

# HD SERIES

## Features

The HD connector series is a new, improved version of the conventional HM series, with a mechanism that minimizes the possibility of terminal back out and semi-engagement of connectors.

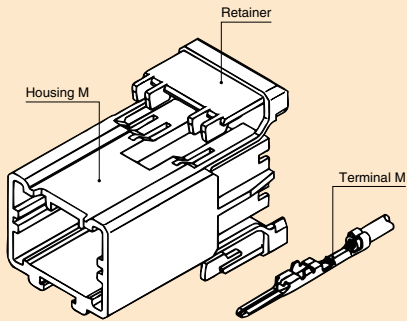
This series consists of 090, 250, and 305 types (090, 187, 250, and 305 types for the hybrid model) classified according to terminal size, covering an extensive array of applications from signal to power circuits.

- An incompletely inserted terminal is automatically adjusted to the correct position by setting a retainer.
- Retainers are integrated with the housing when molded (090 type) or pre-mounted on the housing (250 and 305 types), improving operability.
- An extra clip can be attached to the connector housing to secure it to the car body.

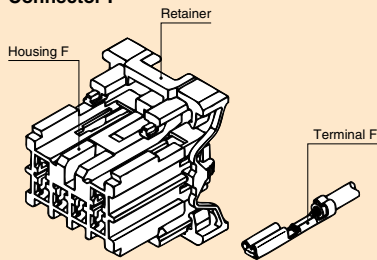
## Structure

E-02

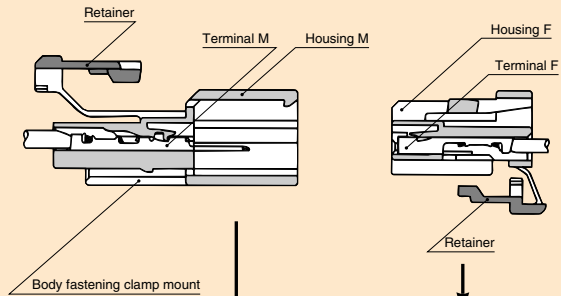
### Connector M



### Connector F



### Before setting retainer



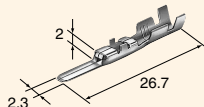
### After setting retainer



※ Retainer eliminates the terminal backing-out by enforcing the lock mechanism.

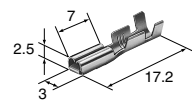
## Terminal (UNIT: mm)

Cable size (mm <sup>2</sup> )	0.3
Cable overall diameter (mm)	1.4~1.9
Material	Brass
Surface treatment	Tin-plated
Reel (piece)	5000
Thickness (mm)	0.3 (Tab thickness : 0.64)



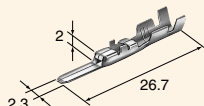
**M(8230-4272)**

Cable size (mm <sup>2</sup> )	0.3
Cable overall diameter (mm)	1.4~1.9
Material	Brass
Surface treatment	Tin-plated
Reel (piece)	5000
Thickness (mm)	0.25



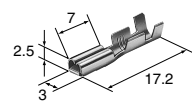
**F(8240-4412)**

Cable size (mm <sup>2</sup> )	0.5~1.25
Cable overall diameter (mm)	1.6~2.9
Material	Brass
Surface treatment	Tin-plated
Reel (piece)	5000
Thickness (mm)	0.3 (Tab thickness : 0.64)



**M(8230-4282)**

Cable size (mm <sup>2</sup> )	0.5~1.25
Cable overall diameter (mm)	1.6~2.9
Material	Brass
Surface treatment	Tin-plated
Reel (piece)	5000
Thickness (mm)	0.25



**F(8240-4422)**

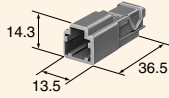
090

## Housing (UNIT: mm)

Material / P.B.T.

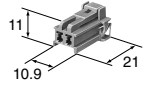
2way

Ref: Terminal part No. E-02  
Color Light Gray



**M(6098-0240)**

Ref: Terminal part No. E-02  
Color Light Gray

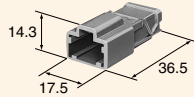


**F(6098-0239)**

E-03

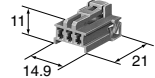
3way

Ref: Terminal part No. E-02  
Color Light Gray



**M(6098-0242)**

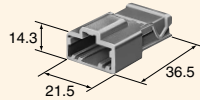
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0241)**

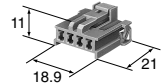
4way

Ref: Terminal part No. E-02  
Color Light Gray



**M(6098-0244)**

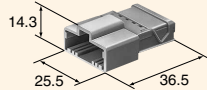
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0243)**

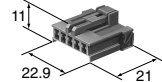
5way

Ref: Terminal part No. E-02  
Color Light Gray



**M(6098-0343)**

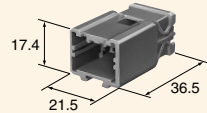
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0344)**

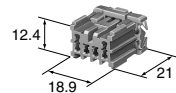
6way

Ref: Terminal part No. E-02  
Color Light Gray



**M(6098-0246)**

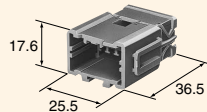
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0245)**

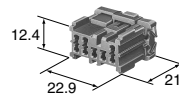
8way

Ref: Terminal part No. E-02  
Color Light Gray  
Note Block type



**M(6098-0248)**

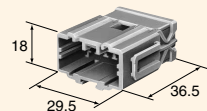
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0247)**

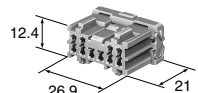
10way

Ref: Terminal part No. E-02  
Color Light Gray  
Note Block type



**M(6098-0250)**

Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0249)**

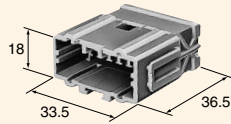
# HD SERIES

090(2.3 mm) / STANDARD

E-04

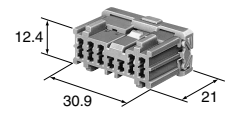
12way

Ref: Terminal part No. E-02  
Color Light Gray  
Note Block type



**M(6098-0252)**

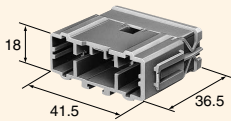
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0251)**

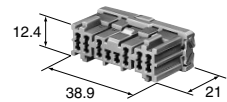
14way

Ref: Terminal part No. E-02  
Color Light Gray  
Note Block type



**M(6098-0254)**

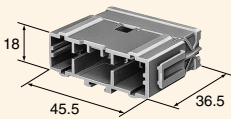
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0253)**

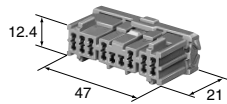
16way

Ref: Terminal part No. E-02  
Color Light Gray  
Note Block type



**M(6098-0256)**

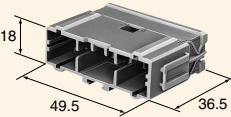
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0255)**

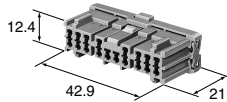
18way

Ref: Terminal part No. E-02  
Color Light Gray  
Note Block type



**M(6098-0258)**

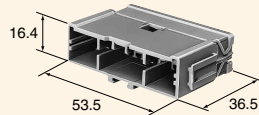
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0257)**

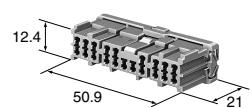
20way

Ref: Terminal part No. E-02  
Color Light Gray  
Note Block type



**M(6098-0260)**

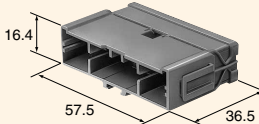
Ref: Terminal part No. E-02  
Color Light Gray



**F(6098-0259)**

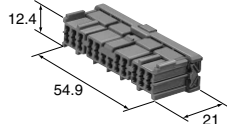
22way

Ref: Terminal part No. E-02  
Color Light Gray  
Note Block type



**M(6098-0814)**

Ref: Terminal part No. E-02  
Color Light Gray

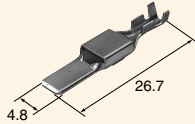


**F(6098-0464)**

## Terminal (UNIT: mm)

●Ref : 090 Terminal List (Page E-02)

Cable size (mm <sup>2</sup> )	0.3
Cable overall diameter (mm)	1.4~1.9
Material	Brass
Surface treatment	Tin-plated
Reel (piece)	3000
Thickness (mm)	0.4 (Tab thickness : 0.8)



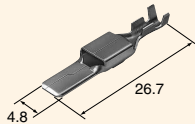
**M(8100-1506)**

Cable size (mm <sup>2</sup> )	0.3
Cable overall diameter (mm)	1.4~1.9
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	3000
Thickness (mm)	0.4



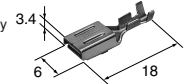
**F(8100-1507)**

Cable size (mm <sup>2</sup> )	0.5~1.25
Cable overall diameter (mm)	1.6~2.9
Material	Brass
Surface treatment	Tin-plated
Reel (piece)	2500
Thickness (mm)	0.4 (Tab thickness : 0.8)



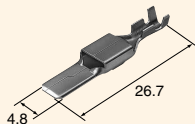
**M(8100-0664)**

Cable size (mm <sup>2</sup> )	0.5~1.25
Cable overall diameter (mm)	1.6~2.9
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	2500
Thickness (mm)	0.4



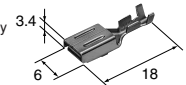
**F(8100-0606)**

Cable size (mm <sup>2</sup> )	2.0~3.0
Cable overall diameter (mm)	2.6~3.8
Material	Brass
Surface treatment	Tin-plated
Reel (piece)	2000
Thickness (mm)	0.4 (Tab thickness : 0.8)



**M(1500-0166)**

Cable size (mm <sup>2</sup> )	2.0~3.0
Cable overall diameter (mm)	2.6~3.8
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	2000
Thickness (mm)	0.4



**F(8100-0782)**

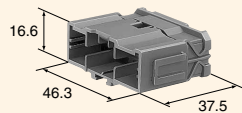
## Housing (UNIT: mm)

Material/P.B.T.

No. of way : ( ) corresponds to 090, 187, in order from left to right.

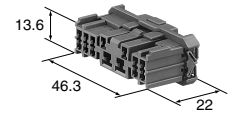
14way  
(12+2)

Ref. Terminal part No.	[090] E-02 [187] E-05
Color	Light Gray



**M(6950-0992)**

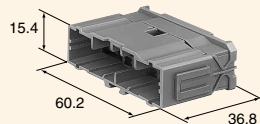
Ref. Terminal part No.	[090] E-02 [187] E-05
Color	Light Gray



**F(6950-0991)**

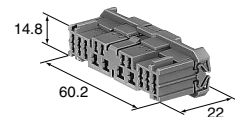
20way  
(16+4)

Ref. Terminal part No.	[090] E-02 [187] E-05
Color	Light Gray



**M(6950-0982)**

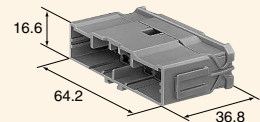
Ref. Terminal part No.	[090] E-02 [187] E-05
Color	Light Gray



**F(6950-0981)**

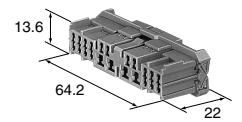
22way  
(18+4)

Ref. Terminal part No.	[090] E-02 [187] E-05
Color	Light Gray



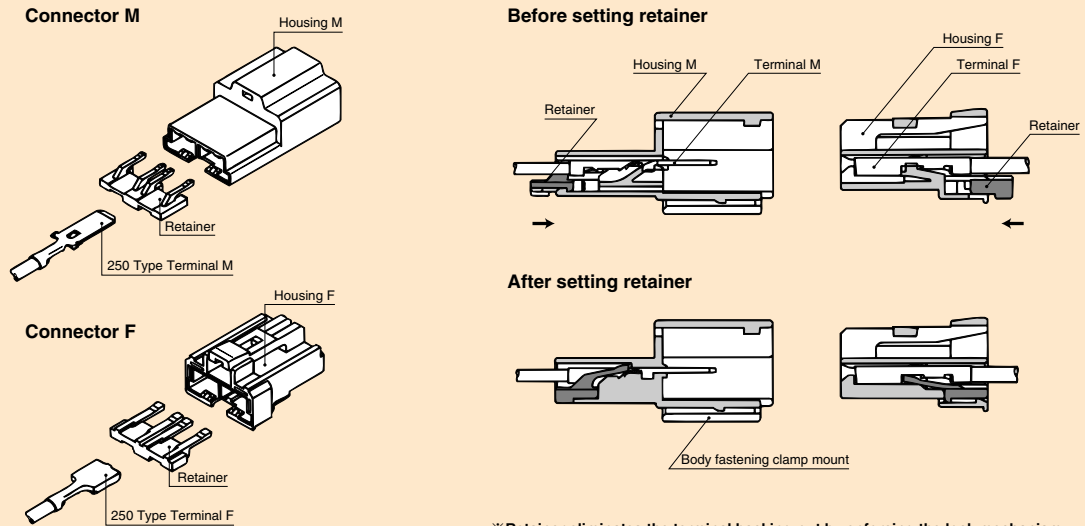
**M(6950-0990)**

Ref. Terminal part No.	[090] E-02 [187] E-05
Color	Light Gray



**F(6950-0989)**

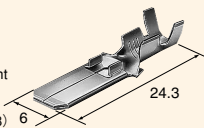
## Structure



※ Retainer eliminates the terminal backing-out by enforcing the lock mechanism.

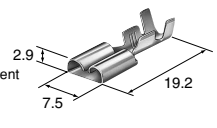
## Terminal (UNIT: mm)

Cable size (mm <sup>2</sup> )	0.3
Cable overall diameter (mm)	1.4~1.9
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	4000
Thickness (mm)	0.4 (Tab thickness : 0.8)



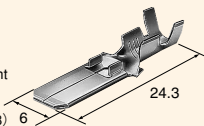
**M(8230-4050)**

Cable size (mm <sup>2</sup> )	0.3
Cable overall diameter (mm)	1.4~1.9
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	5000
Thickness (mm)	0.32



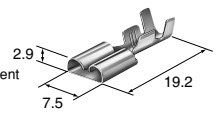
**F(8240-4220)**

Cable size (mm <sup>2</sup> )	0.5~2.0
Cable overall diameter (mm)	1.6~3.4
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	4000
Thickness (mm)	0.4 (Tab thickness : 0.8)



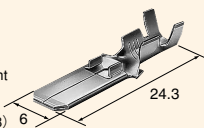
**M(8230-4040)**

Cable size (mm <sup>2</sup> )	0.5~2.0
Cable overall diameter (mm)	1.6~3.4
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	5000
Thickness (mm)	0.32



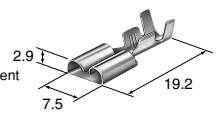
**F(8240-4140)**

Cable size (mm <sup>2</sup> )	2.0~3.0
Cable overall diameter (mm)	2.9~4.1
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	3500
Thickness (mm)	0.4 (Tab thickness : 0.8)



**M(8230-4060)**

Cable size (mm <sup>2</sup> )	2.0~3.0
Cable overall diameter (mm)	2.9~4.1
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	5000
Thickness (mm)	0.32



**F(1500-0081)**

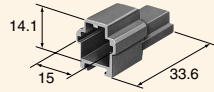
250

## Housing (UNIT: mm)

Material / P.B.T.

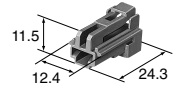
1way

Ref: Terminal part No. E-06  
Color Brown



**M(6098-0232)**

Ref: Terminal part No. E-06  
Color Brown

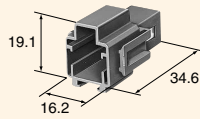


**F(6098-0234)**

E-07

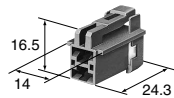
2way

Ref: Terminal part No. E-06  
Color Brown  
Note Block type



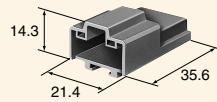
**M(6098-0228)**

Ref: Terminal part No. E-06  
Color Brown



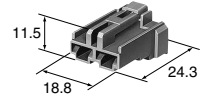
**F(6098-0230)**

Ref: Terminal part No. E-06  
Color Brown



**M(6098-0224)**

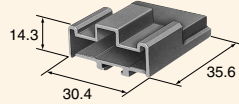
Ref: Terminal part No. E-06  
Color Brown



**F(6098-0226)**

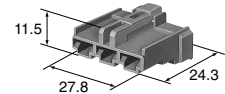
3way

Ref: Terminal part No. E-06  
Color Brown



**M(6098-0220)**

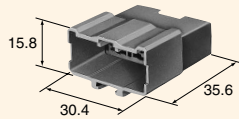
Ref: Terminal part No. E-06  
Color Brown



**F(6098-0222)**

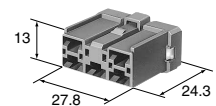
5way

Ref: Terminal part No. E-06  
Color Brown



**M(6098-0216)**

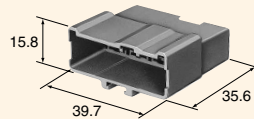
Ref: Terminal part No. E-06  
Color Brown



**F(6098-0218)**

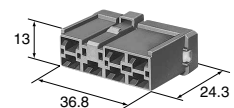
7way

Ref: Terminal part No. E-06  
Color Brown



**M(6098-0212)**

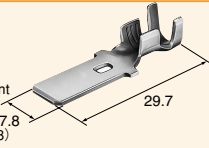
Ref: Terminal part No. E-06  
Color Brown



**F(6098-0214)**

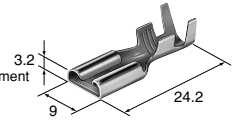
## Terminal (UNIT: mm)

Cable size (mm <sup>2</sup> )	0.85~2.0
Cable overall diameter (mm)	2.1~3.4
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	1500
Thickness (mm)	0.8 (Tab thickness : 0.8)



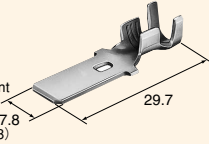
**M(8232-4220)**

Cable size (mm <sup>2</sup> )	0.5~2.0
Cable overall diameter (mm)	2.0~3.4
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	2500
Thickness (mm)	0.4



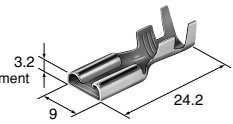
**F(8242-4050)**

Cable size (mm <sup>2</sup> )	3.0~5.0
Cable overall diameter (mm)	3.6~4.9
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	1500
Thickness (mm)	0.8 (Tab thickness : 0.8)



**M(8232-4238)**

Cable size (mm <sup>2</sup> )	3.0~5.0
Cable overall diameter (mm)	3.6~4.9
Material	Brass
Surface treatment	Anti-Corrosion treatment
Reel (piece)	2500
Thickness (mm)	0.4

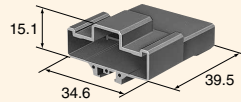


**F(8242-4068)**

## Housing (UNIT: mm)

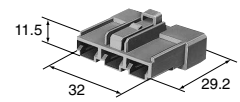
Material / P.B.T.

Ref: Terminal part No.	E-08
Color	Brown



**M(6098-0208)**

Ref: Terminal part No.	E-08
Color	Brown



**F(6098-0210)**

3way



# HD SERIES

250, 305(6.6 mm, 7.8 mm)/HYBRID

## Terminal

●Ref : 250 Terminal List (Page E-06), 305 Terminal List (Page E-08)

## Housing (UNIT: mm)

Material/P.B.T.

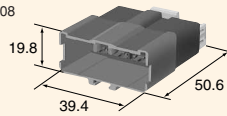
No. of way : ( ) corresponds to 250, 305, in order from left to right.

6way  
(4+2)

Ref. Terminal part No. [250] E-06

[305] E-08

Color Brown

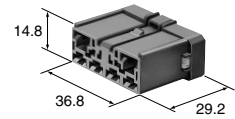


**M(6098-3966)**

Ref. Terminal part No. [250] E-06

[305] E-08

Color Brown



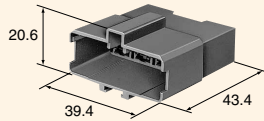
**F(6950-0978)**

7way  
(5+2)

Ref. Terminal part No. [250] E-06

[305] E-08

Color Brown

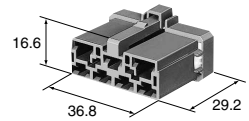


**M(6950-1030)**

Ref. Terminal part No. [250] E-06

[305] E-08

Color Brown

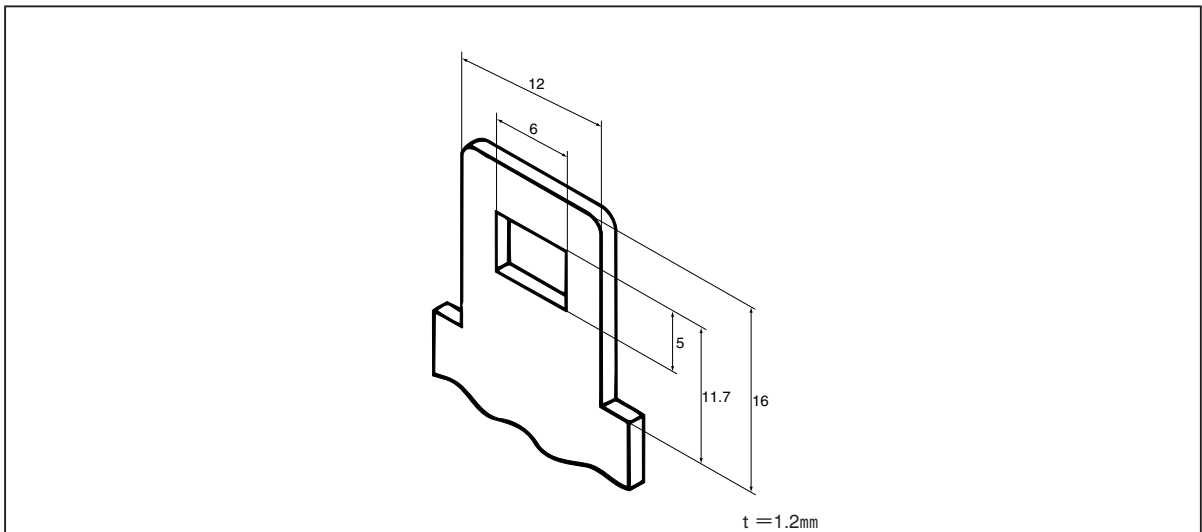


**F(6950-0366)**

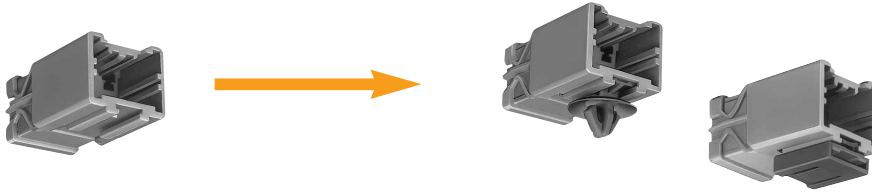
# HD SERIES

## COMMON USE PARTS

### ▶▶ Bracket for attaching (UNIT: mm) ◀◀



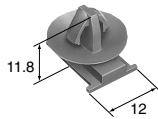
Note) The dimensions as shown here are reference dimensions and detail dimensions for mounting portion of the bracket are specified in the official drawing. Please contact our sales staff.



### ▶▶ Body fastening clamp (UNIT: mm) ◀◀

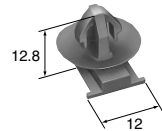
The clamp can be installed to connector M, if necessary, to fasten into the body side hole.  
Clamp fitting size : Plate thickness  $t=0.65\sim 1.6\text{mm}$

Clamp fitting hole size (mm)	$\phi 7$
Clamp fitting thickness (mm)	$t=0.65\sim 1.6$
Material	6 Nylon
Color	Red



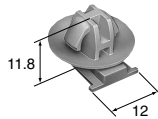
**(6810-1203)**

Clamp fitting hole size (mm)	$\phi 7$
Clamp fitting thickness (mm)	$t=1.6\sim 2.6$
Material	6 Nylon
Color	Brown



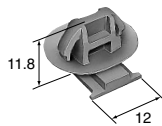
**(6810-1217)**

Clamp fitting hole size (mm)	$\phi 10$
Clamp fitting thickness (mm)	$t=0.65\sim 1.6$
Material	6 Nylon
Color	Natural



**(6810-1204)**

Clamp fitting hole size (mm)	$6\times 12$ (Square hole)
Clamp fitting thickness (mm)	$t=0.65\sim 1.6$
Material	6 Nylon
Color	Orange

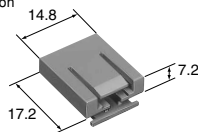


**(6810-1462)**

### ▶▶ Body fastening clamp (Bracket type) (UNIT: mm) ◀◀

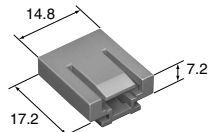
Connector M can be accoupled with clamp, if necessary, to fasten to the body side bracket.

Bracket direction	Connector mating direction
Material	6 Nylon
Color	Red



**(6910-0119)**

Bracket direction	Anti clock wise
Material	6 Nylon
Color	Natural



**(6910-0120)**