imall

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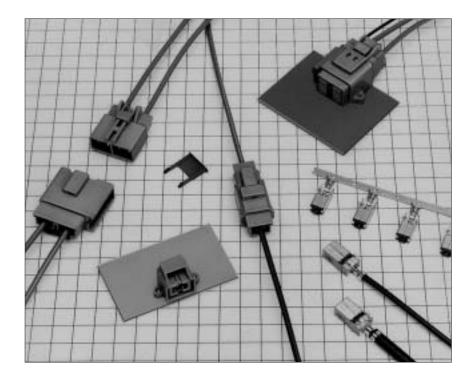
Coaxial cable connection of Antennas, Sensors, and Communication Trunk Lines

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 semiautomatic equipment.

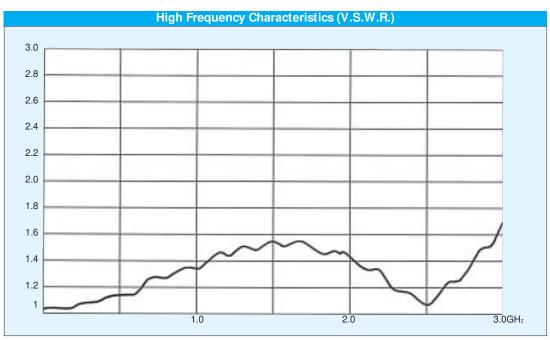
- Lock-release latching system
- Shock / vibration resistant electrical connections
- Verification of the full contact insertion
- Excellent shielding effects.
- Excellent High Frequency Performance

Refer to V.S.W.R. data on the following pages.

GT1 Series

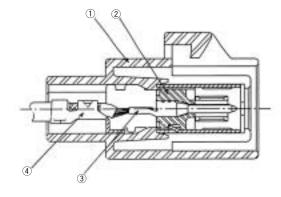
Ъ

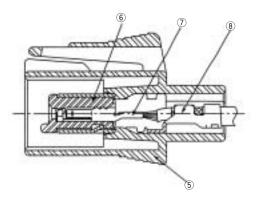
Test Data (Using Semi-rigid Cable)



Note: Data taken using fully assemblied and connected GT1-1S-HU and GT1-1P-DSA.

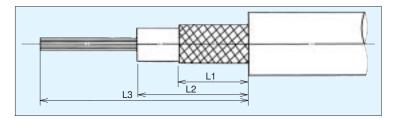
Diagram of GT1 In-line Type Structure





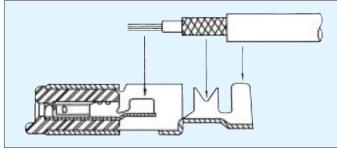
	PARTS LIST						
	Part Number	Part	Number Used	Material	Finish		
1	GT1-1P-HU	Housing	1	PA(UL94V-0)	—		
2		Insulator	1	PBT(UL94V-0)	—		
3	GT1-1P-2428/1.6C	Crimp terminal	1	Brass	Tin plating		
4		Outer terminal	1	Brass	Tin plating		
5	GT1-1S-HU	Housing	1	PA(UL94V-0)	—		
6		Insulator	1	PBT(UL94V-0)	—		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

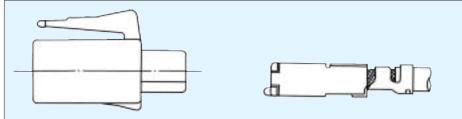


	Strip Length								
Part Number	CL No.	L1	L2	L3	Part Number	CL No.	L1	L2	L3
GT1-1S-2428/1.6C	751-0001-3				GT1-1S-30/2.9C	751-0032-7			
GT1-1P-2428/1.6C	751-0002-6	20	3.8 6		GT1-1P-30/2.9C	751-0031-4		6.8	11.3
GT1-1S-30/1.6C	751-0029-2	3.0			GT1-1S-2428/F5C	751-0033-0			
GT1-1P-30/1.6C	751-0030-1				GT1-1P-2428/F5C	751-0034-2	4.9	0.0	11.5
GT1-1S-2022/2.9C	751-0015-8	4.0	6.0	11.3	GT1-1S-30/F5C	751-0037-0			
GT1-1P-2022/2.9C	751-0014-5	4.9	4.9 6.8		GT1-1P-30/F5C	751-0038-3			

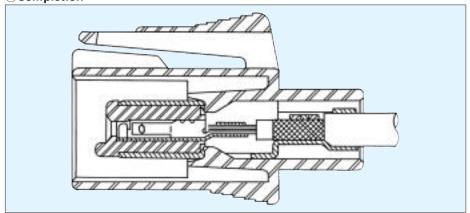
$\textcircled{\sc l}$) $\fbox{\sc l}$) $\vcenter{\sc l}$) (i) (ii) (iii) (iiii) (iii) (ii



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



3Completion

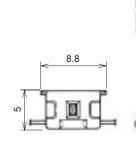


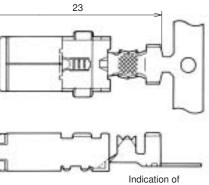
GT1 Series

Terminals for coaxial shielded cable

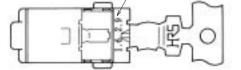
F Connector Terminals







Condductor Size(AWG)



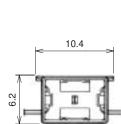
Item	Material	Finish
Insulator	PBT	Color: Dark gray
Crimp terminal	Brass	Tin plating
Outer terminal	Brass	Tin plating

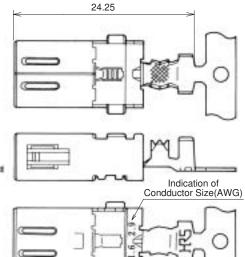
Conductor Size (AWG) Inner Insulator Diameter Outer Diameter Part Number CL No. Packaging GT1-1S-2428/1.6C 751-0001-3 #24 to 28 or equivalent 1.5 to 2.0mm 2.6 to 3.4mm 1,200 GT1-1S-30/1.6C 751-0029-2 #30 or equivalent 751-0015-8 #20 to 22 or equivalent GT1-1S-2022/2.9C 2.8 to 3.5mm GT1-1S-30/2.9C 751-0032-7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

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 2.4mm	800
	GT1-1P-30/1.6C	751-0030-1	#30 or equivalent	1.5 to 2.0000	2.0 10 3.411111	800
	GT1-1P-2022/2.9C	751-0014-5	#20 to 22 or equivalent	2.8 to 3.5mm		
	GT1-1P-30/2.9C	751-0031-4	#30 or equivalent	2.0 10 3.3000		
*	GT1-1P-2428/F5C	751-0034-2	#24 to 28 or equivalent	2.5 to 3.5mm	4.6 to 5.0mm	600
*	GT1-1P-30/F5C	751-0038-3	#30 or equivalent	2.5 to 3.5000		
	GT1-1P-2428/F4C	751-0047-4	#24 to 28 or equivalent	4.0mm		

ltem	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.

GT 1

<section-header>

Light gray



M Connectors

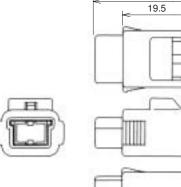
Housing

GT1-1S-HU



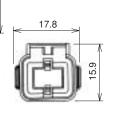
751-0003-9

PA





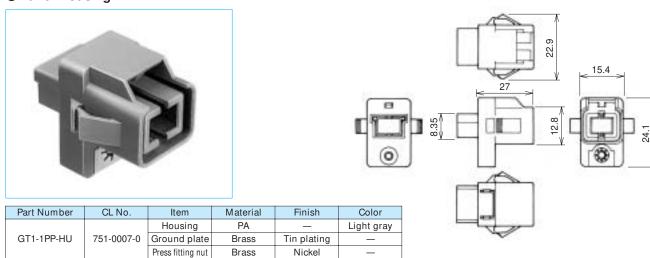
27



15.4

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

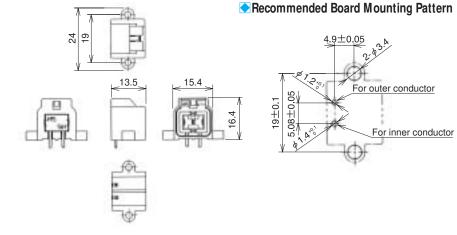
Panel Housing



GT1 Series

Printed Circuit Type (Right angle through hole type)



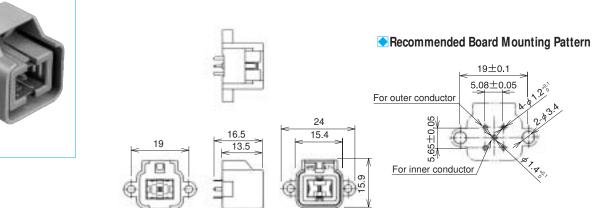


Part Number	CL No.	ltem	Material	Finish	Color
		Housing	PBT		Light gray
		Insulator	PBT		Dark gray
GT1-1P-DS	751-0006-7	0.64X1.1 Terminal	Brass	Tin plating	—
		Outer terminal	Brass	Tin plating	-
		Ground terminal	Stainless	_	_

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

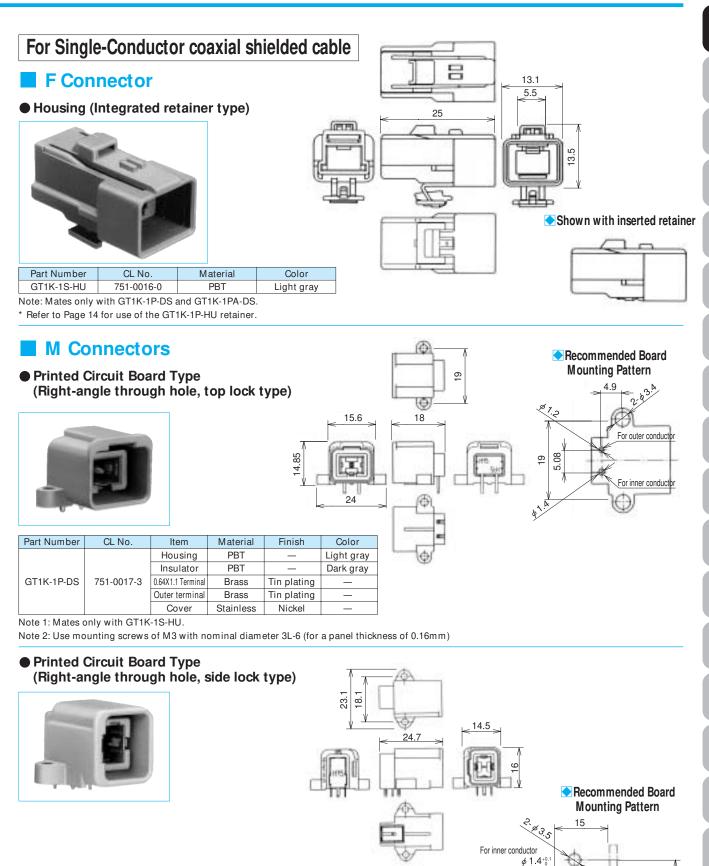
• Printed Circuit Type (Straight through hole type)





Part Number	CL No.	Item	Material	Finish	Color
		Housing	PBT		Light gray
GT1-1P-DSA	751-0005-4	Insulator	PBT		Dark gray
GTI-TF-DSA		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 outer conductor

 $2 - \phi 1.2^{+0}_{0}$

5.08±0.05

5.3±0.1

Part Number	CL No.	Item	Material	Finish	Color
		Housing	PBT		Light gray
GT1K-1PA-DS	751-0035-5	Insulator	PBT		Dark gray
GTIN-TFA-D3	731-0033-3	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)

9.85 10.05

Panel

5.65-

RS

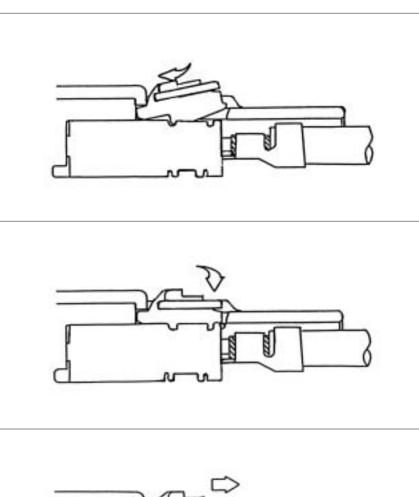
GT1 Series

Method of Using the GT1K-1S Retainer

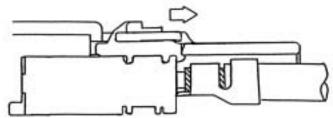
- a. Insert so that the terminal locking tab is inserted between the top surface of the terminal and the housing.
- b. Push in while changing the angle of the retainer until the front surface comes to a stop.

 c. Press the rear portion of the retainer and snap it into the locked position.

 d. If locking is not complete, press the rear portion of the retainer again while pulling it backward.



0



* Check that all locations are locked.

connection of Antennas, Sensors, and Communication Trunk Lines

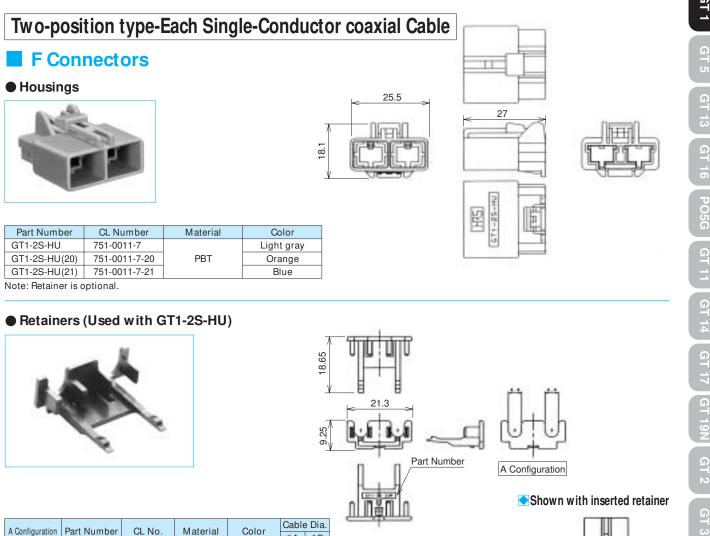
GT 6W

GT 7

GT 10

GT 12

GT 18W



A Configuration	Part Number	CL No.	Material	Color	Cable	e Dia.
A Configuration	Fait Nulliber	GE NO.	Wateria	00101	ØΑ	ØВ
Ś	GT1-2S-33R	751-0045-9		White	øЗ	øЗ
Ś	GT1-2S-53R	751-0043-3	PBT	Dark gray	Ø5	øЗ
Y	GT1-2S-55R	751-0044-6		Light blue	Ø5	Ø5

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

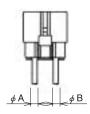
Retainer (used with GT1-2S-HU and GT1-2PP-HU)

Part Number

GT1-2P/S-R

CL Number

751-0013-2



Material

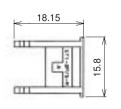
PBT

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

4	e	- 16	3

Color

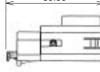
Dark gray



1



Shown with temporarily inserted retainer



	35.55	>
F		Ш
-	-	-

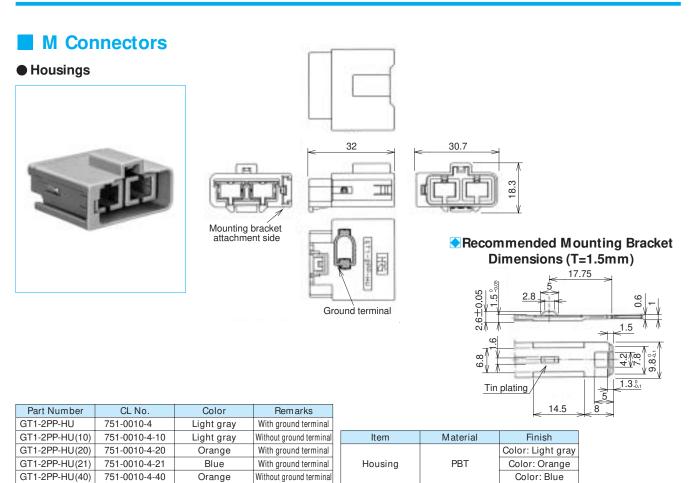
 	_	

RS



GT 8

GT1 Series



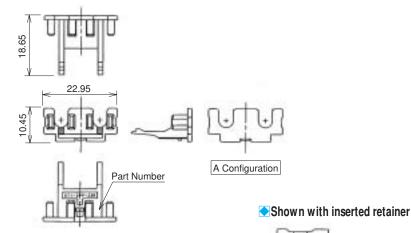
GT1-2PP-HU(41) 751-0010-4-41 Note: Retainer is optional.

Retainers (Used with GT1-2PP-HU)

Blue

Without ground terminal





Ground terminal

Brass

Tin plating

Bracket Mounting

φA

φB

portion

Cable Dia. A Configuration Part Number CL No. Color ØΒ ØΑ ΠU v GT1-2PP-33R 751-0042-0 White øЗ øЗ L GT1-2PP-53R 751-0040-5 Dark gray ø5 ø5 N л GT1-2PP-55R 751-0041-8 Light blue Ø5 øЗ

Material	Color
	White
PBT	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.

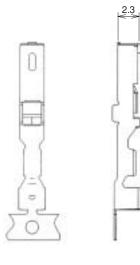
GT 50 Cal ð and Ś Ser 6 0 conn Ca D oaxia GT 2 GT 6W GT 10 GT 12 GT 18W

HS

Power Supply Terminals

F Connector Terminals







19.0

2.7

20.7

2.8

	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	Connor allow	Tip plating
ĺ	GT7A-2022SCF	757-0003-7	#20 to 22	20 to 22 2.6 to 3.1mm	19	3,000	Copper alloy	Tin plating
Ì	Note 1: Sold by the real (See above table for number of Backgoing)							

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

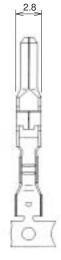


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201	1

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	10	5,000	Connor allow	Tin plating
GT7A-2022SCF	757-0003-7	#20 to 22	2.6 to 3.1mm	19	3,000	Copper alloy	rin plating

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		
GT7-2022PCF	757-0002-4	#20 to 22	1.4 to 2.4mm	5,000	Brass	Tin plating
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.



GT 8

GT 9

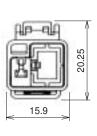
GT1 Series

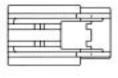
Combination Type (One Single-Conductor Coaxial Cables + One Power contact)

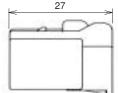
F Connectors

Housing

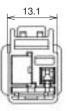






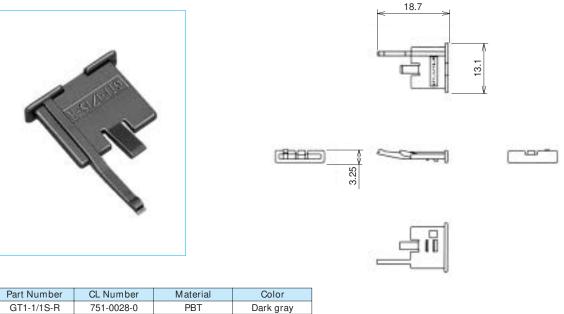


RE



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)

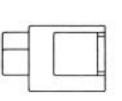


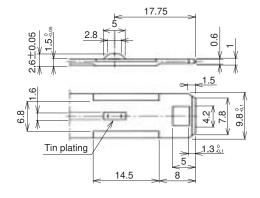
Note: Mount this item after provisional insertion into the housing, or after terminal insertion.

GT 1

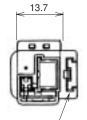
M Connectors

Housings

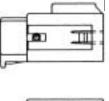




Recommended Mounting Bracket Dimensions (T=1.5mm)

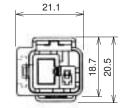


Mounting bracket attachment side



33



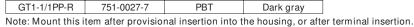


Part Number	CL No.	Mounting bracket attachment side	Remarks			
GT1-1/1PP-HU	751-0025-1	1.5m m	With ground terminal	Item	Material	Finish
GT1-1/1PP-HU(10)	751-0025-1-10	1.5mm	Without ground terminal	Housing	PBT	Light gray
GT1-1/1PP-HU(11)	751-0025-1-11	1.0mm	With ground terminal	Ground terminal	Phosphor bronze	Tin plating
Note: Used with separate retainer (GT1-1/1PP-R).						

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



50 7				
Part Number	CL Number	Material	Color	





16.8

10

a HB

3.25

13.1

VC10

GT 9

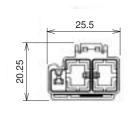
GT1 Series

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

F Connectors

Housing







HTE Interview

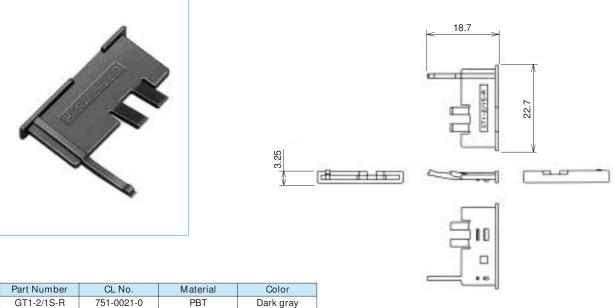




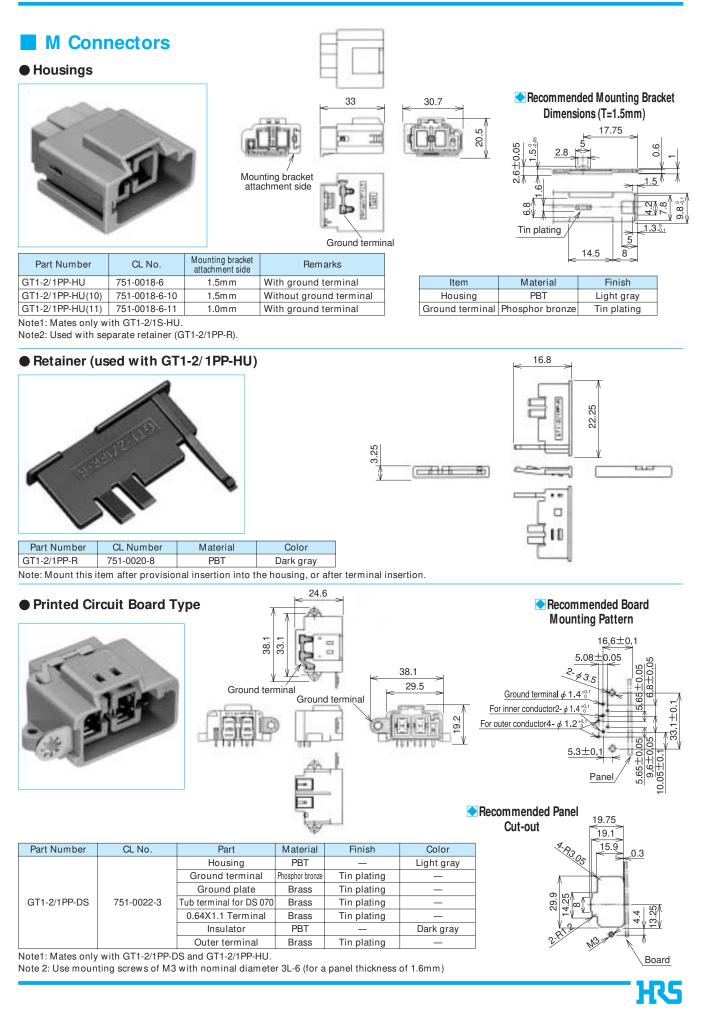
Part Number	CL No.	Material	Color				
GT1-2/1S-HU	751-0019-9	PBT	Light gray				
Note1: Mates only with GT1-2/1PP-DS and GT1-2/1PP-HU.							
Nata?: Used with congrate retainer (CT1 2/18 P)							

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

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



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



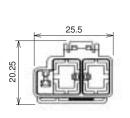
GT1 Series

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

Housings







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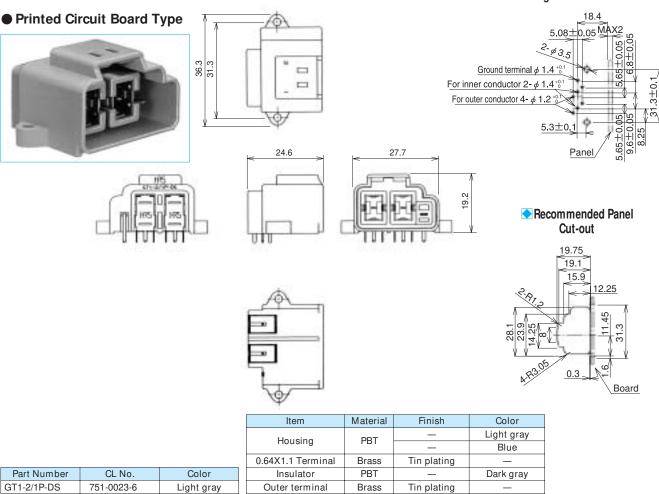
Recommended Board

Mounting Pattern

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 Connectors



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)

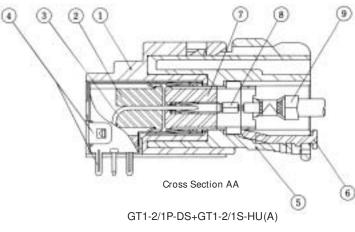
Tub terminal for DS 070

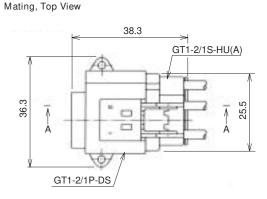
Brass

Tin plating

Mating, Cross-Sectional View

• Examples of Printed Circuit Board Type and Cable Type

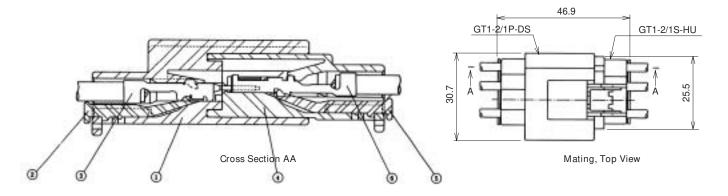




_					
	Part Number	Part	Number Used	Material	Finish
1		Housing	1	PBT	UL94V-0
2	GT1-2/1P-DS	Insulator	2	PBT	UL94V-0
3	GTT-2/TF-D3	0.64 X 1.1 terminal	2	Brass	Tin plating
4		Outer terminal	2	Brass	Tin plating
5	GT1-2/1S-HU(A)	Housing	1	PBT	UL94V-0
6	GT1-2/1S-HU	Retainer	1	PBT	UL94V-0
7		Insulator	2	PBT	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.



Currently, the GT7 Series terminals are used for the power supply of the GT1 Series combination type. See Page 157 for details about the GT7 Series.

Part Number	Terminal	
GT1-1/1S-HU	GT7-2022SCF, GT7A-2022SCF	
GT1-2/1S-HU	G17-2022SCF, G17A-2022SCF	
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

RS

GT1 Series

Accessories

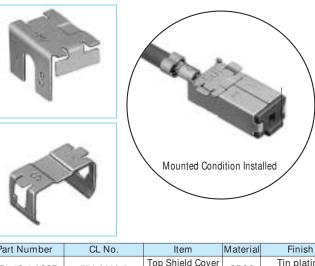
Brackets (for M Connector Housing)

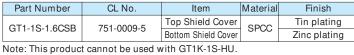


Part Number	CL No.	Material	Finish
GT-BK	751-0039-6	6000	Tin plating
GT-BK(01) 751-0039-6-01		SPCC	Zinc plating
NUMBER OF TRADE OF T			

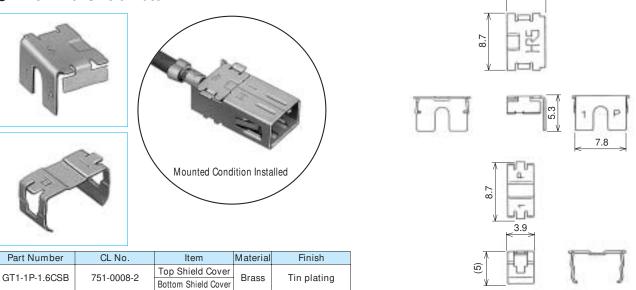
Note 1: This product can be attached to GT1-1PP-HU, GT1-1/1PP-HU, and GT1-2/1PP-HU. Note 2: Please use the tin plated item when making a ground connection.

• F Terminal Shield Cover

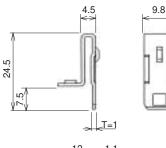




• M Terminal Shield Plate



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.





5.85

3.9

5.85

4.1

6.2

7

(3.8)



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 Tool



Harness Tools

	-			
Part No.	CL No.	Applicator Part No.	Hand Tool Part No.	Hand Press Part No.
GT1-1S-2428/1.6C	780-0001-9	Applicator 105-GT1-1S-2428	GT1-TA2428/1.6SHC	
GT1-1P-2428/1.6C	780-0008-8	Applicator 105-GT1-1P-2428	GT1-TA2428/1.6PHC	(NI-+-)
GT1-1S-30/1.6C		Applicator 105-GT1-1S-30(Stranded Wire)		(Note) GT1
		Applicator 105-GT1-1S-30ID(Solid Wire)		Table top twin crimper
GT1-1P-30/1.6C	Applicator 105-GT1-1P-30(Stranded Wire)			
	Applicator 105-GT1-1P-30ID(Solid Wire)			
GT1-1S-2022/2.2C		Applicator 105-GT1-2022/2.2S		
GT1-1P-2022/2.2C		Applicator 105-GT1-2022/2.2P		
GT1-1S-2022/2.9C		Applicator 105-GT1-2022/2.9S		
GT1-1P-2022/2.9C		Applicator 105-GT1-2022/2.9P		
GT1-1S-2428/F5C		Applicator 105-GT1-2428/F5CS(Solid Wire)		
GT1-1P-2428/F5C		Applicator 105-GT1-2428/F5CP(Solid Wire)		

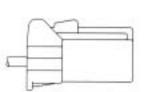
* Crimp height setting tables are available for each cable type. Please contact your nearest Hirose Electric account representative. Different cables will require different crimp height settings.

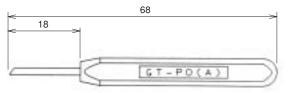
GT 9

GT1 Series

Terminal Extraction Tool

1) For one lance

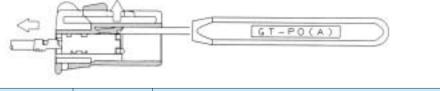




①Insert the extraction tool from the coupling end.

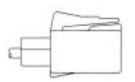


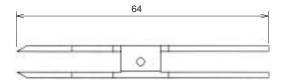
⁽²⁾Push the lance upward and pull out the terminal.



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





()Insert the extraction tool from the coupling end.

