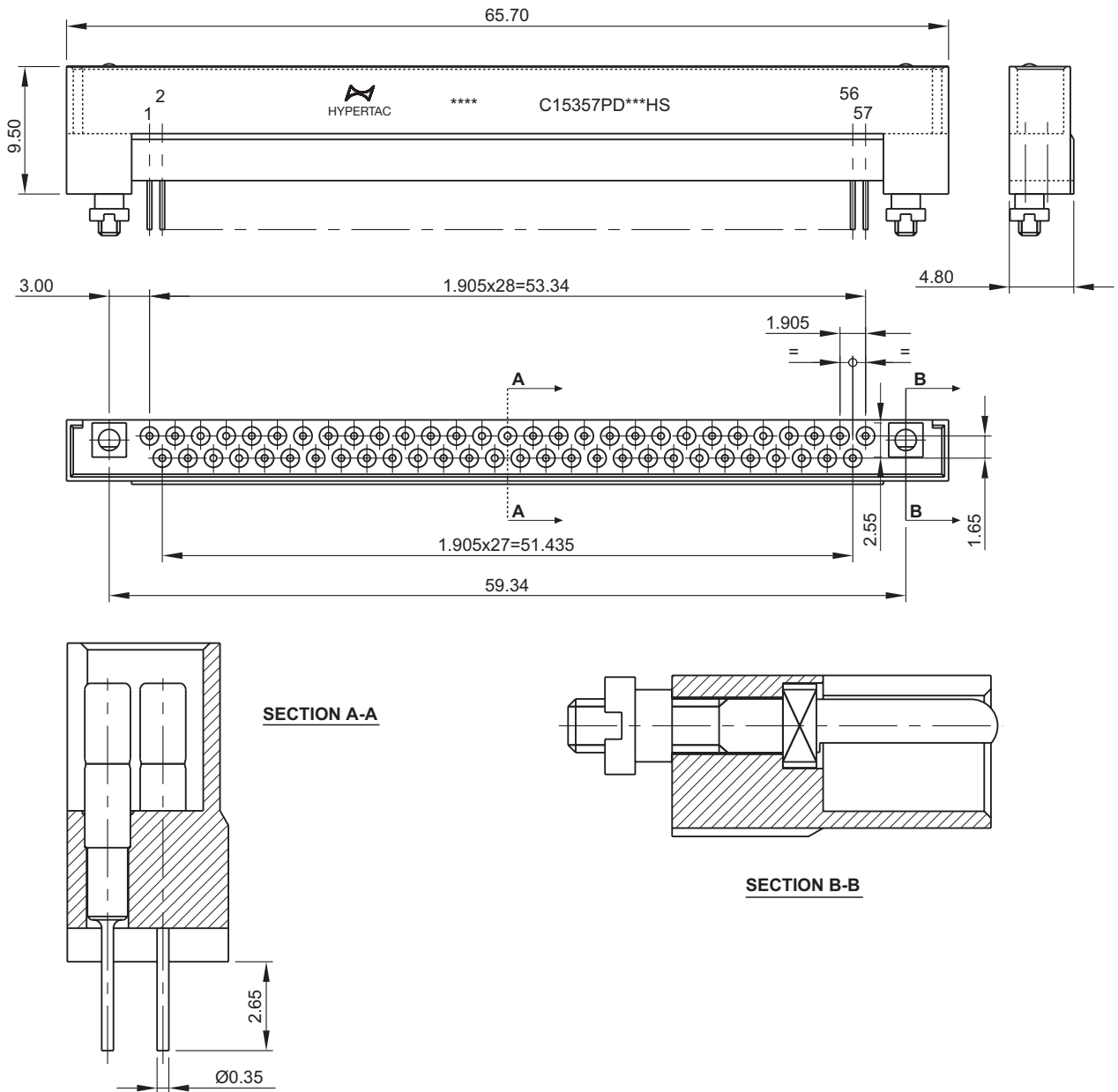
SECTION B-B

Card edge connector for measuring and test devices, (i.e. extender board applications), 57 socket contact position, .075 in x .065 in, (1.905 mm x 1.651 mm), offset grid, surface mount tail terminal style (SMT soldering).

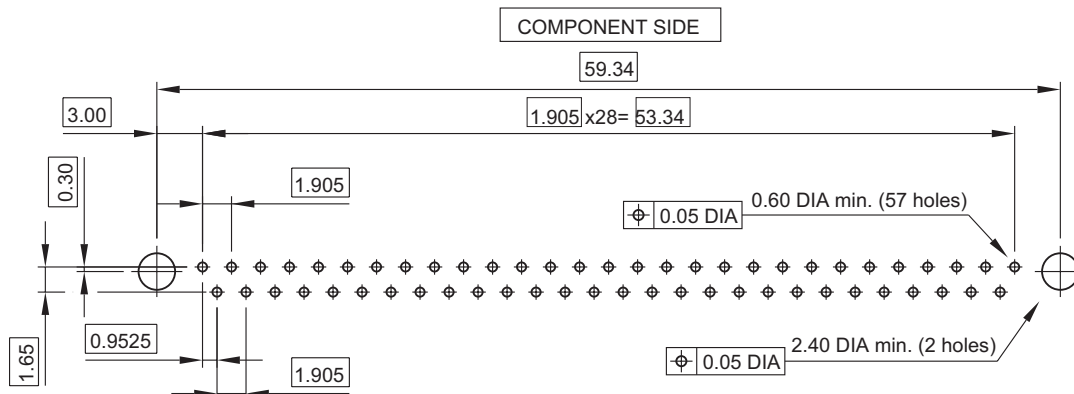


Mounting pattern, in line arrangement board-to-board connection

► **PLUG CONNECTOR, SOCKET CONTACTS
DIP SOLDER CONTACT TERMINATION**

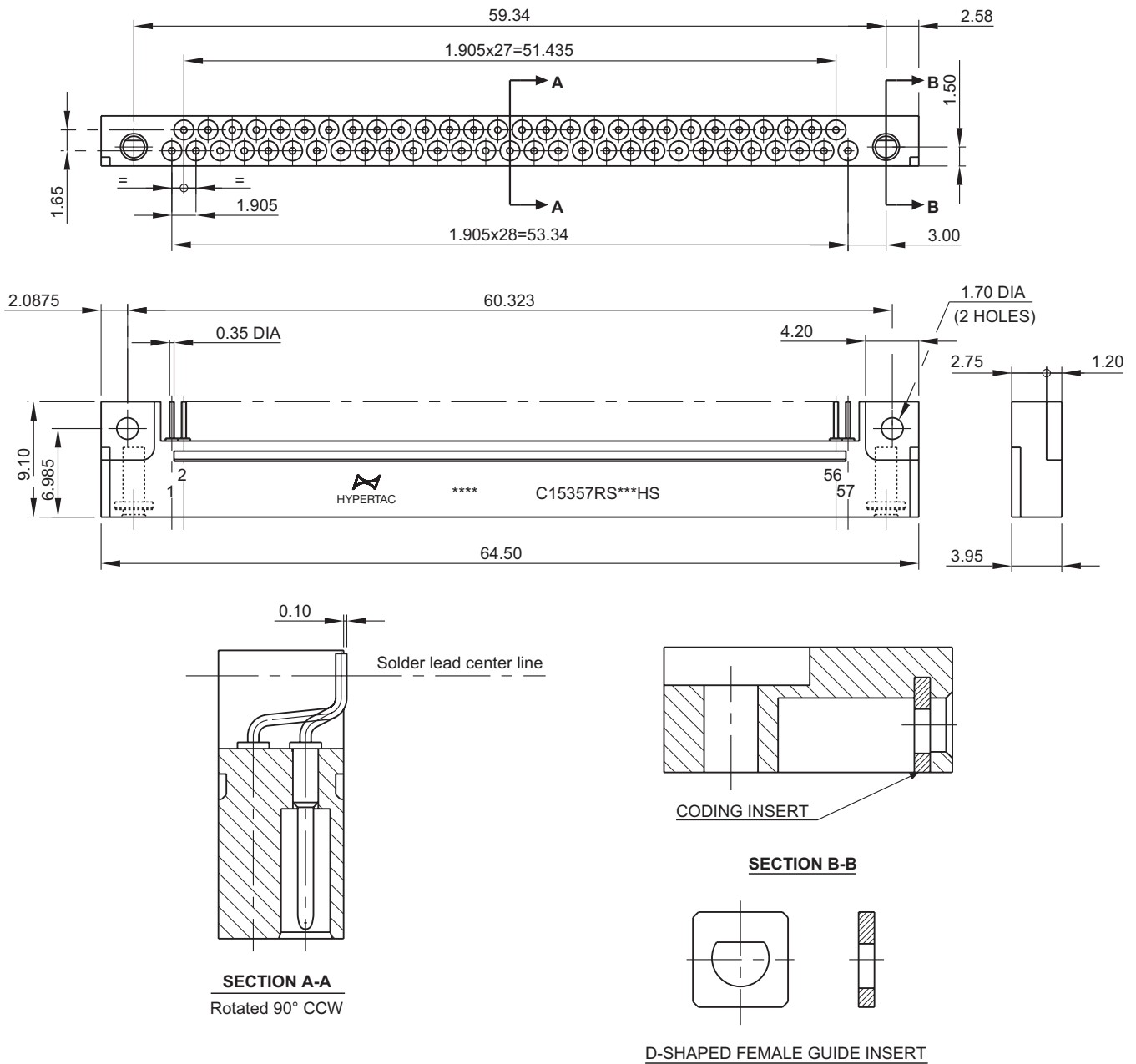


Plug connector 57 socket contact positions, 0.75 in x .065 in, (1.905 mm x 1.651 mm), offset grid, dip solder contact terminal style for pcb 1.60±2.20 max

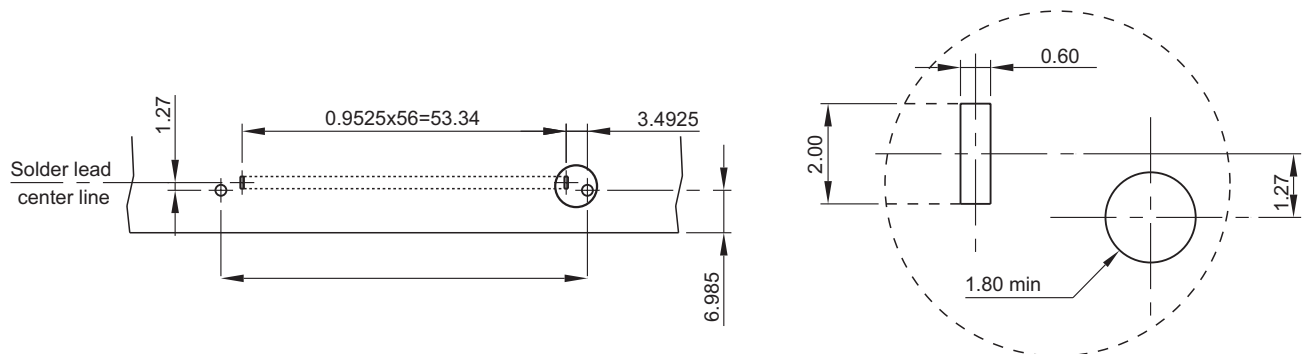


Mounting pattern, motherboard application (recommended pcb hole configuration)

► RECEPTACLE CONNECTOR, PIN CONTACTS
SURFACE MOUNT TAIL TERMINATION

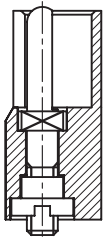


Card edge test connector, (added and wired on the PCB), 57 pin contact position, .075 in x .065 in, (1.905 mm x 1.651 mm), offset grid, surface mount tail terminal style (SMT soldering).



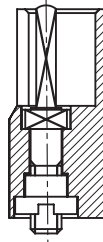
Mounting pattern, daughterboard application, or in line arrangement board-to-board connection.

▶ HARDWARE CODE



TYPE Y

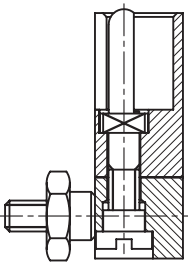
- ▶ SPANNER WRENCH: rif. ord. 14613-2
- ▶ POLARIZED FEMALE GUIDE:
 - pos. 00: without loctite
 - pos. 01+16: without loctite 242 (bleu)



TYPE P

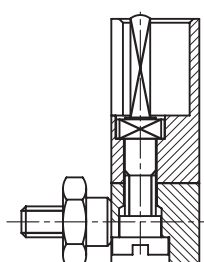
- ▶ OMNIPOLARIZED MALE GUIDE PIN:
 - pos. 17: with loctite 242 (bleu)

Hardware code for plug connector socket contacts equipped, crimp terminal style



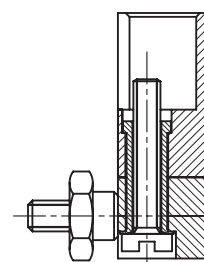
TYPE Y

- ▶ SPANNER WRENCH: rif. ord. 14613-2
- ▶ POLARIZED MALE GUIDE:
 - pos. 00: without loctite
 - pos. 01+16: without loctite 242 (bleu)
- ▶ SCREW 1.6M: without loctite



TYPE P

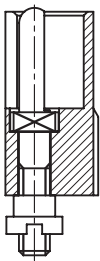
- ▶ OMNIPOLARIZED MALE GUIDE PIN:
 - pos. 17: with loctite 242 (bleu)
- ▶ SCREW 1.6M: without loctite



TYPE X

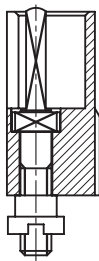
- ▶ SCREW LOCK

Hardware code for plug connector socket contacts equipped, surface mount tail terminal style



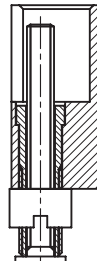
TYPE Y

- ▶ SPANNER WRENCH: rif. ord. 14613-2
- ▶ POLARIZED MALE GUIDE:
 - pos. 00: without loctite
 - pos. 01+16: without loctite 242 (bleu)
- ▶ SCREW 1.6M: without loctite



TYPE P

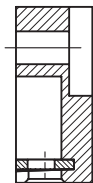
- ▶ OMNIPOLARIZED MALE GUIDE PIN:
 - pos. 17: with loctite 242 (bleu)
- ▶ SCREW 1.6M: without loctite



TYPE K

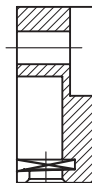
- ▶ SCREW LOCK
- ▶ SPANNER WRENCH: rif. ord. 19003

Hardware code for plug connector socket contacts equipped, dip solder terminal style



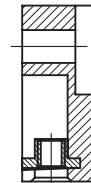
TYPE Y

- ▶ POLARIZED FEMALE GUIDE INSERT:
 - pos. 01+16: D-shaped female guide insert



TYPE P

- ▶ OMNIPOLARIZED FEMALE GUIDE:
 - pos. 17: round thru hole without D-shaped female guide insert



TYPE K

- ▶ SCREW LOCK

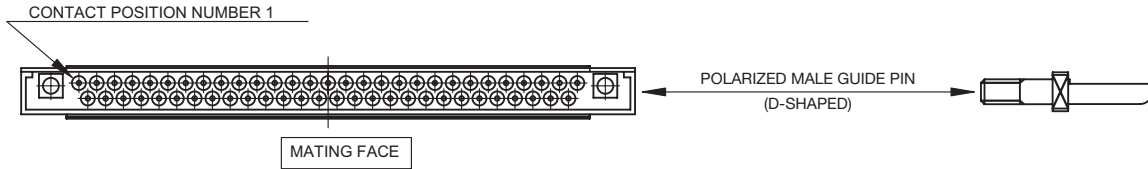
Hardware code for receptacle connector pin contacts equipped, surface mount tail terminal style

► POLARIZATION CONFIGURATION CHART

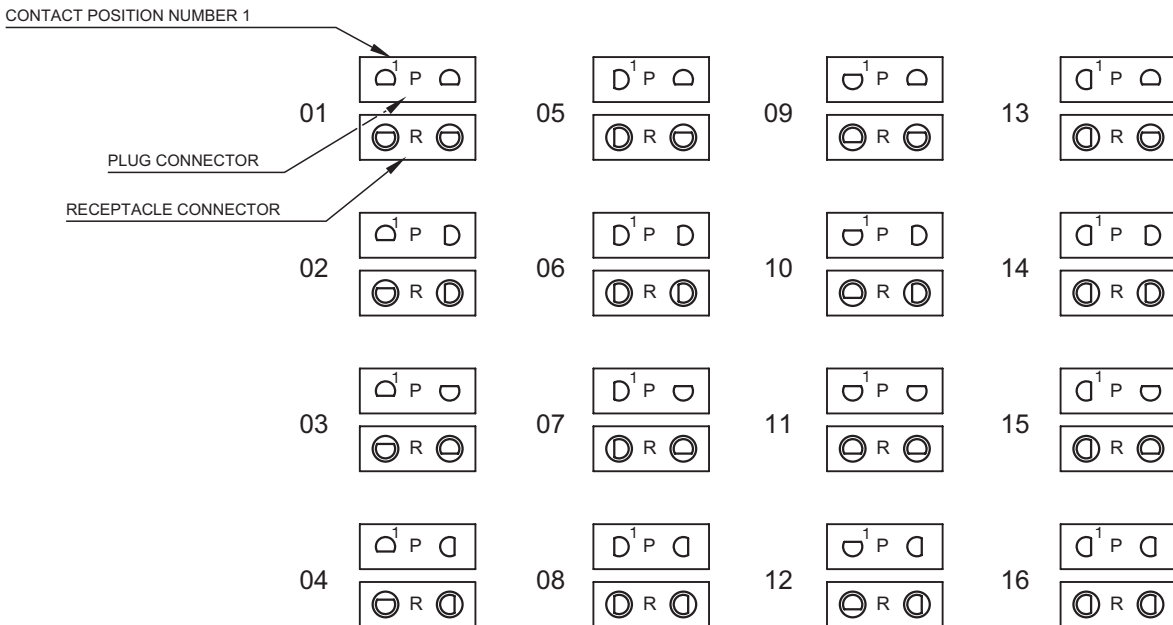
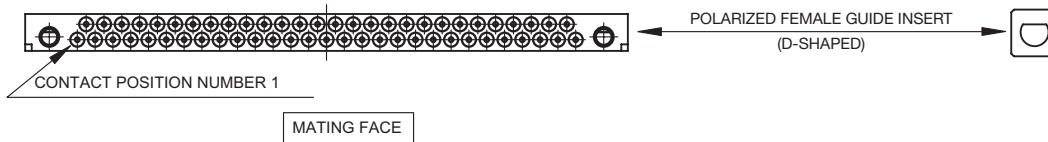
D-SHAPED GUIDE SETS

When connector is equipped with D-shaped guide hardware, any of the following polarization numbers are used, polarizing hardware will be oriented per this chart. Use appropriate number as shown, (designation 01 to 16 incl).

PLUG CONNECTOR SOCKET CONTACTS EQUIPPED



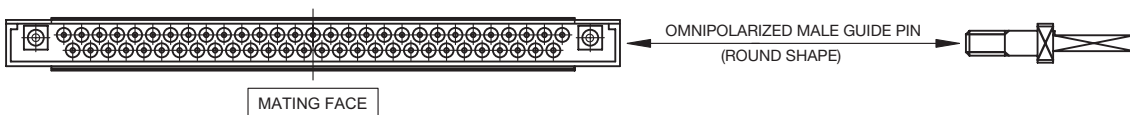
RECEPTACLE CONNECTOR PIN CONTACTS EQUIPPED



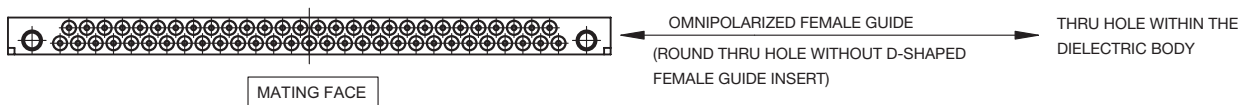
NOTES

1. It is recommended that the following polarization positions be chosen first: 01, 06, 11, and 16.
2. Universal coupling guide sets, (designation 17).

PLUG CONNECTOR SOCKET CONTACTS EQUIPPED

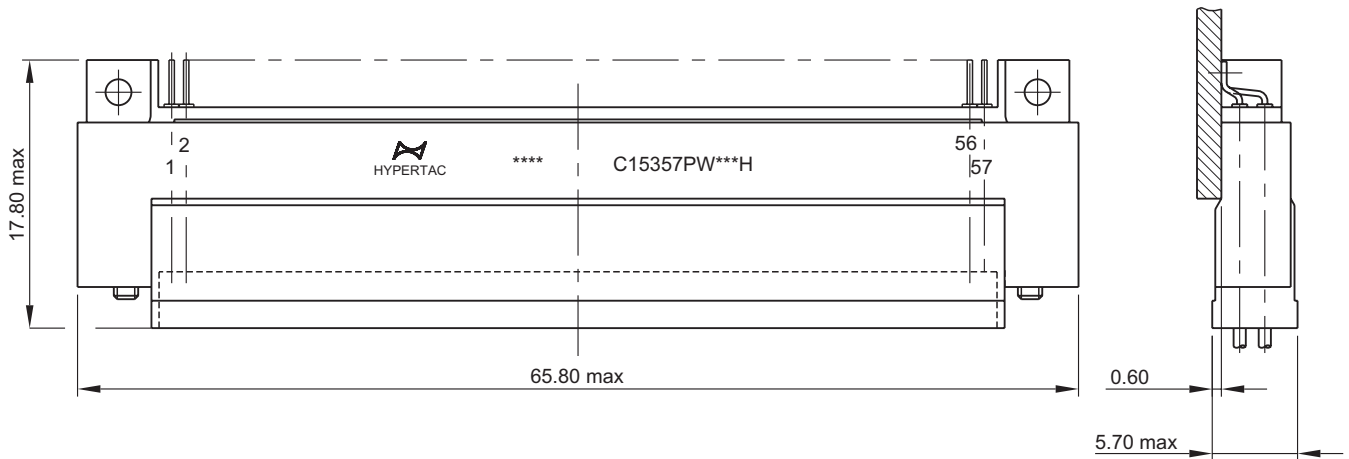


RECEPTACLE CONNECTOR PIN CONTACTS EQUIPPED

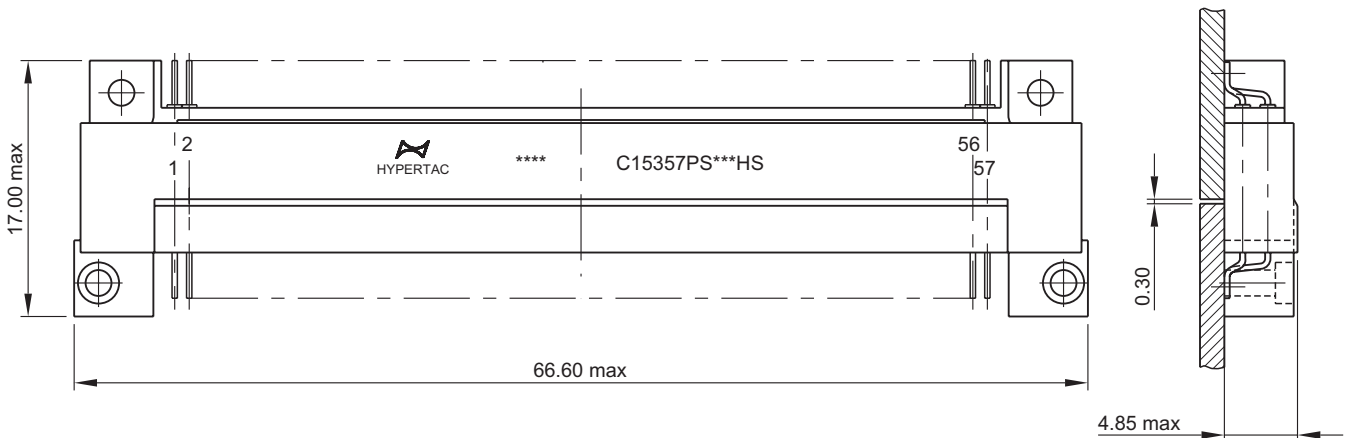


3. The tool to adjust polarization guide pins is shown on page 31

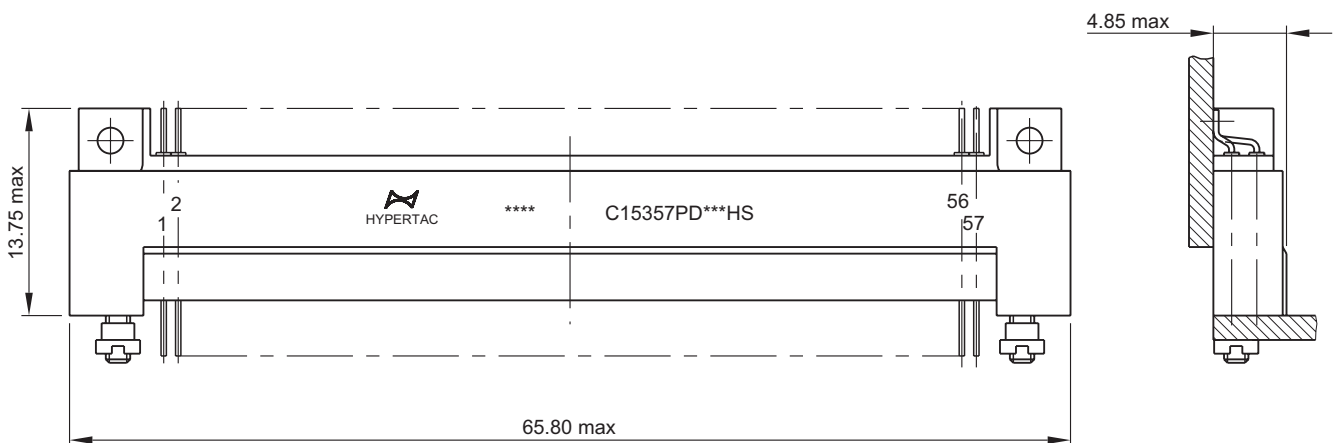
▶ **MAXIMUM DIMENSIONS OF MATED CONNECTORS**



Maximum dimensions of mated connectors: plug connector crimp terminals equipped, lead attached and receptacle connector, surface mount tail terminals equipped (SMT soldering).

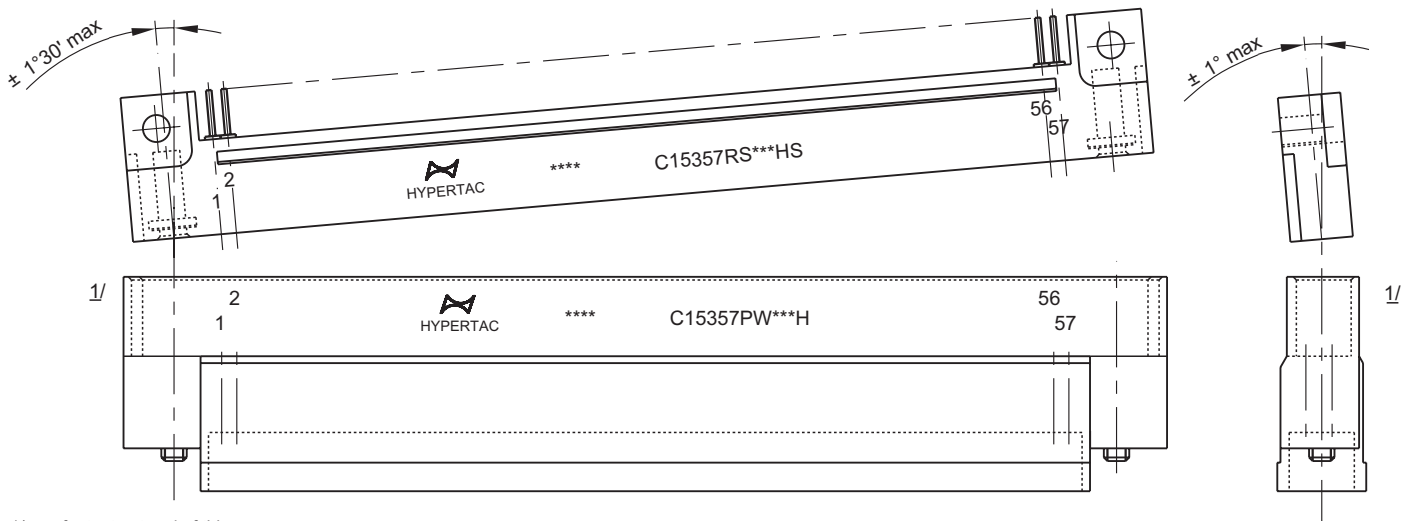


Maximum dimensions of mated connectors: plug and receptacle connectors surface mount tail terminals equipped (SMT soldering).



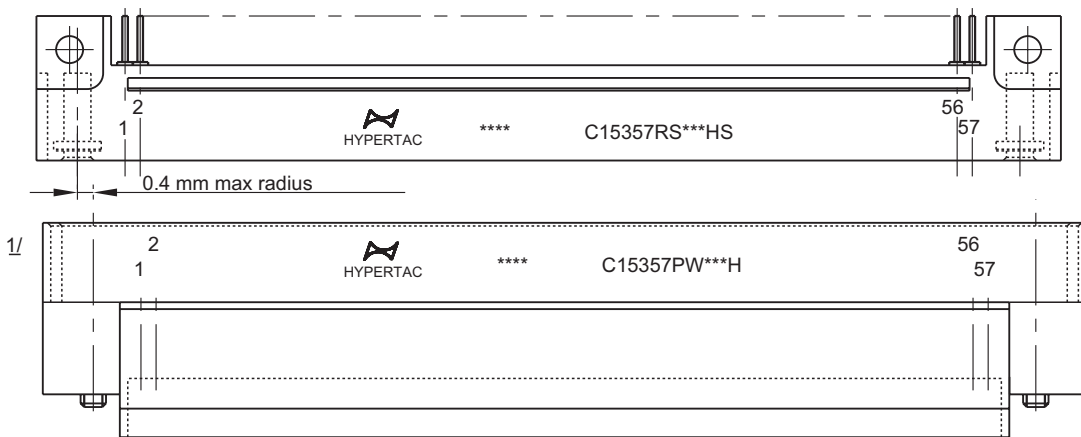
Maximum dimensions of mated connectors: plug connector, surface mount tail terminals equipped, and receptacle connector dip solder terminals equipped.

▶ THE CONNECTOR HALVES MATING



1/ see footnote at end of this page.

Maximum permissible inclination, in longitudinal and in trasversal axis, between the plug connector and the receptacle connector, in order to ensure the acceptable eletrical engagement made by all contacts.



1/ see footnote at end of this page.

Maximum permissible displacement, between the plug connector and the receptacle connector, in order to ensure suitable fully insertion of the connector halves.

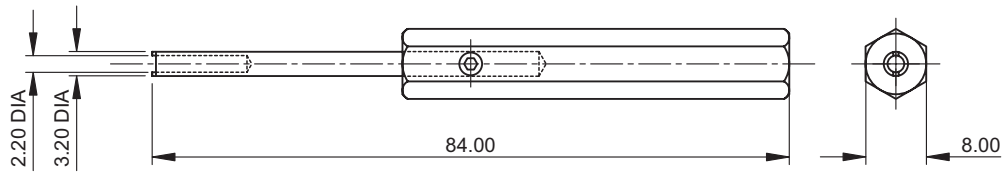


1/ see footnote at end of this page.

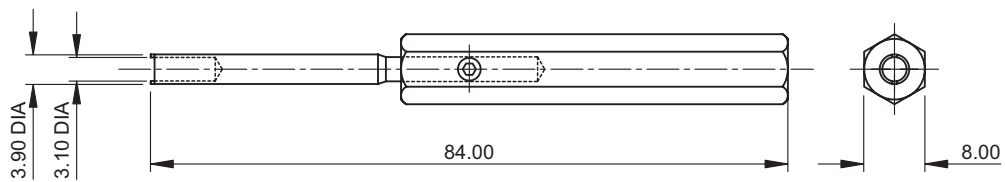
Maximum permissible separation distance, between the plug connector and the receptacle connector, in order to ensure the acceptable eletrical engagement made by all contacts.

1/ Value of these measures is applicable to plug connector equipped with crimp contact terminal style (lead attached) or equipped with surface mount tail contact terminal style (SMT soldering)

TOOLS



Spanner wrench to assembly, or remove, or to reposition male guide pins ⁽¹⁾ **ordering datum: 14613/2; (or M55302/57-01)**



Spanner wrench to assembly, or remove, or to reposition polarized female guide socket ⁽¹⁾ and to assembly, or remove, screw locking for plug connector family C153 with dip solder terminal style. **Ordering datum: 19003**

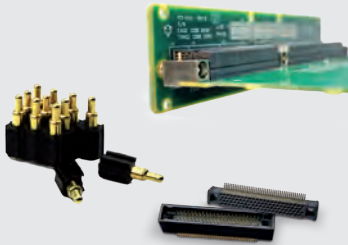
⁽¹⁾ CAUTION: when polarized position shall be changed, apply loctite 242 to the threads, if specified.

CROSS REFERENCE OF CATALOGUE CODES AND DRAWING NUMBERS

Catalogue codes	Drawing numbers
ST1067 C150372SNP17H	18907
ST1067 C150372SLY11HS	18906
ST1068 C15357PDY00H	20684
ST1068 C15357PSY01HS	20401
ST1068 C15357PDK19H	19915
ST1068 C15357PSX19HS	19577
ST1068 C15357RSK19HS	19576
ST1068 C15357PSY01HS	19056
ST1068 C15357PWY01H	18590
ST1068 C15357RSY00HS	18589

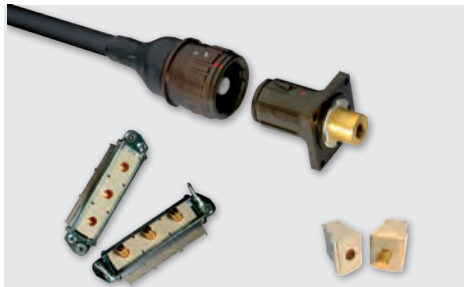
SMITHS CONNECTORS PRODUCT LINES

PCB



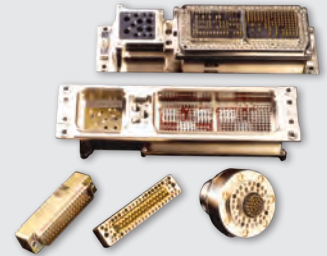
- ▶ Low, medium and high density board-to-board, cable to board and stacking
- ▶ Rugged standard
- ▶ Low profile
- ▶ Signal, power, coaxial & high speed configurations
- ▶ Self configurable board-to-board
- ▶ Spring probe connectors
- ▶ Mixed signal, power and coaxial contact connectors
- ▶ Different termination styles: solder cup, crimp, SMT and SMT flex, press fit, solder dip.

POWER



- ▶ Circular
- ▶ Configurable rectangular
- ▶ Ruggedized
- ▶ Single and Multi-Way Connectors
- ▶ Power contact up to 1,200 Amps
- ▶ Excellent performance in harsh environment conditions
- ▶ Cable assembling

EMI/EMP FILTER



- ▶ EMI/RFI filtering and transient protection
- ▶ RoHS compliant solderless filter connectors available
- ▶ Circular, ARINC, D-Subminiature Micro-D
- ▶ Filtered adapters for "bolt on" EMI /EMP solutions
- ▶ Filter hybrid capability

MODULAR/RECTANGULAR



- ▶ Configurable with modules for signal, power, coax, fiber optics and/or pneumatics
- ▶ Easy configuration in a single frame
- ▶ For rack & panel, and cable applications
- ▶ Guided hardware for blind
- ▶ D-sub connectors
- ▶ Micro-D style
- ▶ Signal connectors for hand held and docking stations

CIRCULAR



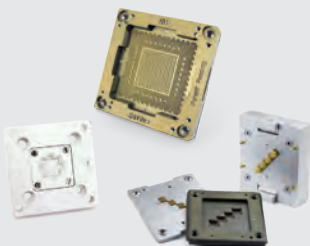
- ▶ Metal and Plastic
- ▶ Industrial M12, M23, M40, M58
- ▶ Crimp and solder terminations
- ▶ Various types of cable clamps
- ▶ Push Pull/ latch mechanism
- ▶ Color coding

HEAVY DUTY



- ▶ Ultra reliable hyperboloid contact
- ▶ Modular solution: signal, power, data contacts, and fiber optics
- ▶ High resistance in harsh environment
- ▶ EMC shielding
- ▶ Easy cable mounting
- ▶ High pressure up to 35K PSI, 250° C
- ▶ High temperature up to 440° C

SPRING PROBES



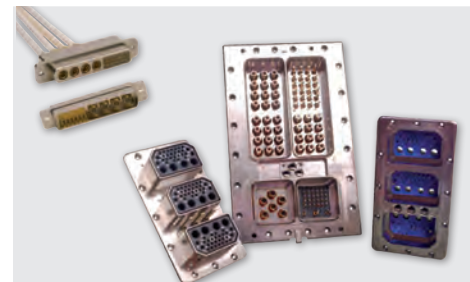
- ▶ Z-axis compliant
- ▶ Blind mate engagement
- ▶ Long cycle life
- ▶ High density
- ▶ Extreme miniaturization
- ▶ Printed circuit board test
- ▶ Bare board test
- ▶ Coaxial contacts

MIL/AERO STANDARD



- ▶ Standard military interface
- ▶ ARINC interface
- ▶ ARINC 801
- ▶ Custom inserts

HIGH SPEED COPPER/FIBER



- ▶ Quadrx and Twinax Connectors
- ▶ Rugged D-Sub Connectors
- ▶ ARINC and MIL-STD Contacts
- ▶ Micro Twinax/Quadrx
- ▶ Butt-Joint and Expanded Beam Contacts
- ▶ ARINC 801 Termini
- ▶ Floating Fiber Termini

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