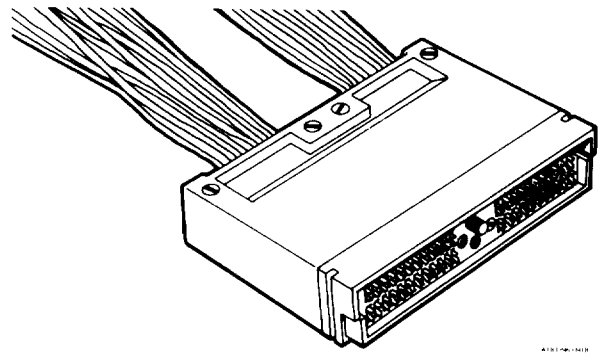


Discrete Crimp-to-Wire Pins/Receptacles/Housings

3.18 mm (0.125 in.) Centerlines

Serpent™ Connectors



Features

- Complete system consists of contacts, housings, accessories, fabricated assemblies, and application tooling.
- Provides I/O interface with IBM 360/370 series and plug-compatible mainframes.

- Contacts are reliable for up to 500 mating cycles.
- 48-position durable polycarbonate housing.

- OL-720 fully automatic application machine (28–32 AWG) 25-13
- OL-700 fully automatic application machine (14–28 AWG) 25-14
- HT-42, 43, and 30 hand crimping tools for loose-piece contacts 25-14

Application Equipment

Berg Electronics Products	Page
■ OL-740 semi-automatic two-ton bench press (14–36 AWG)	25-13

Technical Data

Materials

- Housing Glass-filled polycarbonate (UL 94 V-0) or Unfilled polycarbonate (UL 94 V-2)
 - ▶ Color Light or dark gray
- Standard cover Glass-filled polycarbonate (UL 94 V-0) or Unfilled polycarbonate (UL 94 V-2)
 - ▶ Color Dark gray
- Short cover Unfilled polycarbonate (UL 94 V-0)
 - ▶ Color Dark gray
- Terminator cover Unfilled polycarbonate (UL 94 V-0)
 - ▶ Color Milky white
- Pin guide Unfilled polycarbonate (UL 94 V-2)
 - ▶ Color Dark gray
- Contact separator Unfilled polycarbonate (UL 94 V-0)
 - ▶ Color Milky white
- Insert (housing) Stainless steel
- Strain relief Neoprene synthetic rubber bonded to a carbon steel bar
- Serpent and Scallopini contacts Phosphor-bronze
- Mother pin assembly
 - ▶ Round or square Phosphor-bronze
 - ▶ Round Nickel wire

Electrical Performance

- Insulation resistance 10,000 M Ω min
- Withstanding voltage 1000 V rms (sea level)
- Current rating
 - ▶ Loaded connector 4.5 amp max
 - ▶ Serpent and Scallopini contacts (mated) 6 amp max
- Contact resistance (termination-to-termination, 2 crimps and mated contacts)
 - ▶ 18–22 AWG 12 m Ω max
 - ▶ 24–26 AWG 13 m Ω max
 - ▶ 28–32 AWG 20 m Ω max

Operating Environment

- Temperature range –30 °C to +70 °C

Plating

- Gold option
 - ▶ Contact area
 - Finish 0.75 μ m (30 μ in.) min gold
 - Underplate 1.27 μ m (50 μ in.) min nickel
 - ▶ Remainder
 - Finish Gold flash
 - Underplate 1.27 μ m (50 μ in.) min nickel
- Duplex option
 - ▶ Contact area
 - Finish 0.75 μ m (30 μ in.) min gold
 - Underplate 1.27 μ m (50 μ in.) min nickel
 - ▶ Crimp area
 - Finish 1.27 μ m (50 μ in.) min tin-lead
 - Underplate 1.27 μ m (50 μ in.) min nickel
 - ▶ Remainder
 - Finish Gold flash
 - Underplate 1.27 μ m (50 μ in.) min nickel
- Mother pin assembly
 - ▶ Phosphor-bronze round 1.27 μ m (50 μ in.) min gold
 - ▶ Phosphor-bronze square 0.75 μ m (30 μ in.) min gold
 - ▶ Nickel-wire round 1.50 μ m (60 μ in.) min palladium

Mechanical Performance

- Insertion force (2 fully loaded 48-position connectors) 133 N (30 lbf) max
- Withdrawal force 44 N (10 lbf) min
- Contact retention force 53 N (12 lbf) min
- Cable stress with strain relief 440 N (99 lbf)
- Durability (mating cycles) 500

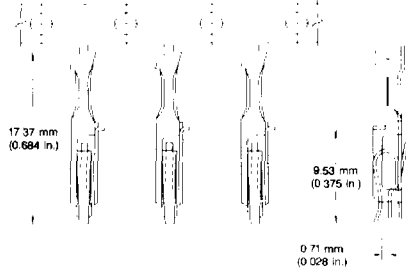
Packaging

- Reels [8.89 mm (0.350 in.) spacing]
- Boxes

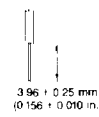
**Discrete Crimp-to-Wire
Pins/Receptacles/Housings
3.18 mm (0.125 in.)**

**Description
Crimp-to-Wire Contacts**

SERPENT

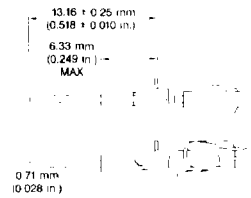


RECOMMENDED
INSULATION
STRIP LENGTH

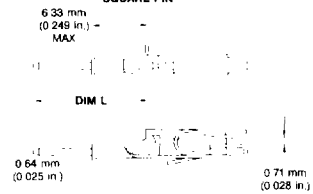


MOTHER PIN

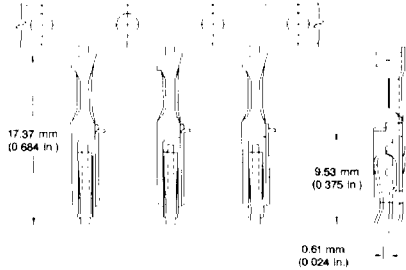
ROUND PIN



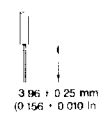
SQUARE PIN



SCALLOPINI



RECOMMENDED
INSULATION
STRIP LENGTH



A181398-0918

**Ordering Data
Serpent Contacts**

Wire Size (AWG)	Insulation Diameter		Contact Finish	Packaging*	Part Number
	mm	in.			
18-20	1.07-2.62	0.042-0.103	Gold	Reels (R-L)	75973-001
18-20	1.07-2.62	0.042-0.103	Duplex	Reels (R-L)	75973-006
18-20	1.07-2.62	0.042-0.103	Gold	Reels (L-R)	75973-004
18-20	1.07-2.62	0.042-0.103	Duplex	Reels (L-R)	75973-007
18-20	1.07-2.62	0.042-0.103	Gold	Boxes	75973-005
18-20	1.07-2.62	0.042-0.103	Duplex	Boxes	75973-008
22-26	0.71-2.62	0.028-0.103	Gold	Reels (R-L)	75972-001
22-26	0.71-2.62	0.028-0.103	Duplex	Reels (R-L)	75972-006
22-26	0.71-2.62	0.028-0.103	Gold	Reels (L-R)	75972-004
22-26	0.71-2.62	0.028-0.103	Duplex	Reels (L-R)	75972-007
22-26	0.71-2.62	0.028-0.103	Gold	Boxes	75972-005
22-26	0.71-2.62	0.028-0.103	Duplex	Boxes	75972-008
28-32	0.66-1.91	0.026-0.075	Gold	Reels (R-L)	75971-001
28-32	0.66-1.91	0.026-0.075	Duplex	Reels (R-L)	75971-006
28-32	0.66-1.91	0.026-0.075	Gold	Reels (L-R)	75971-004
28-32	0.66-1.91	0.026-0.075	Duplex	Reels (L-R)	75971-007
28-32	0.66-1.91	0.026-0.075	Gold	Boxes	75971-005
28-32	0.66-1.91	0.026-0.075	Duplex	Boxes	75971-008

*Reeled contacts are available reeled from right to left (R-L) or left to right (L-R).

**Discrete Crimp-to-Wire
Pins/Receptacles/Housings
3.18 mm (0.125 in.)**

**Ordering Data
Scallopini Contacts**

Wire Size (AWG)	Insulation Diameter		Contact Finish	Packaging*	Part Number
	mm	in.			
18-20	1.07-2.62	0.042-0.103	Gold	Reels (R-L)	75976-001
18-20	1.07-2.62	0.042-0.103	Duplex	Reels (R-L)	75976-006
18-20	1.07-2.62	0.042-0.103	Gold	Reels (L-R)	75976-004
18-20	1.07-2.62	0.042-0.103	Duplex	Reels (L-R)	75976-007
18-20	1.07-2.62	0.042-0.103	Gold	Boxes	75976-005
18-20	1.07-2.62	0.042-0.103	Duplex	Boxes	75976-008
22-26	0.71-2.62	0.028-0.103	Gold	Reels (R-L)	75975-001
22-26	0.71-2.62	0.028-0.103	Duplex	Reels (R-L)	75975-006
22-26	0.71-2.62	0.028-0.103	Gold	Reels (L-R)	75975-004
22-26	0.71-2.62	0.028-0.103	Duplex	Reels (L-R)	75975-007
22-26	0.71-2.62	0.028-0.103	Gold	Boxes	75975-005
22-26	0.71-2.62	0.028-0.103	Duplex	Boxes	75975-008
28-32	0.66-1.91	0.026-0.075	Gold	Reels (R-L)	75974-001
28-32	0.66-1.91	0.026-0.075	Duplex	Reels (R-L)	75974-006
28-32	0.66-1.91	0.026-0.075	Gold	Reels (L-R)	75974-004
28-32	0.66-1.91	0.026-0.075	Duplex	Reels (L-R)	75974-007
28-32	0.66-1.91	0.026-0.075	Gold	Boxes	75974-005
28-32	0.66-1.91	0.026-0.075	Duplex	Boxes	75974-008

*Reeled contacts are available reeled from right to left (R-L) or left to right (L-R).

**Ordering Data
Mother Pins**

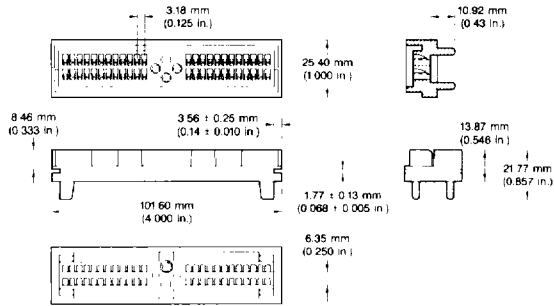
Configuration	Dimension L		Finish	Part Number
	mm	in.		
Square [0.64 mm (0.025 in.)]	15.39	0.606	Gold	76073-001
Square [0.64 mm (0.025 in.)]	20.57	0.810	Gold	76073-002
Square [0.64 mm (0.025 in.)]	22.66	0.892	Gold	76073-003
Square [0.64 mm (0.025 in.)]	24.92	0.981	Gold	76073-004
Square [0.64 mm (0.025 in.)]	25.10	0.988	Gold	76073-005
Square [0.64 mm (0.025 in.)]	25.91	1.020	Gold	76073-006
Square [0.64 mm (0.025 in.)]	27.31	1.075	Gold	76073-007
Square [0.64 mm (0.025 in.)]	28.07	1.105	Gold	76073-008
Square [0.64 mm (0.025 in.)]	31.67	1.247	Gold	76073-009
Square [0.64 mm (0.025 in.)]	33.96	1.337	Gold	76073-010
Round [0.71 mm (0.028 in.)]	15.39	0.606	Gold	75978-001
Round [0.71 mm (0.028 in.)]	15.39	0.606	Palladium	75979-001

Description

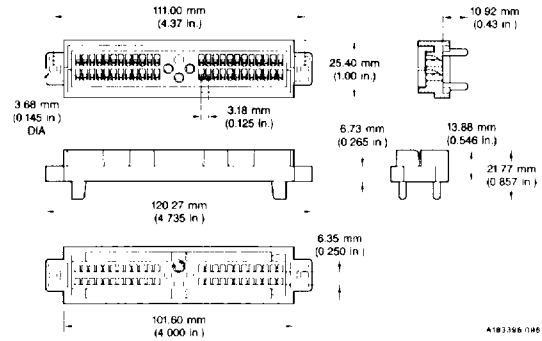
Standard Housings Profile

STANDARD PROFILE HOUSING

SLOTTED MOUNT



MOUNTING EARS

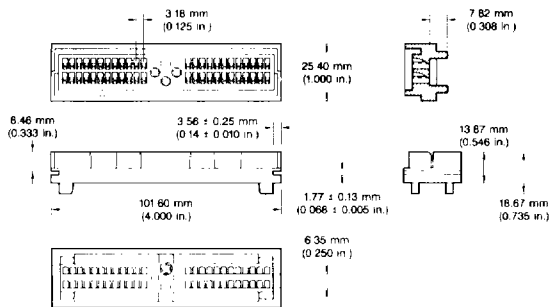


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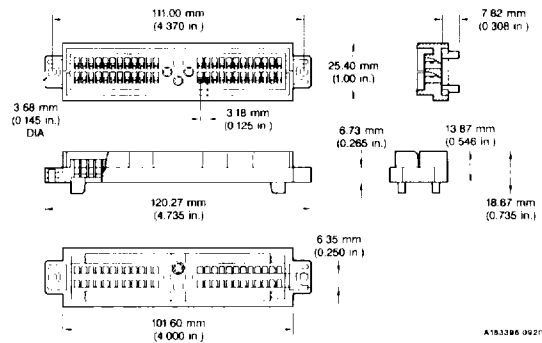
Low Profile Housings

LOW PROFILE HOUSING

SLOTTED MOUNT



MOUNTING EARS



A183366 0020

Ordering Data

Standard Profile — Slotted Mount

Color	Insert	Part Number			
		Glass-filled polycarbonate	Unfilled polycarbonate		
		Metallized*	Non-metallized	Metallized*	Non-metallized
Light gray	Yes	67681-001	65942-001	65718-001	65700-001
Dark gray	Yes	67682-001	65943-001	65719-001	65704-001
Dark gray	No	—	65943-002	—	65703-001

Low-Profile — Slotted Mount

Color	Insert	Part Number	
		Glass-filled polycarbonate	Unfilled polycarbonate
Light gray	Yes	66236-001	65724-001
Dark gray	Yes	66237-001	65725-001

Standard Profile — Mounting Ears

Color	Insert	Part Number	
		Glass-filled polycarbonate	Unfilled polycarbonate
Light gray	Yes	66062-001	66058-001
Dark gray	Yes	66063-001	66059-001

Low-Profile — Mounting Ears

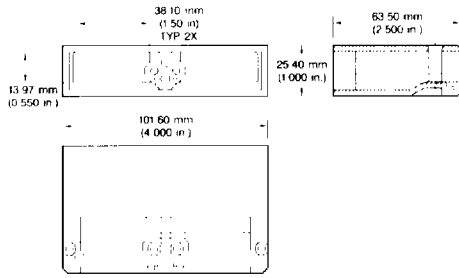
Color	Insert	Part Number	
		Glass-filled polycarbonate	Unfilled polycarbonate
Light gray	Yes	66060-001	65864-001
Dark gray	Yes	66061-001	65865-001

*Surface treated with 99% pure aluminum

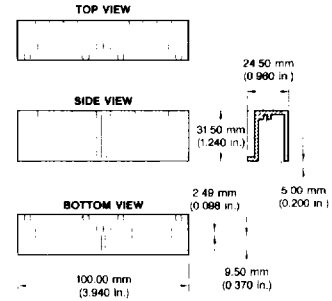
**Discrete Crimp-to-Wire
Pins/Receptacles/Housings**
3.18 mm (0.125 in.)

Description
Covers, Pin Guides, and Contact Separators

STANDARD COVER



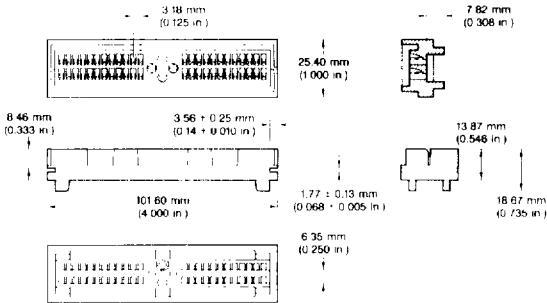
TERMINATOR COVER



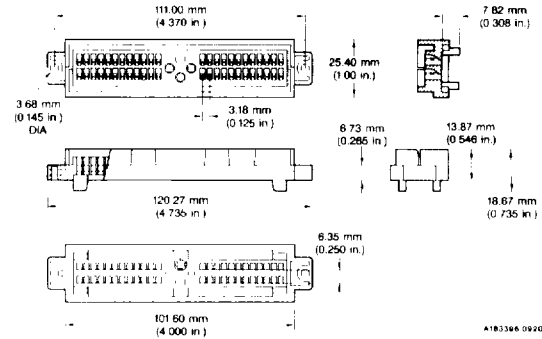
A183364 08A2

LOW PROFILE HOUSING

SLOTTED MOUNT



MOUNTING EARS



A183366 09A2

Ordering Data

Description	Part Number
Standard cover (glass-filled polycarbonate)	65977-001
Standard cover (unfilled polycarbonate)	65701-001
Standard cover accessory kit*	76008-001
Includes: 1 jackscrew	75980-001
4 — 25.4 mm (1 in.) screws	75981-001
1 compression spring	75983-001
2 strain reliefs	75985-001
2 self-tapping screws	75986-001
1 snap ring	75987-001
Terminator cover	66019-001
Terminator cover accessory kit*	66280-001
Includes: 1 jackscrew	76119-002
2 binding head screws	75997-001
2 snap ring	75987-001
Pin guide	65702-001
With pin guide screws for mounting to housing	76006-001
Pin guide screws	75996-001

*Parts in kits can be ordered separately.

Customer Support Materials

Description	Order No.	Description	Order No.
Customer Product Drawings	By Part No.	Product Samples	Upon Request