

# HM SERIES

## (Outdated connector)

P-01

### Features

The HM connector series has a 4 mm pitch between terminal poles.  
This series consists of a 2.3mm type (2.3mm and 6.6mm types for the hybrid model) classified according to terminal size, supporting use in a variety of control circuits and low power circuits.

- A joint model allows you to integrate multiple connectors, regardless of the number of ways.
- A splice connector is also available.

### 特長

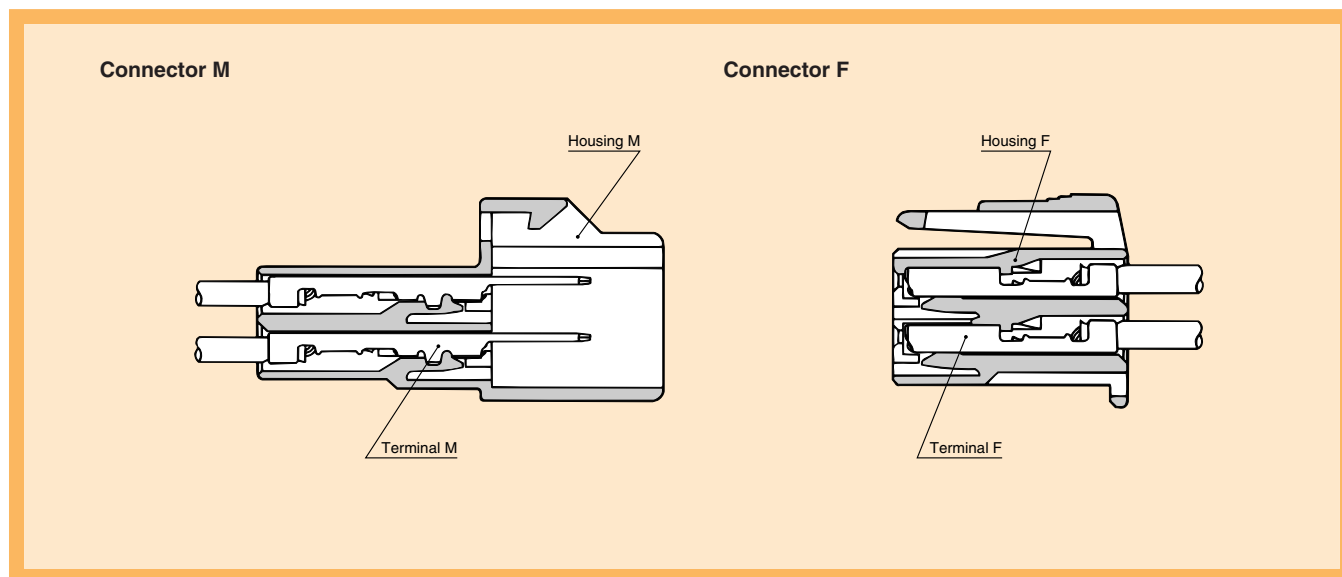
HMシリーズは各種の制御回路、並びに低パワー回路に適するターミナル極間ピッチ4mmのコネクタシリーズです。  
ターミナルサイズが2.3mm (ハイブリッドは2.3mm・6.6mm) で構成されており、各種の制御回路並びに低パワー回路に対応することができます。

- 連結型は同極数のコネクタ、異なるコネクタ同士の連結が可能です。
- スプライスコネクタも設定いたしました。

In case of purchasing the subject parts, please contact our sales office.  
Some part may not be in production.

当コネクタシリーズをご選定の際には、弊社営業担当者に生産対応可否をご確認ください。

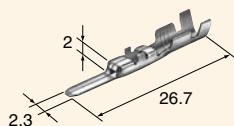
### Structure / 構造



### Terminal (mm)

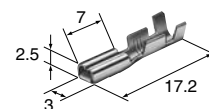
P-02

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.2~0.3
Cable overall diameter (mm) 電線仕上り外径	1.4~1.9
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.3



**M(8230-4272)**

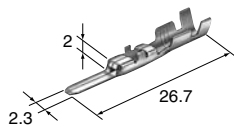
Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.2~0.3
Cable overall diameter (mm) 電線仕上り外径	1.4~1.9
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.25



**F(8240-4412)**

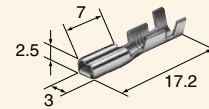
090

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.5~1.25
Cable overall diameter (mm) 電線仕上り外径	1.6~2.9
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.3



**M(8230-4282)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.5~1.25
Cable overall diameter (mm) 電線仕上り外径	1.6~2.9
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.25



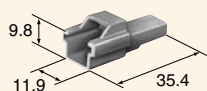
**F(8240-4422)**

### Housing (mm)

Material / 66Nylon  
Color / Natural

2way

Ref: Terminal part No. P-02  
ターミナル参照頁



**M(6090-1031)**

Ref: Terminal part No. P-02  
ターミナル参照頁

Note  
備考 With clamp for 7mm dia.  
φ7用クランプ付

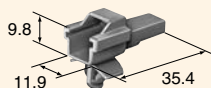
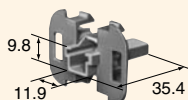


Plate thickness range for clamp :  
t=0.7~2.2

**M(6090-1126)**

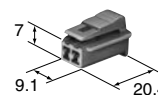
Ref: Terminal part No. P-02  
ターミナル参照頁

Note  
備考 Flanged  
パネル取付タイプ



**F(6181-1001)**

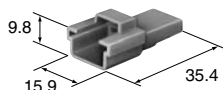
Ref: Terminal part No. P-02  
ターミナル参照頁



**F(6090-1001)**

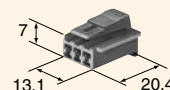
3way

Ref: Terminal part No. P-02  
ターミナル参照頁



**M(6090-1131)**

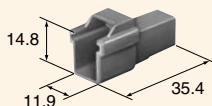
Ref: Terminal part No. P-02  
ターミナル参照頁



**F(6090-1136)**

4way

Ref: Terminal part No. P-02  
ターミナル参照頁



**M(6090-1041)**

Ref: Terminal part No. P-02  
ターミナル参照頁

Note  
備考 With clamp for 7mm dia.  
φ7用クランプ付

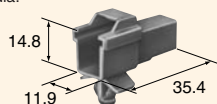
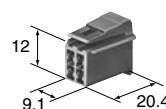


Plate thickness range for clamp :  
t=0.7~2.2

**M(6090-1123)**

Ref: Terminal part No. P-02  
ターミナル参照頁



**F(6090-1011)**

P-03

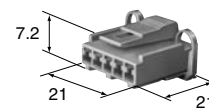
Plate thickness range for clamp=クランプ適用板厚

### Housing (mm)

Material / 66Nylon  
Color / Natural

5way  
(Secondary Locking Type)  
(二重係止タイプ)

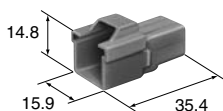
Ref: Terminal part No. P-02  
ターミナル参照頁



**F(6090-1256)**

6way

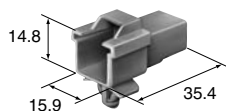
Ref: Terminal part No. P-02  
ターミナル参照頁



**M(6090-1149)**

Ref: Terminal part No. P-02  
ターミナル参照頁

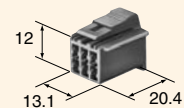
Note  
備考 With clamp for 7mm dia.  
φ7用クランプ付



**M(6090-1124)**

Plate thickness range for clamp :  
t=0.7~2.2

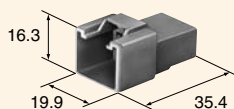
Ref: Terminal part No. P-02  
ターミナル参照頁



**F(6090-1218)**

P-04

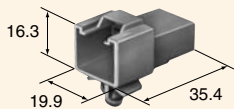
Ref: Terminal part No. P-02  
ターミナル参照頁



**M(6090-1051)**

Ref: Terminal part No. P-02  
ターミナル参照頁

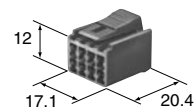
Note  
備考 With clamp for 7mm dia.  
φ7用クランプ付



**M(6090-1125)**

Plate thickness range for clamp :  
t=0.7~2.2

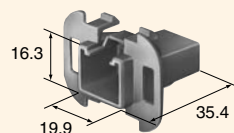
Ref: Terminal part No. P-02  
ターミナル参照頁



**F(6090-1021)**

Ref: Terminal part No. P-02  
ターミナル参照頁

Note  
備考 Flanged  
パネル取付タイプ

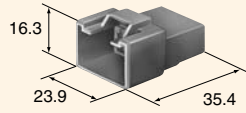


**M(6090-1122)**

Plate thickness range for clamp=クランプ適用板厚

10way

Ref: Terminal part No. P-02  
ターミナル参照頁



**M(6090-1056)**

Ref: Terminal part No. P-02  
ターミナル参照頁

Note  
備考 With clamp for 7mm dia.  
φ7用クランプ付

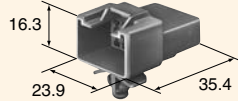


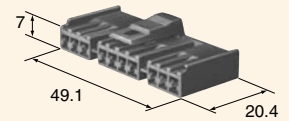
Plate thickness range for clamp :  
t=0.7~2.2 **M(6090-1127)**

Ref: Terminal part No. P-02  
ターミナル参照頁



**F(6090-1220)**

Ref: Terminal part No. P-02  
ターミナル参照頁



**F(6090-1254)**

10way

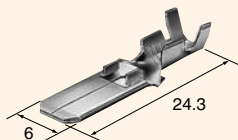
Plate thickness range for clamp=クランプ適用板厚

### Terminal (mm)

● Ref : 090 Terminal List (Page P-02)

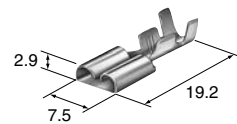
● 090ターミナルはP-02に掲載。

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.3
Cable overall diameter (mm) 電線仕上り外径	1.4~1.9
Material 材質	Brass 黄銅
Surface treatment 表面処理	AntP-Corrosion treatment
Thickness (mm) 板厚	0.4



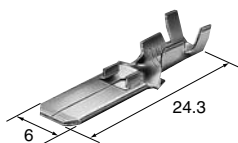
**M(8230-4050)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.3
Cable overall diameter (mm) 電線仕上り外径	1.4~1.9
Material 材質	Brass 黄銅
Surface treatment 表面処理	AntP-Corrosion treatment
Thickness (mm) 板厚	0.32



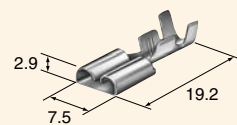
**F(8240-4220)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.5~2.0
Cable overall diameter (mm) 電線仕上り外径	1.6~3.4
Material 材質	Brass 黄銅
Surface treatment 表面処理	AntP-Corrosion treatment
Thickness (mm) 板厚	0.4



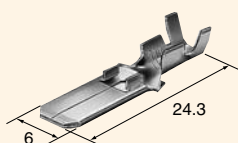
**M(8230-4040)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.5~2.0
Cable overall diameter (mm) 電線仕上り外径	1.6~3.4
Material 材質	Brass 黄銅
Surface treatment 表面処理	AntP-Corrosion treatment
Thickness (mm) 板厚	0.32



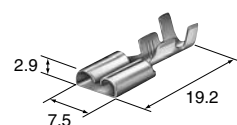
**F(8240-4140)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	2.0~3.0
Cable overall diameter (mm) 電線仕上り外径	2.9~4.1
Material 材質	Brass 黄銅
Surface treatment 表面処理	AntP-Corrosion treatment
Thickness (mm) 板厚	0.4



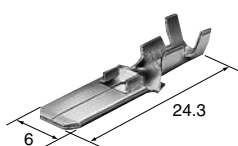
**M(8230-4060)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	2.0~3.0
Cable overall diameter (mm) 電線仕上り外径	2.9~4.1
Material 材質	Brass 黄銅
Surface treatment 表面処理	AntP-Corrosion treatment
Thickness (mm) 板厚	0.32



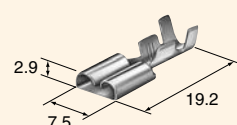
**F(1500-0081)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.3
Cable overall diameter (mm) 電線仕上り外径	1.4~1.9
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.4



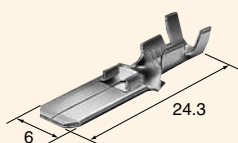
**M(8230-4052)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.3
Cable overall diameter (mm) 電線仕上り外径	1.4~1.9
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.32



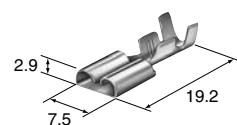
**F(8240-4202)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.5~2.0
Cable overall diameter (mm) 電線仕上り外径	1.6~3.4
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.4



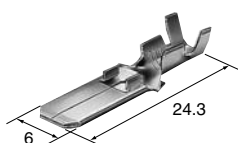
**M(8230-4042)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	0.5~2.0
Cable overall diameter (mm) 電線仕上り外径	1.6~3.4
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.32



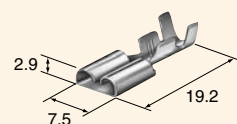
**F(8240-4182)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	2.0~3.0
Cable overall diameter (mm) 電線仕上り外径	2.9~4.1
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.4



**M(8230-4062)**

Cable size (mm <sup>2</sup> ) 適用電線サイズ	2.0~3.0
Cable overall diameter (mm) 電線仕上り外径	2.9~4.1
Material 材質	Brass 黄銅
Surface treatment 表面処理	Tin-plated Snメッキ
Thickness (mm) 板厚	0.32



**F(8240-4538)**

AntP-Corrosion treatment=防錆処理

### Housing (mm)

Material / 66Nylon

Color / Natural

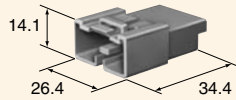
No. of way / ( ) corresponds to 090, 250, in order from left to right.

極数 / ( ) 内表示 : 左から090極数、250極数

6way

(4+2)

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06

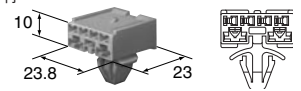


**M(6090-1250)**

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06

Note  
備考

With clamp for 7mm dia.  
φ7用クランプ付



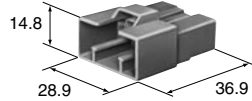
**F(6090-1251)**

Plate thickness range for clamp :  
t=0.7~2.2  
The corners are rounded.  
10×8mm

8way

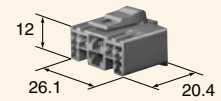
(6+2)

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06



**M(6090-1231)**

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06

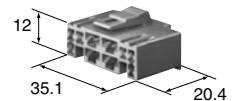


**F(6090-1224)**

10way

(6+4)

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06

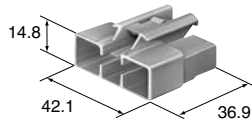


**F(6090-1230)**

14way

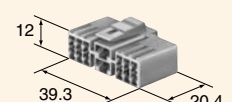
(12+2)

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06



**M(6090-1119)**

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06



**F(6090-1219)**

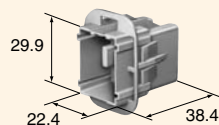
19way

(18+1)

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06

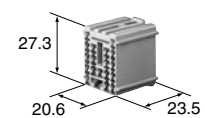
Note  
備考

Flanged  
パネル取付タイプ



**M(6090-1182)**

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06



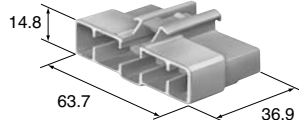
**F(6090-1183)**

23way

(22+1)

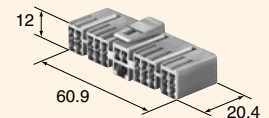
Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06

Note  
備考



**M(6090-1120)**

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06



**F(6090-1117)**

Plate thickness range for clamp=クランプ適用板厚

### Housing (mm)

Material / 66Nylon

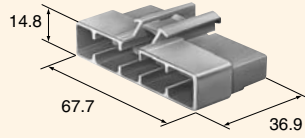
Color / Natural

No. of way / ( ) corresponds to 090, 250, in order from left to right.

極数 / ( ) 内表示 : 左から090極数、250極数

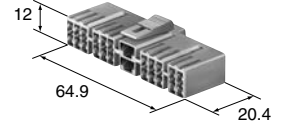
24way  
(22+2)

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06



M(6090-1121)

Ref: Terminal part No. [090] P-02  
ターミナル参照頁 [250] P-06

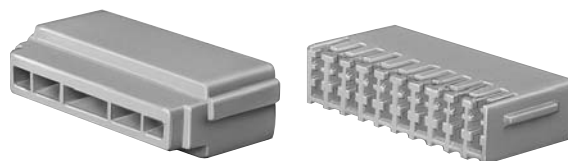


F(6090-1118)



The rationalization and reliability are appreciably improved, by concentrating the splices in the wiring harness at one position.

ワイヤハーネス内のスプライスを一カ所に集中させる事により、ワイヤハーネス製造の合理化ができ、信頼性が向上します。



### Splice connector

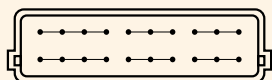
Material / 66Nylon

Type 1	Color 色相	Black	Ref: Terminal part No. ターミナル参照頁	P-02	Connector F (Mate) No.	F(6400-0012)
			Color 色相	Black		
Type 2	Color 色相	Green	Ref: Terminal part No. ターミナル参照頁	P-02	Connector F (Mate) No.	F(6400-0013)
			Color 色相	Green		
Type 3	Color 色相	Gray	Ref: Terminal part No. ターミナル参照頁	P-02	Connector F (Mate) No.	F(6400-0081)
			Color 色相	Gray		
Type 4	Color 色相	Blue	Ref: Terminal part No. ターミナル参照頁	P-02	Connector F (Mate) No.	F(6400-0014)
			Color 色相	Blue		
Type 5	Color 色相	Natural	Ref: Terminal part No. ターミナル参照頁	P-02	Connector F (Mate) No.	F(6400-0010)
			Color 色相	Natural		

P-09

Type 6

Color  
色相 Orange



**M(6409-0075)**

Ref: Terminal part No.  
ターミナル参照頁 P-02

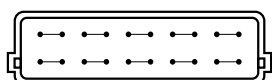
Color  
色相 Orange

Connector F (Mate) No.

**F(6400-0016)**

Type 7

Color  
色相 Red



**M(6409-0070)**

Ref: Terminal part No.  
ターミナル参照頁 P-02

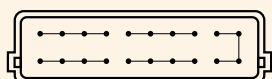
Color  
色相 Red

Connector F (Mate) No.

**F(6400-0011)**

Type 8

Color  
色相 Yellow



**M(6409-0074)**

Ref: Terminal part No.  
ターミナル参照頁 P-02

Color  
色相 Yellow

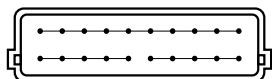
Connector F (Mate) No.

**F(6400-0015)**

P-10

Type 9

Color  
色相 Pink



**M(6440-0128)**

Ref: Terminal part No.  
ターミナル参照頁 P-02

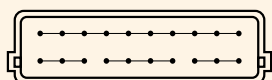
Color  
色相 Pink

Connector F (Mate) No.

**F(6440-0129)**

Type 10

Color  
色相 Brown



**M(6409-0603)**

Ref: Terminal part No.  
ターミナル参照頁 P-02

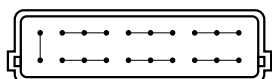
Color  
色相 Brown

Connector F (Mate) No.

**F(6400-0186)**

Type 11

Color  
色相 Wisteria Violet



**M(6440-0135)**

Ref: Terminal part No.  
ターミナル参照頁 P-02

Color  
色相 Wisteria Violet

Connector F (Mate) No.

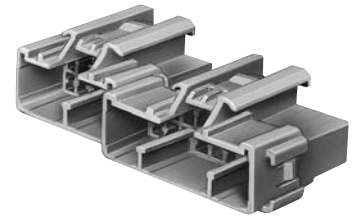
**F(6440-0136)**

The connectors which have different number of ways as well as the same number of ways can be connected each other. It is also possible to connect with the block type ET connectors.

Clamping a single connector on a device, etc. where only a narrow clamping location is available makes it possible to clamp a multiple number of connector.

同極数のコネクタ、異なる極数のコネクタ同志の連結が可能です。

また、ETコネクタのブロックタイプとの連結も可能な多目的コネクタです。機器等への固定場所が少ないところにも1つのコネクタを固定することにより多数のコネクタを同時に固定することが可能です。



### Housing (mm)

Material / 66Nylon  
Color / Natural

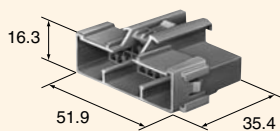
13way	Ref: Terminal part No. ターミナル参照頁 P-02  <b>M(6090-1090)</b>	Ref: Terminal part No. ターミナル参照頁 P-02  <b>F(6090-1061)</b>
	Ref: Terminal part No. ターミナル参照頁 P-02  <b>M(6090-1221)</b>	Ref: Terminal part No. ターミナル参照頁 P-02  <b>F(6090-1064)</b>
16way	Ref: Terminal part No. ターミナル参照頁 P-02  <b>M(6090-1099)</b>	Ref: Terminal part No. ターミナル参照頁 P-02  <b>F(6090-1071)</b>
	Ref: Terminal part No. ターミナル参照頁 P-02  <b>M(6090-1101)</b>	Ref: Terminal part No. ターミナル参照頁 P-02  <b>F(6090-1073)</b>
20way	Ref: Terminal part No. ターミナル参照頁 P-02  <b>M(6090-1107)</b>	Ref: Terminal part No. ターミナル参照頁 P-02  <b>F(6090-1081)</b>

### Housing (mm)

Material / 66Nylon  
Color / Natural

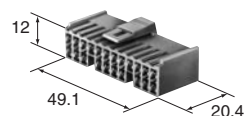
22way

Ref: Terminal part No.  
ターミナル参照頁 P-02



**M(6090-1112)**

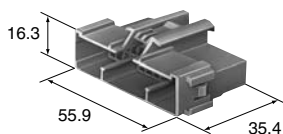
Ref: Terminal part No.  
ターミナル参照頁 P-02



**F(6090-1086)**

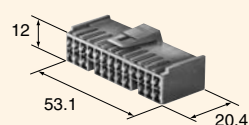
24way

Ref: Terminal part No.  
ターミナル参照頁 P-02



**M(6090-1113)**

Ref: Terminal part No.  
ターミナル参照頁 P-02



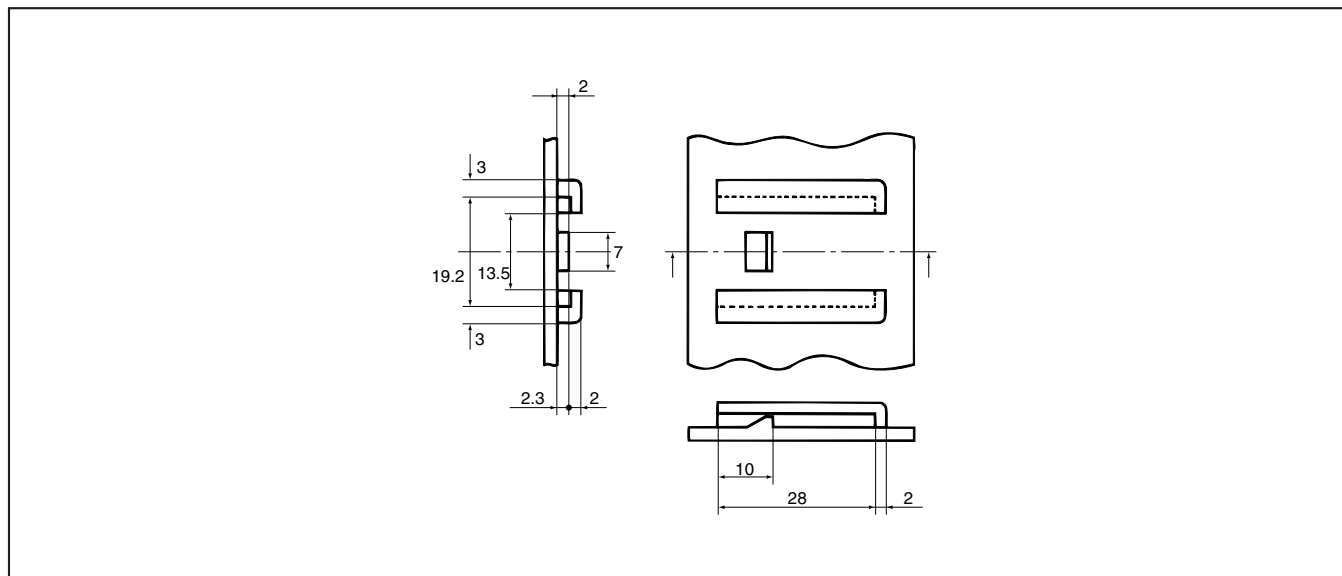
**F(6090-1087)**

### ▶▶ Shape of Mating Support (mm) ◀◀

090 Blocking type M housing can be mounted by providing the support as indicated above to the mating parts.

090連結型Mハウジングは、下図のようなサポート部を設ける事により固定することが出来ます。

P-12



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

※上記寸法は参考寸法です。取付部詳細寸法は別途図面により規定しますので、弊社営業担当にお問い合わせください。

### ▶▶ Dimensions of Installation Panel (mm) ◀◀

Housings mentioned above can be mounted by machining the panel as indicated in the figure.

下記ハウジングにはパネルに下図の様な加工をする事により、固定することができます。

