

SL SEALED SERIES

Features

Q-01

The SL sealed connector series is a highly reliable connector with a single locking structure.

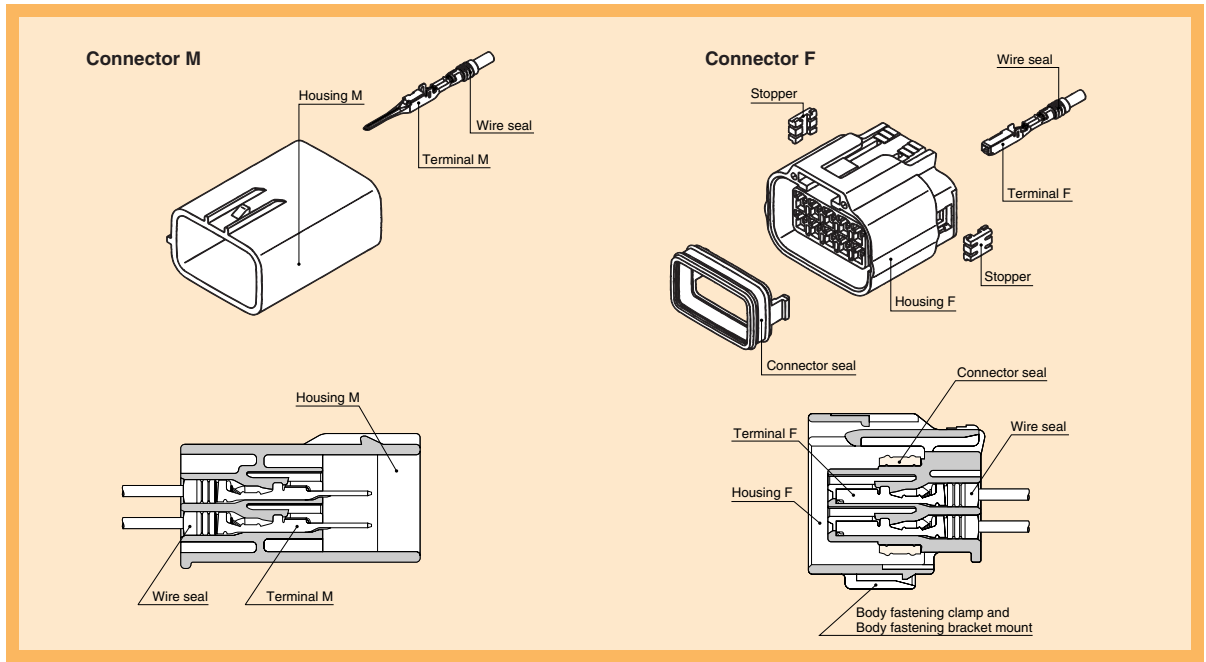
This series consists of 040, 060, 090, and 312 types classified according to terminal size, covering an extensive array of applications from signal to power circuits.

- An inertia locking system is used to prevent semi-engagement.
- These connectors can be directly secured to a bracket on the car body.

In addition, an extra clip can be attached to the connector to secure it to the car body.

(Note: Please use a dedicated jig for this connector series. Our sales staff are available for inquiries related to this jig.)

Structure



Terminal

●Ref: 040 Terminal List (Page O-02)

Wire seals

●Ref: 040 Wire seal List (Page O-03)

Dummy plugs

●Ref: 040 Dummy plug List (Page O-03)

Body fastening clamp

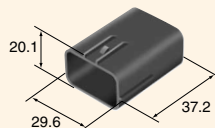
●Ref: Body fastening clamp List (Page Q-14)

Housing (UNIT: mm)

Material / P.B.T.

8way

Ref: Terminal part No.	O-02
Ref: Wire seal No.	O-03
Ref: Dummy plug No.	O-03
Color	Black



M(6181-0520)

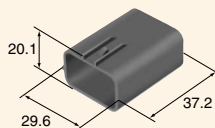
Ref: Terminal part No.	O-02
Ref: Wire seal No.	O-03
Ref: Dummy plug No.	O-03
Color	Black



F(6189-0767)

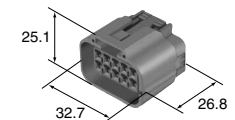
10way

Ref: Terminal part No.	O-02
Ref: Wire seal No.	O-03
Ref: Dummy plug No.	O-03
Color	Dark Gray



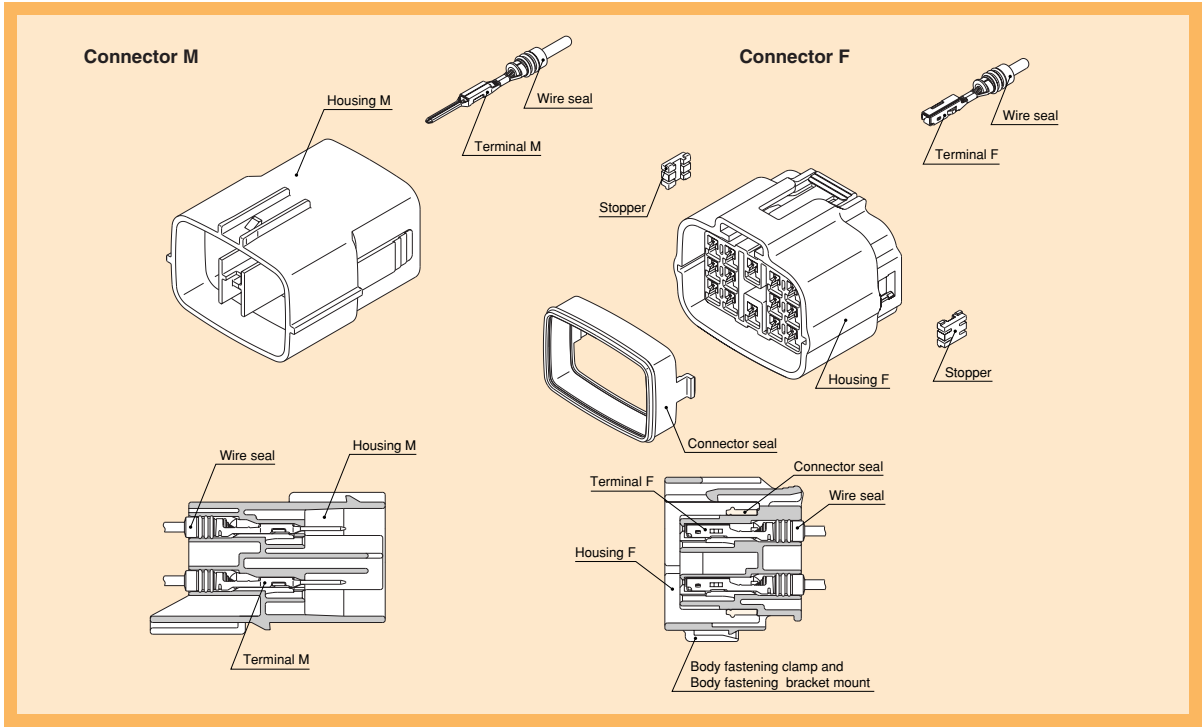
M(6181-0521)

Ref: Terminal part No.	O-02
Ref: Wire seal No.	O-03
Ref: Dummy plug No.	O-03
Color	Dark Gray



F(6189-0768)

Structure



Terminal (UNIT: mm)

※For terminal selection, please contact our sales staff.

Q-03

Cable size (mm ²)	0.3~0.5
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	4000
Thickness (mm)	0.3

(Tab thickness : 0.8)

M(8100-3388)

Cable size (mm ²)	0.3~0.5
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	4000
Thickness (mm)	0.25

(Tab thickness : 0.8)

F(8100-3397)

Cable size (mm ²)	0.3~0.5
Material	Heat-resistant copper alloy
Surface treatment	Gold-plated
Reel (piece)	4000
Thickness (mm)	0.3

(Tab thickness : 0.8)

M(8100-3504)

Cable size (mm ²)	0.3~0.5
Material	Heat-resistant copper alloy
Surface treatment	Gold-plated
Reel (piece)	4000
Thickness (mm)	0.25

(Tab thickness : 0.8)

F(8100-3402)

Cable size (mm ²)	0.75~0.85
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	3500
Thickness (mm)	0.3

(Tab thickness : 0.8)

M(8100-3389)

Cable size (mm ²)	0.75~0.85
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	3500
Thickness (mm)	0.25

(Tab thickness : 0.8)

F(8100-3398)

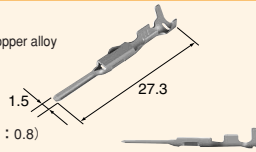
SL SEALED SERIES

060(1.5 mm) / STANDARD

060
(M)

Cable size (mm ²)	0.75~0.85
Material	Heat-resistant copper alloy
Surface treatment	Gold-plated
Reel (piece)	3500
Thickness (mm)	0.3

(Tab thickness : 0.8)

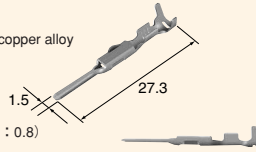


M(8100-3403)

060
(L)

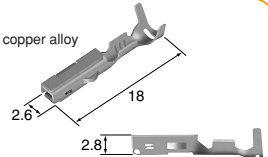
Cable size (mm ²)	1.25~2.0
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	3500
Thickness (mm)	0.3

(Tab thickness : 0.8)



M(8100-3390)

Cable size (mm ²)	1.25~2.0
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	3500
Thickness (mm)	0.25



F(8100-3399)

Wire seals

●Ref: 060 Wire seal List (Page Q-06)

Dummy plugs

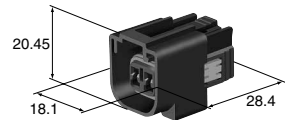
●Ref: 060 Dummy plug List (Page Q-07)

Housing (UNIT: mm)

Material / P.B.T.

2way

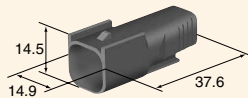
Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-1076)

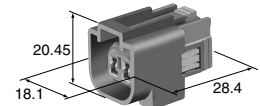
2way

Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray
Note	Q-16
Clamp:TYPE2	



M(6181-6509)

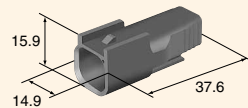
Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



F(6189-1073)

2way

Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black
Note	Q-16
Clamp:TYPE2	



M(6181-6492)

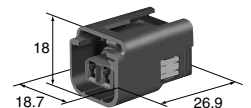
Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black
Note	Q-16
Clamp:TYPE1	



F(6189-1115)

2way

Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



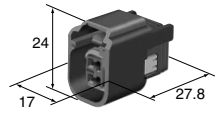
F(6189-1147)

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060(1.5 mm) / STANDARD

2way

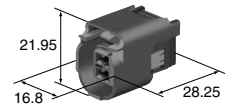
Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-1144)

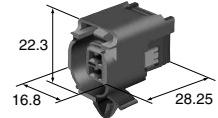
2way

Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



F(6189-1150)

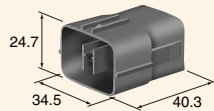
Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



F(6189-1149)

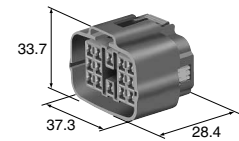
14way

Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



M(6181-0629)

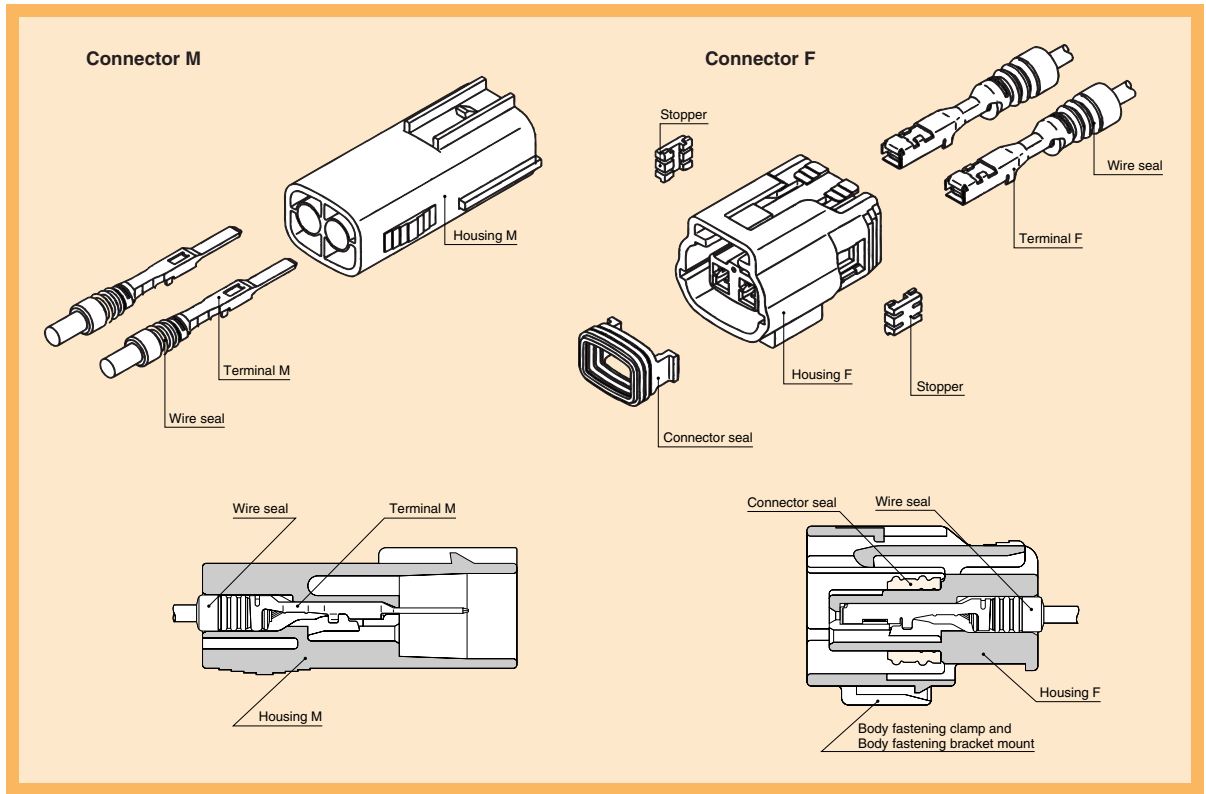
Ref: Terminal part No.	Q-03
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray
NOTE	Q-16
Clamp:TYPE1	



F(6189-1004)

Q-05

Structure



Q-06

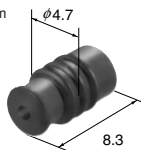
Terminal

● Ref: 090 Terminal List (Page O-07)

Wire seals (UNIT: mm)

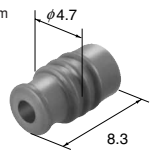
● The wire seals are common to M and F.

Cable overall diameter (mm)	Over than 1.4 mm below 1.6 mm
Material	Silicone
Color	Black



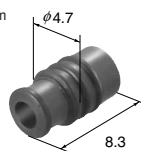
S Type (7165-0516)

Cable overall diameter (mm)	Over than 1.6 mm below 2.4 mm
Material	Silicone
Color	Gray



M Type (7165-0515)

Cable overall diameter (mm)	Over than 2.4 mm below 2.7 mm
Material	Silicone
Color	Dark Green



L Type (7165-0514)

090

SL SEALED SERIES

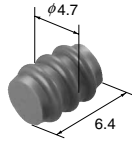
090(2.3 mm) / STANDARD

Dummy plugs (UNIT: mm)

- Dummy plugs are common to M and F.
- Dummy plugs are used to blind unused terminal holes.

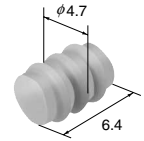
090

Material	N.B.R
Color	Brown



(7161-9787)

Material	Silicone
Color	Green



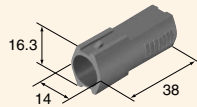
(7165-0193)

Housing (UNIT: mm)

Material / P.B.T.

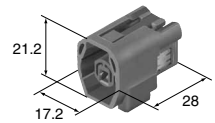
1way

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



M(6181-0436)

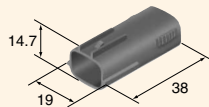
Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray
NOTE	Q-16
Clamp:	TYPE1



F(6189-0639)

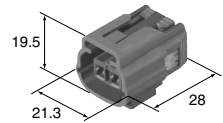
2way

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



M(6181-0437)

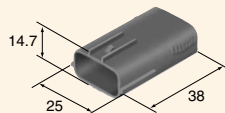
Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray
NOTE	Q-16
Clamp:	TYPE1



F(6189-0640)

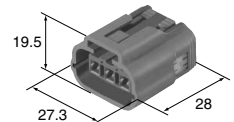
3way

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



M(6181-0438)

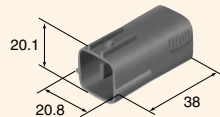
Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray
NOTE	Q-16
Clamp:	TYPE1



F(6189-0638)

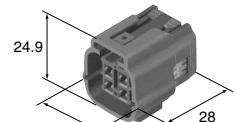
4way

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



M(6181-0439)

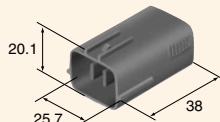
Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray
NOTE	Q-16
Clamp:	TYPE1



F(6189-0643)

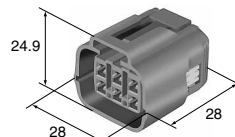
6way

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



M(6181-0440)

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray
NOTE	Q-16
Clamp:	TYPE1



F(6189-0648)

Q-07

SL SEALED SERIES

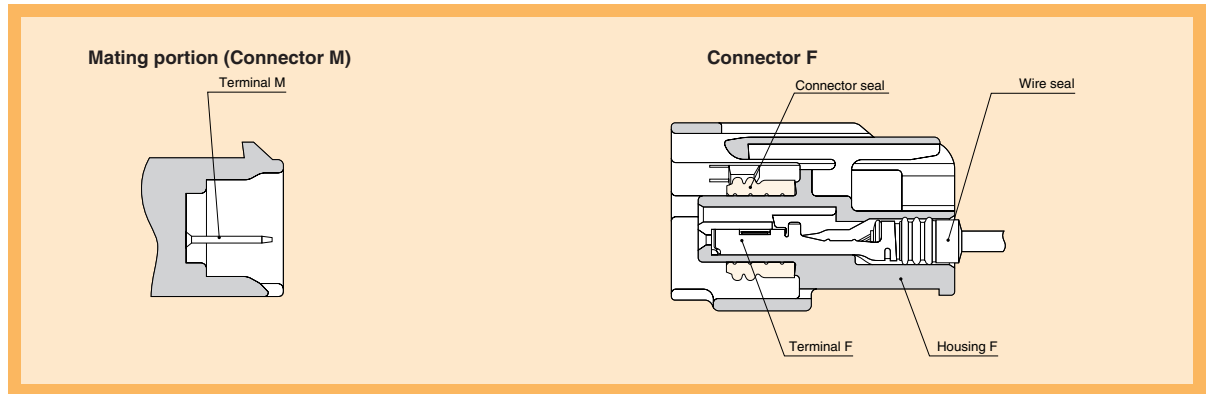
090(2.3 mm)/DIRECT CONNECTION TO MATING DEVICES

These are sealed connectors (only female type) which are directly connected to various kinds of electric units, functional parts, and devices.

It makes the connection simpler and more reliable.

They can be adjusted to meet specific requirements of each counter units and / or parts.

Structure

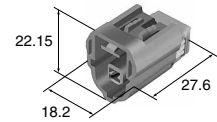


Housing (UNIT: mm)

Material / P.B.T.

1way

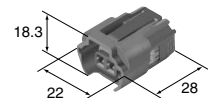
Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Green



F(6189-6920)

Q-08

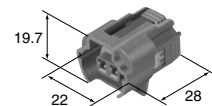
Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



F(6189-0650)

2way
(Special shape)

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



F(6189-0651)

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



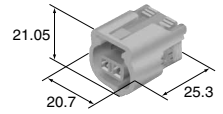
F(6189-0642)

SL SEALED SERIES

090(2.3 mm)/DIRECT CONNECTION TO MATING DEVICES

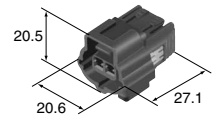
2way
(Special shape)

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Natural



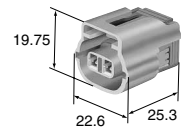
F(6189-0641)

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



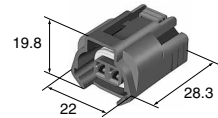
F(6189-0653)

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



F(6189-1091)

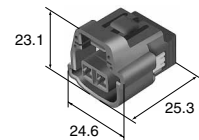
Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-6891)

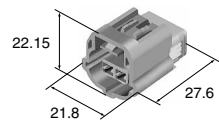
2way

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



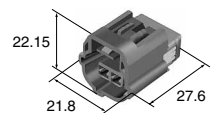
F(6189-1086)

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Light Gray



F(6189-6922)

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-6866)

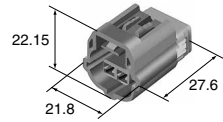
Q-09

SL SEALED SERIES

090(2.3 mm)/DIRECT CONNECTION TO MATING DEVICES

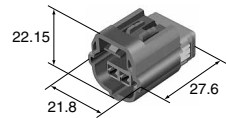
2way

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



F(6189-6921)

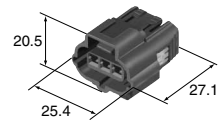
Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-6867)

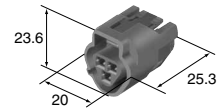
3way

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



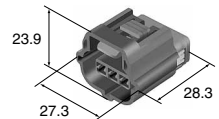
F(6189-0645)

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-0646)

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-6870)

Q-10

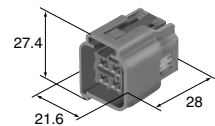
4way

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



F(6189-0644)

Ref: Terminal part No.	O-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Dark Gray



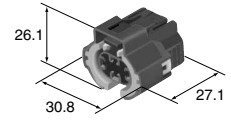
F(6189-0652)

SL SEALED SERIES

090(2.3 mm)/DIRECT CONNECTION TO MATING DEVICES

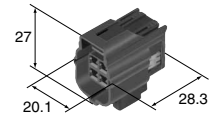
4way

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-0647)

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-0718)

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-6871)

5way

Ref: Terminal part No.	Q-07
Ref: Wire seal No.	Q-06
Ref: Dummy plug No.	Q-07
Color	Black



F(6189-0657)

Q-11

SL SEALED SERIES

090(2.3 mm)/DIRECT CONNECTION TO MATING DEVICES

Terminal

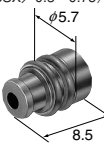
●Ref:090 Terminal List (Page B-09)

Wire seals (UNIT: mm)

- The wire seals are common to M and F.
- P6 : For 6mm pitch housing

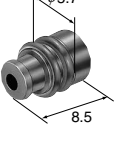
090
(For P6)

Cable size (mm ²)	(AX · AEX/0.3) (AVS/0.3) (AVSS/0.3~0.85) (AVSSX · AES SX/0.3~0.75) (CAVUS/0.85~1.25)
Cable overall diameter (mm)	1.4~2.0
Material	Silicone
Color	Dark Brown



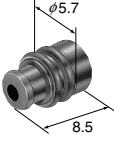
S type **(7165-0349)**

Cable size (mm ²)	(AV/0.5~0.85) (AVX · AEX/0.5~0.75) (AVS/0.5~0.85) (AVSS/1.25) (AVSSX · AES SX/1.25)
Cable overall diameter (mm)	2.0~2.5
Material	Silicone
Color	Dark Green



M type **(7165-0395)**

Cable size (mm ²)	(AV/1.25) (AVX · AEX/1.25) (AVS/1.25) (AVSS/2.0) (AVSSX · AES SX/2.0)
Cable overall diameter (mm)	2.5~2.9
Material	Silicone
Color	Dark Gray



L type **(7165-0351)**

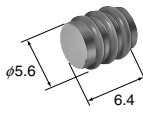
Dummy plugs (UNIT: mm)

- Dummy plugs are common to M and F.
- Dummy plugs are used to blind unused terminal holes.
- P6 : For 6mm pitch housing

Q-12

090
(For P6)

Material	N.B.R.
Color	Black



For P6 **(7160-9465)**

Housing (UNIT: mm)

Material/P.B.T.

3way

Ref: Terminal part No.	B-09
Ref: Wire seal No.	Q-12
Ref: Dummy plug No.	Q-12
Color	Black



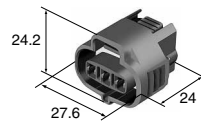
F(6189-6898)

SL SEALED SERIES

090(2.3 mm)/DIRECT CONNECTION TO MATING DEVICES

3way

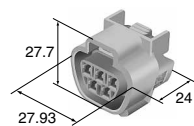
Ref: Terminal part No.	B-09
Ref: Wire seal No.	Q-12
Ref: Dummy plug No.	Q-12
Color	Black



F(6189-6912)

5way

Ref: Terminal part No.	B-09
Ref: Wire seal No.	Q-12
Ref: Dummy plug No.	Q-12
Color	Light Gray

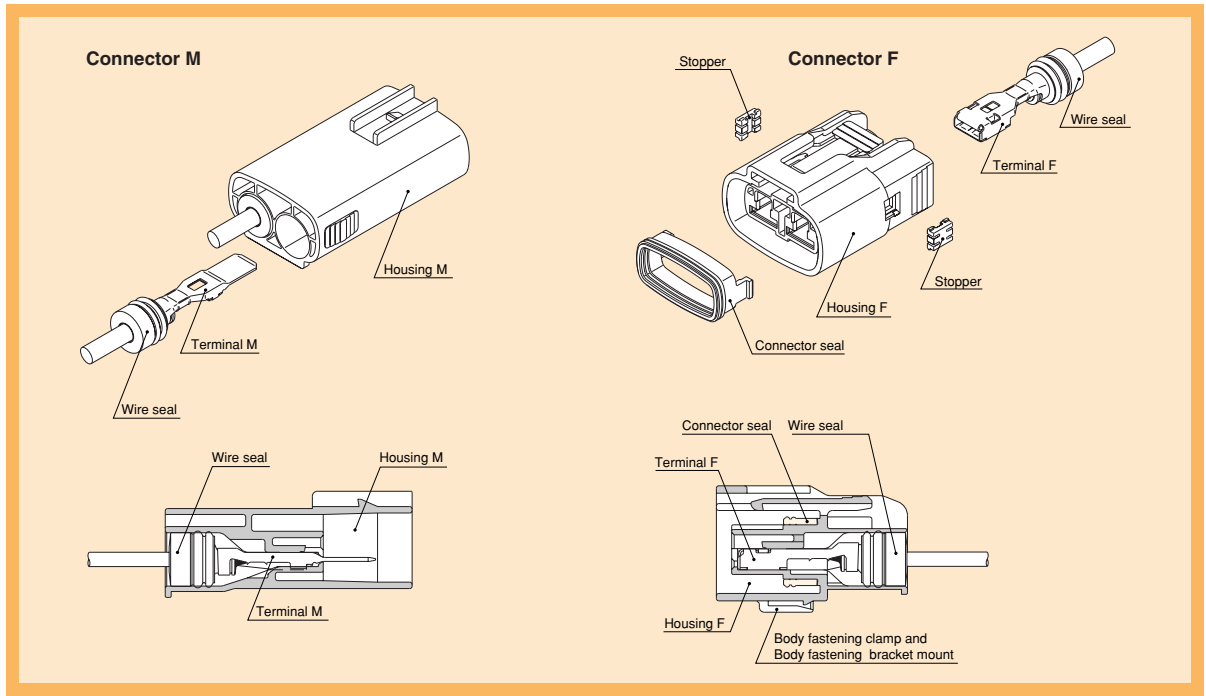


F(6189-1085)

SL SEALED SERIES

312(8.0 mm) / STANDARD

Structure



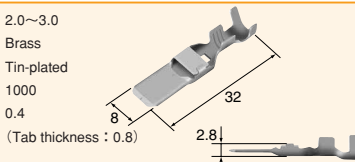
Terminal (UNIT: mm)

※For terminal selection, please contact our sales staff.

Q-14

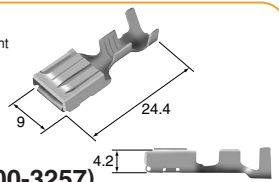
312
(M)

Cable size (mm ²)	2.0~3.0
Material	Brass
Surface treatment	Tin-plated
Reel (piece)	1000
Thickness (mm)	0.4



M(8100-3259)

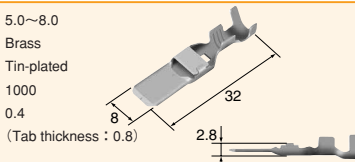
Cable size (mm ²)	2.0~3.0
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	1000
Thickness (mm)	0.4



F(8100-3257)

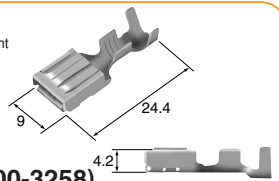
312
(L)

Cable size (mm ²)	5.0~8.0
Material	Brass
Surface treatment	Tin-plated
Reel (piece)	1000
Thickness (mm)	0.4



M(8100-3260)

Cable size (mm ²)	5.0~8.0
Material	Heat-resistant copper alloy
Surface treatment	Tin-plated
Reel (piece)	1000
Thickness (mm)	0.4



F(8100-3258)

Wire seals

●Ref: 312 Wire seal List (Page B-20)

Dummy plugs

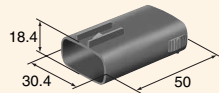
●Ref: 312 Dummy plug List (Page B-21)

Housing (UNIT: mm)

Material / P.B.T.

2way

Ref: Terminal part No.	Q-14
Ref: Wire seal No.	B-20
Ref: Dummy plug No.	B-21
Color	Dark Gray



M(6181-0613)

Ref: Terminal part No.	Q-14
Ref: Wire seal No.	B-20
Ref: Dummy plug No.	B-21
Color	Dark Gray

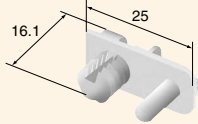


F(6189-0915)

▶▶ Body fastening clamp (UNIT: mm) ◀◀

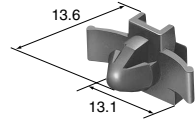
040 standard type, 060 standard type, 090 standard type and 312 standard type connectors, the clamp can be installed.
 ※ The detail dimensions for the mounting portion are specified in drawing

Material	PA66
Color	Natural
Thickness (mm)	t=0.2
hole size	∅7.0



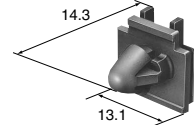
TYPE2 (6810-4982) (CLIP-060-2M)

Material	P.B.T.
Color	Dark Gray
Thickness (mm)	t=0.6~2.0
hole size	7.2×10.2



TYPE1 (6810-0805) (CLIP LA0167C11)

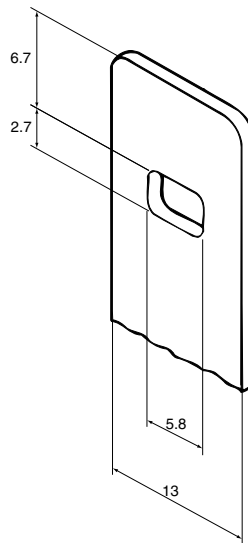
Material	P.B.T.
Color	Brown
Thickness (mm)	t=0.7~2.0
hole size	7.2×10.2



TYPE1 (6810-1584) (CLIP 71-102-BR)

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

040 / STANDARD	For 8・10way
060 / STANDARD	For 2 (some)・14way
090 / STANDARD	For 1・2・3・4・6way
312 / STANDARD	For 2way



Note)

t = 1.2mm

Bracket for fixing the body 040 standard type, 060 standard type, 090 standard type and 312 standard type connectors can be installed directly on the bracket on the body as necessary.

Note) Bracket plate thickness : t=1.2mm

The dimensions as shown here are reference dimensions and detail dimensions for mounting portion of the bracket are specified in the official drawing.

Insert the bracket directly into the mount for the body fastening clamp which is provided on the connector.