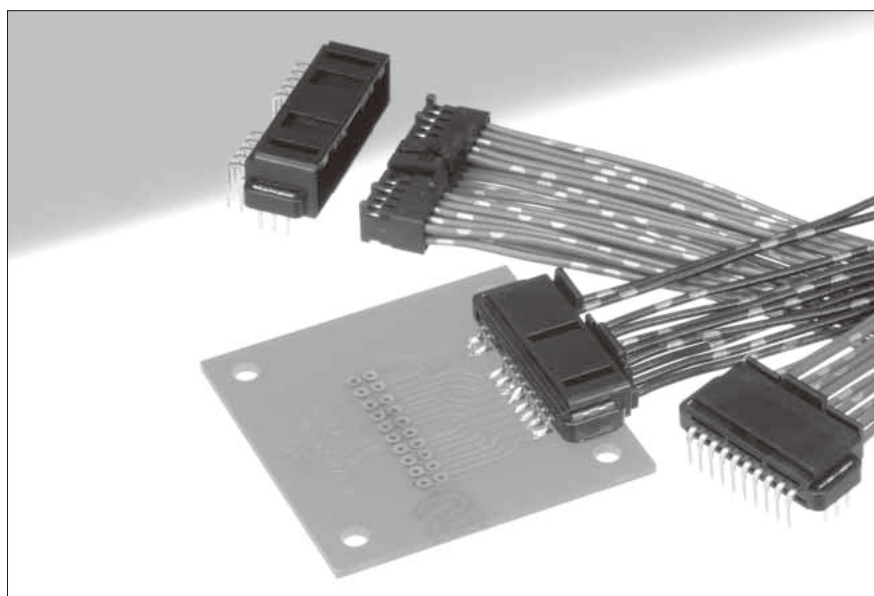


# GT8E Series

— High contact pressure Wire-to-Board connectors —



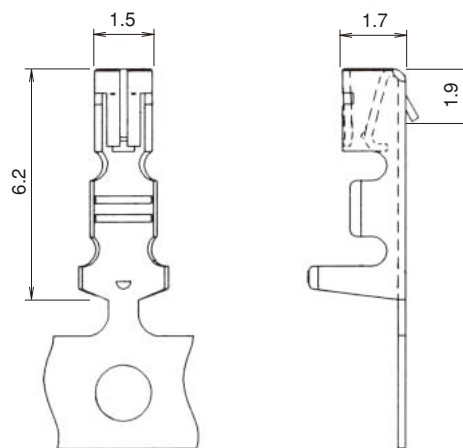
## ■ Features

- Use of a formed dimple construction at the contact point, serves to prevent oxidation of the contact portion.
- Design prevents misinsertion
- Stress resisting design
- SMT type pin header with pin-in-hole type metal fittings improves PCB retention. High PCB retention force.

## ■ Applications

Internal connectors for in-vehicle and industrial equipment.

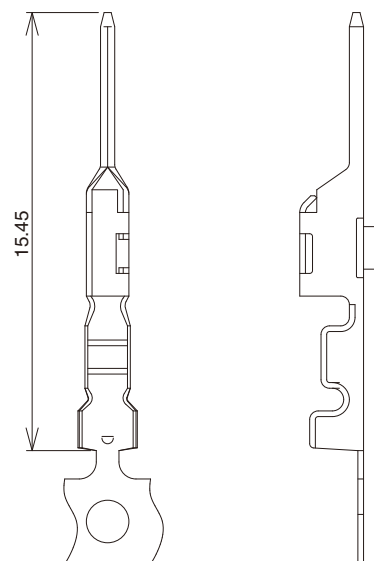
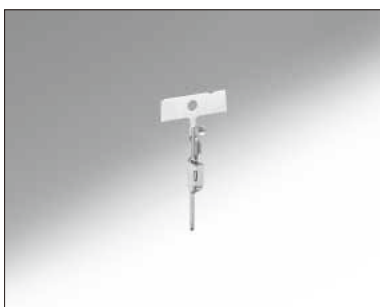
## Terminal for female connector



| Part No.           | HRS No.       | Material        | Plating     | Conductor Size (AWG) | Outer Diameter | Packaging       | RoHS |
|--------------------|---------------|-----------------|-------------|----------------------|----------------|-----------------|------|
| GT8E-2022SCF       | 758-0033-4 00 | Phosphor bronze | Tin plated  | 20 to 22 AWG         | φ1.3 to 1.5    | 10,000 pcs/reel | YES  |
| GT8E-2022SCF(01)   | 758-0033-4 01 |                 | Gold plated |                      |                |                 |      |
| GT8B-2428SCF       | 758-0055-7 00 |                 | Tin plated  | 24 to 28 AWG         | φ0.9 to 1.1    |                 |      |
| GT8B-2428SCF(01)   | 758-0055-7 01 |                 | Gold plated |                      |                |                 |      |
| GT8E-2022SC *Note1 | 758-0101-2 00 |                 | Tin plated  | 20 to 22 AWG         | φ1.3 to 1.5    | 100 pcs/pack    |      |

Note 1 : Small quantities for use with hand tooling are sold in packs.

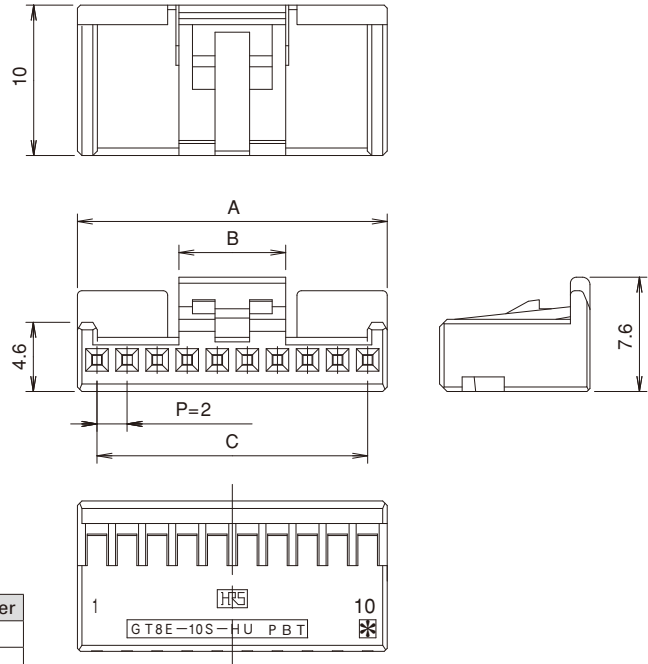
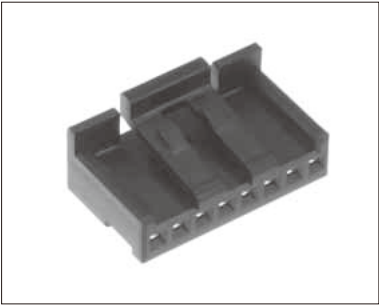
## Terminal for M connector



| Part No.      | HRS No        | Material | Plating     | Conductor Size (AWG) | Outer Diameter | Packaging       | RoHS |
|---------------|---------------|----------|-------------|----------------------|----------------|-----------------|------|
| GT8E-2022PCF  | 758-0039-0 00 | Brass    | Tin plating | 20 to 22 AWG         | φ1.3 to 1.5    | 10,000 pcs/reel | YES  |
| GT8EF-2022PCF | 758-0111-6 00 |          | Gold plated |                      |                | 8,000 pcs/reel  |      |
| GT8E-2428PCF  | 758-0067-6 00 |          | Tin plating | 24 to 28 AWG         | φ0.9 to 1.1    | 10,000 pcs/reel |      |
| GT8EF-2428PCF | 758-0106-6 00 |          | Gold plated |                      |                | 8,000 pcs/reel  |      |

Female connector

●Housing (Single row type)

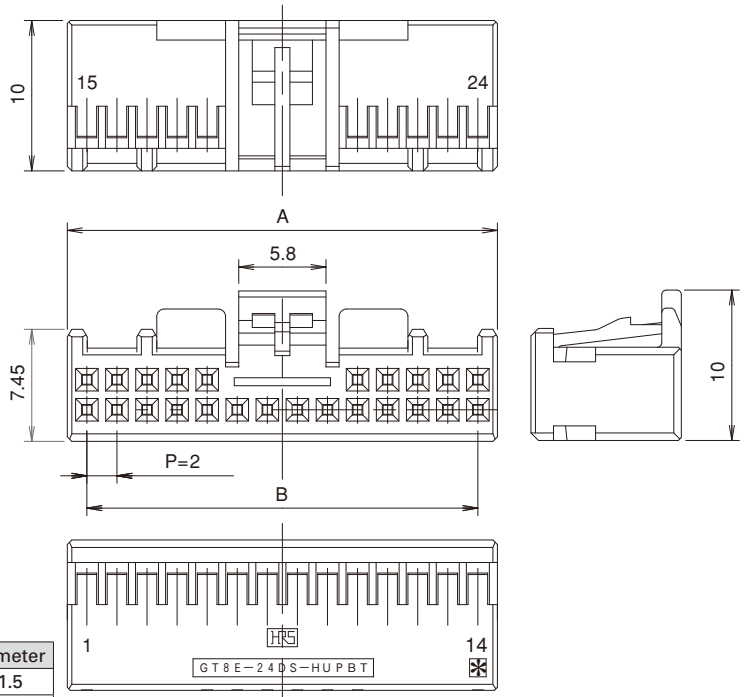
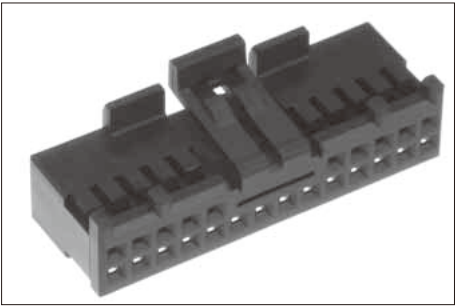


| Socket      | Applicable wire | Conductor Size (AWG) | Outer Diameter |
|-------------|-----------------|----------------------|----------------|
| GT8E- *S-HU | GT8E-2022SCF    | 20 to 22 AWG         | φ1.3 to 1.5    |
|             | GT8B-2428SCF    | 24 to 28 AWG         | φ0.9 to 1.1    |

| Part No.    | HRS No.    | Material | Color | No. of contacts | A dimension | B dimension | C dimension | Packaging | RoHS |
|-------------|------------|----------|-------|-----------------|-------------|-------------|-------------|-----------|------|
| GT8E-3S-HU  | 758-0061-0 | PBT      | Black | 3               | 7.9         | 7.9         | 4           | 1         | YES  |
| GT8E-4S-HU  | 758-0047-9 |          |       | 4               | 8.6         | 8.6         | 6           |           |      |
| GT8E-5S-HU  | 758-0062-2 |          |       | 5               | 12          | 7.1         | 8           |           |      |
| GT8E-6S-HU  | 758-0048-1 |          |       | 6               | 12.6        |             | 10          |           |      |
| GT8E-7S-HU  | 758-0063-5 |          |       | 7               | 15.6        |             | 12          |           |      |
| GT8E-8S-HU  | 758-0049-4 |          |       | 8               | 16.6        |             | 14          |           |      |
| GT8E-10S-HU | 758-0050-3 |          |       | 10              | 20.6        |             | 18          |           |      |

Note : Applicable terminals are GT8E-2022SCF and GT8B-2428SCF.

●Housing (Double row type)



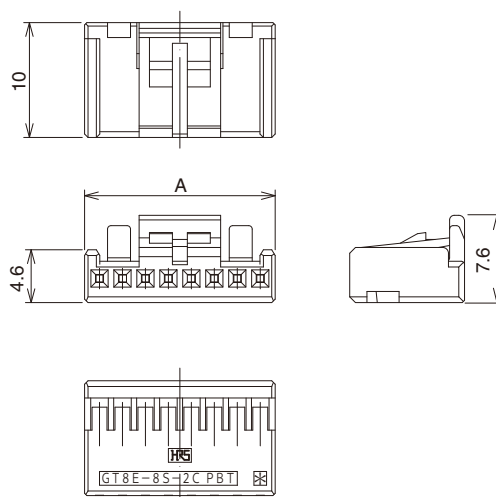
| Socket       | Applicable wire | Conductor Size (AWG) | Outer Diameter |
|--------------|-----------------|----------------------|----------------|
| GT8E- *DS-HU | GT8E-2022SCF    | 20 to 22 AWG         | φ1.3 to 1.5    |
|              | GT8B-2428SCF    | 24 to 28 AWG         | φ0.9 to 1.1    |

| Part No.     | HRS No.    | Material | Color | No. of contacts | A dimension | B dimension | Packaging | RoHS |
|--------------|------------|----------|-------|-----------------|-------------|-------------|-----------|------|
| GT8E-12DS-HU | 758-0051-6 | PBT      | Black | 12              | 16.6        | 14          | 1         | YES  |
| GT8E-16DS-HU | 758-0064-8 |          |       | 16              | 21.85       | 18          |           |      |
| GT8E-20DS-HU | 758-0052-9 |          |       | 20              | 24.6        | 22          |           |      |
| GT8E-24DS-HU | 758-0054-4 |          |       | 24              | 28.6        | 26          |           |      |

Note : Applicable terminals are GT8E-2022SCF and GT8B-2428SCF.

## Female connector

### ● Housing



| Socket      | Recommended wire | Conductor Size (AWG) | Outer Diameter |
|-------------|------------------|----------------------|----------------|
| GT8E- *S-2C | GT8E-2022SCF     | 20 to 22 AWG         | φ1.3 to 1.5    |
|             | GT8B-2428SCF     | 24 to 28 AWG         | φ0.9 to 1.1    |

| Part No.   | HRS No.    | Material | Color | No. of contacts | A dimension | Packaging | RoHS |
|------------|------------|----------|-------|-----------------|-------------|-----------|------|
| GT8E-2S-2C | 758-0030-6 | PBT      | Black | 2               | 7.1         | 1         | YES  |
| GT8E-8S-2C | 758-0029-7 |          |       | 8               | 16.6        |           |      |

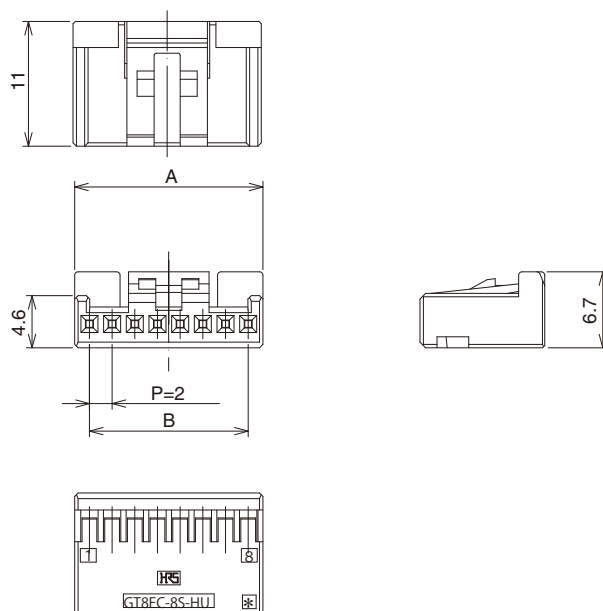
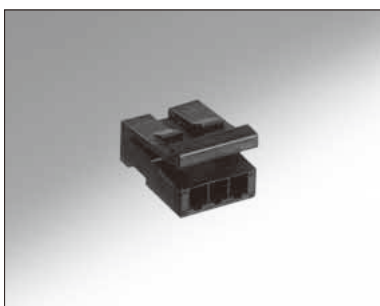
Note 1 : Applicable terminals are GT8E-2022SCF and GT8B-2428SCF.

Note 2 : GT8E-2S-2C can be mated with GT8E-2P-2H(70), GT8E-8/P-2H(70) and GT8E-2P-DS.

GT8E-8S-2C can only be mated with GT8E-8/P-2H(70).

## Female connector

### ● Housing (Low profile type)



| Socket       | Recommended wire | Conductor Size (AWG) | Outer Diameter |
|--------------|------------------|----------------------|----------------|
| GT8EC- *S-HU | GT8E-2022SCF     | 20 to 22 AWG         | φ1.3 to 1.5    |
|              | GT8B-2428SCF     | 24 to 28 AWG         | φ0.9 to 1.1    |

| Part No.     | HRS No.       | No. of contacts | A dimension | B dimension | Packaging | RoHS |
|--------------|---------------|-----------------|-------------|-------------|-----------|------|
| GT8EC-3S-HU  | 758-1017-3 00 | 3               | 7.9         | 4           | 1         | YES  |
| GT8EC-5S-HU  | 758-0074-1 00 | 5               | 12          | 8           |           |      |
| GT8EC-8S-HU  | 758-1018-6 00 | 8               | 16.6        | 14          |           |      |
| GT8EC-14S-HU | 758-0224-2 00 | 14              | 28.4        | 26          |           |      |

GT5

GT13

GT16

PO5G

GT19

GT21

GT26

GT36

GT11

GT17

GT32

GT3

GT7

GT10

GT18W

GT25

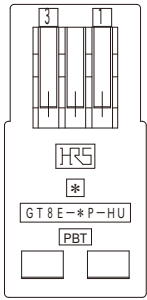
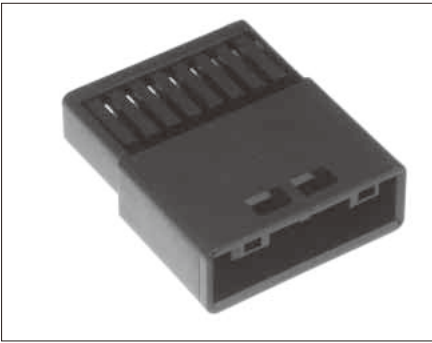
Internal connection

GT8E

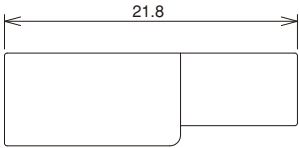
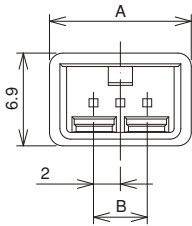
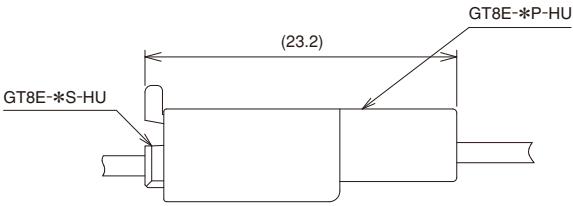
GT9

GT15

In-line Connectors



Fitting diagram



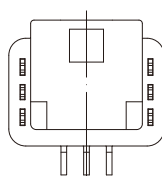
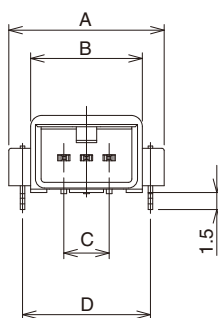
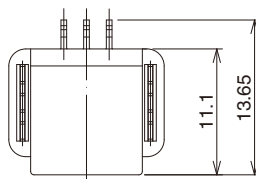
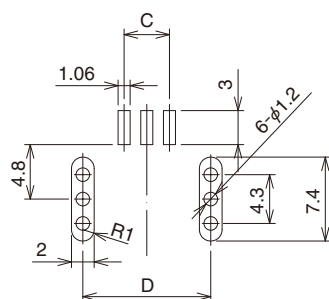
| Part No.   | HRS No.    | Material | Color | No. of contacts | A dimension | B dimension | Packaging | RoHS |
|------------|------------|----------|-------|-----------------|-------------|-------------|-----------|------|
| GT8E-3P-HU | 758-0084-5 | PBT      | Black | 3               | 10.55       | 4           | 1         | Yes  |
| GT8E-4P-HU | 758-0082-0 |          |       | 4               |             | 6           |           |      |
| GT8E-8P-HU | 758-0038-8 |          |       | 8               | 18.55       | 14          |           |      |

Note 1 : GT8E-3P-HU can only be mated with GT8E-3S-HU. GT8E-4P-HU can only be mated with GT8E-4S-HU.  
GT8E-8P-HU can only be mated with GT8E-8S-2C.  
Note 2 : Applicable terminals are GT8E-2022PCF and GT8E-2428PCF.  
Note 3 : GT8E-8P-HU can only be mated with GT8E-8S-HU.

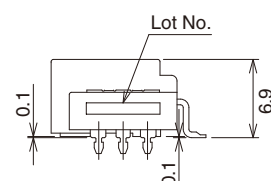
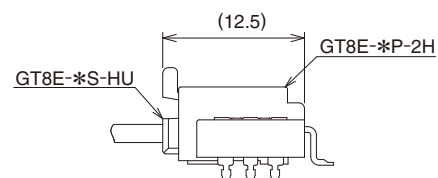
## ■ Right angle pin header (Single-row SMT type)



### ◆ Recommended PCB pattern



### ◆ Fitting diagram



| Part No.       | HRS No.             | Material | Color | No. of contacts | A dimension | B dimension | C dimension | D dimension | Packaging    | RoHS |
|----------------|---------------------|----------|-------|-----------------|-------------|-------------|-------------|-------------|--------------|------|
| GT8EA-2P-2H    | 758-0113-1 00       | PPS      | Black | 2               | 12.9        | 9.05        | 2           | 10.58       | 450 pcs/reel | YES  |
| GT8E-3P-2H     | 758-0096-4 00       |          |       | 3               | 13.7        | 9.85        | 4           | 11.28       | 400 pcs/reel |      |
| GT8E-3P-2H(01) | 758-0096-4 01       |          |       | 4               | 14.4        | 10.55       | 6           | 11.98       | 450 pcs/reel |      |
| GT8E-4P-2H     | 758-0079-5 00       |          |       | 5               | 17.8        | 13.95       | 8           | 15.38       |              |      |
| GT8E-5P-2H     | 758-1004-1 00       |          |       | 6               | 18.4        | 14.55       | 10          | 15.98       |              |      |
| GT8E-6P-2H     | 758-1005-4 00       |          |       | 7               | 21.4        | 17.55       | 12          | 18.98       |              |      |
| GT8E-7P-2H     | (Under development) |          |       | 8               | 22.4        | 18.55       | 14          | 19.98       |              |      |
| GT8E-8P-2H     | 758-1006-7 00       |          |       | 10              | 26.4        | 22.55       | 18          | 23.98       |              |      |
| GT8E-10P-2H    | 758-1007-0 00       |          |       | 14              | 36.4        | 30.55       | 26          | 31.78       |              |      |
| GT8E-14P-2H    | 758-0223-0 00       |          |       |                 |             |             |             |             |              |      |

GT5

GT13

GT16

PO5G

GT19

GT21

GT26

GT36

GT11

GT17

GT32

GT3

GT7

GT10

GT18W

GT25

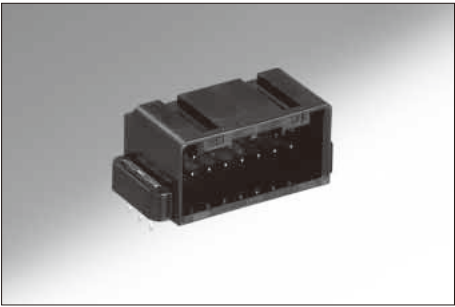
Internal connection

GT8E

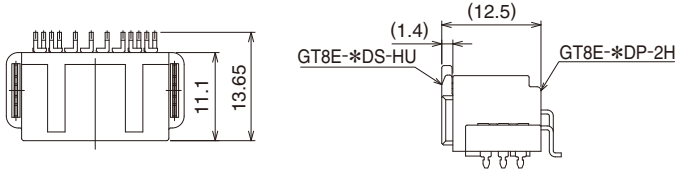
GT9

GT15

Right angle pin header (Double-row SMT type)

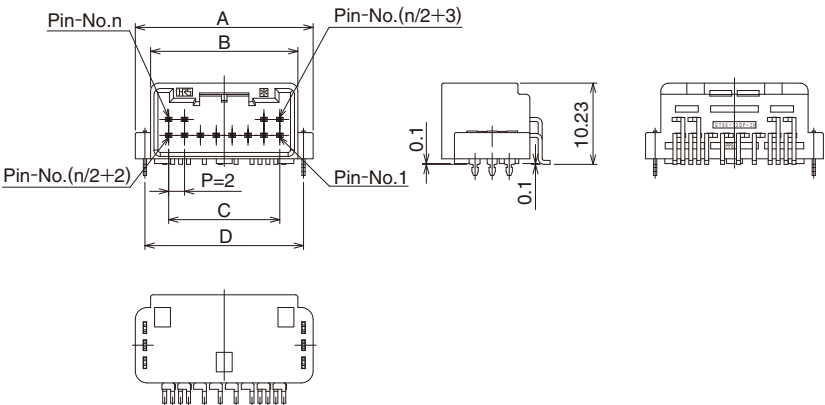
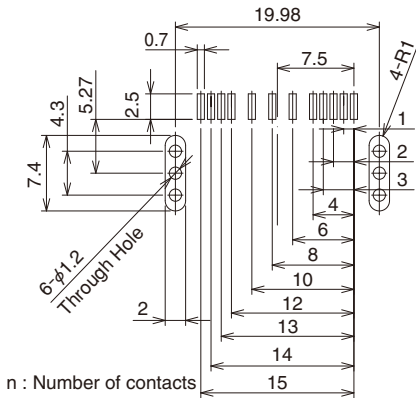


Fitting diagram



Recommended PCB pattern

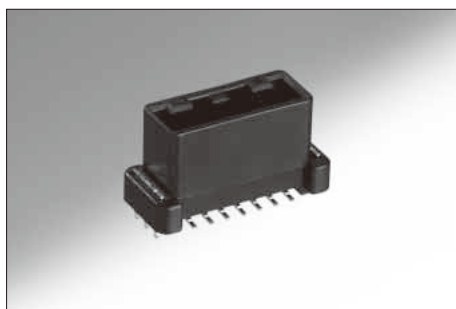
Shown : 12position(GT8E-12DP-2H)  
12, 8, 11, 7, 6, 5, 4, 3, 10, 2, 9, 1



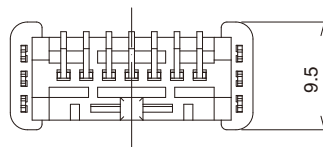
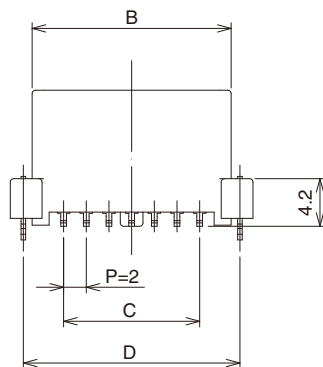
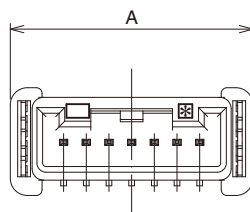
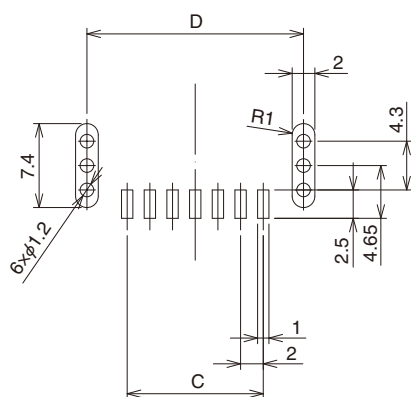
When using different position, please consult with Hirose.

| Part No.     | HRS No.             | Material | Color | No. of contacts | A dimension | B dimension | C dimension | D dimension | Packaging    | RoHS |
|--------------|---------------------|----------|-------|-----------------|-------------|-------------|-------------|-------------|--------------|------|
| GT8E-12DP-2H | 758-1008-2 00       | PPS      | Black | 12              | 22.4        | 18.55       | 14          | 19.98       | 300 pcs/reel | YES  |
| GT8E-16DP-2H | 758-1009-5 00       |          |       | 16              | 27.45       | 23.6        | 18          | 25.03       |              |      |
| GT8E-20DP-2H | (Under development) |          |       | 20              | 30.2        | 26.35       | 22          | 27.78       |              |      |
| GT8E-24DP-2H | 758-1011-7 00       |          |       | 24              | 34.2        | 30.35       | 26          | 31.78       |              |      |

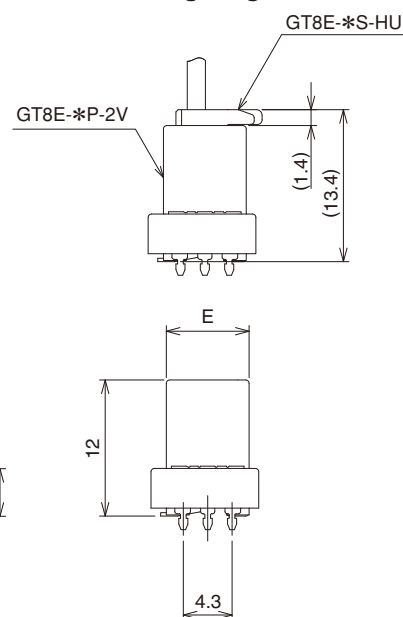
## ■ Straight pin header (Single-row SMT type)



### ◆Recommended PCB pattern



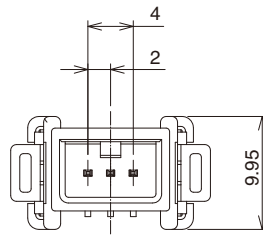
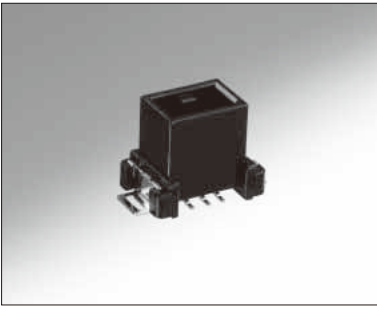
### ◆Fitting diagram



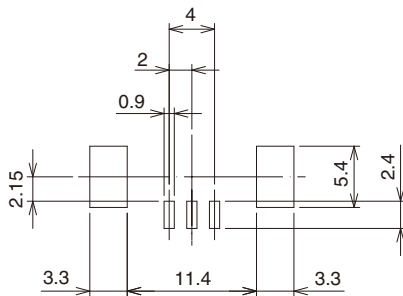
| Part No.    | HRS No.       | Material | Color | No. of contacts | A dimension | B dimension | C dimension | D dimension | E dimension | Packaging    | RoHS |
|-------------|---------------|----------|-------|-----------------|-------------|-------------|-------------|-------------|-------------|--------------|------|
| GT8E-2P-2V  | 758-0202-0 00 | PPS      | Black | 2               | 13          | 9.15        | 2           | 10.6        | 6.85        | 300 pcs/reel | YES  |
| GT8E-4P-2V  | 758-0121-0 00 |          |       | 4               | 14.4        | 10.55       | 6           | 11.98       | 7.3         |              |      |
| GT8E-7P-2V  | 758-0227-0 00 |          |       | 7               | 21.4        | 17.55       | 12          | 19.1        |             |              |      |
| GT8E-10P-2V | 758-0232-0 00 |          |       | 10              | 26.4        | 22.55       | 18          | 24.1        |             |              |      |



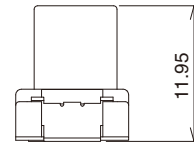
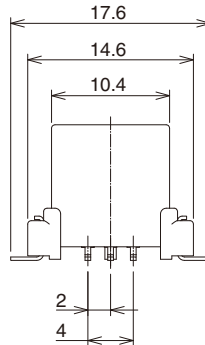
# ■ Straight pin header (Single-row, SMT with L shaped metal fittings)



## ◆Recommended PCB pattern

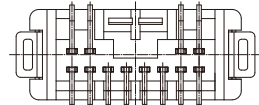
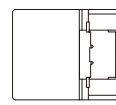
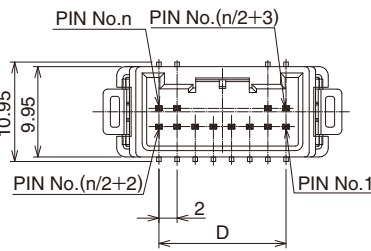
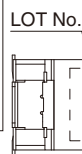
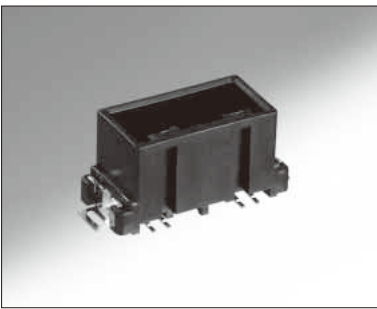


GT8EH-3P-2V

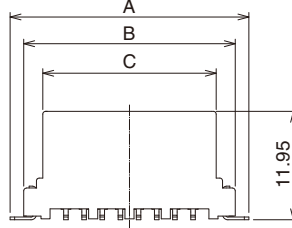
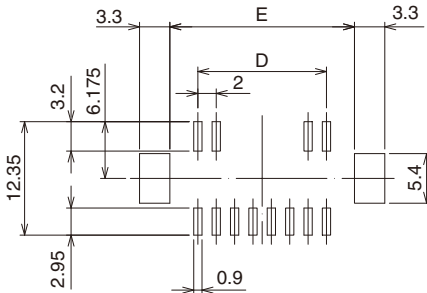


| Part No.    | HRS No.       | Material | Color | No. of contacts | Packaging    | RoHS |
|-------------|---------------|----------|-------|-----------------|--------------|------|
| GT8EH-3P-2V | 758-1016-0 00 | PPS      | Black | 3               | 200 pcs/reel | YES  |

# ■ Straight pin header (Double-row, SMT with L shape metal fittings)



## ◆Recommended PCB pattern



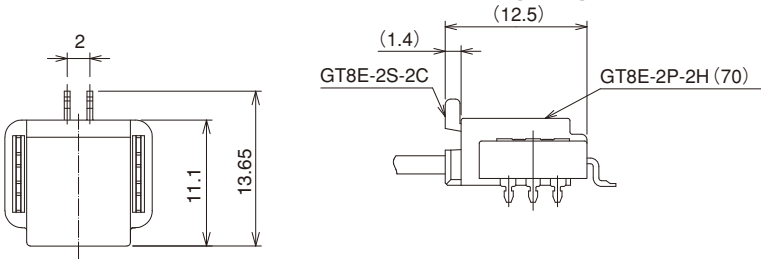
n : Number of contacts

| Part No.      | HRS No.             | Material | Color | No. of contacts | A    | B    | C    | D  | E    | Packaging    | RoHS |
|---------------|---------------------|----------|-------|-----------------|------|------|------|----|------|--------------|------|
| GT8EH-12DP-2V | (Under development) | PPS      | Black | 12              | 26.3 | 23.3 | 19.1 | 14 | 20.1 | 200 pcs/reel | YES  |
| GT8EH-14DP-2V |                     |          |       | 14              | 28.3 | 25.3 | 21.1 | 16 | 22.1 |              |      |
| GT8EH-24DP-2V |                     |          |       | 24              | 38.3 | 35.3 | 31.1 | 26 | 32.1 |              |      |

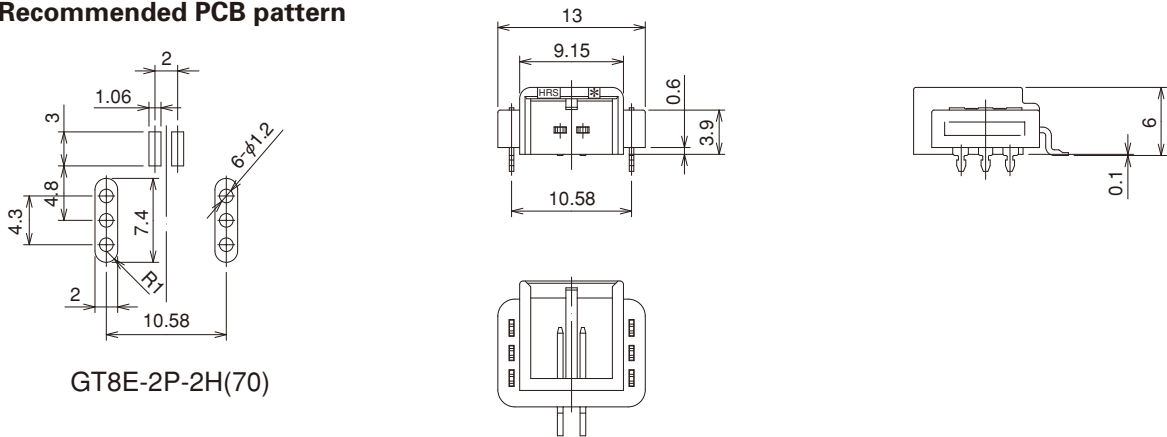
Right angle pin header (Single-row SMT low profile type)



Fitting diagram



Recommended PCB pattern



| Part No.       | HRS No.       | Material | Color | No. of contacts | Packaging    | RoHS |
|----------------|---------------|----------|-------|-----------------|--------------|------|
| GT8E-2P-2H(70) | 758-0032-1 70 | PPS      | Black | 2               | 500 pcs/reel | YES  |

Note1 : Mates with GT8E-2S-2C.

GT5

GT13

GT16

PO5G

GT19

GT21

GT26

GT36

GT11

GT17

GT32

GT3

GT7

GT10

GT18W

GT25

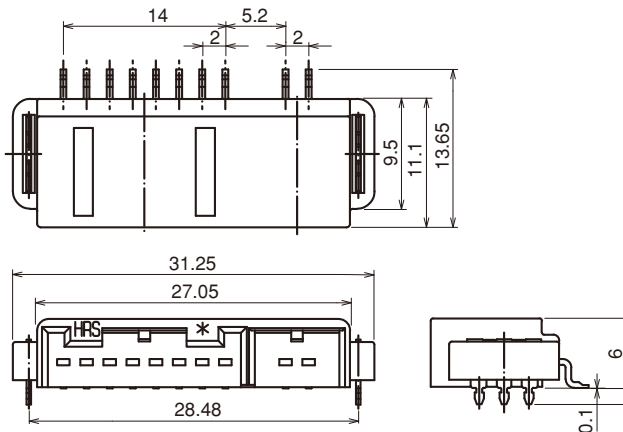
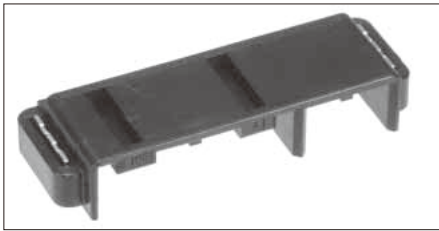
GT8E

GT9

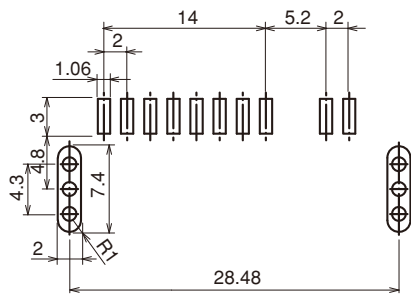
GT15

Internal connection

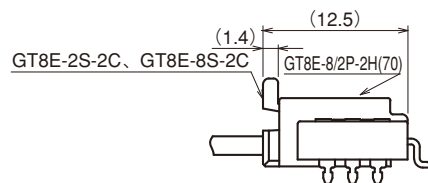
Right angle pin header (Single-row SMT low profile combo type)



Recommended PCB pattern



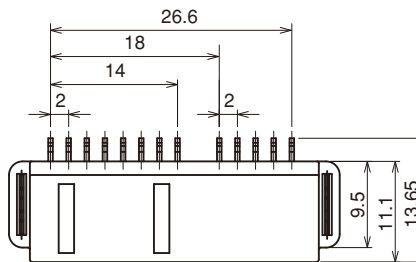
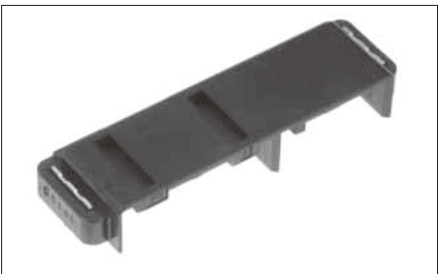
Fitting diagram



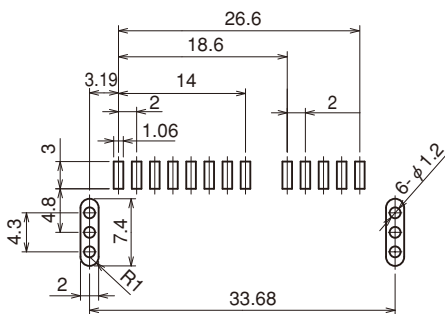
| Part No.         | HRS No.       | Material | Color | Packaging    | RoHS |
|------------------|---------------|----------|-------|--------------|------|
| GT8E-8/2P-2H(70) | 758-0031-9 70 | PPS      | Black | 500 pcs/reel | YES  |

Note : Mates with GT8E-2S-2C and GT8E-8S-2C.

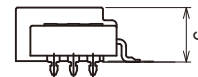
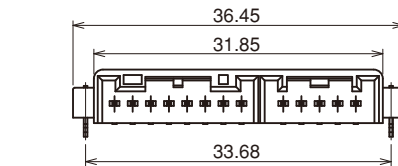
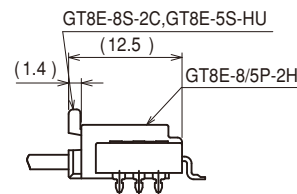
Right angle pin header (Single-row SMT low profile combo type)



Recommended PCB pattern



Fitting diagram



| Part No.     | HRS No.    | Material | Color | Packaging    | RoHS |
|--------------|------------|----------|-------|--------------|------|
| GT8E-8/5P-2H | 758-0073-9 | PPS      | Black | 500 pcs/reel | YES  |

Note : Mates with GT8E-5S-HU and GT8E-8S-2C.

GT5

GT13

GT16

PO5G

GT19

GT21

GT26

GT36

GT11

GT17

GT32

GT3

GT7

GT10

GT18W

GT25

GT8E

GT9

GT15

Internal connection

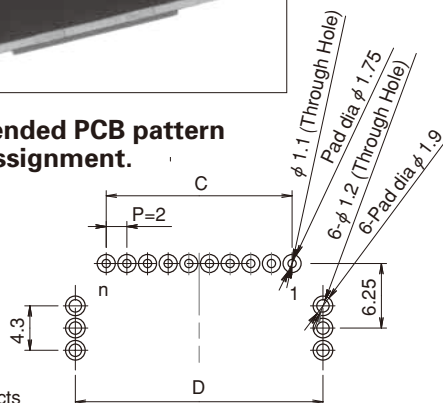
GT15

## Right angle pin header (Single-row DIP type)

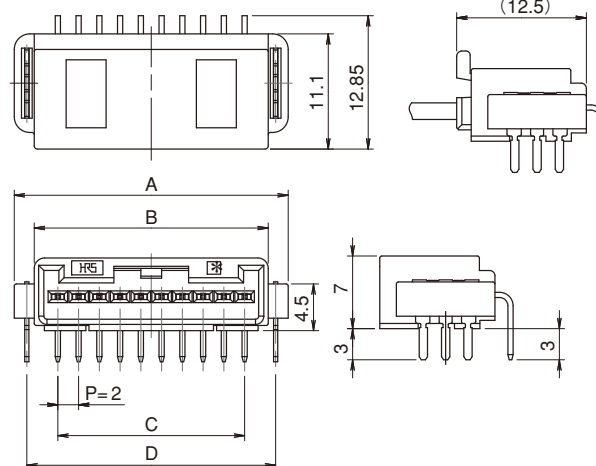
### Fitting diagram



### Recommended PCB pattern and pin assignment.



n : Number of contacts



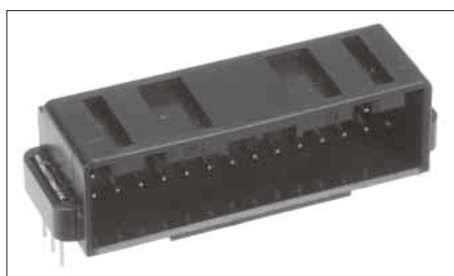
| Part No.    | HRS No.    | Material | Color | No. of contacts | A dimension | B dimension | C dimension | D dimension | Packaging | RoHS |
|-------------|------------|----------|-------|-----------------|-------------|-------------|-------------|-------------|-----------|------|
| GT8E-2P-DS  | 758-0040-0 | PBT      | Black | 2               | 13          | 9.15        | 2           | 10.58       | 1         | YES  |
| GT8E-3P-DS  | 758-0057-2 |          |       | 3               | 13.7        | 9.85        | 4           | 11.28       |           |      |
| GT8E-4P-DS  | 758-0041-2 |          |       | 4               | 14.4        | 10.55       | 6           | 11.98       |           |      |
| GT8E-5P-DS  | 758-0058-5 |          |       | 5               | 17.8        | 13.95       | 8           | 15.38       |           |      |
| GT8E-6P-DS  | 758-0042-5 |          |       | 6               | 18.4        | 14.55       | 10          | 15.98       |           |      |
| GT8E-7P-DS  | 758-0059-8 |          |       | 7               | 21.4        | 17.55       | 12          | 18.98       |           |      |
| GT8E-8P-DS  | 758-0043-8 |          |       | 8               | 22.4        | 18.55       | 14          | 19.98       |           |      |
| GT8E-10P-DS | 758-0044-0 |          |       | 10              | 26.4        | 22.55       | 18          | 23.98       |           |      |

Note 1 : Mates with GT8E-\*S-HU.

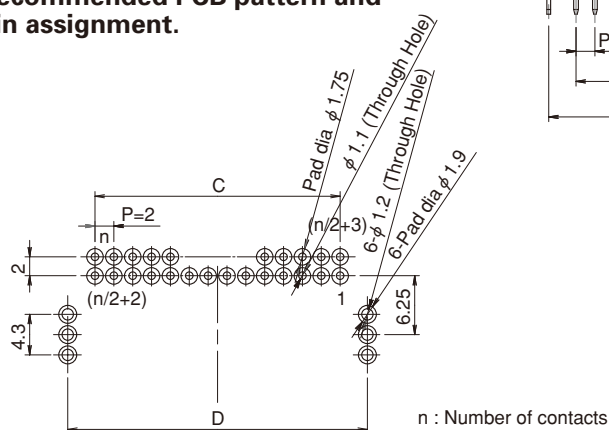
Note 2 : GT8E-2P-DS can only be mated with GT8E-2S-2C.

## Right angle pin header (Double-row DIP type)

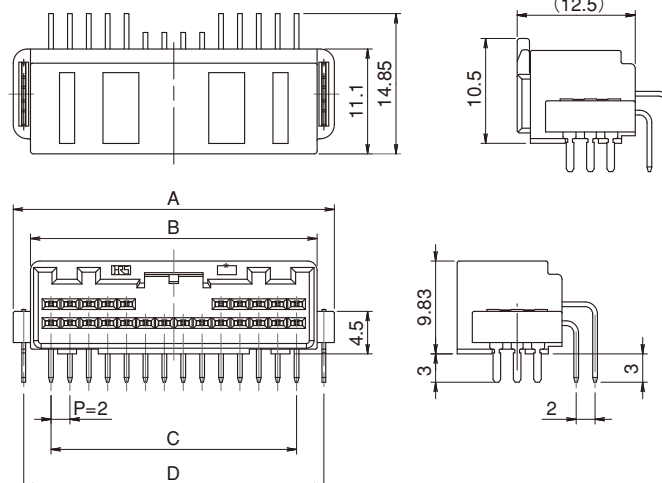
### Fitting diagram



### Recommended PCB pattern and pin assignment.



n : Number of contacts



| Part No.     | HRS No.    | Material | Color | No. of contacts | A dimension | B dimension | C dimension | D dimension | Packaging | RoHS |
|--------------|------------|----------|-------|-----------------|-------------|-------------|-------------|-------------|-----------|------|
| GT8E-12DP-DS | 758-0045-3 | PBT      | Black | 12              | 22.4        | 18.55       | 14          | 19.98       | 1         | YES  |
| GT8E-16DP-DS | 758-0060-7 |          |       | 16              | 27.25       | 23.6        | 18          | 25.03       |           |      |
| GT8E-20DP-DS | 758-0046-6 |          |       | 20              | 30          | 26.35       | 22          | 27.78       |           |      |
| GT8E-24DP-DS | 758-0053-1 |          |       | 24              | 34          | 30.35       | 26          | 31.78       |           |      |

Note 1 : GT8E-2P-DS can only be mated GT8E-2S-2C.

GT5

GT13

GT16

PO5G

GT19

GT21

GT26

GT36

GT11

GT17

GT32

GT3

GT7

GT10

GT18W

GT25

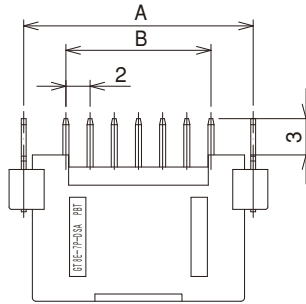
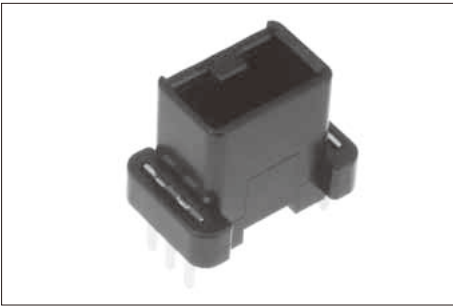
Internal connection

GT8E

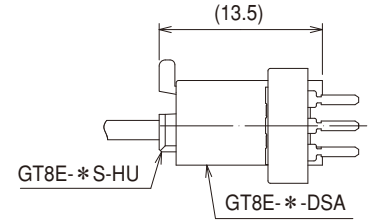
GT9

GT15

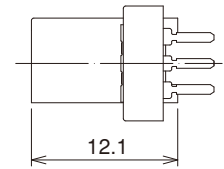
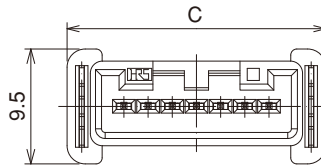
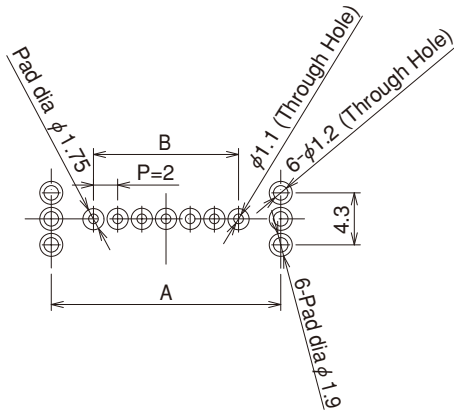
# M connenter straight pin header (DIP type)



## Fitting diagram



## Recommended PCB pattern and Pin No.



| Part No.    | HRS No.       | Material | Color | No. of contacts | A dimension | B dimension | C dimension | Packaging | RoHS |
|-------------|---------------|----------|-------|-----------------|-------------|-------------|-------------|-----------|------|
| GT8E-2P-DSA | 758-0204-5 00 | PA       | Black | 2               | 10.58       | 2           | 13          | 1         | YES  |
| GT8E-3P-DSA | 758-0112-9 00 |          |       | 3               | 11.28       | 4           | 13.7        |           |      |
| GT8E-4P-DSA | 758-0065-0 00 | PBT      |       | 4               | 11.98       | 6           | 14.4        |           |      |
| GT8E-5P-DSA | 758-0205-8 00 | PA       |       | 5               | 16.38       | 8           | 18.8        |           |      |
| GT8E-6P-DSA | 758-0201-7 00 |          |       | 6               | 16.98       | 10          | 19.4        |           |      |
| GT8E-7P-DSA | 758-0066-3 00 | PBT      |       | 7               | 18.98       | 12          | 21.4        |           |      |

## ◆ Crimping tools

User manuals are available. Please contact your Hirose Electric account representative.

### ● Automatic Crimping Machine



Picture reference only

Part No. CM-105C

#### Specifications

| Item              | Specification           | Remarks       |
|-------------------|-------------------------|---------------|
| Press capacity    | 1.5tons                 | —             |
| Stroke Length     | 30mm                    | —             |
| Number of strokes | 200spm (50Hz)           | 240spm (60Hz) |
| Weight            | 72kg                    | —             |
| Motor             | 0.2kw                   | AC100V        |
| Crimping speed    | 2,000 to 4,000 pcs/hour | —             |

### ● Crimping tools

| Terminal Part No. | Terminal HRS No. | Tool No.          | Tool HRS No.  |
|-------------------|------------------|-------------------|---------------|
| GT8B-2428SCF      | 758-0055-7 00    | AP105-GT8B-2428S  | 901-5172-3 00 |
| GT8B-2428SCF(01)  | 758-0055-7 01    |                   |               |
| GT8E-2428PCF      | 758-0067-6 00    | AP105-GT8E-2428P  | 901-5192-0 00 |
| GT8EF-2428PCF     | 758-0106-6 00    | AP105-GT8EF-2428P | 901-5194-6 00 |
| GT8E-2022SCF      | 758-0033-4 00    | AP105-GT8-2022S   | 901-5144-8 00 |
| GT8E-2022SCF(01)  | 758-0033-4 01    |                   |               |
| GT8E-2022PCF      | 758-0039-0 00    | AP105-GT8E-2022P  | 901-5161-7 00 |
| GT8EF-2022PCF     | 758-0111-6 00    | AP105-GT8E-2022P  | 901-5161-7 00 |

Note 1 : Please refer to the crimp height table for each cable type.

Please contact Hirose for additional information.

When using cables not already specified, new crimp heights will need to be determined by Hirose.

### ● Hand tool



| Terminal No.     | Terminal HRS No. | Tool No.         | Tool HRS No.  |
|------------------|------------------|------------------|---------------|
| GT8B-2428SCF     | 758-0055-7 00    | HT102/GT8-2428S  | 780-0019-4 00 |
| GT8B-2428SCF(01) | 758-0055-7 01    |                  |               |
| GT8E-2022SCF     | 758-0033-4 00    | HT304/GT8E-2022S | 780-0042-6 00 |
| GT8E-2022SC      | 758-0101-2 00    |                  |               |
| GT8E-2022SCF(01) | 758-0033-4 01    |                  |               |

Note 1 : HT304/GT8E-2022S is rated for 22 AWG or 0.3mm SQ cable only.

Note 2 : The HT304/GT8E-2022S hand tool can not terminate 20 AWG or 0.5mm SQ cable.

Note 3 : The HT304/GT8E-2022S hand tool terminates contacts one at a time.