

HFD-U2 SERIES (Ethernet Connector)

Features

In-vehicle Ethernet is Ethernet communication technology based on standards suitable for in-vehicle networks in automobiles. Sumitomo HFD-U2 series conforms to the *IEEE 802.3bw 100BASE-T1 (in-vehicle Ethernet) standard. HFD-U2 connector series is based on the Ethernet technology used in consumer and industrial applications, it meets the requirements of automobiles such as harness cost reduction, real-time communication and weight saving by uses UTP (Unshielded Twisted Pair) cables.

*IEEE is an organization in the field of electrical and information engineering and a technology standardization institution based in the United States.

特長

車載ネットワークに適応した通信規格による通信技術を車載 Ethernet と呼びます。

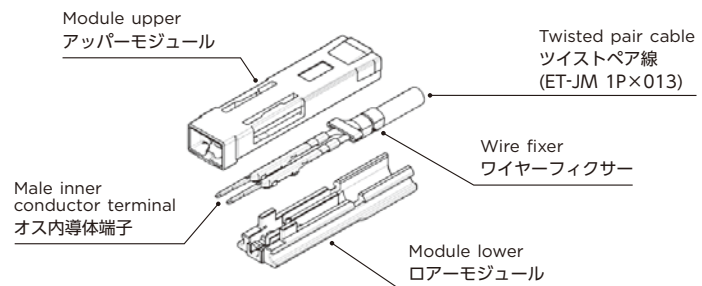
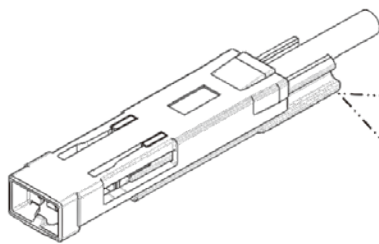
住友電装の HFD-U2 シリーズは、車載 Ethernet の通信規格である *IEEE 802.3bw 100BASE-T1 規格に準拠しております。

産業分野や民生分野で使われている Ethernet 技術をベースに、リアルタイム通信などの自動車で求められる車載 Ethernet 要件に対応し、UTP (Unshielded Twisted Pair) の採用によって省スペースや車体の軽量化、コスト削減のニーズに応えています。

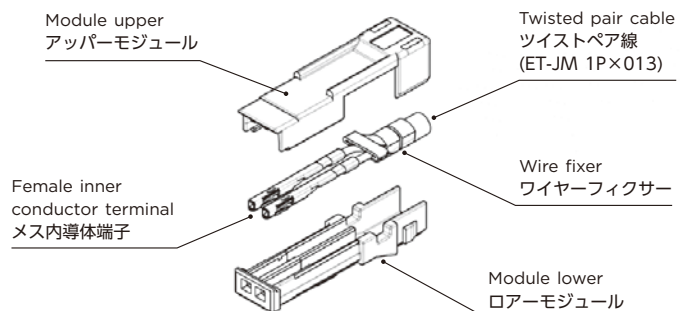
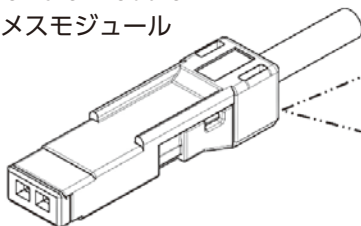
*IEEE は米国に本部を置く電気・情報工学分野の団体、技術標準化機関です。

Assy Module Structure / モジュール構造

Male module オスモジュール

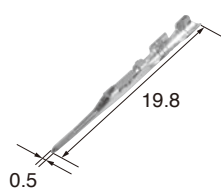


Female module メスモジュール



(M) Assy module

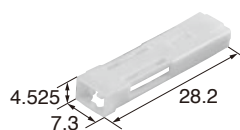
(M) Inner conductor terminal オス内導体端子



Parts No. **8230-5939**

Material Heat resistant copper-alloy(Tin-plated)
耐熱銅合金(Snめっき)

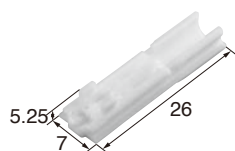
(M) Module upper アッパーモジュール



| Parts No. | Color |
|------------------|---------|
| 6910-8307 | Natural |
| 6910-8310 | Black |
| 6910-8313 | Blue |
| 6910-8315 | Gray |

Material PBT

(M) Module lower ロアモジュール

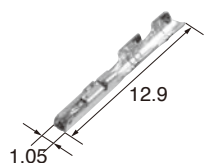


| Parts No. | Color |
|------------------|---------|
| 6910-8308 | Natural |
| 6910-8311 | Black |
| 6910-8314 | Blue |
| 6910-8316 | Gray |

Material PBT

(F) Assy module

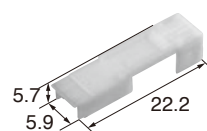
(F) Inner conductor terminal メス内導体端子



Parts No. **8240-0697**

Material Heat resistant copper-alloy(Tin-plated)
耐熱銅合金(Snめっき)

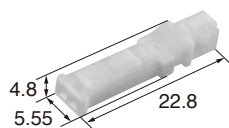
(F) Module upper アッパーモジュール



| Parts No. | Color |
|------------------|---------|
| 6910-8251 | Natural |
| 6910-8255 | Black |
| 6910-8257 | Blue |
| 6910-8256 | Gray |

Material PBT

(F) Module lower ロアモジュール

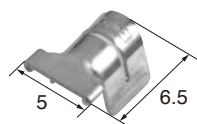


| Parts No. | Color |
|------------------|---------|
| 6910-8252 | Natural |
| 6910-8258 | Black |
| 6910-8260 | Blue |
| 6910-8259 | Gray |

Material PBT

(M)(F) Shared 共通部品

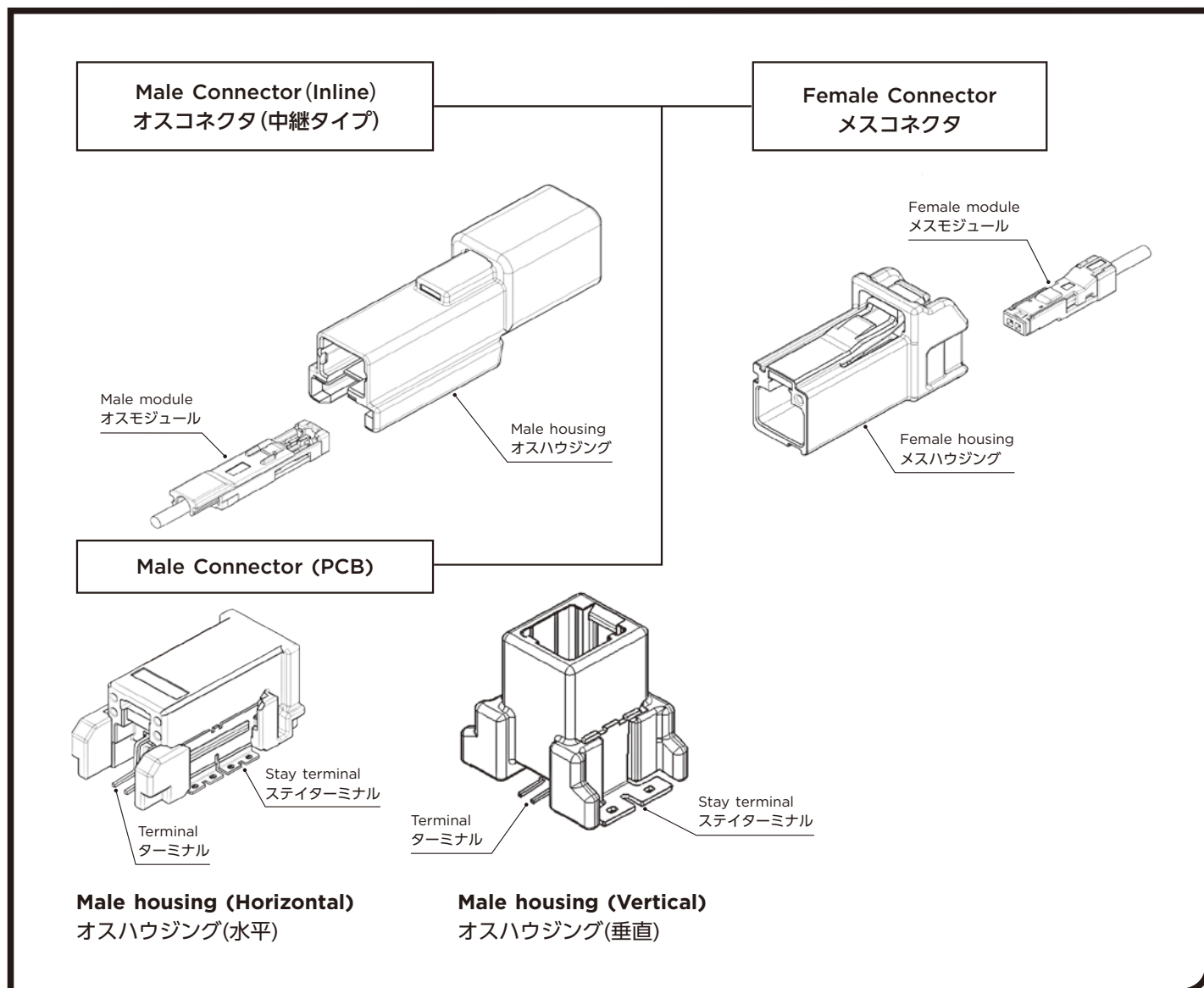
Wire fixer ワイヤーフイクサー



Parts No. **8410-5733**

Material Brass(Tin-plated)
黄銅(Snめっき)

Non-Sealed Housing Structure / 非防水コネクタ 構造



Basic specification / 基本仕様

| 項目 | 性能 |
|---|--|
| Low voltage current resistance 低電圧電流抵抗 | Max. 10mΩ (Initial) |
| Insulation resistance 絶縁抵抗 | Min. 100MΩ |
| Working temperature 使用温度 | -40°C ~ +80°C |
| Transmission characteristics 通信特性 | IEEE 100 BASE-T1 Definitions for Communication Channel 5.1.2 and 5.2.2 shall be satisfied. |

HFD-U2 SERIES

for Non-Sealed STANDARD

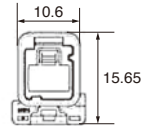
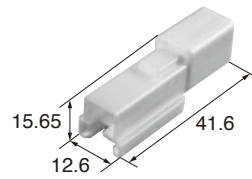
Material : PBT

1 pair

(Key A)

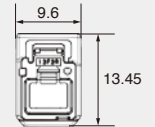
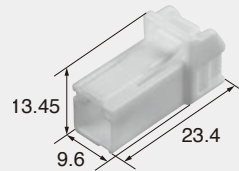
Color Natural

(Note) Bracket size 9mm



M (6910-8306)

F (6910-8250)



PCB Connector part No. 6910-8268
6910-8248

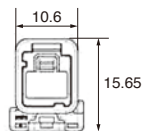
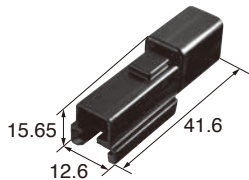
Color Natural

1 pair

(Key B)

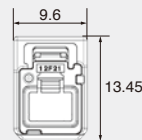
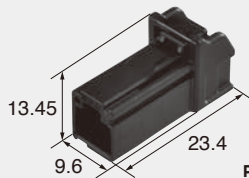
Color Black

(Note) Bracket size 9mm



M (6910-8309)

F (6910-8253)



PCB Connector part No. 6910-8269

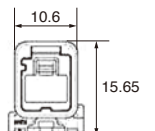
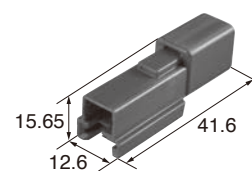
Color Black

1 pair

(Key C)

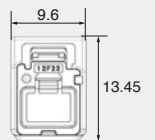
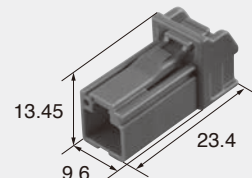
Color Blue

(Note) Bracket size 9mm



M (6910-8312)

F (6910-8254)



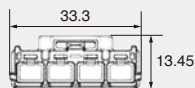
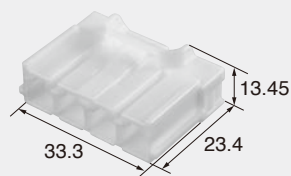
PCB Connector part No. 6910-8270

Color Blue

4 pairs

(Key A)

F (6910-8298)



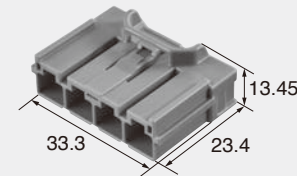
PCB Connector part No. 6910-8300

Color Natural

4 pairs

(Key B)

F (6910-8301)



PCB Connector part No. 6910-8302

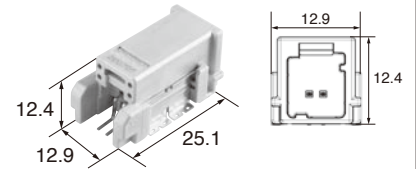
Color Gray

HFD-U2 SERIES for Non-Sealed PCB

Material : LCP

1 pair Horizontal SMT 水平タイプ (Key A)

M (6910-8268)

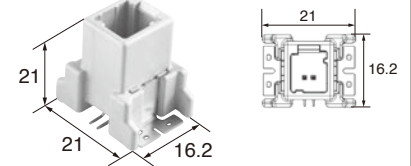


(F) Connector part No. 6910-8250

Color Natural

1 pair Vertical SMT 垂直タイプ (Key A)

M (6910-8248)

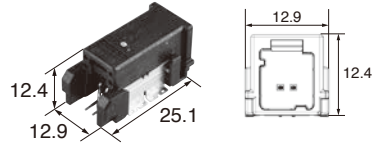


(F) Connector part No. 6910-8250

Color Natural

1 pair Horizontal SMT 水平タイプ (Key B)

M (6910-8269)

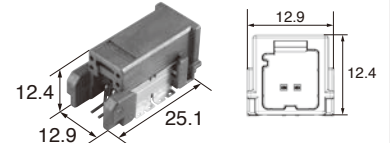


(F) Connector part No. 6910-8253

Color Black

1 pair Horizontal SMT 水平タイプ (Key C)

M (6910-8270)

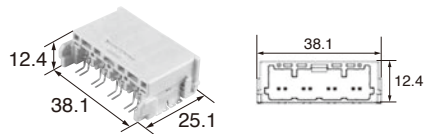


(F) Connector part No. 6910-8254

Color Blue

4 pairs Horizontal SMT 水平タイプ (Key A)

M (6910-8300)

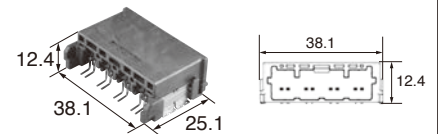


(F) Connector part No. 6910-8298

Color Natural

4 pairs Horizontal SMT 水平タイプ (Key B)

M (6910-8302)



(F) Connector part No. 6910-8301

Color Gray