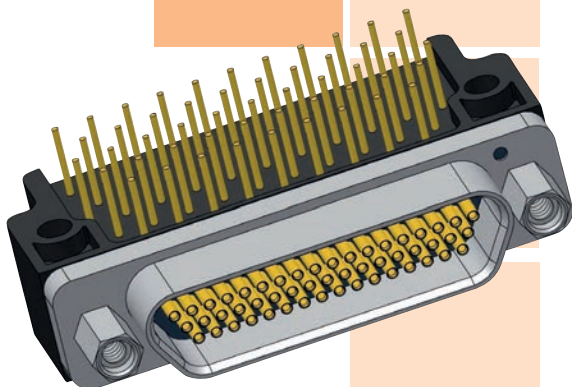




PCB RECTANGULAR CONNECTORS

CBR TYPE

0.100" PITCH

METAL SHELL

- Condensed board right angle connector for flexible and rigid printed circuit boards.
- Operating temperature :150°C or 200°C.
- Several tail lengths available.

IDENTIFICATION CODE

MDA

2

51

S

CBR

P

G

3

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

- 1 : Cadmium aluminium shell + potting 150°C.
 2 : Nickel aluminium shell + potting 150°C.
 3 : Nickel aluminium shell + potting 200°C.
 S : Passivated stainless steel shell + potting 200°C.

NUMBER OF CONTACTS

09,15,21,25,31,37,51,100.

See pages 16&17 for contact arrangements.

CONNECTOR GENDER

- P : Male (pin contacts).
 S : Female (socket contacts).

PCB VERSION

CBR : 0.100" Condensed Board Right Angle.

HARDWARE

- B : No hardware.
 P : Jackposts.
 T : Threaded inserts installed.
 W : Jackposts and threaded inserts installed.

CONDUCTOR TYPE

- G : Gold plated solid conductor AWG 25.
 T : Tin plated solid conductor AWG 24.

See page 19 for conductor types.

TAIL LENGTH

- 1 : 2.80 mm (0.110").
 2 : 3.80 mm (0.150").
 3 : 4.80 mm (0.190").
 4 : 6.35 mm (0.250").

Tolerance : +/- 0.38 mm (0.015").

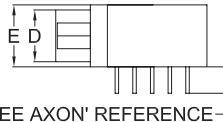
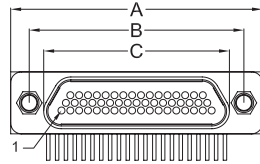
Other lengths available on request.

METAL CONNECTORS ARE SUPPLIED WITH ANTI-STATIC PROTECTIVE DUST CAPS

DIMENSIONS

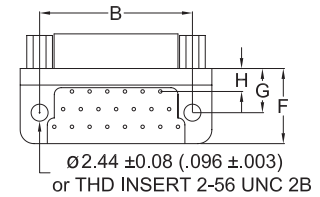
Dimensions are in millimetres (inches).

FEMALE connector

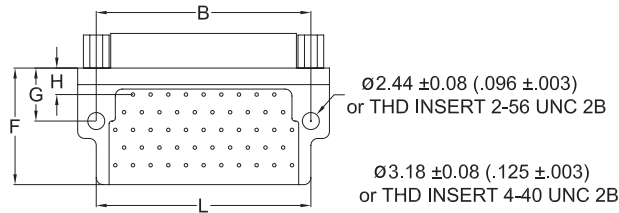


SEE AXON' REFERENCE

9-25 way connectors

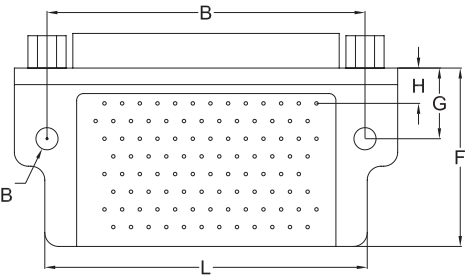


31-51 way connectors



SEE CONTACT LAYOUT ON PCB PAGES 74/75

100 way connectors



Standard Micro-D
connectors

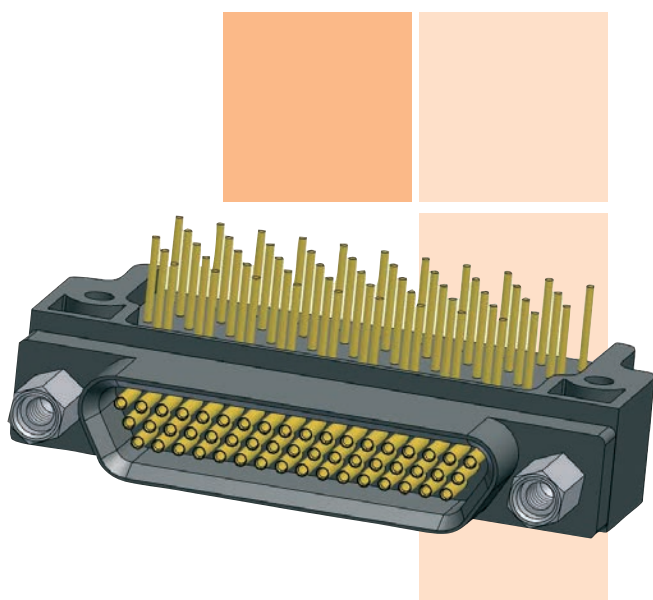
	A max.	B ± 0.13 (±.005)	C max.		D max.		E max.	F max.	G ± 0.25 (±.010)	H ± 0.25 (±.010)	L max.
			Male	Female	Male	Female					
9 P / 9 S	19.94 .785	14.35 .565	8.48 .334	10.16 .400	4.69 .185	6.35 .250	7.82 .308	10.80 .425	6.35 .250	5.84 .230	-
15 P / 15 S	23.75 .935	18.16 .715	12.29 .484	14.00 .551	4.69 .185	6.35 .250	7.82 .308	10.80 .425	6.35 .250	3.30 .130	-
21 P / 21 S	27.56 1.085	21.97 .865	16.10 .634	17.81 .701	4.69 .185	6.35 .250	7.82 .308	10.80 .425	6.35 .250	3.30 .130	-
25 P / 25 S	30.10 1.185	24.51 .965	18.64 .734	20.35 .801	4.69 .185	6.35 .250	7.82 .308	10.80 .425	6.35 .250	3.30 .130	-
31 P / 31 S	33.91 1.335	28.32 1.115	22.45 .883	24.16 .951	4.69 .185	6.35 .250	7.82 .308	13.34 .525	6.35 .250	3.30 .130	27.69 1.090
37 P / 37 S	37.72 1.485	32.13 1.265	26.26 1.034	27.96 1.101	4.69 .185	6.35 .250	7.82 .308	13.34 .525	6.35 .250	3.30 .130	30.23 1.190
51 P / 51 S	36.45 1.435	30.86 1.215	24.99 .984	26.70 1.051	5.79 .228	7.44 .293	8.92 .351	16.76 .660	7.62 .300	3.81 .150	31.24 1.230
100 P / 100 S	55.11 2.170	45.72 1.800	35.15 1.384	36.86 1.451	6.88 .271	8.46 .333	10.01 .394	25.65 1.010	10.16 .400	5.08 .200	46.36 1.825

SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE	
CURRENT RATING	3 A max.
CONTACT RESISTANCE	8 mΩ max.
INSULATION RESISTANCE	5000 MΩ min. @ 500 V DC
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC Altitude 21 km (70,000 ft) : 150 V AC
CONTACT ENGAGING FORCE	170 g max. (6 oz)
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)
CONTACT RETENTION	2.26 kg (5 lbs)
DURABILITY	500 mating cycles min.
VIBRATION	20g's – No discontinuity > 1 μs
SHOCK	50g's – No discontinuity > 1 μs

MATERIAL & FINISH	
SHELL	Aluminium Alloy 6061 or 300 series stainless steel, see ordering info for plating options
MOULDED INSULATOR	Liquid Crystal Polymer (LCP)
INTERFACIAL SEAL	Fluorosilicone rubber
PIN CONTACT	Copper and beryllium copper, gold over nickel plating
SOCKET CONTACT	Copper alloy, gold over nickel plating
ENCAPSULANT	Epoxy resin
MOULDED TRAY	Liquid Crystal Polymer (LCP)
PCB TERMINALS	See ordering info for PCB terminals material
HARDWARE	300 series stainless steel, passivated

SEE PAGE 15 FOR MORE INFORMATION



PCB RECTANGULAR CONNECTORS

CBR TYPE

0.100" PITCH

PLASTIC SHELL

- Condensed board right angle connector for flexible and rigid printed circuit boards.
- Operating temperature :150°C or 200°C.
- Several tail lengths available.

IDENTIFICATION CODE

MDA

L

51

S

CBR

P

G

3

SERIES**MDA** : Micro-D AXON' standard series.**CONNECTOR TYPE****P** : LCP shell + potting 150°C.**L** : LCP shell + potting 200°C.**NUMBER OF CONTACTS**

09,15,21,25,31,37,51.

*See pages 16&17 for contact arrangements.***CONNECTOR GENDER****P** : Male (pin contacts).**S** : Female (socket contacts).**PCB VERSION****CBR** : 0.100" Condensed Board Right Angle.**HARDWARE****B** : No hardware.**P** : Jackposts.**T** : Threaded inserts installed.**W** : Jackposts and threaded inserts installed.**CONDUCTOR TYPE****G** : Gold plated solid conductor AWG 25.**T** : Tin plated solid conductor AWG 24.*See page 19 for conductor types.***TAIL LENGTH****1** : 2.80 mm (0.110").**2** : 3.80 mm (0.150").**3** : 4.80 mm (0.190").**4** : 6.35 mm (0.250").

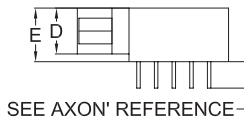
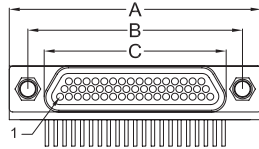
Tolerance : +/- 0.38 mm (0.015").

Other lengths available on request.

DIMENSIONS

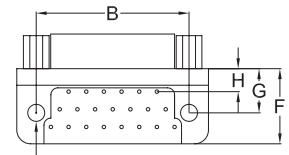
Dimensions are in millimetres (inches).

FEMALE connector



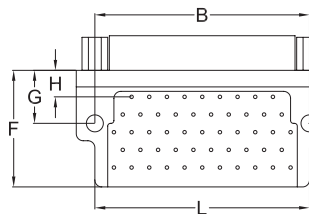
SEE AXON' REFERENCE

9-25 way connectors



Ø2.44 ±0.08 (.096 ±.003)
or THD INSERT 2-56 UNC 2B

31-51 way connectors



Ø2.44 ±0.08 (.096 ±.003)
or THD INSERT 2-56 UNC 2B

SEE CONTACT LAYOUT ON PCB PAGES 74/75

Standard Micro-D
connectors

	A max.	B ± 0.13 (±.005)	C max.		D max.		E max.	F max.	G ± 0.25 (±.010)	H ± 0.25 (±.010)	L max.
			Male	Female	Male	Female					
9 P / 9 S	19.94 .785	14.35 .565	7.41 .292	9.65 .380	3.40 .134	5.53 .218	6.80 .268	10.80 .425	6.35 .250	5.84 .230	-
15 P / 15 S	23.75 .935	18.16 .715	11.22 .442	13.46 .530	3.40 .134	5.53 .218	6.80 .268	10.80 .425	6.35 .250	3.30 .130	-
21 P / 21 S	27.56 1.085	21.97 .865	15.03 .592	17.27 .680	3.40 .134	5.53 .218	6.80 .268	10.80 .425	6.35 .250	3.30 .130	-
25 P / 25 S	30.10 1.185	24.51 .965	17.57 .692	19.81 .780	3.40 .134	5.53 .218	6.80 .268	10.80 .425	6.35 .250	3.30 .130	-
31 P / 31 S	33.91 1.335	28.32 1.115	21.38 .842	23.62 .930	3.40 .134	5.53 .218	6.80 .268	13.34 .525	6.35 .250	3.30 .130	27.69 1.090
37 P / 37 S	37.72 1.485	32.13 1.265	25.19 .992	27.43 1.080	3.40 .134	5.53 .218	6.80 .268	13.34 .525	6.35 .250	3.30 .130	30.23 1.190
51 P / 51 S	36.45 1.435	30.86 1.215	23.92 .942	26.16 1.030	4.50 .177	6.60 .260	7.90 .311	16.76 .660	7.62 .300	3.81 .150	31.24 1.230

SUMMARY OF CHARACTERISTICS

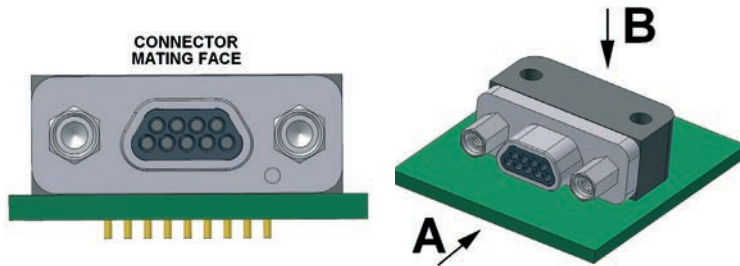
ELECTRICAL & MECHANICAL PERFORMANCE	
CURRENT RATING	3 A max.
CONTACT RESISTANCE	8 mΩ max.
INSULATION RESISTANCE	5000 MΩ min. @ 500 V DC
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC Altitude 21 km (70,000 ft) : 150 V AC
CONTACT ENGAGING FORCE	170 g max. (6 oz)
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)
CONTACT RETENTION	2.26 kg (5 lbs)
DURABILITY	500 mating cycles min.
VIBRATION	20g's - No discontinuity > 1 μs
SHOCK	50g's - No discontinuity > 1 μs

MATERIAL & FINISH	
MOULDED SHELL	Liquid Crystal Polymer (LCP)
PIN CONTACT	Copper and beryllium copper, gold over nickel plating
SOCKET CONTACT	Copper alloy, gold over nickel plating
ENCAPSULANT	Epoxy resin
MOULDED TRAY	Liquid Crystal Polymer (LCP)
PCB TERMINALS	See ordering info for PCB terminals material
HARDWARE	300 series stainless steel, passivated

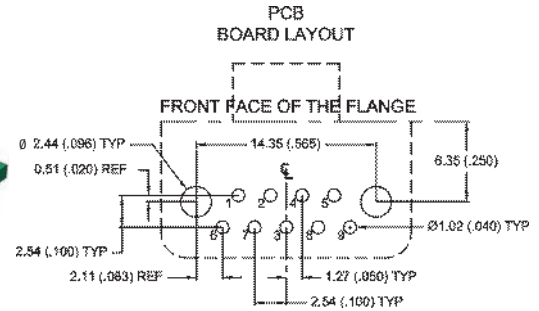
SEE PAGE 15 FOR MORE INFORMATION

PCB LAYOUT FOR CBR TYPE 0.100" PITCH - MALE CONNECTORS

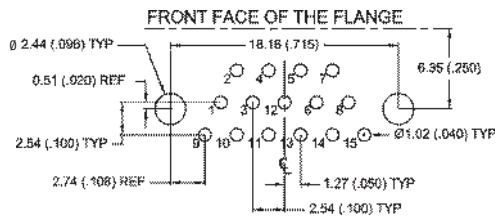
VIEW A



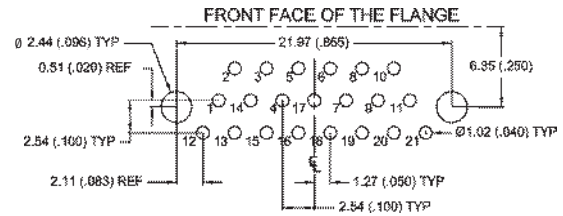
9 CONTACTS - VIEW B



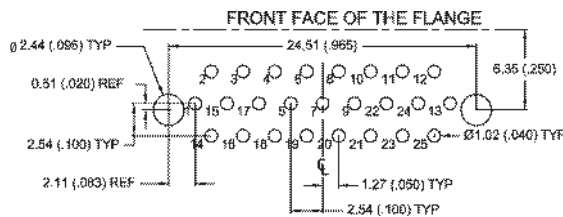
15 CONTACTS - VIEW B



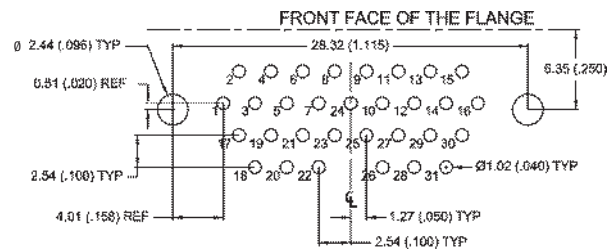
21 CONTACTS - VIEW B



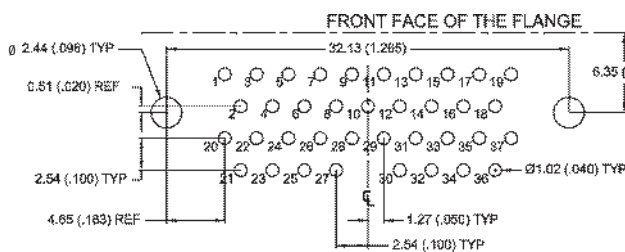
25 CONTACTS - VIEW B



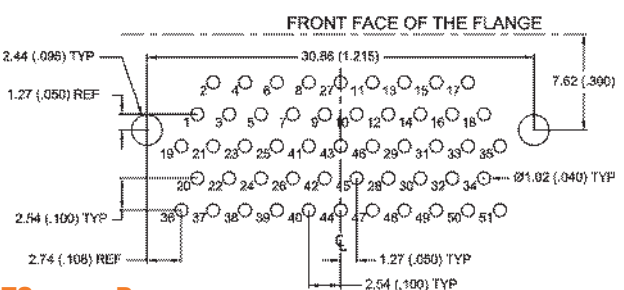
31 CONTACTS - VIEW B



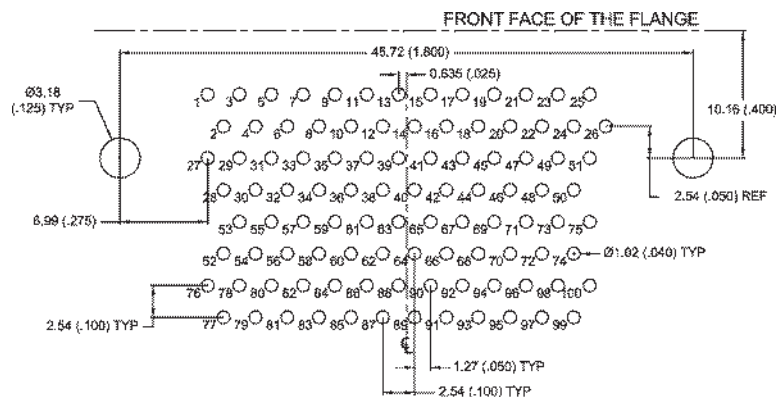
37 CONTACTS - VIEW B



51 CONTACTS - VIEW B

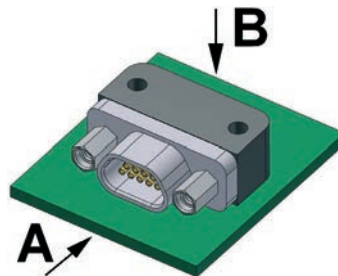


100 CONTACTS - VIEW B

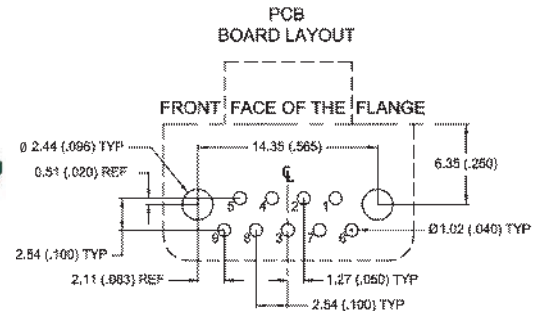


PCB LAYOUT FOR CBR TYPE 0.100" PITCH - FEMALE CONNECTORS

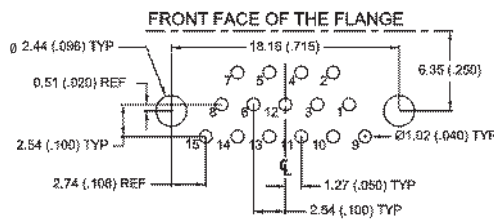
VIEW A



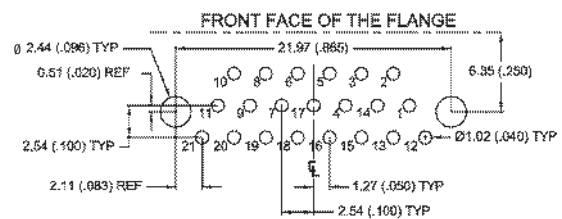
9 CONTACTS - VIEW B



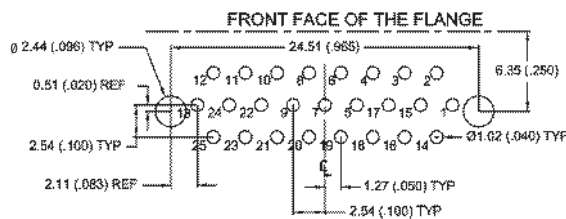
15 CONTACTS - VIEW B



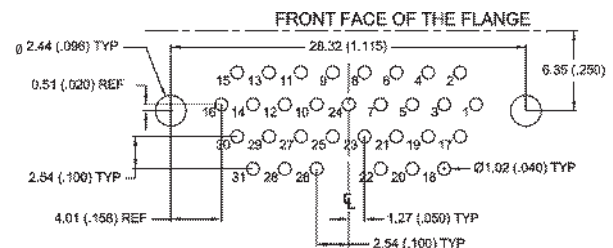
21 CONTACTS - VIEW B



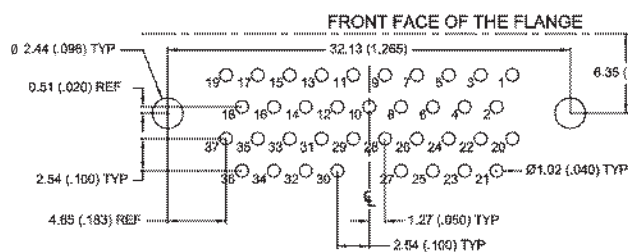
25 CONTACTS - VIEW B



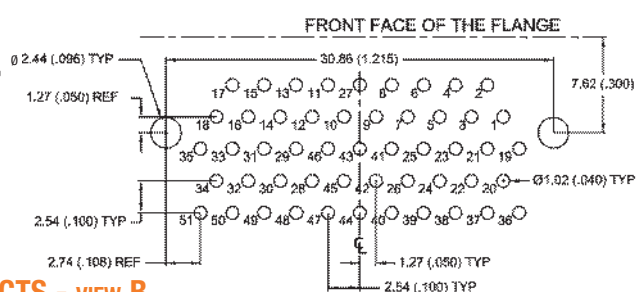
31 CONTACTS - VIEW B



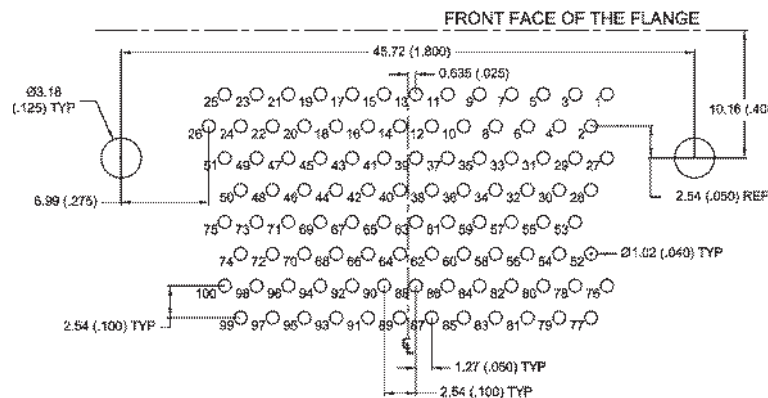
37 CONTACTS - VIEW B

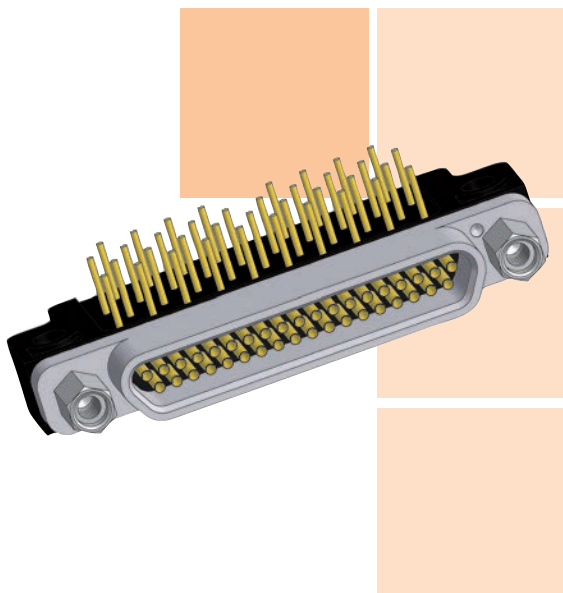


51 CONTACTS - VIEW B



100 CONTACTS - VIEW B





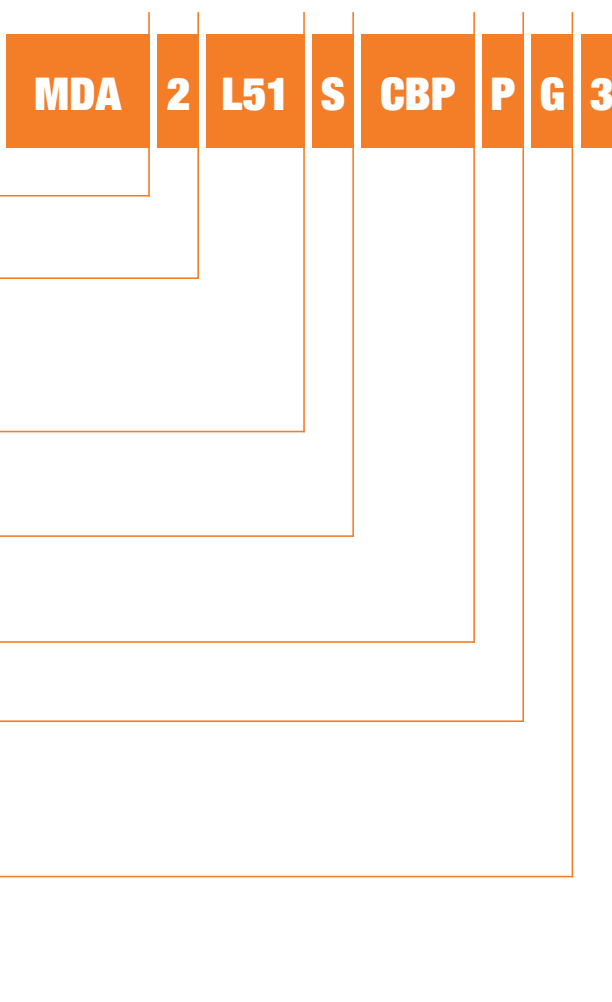
RECTANGULAR CONNECTORS

CBP TYPE LOW PROFILE CBR 0.100" PITCH

METAL SHELL

- Low profile condensed board right angle connector for flexible and rigid printed circuit boards.
- Operating temperature : 150°C or 200°C.
- Several tail lengths available.

IDENTIFICATION CODE



SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

- 1** : Cadmium aluminium shell + potting 150°C.
- 2** : Nickel aluminium shell + potting 150°C.
- 3** : Nickel aluminium shell + potting 200°C.
- S** : Passivated stainless steel shell + potting 200°C.

NUMBER OF CONTACTS

L09, L15, L21, L25, L31, L37, L51
See pages 16 & 17 for contact arrangements.

CONNECTOR GENDER

- P** : Male (pin contacts).
- S** : Female (socket contacts).

PCB VERSION

CBP : 0.100" Condensed Board Right Angle, low profile.

HARDWARE

- B** : No hardware.
- P** : Jackposts.
- T** : Threaded inserts installed.
- W** : Jackposts and threaded inserts installed.

CONDUCTOR TYPE

- G** : Gold plated solid conductor AWG 25.
 - T** : Tin plated solid conductor AWG 24.
- See page 19 for conductor types.*

TAIL LENGTH

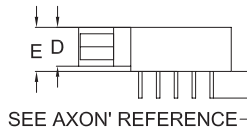
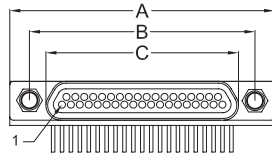
- 1** : 2.80 mm (0.110").
 - 2** : 3.80 mm (0.150").
 - 3** : 4.80 mm (0.190").
 - 4** : 6.35 mm (0.250").
- Tolerance : +/- 0.38 mm (0.015").
Other lengths available on request.

METAL CONNECTORS ARE SUPPLIED WITH ANTI-STATIC PROTECTIVE DUST CAPS

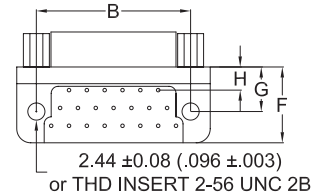
DIMENSIONS

Dimensions are in millimetres (inches).

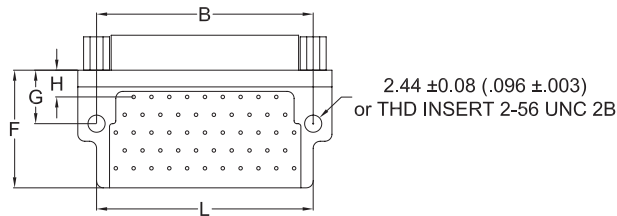
FEMALE connector



9-25 way connectors



31-51 way connectors



SEE CONTACT LAYOUT ON PCB PAGES 80/81

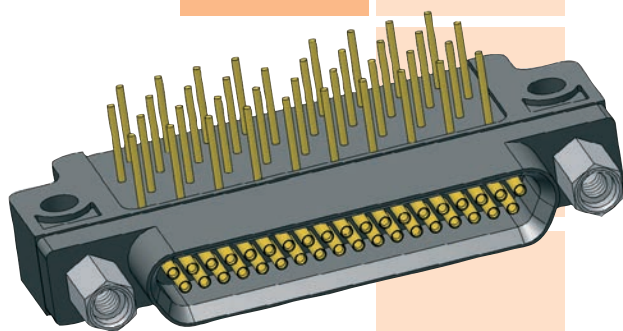
	A ± 0.25 (±.010)	B ± 0.13 (±.005)	C max.		D max.		E max.	F max.	G ± 0.25 (±.010)	H ± 0.25 (±.010)	L max.
			Male	Female	Male	Female					
9 P / 9 S	19.94 .785	14.35 .565	7.47 .294	9.65 .380	3.40 .134	5.53 .218	5.70 .224	10.80 .425	6.35 .250	5.84 .230	-
15 P / 15 S	23.75 .935	18.16 .715	11.28 .444	13.46 .530	3.40 .134	5.53 .218	5.70 .224	10.80 .425	6.35 .250	3.30 .130	-
21 P / 21 S	27.56 1.085	21.97 .865	15.09 .594	17.27 .680	3.40 .134	5.53 .218	5.70 .224	10.80 .425	6.35 .250	3.30 .130	-
25 P / 25 S	30.10 1.185	24.51 .965	17.63 .694	19.81 .780	3.40 .134	5.53 .218	5.70 .224	10.80 .425	6.35 .250	3.30 .130	-
31 P / 31 S	33.91 1.335	28.32 1.115	21.44 .844	23.62 .930	3.40 .134	5.53 .218	5.70 .224	13.34 .525	6.35 .250	3.30 .130	27.69 1.090
37 P / 37 S	37.72 1.485	32.13 1.265	25.25 .994	27.43 1.080	3.40 .134	5.53 .218	5.70 .224	13.34 .525	6.35 .250	3.30 .130	30.23 1.100
51 P / 51 S	36.45 1.435	30.86 1.215	23.98 .944	26.16 1.030	4.50 .177	6.60 .260	7.70 .303	16.76 .660	7.62 .300	3.81 .150	31.24 1.230

SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE	
CURRENT RATING	3 A max.
CONTACT RESISTANCE	8 mΩ max.
INSULATION RESISTANCE	5000 MΩ min. @ 500 V AC
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC
	Altitude 21 km (70,000 ft) : 150 V AC
CONTACT ENGAGING FORCE	170 g max. (6 oz)
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)
CONTACT RETENTION	2,26 kg (5 lbs)
DURABILITY	500 mating cycles min.
VIBRATION	20g's - No discontinuity > 1μs
SHOCK	50g's - No discontinuity > 1μs

MATERIAL & FINISH	
SHELL	Aluminium alloy 6061 or 300 series stainless steel, see ordering info for plating options
MOULDED INSULATOR	Liquid Crystal Polymer (LCP)
PIN CONTACT	Copper and beryllium copper, gold over nickel plating
SOCKET CONTACT	Copper alloy, gold over nickel plating
ENCAPSULENT	Epoxy resin
MOULDED TRAY	Liquid Crystal Polymer (LCP)
PCB TERMINALS	See ordering info for PCB terminals material
HARDWARE	300 series stainless steel, passivated

SEE PAGE 15 FOR MORE INFORMATION



PCB RECTANGULAR CONNECTORS

CBP TYPE

LOW PROFILE CBR

0.100" PITCH

PLASTIC SHELL

- Low profile condensed board right angle connector for flexible and rigid printed circuit boards.
- Operating temperature : 150°C or 200°C.
- Several tail lengths available.

IDENTIFICATION CODE

MDA

L

37

S

CBP

P

G

3

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

P : LCP shell + potting 150°C.

L : LCP shell + potting 200°C.

NUMBER OF CONTACTS

09,15,21,25,31,37,51.

See pages 16&17 for contact arrangements.

CONNECTOR GENDER

P : Male (pin contacts).

S : Female (socket contacts).

PCB VERSION

CBP : 0.100" Condensed Board Right Angle, low profile.

HARDWARE

B : No hardware.

P : Jackposts.

T : Threaded inserts installed.

W : Jackposts and threaded inserts installed.

CONDUCTOR TYPE

G : Gold plated solid conductor AWG 25.

T : Tin plated solid conductor AWG 24.

See page 19 for conductor types.

TAIL LENGTH

1 : 2.80 mm (0.110").

2 : 3.80 mm (0.150").

3 : 4.80 mm (0.190").

4 : 6.35 mm (0.250").

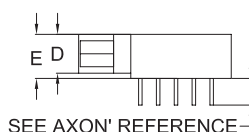
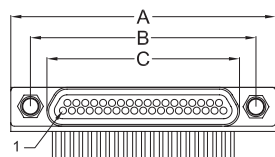
Tolerance : +/- 0.38 mm (0.015").

Other lengths available on request.

DIMENSIONS

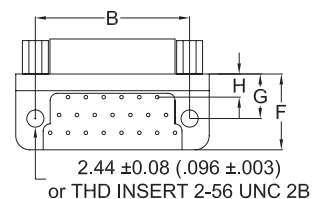
Dimensions are in millimetres (inches).

FEMALE connector

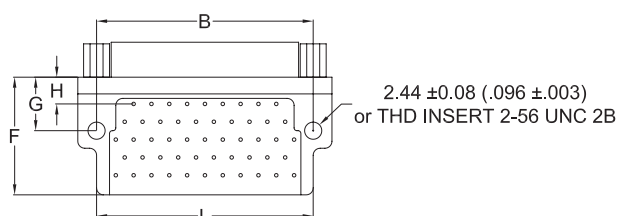


SEE AXON' REFERENCE

9-25 way connectors



31-51 way connectors



SEE CONTACT LAYOUT ON PCB PAGES 80/81

	A max.	B ± 0.13 (±.005)	C max.		D max.		E max.	F max.	G ± 0.25 (±.010)	H ± 0.25 (±.010)	L max.
			Male	Female	Male	Female					
9 P / 9 S	19.94 .785	14.35 .565	7.41 .292	9.65 .380	3.40 .134	5.53 .218	5.70 .224	10.80 .425	6.35 .250	5.84 .230	-
15 P / 15 S	23.75 .935	18.16 .715	11.22 .442	13.46 .530	3.40 .134	5.53 .218	5.70 .224	10.80 .425	6.35 .250	3.30 .130	-
21 P / 21 S	27.56 1.085	21.97 .865	15.03 .592	17.27 .680	3.40 .134	5.53 .218	5.70 .224	10.80 .425	6.35 .250	3.30 .130	-
25 P / 25 S	30.10 1.185	24.51 .965	17.57 .692	19.81 .780	3.40 .134	5.53 .218	5.70 .224	10.80 .425	6.35 .250	3.30 .130	-
31 P / 31 S	33.91 1.335	28.32 1.115	21.38 .842	23.62 .930	3.40 .134	5.53 .218	5.70 .224	13.34 .525	6.35 .250	3.30 .130	27.69 1.090
37 P / 37 S	37.72 1.485	32.13 1.265	25.19 .992	27.43 1.080	3.40 .134	5.53 .218	5.70 .224	13.34 .525	6.35 .250	3.30 .130	30.23 1.100

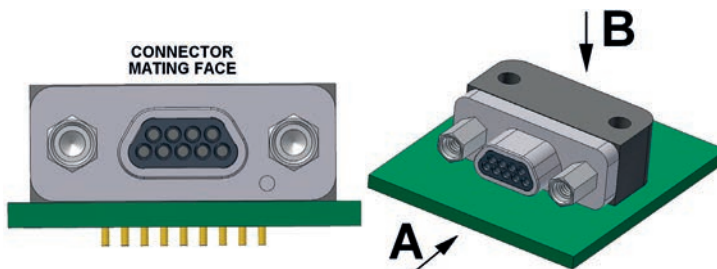
SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE		MATERIAL & FINISH	
CURRENT RATING	3 A max.	MOULDED SHELL	Liquid Crystal Polymer (LCP)
CONTACT RESISTANCE	8 mΩ max.	PIN CONTACT	Copper and beryllium copper, Gold over nickel plating
INSULATION RESISTANCE	5000 MΩ min. @ 500 V DC	SOCKET CONTACT	Copper alloy, gold over nickel plating
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC Altitude 21 km (70,000 ft) : 150 V AC	ENCAPSULANT	Epoxy resin
CONTACT ENGAGING FORCE	170 g max. (6 oz)	MOULDED TRAY	Liquid Crystal Polymer (LCP)
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)	PCB TERMINALS	See ordering info for PCB terminals material
CONTACT RETENTION	2.26 kg (5 lbs)	HARDWARE	300 series stainless steel, passivated
DURABILITY	500 mating cycles min.		
VIBRATION	20g's - No discontinuity > 1 μs		
SHOCK	50g's - No discontinuity > 1 μs		

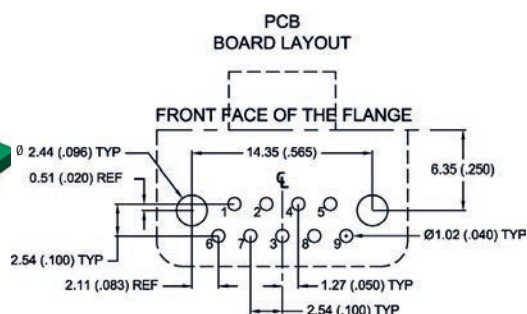
SEE PAGE 15 FOR MORE INFORMATION

PCB LAYOUT FOR CBP TYPE 0.100" PITCH - MALE CONNECTORS

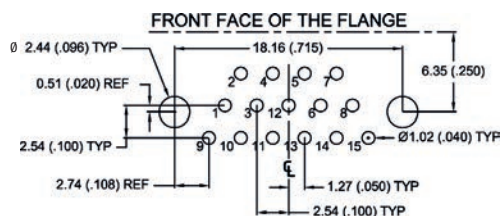
VIEW A



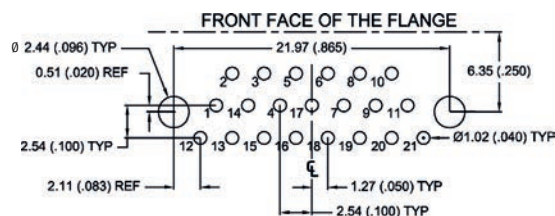
9 CONTACTS - VIEW B



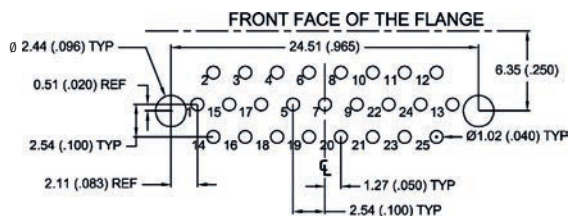
15 CONTACTS - VIEW B



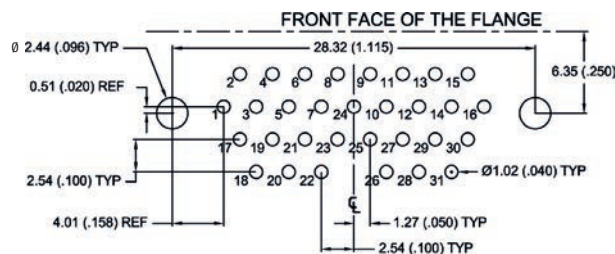
21 CONTACTS - VIEW B



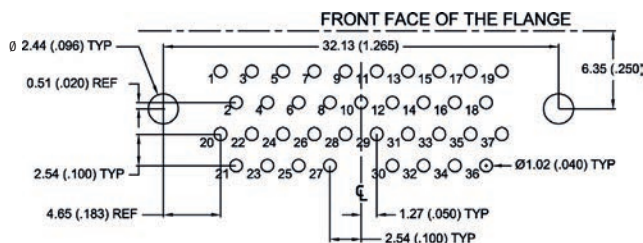
25 CONTACTS - VIEW B



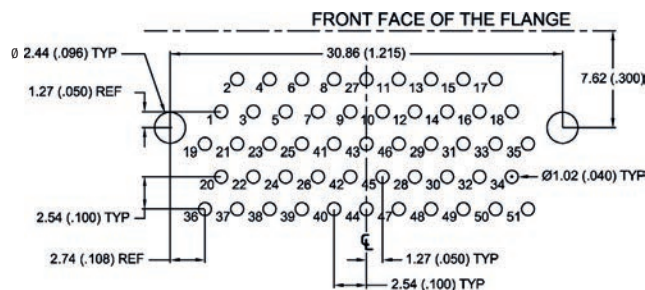
31 CONTACTS - VIEW B



37 CONTACTS - VIEW B

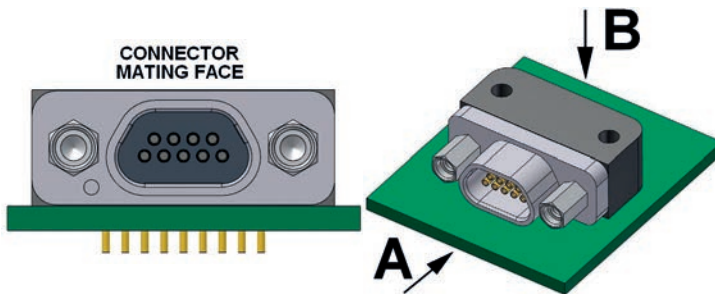


51 CONTACTS - VIEW B

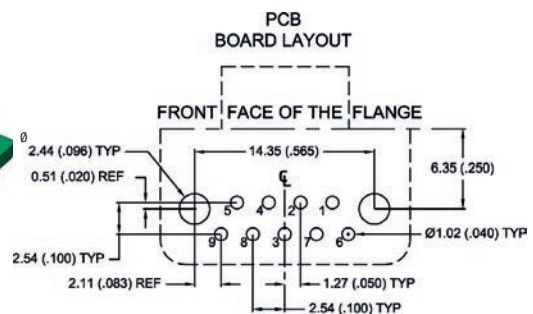


PCB LAYOUT FOR CBP TYPE 0.100" PITCH - FEMALE CONNECTORS

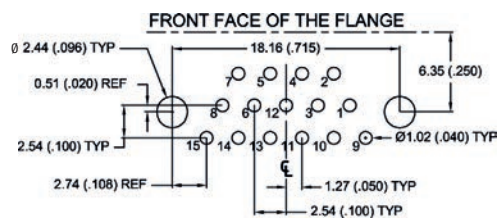
VIEW A



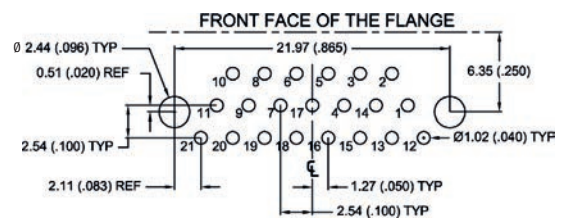
9 CONTACTS - VIEW B



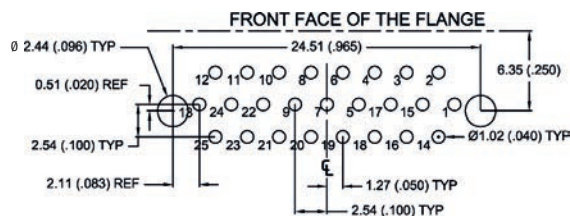
15 CONTACTS - VIEW B



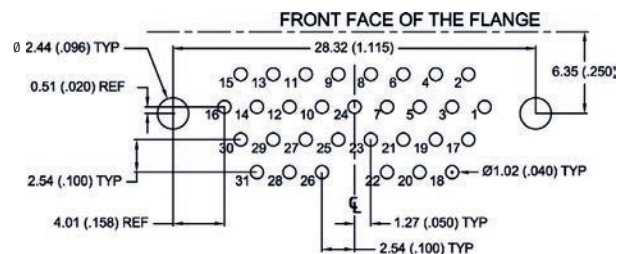
21 CONTACTS - VIEW B



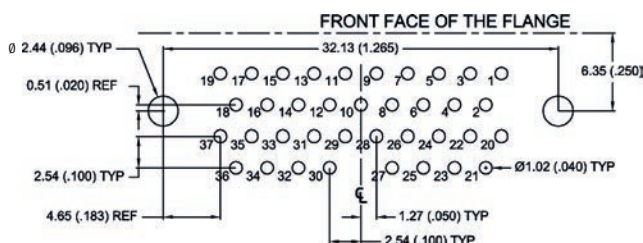
25 CONTACTS - VIEW B



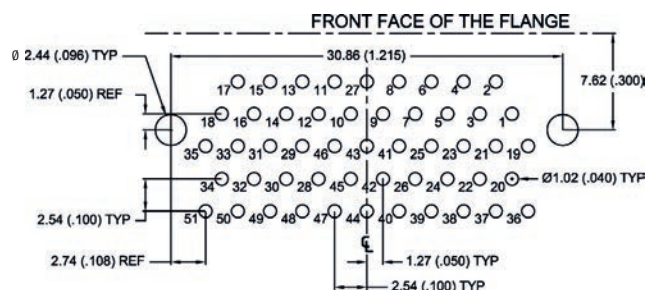
31 CONTACTS - VIEW B

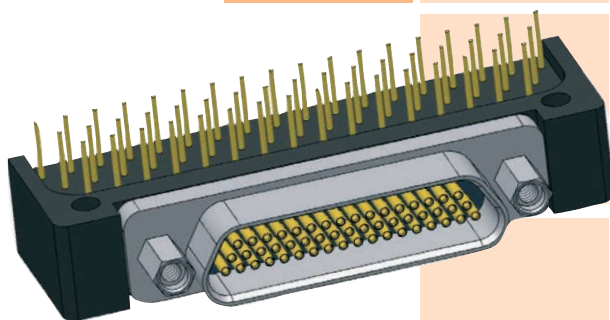


37 CONTACTS - VIEW B



51 CONTACTS - VIEW B





PCB RECTANGULAR CONNECTORS

BR TYPE

0.100" PITCH

METAL SHELL

- Board right angle connector for flexible and rigid printed circuit boards.
- Operating temperature :150°C or 200°C.
- Several tail lengths available.

PLEASE CONTACT US FOR CLASS P (PLASTIC)
BR CONNECTORS.

IDENTIFICATION CODE

MDA

2

51

S

BR

P

G

3

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

- 1** : Cadmium aluminium shell + potting 150°C.
2 : Nickel aluminium shell + potting 150°C.
3 : Nickel aluminium shell + potting 200°C.
S : Passivated stainless steel shell + potting 200°C.

NUMBER OF CONTACTS

09,15,21,25,31,37,51,100.
See pages 16&17 for contact arrangements.

CONNECTOR GENDER

- P** : Male (pin contacts).
S : Female (socket contacts).

PCB VERSION

BR : 0.100" Board Right Angle.

HARDWARE

- B** : No hardware.
P : Jackposts.
T : Threaded inserts installed.
W : Jackposts and threaded inserts installed.

CONDUCTOR TYPE

- G** : Gold plated solid conductor AWG 25.
T : Tin plated solid conductor AWG 24.
See page 19 for conductor types.

TAIL LENGTH

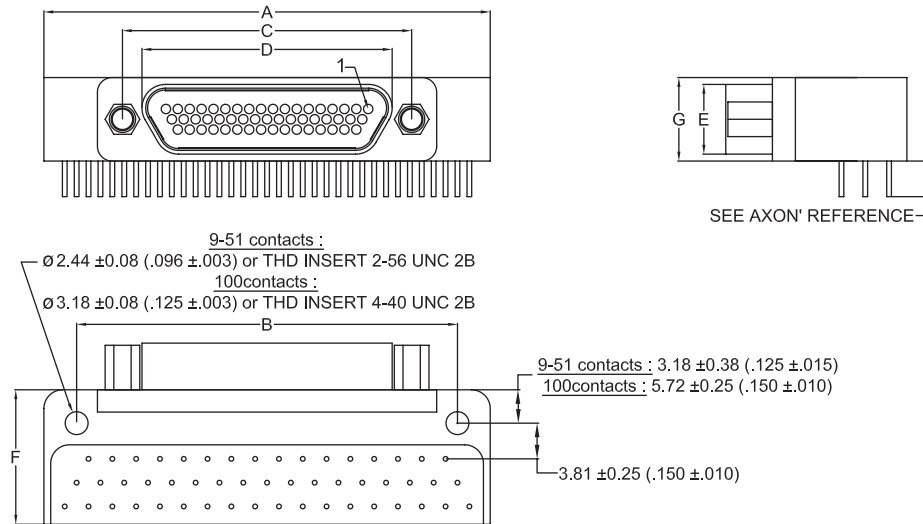
- 1** : 2.80 mm (0.110").
2 : 3.80 mm (0.150").
3 : 4.80 mm (0.190").
4 : 6.35 mm (0.250").
 Tolerance : +/- 0.38 mm (0.015").
 Other lengths available on request.

METAL CONNECTORS ARE SUPPLIED WITH ANTI-STATIC PROTECTIVE DUST CAPS

DIMENSIONS

Dimensions are in millimetres (inches).

FEMALE connector



SEE CONTACT LAYOUT ON PCB PAGES 84/85

	A max.	B ± 0.18 ($\pm .007$)	C ± 0.13 ($\pm .005$)	D max.		E max.		F max.	G ± 0.25 ($\pm .010$)
				Male	Female	Male	Female		
9 P / 9 S	35.31 1.390	29.21 1.150	14.35 .565	8.48 .334	10.16 .400	4.69 .185	6.35 .250	11.81 .465	7.87 .310
15 P / 15 S	39.12 1.540	33.02 1.300	18.16 .715	12.29 .484	14.00 .551	4.69 .185	6.35 .250	11.81 .465	7.87 .310
21 P / 21 S	42.93 1.690	36.83 1.450	21.97 .865	16.10 .634	17.81 .701	4.69 .185	6.35 .250	11.81 .465	7.87 .310
25 P / 25 S	45.47 1.790	39.37 1.550	24.51 .965	18.64 .734	20.35 .801	4.69 .185	6.35 .250	11.81 .465	7.87 .310
31 P / 31 S	51.82 2.040	45.72 1.800	28.32 1.115	22.45 .883	24.16 .951	4.69 .185	6.35 .250	11.81 .465	7.87 .310
37 P / 37 S	59.44 2.340	53.34 2.100	32.13 1.265	26.26 1.034	27.96 1.101	4.69 .185	6.35 .250	11.81 .465	7.87 .310
51 P / 51 S	47.63 1.875	40.64 1.600	30.86 1.215	24.99 .984	26.70 1.051	5.79 .228	7.44 .293	14.35 .565	8.76 .345
100 P / 100 S	70.61 2.780	63.50 2.500	45.72 1.800	35.15 1.384	36.86 1.451	6.88 .271	8.46 .333	19.43 .765	10.29 .405

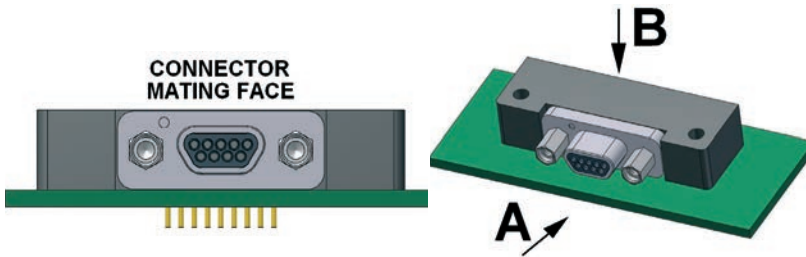
SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE		MATERIAL & FINISH	
CURRENT RATING	3 A max.	SHELL	Aluminium alloy 6061 or 300 series stainless steel, see ordering info for plating options
CONTACT RESISTANCE	8 m Ω max.	MOULDED INSULATOR	Liquid Crystal Polymer (LCP)
INSULATION RESISTANCE	5000 M Ω min. @ 500 V DC	INTERFACIAL SEAL	Fluorosilicone rubber
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC Altitude 21 km (70,000 ft) : 150 V AC	PIN CONTACT	Copper and beryllium copper, gold over nickel plating
CONTACT ENGAGING FORCE	170 g max. x number of contacts	SOCKET CONTACT	Copper alloy, gold over nickel plating
CONTACT SEPARATING FORCE	14 g min. x number of contacts	ENCAPSULANT	Epoxy resin
CONTACT RETENTION	2.26 kg (5 lbs)	MOULDED TRAY	Liquid Crystal Polymer (LCP)
DURABILITY	500 mating cycles min.	PCB TERMINALS	See ordering info for PCB terminals material
VIBRATION	20g's – No discontinuity > 1 μ s	HARDWARE	300 series stainless steel, passivated
SHOCK	50g's – No discontinuity > 1 μ s		

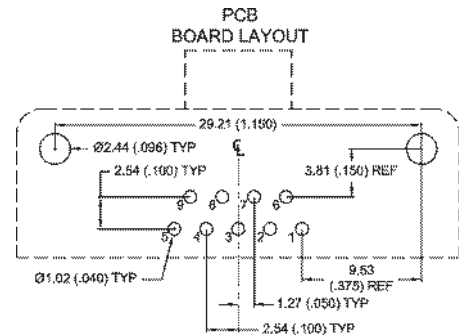
SEE PAGE 15 FOR MORE INFORMATION

PCB LAYOUT FOR BR TYPE 0.100" PITCH - MALE CONNECTORS

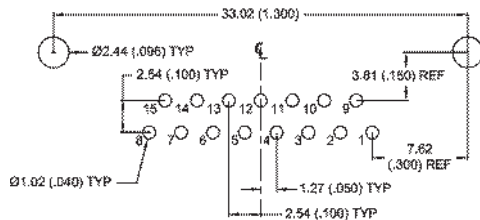
VIEW A



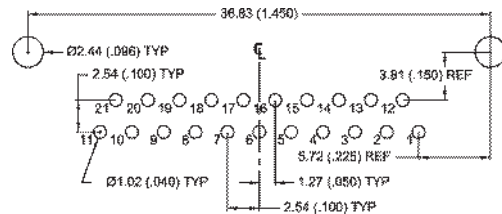
9 CONTACTS - VIEW B



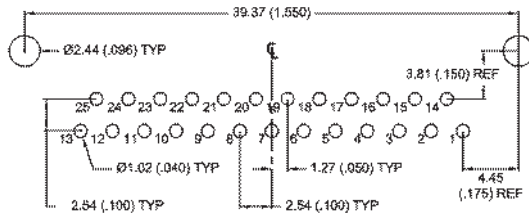
15 CONTACTS - VIEW B



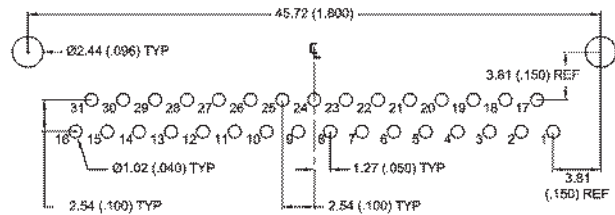
21 CONTACTS - VIEW B



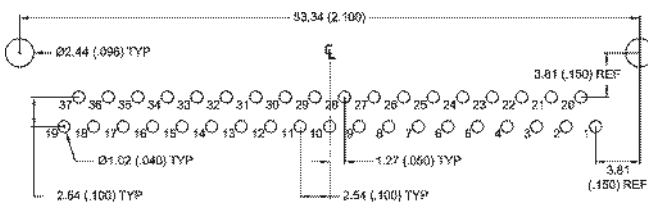
25 CONTACTS - VIEW B



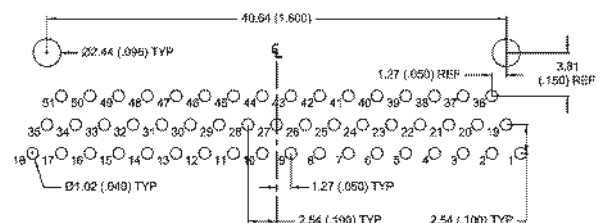
31 CONTACTS - VIEW B



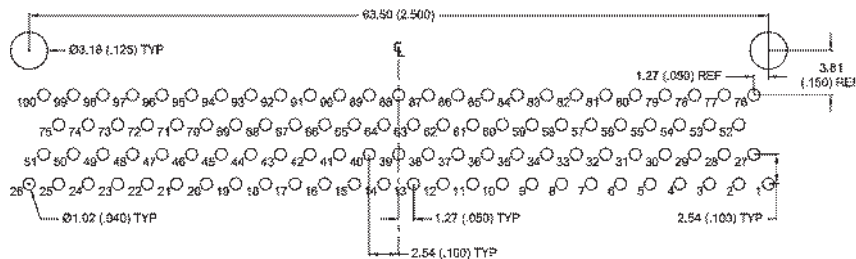
37 CONTACTS - VIEW B



51 CONTACTS - VIEW B

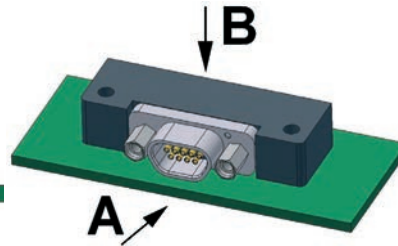


100 CONTACTS - VIEW B

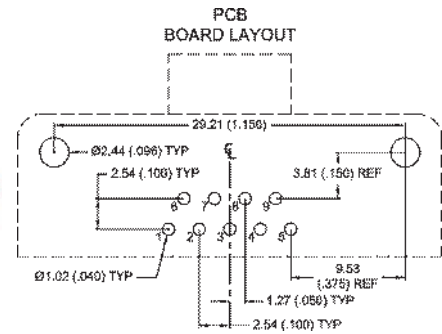


PCB LAYOUT FOR BR TYPE 0.100" PITCH - FEMALE CONNECTORS

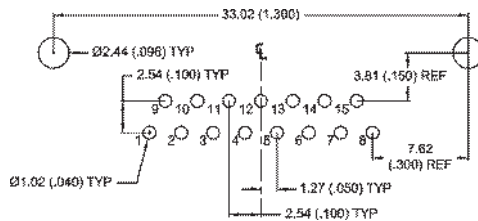
VIEW A



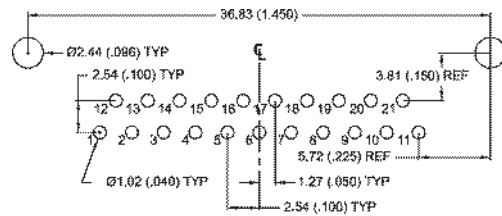
9 CONTACTS - VIEW B



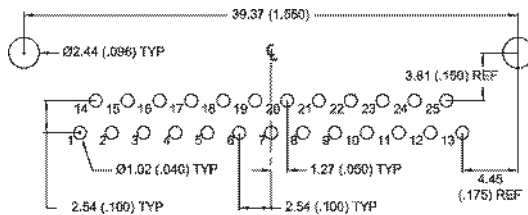
15 CONTACTS - VIEW B



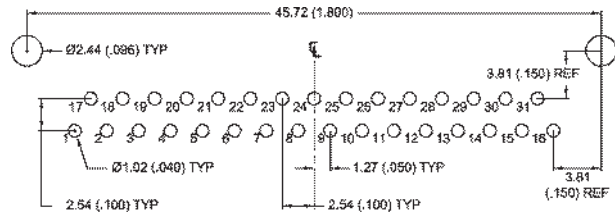
21 CONTACTS - VIEW B



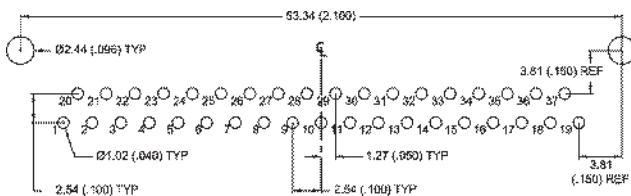
25 CONTACTS - VIEW B



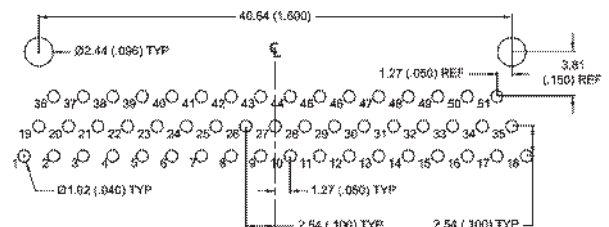
31 CONTACTS - VIEW B



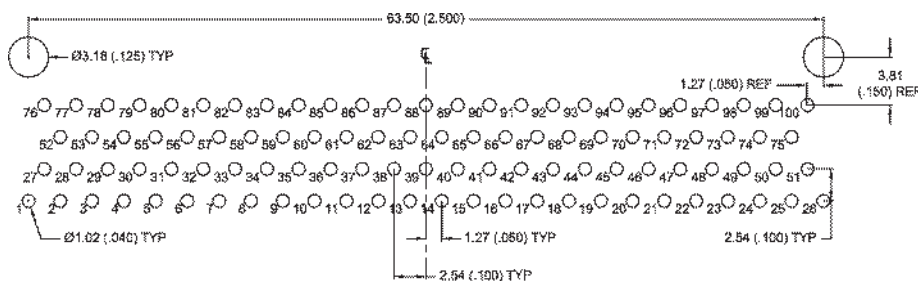
37 CONTACTS - VIEW B

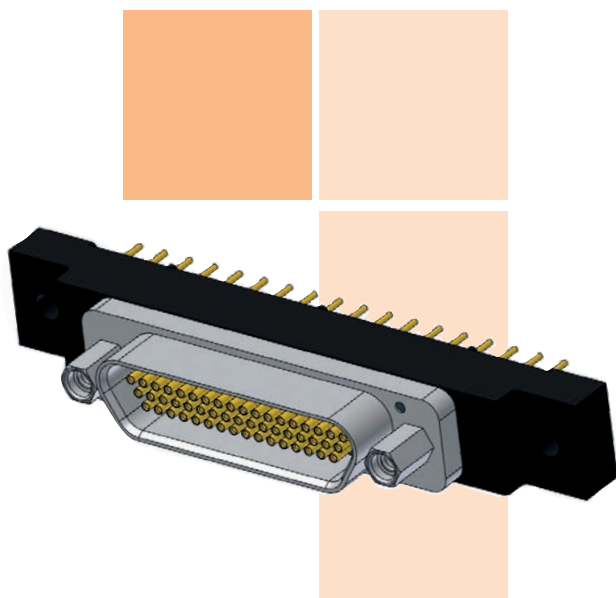


51 CONTACTS - VIEW B



100 CONTACTS - VIEW B





PCB RECTANGULAR CONNECTORS

BS TYPE

0.100" PITCH

METAL SHELL

- Board straight connector for flexible and rigid printed circuit boards.
- Operating temperature :150°C or 200°C.
- Several tail lengths available.

IDENTIFICATION CODE

MDA

2

51

S

BS

P

G

3

SERIES

MDA : Micro-D AXON® standard series.

CONNECTOR TYPE

- 1 : Cadmium aluminium shell + potting 150°C.
 2 : Nickel aluminium shell + potting 150°C.
 3 : Nickel aluminium shell + potting 200°C.
 S : Passivated stainless steel shell + potting 200°C.

NUMBER OF CONTACTS

09,15,21,25,31,37,51,100.
 See pages 16&17 for contact arrangements.

CONNECTOR GENDER

- P : Male (pin contacts).
 S : Female (socket contacts).

PCB VERSION

BS : 0.100" Board Straight.

HARDWARE

- B : No hardware.
 P : Jackposts.
 T : Threaded inserts installed.
 W : Jackposts and threaded inserts installed.

CONDUCTOR TYPE

- G : Gold plated solid conductor AWG 25.
 T : Tin plated solid conductor AWG 24.
 See page 19 for conductor types.

TAIL LENGTH

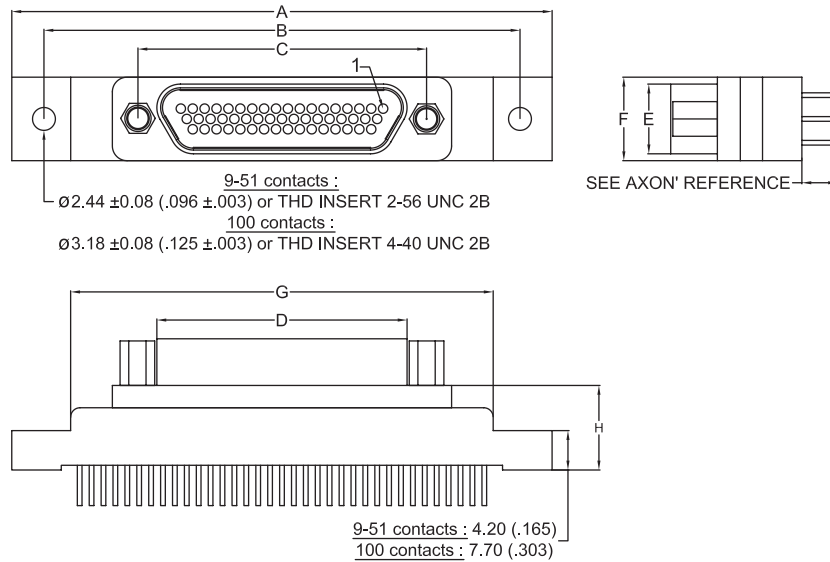
- 1 : 2.80 mm (0.110").
 2 : 3.80 mm (0.150").
 3 : 4.80 mm (0.190").
 4 : 6.35 mm (0.250").
 Tolerance : +/- 0.38 mm (0.015").
 Other lengths available on request.

METAL CONNECTORS ARE SUPPLIED WITH ANTI-STATIC PROTECTIVE DUST CAPS

DIMENSIONS

Dimensions are in millimetres (inches).

FEMALE connector



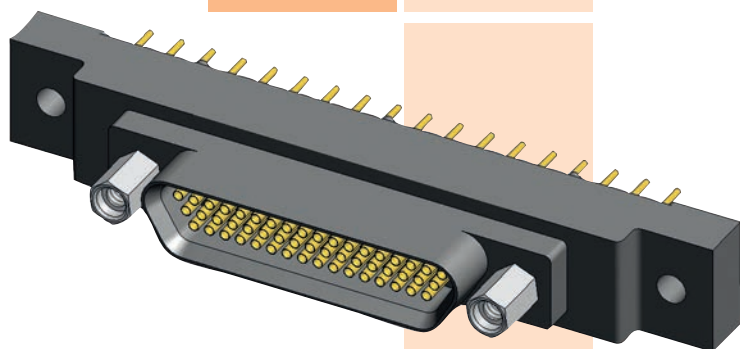
SEE CONTACT LAYOUT ON PCB PAGES 90/91

	A max.	B ± 0.18 ($\pm .007$)	C ± 0.13 ($\pm .005$)	D max.		E max.		F max.	G max.	H max.
				Male	Female	Male	Female			
9 P / 9 S	35.31 1.390	29.21 1.150	14.35 .565	8.48 .334	10.16 .400	4.69 .185	6.35 .250	7.82 .308	19.94 .785	9.02 .355
15 P / 15 S	35.31 1.390	29.21 1.150	18.16 .715	12.29 .484	14.00 .551	4.69 .185	6.35 .250	7.82 .308	24.00 .945	9.02 .355
21 P / 21 S	42.93 1.690	36.83 1.450	21.97 .865	16.10 .634	17.81 .701	4.69 .185	6.35 .250	7.82 .308	29.72 1.170	9.02 .355
25 P / 25 S	44.20 1.740	38.10 1.500	24.51 .965	18.64 .734	20.35 .801	4.69 .185	6.35 .250	7.82 .308	32.39 1.275	9.02 .355
31 P / 31 S	51.82 2.040	45.72 1.800	28.32 1.115	22.45 .883	24.16 .951	4.69 .185	6.35 .250	7.82 .308	40.01 1.575	9.02 .355
37 P / 37 S	59.44 2.340	53.34 2.100	32.13 1.265	26.26 1.034	27.96 1.101	4.69 .185	6.35 .250	7.82 .308	47.63 1.875	9.02 .355
51 P / 51 S	57.66 2.270	50.80 2.000	30.86 1.215	24.99 .984	26.70 1.051	5.79 .228	7.44 .293	8.92 .351	45.09 1.775	9.02 .355
100 P / 100 S	82.55 3.250	71.12 2.800	45.72 1.800	35.15 1.384	36.86 1.451	6.88 .271	8.46 .333	11.68 .460	65.66 2.585	13.97 .550

SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE		MATERIAL & FINISH	
CURRENT RATING	3 A max.	SHELL	Aluminium alloy 6061 or 300 series stainless steel, see ordering info for plating options
CONTACT RESISTANCE	8 m Ω max.	MOULDED INSULATOR	Liquid Crystal Polymer (LCP)
INSULATION RESISTANCE	5000 M Ω min. @ 500 V DC	INTERFACIAL SEAL	Fluorosilicone rubber
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC Altitude 21 km : 150 V AC	PIN CONTACT	Copper and beryllium copper, gold over nickel plating
CONTACT ENGAGING FORCE	170 g max. (6 oz)	SOCKET CONTACT	Copper alloy, gold over nickel plating
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)	ENCAPSULANT	Epoxy resin
CONTACT RETENTION	2.26 kg (5 lbs)	MOULDED TRAY	Liquid Crystal Polymer (LCP)
DURABILITY	500 mating cycles min.	PCB TERMINALS	See ordering info for PCB terminals material
VIBRATION	20g's - No discontinuity > 1 μ s	HARDWARE	300 series stainless steel, passivated
SHOCK	50g's - No discontinuity > 1 μ s		

SEE PAGE 15 FOR MORE INFORMATION



PCB RECTANGULAR CONNECTORS

BS TYPE

0.100" PITCH

PLASTIC SHELL

- Board straight connector for flexible and rigid printed circuit boards.
- Operating temperature :150°C or 200°C.
- Several tail lengths available.

IDENTIFICATION CODE

MDA

P

51

S

BS

P

G

3

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

P : LCP shell + potting 150°C.

L : LCP shell + potting 200°C.

NUMBER OF CONTACTS

09,15,21,25,31,37,51.

See pages 16&17 for contact arrangements.

CONNECTOR GENDER

P : Male (pin contacts).

S : Female (socket contacts).

PCB VERSION

BS : 0.100" Board Straight.

HARDWARE

B : No hardware.

P : Jackposts.

T : Threaded inserts installed.

W : Jackposts and threaded inserts installed.

CONDUCTOR TYPE

G : Gold plated solid conductor AWG 25.

T : Tin plated solid conductor AWG 24.

See page 19 for conductor types.

TAIL LENGTH

1 : 2.80 mm (0.110").

2 : 3.80 mm (0.150").

3 : 4.80 mm (0.190").

4 : 6.35 mm (0.250").

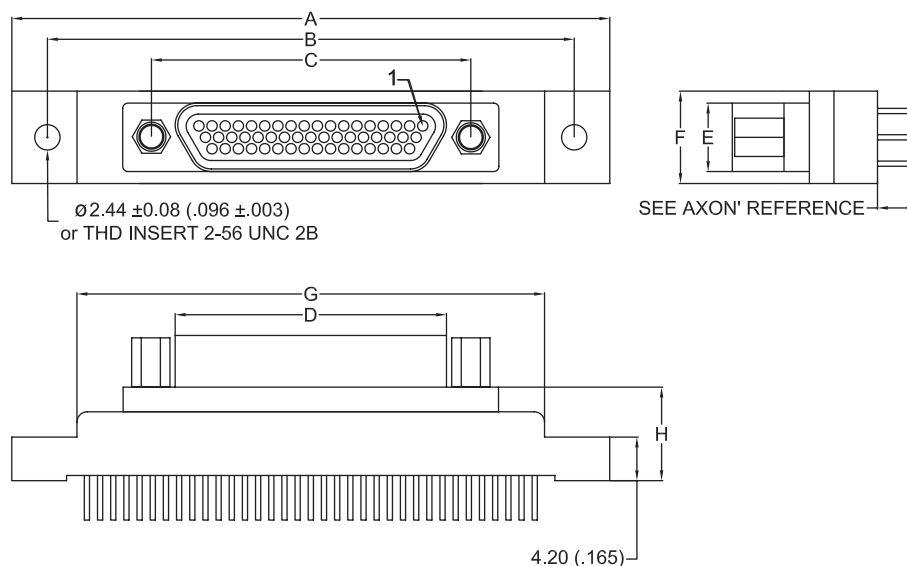
Tolerance : +/- 0.38 mm (0.015").

Other lengths available on request.

DIMENSIONS

Dimensions are in millimetres (inches).

FEMALE connector



SEE CONTACT LAYOUT ON PCB PAGES 90/91

	A max.	B ± 0.18 (±.007)	C ± 0.13 (±.005)	D max.		E max.		F max.	G max.	H max.
				Male	Female	Male	Female			
9 P / 9 S	35.31 1.390	29.21 1.150	14.35 .565	7.41 .292	9.65 .380	3.40 .134	5.53 .218	7.82 .308	22.48 .885	9.02 .355
15 P / 15 S	35.31 1.390	29.21 1.150	18.16 .715	11.22 .442	13.46 .530	3.40 .134	5.53 .218	7.82 .308	24.00 .945	9.02 .355
21 P / 21 S	42.93 1.690	36.83 1.450	21.97 .865	15.03 .592	17.27 .680	3.40 .134	5.53 .218	7.82 .308	30.10 1.185	9.02 .355
25 P / 25 S	44.20 1.740	38.10 1.500	24.51 .965	17.57 .692	19.81 .780	3.40 .134	5.53 .218	7.82 .308	32.39 1.275	9.02 .355
31 P / 31 S	51.82 2.040	45.72 1.800	28.32 1.115	21.38 .842	23.62 .930	3.40 .134	5.53 .218	7.82 .308	40.01 1.575	9.02 .355
37 P / 37 S	59.44 2.340	53.34 2.100	32.13 1.265	25.19 .992	27.43 1.080	3.40 .134	5.53 .218	7.82 .308	47.63 1.875	9.02 .355
51 P / 51 S	57.66 2.270	50.80 2.000	30.86 1.215	23.92 .942	26.16 1.030	4.50 .177	6.60 .260	8.92 .351	45.09 1.775	9.02 .355

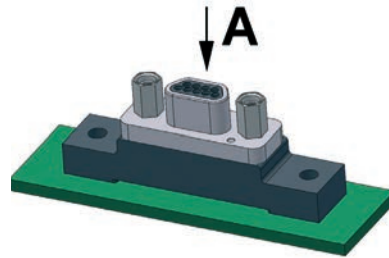
SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE		MATERIAL & FINISH	
CURRENT RATING	3 A max.	MOULDED SHELL	Liquid Crystal Polymer (LCP)
CONTACT RESISTANCE	8 mΩ max.	PIN CONTACT	Copper and beryllium copper, Gold over nickel plating
INSULATION RESISTANCE	5000 MΩ min. @ 500 V DC	SOCKET CONTACT	Copper alloy, gold over nickel plating
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC Altitude 21 km (70,000 ft) : 150 V AC	ENCAPSULANT	Epoxy resin
CONTACT ENGAGING FORCE	170 g max. (6 oz)	MOULDED TRAY	Liquid Crystal Polymer (LCP)
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)	PCB TERMINALS	See ordering info for PCB terminals material
CONTACT RETENTION	2.26 kg (5 lbs)	HARDWARE	300 series stainless steel, passivated
DURABILITY	500 mating cycles min.		
VIBRATION	20g's – No discontinuity > 1 μs		
SHOCK	50g's – No discontinuity > 1 μs		

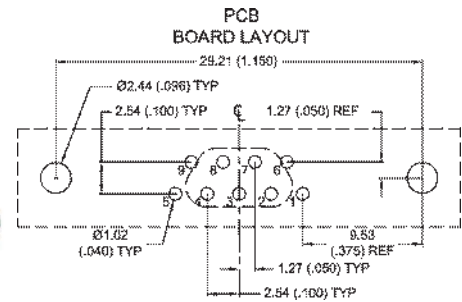
SEE PAGE 15 FOR MORE INFORMATION

PCB LAYOUT FOR BS TYPE 0.100" PITCH - MALE CONNECTORS

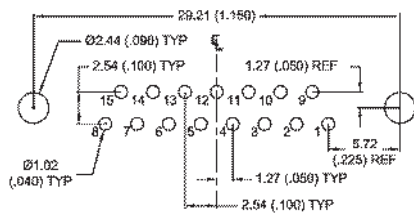
VIEW A



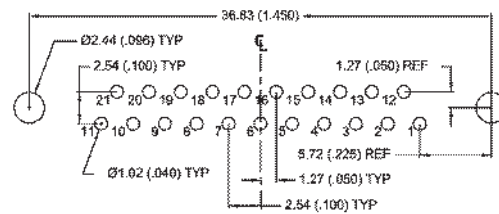
9 CONTACTS - VIEW A



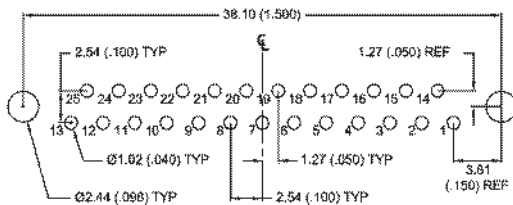
15 CONTACTS - VIEW A



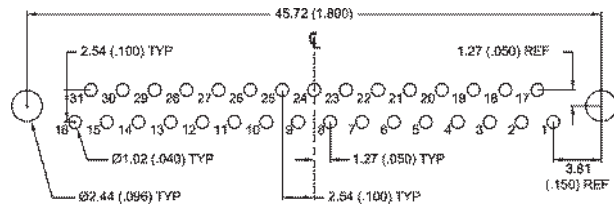
21 CONTACTS - VIEW A



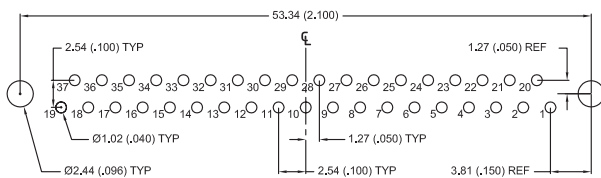
25 CONTACTS - VIEW A



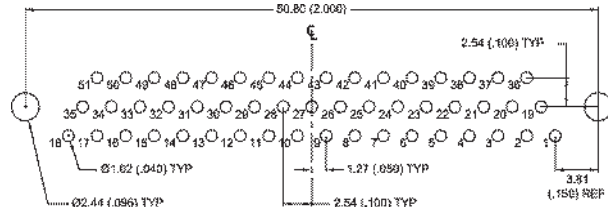
31 CONTACTS - VIEW A



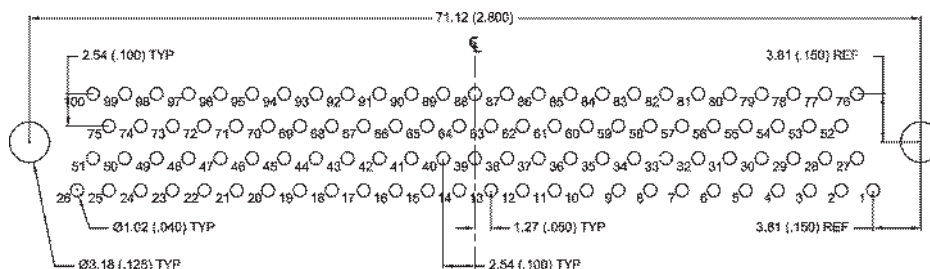
37 CONTACTS VIEW A



51 CONTACTS - VIEW A

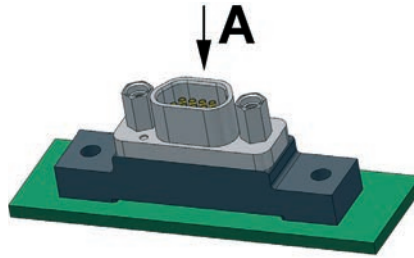


100 CONTACTS - VIEW A

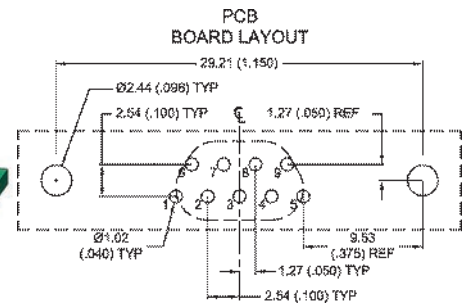


PCB LAYOUT FOR BS TYPE 0.100" PITCH - FEMALE CONNECTORS

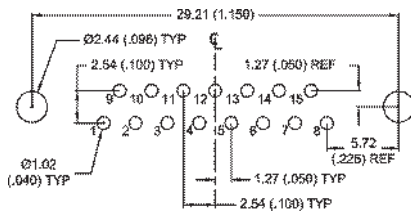
VIEW A



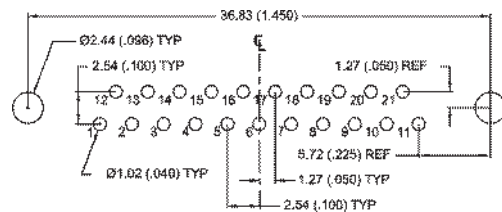
9 CONTACTS - VIEW A



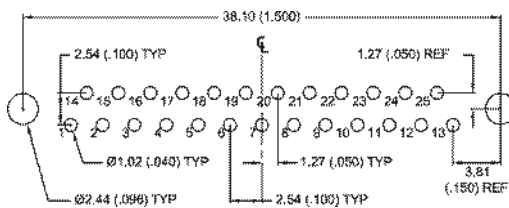
15 CONTACTS - VIEW A



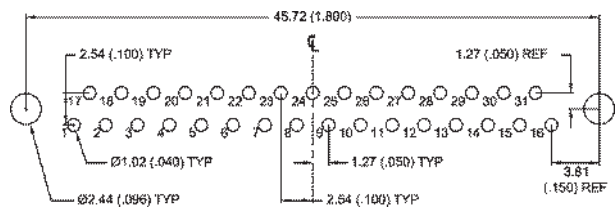
21 CONTACTS - VIEW A



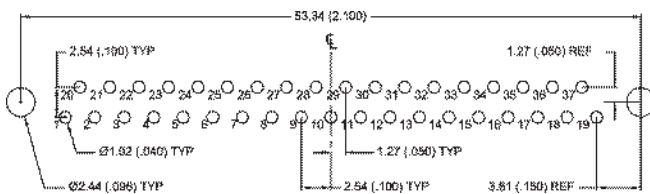
25 CONTACTS - VIEW A



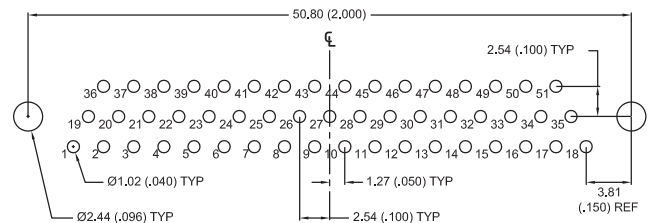
31 CONTACTS - VIEW A



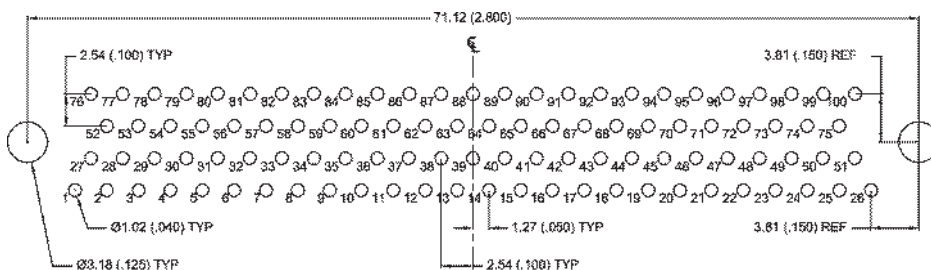
37 CONTACTS - VIEW A

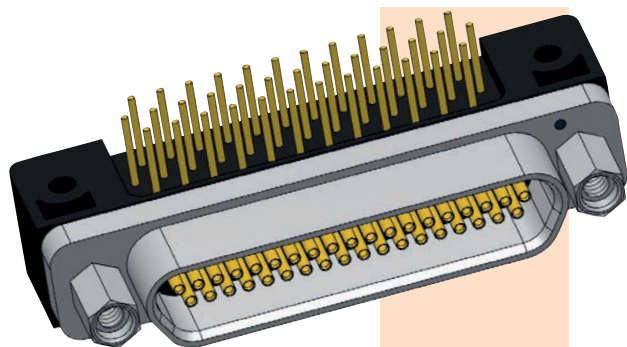


51 CONTACTS - VIEW A



100 CONTACTS - VIEW A





PCB RECTANGULAR CONNECTORS

CBR TYPE

0.075" PITCH

METAL SHELL

- Condensed board right angle connector for flexible and rigid printed circuit boards.
- Operating temperature :150°C or 200°C.
- Several tail lengths available.

PLEASE CONTACT US FOR A PLASTIC VERSION
OF 0.075" RIGHT ANGLE CONNECTOR.

IDENTIFICATION CODE

MDA

1

51

S

75RB

P

G

3

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

- 1** : Cadmium aluminium shell + potting 150°C.
2 : Nickel aluminium shell + potting 150°C.
3 : Nickel aluminium shell + potting 200°C.
S : Passivated stainless steel shell + potting 200°C.

NUMBER OF CONTACTS

09,15,21,25,31,37,51,100.

See pages 16&17 for contact arrangements.

CONNECTOR GENDER

- P** : Male (pin contacts).
S : Female (socket contacts).

PCB VERSION

75RB : 0.075" pitch condensed board right angle
Specific layout.

HARDWARE

- B** : No hardware.
P : Jackposts.
T : Threaded inserts installed.
W : Jackposts and threaded inserts installed.

CONDUCTOR TYPE

- G** : Gold plated solid conductor AWG 25.
T : Tin plated solid conductor AWG 24.
 See page 19 for conductor types.

TAIL LENGTH

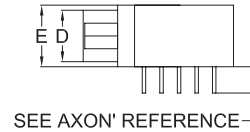
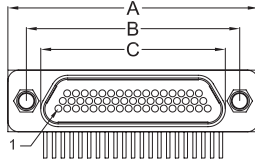
- 1** : 2.80 mm (0.110").
2 : 3.80 mm (0.150").
3 : 4.80 mm (0.190").
4 : 6.35 mm (0.250").
 Tolerance : +/- 0.38 mm (0.015").
 Other lengths available on request.

METAL CONNECTORS ARE SUPPLIED WITH ANTI-STATIC PROTECTIVE DUST CAPS

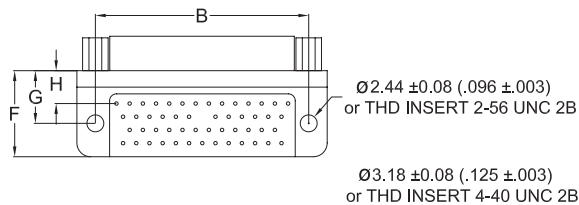
DIMENSIONS

Dimensions are in millimetres (inches).

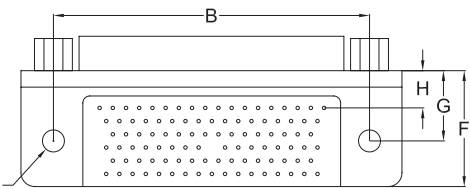
FEMALE connector



9-51 way connectors



100 way connectors



SEE CONTACT LAYOUT ON PCB PAGES 94/95

	A max.	B ± 0.13 (±.005)	C max.		D max.		E max.	F max.	G ± 0.25 (±.010)	H ± 0.25 (±.010)
			Male	Female	Male	Female				
9 P / 9 S	19.94 .785	14.35 .565	8.48 .334	10.16 .400	4.69 .185	6.35 .250	7.82 .308	10.16 .400	6.35 .250	5.40 .213
15 P / 15 S	23.75 .935	18.16 .715	12.29 .484	14.00 .551	4.69 .185	6.35 .250	7.82 .308	10.16 .400	6.35 .250	4.45 .175
21 P / 21 S	27.56 1.085	21.97 .865	16.10 .634	17.81 .701	4.69 .185	6.35 .250	7.82 .308	10.16 .400	6.35 .250	4.45 .175
25 P / 25 S	30.10 1.185	24.51 .965	18.64 .734	20.35 .801	4.69 .185	6.35 .250	7.82 .308	10.16 .400	6.35 .250	4.45 .175
31 P / 31 S	33.91 1.335	28.32 1.115	22.45 .883	24.16 .951	4.69 .185	6.35 .250	7.82 .308	10.16 .400	6.35 .250	4.45 .175
37 P / 37 S	37.72 1.485	32.13 1.265	26.26 1.034	27.96 1.101	4.69 .185	6.35 .250	7.82 .308	10.16 .400	6.35 .250	4.45 .175
51 P / 51 S	36.45 1.435	30.86 1.215	24.99 .984	26.70 1.051	5.79 .228	7.44 .293	8.92 .351	12.45 .490	7.62 .300	4.76 .188
100 P / 100 S	55.12 2.170	45.72 1.800	35.15 1.384	36.86 1.451	6.88 .271	8.46 .333	10.01 .394	16.76 .660	10.16 .400	5.40 .213

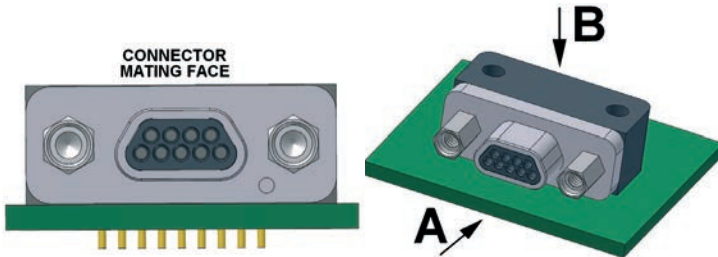
SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE		MATERIAL & FINISH	
CURRENT RATING	3 A max.	SHELL	Aluminium alloy 6061 or 300 series stainless steel, see ordering info for plating options
CONTACT RESISTANCE	8 mΩ max.	MOULDED INSULATOR	Liquid Crystal Polymer (LCP)
INSULATION RESISTANCE	5000 MΩ min. @ 500 V DC	INTERFACIAL SEAL	Fluorosilicone rubber
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 900 V AC Altitude 21 km (70,000 ft) : 150 V AC	PIN CONTACT	Copper and beryllium copper, gold over nickel plating
CONTACT ENGAGING FORCE	170 g max. (6 oz)	SOCKET CONTACT	Copper alloy, gold over nickel plating
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)	ENCAPSULANT	Epoxy resin
CONTACT RETENTION	2.26 kg (5 lbs)	MOULDED TRAY	Liquid Crystal Polymer (LCP)
DURABILITY	500 mating cycles min.	PCB TERMINALS	See ordering info for PCB terminals material
VIBRATION	20g's – No discontinuity > 1 μs	HARDWARE	300 series stainless steel, passivated
SHOCK	50g's – No discontinuity > 1 μs		

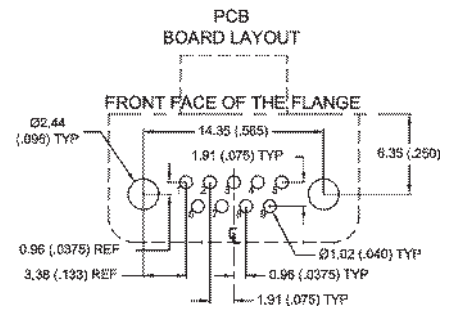
SEE PAGE 15 FOR MORE INFORMATION

PCB LAYOUT FOR CBR TYPE 0.075" PITCH - MALE CONNECTORS

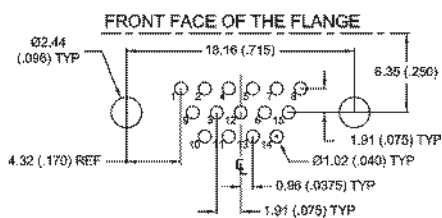
VIEW A



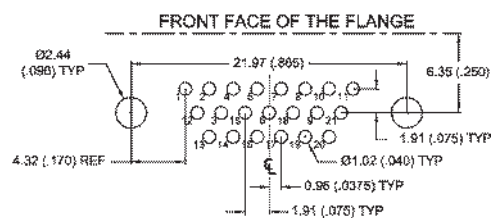
9 CONTACTS - VIEW B



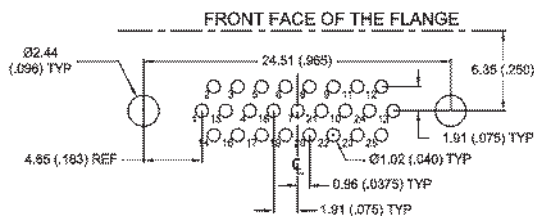
15 CONTACTS - VIEW B



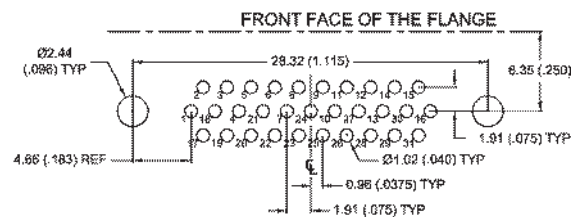
21 CONTACTS - VIEW B



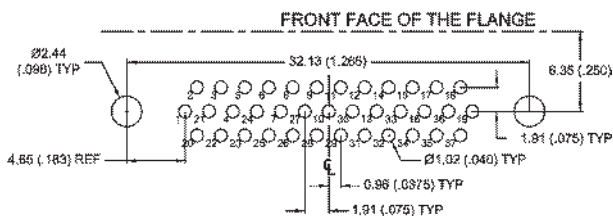
25 CONTACTS - VIEW B



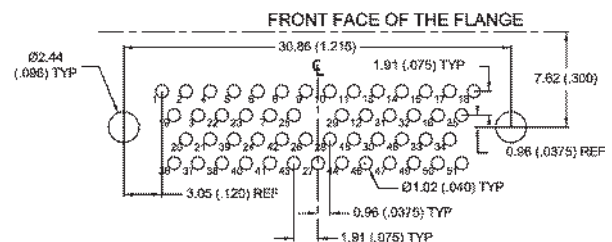
31 CONTACTS - VIEW B



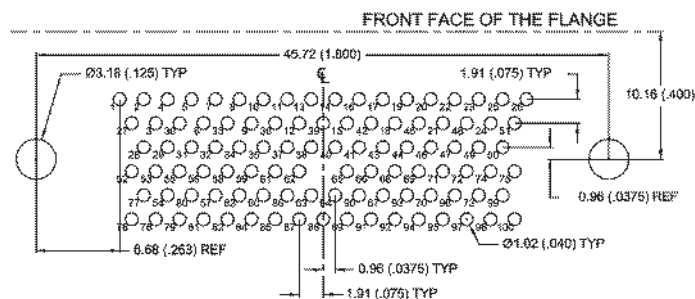
37 CONTACTS - VIEW B



51 CONTACTS - VIEW B

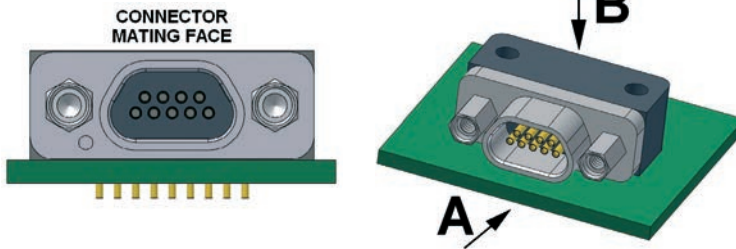


100 CONTACTS - VIEW B

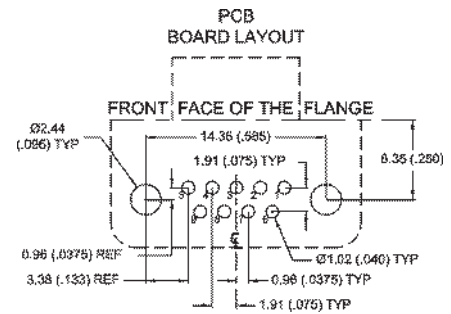


PCB LAYOUT FOR CBR TYPE 0.075" PITCH - FEMALE CONNECTORS

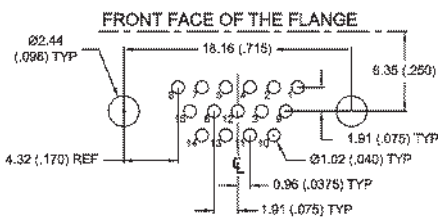
VIEW A



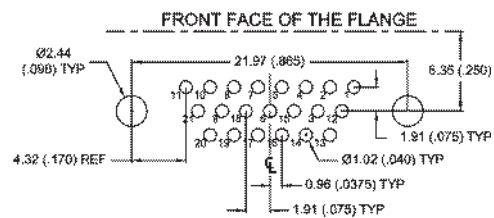
9 CONTACTS - VIEW B



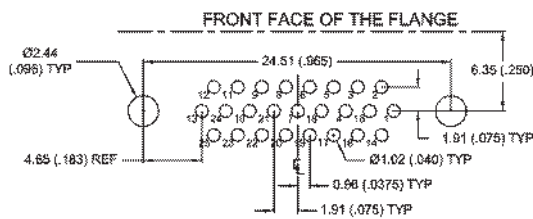
15 CONTACTS - VIEW B



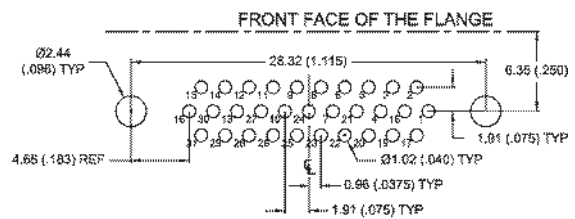
21 CONTACTS - VIEW B



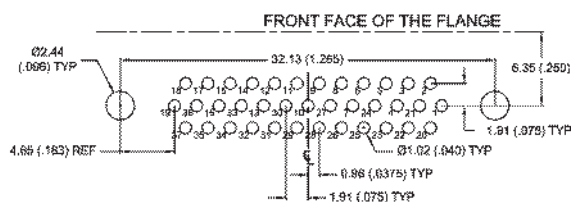
25 CONTACTS - VIEW B



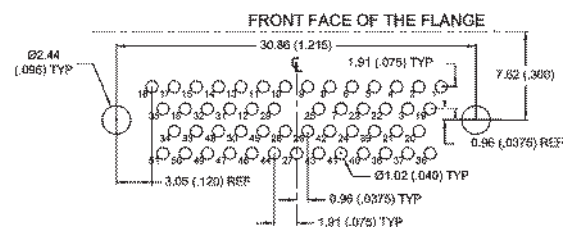
31 CONTACTS - VIEW B



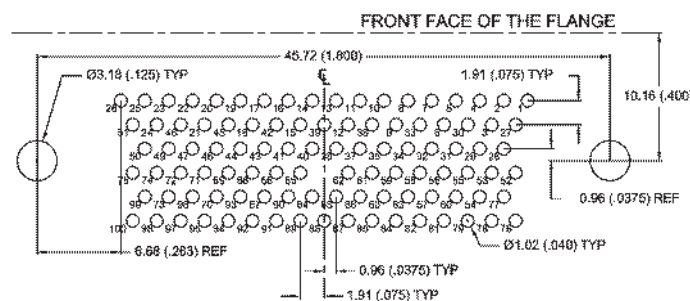
37 CONTACTS - VIEW B

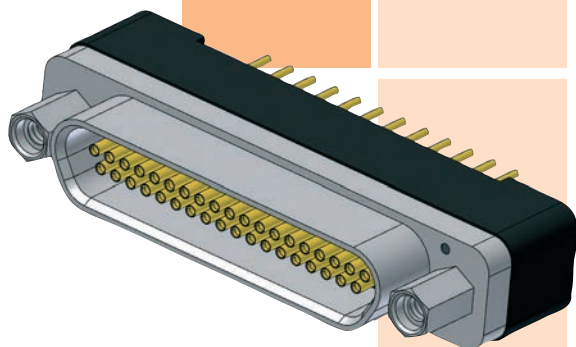


51 CONTACTS - VIEW B



100 CONTACTS - VIEW B





PCB RECTANGULAR CONNECTORS

BS TYPE 0.075" PITCH

METAL SHELL

- Board straight connector for flexible and rigid printed circuit boards.
- Operating temperature :150°C or 200°C.
- Several tail lengths available.

IDENTIFICATION CODE

MDA

2

37

S

75SB

P

G

3

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

- 1** : Cadmium aluminium shell + potting 150°C.
- 2** : Nickel aluminium shell + potting 150°C.
- 3** : Nickel aluminium shell + potting 200°C.
- S** : Passivated stainless steel shell + potting 200°C.

NUMBER OF CONTACTS

09,15,21,25,31,37,51,100.

See pages 16&17 for contact arrangements.

CONNECTOR GENDER

- P** : Male (pin contacts).
- S** : Female (socket contacts).

PCB VERSION

75SA : 0.075" pitch board straight MIL standard layout.

75SB : 0.075" pitch board straight specific layout.

HARDWARE

- B** : No hardware.
- P** : Jackposts.
- T** : Threaded inserts installed.
- W** : Jackposts and threaded inserts installed.

CONDUCTOR TYPE

- G** : Gold plated solid conductor AWG 25.
 - T** : Tin plated solid conductor AWG 24.
- See page 19 for conductor types.

TAIL LENGTH

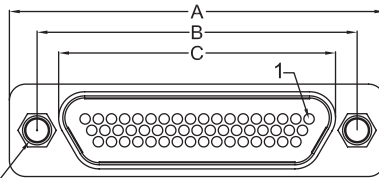
- 1** : 2.80 mm (0.110").
 - 2** : 3.80 mm (0.150").
 - 3** : 4.80 mm (0.190").
 - 4** : 6.35 mm (0.250").
- Tolerance : +/- 0.38 mm (0.015").
Other lengths available on request.

METAL CONNECTORS ARE SUPPLIED WITH ANTI-STATIC PROTECTIVE DUST CAPS

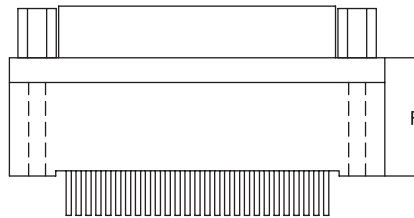
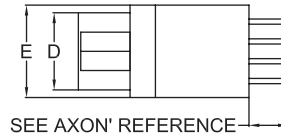
DIMENSIONS

Dimensions are in millimetres (inches).

FEMALE connector



9- 51 contacts :
 $\varnothing 2.24/2.44$ (.088/.096) or THD insert 2-56 UNC 2B
 100 contacts :
 $\varnothing 3.68/3.81$ (.145/.150) or THD insert 4-40 UNC 2B



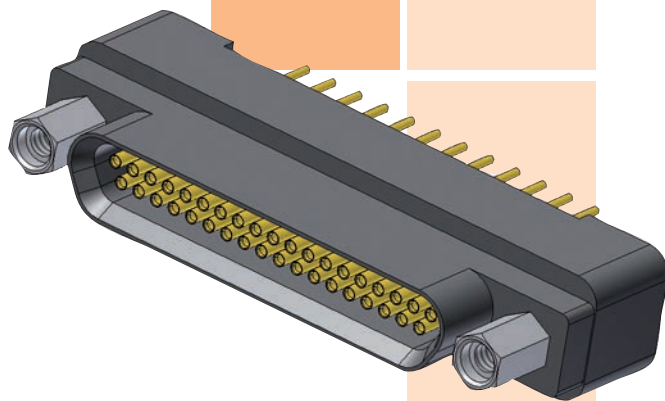
SEE CONTACT LAYOUT ON PCB PAGES 100/101/102/103

	A max.	B ± 0.13 ($\pm .005$)	C max.		D max.		E max.	F max.
			Male	Female	Male	Female		
9 P / 9 S	19.94 .785	14.35 .565	8.48 .334	10.16 .400	4.69 .185	6.35 .250	7.87 .310	9.02 .355
15 P / 15 S	23.75 .935	18.16 .715	12.29 .484	14.00 .551	4.69 .185	6.35 .250	7.87 .310	9.02 .355
21 P / 21 S	27.56 1.085	21.97 .865	16.10 .634	17.81 .701	4.69 .185	6.35 .250	7.87 .310	9.02 .355
25 P / 25 S	30.10 1.185	24.51 .965	18.64 .734	20.35 .801	4.69 .185	6.35 .250	7.87 .310	9.02 .355
31 P / 31 S	33.91 1.335	28.32 1.115	22.45 .883	24.16 .951	4.69 .185	6.35 .250	7.87 .310	9.02 .355
37 P / 37 S	37.72 1.485	32.13 1.265	26.26 1.034	27.96 1.101	4.69 .185	6.35 .250	7.87 .310	9.02 .355
51 P / 51 S	36.45 1.435	30.86 1.215	24.99 .984	26.70 1.051	5.79 .228	7.44 .293	10.16 .400	9.02 .355
100 P / 100 S	55.12 2.170	45.72 1.800	35.15 1.384	36.86 1.451	6.88 .271	8.46 .333	12.95 .510	10.92 .430

SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE		MATERIAL & FINISH	
CURRENT RATING	3 A max.	SHELL	Aluminium alloy 6061 or 300 series stainless steel, see ordering info for plating options
CONTACT RESISTANCE	8 m Ω max.	MOULDED INSULATOR	Liquid Crystal Polymer (LCP)
INSULATION RESISTANCE	5000 M Ω min. @ 500 V DC	INTERFACIAL SEAL	Fluorosilicone rubber
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC Altitude 21 km (70,000 ft) : 150 V AC	PIN CONTACT	Copper and beryllium copper, gold over nickel plating
CONTACT ENGAGING FORCE	170 g max. (6 oz)	SOCKET CONTACT	Copper alloy, gold over nickel plating
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)	ENCAPSULANT	Epoxy resin
CONTACT RETENTION	2.26 kg (5 lbs)	MOULDED TRAY	Liquid Crystal Polymer (LCP)
DURABILITY	500 mating cycles min.	PCB TERMINALS	See ordering info for PCB terminals material
VIBRATION	20g's - No discontinuity > 1 μ s	HARDWARE	300 series stainless steel, passivated
SHOCK	50g's - No discontinuity > 1 μ s		

SEE PAGE 15 FOR MORE INFORMATION



PCB RECTANGULAR CONNECTORS

BS TYPE

0.075" PITCH

PLASTIC SHELL

- Board straight connector for flexible and rigid printed circuit boards.
- Operating temperature :150°C or 200°C.
- Several tail lengths available.

IDENTIFICATION CODE

MDA

P

37

S

75SB

P

G

3

SERIES**MDA** : Micro-D AXON' standard series.**SHELL TYPE****P** : LCP shell + potting 150°C.**L** : LCP shell + potting 200°C.**NUMBER OF CONTACTS**

09,15,21,25,31,37,51.

*See pages 16&17 for contact arrangements.***CONNECTOR GENDER****P** : Male (pin contacts).**S** : Female (socket contacts).**PCB VERSION****75SA** : 0.075" pitch board straight MIL standard layout.**75SB** : 0.075" pitch board straight specific layout.**HARDWARE****B** : No hardware.**P** : Jackposts.**T** : Threaded inserts installed.**W** : Jackposts and threaded inserts installed.**CONDUCTOR TYPE****G** : Gold plated solid conductor AWG 25.**T** : Tin plated solid conductor AWG 24.*See page 19 for conductor types.***TAIL LENGTH****1** : 2.80 mm (0.110").**2** : 3.80 mm (0.150").**3** : 4.80 mm (0.190").**4** : 6.35 mm (0.250").

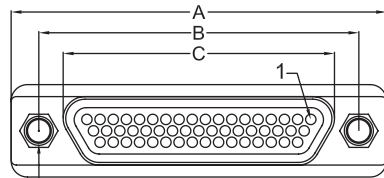
Tolerance : +/- 0.38 mm (0.015").

Other lengths available on request.

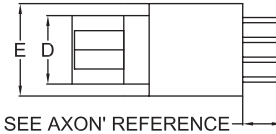
DIMENSIONS

Dimensions are in millimetres (inches).

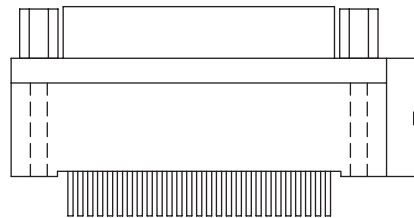
FEMALE connector



9- 51 contacts :
Ø2.24/2.44 (.088/.096) or THD insert 2-56 UNC 2B



SEE AXON' REFERENCE



SEE CONTACT LAYOUT ON PCB PAGES 100/101/102/103

	A max.	B ± 0.13 (±.005)	C max.		D max.		E max.	F max.
			Male	Female	Male	Female		
9 P / 9 S	19.94 .785	14.35 .565	7.41 .292	9.65 .380	3.40 .134	5.53 .218	7.87 .310	9.07 .357
15 P / 15 S	23.75 .935	18.16 .715	11.22 .442	13.46 .530	3.40 .134	5.53 .218	7.87 .310	9.07 .357
21 P / 21 S	27.56 1.085	21.97 .865	15.03 .592	17.27 .680	3.40 .134	5.53 .218	7.87 .310	9.07 .357
25 P / 25 S	30.10 1.185	24.51 .965	17.57 .692	19.81 .780	3.40 .134	5.53 .218	7.87 .310	9.07 .357
31 P / 31 S	33.91 1.335	28.32 1.115	21.38 .842	23.62 .930	3.40 .134	5.53 .218	7.87 .310	9.07 .357
37 P / 37 S	37.72 1.485	32.13 1.265	25.19 .992	27.43 1.080	3.40 .134	5.53 .218	7.87 .310	9.07 .357
51 P / 51 S	36.45 1.435	30.86 1.215	23.92 .942	26.16 1.030	4.50 .177	6.60 .260	10.16 .400	9.07 .357

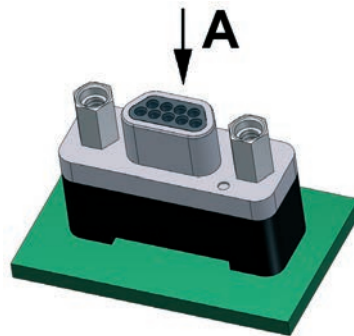
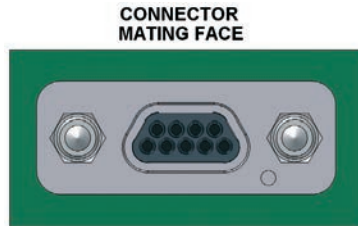
SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE		MATERIAL & FINISH	
CURRENT RATING	3 A max.	MOULDED SHELL	Liquid Crystal Polymer (LCP)
CONTACT RESISTANCE	8 mΩ max.	PIN CONTACT	Copper and beryllium copper, Gold over nickel plating
INSULATION RESISTANCE	5000 MΩ min. @ 500 V DC	SOCKET CONTACT	Copper alloy, gold over nickel plating
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC Altitude 21 km (70,000 ft) : 150 V AC	ENCAPSULANT	Epoxy resin
CONTACT ENGAGING FORCE	170 g max. (6 oz)	MOULDED TRAY	Liquid Crystal Polymer (LCP)
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)	PCB TERMINALS	See ordering info for PCB terminals material
CONTACT RETENTION	2.26 kg (5 lbs)	HARDWARE	300 series stainless steel, passivated
DURABILITY	500 mating cycles min.		
VIBRATION	20g's – No discontinuity > 1 μs		
SHOCK	50g's – No discontinuity > 1 μs		

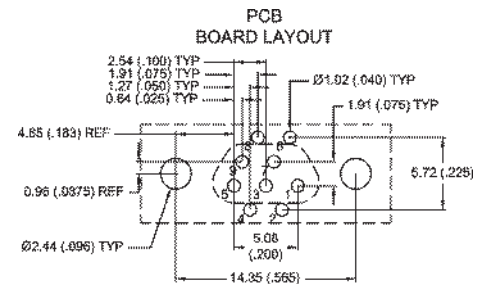
SEE PAGE 15 FOR MORE INFORMATION

PCB LAYOUT FOR BS TYPE-0.075" PITCH MIL STANDARD LAYOUT - MALE CONNECTORS

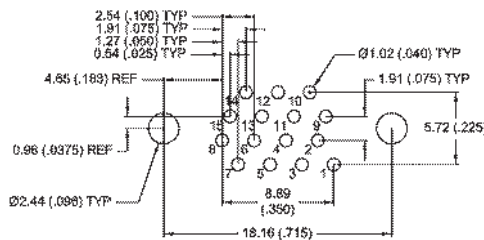
VIEW A



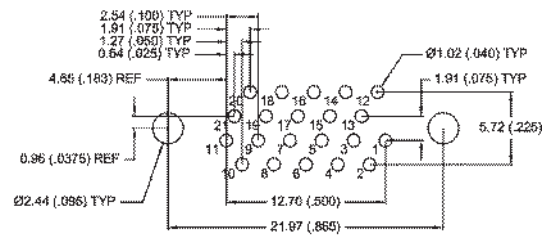
9 CONTACTS - VIEW A



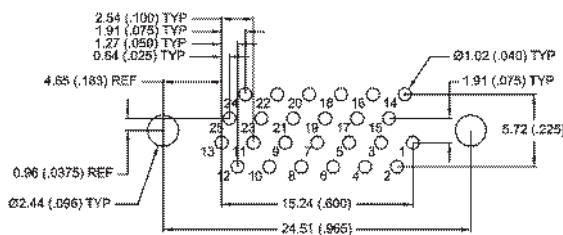
15 CONTACTS - VIEW A



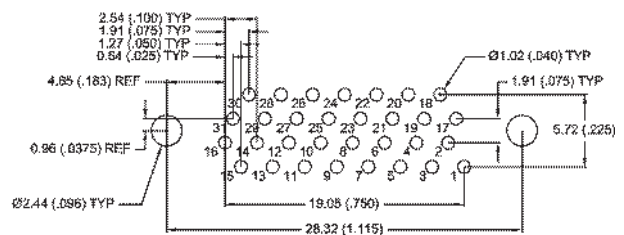
21 CONTACTS - VIEW A



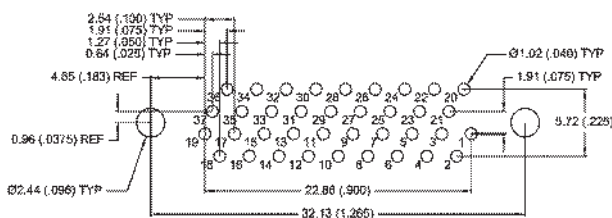
25 CONTACTS - VIEW A



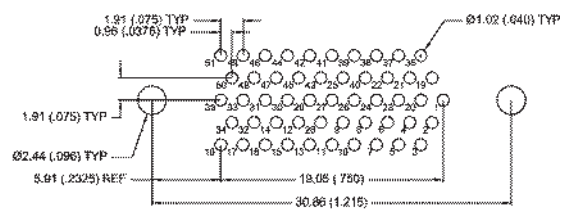
31 CONTACTS - VIEW A



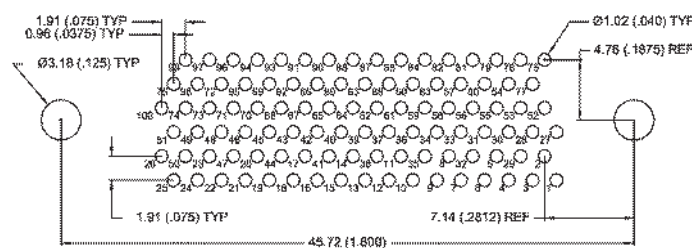
37 CONTACTS - VIEW A



51 CONTACTS - VIEW A

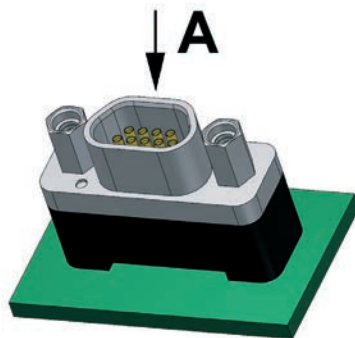


100 CONTACTS - VIEW A

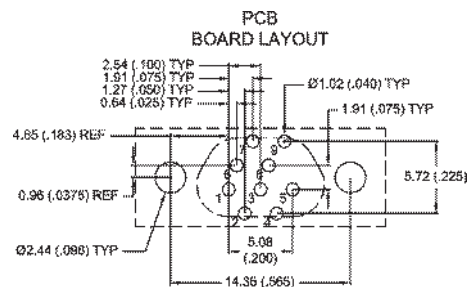


PCB LAYOUT FOR BS TYPE-0.075" PITCH MIL STANDARD LAYOUT - FEMALE CONNECTORS

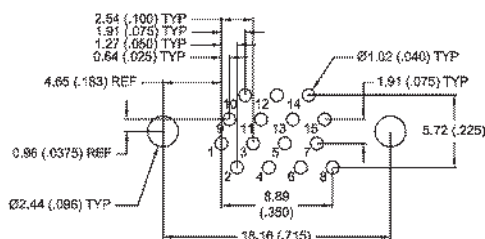
VIEW A



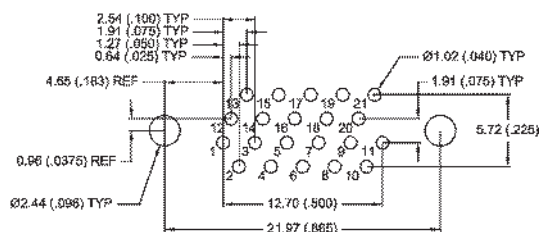
9 CONTACTS - VIEW A



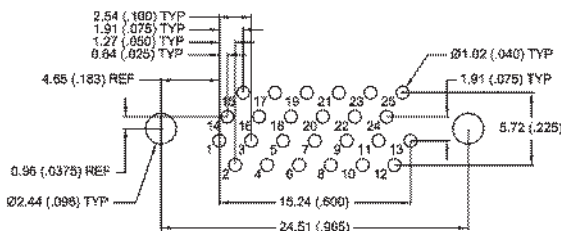
15 CONTACTS - VIEW A



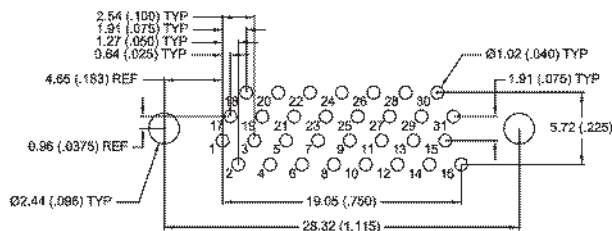
21 CONTACTS - VIEW A



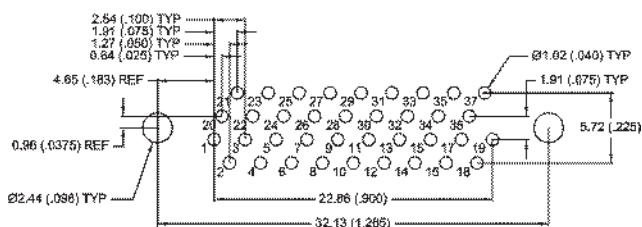
25 CONTACTS - VIEW A



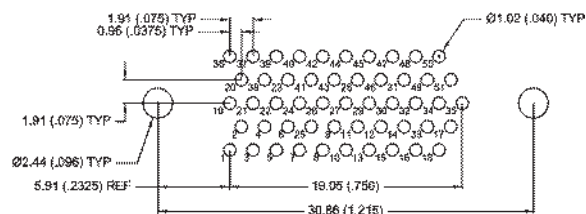
31 CONTACTS - VIEW A



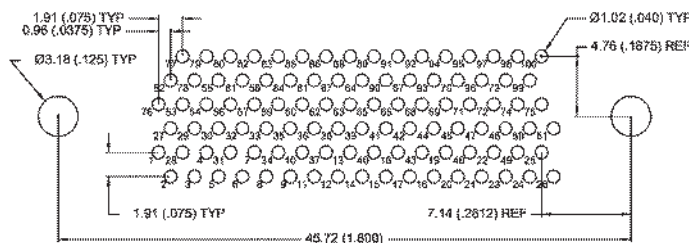
37 CONTACTS - VIEW A



51 CONTACTS - VIEW A



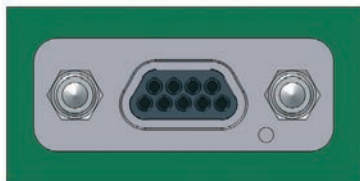
100 CONTACTS - VIEW A



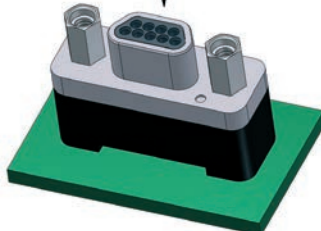
PCB LAYOUT FOR BS TYPE-0.075" PITCH SPECIFIC LAYOUT - MALE CONNECTORS

VIEW A

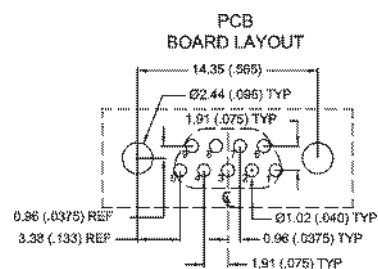
CONNECTOR
MATING FACE



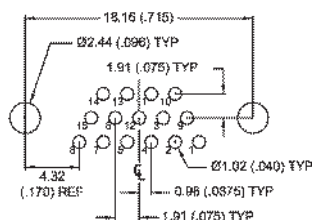
A



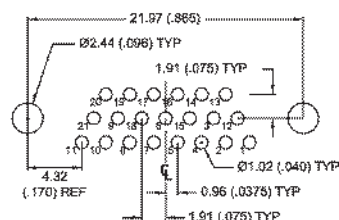
9 CONTACTS - VIEW A



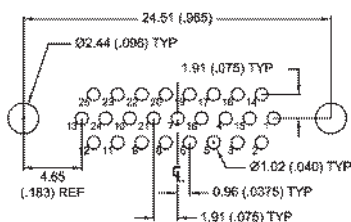
15 CONTACTS - VIEW A



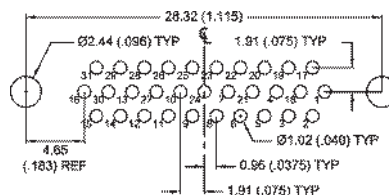
21 CONTACTS - VIEW A



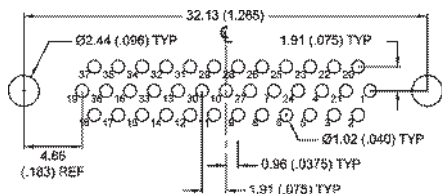
25 CONTACTS - VIEW A



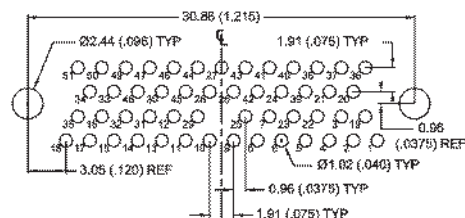
31 CONTACTS - VIEW A



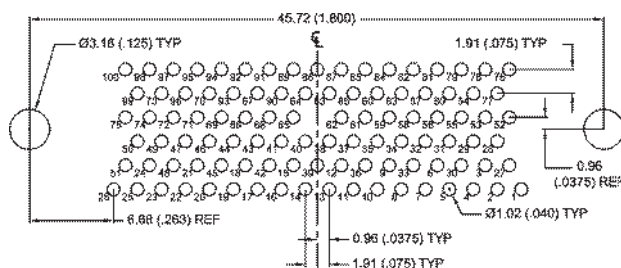
37 CONTACTS - VIEW A



51 CONTACTS - VIEW A

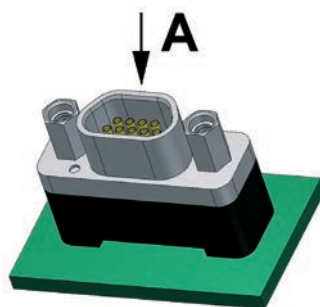


100 CONTACTS - VIEW A

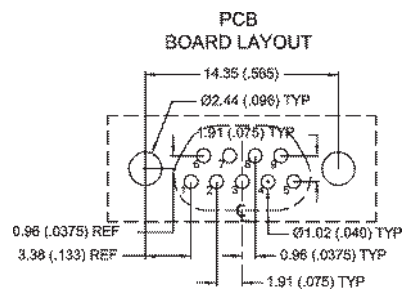


PCB LAYOUT FOR BS TYPE-0.075" PITCH SPECIFIC LAYOUT - FEMALE CONNECTORS

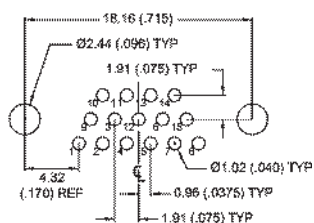
VIEW A



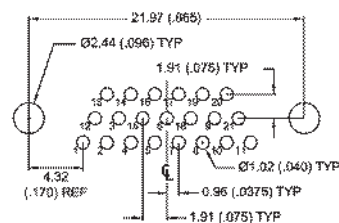
9 CONTACTS - VIEW A



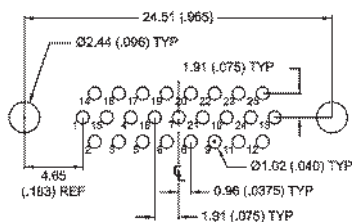
15 CONTACTS - VIEW A



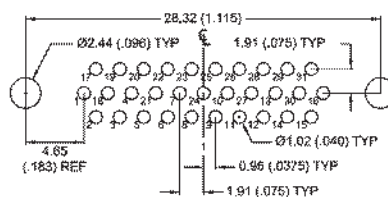
21 CONTACTS - VIEW A



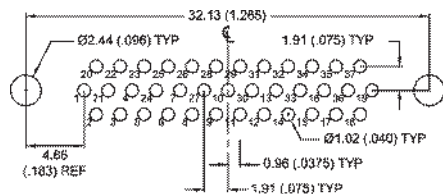
25 CONTACTS - VIEW A



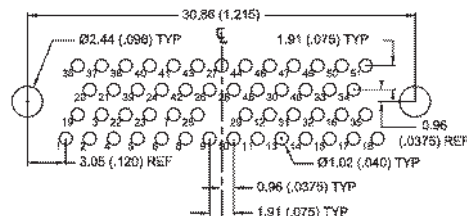
31 CONTACTS - VIEW A



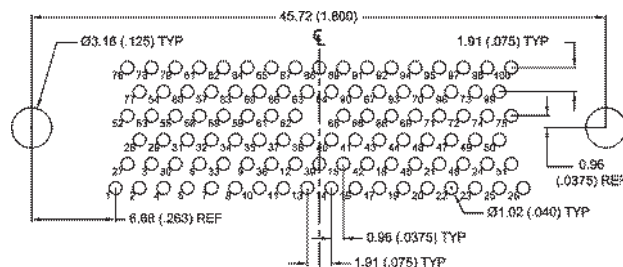
37 CONTACTS - VIEW A

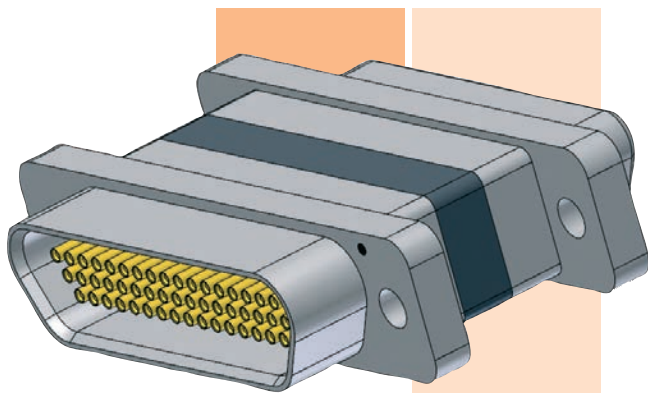


51 CONTACTS - VIEW A

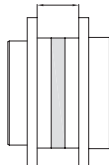


100 CONTACTS - VIEW A





L = 10 (.394)



CONNECTOR SAVERS

CONNECTOR SAVER ONE PIECE DESIGN

METAL OR PLASTIC SHELL

- One piece design version L = 10 mm (.394") between flanges.
- Ideal for applications requiring many mating / demating cycles.
- Reduces wear and tear on systems and test equipment.
- Operating temperature : 150°C or 200°C.

IDENTIFICATION CODE

MDA

2

51

CS

1

B

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

P : LCP shell + potting 150°C.

L : LCP shell + potting 200°C.

1 : Cadmium aluminium shell + potting 150°C.

2 : Nickel aluminium shell + potting 150°C.

3 : Nickel aluminium shell + potting 200°C.

S : Passivated stainless steel shell + potting 200°C.

NUMBER OF CONTACTS

09,15,21,25,31,37,51, 51DR, 100.

51DR & 100 way only available in metal shell.

See pages 16&17 for contact arrangements.

PRODUCT TYPE

CS : Connector saver.

(plug to receptacle connector).

ONE PIECE DESIGN ASSEMBLY

1 : One piece design assembly.

L= 10 mm (.394").

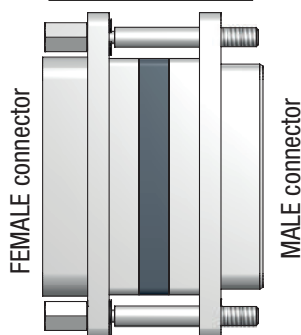
HARDWARE

B : No hardware.

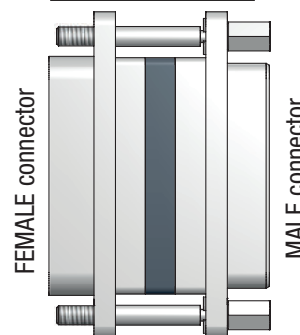
P1 : Removable long jackposts on the female connector.

P2 : Removable long jackposts on the male connector.

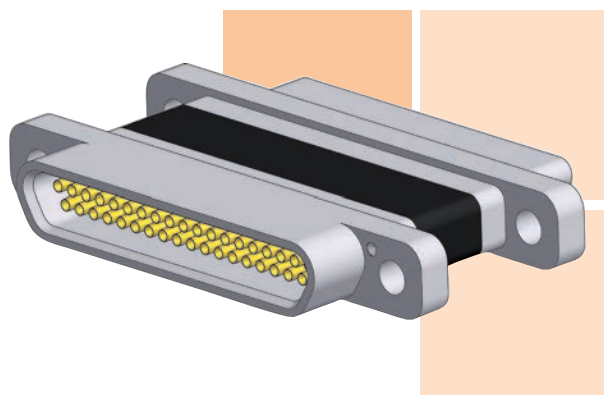
HARDWARE P1 TYPE



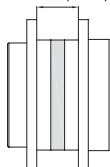
HARDWARE P2 TYPE



METAL CONNECTORS ARE SUPPLIED WITH ANTI-STATIC PROTECTIVE DUST CAPS



L = 10 (.394)



CONNECTOR SAVERS

CONNECTOR SAVER ONE PIECE DESIGN

LOW PROFILE METAL SHELL

- One piece design version L = 10 mm (.394") between flanges.
- Ideal for applications requiring many mating / demating cycles.
 - Reduces wear and tear on systems and test equipment.
 - Operating temperature : 150°C or 200°C.

IDENTIFICATION CODE

MDA

2

L51

CS

1

B

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

- 1** : Cadmium aluminium shell + potting 150°C.
- 2** : Nickel aluminium shell + potting 150°C.
- 3** : Nickel aluminium shell + potting 200°C.
- S** : Passivated stainless steel shell + potting 200°C.

NUMBER OF CONTACTS

L09, L15, L21, L25, L31, L37, L51

See pages 16 & 17 for contact arrangements.

PRODUCT TYPE

CS : Connector saver.
(plug to receptacle connector).

ONE PIECE DESIGN ASSEMBLY

- 1** : One piece design assembly.
L = 10 mm (.394").

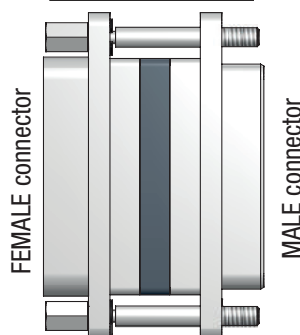
HARDWARE

B : No hardware

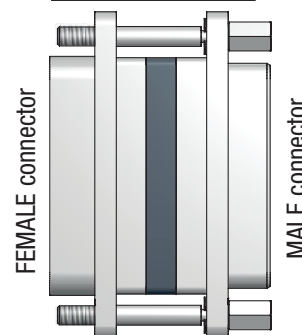
P1 : Removable long jackposts on the female connector.

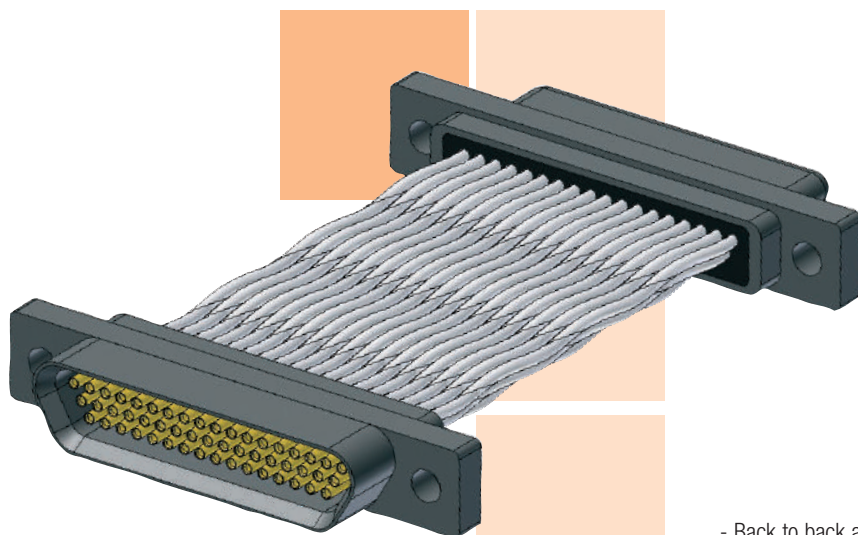
P2 : Removable long jackposts on the male connector.

HARDWARE P1 TYPE



HARDWARE P2 TYPE





CONNECTOR SAVERS

CONNECTOR SAVER

BACK TO BACK ASSEMBLY

METAL OR PLASTIC SHELL

- Back to back assembly version ($L \geq 50$ mm / 1.970") between flanges
- Ideal for applications requiring many mating / demating cycles.
- Reduces wear and tear on systems and test equipment.
- Operating temperature : 150°C or 200°C.

IDENTIFICATION CODE

MDA

P

51

CS

10

1

L

B

B

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

P : LCP shell + Potting 150°C.
L : LCP shell + Potting 200°C.
S : Passivated stainless steel shell + Potting 200°C

1 : Cadmium aluminium shell + Potting 150°C
2 : Nickel aluminium shell + Potting 150°C.
3 : Nickel aluminium shell + Potting 200°C.

NUMBER OF CONTACTS

09,15,21,25,31,37,51, 51DR, 100 - **51DR & 100 way only available in metal shell.**
See pages 16&17 for contact arrangements.

PRODUCT TYPE

CS : Connector saver (receptacle to plug connector).

DP : Dual Pin connector (plug to plug connector).

DS : Dual Socket connector (receptacle to receptacle connector).

BACK TO BACK ASSEMBLY - LENGTH (L in cm)

Attention ! Wire length in centimetres (1cm = 10 mm = .394")

L	$5 \leq L \leq 10$	$10 < L \leq 100$	$L > 100$
in cm (inches)	$1.97 \leq L \leq 3.940$	$3.940 < L \leq 39.40$	$L > 39.40$
TOLERANCE	-0 / +0.5	-0 / +3	-0 / +5
in cm (inches)	-0 / +0.200	-0 / +1.180	-0 / +1.970

WIRE TYPE

1 : E2607, AWG 26, 7 strands - 600 V
4 : E2619, AWG 26, 19 strands - 600 V
6 : E2807, AWG 28, 7 strands - 600 V
8 : E3007, AWG 30, 7 strands - 600 V

A : E2407, AWG24, 7 strands - 600 V.
C : E 2419, AWG 24, 19 strands - 600 V.
E : M22759/33, AWG26, 19 strands, 600 V.

See page 19 for wire types

COLOUR CODE

F : All yellow - L : all white.

1st CONNECTOR HARDWARE

(for CS 1st connector is the female one).

B : No hardware.

C : U-clips with low profile hex.skt head jackscrew (removable).

D : U-clips with low profile slot head jackscrew (removable).

M : low profile hex.skt head jackscrews (removable).

N : high profile hex.skt head jackscrews (removable).

P : Jackposts (removable).

S : low profile slot head jackscrews(removable).

T : high profile slot head jackscrews(removable).

2nd CONNECTOR HARDWARE

(for CS 2nd connector is the male one).

B : No hardware.

C : U-clips with low profile hex.skt head jackscrew (removable).

D : U-clips with low profile slot head jackscrew (removable).

M : low profile hex skt head jackscrews (removable).

N : high profile hex skt head jackscrews (removable).

P : Jackposts (removable).

S : low profile slot head jackscrews(removable).

T : high profile slot head jackscrews(removable).

Other hardware available on request

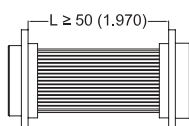
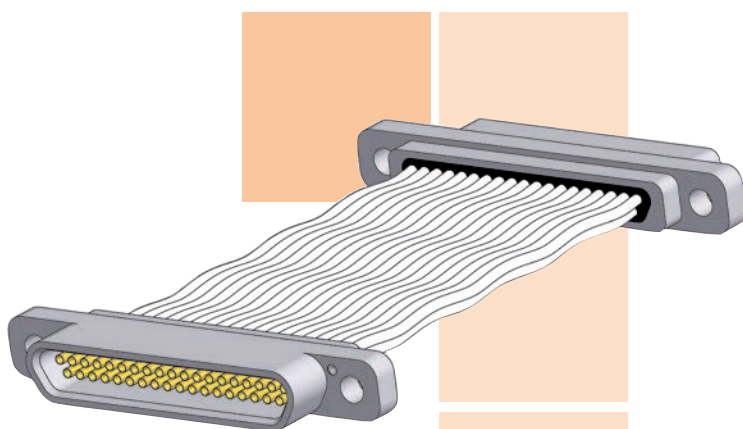
METAL CONNECTORS ARE SUPPLIED WITH ANTI-STATIC PROTECTIVE DUST CAPS

CONNECTOR SAVER

BACK TO BACK ASSEMBLY

LOW PROFILE METAL SHELL

- Back to back assembly version ($L \geq 50$ mm / 1.970") between flanges.
- Ideal for applications requiring many mating / demating cycles.
- Reduces wear and tear on systems and test equipment.
- Operating temperature : 150°C or 200°C.



IDENTIFICATION CODE

MDA

2

L51

CS

10

1

L

B

B

SERIES

MDA : Micro-D AXON' standard series.

CONNECTOR TYPE

- 1** : Cadmium aluminium shell + potting 150°C.
2 : Nickel aluminium shell + potting 150°C.
3 : Nickel aluminium shell + potting 200°C.
S : Passivated stainless steel shell + potting 200°C.

NUMBER OF CONTACTS

L09, L15, L21, L25, L31, L37, L51

See pages 16&17 for contact arrangements.

PRODUCT TYPE

- CS** : Connector Saver (receptable to plug connector).
DP : Dual Pin connector (plug to plug connector).
DS : Dual Socket connector (receptacle to receptacle connector).

BACK TO BACK ASSEMBLY - LENGTH (L in cm)

Attention ! Wire length in centimetres (1cm = 10mm = .394")

L	$5 \leq L \leq 10$	$10 < L \leq 100$	$L > 100$
in cm (inches)	$1.97 \leq L \leq 3.940$	$3.940 < L \leq 39.40$	$L > 39.40$
TOLERANCE	-0 / +0.5	-0 / +3	-0 / +5
in cm (inches)	-0 / +0.200	-0 / +1.180	-0 / +1.970

WIRE TYPE

- 1** : E 2607, AWG 26, 7 strands, 600V.
4 : E 2619, AWG 26, 19 strands, 600V.
6 : E 2807, AWG 28, 7 strands, 600V.
8 : E 3007, AWG 30, 7 strands, 600V.
A : E 2407, AWG 24, 7 strands, 600V.
C : E 2419, AWG 24, 19 strands, 600V.
E : M22759/33, AWG 26, 19 strands, 600V.

See page 19 for wire types

COLOUR CODE

F : All yellow. - **L** : All white.

1st CONNECTOR HARDWARE

(For CS 1st connector is the female one).

- B** : No hardware.
C : U-clips with low profile hex skt head jackscrews (removable).
D : U-clips with low profile slot head jackscrews (removable).
M : Low profile hex skt head jackscrews (removable).
N : High profile hex skt head jackscrews (removable).
P : Jackposts (removable).
S : Low profile slot head jackscrews (removable).
T : High profile slot head jackscrews (removable).

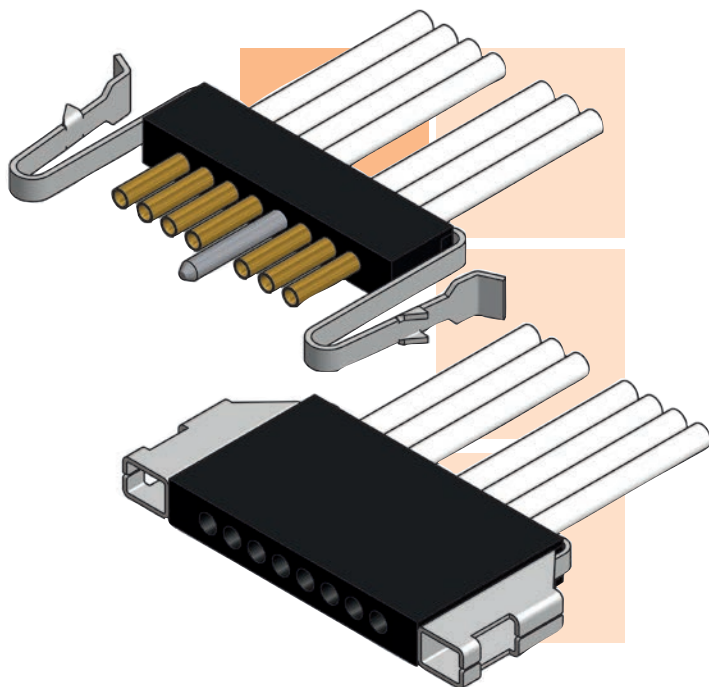
2nd CONNECTOR HARDWARE

(For CS 1st connector is the female one).

- B** : No hardware.
C : U-clips with low profile hex skt head jackscrews (removable).
D : U-clips with low profile slot head jackscrews (removable).
M : Low profile hex skt head jackscrews (removable).
N : High profile hex skt head jackscrews (removable).
P : Jackposts (removable).
S : Low profile slot head jackscrews (removable).
T : High profile slot head jackscrews (removable).

Other hardware available on request

METAL CONNECTORS ARE SUPPLIED WITH ANTI-STATIC PROTECTIVE DUST CAPS



MICROSTRIP CONNECTORS

PIGTAIL &
SOLDER CUP
ASSEMBLIES

1.27 mm (0.050") PITCH

- Single row plastic connector for space and weight saving applications.
- Guide pin(s) or latch(es) available on female connector (blank cavity(ies) or latch box(es) on male connector).

IDENTIFICATION CODE

MSA

P

1

07

S

B

4

L

050

G06

L2E

SERIES

MSA : Micro Strip AXON® standard series.

STRIP TYPE

P : LCP shell + potting 150°C.

L : LCP shell + potting 200°C.

NUMBER OF ROWS : 1.

NUMBER OF CAVITIES : 02 to 40.

Mechanical cavities are used for polarization, must not be counted here but can reduce the maximum number of available electrical cavities. (see page 112)

CONNECTOR GENDER

P : Male (pin contacts).

S : Female (socket contacts).

MOUNTING HOLE OPTION

A : With mounting holes.

B : No mounting holes.

TERMINATION / WIRE TYPE

For colour codes F, L, W

1 : E 2607 , AWG 26, 7 strands, 600V.

4 : E 2619 , AWG 26, 19 strands, 600V.

6 : E 2807 , AWG 28, 7 strands, 600V.

8 : E 3007 , AWG 30, 7 strands, 600V.

A : E 2407 , AWG 24, 7 strands, 600V.

C : E 2419 , AWG 24, 19 strands, 600V.

E : M22759/33, AWG 26, 19 strands, 600V.

For colour code V only

3 : M22759/11, AWG26.

19 strands, 600V.

F : E2607, AWG26, 7 strands, 600V.

Solid uninsulated wires

G : AWG 25 gold plated.

T : AWG 24 tin plated.

FS : solder cup.

See page 19 for wire types.

COLOUR CODE

F : All yellow.

L : All white.

V : MIL-STD-681 striped (for wire types 3 and F only).

Blank : If wire type is G, T or FS.

W : 10 colour repeat.

See page 20 for colour code.

WIRE LENGTH : cm

BLANK : if wire type is FS.

Attention ! Wire length in centimetres (1cm = 10 mm = .394")

POLARIZATION

Blank : None.

G2E : Guide pin / guide hole both ends.

GCE : Guide pin / guide hole centered.

GXX : Guide pin / guide hole in xx position.

L2E : Latch spring / latch box both ends.

LCE : Latch spring / latch box centered.

LXX : Latch spring / latch box in xx position.

L	5 ≤ L ≤ 10	10 < L ≤ 100	L > 100
in cm (inches)	1.97 ≤ L ≤ 3.940	3.940 < L ≤ 39.40	L > 39.40
TOLERANCE	-0 / +0.5	-0 / +3	-0 / +5
in cm (inches)	-0 / +0.200	-0 / +1.180	-0 / +1.970

IF NEEDED, YOU CAN COMBINE SEVERAL HARDWARE OPTIONS

EXAMPLES :

- 2 GUIDE-PINS OR LATCH-SPRINGS AT 2 PARTICULAR POSITIONS : MSAP109SB4L025 G02 G08 (OR L02 L08)
- 1 GUIDE-HOLE CENTERED + 1 LATCH-BOX AT A PARTICULAR POSITION : MSAP112PAR2T3 GCE L07
- 1 GUIDE-PIN CENTERED + LATCH-SPRINGS BOTH ENDS : MSAL117SACF012 GCE L2E

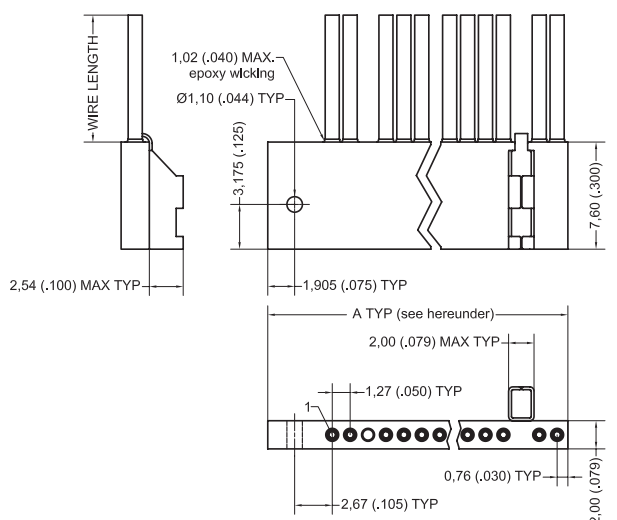
ONLY 2 RULES TO BUILD YOUR P/N :

- DEFINE ALL GUIDE PIN CODES FIRST, FOLLOWED BY LATCH CODES
- DEFINE STANDARD CODES (G2E /GCE/L2E,LCE) FIRST, FOLLOWED BY SPECIFIC POSITION CODES (GXX / LXX) AFTERWARDS

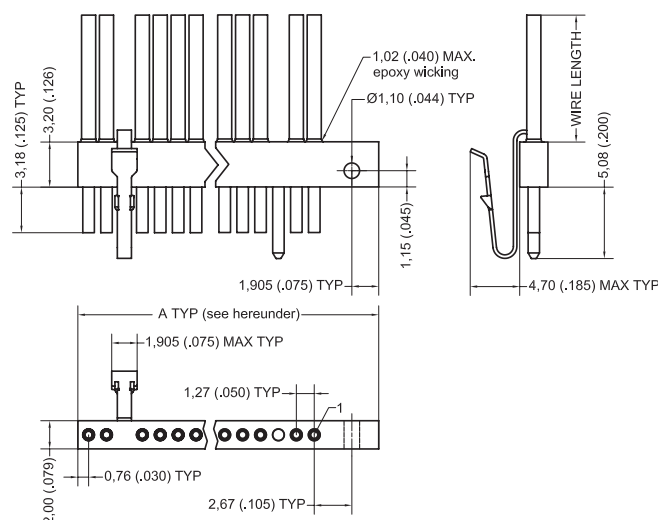
DIMENSIONS

Dimensions are in millimetres (inches).

MALE MICRO STRIP CONNECTOR



FEMALE MICRO STRIP CONNECTOR



TO DETERMINE CONNECTOR WIDTH A +/- 0.3 mm (.012")

	EXAMPLE : 11 CAVITY STRIP WITH MOUNTING HOLES
MULTIPLY the number of mechanical cavities in one row by 1.27 mm (.050")	11 * 1.27 = 13.97
ADD 0.25 mm (.010")	+ 0.25 = 14.22
ADD 7.62 mm (.300") if mounting hole option is selected	+ 7.62 = 21.84

► For detailed information concerning microstrip connectors, see pages 112 to 114.

SUMMARY OF CHARACTERISTICS

ELECTRICAL & MECHANICAL PERFORMANCE		MATERIAL & FINISH	
CURRENT RATING	3 A max.	SHELL	Liquid Crystal Polymer (LCP)
CONTACT RESISTANCE	8 mΩ max.	PIN CONTACT	Copper and Beryllium copper, gold over nickel plating
INSULATION RESISTANCE	5000 MΩ min. @ 500 V DC	SOCKET CONTACT	Copper alloy, gold over nickel plating
DIELECTRIC WITHSTANDING VOLTAGE	Sea level : 600 V AC Altitude 21 km (70,000 ft) : 150 V AC	ENCAPSULANT	Epoxy resin
CONTACT ENGAGING FORCE	170 g max. (6 oz)	GUIDE PIN	300 series stainless steel, passivated
CONTACT SEPARATING FORCE	14 g min. (0.5 oz)	LATCH	Beryllium copper, nickel plating
CONTACT RETENTION	2.26 kg (5 lbs)		
DURABILITY	500 mating cycles min.		

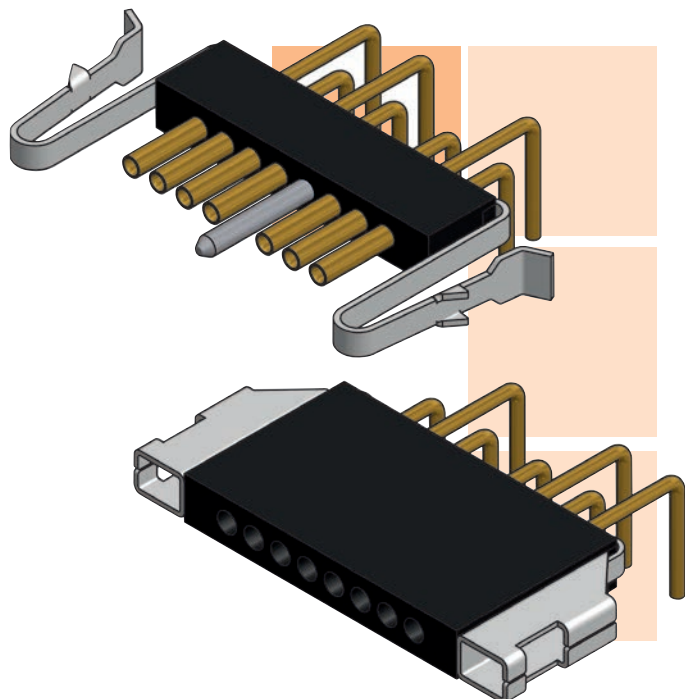
SEE PAGE 15 FOR MORE INFORMATION

MICROSTRIP CONNECTORS

PCB
CONNECTOR

1.27 mm (0.050") PITCH

- Single row plastic connector for space and weight saving applications.
- Guide pin(s) or latch(es) available on female connector (blank cavity(ies) or latch box(es) on male connector).



IDENTIFICATION CODE

MSA P 1 07 S B R3 G 2 G06 L2E

SERIES

MSA : Micro Strip AXON' standard series.

STRIP TYPE

P : LCP shell + potting 150°C.
L : LCP shell + potting 200°C.

NUMBER OF ROWS : 1.**NUMBER OF CAVITIES :** 02 to 40.

Mechanical cavities are used for polarization, must not be counted here but can reduce the maximum number of available electrical cavities. (see page 112)

CONNECTOR GENDER

P : Male (pin contacts).
S : Female (socket contacts).

MOUNTING HOLE OPTION

A : with mounting holes.
B : No mounting holes.

VERSION TYPE

S1 : Straight.
S2 : Straight, 2.54 mm (0.100") offset.
R1 : Right-angle in line.
R2 : Right-angle, 1.27 mm (0.50") offset.
R3 : Right-angle, 2.54 mm (0.100") offset.

CONDUCTOR TYPE

G : Solid conductor 25 AWG, gold plated.
T : Solid conductor 24 AWG, tin plated.

See page 19 for wire types.

TAIL LENGTH

1 : 2.80 mm (0.110").
2 : 3.80 mm (0.150").
3 : 4.80 mm (0.190").
4 : 6.35 mm (0.250").
Tolerance : +/- 0.38 mm (0.015").
Other lengths upon request.

POLARIZATION

Blank : None.
G2E : Guide pin / guide hole both ends.
GCE : Guide pin / guide hole centered.
GXX : Guide pin / guide hole in xx position.
L2E : Latch spring / latch box both ends.
LCE : Latch spring / latch box centered.
LXX : Latch spring / latch box in xx position.

IF NEEDED, YOU CAN COMBINE SEVERAL HARDWARE OPTIONS

EXAMPLES :

- 2 GUIDE-PINS OR LATCH-SPRINGS AT 2 PARTICULAR POSITIONS : MSAP109SB4L025 G02 G08 (OR L02 L08)
- 1 GUIDE-HOLE CENTERED + 1 LATCH-BOX AT A PARTICULAR POSITION : MSAP112PAR2T3 GCE L07
- 1 GUIDE-PIN CENTERED + LATCH-SPRINGS BOTH ENDS : MSAL117SACF012 GCE L2E

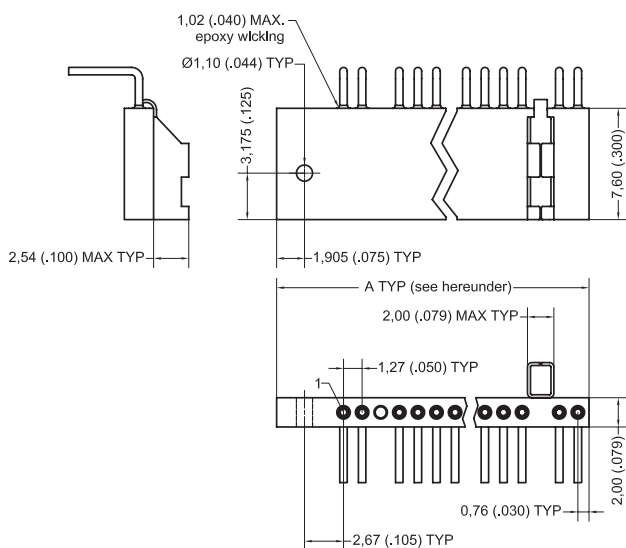
ONLY 2 RULES TO BUILD YOUR P/N :

- DEFINE ALL GUIDE PIN CODES FIRST, FOLLOWED BY LATCH CODES
- DEFINE STANDARD CODES (G2E / GCE / L2E, LCE) FIRST, FOLLOWED BY SPECIFIC POSITION CODES (GXX / LXX) AFTERWARDS

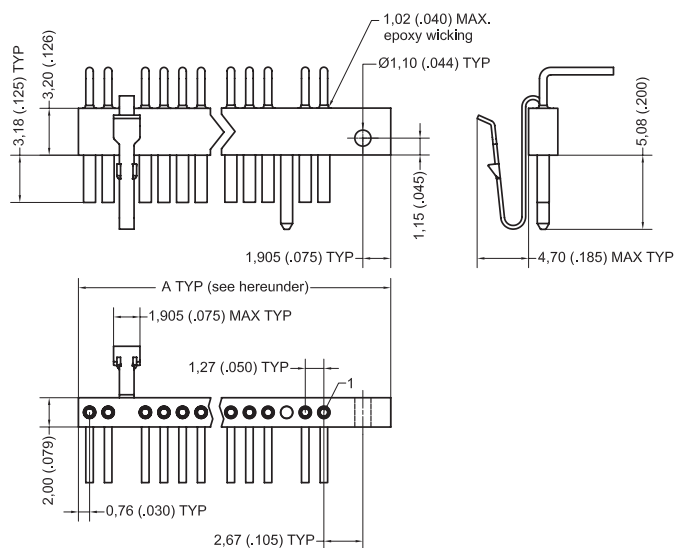
DIMENSIONS

Dimensions are in millimetres (inches).

MALE MICRO STRIP CONNECTOR



FEMALE MICRO STRIP CONNECTOR

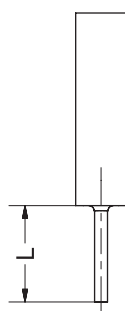


SEE CONTACT LAYOUT ON PCB PAGES 115/116/117.

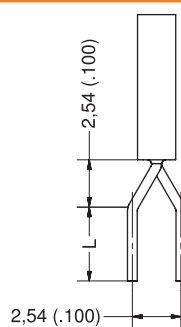
TO DETERMINE CONNECTOR WIDTH A +/- 0.3 mm (.012")

	EXAMPLE : 11 CAVITY STRIP WITH MOUNTING HOLES
MULTIPLY the number of mechanical cavities in one row by 1.27 mm (.050")	$11 * 1.27 = 13.97$
ADD 0.25 mm (.010")	$+ 0.25 = 14.22$
ADD 7.62 mm (.300") if mounting hole option is selected	$+ 7.62 = 21.84$

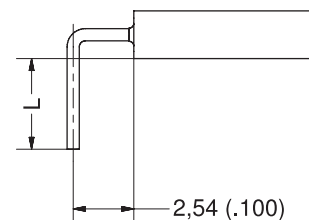
► For detailed information concerning microstrip connectors, see pages 112 to 114.



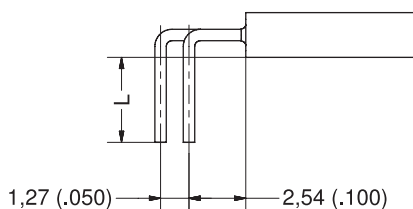
VERSION S1
STRAIGHT



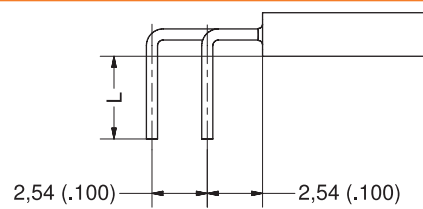
VERSION S2
STRAIGHT, .100" OFFSET



VERSION R1
RIGHT ANGLE, IN LINE



VERSION R2
RIGHT ANGLE, .050" OFFSET



VERSION R3
RIGHT ANGLE, .100" OFFSET

MICROSTRIP GENERAL INFORMATION

► All cavities used, whether for electrical (pin or socket) contacts or for hardware options, (guide pin or latch) are considered as mechanical positions.

- G2E & L2E : 2 mechanical positions to count.
- GCE & LCE : 1 mechanical position to count.
- Gxx & Lxx : 1 mechanical position to count for each occurrence.

NB : If G2E or L2E are chosen, first and last cavities cannot be used for another polarization option (ex : if L2E is chosen, guide pin in position 1 is not possible)

► When specifying the number of ways, only electrical positions (cavities containing pin or socket contacts) are counted.

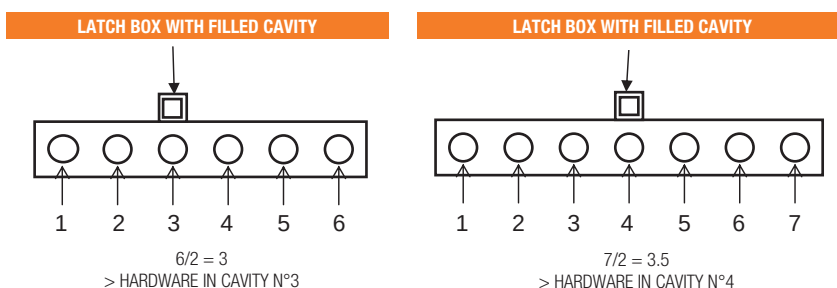
Example : a 7 way strip with 2 latches at the end and a guide pin would have 10 mechanical positions, but would still be called a 7 way connector.

TO DETERMINE CONNECTOR WIDTH A +/- 0.3 mm (.012")

	EXAMPLE : 11 CAVITY STRIP WITH MOUNTING HOLES
MULTIPLY the number of mechanical cavities in one row by 1.27 mm (.050")	$11 * 1.27 = 13.97$
ADD 0.25 mm (.010")	$+ 0.25 = 14.22$
ADD 7.62 mm (.300") if mounting hole option is selected	$+ 7.62 = 21.84$

► To determine hardware location number for centered hardware (GCE / LCE) :

- Divide the total number of mechanical cavities by two.
- Round to the next whole number if result is a fraction.



► Hardware options

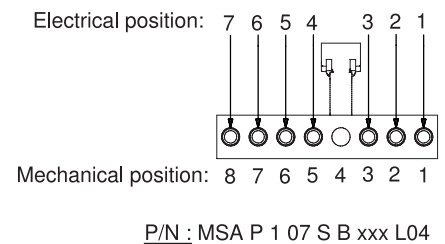
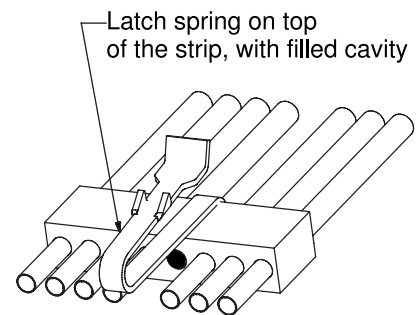
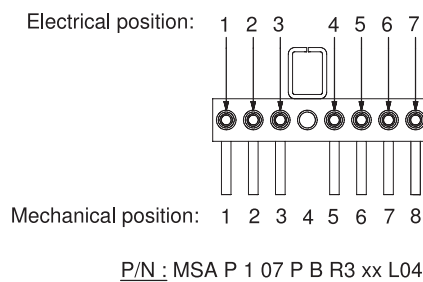
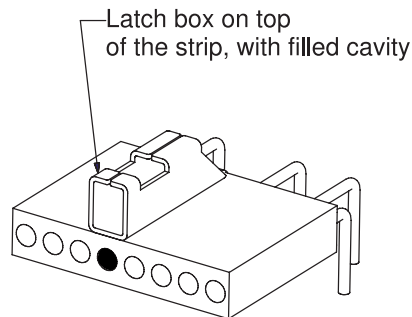
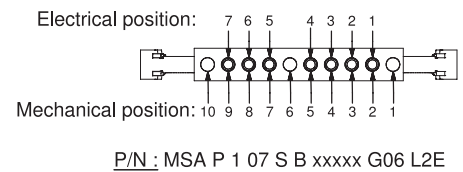
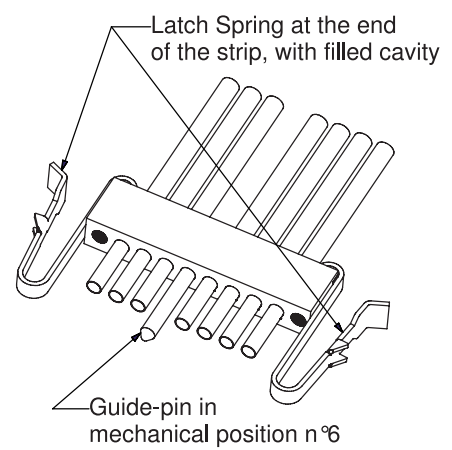
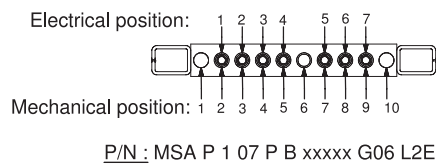
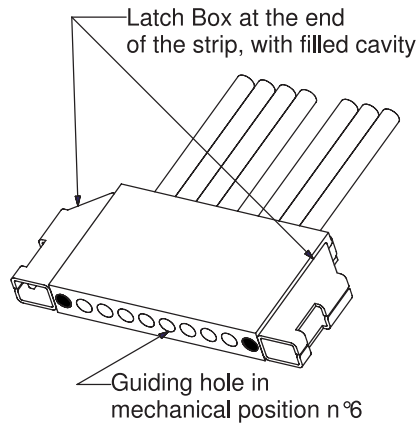
POLARIZATION BY GUIDE PIN

The guide pin is inserted into the female connector, and there is a guide hole in the opposite cavity in the male connector.

LATCHED RETENTION

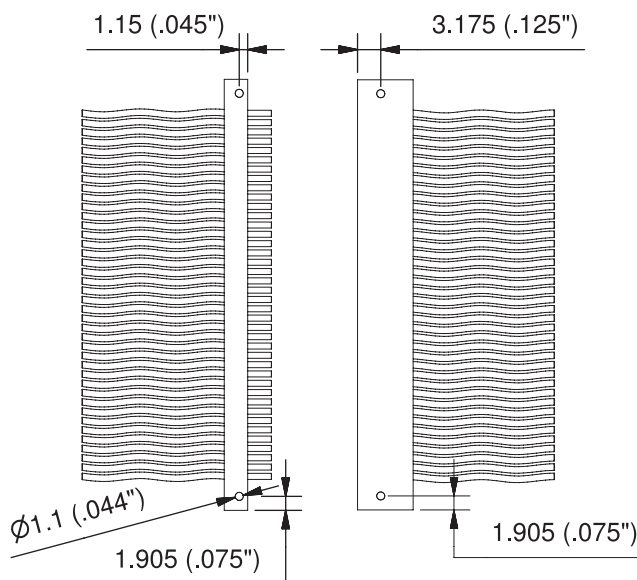
The latch spring is mounted on the female connector, with the corresponding latch box installed on the male connector. When the first and/or last mechanical positions are chosen for the latches they will be mounted on the connector edges, making the connector wider but not longer. For all other positions the latches will be mounted on top of the connector, directly above the corresponding mechanical position. Wherever a latch is fitted the corresponding cavity will be filled, and therefore mechanical only in function.

EXAMPLES



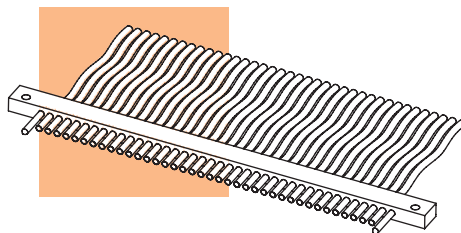
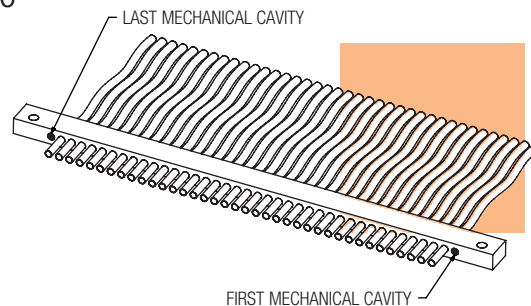
MOUNTING HOLES OPTION

► Position of holes



► Special case : mounting holes + hardware

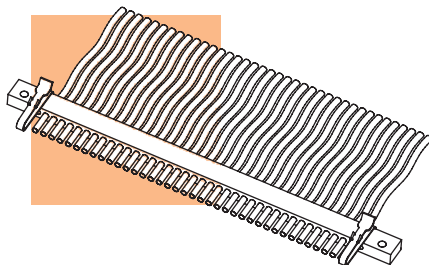
When mounting holes are selected, first and last mechanical cavities are "after the holes area".



EXAMPLE WITH **GUIDE PIN**

Hardware code G2E

Guide pin / guide holes to be in first and last mechanical cavities.



EXAMPLE WITH **LATCHING**

Hardware code L2E

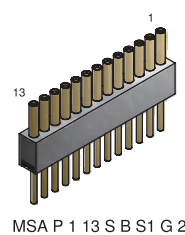
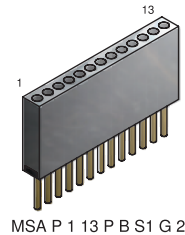
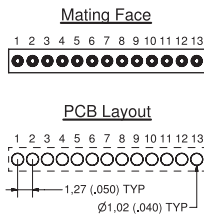
Latch spring / latch box to be above first and last mechanical cavities, not on the edges of the strip.

PCB LAYOUT FOR MICROSTRIP CONNECTORS, 0.050" PITCH

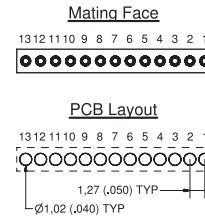
VERSION S1 : STRAIGHT

EXAMPLE OF A 13 WAY CONNECTOR

MALE MICROSTRIP CONNECTOR

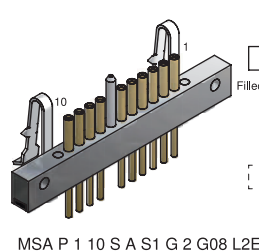
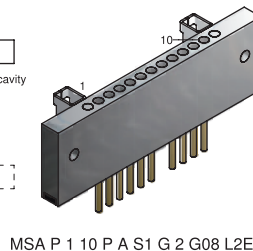
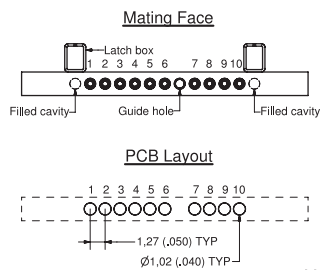


FEMALE MICROSTRIP CONNECTOR

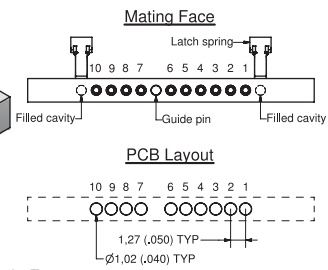


EXAMPLE OF A 10 WAY CONNECTOR WITH GUIDE-PIN, LATCHES AND MOUNTING HOLES

MALE MICROSTRIP CONNECTOR



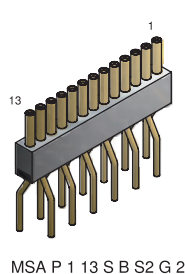
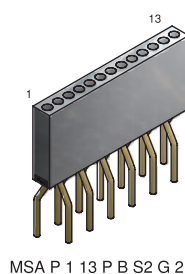
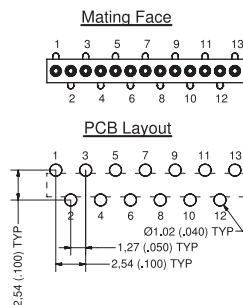
FEMALE MICROSTRIP CONNECTOR



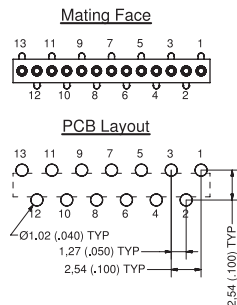
VERSION S2 : STRAIGHT - .100" OFFSET

EXAMPLE OF A 13 WAY CONNECTOR

MALE MICROSTRIP CONNECTOR

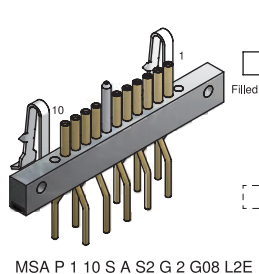
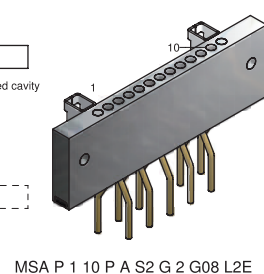
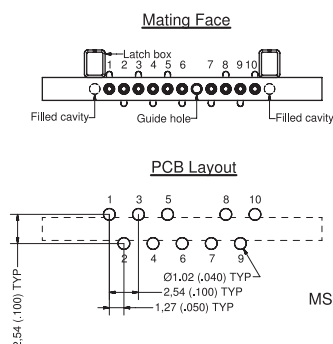


FEMALE MICROSTRIP CONNECTOR

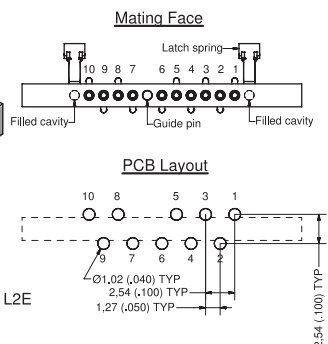


EXAMPLE OF A 10 WAY CONNECTOR WITH GUIDE-PIN, LATCHES AND MOUNTING HOLES

MALE MICROSTRIP CONNECTOR



FEMALE MICROSTRIP CONNECTOR

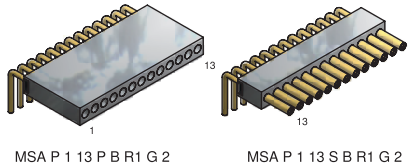
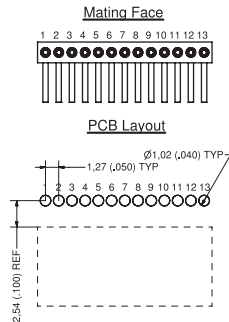


PCB LAYOUT FOR MICROSTRIP CONNECTORS, 0.050" PITCH

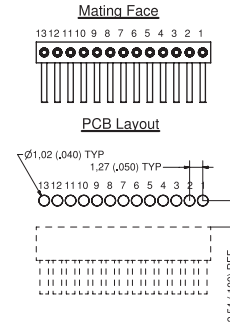
VERSION R1 : RIGHT ANGLE IN LINE

EXAMPLE OF A 13 WAY CONNECTOR

MALE MICROSTRIP CONNECTOR

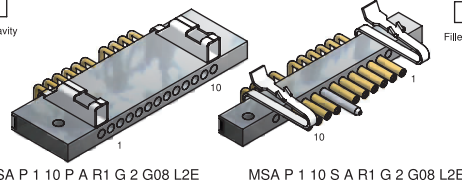
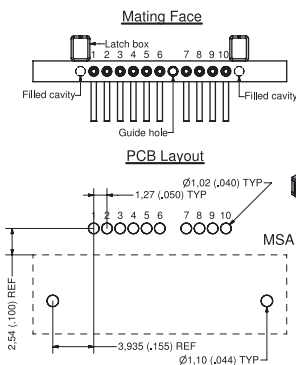


FEMALE MICROSTRIP CONNECTOR

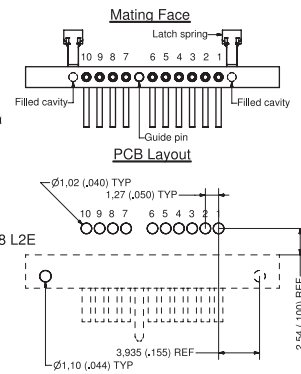


EXAMPLE OF A 10 WAY CONNECTOR WITH GUIDE-PIN, LATCHES AND MOUNTING HOLES

MALE MICROSTRIP CONNECTOR



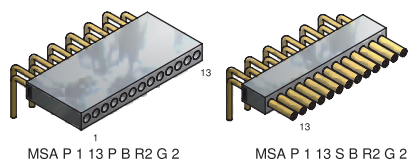
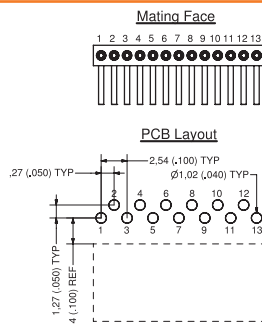
FEMALE MICROSTRIP CONNECTOR



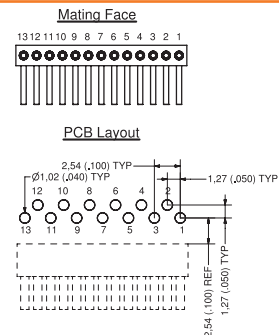
VERSION R2 : RIGHT ANGLE, .050" OFFSET

EXAMPLE OF A 13 WAY CONNECTOR

MALE MICROSTRIP CONNECTOR

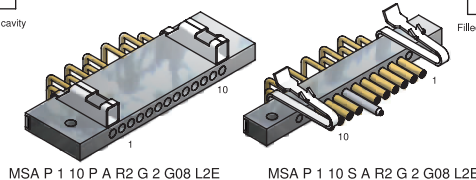
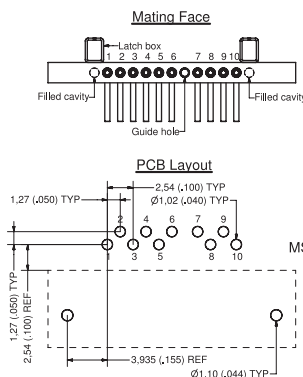


FEMALE MICROSTRIP CONNECTOR

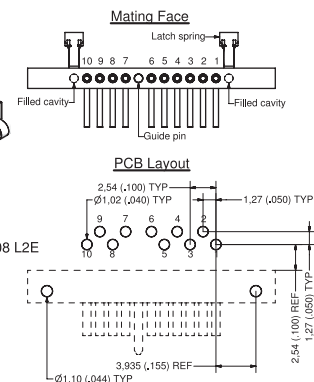


EXAMPLE OF A 10 WAY CONNECTOR WITH GUIDE-PIN, LATCHES AND MOUNTING HOLES

MALE MICROSTRIP CONNECTOR



FEMALE MICROSTRIP CONNECTOR

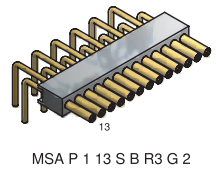
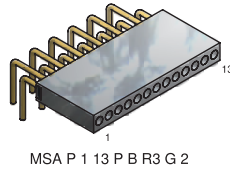
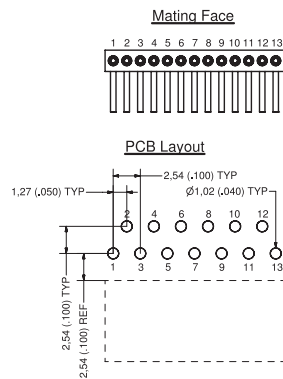


PCB LAYOUT FOR MICROSTRIP CONNECTORS, 0.050" PITCH

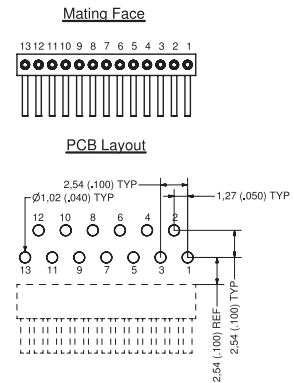
VERSION R3 : RIGHT ANGLE .100" OFFSET

EXAMPLE OF A 13 WAY CONNECTOR

MALE MICROSTRIP CONNECTOR

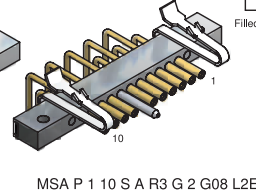
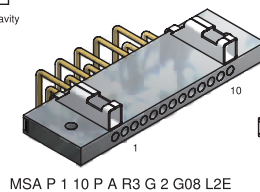
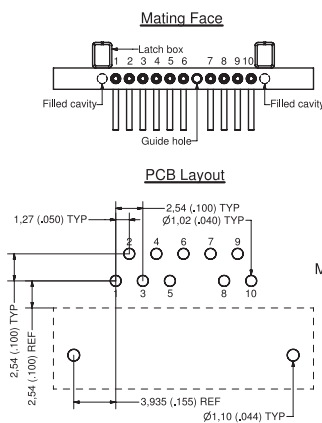


FEMALE MICROSTRIP CONNECTOR

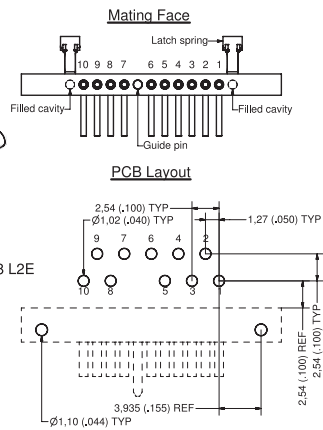


EXAMPLE OF A 10 WAY CONNECTOR WITH GUIDE-PIN, LATCHES AND MOUNTING HOLES

MALE MICROSTRIP CONNECTOR



FEMALE MICROSTRIP CONNECTOR



CIRCULAR CONNECTORS

In addition to the classic rectangular micro-D connectors based on the MIL standard, AXON' has also developed a range of metal and plastic circular connectors, based on twist pin technology, with the following characteristics :

► Several sizes

5 / 7 / 12 / 19 / 37 / 85 ways, other configurations available on request.

► Several versions

► METAL

- Metric thread coupling.
- Triple start thread coupling, with anti-decoupling ring.
- Bayonet coupling.
- Breakaway connectors.

► PLASTIC

- Solder cup connector.
- Pigtail connector.

► CUSTOMER DESIGN ON REQUEST

- Quick disconnect Push Pull coupling.
- Quick disconnect SNAP coupling.



▲ 5 WAY METRIC THREAD CONNECTOR



▲ 19 WAY BAYONET CONNECTOR



▲ 5 WAY ANTIDECOUPLING CONNECTOR



▲ 19 WAY ANTIDECOUPLING CONNECTOR

► BREAKAWAY METAL CIRCULAR CONNECTORS



▲ 19 WAY BREAKAWAY ALUMINIUM CONNECTORS WITH OVERMOULDING

► Several mounting options

- Male and female cable connector.
- Female panel mount receptacle (front or rear mount, square flange or jam nut).
- Rear part for heat-shrink boots or overmouldings available
- Rear funnels for braid groundings by axoclamp® available on both cable and panel mount connectors.

► Material options

- Nickel plated brass.
- Nickel plated aluminium.
- Thermoplastic.
- Other materials available on request.



▲ CUSTOM DESIGN : 12 WAY THREAD COUPLING BRASS CONNECTORS, WITH MATT BLACK FINISH



▲ 85 WAY THREAD COUPLING STAINLESS STEEL CONNECTORS