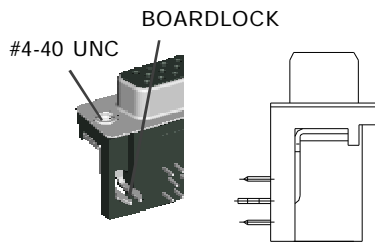


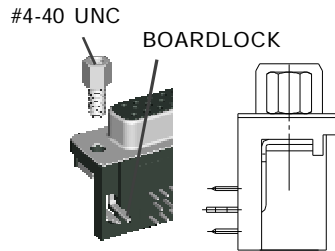
MMI

**HIGH DENSITY D-SUB
(RIGHT ANGLE TYPE)**

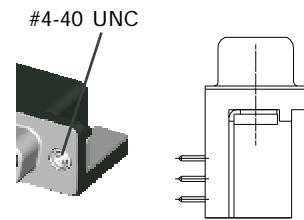
HIGH DENSITY D- SUB 1XX SERIES MOUNTING OPTIONS



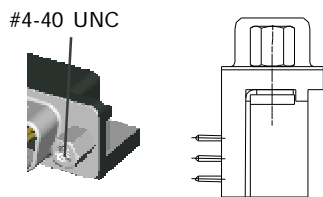
a TYPE
WITH #4-40UNC THREAD INSERT
GROUNDING BRACKET &
BOARDLOCK



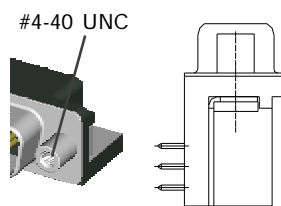
as TYPE
WITH #4-40UNC HEX NUT
GROUNDING BRACKET &
BOARDLOCK



b TYPE
WITH #4-40UNC THREAD INSERT
GROUNDING BRACKET

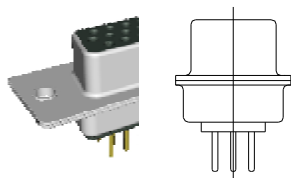


d TYPE
WITH FIXED #4-40UNC HEX NUT
GROUNDING BRACKET

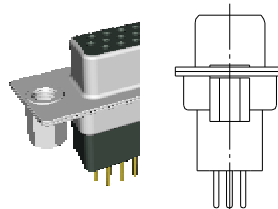


rd TYPE
WITH FIXED #4-40UNC ROUND NUT
GROUNDING BRACKET

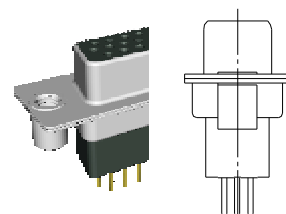
HIGH DENSITY D- SUB 2XX SERIES MOUNTING OPTIONS



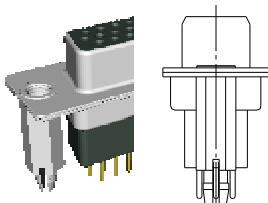
H TYPE
WITH MOUNTING HOLE ONLY



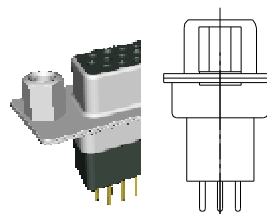
I TYPE
WITH #4-40UNC HEX NUT
IN THE REAR OF THE SHELL



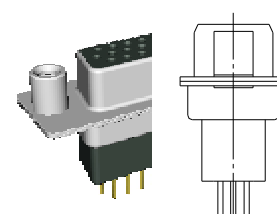
J TYPE
WITH #4-40UNC ROUND NUT
IN THE REAR OF THE SHELL



K TYPE
WITH #4-40UNC IN THE REAR SHELL
USE RIVET AS BOARDLOCK



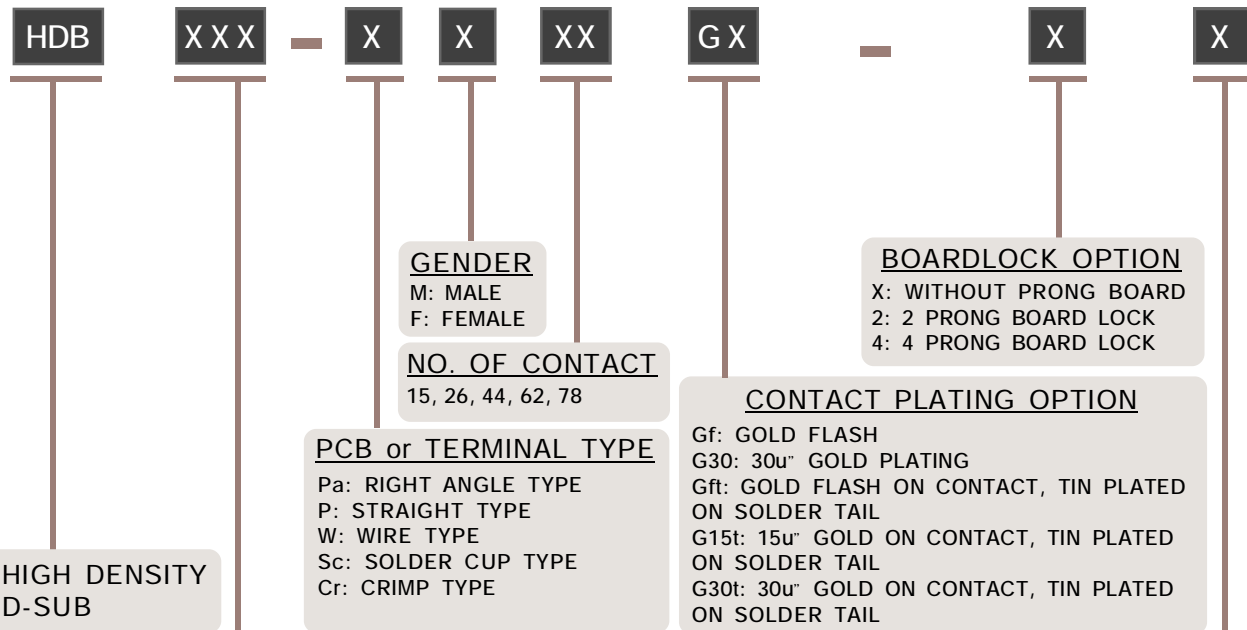
L TYPE
WITH #4-40UNC HEX NUT
IN THE FRONT OF THE SHELL



M TYPE
WITH #4-40UNC ROUND NUT
IN THE FRONT OF THE SHELL

NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE

HIGH DENSITY D-SUB CONNECTOR PART NO. INFORMATION



SERIES NO.

1XX: RIGHT ANGLE TYPE
-130
-132
-14X
-150

2XX: STRAIGHT TYPE
-200
-210
-230
-250

3XX: WIRE TYPE
-300: LENTH= 10.00 mm
-310: LENTH= 13.00 mm
-320: LENTH= 17.50 mm

4XX: SOLDER CUP TYPE
- 400

5XX: CRIMP TYPE
- 500

9XX: MACHINE PIN TYPE
-900: FOOTPRINT= 9.30 mm
-910: FOOTPRINT= 7.19 mm

MOUNTING TYPE

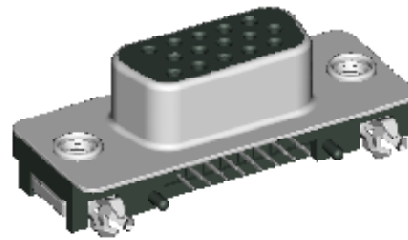
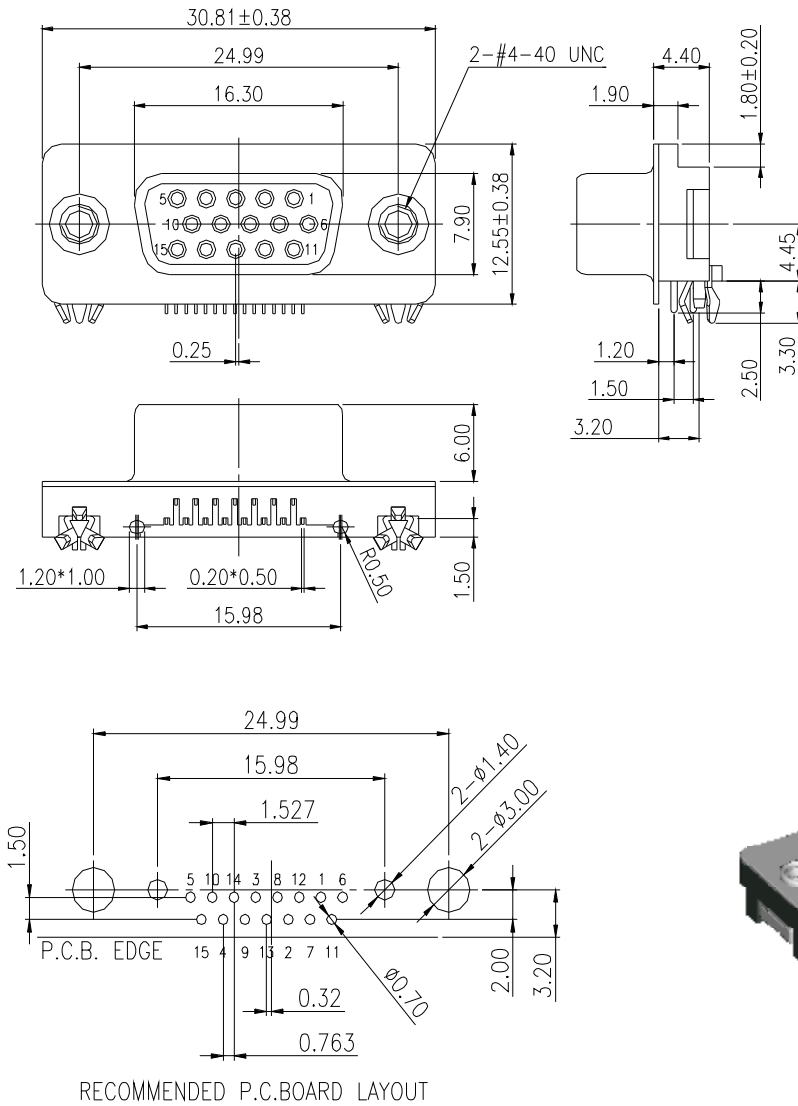
FOR RIGHT ANGLE TYPE
a :WITH #4-40UNC THREAD INSERT GROUNDING BRACKET & BOARDLOCK
b: WITH #4-40UNC THREAD INSERT GROUNDING BRACKET
d: WITH FIXED #4-40UNC HEX NUT GROUNDING BRACKET
rd: WITH FIXED #4-40UNC ROUND NUT GROUNDING BRACKET

FOR STRAIGHT TYPE
H: WITH MOUNTING HOLE ONLY
I: WITH #4-40UNC HEX NUT IN THE REAR OF THE SHELL
J: WITH #4-40UNC ROUND NUT IN THE REAR OF THE SHELL
K: WITH #4-40UNC IN THE REAR SHELL USE RIVET AS BOARDLOCK
L: WITH #4-40UNC HEX NUT IN THE FRONT OF THE SHELL
M: WITH #4-40UNC ROUND NUT IN THE FRONT OF THE SHELL

NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE

HDB 130 SERIES - MOUNTING TYPE 2a RIGHT ANGLE TYPE - Pa

FEMALE



HDB	130	Pa	F	15	GX	2	a
HIGH DENSITY D- SUB	SERIES NO. 130	PCB TYPE. Pa: RIGHT ANGLE TYPE	GENDER F: FEMALE	NO. OF CONTACT 15	CONTACT PLATING OPTION Gf: GOLD FLASH Gf1: GOLD FLASH ON CONTACT, TIN PLATED ON SOLDER TAIL G15t: 15u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL G30t: 30u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL	BOARDLOCK OPTION 2: 2 PRONG BOARD LOCK	WITH #4-40UNC THREAD INSERT GROUNDING BRACKET & BOARDLOCK

ELECTRICAL CHARACTERISTIC

CONTACT CURRENT RATING: 3 AMP
CONTACT RESISTANCE: 25 M OHM MAX.
INSULATION RESISTANCE: 5000 OHM MIN. AT 500V DC
DIELECTRIC WITHSTANDING VOLTAGE: AC 1000V / MIN. R.M.S
OPERATING TEMPERATURE:-55°C~ +105°C

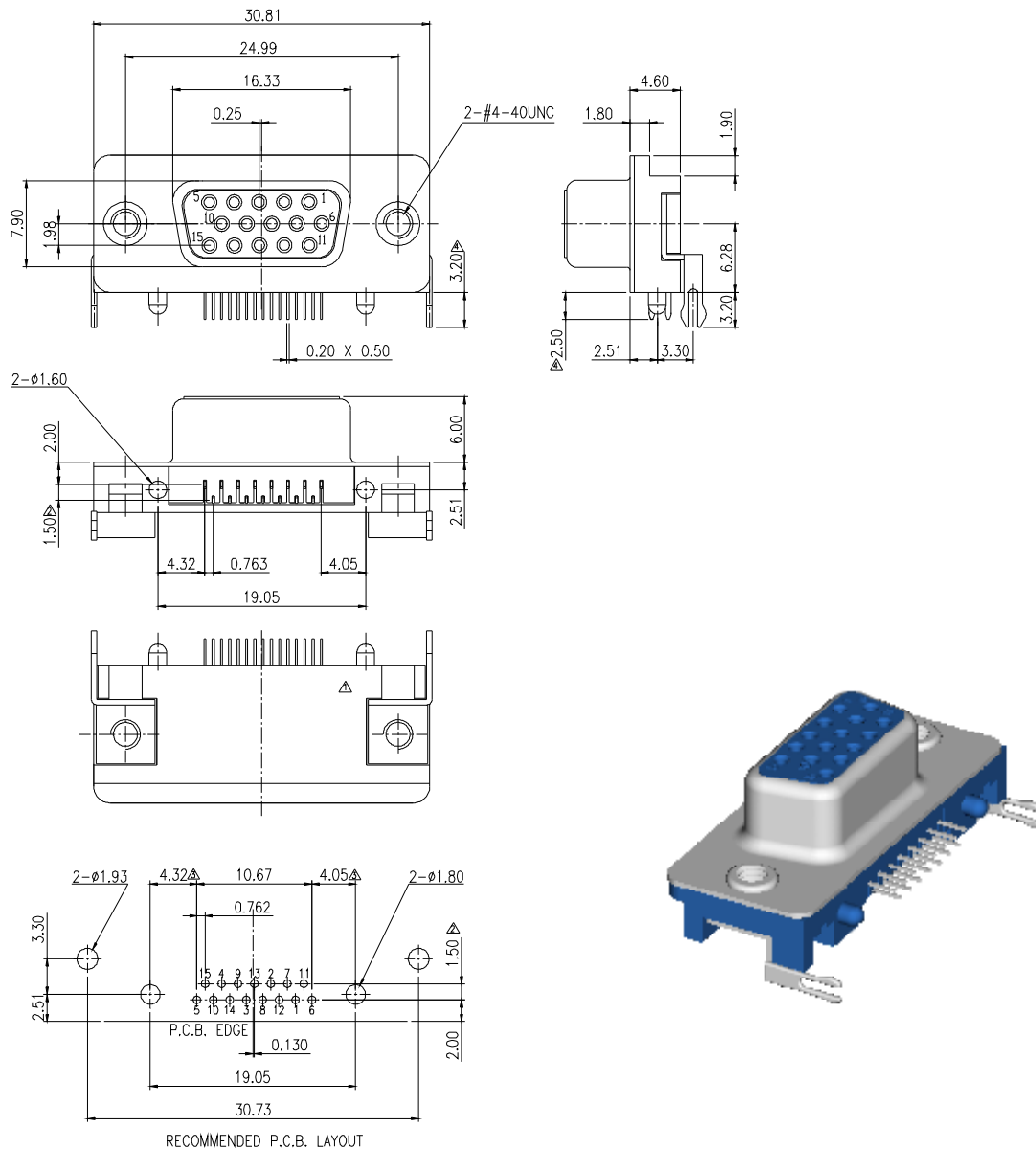
MATERIALS

INSULATOR: P.B.T. UL 94V-0 RATED
SHELL: COLD ROLLER STEEL
CONTACTS: BRASS

NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE

HDB 132 SERIES - MOUNTING TYPE 2a RIGHT ANGLE TYPE - Pa

FEMALE



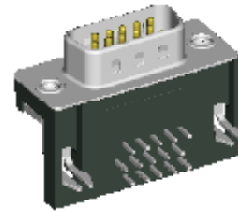
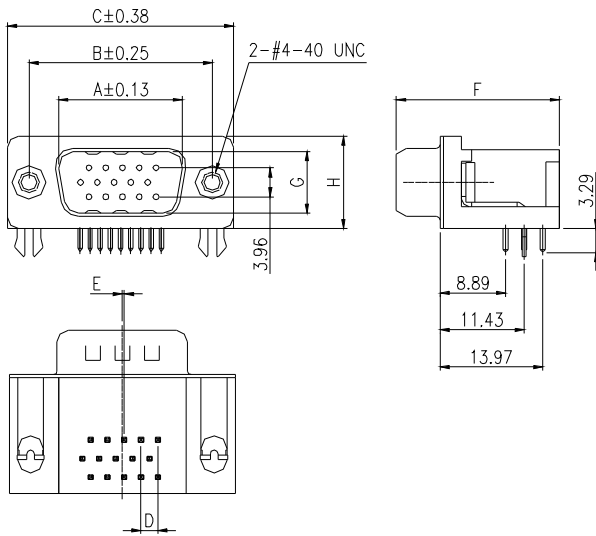
HDB	132	Pa	F	15	GX	G	2	a
HIGH DENSITY D- SUB	SERIES NO. 132: FOOT PRINT= 0.047"	PCB TYPE. Pa: RIGHT ANGLE TYPE	GENDER F: FEMALE	NO. OF CONTACT 15	CONTACT PLATING OPTION Gf: GOLD FLASH Gf1: GOLD FLASH ON CONTACT, TIN PLATED ON SOLDER TAIL G15t: 15u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL G30t: 30u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL		BOARDLOCK OPTION 2: 2 PRONG BOARD LOCK	WITH #4-40UNC THREAD INSERT GROUNDING BRACKET & BOARDLOCK
BLANK: TIN- PLATED (STANDARD) G: GOLD- PLATED (OPTIONAL)								

ELECTRICAL CHARACTERISTIC CONTACT CURRENT RATING: 3 AMP CONTACT RESISTANCE: 25 M OHM MAX. INSULATION RESISTANCE: 5000 OHM MIN. AT 500V DC DIELECTRIC WITHSTANDING VOLTAGE: AC 1000V / MIN. R.M.S OPERATING TEMPERATURE:-55°C~ +105°C	MATERIALS INSULATOR: NYLON-6T, 94V-0 RATED SHELL: COLD ROLLER STEEL CONTACTS: BRASS
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NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE

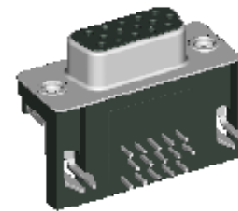
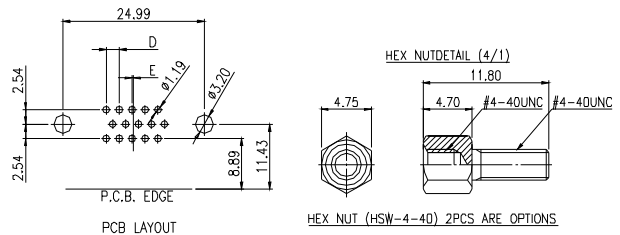
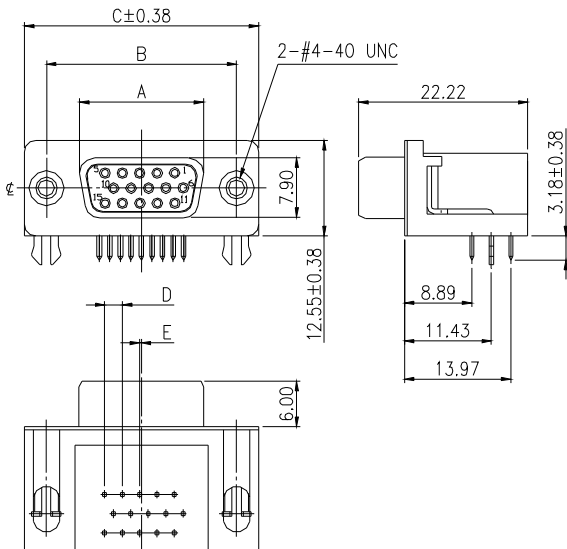
HDB 14X SERIES - MOUNTING TYPE 2a RIGHT ANGLE TYPE - Pa

MALE



MODEL NO.	NO.OF CONTACTS (SHELL SIZE)	DIMENSION							
		A	B	C	D	E	F	G	H
HDB140-PaM15GX-2a	15P	16.92	24.99	30.81	2.29	0.25	22.22	8.36	12.55
HDB140-PaM26GX-2a	26P	25.25	33.32	39.14	2.29	0.51	22.22	8.36	12.55
HDB140-PaM44GX-2a	44P	38.96	47.04	53.04	2.29	0.51	22.22	8.36	12.55
HDB140-PaM62GX-2a	62P	55.42	63.50	69.32	2.41	0.58	22.22	8.36	12.55
HDB140-PaM78GX-2a	78P	52.79	61.10	67.00	2.42	0	24.20	10.90	15.40

FEMALE



PART NO.	NO.OF CONTACTS (SHELL SIZE)	DIMENSION				
		A	B	C	D	E
HDB14X-PaF15GX-2a	15P	16.33	24.99	30.81	2.29	0.25
HDB14X-PaF26GX-2a	26P	24.66	33.32	39.14	2.29	0.51
HDB14X-PaF44GX-2a	44P	38.38	47.04	53.04	2.29	0.51
HDB14X-PaF62GX-2a	62P	54.84	63.50	69.32	2.41	0.58

HDB	14X	-	Pa	X	XX	-	GX	-	2	a
HIGH DENSITY D- SUB			GENDER M: MALE F: FEMALE		NO. OF CONTACT 15, 26, 44, 62, 78 (Male)			BOARDLOCK OPTION 2: 2 PRONG BOARD LOCK		
SERIES NO. 14X: FOOT PRINT= 8.89MM -140: BLACK VGA CONNECTOR -141: PANTONE BLUE VGA CONNECTOR		PCB TYPE Pa: RIGHT ANGLE TYPE		CONTACT PLATING OPTION Gf: GOLD FLASH Gf1: GOLD FLASH ON CONTACT, TIN PLATED ON SOLDER TAIL G15t: 15u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL G30t: 30u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL				WITH #4-40UNC THREAD INSERT GROUNDING BRACKET & BOARDLOCK		

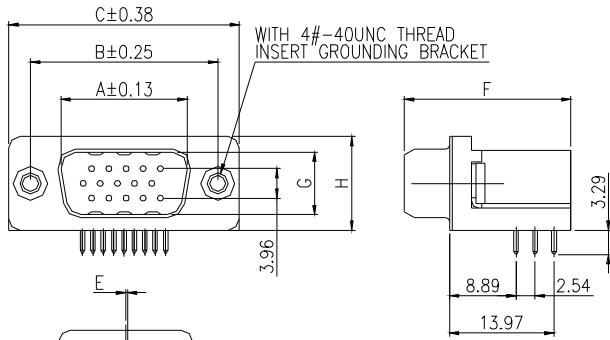
ELECTRICAL CHARACTERISTIC
 CONTACT CURRENT RATING: 3 AMP
 CONTACT RESISTANCE: 25 M OHM MAX.
 INSULATION RESISTANCE: 5000 OHM MIN. AT 500V DC
 DIELECTRIC WITHSTANDING VOLTAGE: AC 1000V / MIN. R.M.S.
 OPERATING TEMPERATURE:-55°C - +105°C

MATERIALS
 INSULATOR: P.B.T. UL 94V-0 RATED
 SHELL: COLD ROLLER STEEL
 CONTACTS: BRASS

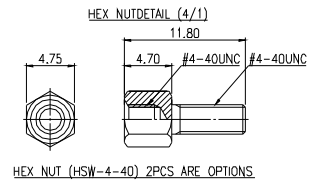
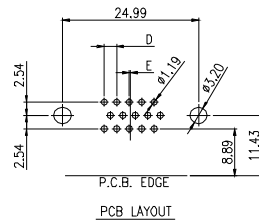
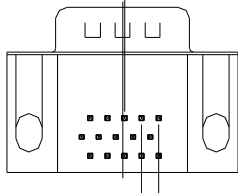
NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE

HDB 14X SERIES - MOUNTING TYPE *b* RIGHT ANGLE TYPE - Pa

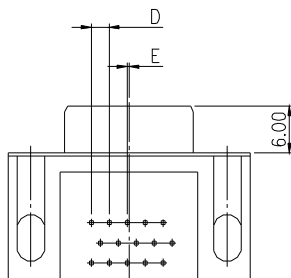
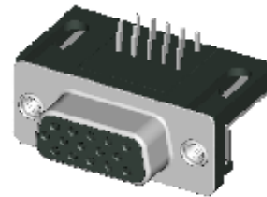
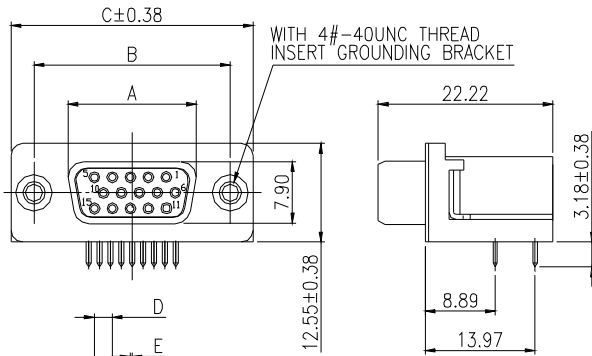
MALE



MODEL NO.	NO.OF CONTACTS (SHELL SIZE)	DIMENSION							
		A	B	C	D	E	F	G	H
HDB140-PaM15GX-b	15P	16.92	24.99	30.81	2.29	0.25	22.22	8.36	12.55
HDB140-PaM26GX-b	26P	25.25	33.32	39.14	2.29	0.51	22.22	8.36	12.55
HDB140-PaM44GX-b	44P	38.96	47.04	53.04	2.29	0.51	22.22	8.36	12.55
HDB140-PaM62GX-b	62P	55.42	63.50	69.32	2.41	0.58	22.22	8.36	12.55
HDB140-PaM78GX-b	78P	52.79	61.10	67.00	2.42	0	24.20	10.90	15.40



FEMALE



PART NO.	NO.OF CONTACTS (SHELL SIZE)	DIMENSION				
		A	B	C	D	E
HDB14X-PoF15GX-b	15P	16.33	24.99	30.81	2.29	0.25
HDB14X-PoF26GX-b	26P	24.66	33.32	39.14	2.29	0.51
HDB14X-PoF44GX-b	44P	38.38	47.04	53.04	2.29	0.51
HDB14X-PoF62GX-b	62P	54.84	63.50	69.32	2.41	0.58

HDB **14X** - **Pa** **X** **XX** **GX** - **b**

HIGH DENSITY D- SUB

SERIES NO.
14X: FOOT PRINT= 8.89MM
-140: BLACK VGA CONNECTOR
-141: PANTONE BLUE VGA CONNECTOR

PCB TYPE.
Pa: RIGHT ANGLE TYPE

GENDER
M: MALE
F: FEMALE

NO. OF CONTACT
15,26,44,62,78(Male)

CONTACT PLATING OPTION
Gf: GOLD FLASH
GfT: GOLD FLASH ON CONTACT, TIN PLATED ON SOLDER TAIL
G15t: 15u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL
G30t: 30u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL

MOUNTING TYPE
b: WITH #4-40UNC THREAD INSERT GROUNDING BRACKET

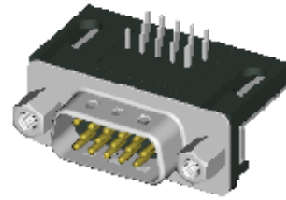
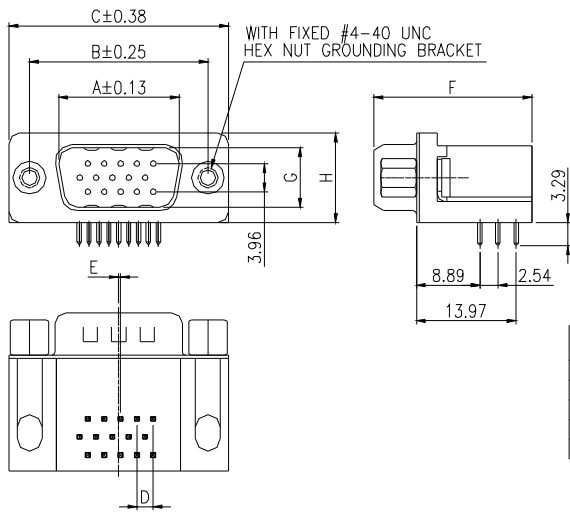
ELECTRICAL CHARACTERISTIC
CONTACT CURRENT RATING: 3 AMP
CONTACT RESISTANCE: 25 M OHM MAX.
INSULATION RESISTANCE: 5000 OHM MIN. AT 500V DC
DIELECTRIC WITHSTANDING VOLTAGE: AC 1000V / MIN. R.M.S
OPERATING TEMPERATURE:-55°C~ +105°C

MATERIALS
INSULATOR: P.B.T. UL 94V-0 RATED
SHELL: COLD ROLLER STEEL
CONTACTS: BRASS

NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE

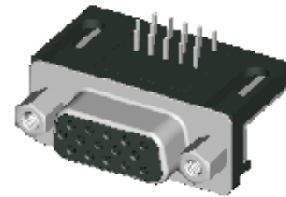
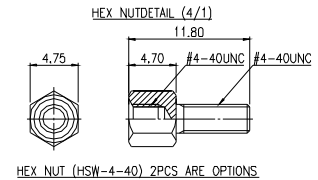
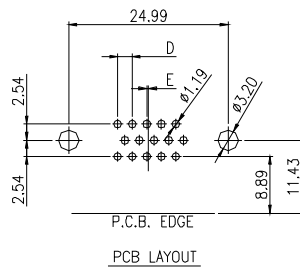
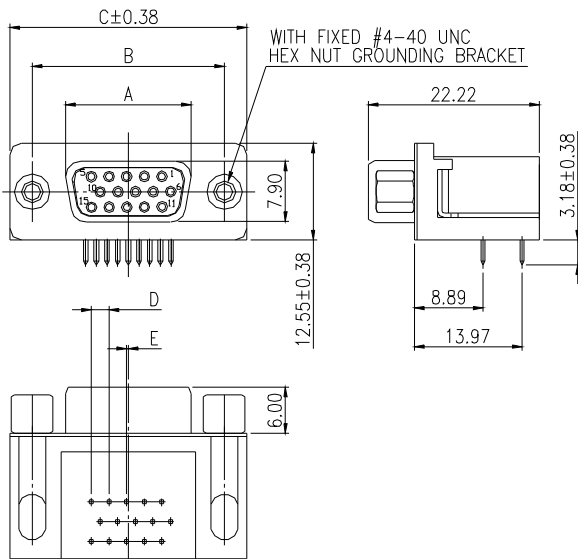
HDB 14X SERIES - MOUNTING TYPE *d* RIGHT ANGLE TYPE - Pa

MALE



MODEL NO.	NO.OF CONTACTS (SHELL SIZE)	DIMENSION							
		A	B	C	D	E	F	G	H
HDB140-PoM15GX-D	15P	16.92	24.99	30.81	2.29	0.25	22.22	8.36	12.55
HDB140-PoM26GX-D	26P	25.25	33.32	39.14	2.29	0.51	22.22	8.36	12.55
HDB140-PoM44GX-D	44P	38.96	47.04	53.04	2.29	0.51	22.22	8.36	12.55
HDB140-PoM62GX-D	62P	55.42	63.50	69.32	2.41	0.58	22.22	8.36	12.55
HDB140-PoM78GX-D	78P	52.79	61.10	67.00	2.42	0	24.20	10.90	15.40

FEMALE



PART NO.	NO.OF CONTACTS (SHELL SIZE)	DIMENSION				
		A	B	C	D	E
HDB14X-PoF15GX-D	15P	16.33	24.99	30.81	2.29	0.25
HDB14X-PoF26GX-D	26P	24.66	33.32	39.14	2.29	0.51
HDB14X-PoF44GX-D	44P	38.38	47.04	53.04	2.29	0.51
HDB14X-PoF62GX-D	62P	54.84	63.50	69.32	2.41	0.58

HDB	14X	Pa	X	XX	GX	d
HIGH DENSITY D- SUB	SERIES NO. 14X: FOOT PRINT= 8.89MM -140: BLACK VGA CONNECTOR -141: PANTONE BLUE VGA CONNECTOR	PCB TYPE. Pa: RIGHT ANGLE TYPE	GENDER M: MALE F: FEMALE	NO. OF CONTACT 15,26,44,62,78(Male)	CONTACT PLATING OPTION Gf: GOLD FLASH Gft: GOLD FLASH ON CONTACT, TIN PLATED ON SOLDER TAIL G15t: 15u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL G30t: 30u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL	MOUNTING TYPE d: WITH FIXED #4-40UNC HEX NUT GROUNDING BRACKET

ELECTRICAL CHARACTERISTIC

CONTACT CURRENT RATING: 3 AMP
CONTACT RESISTANCE: 25 M OHM MAX.
INSULATION RESISTANCE: 5000 OHM MIN. AT 500V DC
DIELECTRIC WITHSTANDING VOLTAGE: AC 1000V / MIN. R.M.S
OPERATING TEMPERATURE:-55°C~ +105°C

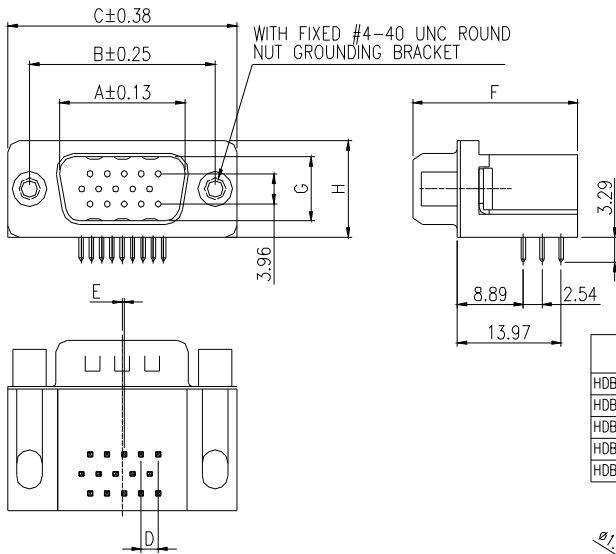
MATERIALS

INSULATOR: P.B.T. UL 94V-0 RATED
SHELL: COLD ROLLER STEEL
CONTACTS: BRASS

NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE

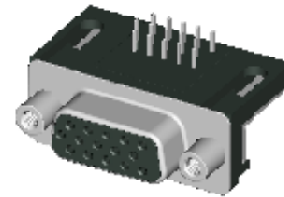
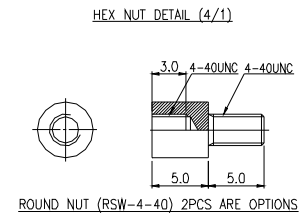
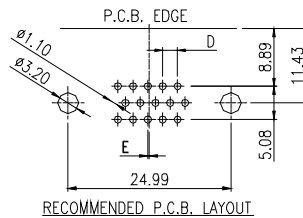
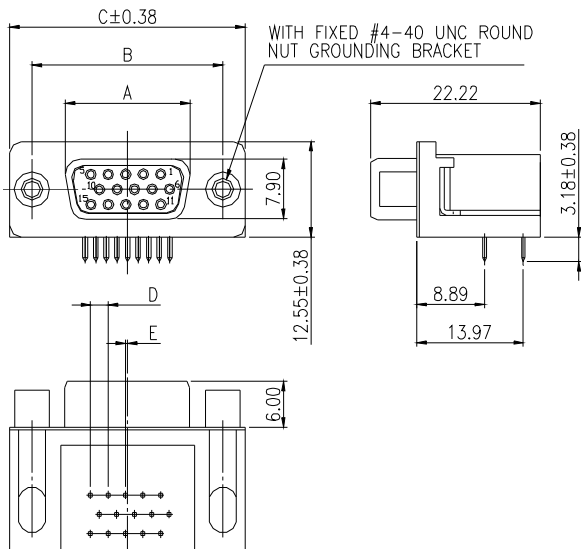
HDB 14X SERIES - MOUNTING TYPE *rd* RIGHT ANGLE TYPE - Pa

MALE



MODEL NO.	NO.OF CONTACTS (SHELL SIZE)	DIMENSION							
		A	B	C	D	E	F	G	H
HDB140-PaM15GX-RD	15P	16.92	24.99	30.81	2.29	0.25	22.22	8.36	12.55
HDB140-PaM26GX-RD	26P	25.25	33.32	39.14	2.29	0.51	22.22	8.36	12.55
HDB140-PaM44GX-RD	44P	38.96	47.04	53.04	2.29	0.51	22.22	8.36	12.55
HDB140-PaM62GX-RD	62P	55.42	63.50	69.32	2.41	0.58	22.22	8.36	12.55
HDB140-PaM78GX-RD	78P	52.79	61.10	67.00	2.42	0	24.20	10.90	15.40

FEMALE



PART NO.	NO.OF CONTACTS (SHELL SIZE)	DIMENSION				
		A	B	C	D	E
HDB14X-PaF15GX-RD	15P	16.33	24.99	30.81	2.29	0.25
HDB14X-PaF26GX-RD	26P	24.66	33.32	39.14	2.29	0.51
HDB14X-PaF44GX-RD	44P	38.38	47.04	53.04	2.29	0.51
HDB14X-PaF62GX-RD	62P	54.84	63.50	69.32	2.41	0.58

HDB	14X	Pa	X	XX	GX	rd
HIGH DENSITY D- SUB	SERIES NO. 14X: FOOT PRINT= 8.89MM -140: BLACK VGA CONNECTOR -141: PANTONE BLUE VGA CONNECTOR	PCB TYPE. Pa: RIGHT ANGLE TYPE	GENDER M: MALE F: FEMALE	NO. OF CONTACT 15, 26, 44, 62, 78(Male)	CONTACT PLATING OPTION Gf: GOLD FLASH Gft: GOLD FLASH ON CONTACT, TIN PLATED ON SOLDER TAIL G15t: 15u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL G30t: 30u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL	MOUNTING TYPE rd: WITH FIXED #4-40UNC ROUND NUT GROUNDING BRACKET

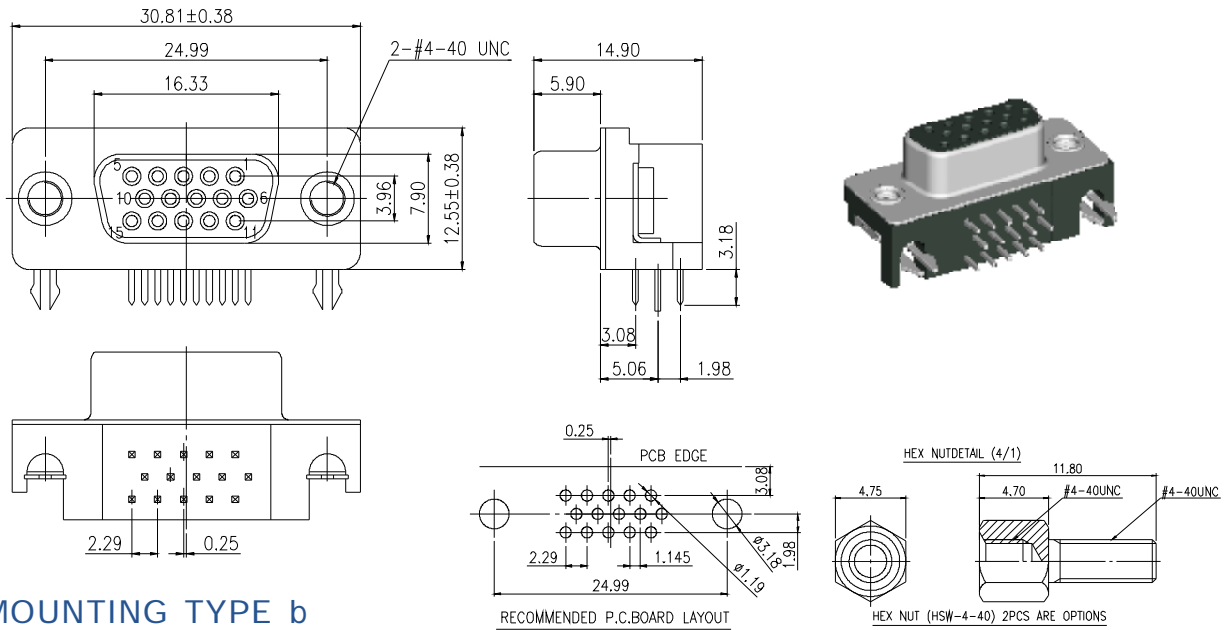
ELECTRICAL CHARACTERISTIC
 CONTACT CURRENT RATING: 3 AMP
 CONTACT RESISTANCE: 25 M OHM MAX.
 INSULATION RESISTANCE: 5000 OHM MIN. AT 500V DC
 DIELECTRIC WITHSTANDING VOLTAGE: AC 1000V / MIN. R.M.S
 OPERATING TEMPERATURE:-55°C~ +105°C

MATERIALS
 INSULATOR: P.B.T. UL 94V-0 RATED
 SHELL: COLD ROLLER STEEL
 CONTACTS: BRASS

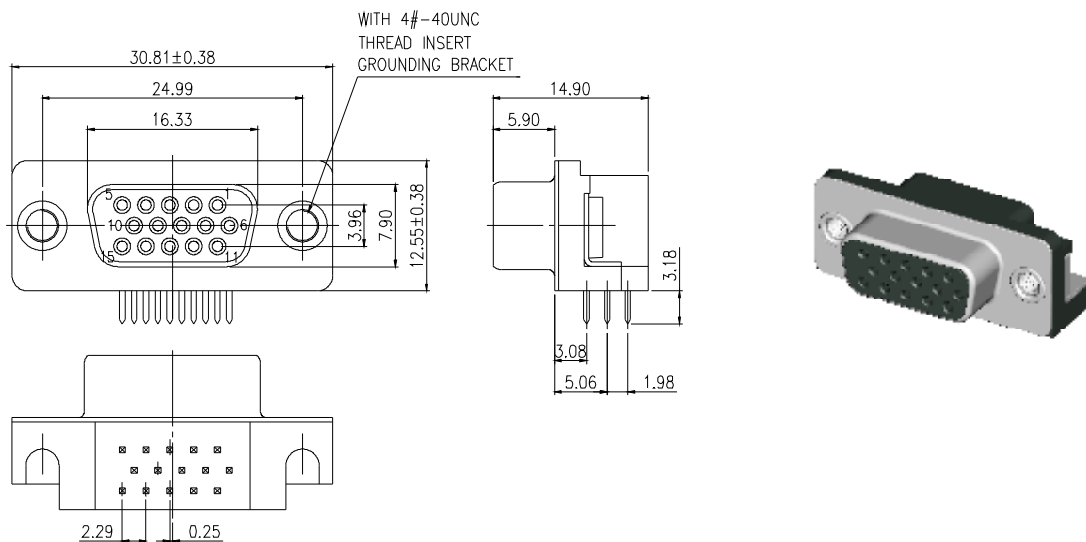
NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE

HDB 150 SERIES - MOUNTING TYPE *2a or b* RIGHT ANGLE TYPE - Pa

MOUNTING TYPE 2a



MOUNTING TYPE b



HDB 150 - Pa F 15 GX - 2a or b

HIGH DENSITY
D- SUB

SERIES NO.
150: FOOT PRINT= 3.08MM

GENDER
F: FEMALE

PCB TYPE.
Pa: RIGHT ANGLE TYPE

NO. OF CONTACT
15

CONTACT PLATING OPTION

Gf: GOLD FLASH
Gft: GOLD FLASH ON CONTACT, TIN PLATED ON SOLDER TAIL
G15t: 15u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL
G30t: 30u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL

2a: WITH #4-40UNC THREAD INSERT GROUNDING BRACKET & 2 PRONG BOARDLOCK
b: WITH #4-40UNC THREAD INSERT GROUNDING BRACKET

ELECTRICAL CHARACTERISTIC

CONTACT CURRENT RATING: 3 AMP
CONTACT RESISTANCE: 25 M OHM MAX.
INSULATION RESISTANCE: 5000 OHM MIN. AT 500V DC
DIELECTRIC WITHSTANDING VOLTAGE: AC 1000V / MIN. R.M.S
OPERATING TEMPERATURE:-55°C~ +105°C

MATERIALS

INSULATOR: P.B.T. UL 94V-0 RATED
SHELL: COLD ROLLER STEEL
CONTACTS: BRASS

NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE

www.mmtmachrone.com

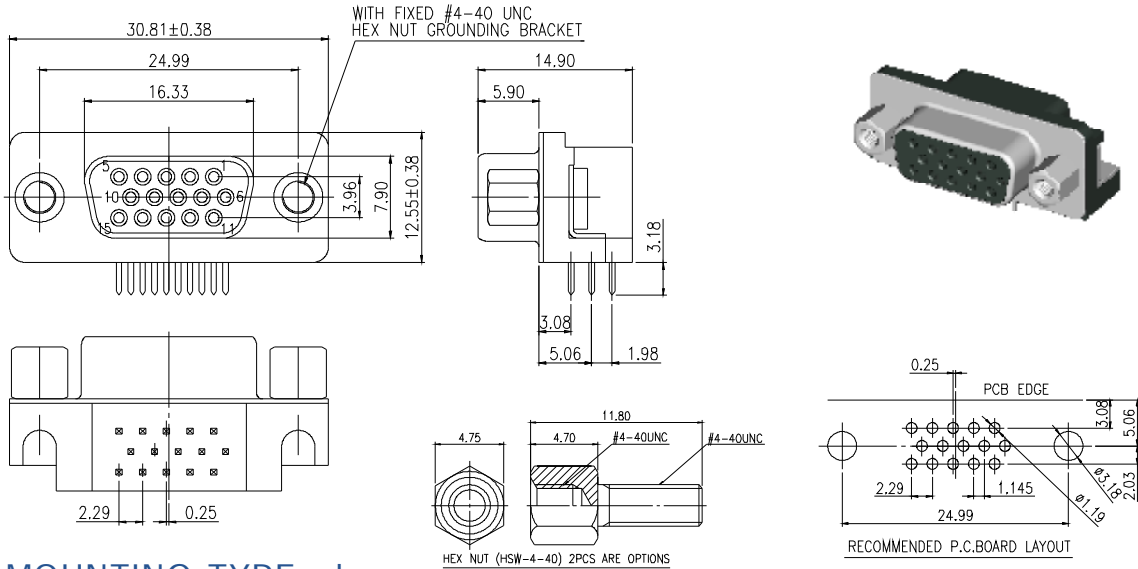
USA TEL : 1-510-979-2188
FAX : 1-510-979-2189

TAIWAN TEL : 886-2-2755-3193
FAX : 886-2-2784-5109

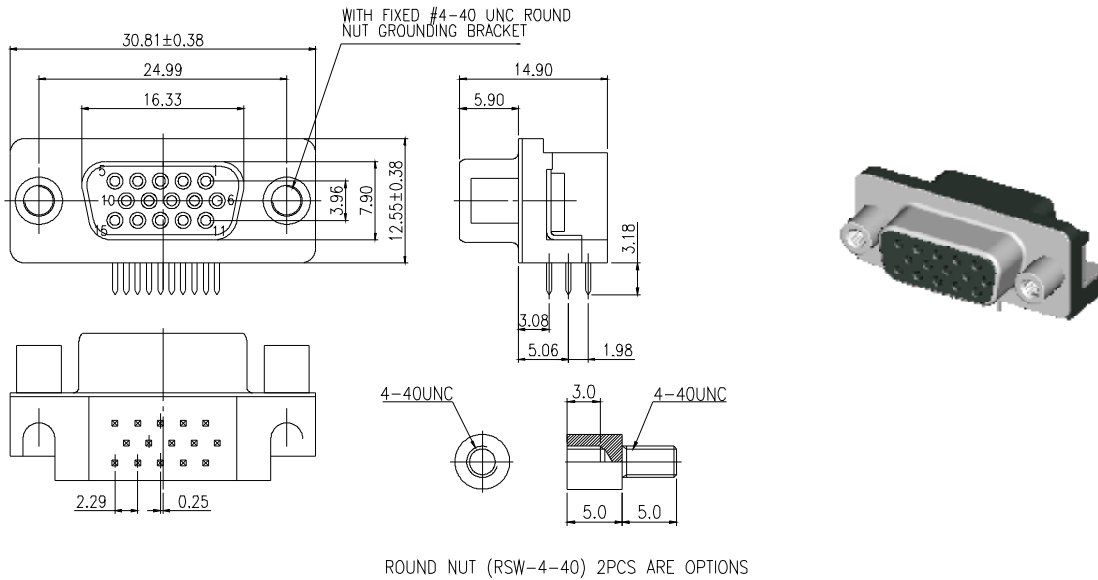
SINGAPORE TEL : 65-6274-0566
FAX : 65-6274-7891

HDB 150 SERIES - MOUNTING TYPE *d* or *rd* RIGHT ANGLE TYPE - Pa

MOUNTING TYPE *d*



MOUNTING TYPE *rd*



HDB **150** - **Pa** **X** **15** **GX** - **d or rd**

HIGH DENSITY
D- SUB

SERIES NO.
150: FOOT PRINT= 3.08MM

GENDER
M: MALE

PCB TYPE.
Pa: RIGHT ANGLE TYPE

NO. OF CONTACT
15

CONTACT PLATING OPTION
Gf: GOLD FLASH
Gf: GOLD FLASH ON CONTACT, TIN PLATED ON SOLDER TAIL
G15: 15u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL
G30: 30u" GOLD ON CONTACT, TIN PLATED ON SOLDER TAIL

MOUNTING TYPE
d: WITH FIXED #4-40UNC HEX NUT GROUNDING BRACKET
rd: WITH FIXED #4-40UNC ROUND NUT GROUNDING BRACKET

ELECTRICAL CHARACTERISTIC
CONTACT CURRENT RATING: 3 AMP
CONTACT RESISTANCE: 25 M OHM MAX.
INSULATION RESISTANCE: 5000 OHM MIN. AT 500V DC
DIELECTRIC WITHSTANDING VOLTAGE: AC 1000V / MIN. R.M.S
OPERATING TEMPERATURE:-55°C~ +105°C

MATERIALS
INSULATOR: P.B.T. UL 94V-0 RATED
SHELL: COLD ROLLER STEEL
CONTACTS: BRASS

NOTE : SOME SIZES, STYLES AND OPTION ARE NON-STANDARD, NON-CANCELLABLE, NON-RETURNABLE