

DESCRIPTION/APPLICATION

Mechanical safety and EMI/RFI protection are major features of the Thomas & Betts Metal and Plastic Shell Ribbon Connectors

Together with Thomas & Betts Flat Cable, matching backshells for jacketed flat cable or special round cable as well as different mounting hardware accessories, they provide reliable and functional I/O terminations.

Serial production of cable sets benefits from efficient and electrically safe installation of the flat cable. This is ensured by beryllium copper contacts and connector design.

The spread contacts, a proprietary technique developed by Thomas & Betts, allow the use of standard flat cable on 1.27mm centers as well as any mating Thomas & Betts connectors.

Thomas & Betts Ribbon Connectors are fully compatible with industry standard 2.16mm center connectors.

DESIGN ADVANTAGES

- Indents in the high quality tin plated metal shell assure superior ground connection.
- Available with bail mount or full mounting ears (through hole, metric and UNC threaded insert).
- Stable plastic backshells, also metallized, with outlet for jacketed flat cable or special round cable available for any number of positions, with full screw mounting hardware.

RIBBON CABLE CONNECTORS



RIBBON CABLE CONNECTOR INDEX

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PLASTIC SHELL RIBBON CONNECTOR 14, 24, 36 AND 50 POSITION, MALE



LR92984 E60980

PHYSICAL PROPERTIES

INSULATION MATERIAL: Glass filled thermoplastic, rated UL 94V-0

COLOR: Blue

CONTACT MATERIAL: Beryllium copper: 30μ inches minimum gold over 50μ inches nickel in contact zone: tin-lead over nickel in termination area.

ELECTRICAL PROPERTIES

CURRENT RATING: 1 Amp

INSULATION RESISTANCE: >1000 Megohms @ 500 VDC

DIELECTRIC STRENGTH: >1000 VRMS (Sea Level)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -55°C to 125°C

APPLICATION TOOLING

HAND TOOL 779-2100

use Die 779-2172

BENCH PRESS (MANUAL) 779-3200

use Base Plate 779-3184

BENCH PRESS (PNEUMATIC) 779-3500XT

use Platen 779-3130

use Base Plate 779-3184

ACCESSORIES

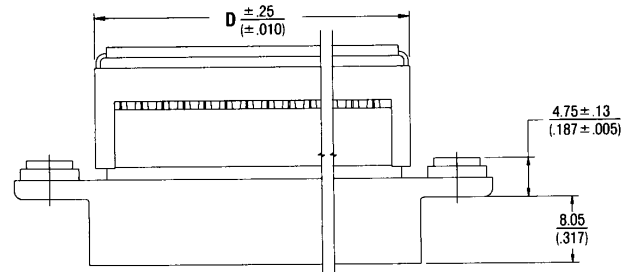
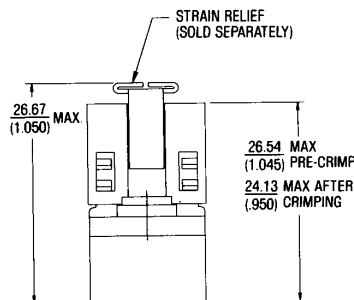
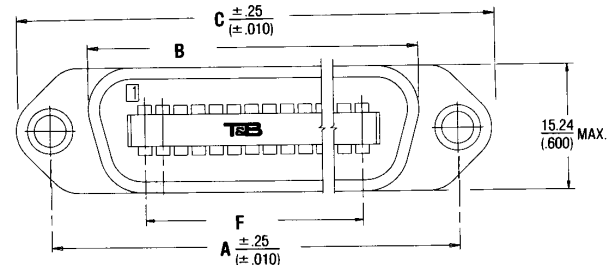
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CABLE

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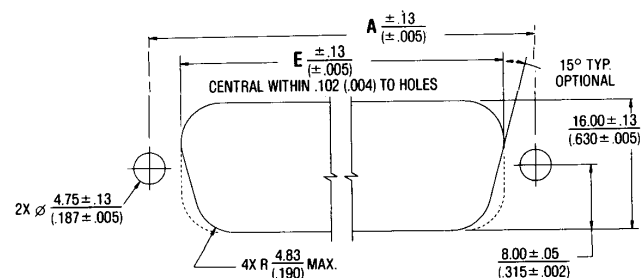
STRAIN RELIEF

ADD RSR AFTER NUMBER OF POSITIONS IN PART NUMBER



RECOMMENDED PANEL CUTOUT DIMENSIONS (BACK PANEL MOUNTED)

Maximum Panel Thickness: 3.18 / (.125).



Ordering Information

M-MALE WITH THRU-HOLE MOUNTING EARS	CATALOG NUMBERS		NO. OF POS.	DIMENSIONS IN					
	M1-MALE WITH MOUNTING EARS 3.5 MM THREADED INSERT	M2-MALE WITH MOUNTING EARS 4-40 THREADED INSERT		A	B	C	MM D	E	F
							INCHES		
622-14M	622-14M1	622-14M2	14	35.99 (1.417)	28.55 (1.124)	44.20 (1.740)	22.81 (.898)	29.84 (1.175)	12.95 (.510)
622-24M	622-24M1	622-24M2	24	46.79 (1.842)	39.34 (1.549)	54.99 (2.165)	35.51 (1.398)	40.64 (1.600)	23.75 (.935)
622-36M	622-36M1	622-36M2	36	59.74 (2.352)	52.30 (2.059)	67.95 (2.675)	50.75 (1.998)	53.59 (2.110)	36.70 (1.445)
622-50M	622-50M1	622-50M2	50	74.85 (2.947)	67.41 (2.654)	83.06 (3.270)	68.53 (2.698)	68.83 (2.710)	51.81 (2.040)

PLASTIC SHELL RIBBON CONNECTOR 14, 24, 36 AND 50 POSITION, FEMALE



LR92984 E60980

PHYSICAL PROPERTIES

INSULATION MATERIAL: Glass filled thermoplastic, rated UL 94V-0

COLOR: Blue

CONTACT MATERIAL: Beryllium copper: 30μ inches minimum gold over 50μ inches nickel in contact zone: tin-lead over nickel in termination area.

ELECTRICAL PROPERTIES

CURRENT RATING: 1 Amp

INSULATION RESISTANCE: >1000 Megohms @ 500 VDC

DIELECTRIC STRENGTH: >1000 VRMS (Sea Level)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -55°C to 125°C

APPLICATION TOOLING

HAND TOOL 779-2100

use Die 779-2172

BENCH PRESS (MANUAL) 779-3200

use Base Plate 779-3184

BENCH PRESS (PNEUMATIC) 779-3500XT

use Platen 779-3130

use Base Plate 779-3184

ACCESSORIES

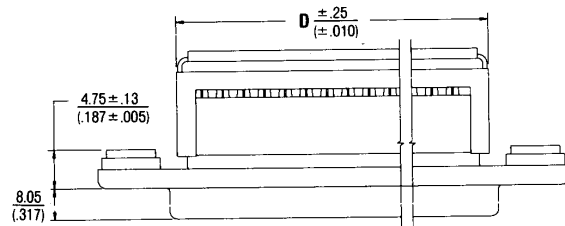
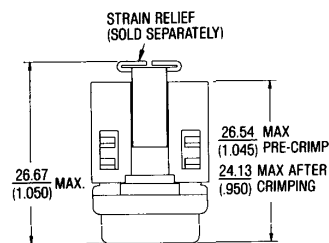
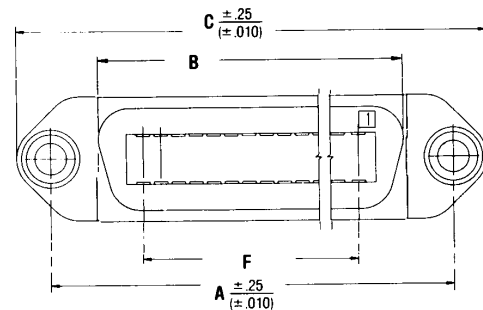
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CABLE

See pages 116-128

STRAIN RELIEF

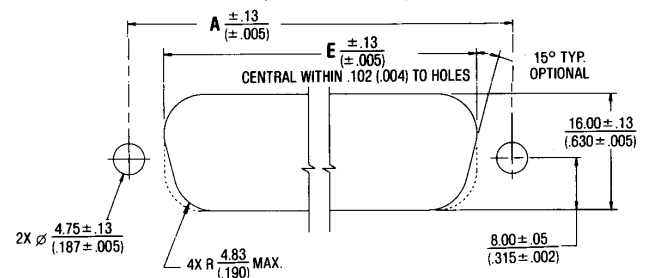
ADD RSR AFTER NUMBER
OF POSITIONS IN PART NUMBER



RECOMMENDED PANEL CUTOUT DIMENSIONS

Maximum Panel Thickness: 3.18 (.125).

(BACK PANEL MOUNTED)



Ordering Information

F-FEMALE WITH THRU-HOLE MOUNTING EARS	CATALOG NUMBERS		NO. OF POS.	DIMENSIONS IN					
	F1-FEMALE WITH MOUNTING EARS 3.5 MM THREADED INSERT	F2-FEMALE WITH MOUNTING EARS 4-40 THREADED INSERT		A	B	C	MM INCHES D	E	F
622-14F	622-14F1	622-14F2	14	35.99 (1.417)	28.55 (1.124)	44.20 (1.740)	22.81 (.898)	29.84 (1.175)	12.95 (.510)
622-24F	622-24F1	622-24F2	24	46.79 (1.842)	39.34 (1.549)	54.99 (2.165)	35.51 (1.398)	40.64 (1.600)	23.75 (.935)
622-36F	622-36F1	622-36F2	36	59.74 (2.352)	52.30 (2.059)	67.95 (2.675)	50.75 (1.998)	53.59 (2.110)	36.70 (1.445)
622-50F	622-50F1	622-50F2	50	74.85 (2.947)	67.41 (2.654)	83.06 (3.270)	68.53 (2.698)	68.83 (2.710)	51.81 (2.040)

METAL SHELL RIBBON CONNECTOR 14, 24, 36 AND 50 POSITION, FEMALE THRU-HOLE AND BAIL MOUNT



LR92984 E60980

PHYSICAL PROPERTIES

INSULATION MATERIAL: Glass filled
thermoplastic, rated UL 94V-0

COLOR: Blue

CONTACT MATERIAL: Beryllium copper: 30μ inches
minimum gold over 50μ inches nickel in contact
zone: tin-lead over nickel in termination area.

ELECTRICAL PROPERTIES

CURRENT RATING: 1 Amp

INSULATION RESISTANCE: >1000 Megohms @ 500 VDC

DIELECTRIC STRENGTH: >1000 VRMS (Sea Level)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -55°C to 125°C

APPLICATION TOOLING

HAND TOOL	779-2100
use Die	779-2172
BENCH PRESS (MANUAL)	779-3200
use Base Plate	779-3184
BENCH PRESS (PNEUMATIC)	779-3500XT
use Platen	779-3130
use Base Plate	779-3184

ACCESSORIES

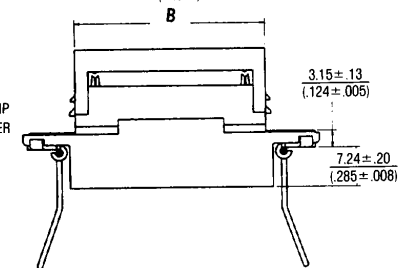
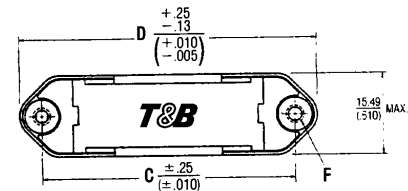
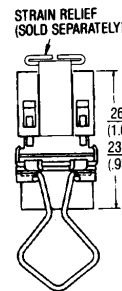
See pages 98-100

CABLE

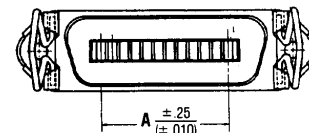
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STRAIN RELIEF

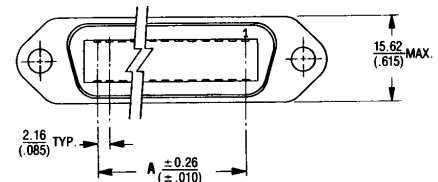
ADD RSR AFTER NUMBER
OF POSITIONS IN PART NUMBER



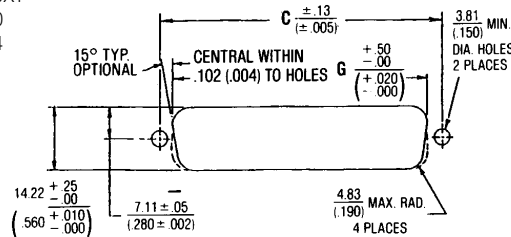
BAIL MOUNT TYPE



THRU-HOLE THREADED TYPE



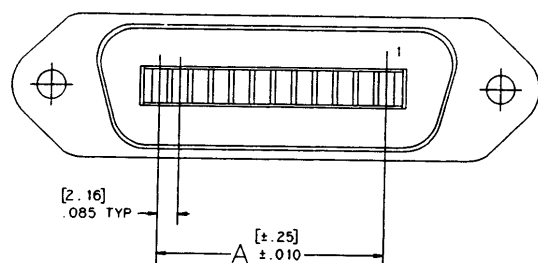
RECOMMENDED PANEL CUTOUT DIMENSIONS
(BACK PANEL MOUNTED)



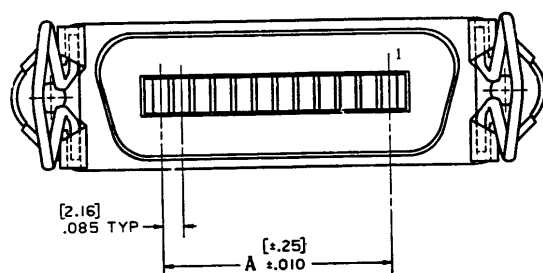
Ordering Information

CATALOG NUMBER	NO. OF POS.	DIMENSIONS IN MM (INCHES)					
		A	B	C	D	F	G
622-14FM	14	12.95 (.510)	22.81 (.898)	35.99 (1.417)	39.12 (1.540)	.142 ± .003 Ø THRU	28.19 (1.110)
622-24FM	24	23.75 (.935)	35.51 (1.398)	46.78 (1.842)	54.99 (2.165)	.142 ± .003 Ø THRU	39.12 (1.540)
622-36FM	36	36.70 (1.445)	50.75 (1.998)	59.74 (2.352)	67.94 (2.675)	.142 ± .003 Ø THRU	51.82 (2.040)
622-50FM	50	51.82 (2.040)	68.53 (2.698)	74.85 (2.947)	83.06 (3.270)	.142 ± .003 Ø THRU	67.06 (2.640)
622-14FM1	14	12.95 (.510)	22.81 (.898)	35.99 (1.417)	39.12 (1.540)	M3.5x0.6-6H THD	28.19 (1.110)
622-24FM1	24	23.75 (.935)	35.51 (1.398)	46.78 (1.842)	54.99 (2.165)	M3.5x0.6-6H THD	39.12 (1.540)
622-36FM1	36	36.70 (1.445)	50.75 (1.998)	59.74 (2.352)	67.94 (2.675)	M3.5x0.6-6H THD	51.82 (2.040)
622-50FM1	50	51.82 (2.040)	68.53 (2.698)	74.85 (2.947)	83.06 (3.270)	M3.5x0.6-6H THD	67.06 (2.640)
622-14FM2	14	12.95 (.510)	22.81 (.898)	35.99 (1.417)	39.12 (1.540)	4-40 UNC-2B THD	28.19 (1.110)
622-24FM2	24	23.75 (.935)	35.51 (1.398)	46.78 (1.842)	54.99 (2.165)	4-40 UNC-2B THD	39.12 (1.540)
622-36FM2	36	36.70 (1.445)	50.75 (1.998)	59.74 (2.352)	67.94 (2.675)	4-40 UNC-2B THD	51.82 (2.040)
622-50FM2	50	51.82 (2.040)	68.53 (2.698)	74.85 (2.947)	83.06 (3.270)	4-40 UNC-2B THD	67.06 (2.640)
622-14FM3	14	12.95 (.510)	22.81 (.898)	35.99 (1.417)	39.12 (1.540)	Bail Mount	28.19 (1.110)
622-24FM3	24	23.75 (.935)	35.51 (1.398)	46.78 (1.842)	54.99 (2.165)	Bail Mount	39.12 (1.540)
622-36FM3	36	36.70 (1.445)	50.75 (1.998)	59.74 (2.352)	67.94 (2.675)	Bail Mount	51.82 (2.040)
622 50FM3	50	51.82 (2.040)	68.53 (2.698)	74.85 (2.947)	83.06 (3.270)	Bail Mount	67.06 (2.640)

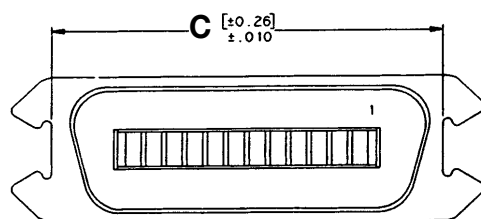
**METAL SHELL RIBBON
CONNECTOR
14, 24, 36 AND 50
POSITION, FEMALE
THRU-HOLE AND BAIL
MOUNT**



Thru-Hole/Threaded



Bail Mount Latches



Bail Mount Ears

METAL SHELL RIBBON CONNECTOR 14, 24, 36 AND 50 POSITION, MALE THRU-HOLE AND BAIL MOUNT



LR92984 E60980

PHYSICAL PROPERTIES

INSULATION MATERIAL: Glass filled thermoplastic, rated UL 94V-0

COLOR: Blue

CONTACT MATERIAL: Beryllium copper: 30μ inches minimum gold over 50μ inches nickel in contact zone: tin-lead over nickel in termination area.

ELECTRICAL PROPERTIES

CURRENT RATING: 1 Amp

INSULATION RESISTANCE: >1000 Megohms @ 500 VDC

DIELECTRIC STRENGTH: >1000 VRMS (Sea Level)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -55°C to 125°C

APPLICATION TOOLING

HAND TOOL 779-2100

use Die 779-2172

BENCH PRESS (MANUAL) 779-3200

use Base Plate 779-3184

BENCH PRESS (PNEUMATIC) 779-3500XT

use Platen 779-3130

use Base Plate 779-3184

ACCESSORIES

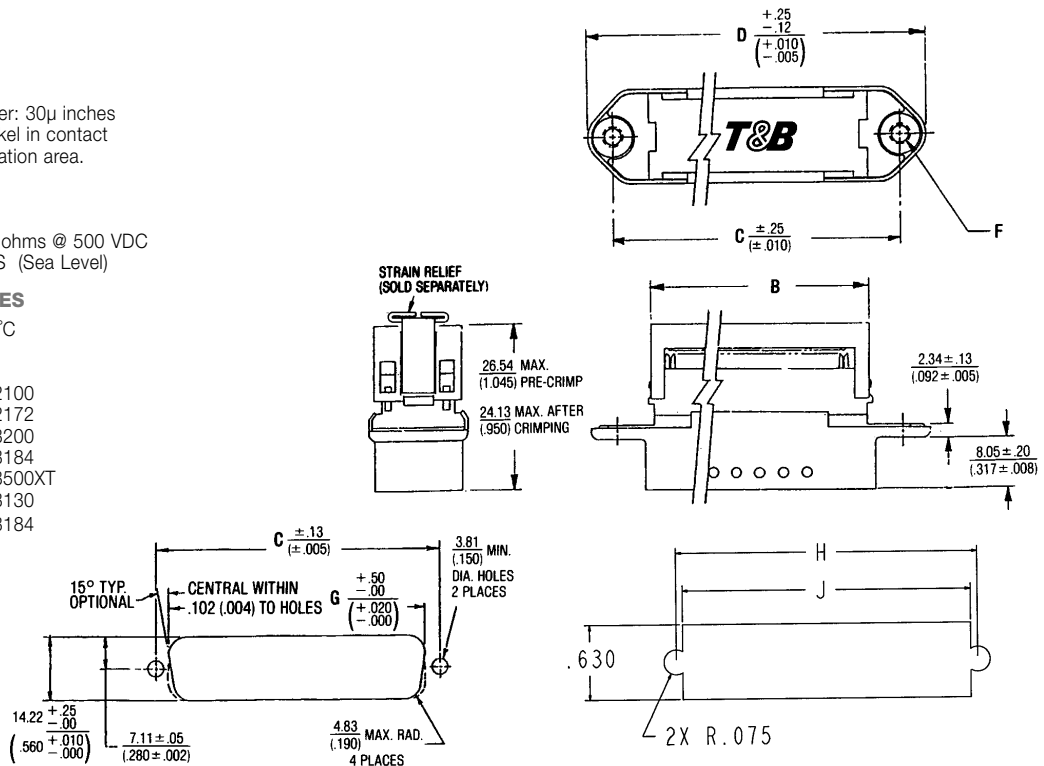
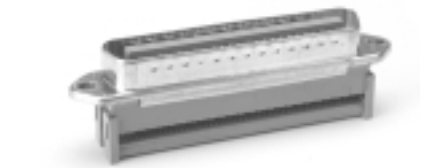
See pages 98-100

CABLE

See pages 116-128

STRAIN RELIEF

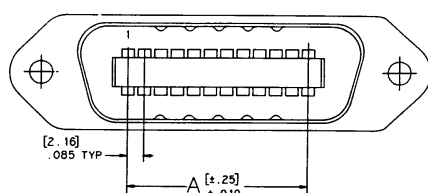
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OF POSITIONS IN PART NUMBER



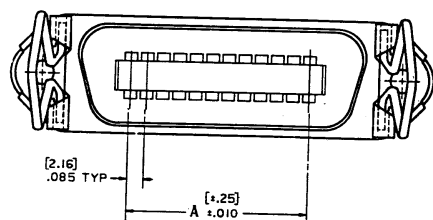
Ordering Information

CATALOG NUMBER	NO. OF POS.	DIMENSIONS IN MM (INCHES)							
		A	B	C	D	F	G	H	J
622-14MM	14	12.95 (.510)	22.81 (.898)	35.99 (1.417)	39.12 (1.540)	.142 ± .003 Ø THRU	28.19 (1.110)	N/A	N/A
622-24MM	24	23.75 (.935)	35.51 (1.398)	46.78 (1.842)	54.99 (2.165)	.142 ± .003 Ø THRU	39.12 (1.540)	N/A	N/A
622-36MM	36	36.70 (1.445)	50.75 (1.998)	59.74 (2.352)	67.94 (2.675)	.142 ± .003 Ø THRU	51.82 (2.040)	N/A	N/A
622-50MM	50	51.82 (2.040)	68.53 (2.698)	74.85 (2.947)	83.06 (3.270)	.142 ± .003 Ø THRU	67.06 (2.640)	N/A	N/A
622-14MM1	14	12.95 (.510)	22.81 (.898)	35.99 (1.417)	39.12 (1.540)	M3.5x0.6-6H THD	28.19 (1.110)	N/A	N/A
622-24MM1	24	23.75 (.935)	35.51 (1.398)	46.78 (1.842)	54.99 (2.165)	M3.5x0.6-6H THD	39.12 (1.540)	N/A	N/A
622-36MM1	36	36.70 (1.445)	50.75 (1.998)	59.74 (2.352)	67.94 (2.675)	M3.5x0.6-6H THD	51.82 (2.040)	N/A	N/A
622-50MM1	50	51.82 (2.040)	68.53 (2.698)	74.85 (2.947)	83.06 (3.270)	M3.5x0.6-6H THD	67.06 (2.640)	N/A	N/A
622-14MM2	14	12.95 (.510)	22.81 (.898)	35.99 (1.417)	39.12 (1.540)	4-40 UNC-2B THD	28.19 (1.110)	N/A	N/A
622-24MM2	24	23.75 (.935)	35.51 (1.398)	46.78 (1.842)	54.99 (2.165)	4-40 UNC-2B THD	39.12 (1.540)	N/A	N/A
622-36MM2	36	36.70 (1.445)	50.75 (1.998)	59.74 (2.352)	67.94 (2.675)	4-40 UNC-2B THD	51.82 (2.040)	N/A	N/A
622-50MM2	50	51.82 (2.040)	68.53 (2.698)	74.85 (2.947)	83.06 (3.270)	4-40 UNC-2B THD	67.06 (2.640)	N/A	N/A
622-14MM3	14	12.95 (.510)	22.81 (.898)	35.99 (1.417)	39.12 (1.540)	Bail Mount Latches	N/A	35.99 (1.417)	34.41 (1.417)
622-24MM3	24	23.75 (.935)	35.51 (1.398)	46.78 (1.842)	54.99 (2.165)	Bail Mount Latches	N/A	46.78 (1.842)	45.21 (1.780)
622-36MM3	36	36.70 (1.445)	50.75 (1.998)	59.74 (2.352)	67.94 (2.675)	Bail Mount Latches	N/A	59.74 (2.352)	59.17 (2.290)
622-50MM3	50	51.82 (2.040)	68.53 (2.698)	74.85 (2.947)	83.06 (3.270)	Bail Mount Latches	N/A	74.85 (2.947)	73.41 (2.890)
622-14MAM	14	12.95 (.510)	22.81 (.898)	N/A	N/A	Bail Mount Ears	N/A	N/A	N/A
622-24MAM	24	23.75 (.935)	35.51 (1.398)	N/A	N/A	Bail Mount Ears	N/A	N/A	N/A
622-36MAM	36	36.70 (1.445)	50.75 (1.998)	N/A	N/A	Bail Mount Ears	N/A	N/A	N/A
622-50MAM	50	51.82 (2.040)	68.53 (2.698)	N/A	N/A	Bail Mount Ears	N/A	N/A	N/A

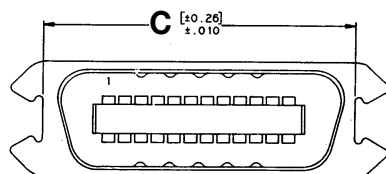
METAL SHELL RIBBON CONNECTOR 14, 24, 36 AND 50 POSITION, MALE THRU-HOLE AND BAIL MOUNT



Thru-Hole/Threaded



Bail Mount Latches



Bail Mount Ears

BACKSHELLS FOR METAL SHELL RIBBON CONNECTORS 14-50 POSITIONS



LR92984 E60980

PHYSICAL PROPERTIES

INSULATION MATERIAL: Glass filled thermoplastic,
rated UL 94V-0.

ELECTRICAL PROPERTIES

SHIELDING EFFICIENCY: >40dB @ 100 MHz to 1 GHz

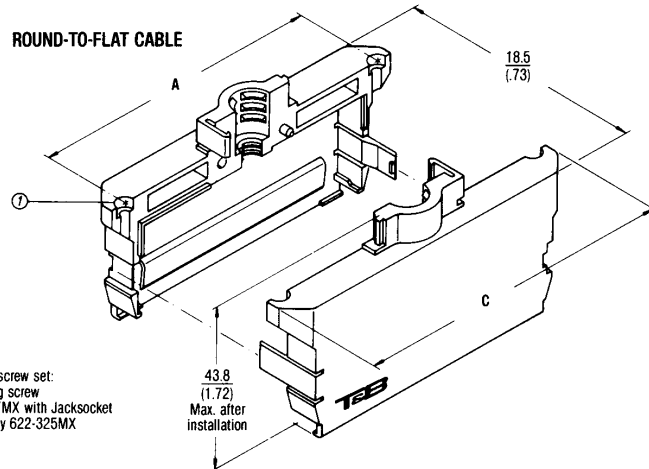
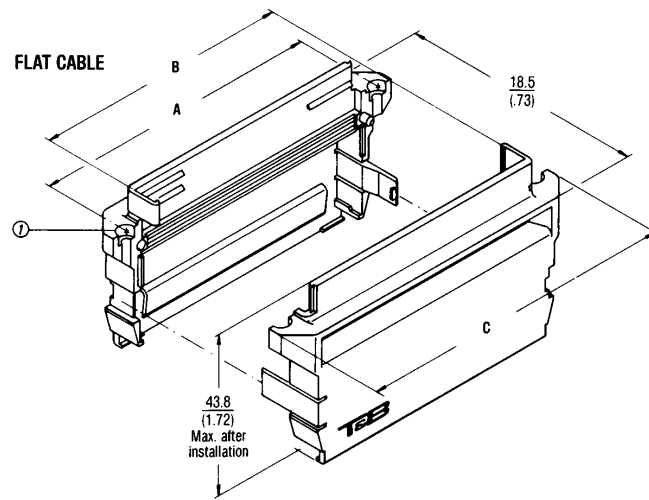
ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -55°C to 125°C

APPLICATION TOOLING

HAND TOOL	779-2100
use Die (Flat Cable Outlet)	779-2173
use Die (Round Cable Outlet)	779-2174
BENCH PRESS (MANUAL)	779-3200
BENCH PRESS (PNEUMATIC)	779-3500XT
use Platen and Base Plate (Flat Cable Outlet)	779-3173
use Platen and Base Plate (Round Cable Outlet)	779-3174

NOTE: CANNOT BE USED ON PLASTIC SHELL CONNECTOR



① Use for screw set:
Mounting screw
622-327MX with Jacksocket
Assembly 622-325MX

Ordering Information

CABLE TYPE	CATALOG NUMBERS		NO. OF POS.	DIMENSIONS IN			RECOMMENDED			
	PLASTIC (BLACK)	METALLIZED (CHROME)		A	B	C	JACKET DIAMETER MIN.	JACKET DIAMETER MAX.	SHIELD DIAMETER MIN.	SHIELD DIAMETER MAX.
Flat Cable	622-014	622-014M	14	36.0 (1.42)	21.3 (.84)	44.2 (1.74)	—	—	—	—
Flat Cable	622-024	622-024M	24	46.8 (1.84)	34.0 (1.34)	55.0 (2.16)	—	—	—	—
Flat Cable	622-036	622-036M	36	59.7 (2.35)	49.3 (1.94)	68.0 (2.68)	—	—	—	—
Flat Cable	622-050	622-050M	50	74.9 (2.95)	67.1 (2.64)	83.1 (3.27)	—	—	—	—
Round Cable	622-014R	622-014RM	14	36.0 (1.42)	—	44.2 (1.74)	6.0 (.24)	7.4 (.29)	4.2 (.17)	5.6 (.21)
Round Cable	622-024R	622-024RM	24	46.8 (1.84)	—	55.0 (2.17)	7.0 (.28)	8.5 (.33)	5.2 (.20)	6.7 (.25)
Round Cable	622-036R	622-036RM	36	59.7 (2.35)	—	68.0 (2.68)	8.1 (.32)	9.8 (.39)	6.4 (.25)	8.0 (.30)
Round Cable	622-050R	622-050RM	50	74.9 (2.95)	—	83.1 (3.27)	9.4 (.37)	11.2 (.44)	7.6 (.30)	9.4 (.35)

PRODUCT DESCRIPTION

Screw sets and bail mounts are available for all Thomas & Betts Metal Shell Ribbon Connectors. These allow cable splices, panel mounting and combinations with standard ribbon connectors for individual wiring applications. All mounting hardware are easy to install.

622-320M

Bail mount clip

Mounting screw 4-40 UNC

- couples ribbon connector with or without back panel mounting to another ribbon connector and can be used with or without backshell.

Panel thickness 3.2 (.13) max.

622-325M1

Jacksocket assembly

Mounting screw M 3.5

- couples ribbon connector with or without backpanel mounting via mounting screw to another ribbon connector with or without backshell

Surface: zinc-plated

Panel thickness 2.4 (.094) max.

622-325M2

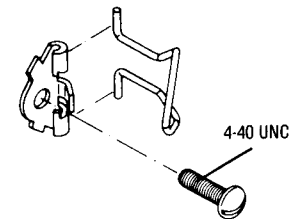
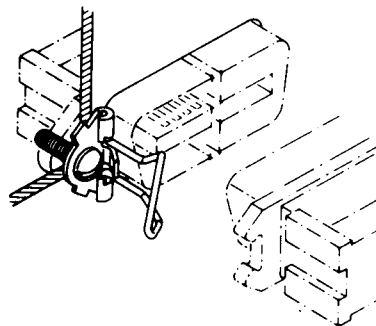
Jacksocket assembly 4-40 UNC

- couples ribbon connector with or without backpanel mounting via mounting screws to another ribbon connector with or without backshell

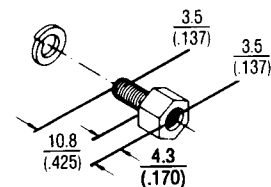
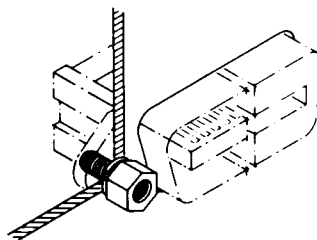
Surface: zinc-plated

Panel thickness 2.4 (.094) max.

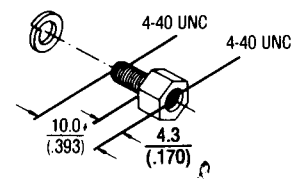
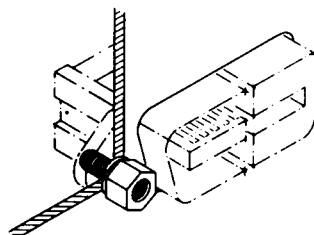
MOUNTING HARDWARE FOR METAL SHELL RIBBON CONNECTORS



FOR USE WITH:
CONNECTORS
622-XXMM2
622-XXFM2
622-XXF2
622-XXM2



FOR USE WITH:
CONNECTORS
622-XXMM1
622-XXFM1
622-XXF1
622-XXM1



FOR USE WITH:
622-XXMM2
622-XXFM2
622-XXM2
622-XXF2

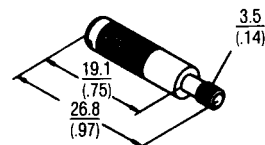
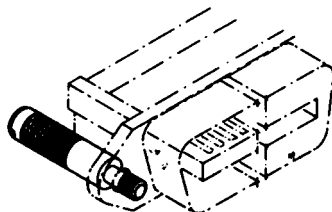
622-326M1

Mounting screw M 3.5

- couples ribbon connector without backshell via jacksockets to ribbon connector, with or without panel mounting

Surface: zinc-plated

MOUNTING HARDWARE FOR RIBBON CONNECTORS



FOR USE WITH:
CONNECTORS
622-XXMM1
622-XXFM1
622-XXM
622-XXF

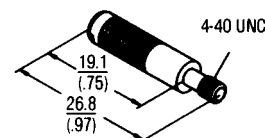
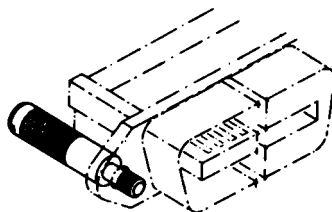
JACKSOCKET
622-325M1

622-326M2

Mounting screw 4-40 UNC

- couples ribbon connector without backshell via jackscrews to ribbon connector, with or without panel mounting

Surface: zinc-plated



FOR USE WITH:
CONNECTORS
622-XXMM2
622-XXFM2
622-XXM
622-XXF

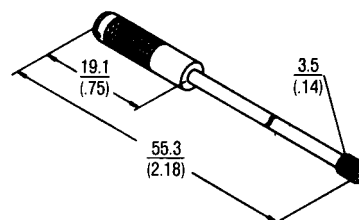
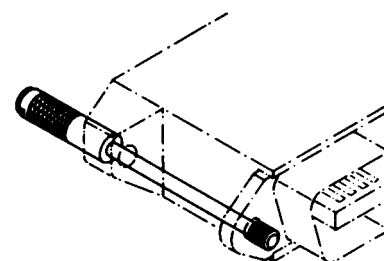
JACKSOCKET
622-325M2

622-327M1

Mounting screw M 3.5

- couples ribbon connector with backshell via jacksockets to ribbon connector, with or without panel mounting

Surface: zinc-plated



FOR USE WITH:
CONNECTORS
622-XXMM1
622-XXFM1
with backshell

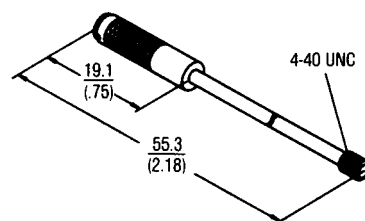
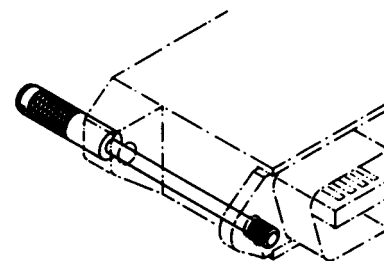
JACKSOCKET
622-325M1

622-327M2

Mounting screw 4-40 UNC

- couples ribbon connector with backshell via jackscrews to ribbon connector, with or without panel mounting

Surface: zinc-plated



FOR USE WITH:
CONNECTORS
622-XXMM2
622-XXFM2
with backshell

JACKSOCKET
622-325M2