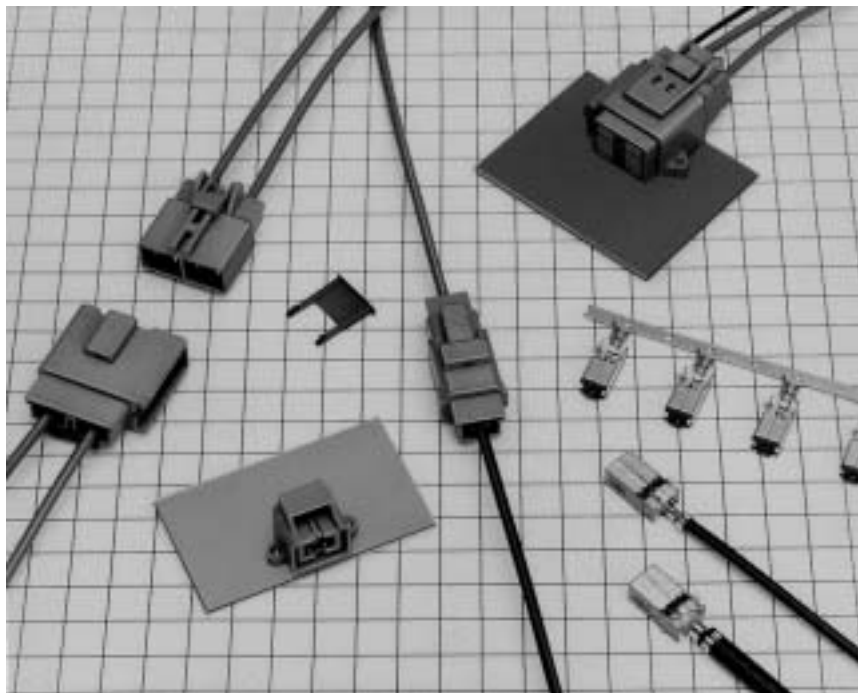


Termination of coaxial cables in automotive, medical and instrumentation applications utilizes a single motion to crimp the center conductor, shield and outer Insulator.

GT1 Series

— Connectors for coaxial cables —

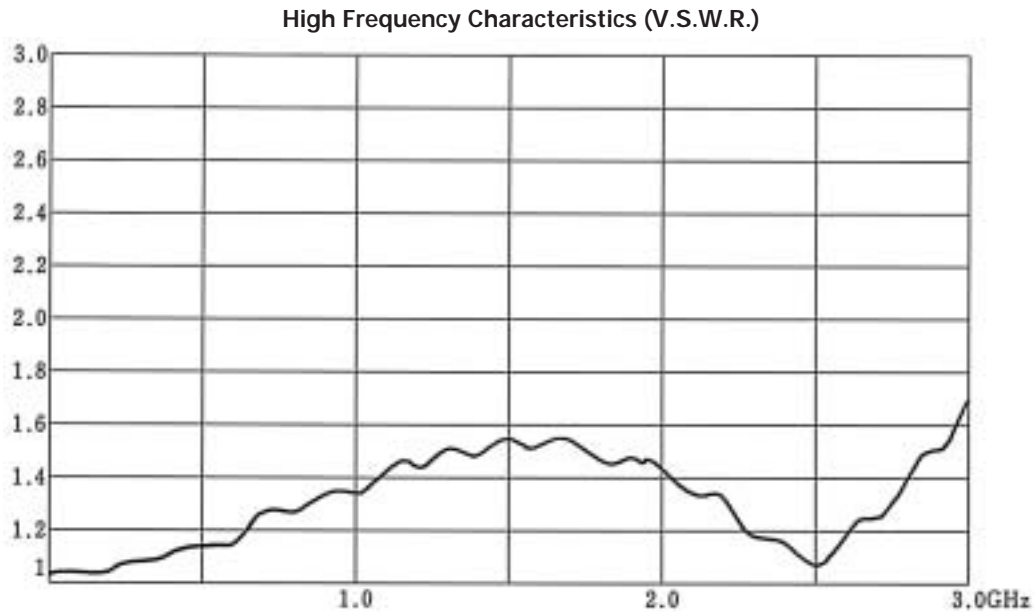
< Several types and configurations: In-line, board mounted, combinations of coaxial cable with signal/power. Multi-position. >



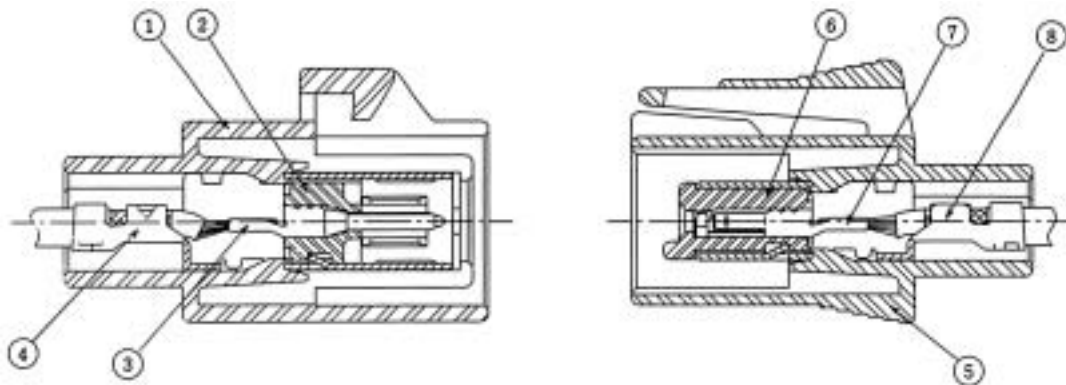
■ Features

- **Cost efficient termination**
Highly efficient and reliable single motion crimp termination allows high volume production with semi-automatic equipment.
- **Lock-release latching system**
- **Shock / vibration resistant electrical connections**
- **Verification of the full contact insertion**
- **Excellent shielding effects.**
- **Excellent High Frequency Performance**
Refer to V.S.W.R. data on the following pages.

◆ Test Data (Using Semi-rigid Cable)



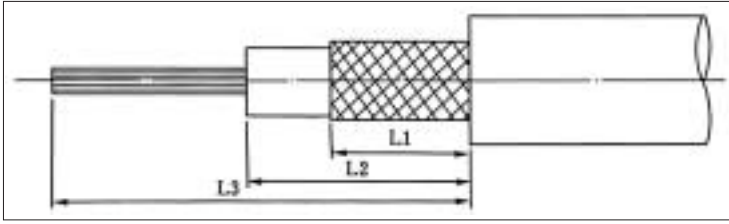
◆ Diagram of GT1 In-line Type Structure



	Part Number	Part	Number Used	Material	Finish
1	GT1-1P-HU	Housing	1	PA(UL94V-0)	—
2		Insulator	1	PBT(UL94V-0)	—
3	GT1-1P-2428/1.6C	Crimp terminal	1	Brass	Tin plating
4		Outer terminal	1	Brass	Tin plating
5	GT1-1S-HU	Housing	1	PA(UL94V-0)	—
6		Insulator	1	PBT(UL94V-0)	—
7	GT1-1S-2428/1.6C	Crimp terminal	1	Phosphor bronze	Tin plating
8		Outer terminal	1	Brass	Tin plating

◆ Termination sequence

● Coaxial Cable Terminal Finish Diagram

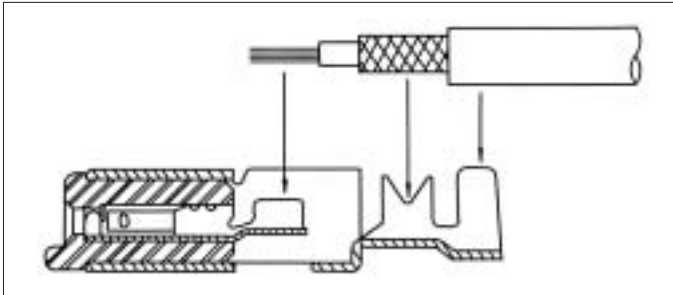


Strip Length

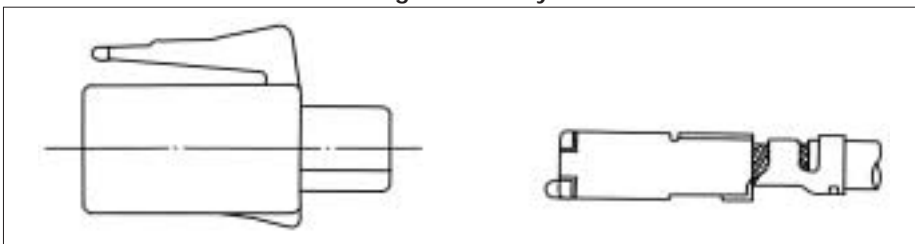
Part Number	CL No.	L1	L2	L3
GT1-1S-2428/1.6C	751-0001-3	3.8	6	10.5
GT1-1P-2428/1.6C	751-0002-6			
GT1-1S-30/1.6C	751-0029-2			
GT1-1P-30/1.6C	751-0030-1	4.9	6.8	11.3
GT1-1S-2022/2.9C	751-0015-8			
GT1-1P-2022/2.9C	751-0014-5			

Part Number	CL No.	L1	L2	L3
GT1-1S-30/2.9C	751-0032-7	4.9	6.8	11.3
GT1-1P-30/2.9C	751-0031-4			
GT1-1S-2428/F5C	751-0033-0			
GT1-1P-2428/F5C	751-0034-2	4.9	6.8	11.3
GT1-1S-30/F5C	751-0037-0			
GT1-1P-30/F5C	751-0038-3			

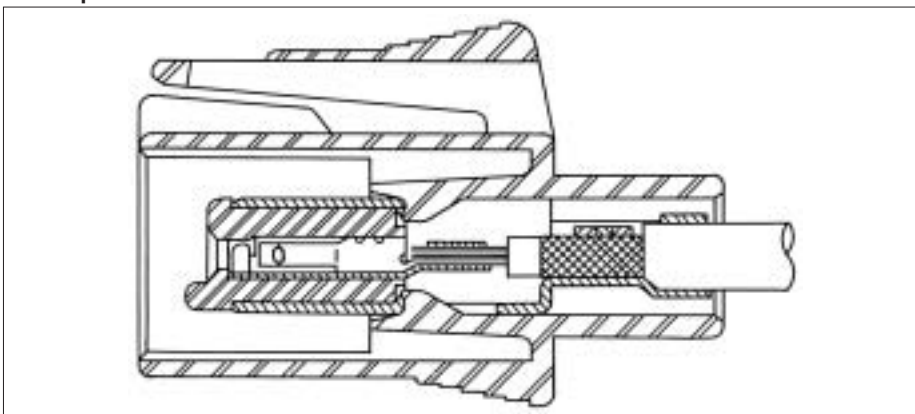
1 Crimp the cable to the terminal.



2 Insert the terminal in the housing until is fully locked.

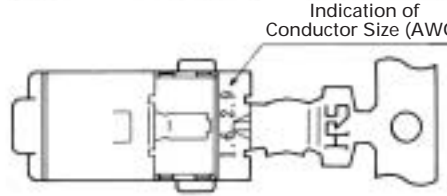
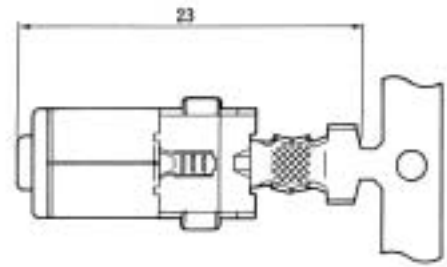
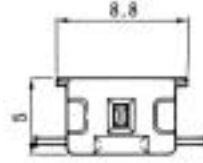


3 Completion



Terminals for coaxial shielded cable

F Connector Terminals

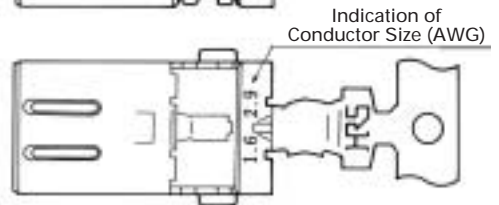
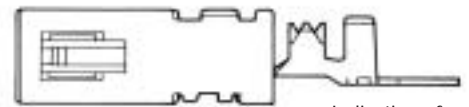
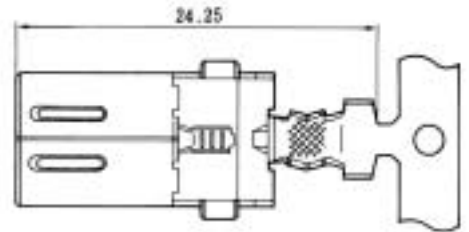
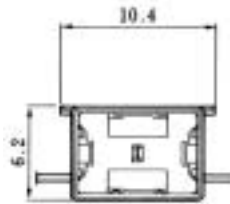


Part Number	CL No.	Conductor Size (AWG)	Inner Insulator Diameter	Outer Diameter	Packaging
GT1-1S-2428/1.6C	751-0001-3	#24 to 28 or equivalent	1.5 to 2.0mm	2.6 to 3.4mm	1,200
GT1-1S-30/1.6C	751-0029-2	#30 or equivalent			
GT1-1S-2022/2.9C	751-0015-8	#20 to 22 or equivalent	2.8 to 3.5mm	4.6 to 5.0mm	800
GT1-1S-30/2.9C	751-0032-7	#30 or equivalent			
* GT1-1S-2428/F5C	751-0033-0	#24 to 28 or equivalent	2.5 to 3.5mm		
* GT1-1S-30/F5C	751-0037-0	#30 or equivalent			
GT1-1S-2428/F4C	751-0046-1	#24 to 28 or equivalent	4.0mm		

Item	Material	Finish
Insulator	PBT	Color: Dark gray
Crimp terminal	Brass	Tin plating
Outer terminal	Brass	Tin plating

Note: Products marked with an asterisk (*) indicate polyethylene foam insulation.

M Connector Terminals



Part Number	CL No.	Conductor Size (AWG)	Inner Insulator Diameter	Outer Diameter	Packaging
GT1-1P-2428/1.6C	751-0002-6	#24 to 28 or equivalent	1.5 to 2.0mm	2.6 to 3.4mm	800
GT1-1P-30/1.6C	751-0030-1	#30 or equivalent			
GT1-1P-2022/2.9C	751-0014-5	#20 to 22 or equivalent	2.8 to 3.5mm	4.6 to 5.0mm	600
GT1-1P-30/2.9C	751-0031-4	#30 or equivalent			
* GT1-1P-2428/F5C	751-0034-2	#24 to 28 or equivalent	2.5 to 3.5mm		
* GT1-1P-30/F5C	751-0038-3	#30 or equivalent			
GT1-1P-2428/F4C	751-0047-4	#24 to 28 or equivalent	4.0mm		

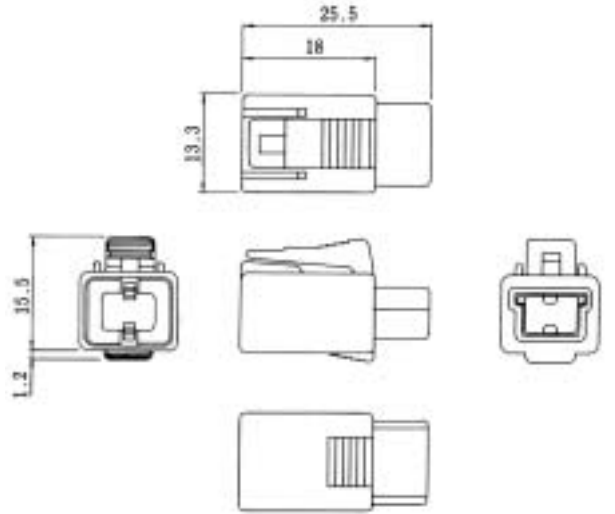
Item	Material	Finish
Insulator	PBT	Color: Dark gray
Crimp terminal	Brass	Tin plating
Outer terminal	Brass	Tin plating

Note: Products marked with an asterisk (*) indicate polyethylene foam insulation.

For Single-Conductor coaxial shielded cable

F Connectors

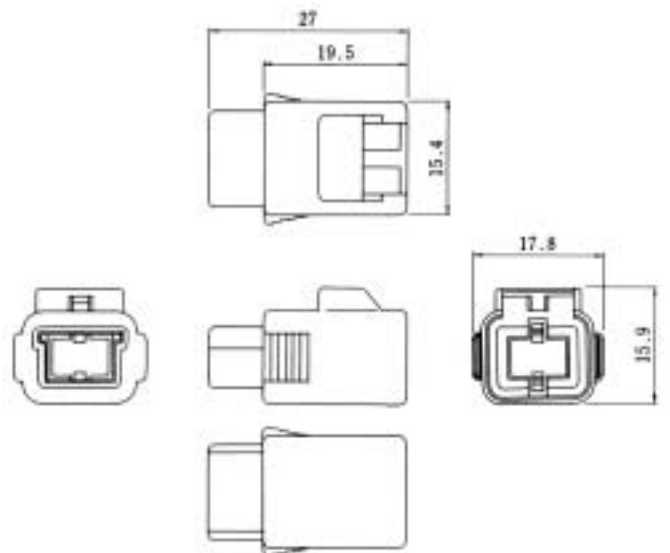
● Housing



Part Number	CL No.	Material	Color
GT1-1S-HU	751-0003-9	PA	Light gray

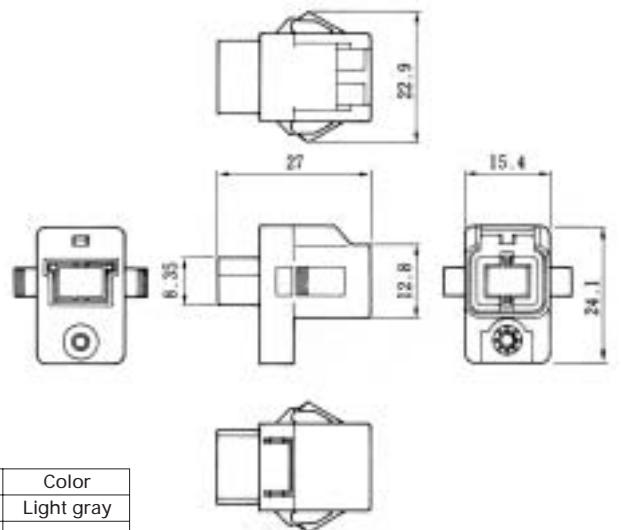
M Connectors

● Housing



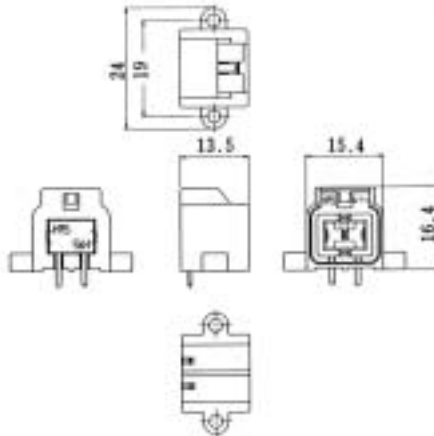
Part Number	CL No.	Material	Color
GT1-1P-HU	751-0004-1	PA	Light gray

● Panel Housing

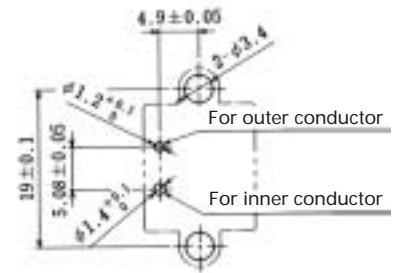


Part Number	CL No.	Item	Material	Finish	Color
GT1-1PP-HU	751-0007-0	Housing	PA	—	Light gray
		Ground plate	Brass	Tin plating	—
		Press fitting nut	Brass	Nickel	—

● Printed Circuit Type (Right angle)



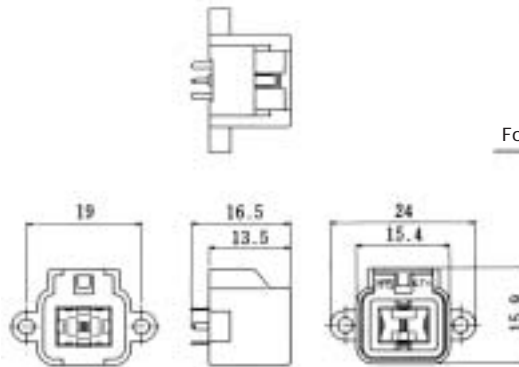
◆ Recommended Board Mounting Pattern



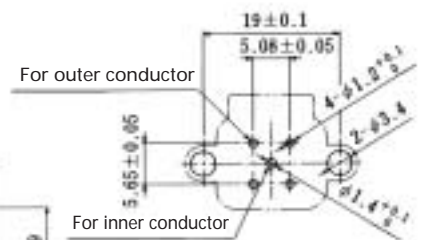
Part Number	CL No.	Item	Material	Finish	Color
GT1-1P-DS	751-0006-7	Housing	PBT	—	Light gray
		Insulator	PBT	—	Dark gray
		0.64X1.1 Terminal	Brass	Tin plating	—
		Outer terminal	Brass	Tin plating	—
		Ground terminal	Stainless	—	—

Use mounting screws of M3 with nominal diameter 3L-6 (for a panel thickness of 0.16mm)

● Printed Circuit Type (Straight Dip Type)



◆ Recommended Board Mounting Pattern



Part Number	CL No.	Item	Material	Finish	Color
GT1-1P-DSA	751-0005-4	Housing	PBT	—	Light gray
		Insulator	PBT	—	Dark gray
		0.64X1.1 Terminal	Brass	Tin plating	—
		Outer terminal	Brass	Tin plating	—

Use mounting screws of M3 with nominal diameter 3L-6 (for a panel thickness of 0.16mm)

For Single-Conductor coaxial shielded cable

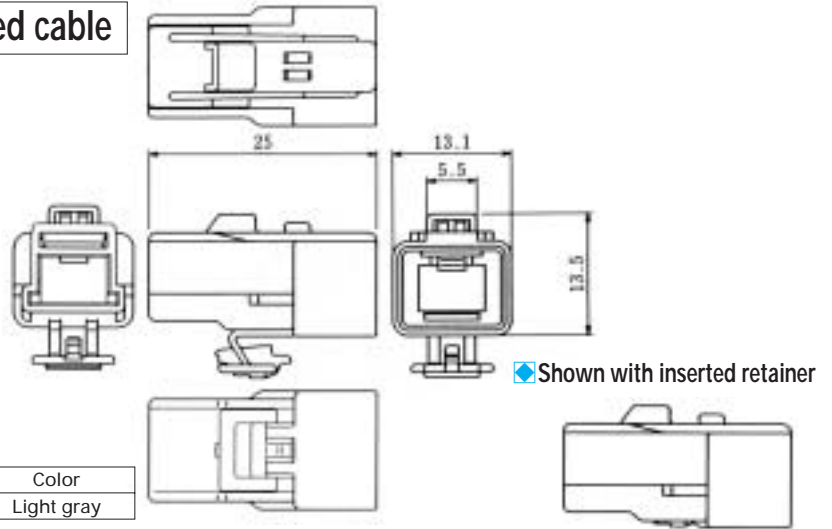
F Connectors

● Housing (Integrated retainer type)



Part Number	CL No.	Material	Color
GT1K-1S-HU	751-0016-0	PBT	Light gray

Note: Mates only with GT1K-1P-DS and GT1K-1PA-DS.
* Refer to Page 14 for use of the GT1K-1P-HU retainer.



M Connectors

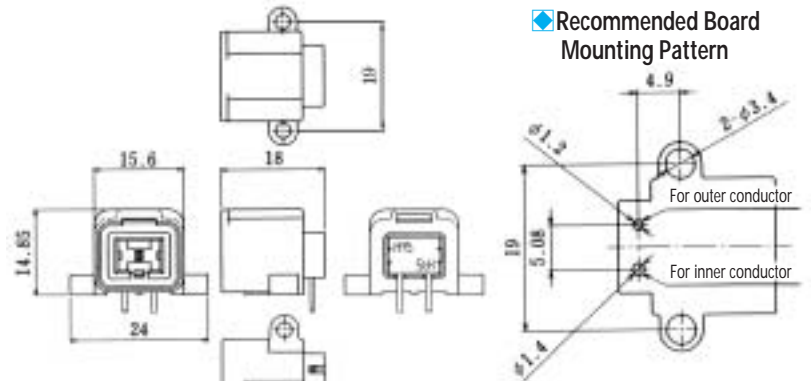
● Printed Circuit Board Type (Right-angle Dip Top Lock Type)



Part Number	CL No.	Item	Material	Finish	Color
GT1K-1P-DS	751-0017-3	Housing	PBT	—	Light gray
		Insulator	PBT	—	Dark gray
		0.64X1.1 Terminal	Brass	Tin plating	—
		Outer terminal	Brass	Tin plating	—
		Cover	Stainless	Nickel	—

Note 1: Mates only with GT1K-1S-HU.

Note 2: Use mounting screws of M3 with nominal diameter 3L-6 (for a panel thickness of 0.16mm)



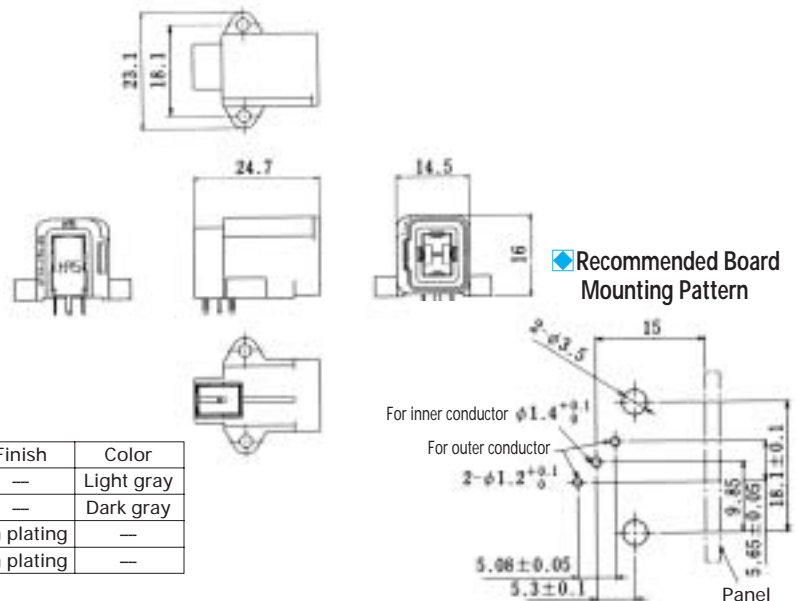
● Printed Circuit Board Type (Right-angle Dip Side Lock Type)



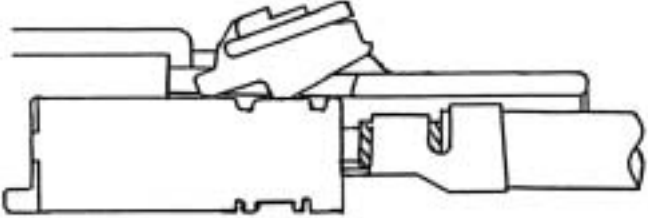
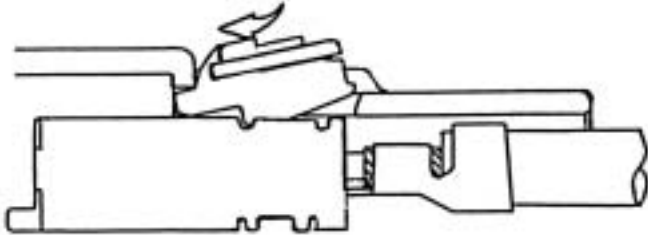
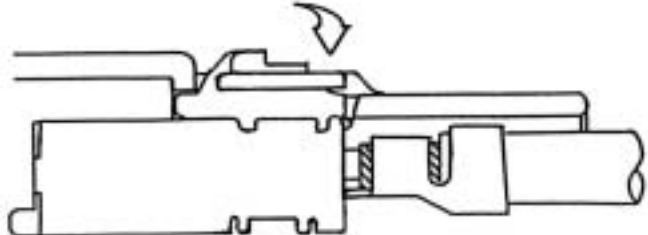
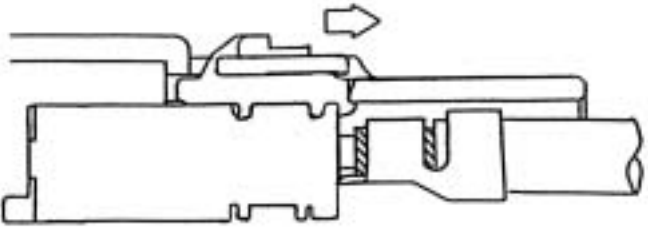
Part Number	CL No.	Item	Material	Finish	Color
GT1K-1PA-DS	751-0035-5	Housing	PBT	—	Light gray
		Insulator	PBT	—	Dark gray
		0.64X1.1 Terminal	Brass	Tin plating	—
		Outer terminal	Brass	Tin plating	—

Note 1: Mates only with GT1K-1S-HU.

Note 2: Use mounting screws of M3 with nominal diameter 3L-6 (for a panel thickness of 0.16mm)



◆ Method of Using the GT1K-1S Retainer

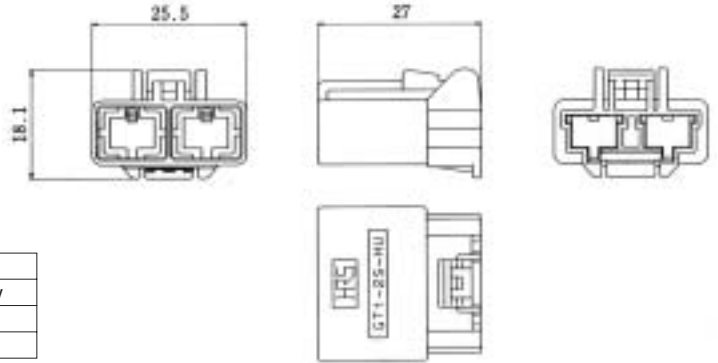
<p>a. Insert so that the terminal locking tab is inserted between the top surface of the terminal and the housing.</p>	
<p>b. Push in while changing the angle of the retainer until the front surface comes to a stop.</p>	
<p>c. Press the rear portion of the retainer and snap it into the locked position.</p>	
<p>d. If locking is not complete, press the rear portion of the retainer again while pulling it backward.</p>	

* Check that all locations are locked.

Two-position type-Each Single-Conductor coaxial Cable

F Connectors

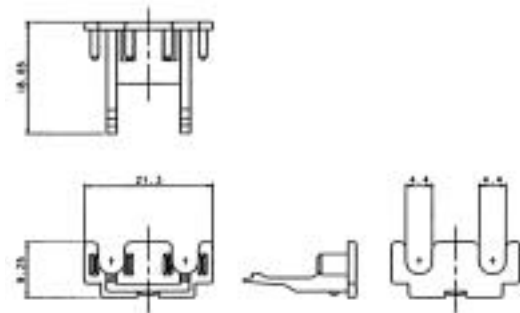
● Housing



Part Number	CL Number	Material	Color
GT1-2S-HU	751-0011-7	PBT	Light gray
GT1-2S-HU(20)	751-0011-7-20		Orange
GT1-2S-HU(21)	751-0011-7-21		Blue

Note: Retainer is optional.

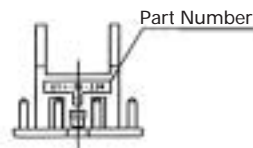
● Retainer (Used with GT1-2S-HU)



A Configuration	Part Number	CL No.	Material	Color	Cable Dia.	
					φA	φB
	GT1-2S-33R	751-0045-9	PBT	White	φ3	φ3
	GT1-2S-53R	751-0043-3		Dark gray	φ5	φ3
	GT1-2S-55R	751-0044-6		Light blue	φ5	φ5

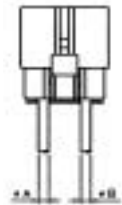
Note 1: This item should be mounted to the GT1-2PP-HU housing after the insertion of terminals.

Note 2: Retainer is optional.

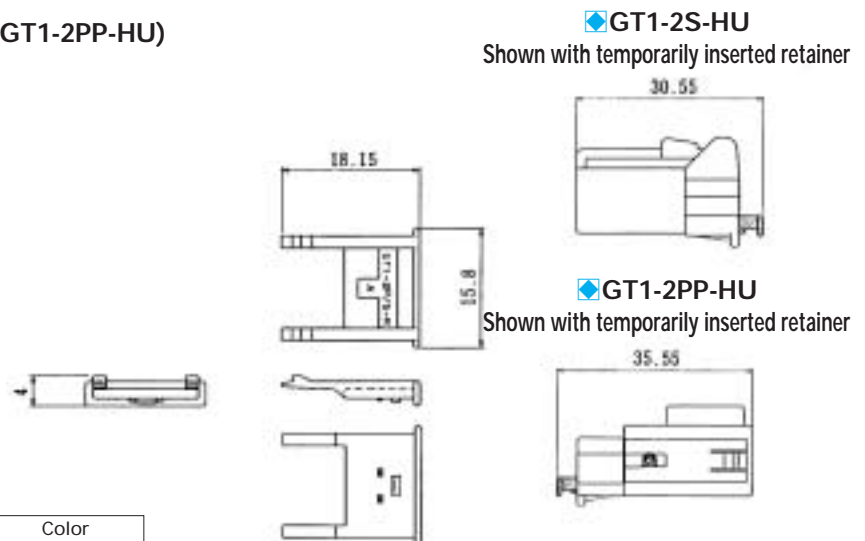


A Configuration

◆ Shown with inserted retainer



● Retainer (used with GT1-2S-HU and GT1-2PP-HU)

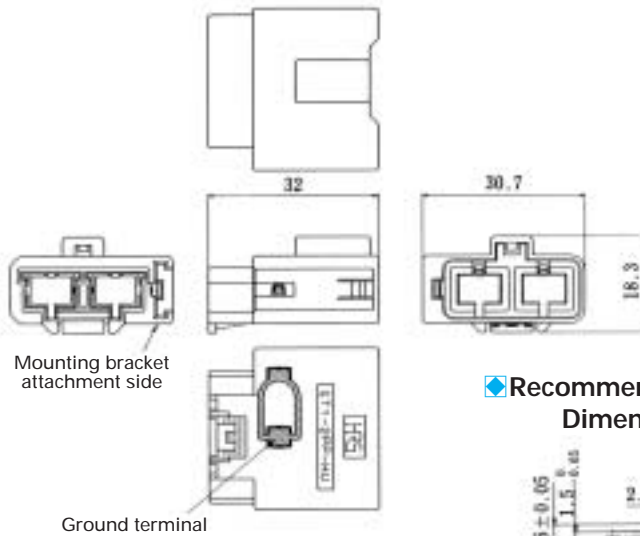


Part Number	CL Number	Material	Color
GT1-2P/S-R	751-0013-2	PBT	Dark gray

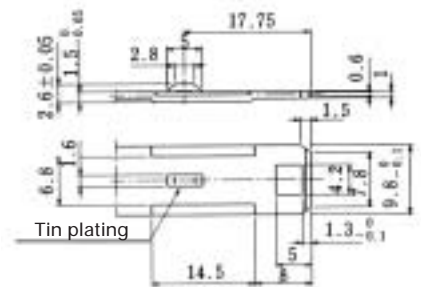
Note: Mount this item after provisional insertion into the housing, or after terminal insertion.

M Connectors

● Housing



◆ Recommended Mounting Bracket Dimensions (T=1.5mm)

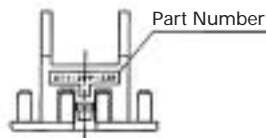
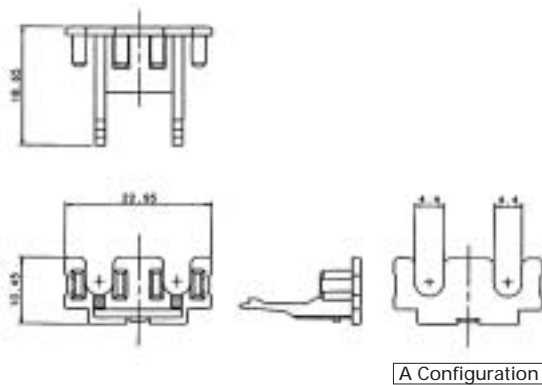


Part Number	CL No.	Color	Remarks
GT1-2PP-HU	751-0010-4	Light gray	With ground terminal
GT1-2PP-HU(10)	751-0010-4-10	Light gray	Without ground terminal
GT1-2PP-HU(20)	751-0010-4-20	Orange	With ground terminal
GT1-2PP-HU(21)	751-0010-4-21	Blue	With ground terminal
GT1-2PP-HU(40)	751-0010-4-40	Orange	Without ground terminal
GT1-2PP-HU(41)	751-0010-4-41	Blue	Without ground terminal

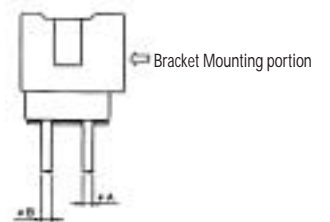
Item	Material	Finish
Housing	PBT	Color: Light gray
		Color: Orange
		Color: Blue
Ground terminal	Brass	Tin plating

Note: Retainer is optional.

● Retainers (Used with GT1-2PP-HU)



◆ Shown with inserted retainer



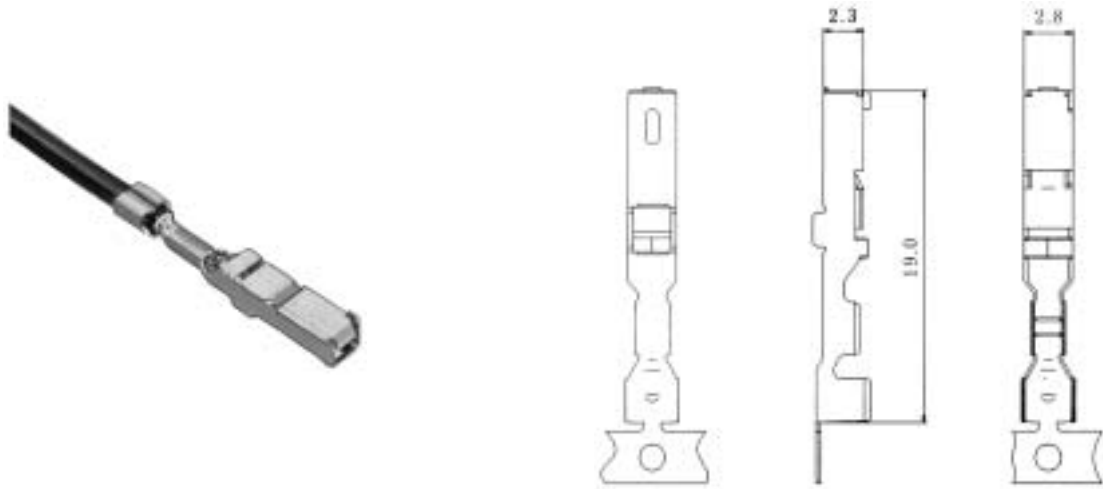
A Configuration	Part Number	CL No.	Color	Cable Dia.	
				φA	φB
	GT1-2PP-33R	751-0042-0	White	φ3	φ3
	GT1-2PP-53R	751-0040-5	Dark gray	φ5	φ5
	GT1-2PP-55R	751-0041-8	Light blue	φ5	φ3

Material	Color
PBT	White
	Dark gray
	Light blue

Note 1: This item should be mounted to the GT1-2PP-HU housing after the insertion of terminals.
 Note 2: Retainer is optional.

Power Supply Terminals

F Connector Terminals

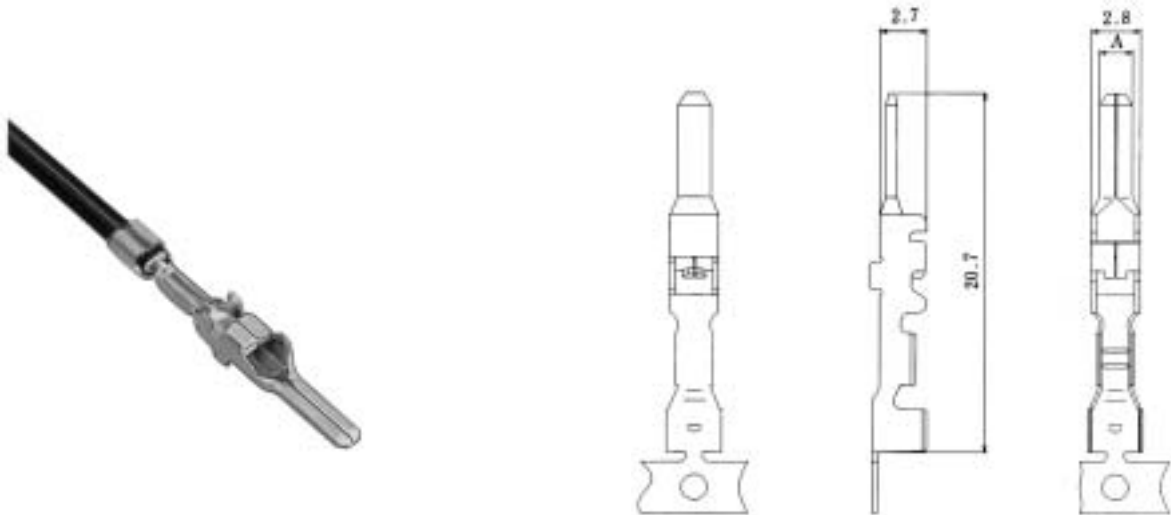


Part Number	CL No.	Conductor Size (AWG)	Inner Insulator Diameter	Dimension A	Packaging	Material	Finish
GT7-2022SCF	757-0001-1	#20 to 22	1.4 to 2.4mm	19	5,000	Copper alloy	Tin plating
GT7A-2022SCF	757-0003-7	#20 to 22	2.6 to 3.1mm		3,000		

Note 1: Sold by the reel. (See above table for number of Packaging.)

Note 2: This component is used only with applicable HRS housings.

M Connector Terminals



Part Number	CL No.	Conductor Size (AWG)	Inner Insulator Diameter	Dimension A	Packaging	Material	Finish
GT7-2022SCF	757-0001-1	#20 to 22	1.4 to 2.4mm	19	5,000	Copper alloy	Tin plating
GT7A-2022SCF	757-0003-7	#20 to 22	2.6 to 3.1mm		3,000		

Part Number	CL No.	Conductor Size (AWG)	Inner Insulator Diameter	Packaging	Material	Finish
GT7-1618PCF	* Reserved for product expansion	#16 to 18	1.8 to 2.7mm	3,000	Brass	Tin plating
GT7-2022PCF	757-0002-4	#20 to 22	1.4 to 2.4mm	5,000		
GT7A-2022PCF	757-0004-0	#20 to 22	2.6 to 3.1mm	3,000		

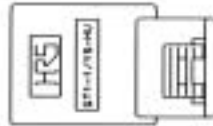
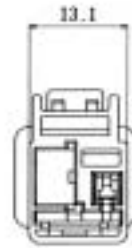
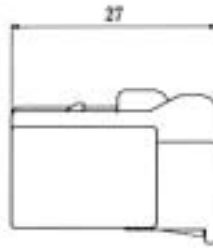
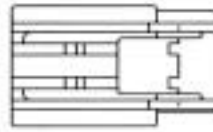
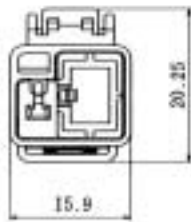
Note 1: Sold by the reel. (See above table for number of Packaging.)

Note 2: This component is used only with applicable HRS housings.

Combination Type (One Single-Conductor Coaxial Cables + One Power contact)

F Connectors

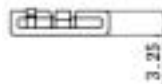
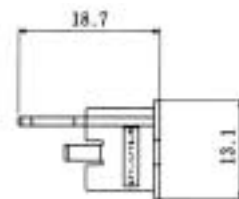
● Housing



Part Number	CL No.	Material	Color
GT1-1/1S-HU	751-0026-4	PBT	Light gray

Note: Retainer is optional.

● Retainer (Used with GT1-1/1S-HU)



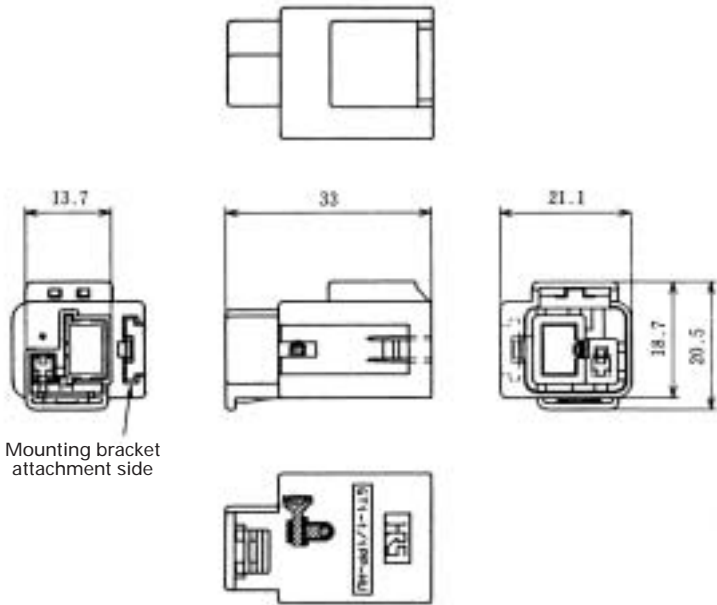
Part Number	CL Number	Material	Color
GT1-1/1S-R	751-0028-0	PBT	Dark gray

Note: Mount this item after provisional insertion into the housing, or after terminal insertion.

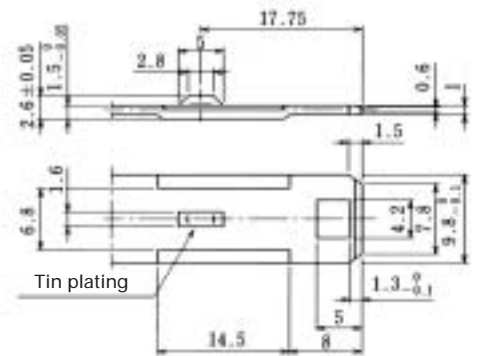


M Connectors

● Housing



◆ Recommended Mounting Bracket Dimensions (T=1.5mm)

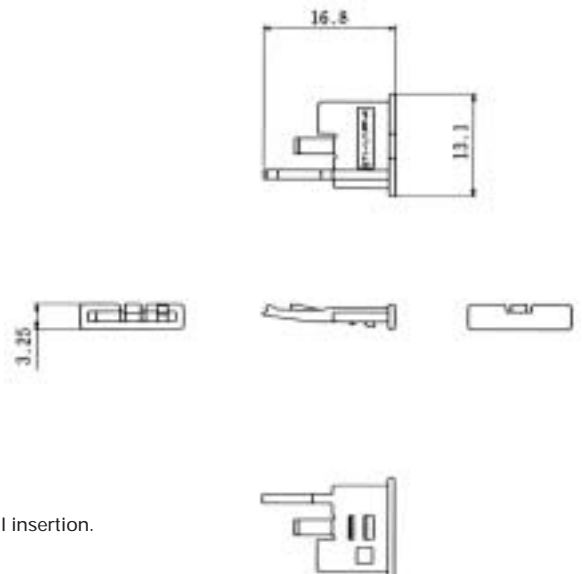


Part Number	CL No.	Mounting bracket attachment side	Remarks
GT1-1/1PP-HU	751-0025-1	1.5mm	With ground terminal
GT1-1/1PP-HU(10)	751-0025-1-10	1.5mm	Without ground terminal
GT1-1/1PP-HU(11)	751-0025-1-11	1.0mm	With ground terminal

Item	Material	Finish
Housing	PBT	Light gray
Ground terminal	Phosphor bronze	Tin plating

Note: Used with separate retainer (GT1-1/1PP-R).

● Retainer (exclusively for GT1-1/1PP-HU)



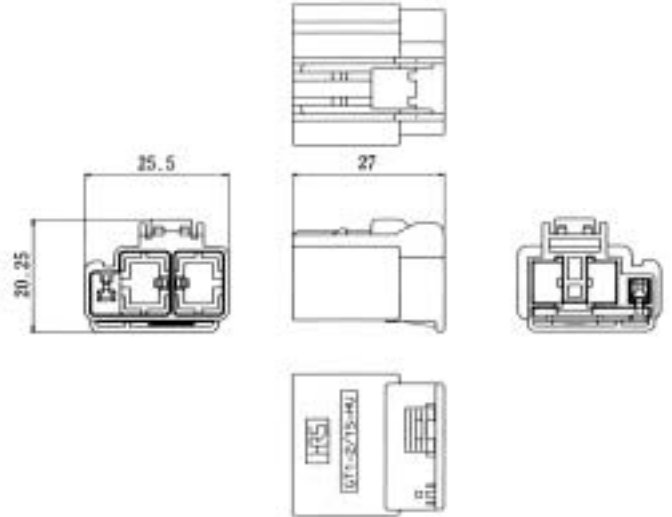
Part Number	CL Number	Material	Color
GT1-1/1PP-R	751-0027-7	PBT	Dark gray

Note: Mount this item after provisional insertion into the housing, or after terminal insertion.

Combination Type (Two Single-Conductor Coaxial Cables + One Power contact)

F Connectors

● Housing

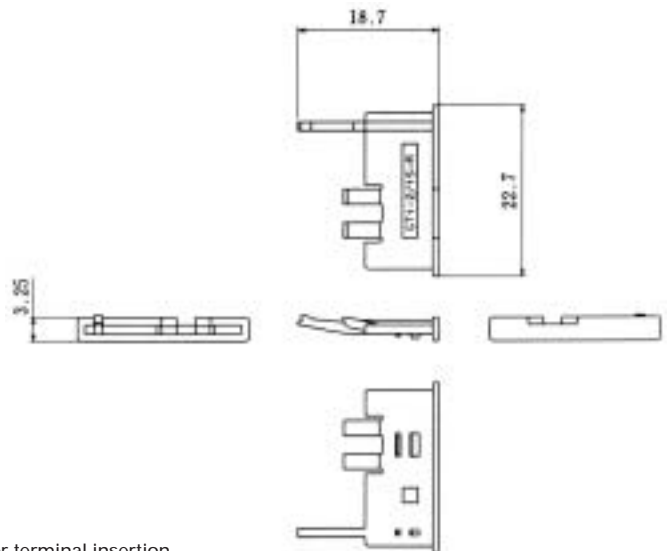


Part Number	CL No.	Material	Color
GT1-2/1S-HU	751-0019-9	PBT	Light gray

Note1: Mates only with GT1-2/1PP-DS and GT1-2/1PP-HU.

Note2: Used with separate retainer (GT1-2/1S-R).

● Retainer (used with GT1-2S-HU and GT1-2PP-HU)

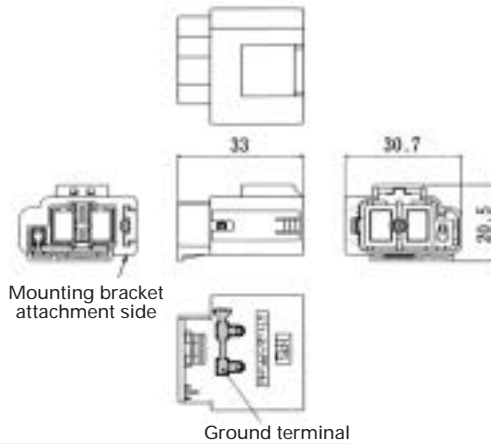


Part Number	CL No.	Material	Color
GT1-2/1S-R	751-0021-0	PBT	Dark gray

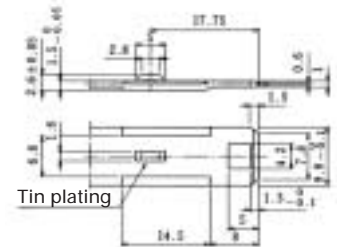
Note: Mount this item after provisional insertion into the housing, or after terminal insertion.

M Connectors

● Housing



◆ Recommended Mounting Bracket Dimensions (T=1.5mm)



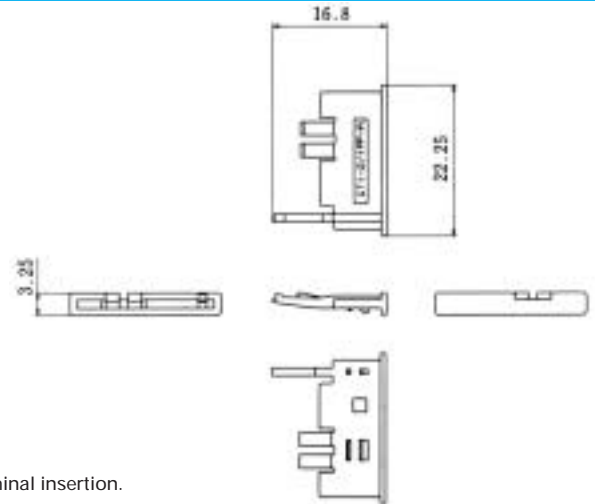
Part Number	CL No.	Mounting bracket attachment side	Remarks
GT1-2/1PP-HU	751-0018-6	1.5mm	With ground terminal
GT1-2/1PP-HU(10)	751-0018-6-10	1.5mm	Without ground terminal
GT1-2/1PP-HU(11)	751-0018-6-11	1.0mm	With ground terminal

Item	Material	Finish
Housing	PBT	Light gray
Ground terminal	Phosphor bronze	Tin plating

Note1: Mates only with GT1-2/1S-HU.

Note2: Used with separate retainer (GT1-2/1PP-R).

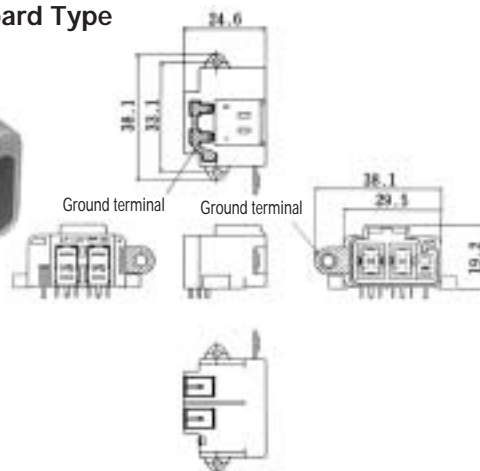
● Retainer (used with GT1-2/1PP-HU)



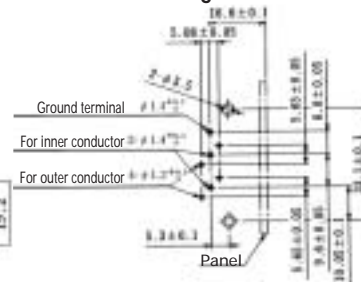
Part Number	CL Number	Material	Color
GT1-2/1PP-R	751-0020-8	PBT	Dark gray

Note: Mount this item after provisional insertion into the housing, or after terminal insertion.

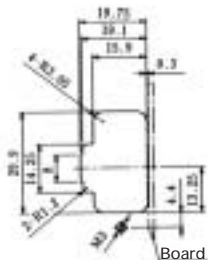
● Printed Circuit Board Type



◆ Recommended Board Mounting Pattern



◆ Recommended Panel Cut-out



Part Number	CL No.	Part	Material	Finish	Color
GT1-2/1PP-DS	751-0022-3	Housing	PBT	—	Light gray
		Ground terminal	Phosphor bronze	Tin plating	—
		Ground plate	Brass	Tin plating	—
		Tub terminal for DS 070	Brass	Tin plating	—
		0.64X1.1 Terminal	Brass	Tin plating	—
		Insulator	PBT	—	Dark gray
		Outer terminal	Brass	Tin plating	—

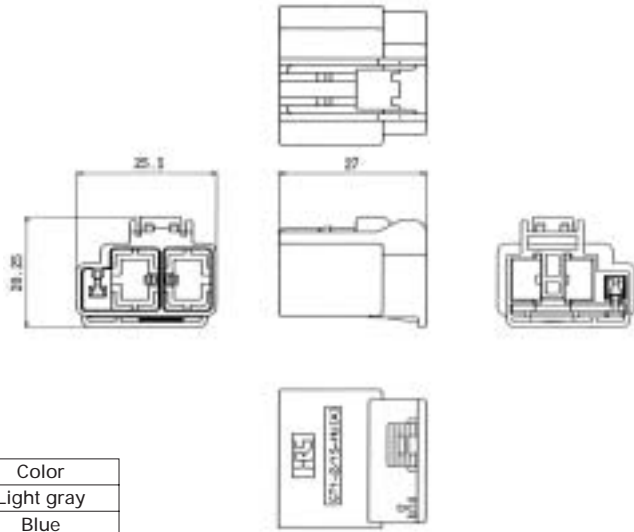
Note1: Mates only with GT1-2/1PP-DS and GT1-2/1PP-HU.

Note 2: Use mounting screws of M3 with nominal diameter 3L-6 (for a panel thickness of 1.6mm)

Products Listed Below are of the Combination Type (Two Terminals for Use with Single-Conductor Shielded Cable + One Power Supply Terminal) with Key Positions that Differ from the Products Listed on Previous Pages

F Connectors

● Housing

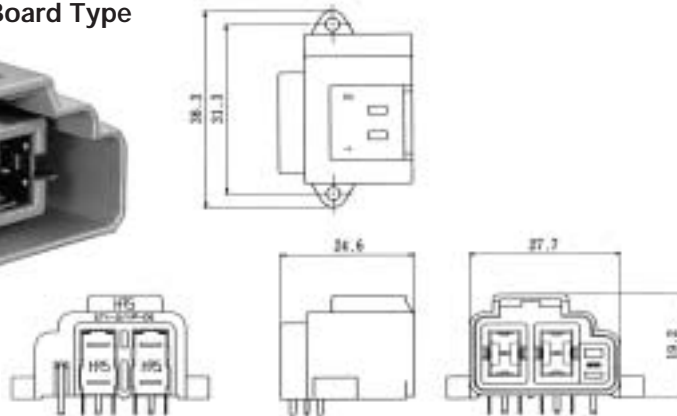


Part Number	CL No.	Material	Color
GT1-2/1S-HU(A)	751-0024-9	PBT	Light gray
GT1-2/1S-HU(A)(21)	751-0024-9-21	PBT	Blue

Note1: Mates only with GT1-2/1P-DS.
Note2: Used with separate retainer.

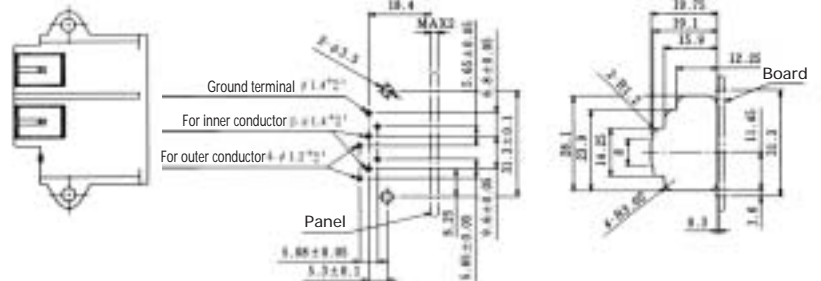
M Connector

● Printed Circuit Board Type



◆ Recommended Board Mounting Pattern

◆ Recommended Panel Cut-out



Item	Material	Finish	Color
Housing	PBT	—	Light gray
		—	Blue
0.64X1.1 Terminal	Brass	Tin plating	—
Insulator	PBT	—	Dark gray
Outer terminal	Brass	Tin plating	—
Tab terminal for DS 070	Brass	Tin plating	—

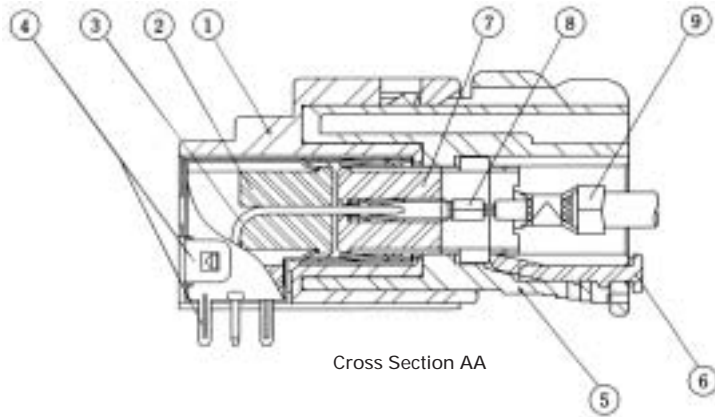
Part Number	CL No.	Color
GT1-2/1P-DS	751-0023-6	Light gray
GT1-2/1P-DS(21)	751-0023-6-21	Blue

Note1: Mates only with GT1-2/1S-HU(A).

Note 2: Use mounting screws of M3 with nominal diameter 3L-6 (for a panel thickness of 1.6mm)

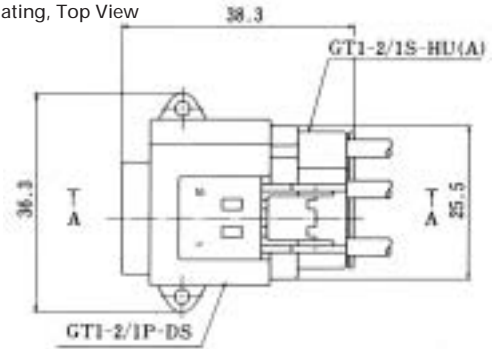
◆ Mating, Cross-Sectional View

● Examples of Printed Circuit Board Type and Cable Type



GT1-2/1P-DS + GT1-2/1S-HU(A)

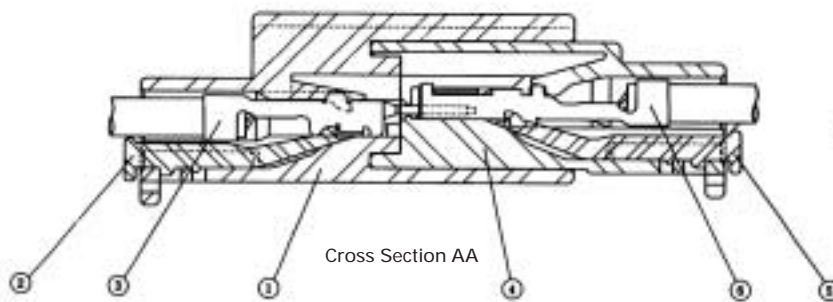
Mating, Top View



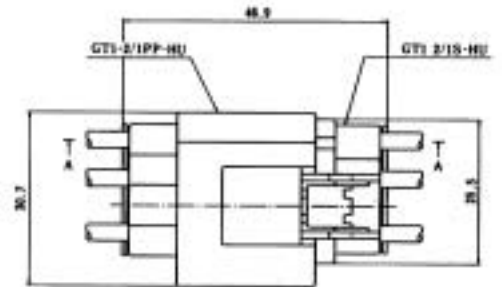
Part Number	Part	Number Used	Material	Finish
1	Housing	1	PBT	UL94V-0
2	Insulator	2	PBT	UL94V-0
3	0.64 X 1.1 terminal	2	Brass	Tin plating
4	Outer terminal	2	Brass	Tin plating
5	GT1-2/1S-HU(A) Housing	1	PBT	UL94V-0
6	GT1-2/1S-HU Retainer	1	PBT	UL94V-0
7	Insulator	2	PBT	UL94V-0
8	GT1-1S-2428/1.6C Crimp terminal	2	Phosphor bronze	Tin plating
9	Outer terminal	2	Brass	Tin plating

● Example of Cable-to-Cable Type

The coupled, cross-sectional view of the GT7 terminals of the GT1-2/1 Series appears below.



Cross Section AA



Mating, Top View

Currently, the GT7 Series terminals are used for the power supply of the GT1 Series combination type.

Part Number	Terminal
GT1-1/1S-HU	GT7-2022SCF、GT7A-2022SCF
GT1-2/1S-HU	
GT1-1/1PP-HU	GT7-2022PCF、GT7A-2022PCF
GT1-2/1PP-HU	

Part Number
1 GT1-2/1PP-HU
2 GT1-2/1PP-R
3 GT7-2022PCF
4 GT1-2/1S-HU
5 GT1-2/1S-R
6 GT7-2022SCF

Accessories

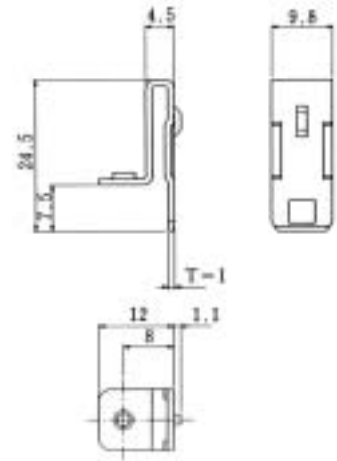
● Brackets (for M Connector Housing)



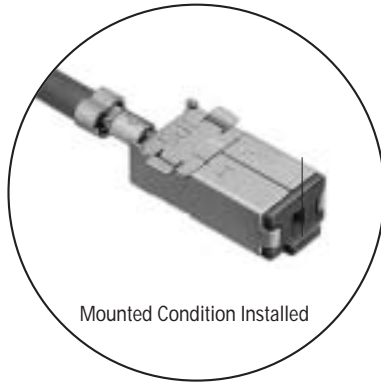
Part Number	CL No.	Material	Finish
GT-BK	751-0039-6	SPCC	Tin plating
GT-BK(01)	751-0039-6-01		Zinc plating

Note 1: This product can be attached to GT1-1PP-HU, GT1-1/1PP-HU, and GT1-2/1PP-HU.

Note 2: Please use the tin plated item when making a ground connection.

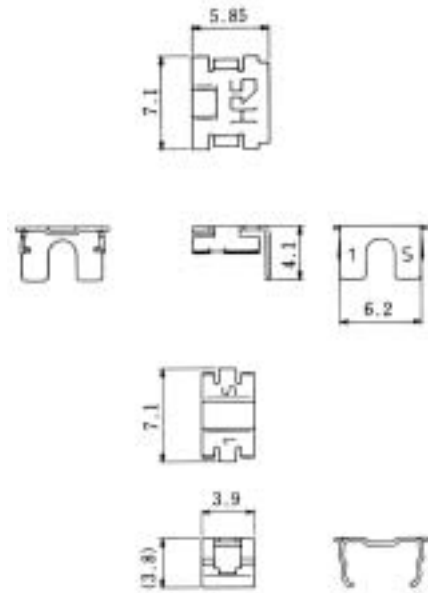


● F Terminal Shield Cover



Part Number	CL No.	Item	Material	Finish
GT1-1S-1.6CSB	751-0009-5	Top Shield Cover	SPCC	Tin plating
		Bottom Shield Cover		Zinc plating

Note: This product cannot be used with GT1K-1S-HU.



● M Terminal Shield Plate



Part Number	CL No.	Item	Material	Finish
GT1-1P-1.6CSB	751-0008-2	Top Shield Cover	Brass	Tin plating
		Bottom Shield Cover		

Note: The product normally has sufficient performance without using the shield plate; however, when used in especially high frequency bands (e.g., 1 GHz and higher), use of the shield plate is recommended so that even higher shielding effectiveness may be obtained.

◆ Termination Tools

User's manuals are available. Please ask your Hirose Electric account representative.

Automatic Crimping Machine



Specifications

Item	Specification	Remarks
Specification	1.5ton	
Stroke Length	30mm	
Number of strokes	200spm(50Hz)	240spm(60Hz)
Weight	75kg	
Motor	0.2kW	AC100V
Crimping speed	2000 to 4000 per day	

Part Number CM-105



Hand Press

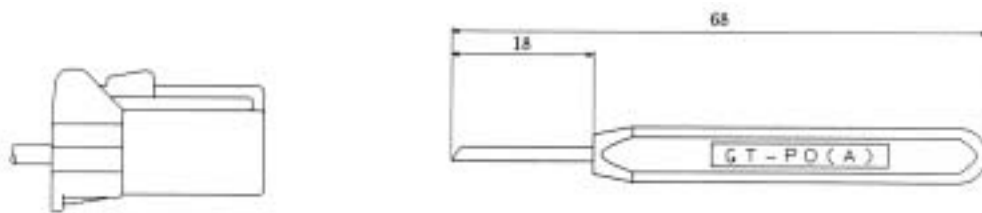
Hand Tool



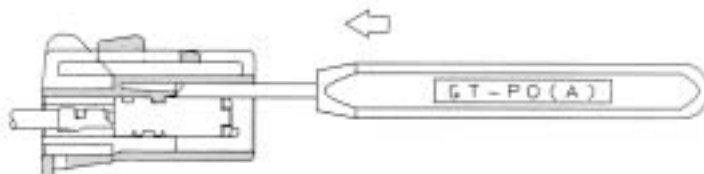
*Crimp height setting tables are available for each cable type. Please contact your nearest Hirose Electric account representative. Different cables will require different crimp height settings.

◆ Terminal Extraction Tool

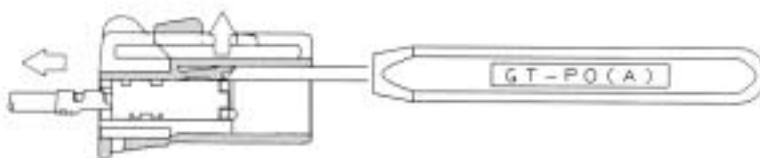
1) For one lance



1 Insert the extraction tool from the coupling end.

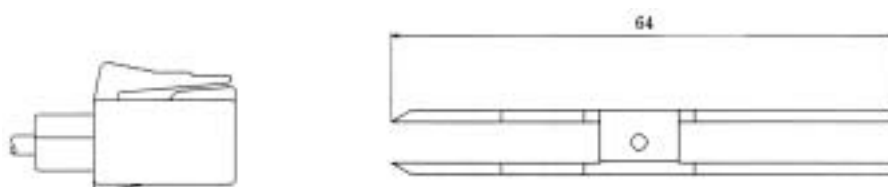


2 Push the lance upward and pull out the terminal.

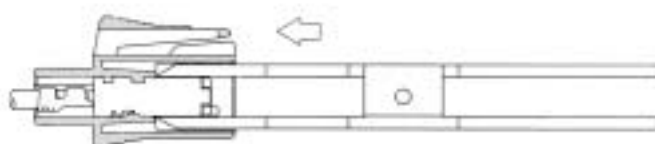


Part Number	CL No.	Used with connectors
GT-PO(A)	780-0006-2	GT1K-1S-HU GT1-2S-HU GT1-2PP-HU GT1-1/1S-HU GT1-1/1PP-HU GT1-2/1S-HU GT1-2/1PP-HU GT1-2/1S-HU(A)

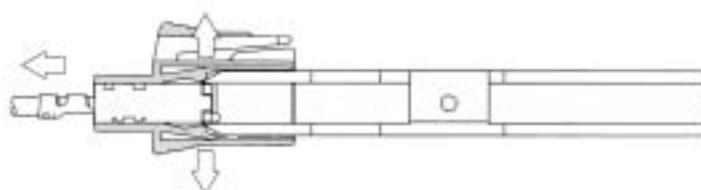
2) For two lances



1 Insert the extraction tool from the coupling end.



2 Push and separate both lances and pull out the terminal.



Part Number	CL No.	Used with connectors
GT1-C-PO	902-5020-1	GT1-1S-HU GT1-1P-HU GT1-1PP-HU