PRODUCT CATALOG

HIROSE ELECTRIC CO.,LTD.

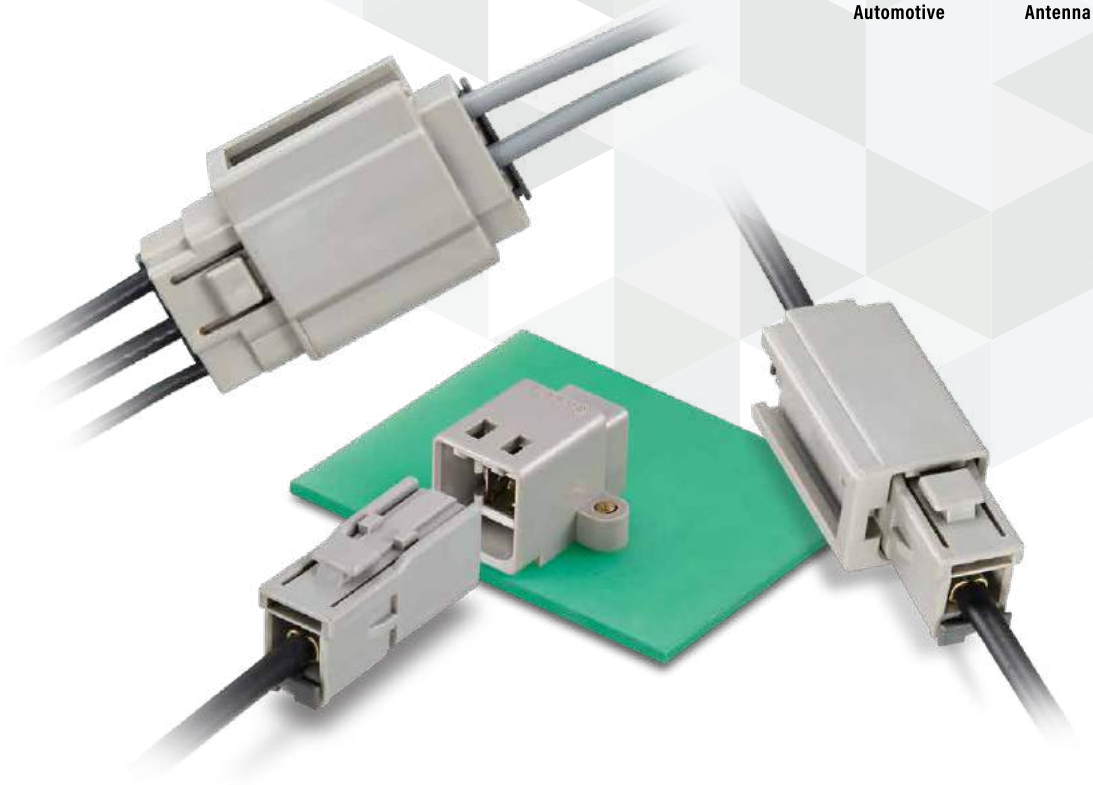
GT5 Series

Connector for Automotive Antennas Supporting 2GHz

Automotive

Antenna

Waterproof



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https://www.hirose.com/en/product/series/GT5

Jan. 2024

Features

1. One-Step Crimping for Both Internal & External Conductors

The cable assembly process prevents contact with the internal conductor, ensuring consistent positioning that is independent of the assembler's skill level. This method enhances stable assembly quality and reduces harnessing time.

2. Excellent High Frequency Performance : up to 2GHz

3. Diverse Product Variation

- Accommodates different mating keys.
- Waterproof versions available.
- G terminal option for cable termination.

Applications

In-car communication, Automotive sensors (Temperature, Pressure, etc.), Automotive audio systems, GPS antenna systems, RACS antenna, Audio/Video antenna systems, Measuring instruments, Communication equipment, Office automation equipment, LAN systems, etc.

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Product Specifications

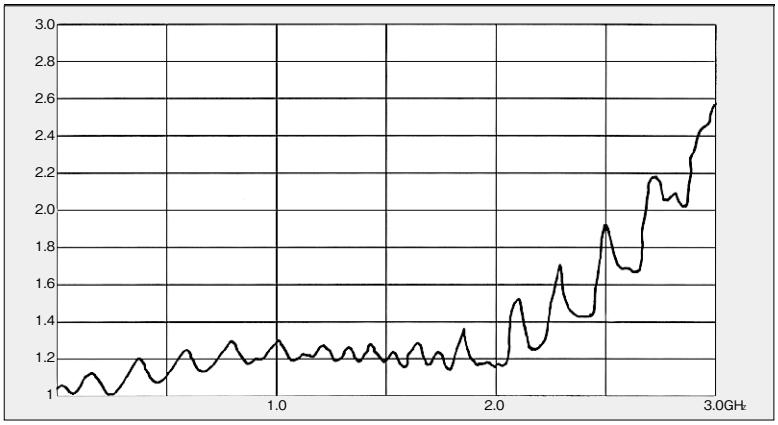
Rated Current	1A	Operating Temperature (Note)	-30 ~ +105℃
Rated Voltage	250V AC		

Items	Specifications	Conditions
Contact Resistance	30m Ω Max.	Measured at 1A DC
Insulation Resistance	100M Ω Min.	Measured at 500V DC
Withstanding Voltage	No insulation breakdown	650V AC for 1 min.
Mating Durability	Contact Resistance : 60m Ω Max.	30 Insertion/Extraction cycles

Note : Includes the temperature rise due to current flow.

High Frequency Characteristics (V.S.W.R.)

■ TEST DATA (Using 1.5D-2V cable)



Note : Typical data using fully assembled and connected GT5-1S-HU and the GT5-1PP-HU.

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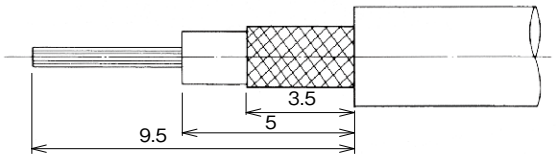
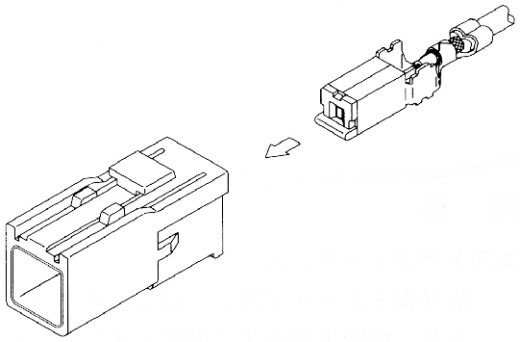
Cable Assembly Instructions

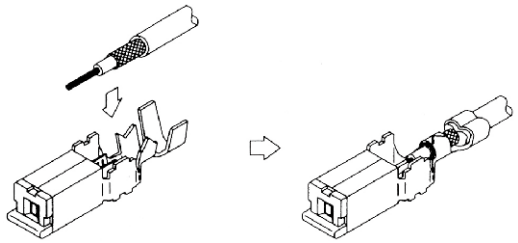
1. Strip the cable



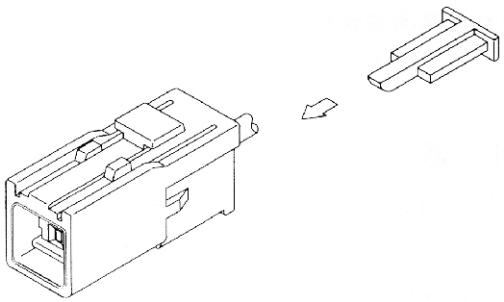
3. Insert the terminal into the housing.
(Push it in until the housing lance latches.)



2. Crimp the cable to the terminal.



4. Attach the retainer.
(Push in the retainer until it locks.)



Mating Combinations

Color	Mating Key	Receptacle	Plug	In-line Jack
Light Gray	Standard	GT5-1P-DS(70)	GT5-1S-HU	GT5-1PP-HU(70) GT5H-1PP-HU(10) GT5N-1PP-HU GT5A-1PP-HU(70) GT5P-1PP-HU(70)
Brown	A Key	GT5-1P-DS(A)(70)	GT5-1S-HU(A)	GT5-1PP-HU(A)(70)
Green	B Key	GT5-1P-DS(B)(70)	GT5-1S-HU(B)	GT5-1PP-HU(B)(70)
Blue	C Key	GT5-1P-DS(C)(70)	GT5-1S-HU(C)	–

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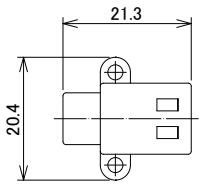
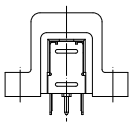
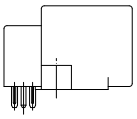
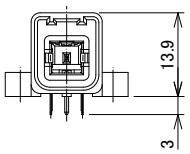
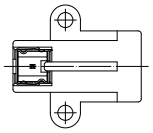
Receptacle











Part No.	HRS No.	Material / Finish or Color	Color	Mating Key	Purchase Unit
GT5-1P-DS(70)	CL0755-0007-5-70	Housing : PBT Center Terminal : Brass / Tin Plating Insulator : PBT / Dark Gray Outer Terminal : Phosphor Bronze / Tin Plating	Light Gray	Standard	50pcs per tray
GT5-1P-DS(A)(70)	CL0755-0041-3-70		Brown	A Key	100pcs per tray
GT5-1P-DS(B)(70)	CL0755-0042-6-70		Green	B Key	
GT5-1P-DS(C)(70)	CL0755-0083-3-70		Blue	C Key	

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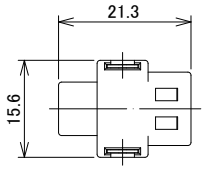

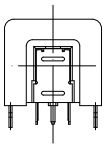

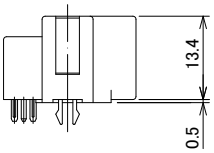

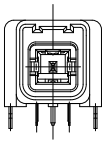

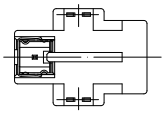

Part No.	HRS No.	Material / Finish or Color	Color	Mating Key	Purchase Unit
GT5EC-1P-DS(71)	CL0755-0125-1-71	Housing : PA Center Terminal : Brass / Tin Plating Insulator : PA / Black Outer Terminal : Phosphor Bronze / Tin Plating Retention Tab : Brass / Tin Plating	Natural	Standard	40pcs per tray

Note : The mating plug is GT5-1S-HU.

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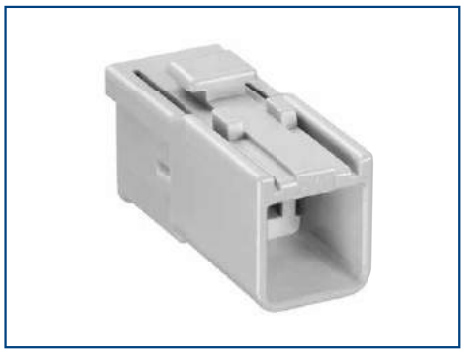
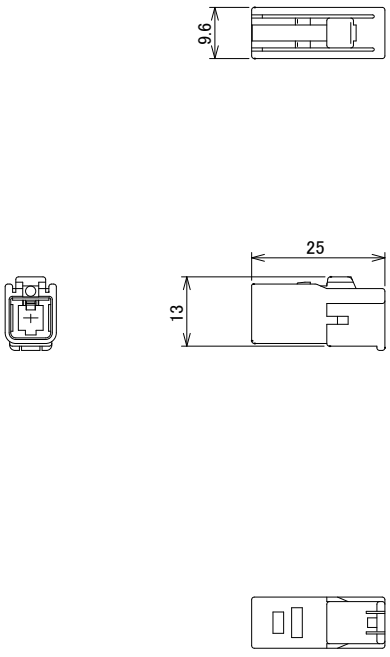
Plug

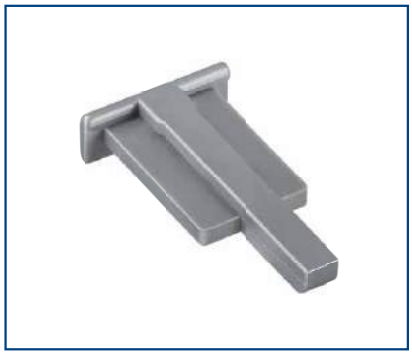


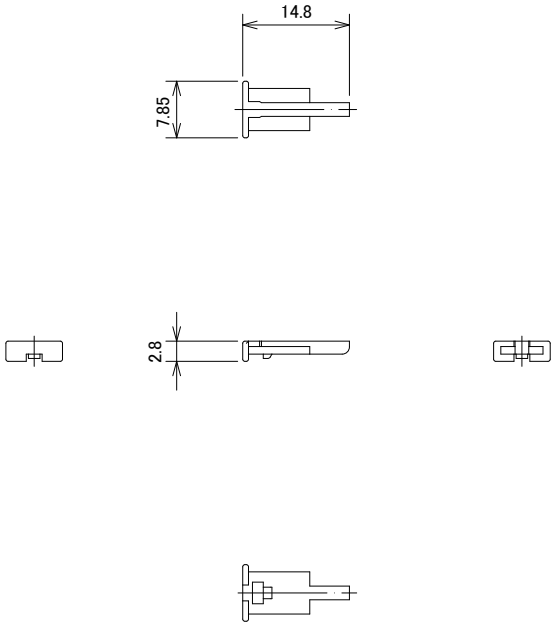


Part No.	HRS No.	Material	Color	Mating Key	Purchase Unit
GT5-1S-HU	CL0755-0004-7-00	PBT	Light Gray	Standard	100pcs per bag
GT5-1S-HU(A)	CL0755-0037-6-00		Brown	A Key	
GT5-1S-HU(B)	CL0755-0038-9-00		Green	B Key	
GT5-1S-HU(C)	CL0755-0080-5-00		Blue	C Key	

Note 1 : Compatible coaxial terminals are GT5-30/0.7-1.5SCF(70), GT5-2428/1.1-2.2SCF, GT5-2428/1.6-2.5SCF(70), GT5-30/1.6-2.9SCF(70), GT5-2428/1.6-2.9SCF(70), GT5-2022/1.6-2.9SCF(70), GT5-2022/F2.7-3.5SCF(70) and GT5-2022/F3.3-3.8SCF(70).
Note 2 : Use with the retainer (GT5-1P/S-R), sold separately.

Retainer





Part No.	HRS No.	Material	Color	Purchase Unit
GT5-1P/S-R	CL0755-0006-2-00	PBT	Dark Gray	100pcs per bag

Note : Attach to the plug (GT5-1S-HU(#)), sold separately.

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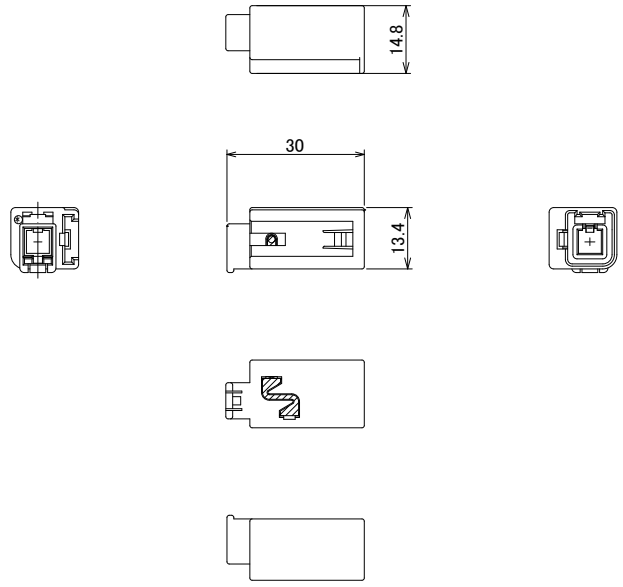
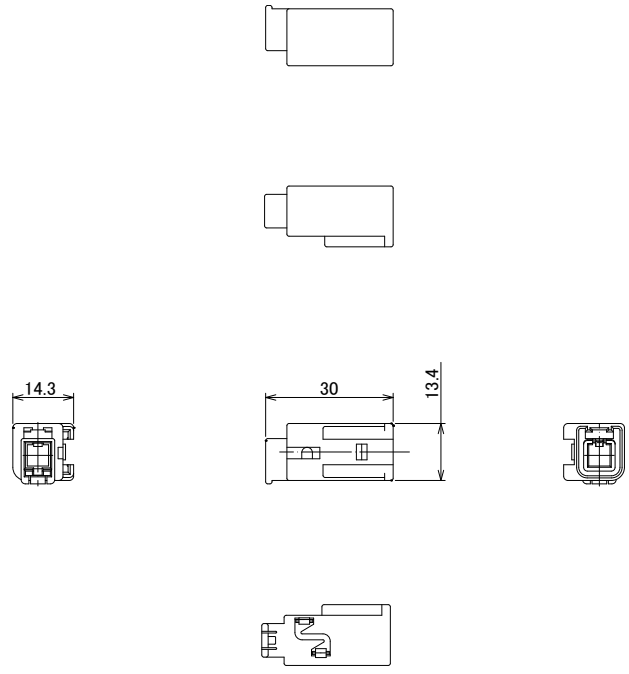
In-line Jack



Part No.	HRS No.	Material / Finish	Color	Mating Key	Purchase Unit
GT5-1PP-HU(70)	CL0755-0005-0-70	Housing : PBT Ground Terminal : Phosphor Bronze / Tin Plating	Light Gray	Standard	100pcs per bag
GT5-1PP-HU(A)(70)	CL0755-0039-1-70		Brown	A Key	
GT5-1PP-HU(B)(70)	CL0755-0040-0-70		Green	B Key	

Note 1 : Compatible coaxial terminals are GT5-30/0.7-1.5PCF(70), GT5-30/1.6-2.9PCF(70), GT5-2428/1.6-2.9PCF(70), GT5-2022/F2.7-3.5PCF(70), GT5L-30/0.7-1.5PCF(70) and GT5L-2428/1.6-2.9PCF(70).
Note 2 : Use with the retainer (GT5-1P/S-R), sold separately.

Bracket H Type



Part No.	HRS No.	Material	Color	Mating Key	Purchase Unit
GT5H-1PP-HU(10)	CL0755-0093-7-10	PBT	Light Gray	Standard	100pcs per bag

Note 1 : Compatible coaxial terminals are GT5-30/0.7-1.5PCF(70), GT5-30/1.6-2.9PCF(70), GT5-2428/1.6-2.9PCF(70), GT5-2022/F2.7-3.5PCF(70), GT5L-30/0.7-1.5PCF(70) and GT5L-2428/1.6-2.9PCF(70).
Note 2 : Use with the retainer (GT5-1P/S-R), sold separately.

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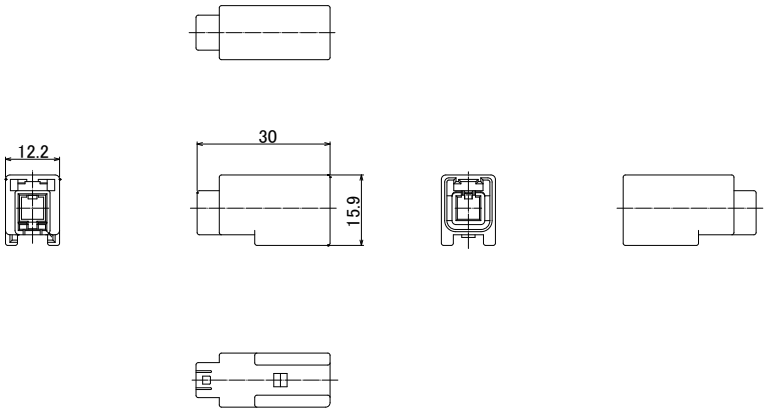
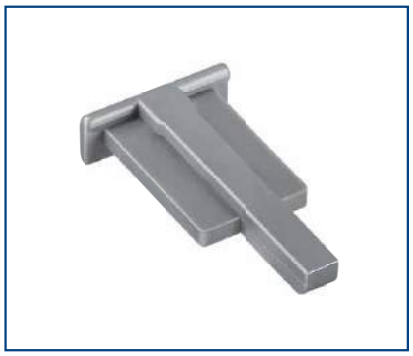
Bracket N Type

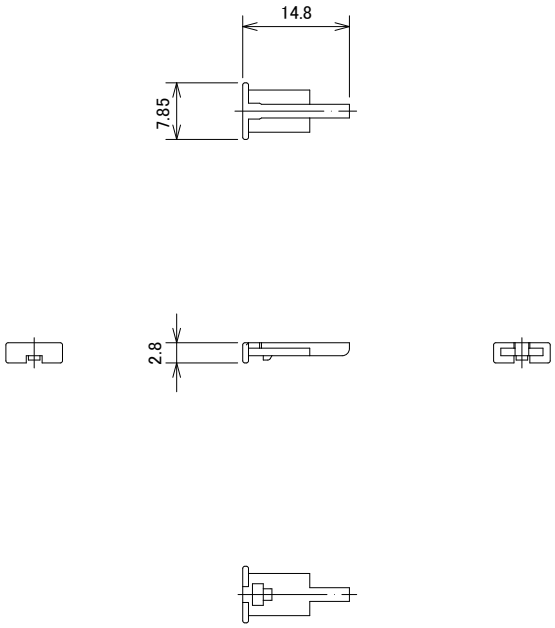


Part No.	HRS No.	Material	Color	Mating Key	Purchase Unit
GT5N-1PP-HU	CL0755-0090-9-00	PBT	Light Gray	Standard	100pcs per bag

Note 1 : Compatible coaxial terminals are GT5-30/0.7-1.5PCF(70), GT5-30/1.6-2.9PCF(70), GT5-2428/1.6-2.9PCF(70), GT5-2022/F2.7-3.5PCF(70), GT5L-30/0.7-1.5PCF(70) and GT5L-2428/1.6-2.9PCF(70).
Note 2 : Use with the retainer (GT5-1P/S-R), sold separately.

Retainer





Part No.	HRS No.	Material	Color	Purchase Unit
GT5-1P/S-R	CL0755-0006-2-00	PBT	Dark Gray	100pcs per bag

Note : Attach to the in-line jack (GT5-1PP-HU(#)(70), GT5H-1PP-HU(10) and GT5N-1PP-HU), sold separately.

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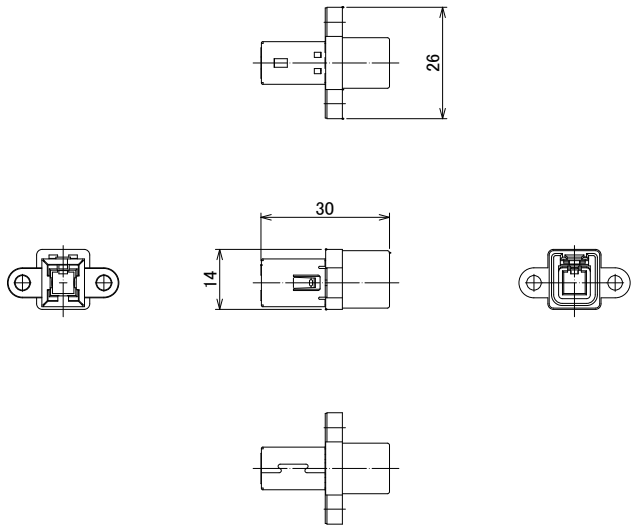
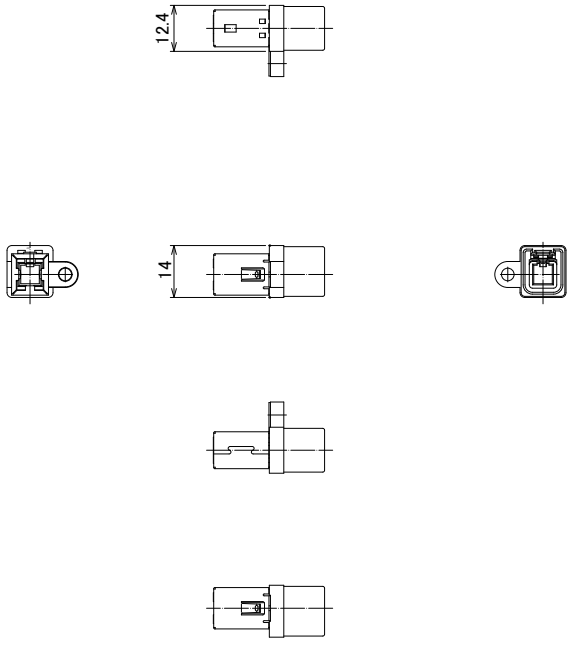
Panel Mount / Enhanced Shield Design



Part No.	HRS No.	Material / Finish	Color	Mating Key	Purchase Unit
GT5A-1PP-HU(70)	CL0755-0025-7-70	Housing : PBT Ground Terminal : Brass / Tin Plating	Light Gray	Standard	100pcs per bag

Note 1 : Compatible coaxial terminals are GT5-30/0.7-1.5PCF(70), GT5-30/1.6-2.9PCF(70), GT5-2428/1.6-2.9PCF(70), GT5-2022/F2.7-3.5PCF(70), GT5L-30/0.7-1.5PCF(70) and GT5L-2428/1.6-2.9PCF(70).
Note 2 : This product does not require a retainer.

Panel Mount / Enhanced Shield Design



Part No.	HRS No.	Material / Finish	Color	Mating Key	Purchase Unit
GT5P-1PP-HU(70)	CL0755-0030-7-70	Housing : PBT Ground Terminal : Brass / Tin Plating	Light Gray	Standard	100pcs per bag

Note 1 : Compatible coaxial terminals are GT5-30/0.7-1.5PCF(70), GT5-30/1.6-2.9PCF(70), GT5-2428/1.6-2.9PCF(70), GT5-2022/F2.7-3.5PCF(70), GT5L-30/0.7-1.5PCF(70) and GT5L-2428/1.6-2.9PCF(70).
Note 2 : This product does not require a retainer.

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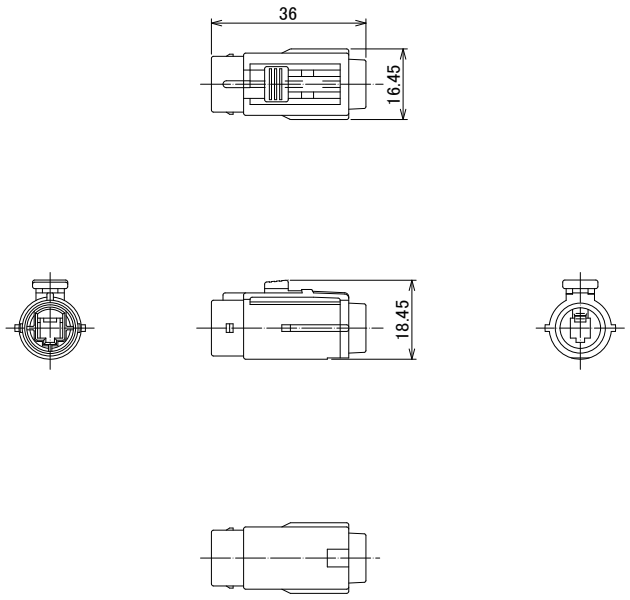
Waterproof Version

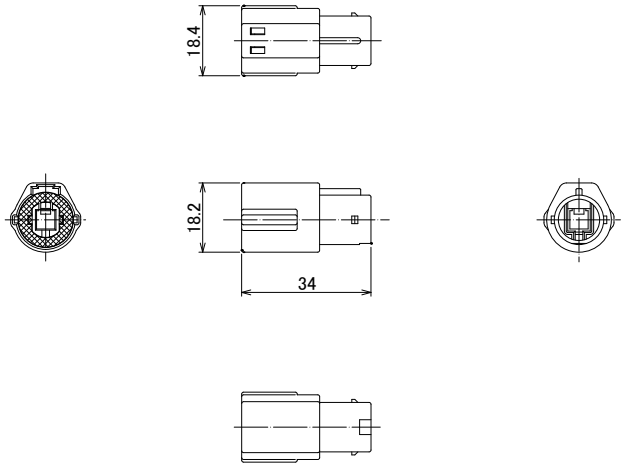
Plug



Part No.	HRS No.	Material / Color	Purchase Unit
GT5W-1S-HU	CL0755-0027-2-00	PBT / Light Gray	100pcs per bag

Note 1 : Compatible coaxial terminals are GT5-30/0.7-1.5SCF(70), GT5-2428/1.1-2.2SCF, GT5-2428/1.6-2.5SCF(70), GT5-30/1.6-2.9SCF(70), GT5-2428/1.6-2.9SCF(70), GT5-2022/1.6-2.9SCF(70), GT5-2022/F2.7-3.5SCF(70) and GT5-2022/F3.3-3.8SCF(70).
Note 2 : Use with the retainer (GT5W-1P/S-R), sold separately.

In-line Jack



(Example of product appearance.)

Part No.	HRS No.	Material / Color	Remarks	Purchase Unit
GT5W-1P-HU	CL0755-0026-0-00	Housing : PBT / Light Gray Connector Seal : Silicone Rubber / White	–	100pcs per bag
GT5W-1PP-HU	CL0755-0070-1-00		Bracket Type	
GT5JW-1PP-HU	CL0755-0069-2-00			

Note 1 : Compatible coaxial terminals are GT5-30/0.7-1.5PCF(70), GT5-30/1.6-2.9PCF(70), GT5-2428/1.6-2.9PCF(70), GT5-2022/F2.7-3.5PCF(70), GT5L-30/0.7-1.5PCF(70) and GT5L-2428/1.6-2.9PCF(70).
Note 2 : Use with the retainer (GT5W-1P/S-R), sold separately.

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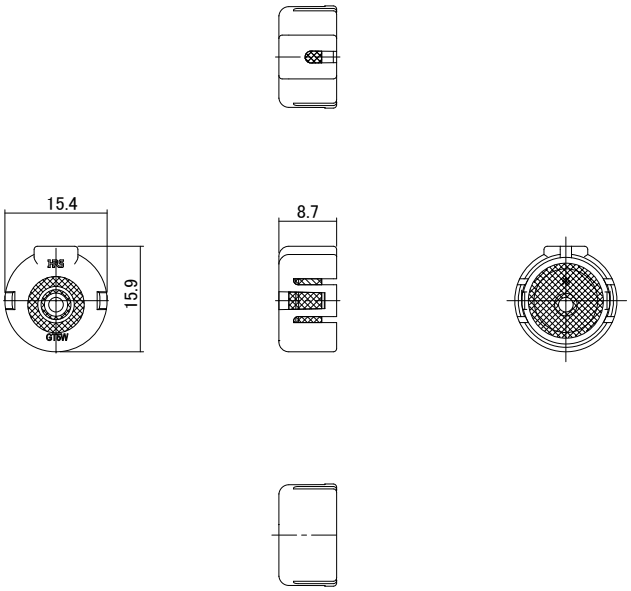
Retainer



Part No.	HRS No.	Material / Color	Purchase Unit
GT5W-1P/S-R	CL0755-0028-5-00	Retainer : PBT / Dark Gray Rubber : Silicone Rubber / Light Blue	100pcs per bag

Note 1 : This product supports cables with outer diameters of ϕ 2.9 to 3.4.
Waterproofness will depend on the cable. If considering usage of a non-specified cable, please consult a Hirose representative.
Note 2 : Attach to the plug (GT5W-1S-HU) or the in-line jack (GT5W-1P-HU, GT5W-1PP-HU and GT5JW-1PP-HU), sold separately.

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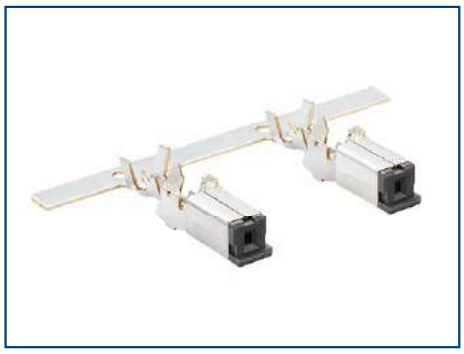
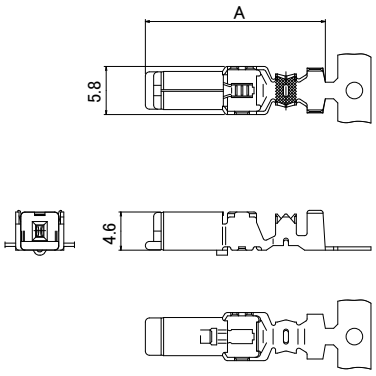
Coaxial Terminal

Female Terminal



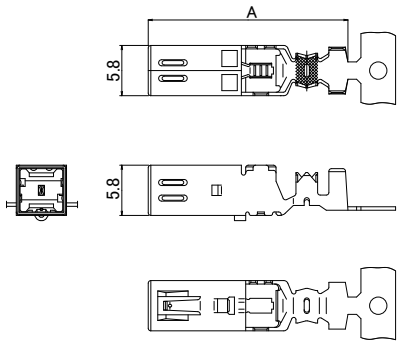


Unit : mm

Part No.	HRS No.	Material / Finish or Color	Wire Size	Insulation Outer Diameter	Jacket Outer Diameter	A	Purchase Unit
GT5-30/0.7-1.5SCF(70)	CL0755-0065-1-70	Insulator : PBT / Dark Gray Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Brass / Tin Plating	30 AWG	φ0.6 to 0.9	φ1.4 to 1.8	22.7	1,300pcs per reel
GT5-2428/1.1-2.2SCF	CL0755-0123-6-00		24 to 28 AWG	φ1.0 to 1.4	φ2.0 to 2.4	21.7	
GT5-2428/1.6-2.5SCF(70)	CL0755-0078-3-70			φ1.5 to 2.0	φ2.3 to 2.7		
GT5-30/1.6-2.9SCF(70)	CL0755-0022-9-70		30 AWG		φ2.6 to 3.4		
GT5-2428/1.6-2.9SCF(70)	CL0755-0002-1-70		24 to 28 AWG				
GT5-2022/1.6-2.9SCF(70)	CL0755-0071-4-70		20 to 22 AWG				
GT5-2022/F2.7-3.5SCF(70)	CL0755-0077-0-70			φ2.0 to 2.5	φ3.3 to 3.7	22.7	1,100pcs per reel
GT5-2022/F3.3-3.8SCF(70) (Note)	CL0755-0054-5-70			φ2.5 to 2.9	φ3.6 to 4.0		

Note : GT5-2022/F3.3-3.8SCF(70) supports insulator made of polyethylene foam.

Male Terminal



Unit : mm

Part No.	HRS No.	Material / Finish or Color	Wire Size	Insulation Outer Diameter	Jacket Outer Diameter	A	Purchase Unit
GT5-30/0.7-1.5PCF(70)	CL0755-0017-9-70	Insulator : PBT / Dark Gray Center Terminal : Brass / Tin Plating Outer Terminal : Brass / Tin Plating	30 AWG	φ0.6 to 0.9	φ1.4 to 1.8	24.05	900pcs per reel
GT5-30/1.6-2.9PCF(70)	CL0755-0021-6-70			φ1.5 to 2.0	φ2.6 to 3.4	23.05	
GT5-2428/1.6-2.9PCF(70)	CL0755-0001-9-70		24 to 28 AWG				
GT5-2022/F2.7-3.5PCF(70)	CL0755-0076-8-70		20 to 22 AWG	φ2.0 to 2.5	φ3.3 to 3.7	24.05	

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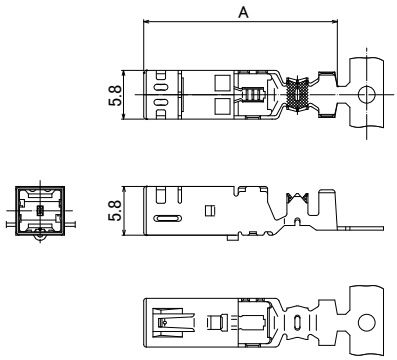
Male Terminal
(Low Insertion/Extraction Force Type)



Unit : mm

Part No.	HRS No.	Material / Finish or Color	Wire Size	Insulation Outer Diameter	Jacket Outer Diameter	A	Purchase Unit
GT5L-30/0.7-1.5PCF(70)	CL0755-0068-0-70	Insulator : PBT / Dark Gray Center Terminal : Brass / Tin Plating Outer Terminal : Brass / Tin Plating	30 AWG	φ0.6 to 0.9	φ1.4 to 1.8	24.05	900pcs per reel
GT5L-2428/1.6-2.9PCF(70)	CL0755-0066-4-70		24 to 28 AWG	φ1.5 to 2.0	φ2.6 to 3.4	23.05	

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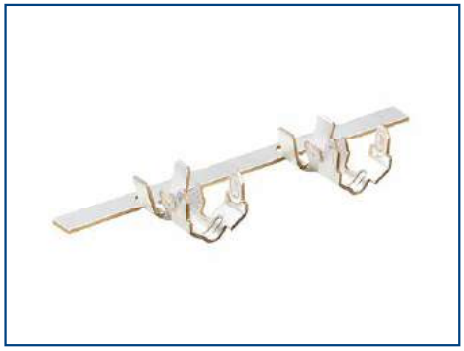
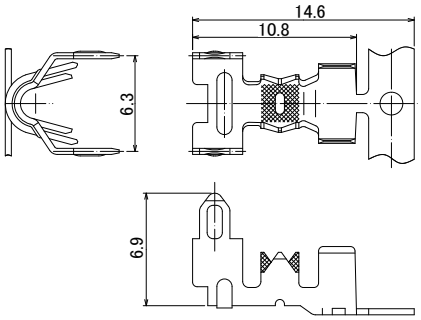
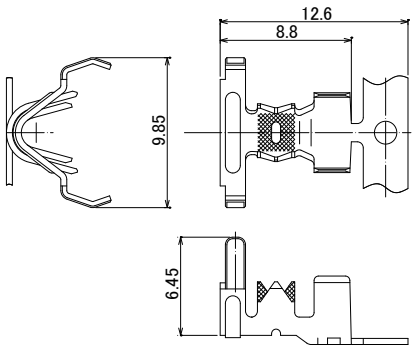
G Terminal for Cable Termination Part

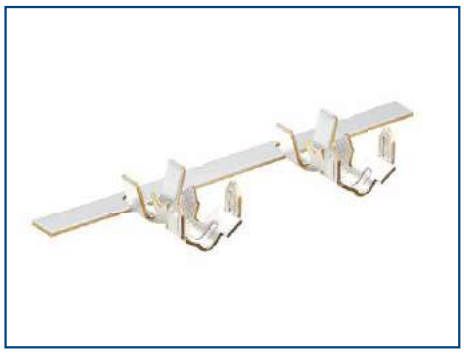


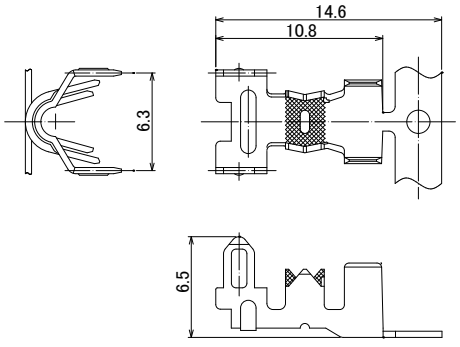


Part No.	HRS No.	Material / Finish	Purchase Unit
GTA-1.6CF(70)	CL0755-0032-2-70	Brass / Tin Plating	1,500pcs per reel



Part No.	HRS No.	Material / Finish	Purchase Unit
GTB-1.6CF(70)	CL0755-0049-5-70	Brass / Tin Plating	1,500pcs per reel





Part No.	HRS No.	Material / Finish	Purchase Unit
GTC-1.6CF	CL0755-0106-7-00	Brass / Tin Plating	1,500pcs per reel

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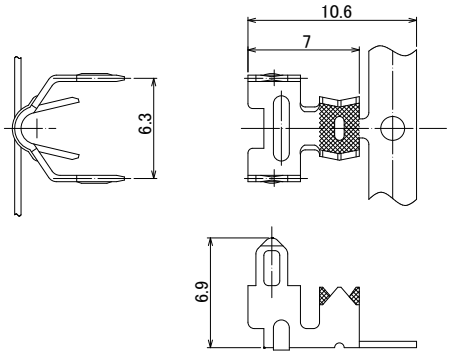
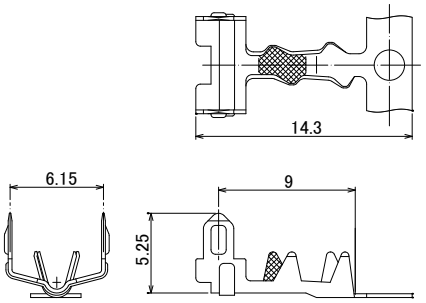
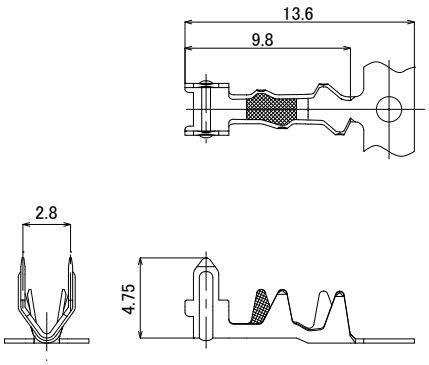


Part No.	HRS No.	Material / Finish	Purchase Unit
G-1.6PCF(70)	CL0755-0029-8-70	Brass / Tin Plating	1,500pcs per reel



Part No.	HRS No.	Material / Finish	Purchase Unit
GTA-0.7CF	CL0755-0074-2-00	Brass / Tin Plating	1,500pcs per reel



Part No.	HRS No.	Material / Finish	Purchase Unit
GTB-0.7CF	CL0755-0075-5-00	Brass / Tin Plating	1,500pcs per reel

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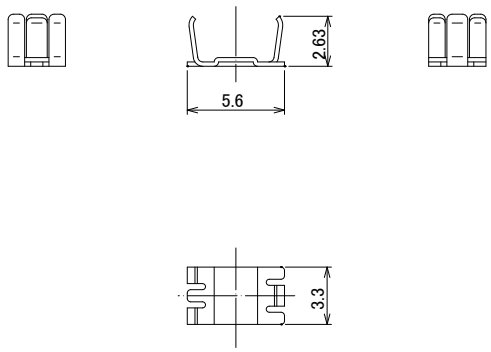
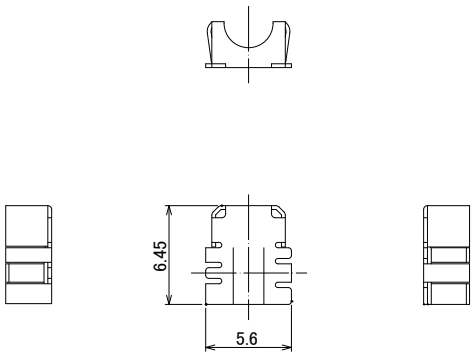
Shield Plate

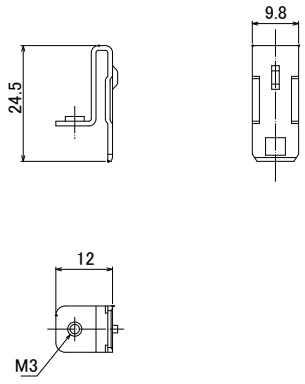


Part No.	HRS No.	Material / Finish	Purchase Unit
GT5-1P/S-CSB(70)	CL0755-0048-2-70	Brass / Tin Plating	100pcs per bag



Part No.	HRS No.	Material / Finish	Purchase Unit
GT5C-1P-CSB(70)	CL0755-0088-7-70	Brass / Tin Plating	100pcs per bag

Panel Mount In-line Bracket



Part No.	HRS No.	Material / Finish	Purchase Unit
GT-BK(70)	CL0751-0039-6-70	SPCC / Tin Plating	100pcs per bag

Note : The combination connectors are GT5-1PP-HU(70), GT5-1PP-HU(A)(70) and GT5-1PP-HU(B)(70).

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Crimping Tools

Please ask your Hirose Electric representative for a user manual.

Automatic Crimping Machine

Product number CM-105C

Note 1 : Photo for reference only. Subject to change.
Note 2 : Please refer to the table below for applicator part numbers.

Specifications

Item	Specifications	Remarks
Press Capacity	1.5ton	-
Stroke Length	30mm	-
Number of Strokes	200spm (50Hz)	240spm (60Hz)
Weight	75kg	-
Motor	0.2kw	100V AC
Crimping Speed	2,000 to 4,000pcs/H	-

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Applicator (for Mounting to Automatic Crimping Machines)

Terminal Part No.	Terminal HRS No.	Applicator Part No.	Applicator HRS No.
GT5-30/0.7-1.5SCF(70)	CL0755-0065-1-70	AP105-GT5-30/0.7-1.5S	CL0901-5080-7-00
GT5-2428/1.1-2.2SCF	CL0755-0123-6-00	AP-GT5-2428/1122SI	CL0901-5171-0-00
GT5-2428/1.6-2.5SCF(70)	CL0755-0078-3-70	AP105-GT5-2428/1.6-2.5S	CL0901-5101-5-00
GT5-30/1.6-2.9SCF(70)	CL0755-0022-9-70	AP105-GT5-30/1.6-2.9S-ID	CL0901-5020-5-00
		AP105-GT5-30/1.6-2.9S	CL0901-5018-3-00
GT5-2428/1.6-2.9SCF(70)	CL0755-0002-1-70	AP105-GT5-2428/1.6-2.9S	CL0901-5030-9-00
		AP105-GT5-2428/1.6-2.9SWS	CL0901-5032-4-00
		AP105-GT5-2428/1.6-2.9S-B	CL0901-5104-3-00
GT5-2022/1.6-2.9SCF(70)	CL0755-0071-4-70	AP105-GT5-2022/1.6-2.9S	CL0901-5088-9-00
GT5-2022/F2.7-3.5SCF(70)	CL0755-0077-0-70	AP105-GT5-2022/F2.7-3.5S	CL0901-5092-6-00
GT5-2022/F3.3-3.8SCF(70)	CL0755-0054-5-70	AP105-GT5-2022/F3.3-3.8S	CL0901-5076-0-00
GT5-30/0.7-1.5PCF(70)	CL0755-0017-9-70	AP105-GT5-30/0.7-1.5P	CL0901-5021-8-00
GT5-30/1.6-2.9PCF(70)	CL0755-0021-6-70	AP105-GT5-30/1.6-2.9P-ID	CL0901-5019-6-00
		AP105-GT5-30/1.6-2.9P	CL0901-5017-0-00
GT5-2428/1.6-2.9PCF(70)	CL0755-0001-9-70	AP105-GT5-2428/1.6-2.9P	CL0901-5029-0-00
		AP105-GT5-2428/1.6-2.9PWS	CL0901-5031-1-00
		AP105-GT5-2428/1.6-2.9P-B	CL0901-5103-0-00
GT5-2022/F2.7-3.5PCF(70)	CL0755-0076-8-70	AP105-GT5-2022/F2.7-3.5P	CL0901-5091-3-00
GTA-1.6CF(70)	CL0755-0032-2-70	AP105-GTA.B-1.6P	CL0901-5047-1-00
GTB-1.6CF(70)	CL0755-0049-5-70	AP105-GTA.B-1.6P	CL0901-5047-1-00
GTC-1.6CF	CL0755-0106-7-00	AP105-GTA.B-1.6P	CL0901-5047-1-00
G-1.6PCF(70)	CL0755-0029-8-70	AP105-G-1.6P	CL0901-5041-5-00
GTA-0.7CF	CL0755-0074-2-00	AP105-GTA.B-0.7P	CL0901-5141-0-00
GTB-0.7CF	CL0755-0075-5-00	AP105-GTA.B-0.7P	CL0901-5141-0-00

Note 1 : Different contact crimp heights are available for different cable types.
Please contact your Hirose Electric account representative for details.
Other cables will require different crimp height settings. Please note that this may take a few days.
Note 2 : When purchasing HRS equipment, please contact your Hirose Electric account representative to confirm that the cable that you plan to use for the applicable terminal has been evaluated.
Note 3 : The applicators and tools listed here may not be applicable depending on the specifications of the cable you use.

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While Taking into Consideration

Specifications mentioned in this catalog are reference values.
When considering to order or use this product, please review the Drawing and Product Specifications sheets.
Use an appropriate cable when using the connector in combination with cables.
If considering usage of a non-specified cable, please contact your sales representative.
If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.
If considering usage for below mentioned applications, please contact your sales representative.
In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.

HIROSE ELECTRIC CO.,LTD. 2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
https://www.hirose.com

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