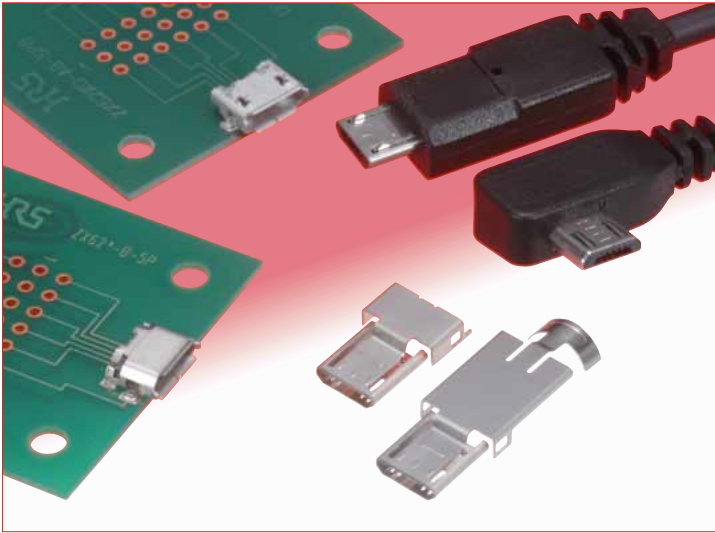


# Micro-USB connectors meeting USB 2.0 Standard

## ZX Series



Note : Contact us to ascertain whether a TID number has been acquired for an individual product.

Fig.1

### ■ Overview

Extremely small highly reliable connectors complying with physical, electrical and environmental requirements of Micro-USB standard (USB 2.0). Receptacles and plugs are available in a wide variety of mounting and termination styles, allowing their use in various applications.

### ■ Features

#### 1. Size reduction

Compared with the standard Mini-USB connectors, the size of ZX connectors is reduced by approximately 60% while still allowing a high-speed data transfer of 480 Mbps, specified in USB 2.0.

#### 2. Receptacle styles

Two interface configurations: Micro-B and Micro-AB in standard, mid-mount and reverse mounting styles. SMT and through-hole (shell) PC board terminations.

#### 3. Plug styles

Corresponding to the receptacle styles, two interface configurations: Micro-A and Micro-B, with direct wire or PCB wire soldering. Several plug styles can be used for data transmission, earphone or charging applications.

#### 4. Smooth mating and unmating

A smooth mating and unmating operation results in less wear and a longer product life. The unique Hirose active latch mechanism produces a reliable and durable connector.

Even after repeated use, the user will experience a smooth click sensation when mating the connectors.

Note : The statement above only applies when using both plug and receptacles made by Hirose Electric.

#### 5. Hirose was the first company to obtain a Micro-USB certification (TID number).

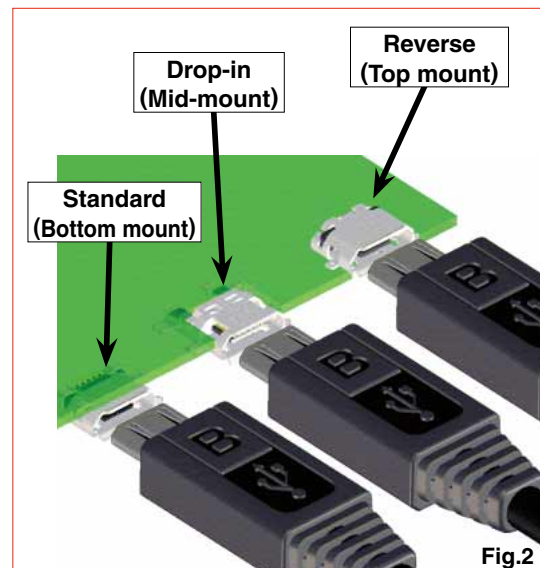


Fig.2

#### USB 2.0 Hi-Speed (480 Mbps)

Eye diagram measurement results :  
Measured with 2.4 m long USB 2.0 cable

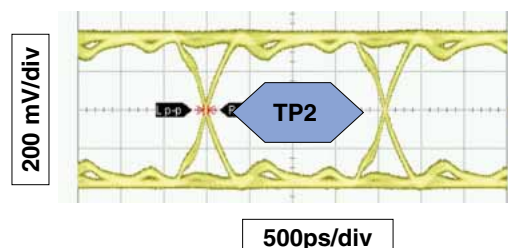


Fig.3

## Product Specifications

| Ratings                          | Current rating | 1A (per contact) or<br>1.8A (contacts No. 1 and 5) and<br>0.5A (contacts No. 2, 3, and 4) | Voltage rating                                    | 30V AC                 |
|----------------------------------|----------------|-------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------|
|                                  |                |                                                                                           | Operating temperature range                       | -30°C to +85°C (Note1) |
|                                  |                |                                                                                           | Storage temperature range                         | -30°C to +60°C         |
| Item                             |                | Specification                                                                             | Conditions                                        |                        |
| 1. Contact resistance            |                | 30mΩ max.                                                                                 | 100mA                                             |                        |
| 2. Withstanding voltage          |                | No flashover or insulation breakdown                                                      | 100V AC / 1 minute                                |                        |
| 3. Capacitance                   |                | 2pF max.                                                                                  | Between adjacent contacts at 1,000Hz (AC voltage) |                        |
| 4. Durability                    |                | Contact resistance : Rise from initial value of 10mΩ max.                                 | 10,000 cycles                                     |                        |
| 5. Total insertion/removal force |                | Insertion force : 35N max., Removal force : 8N min.                                       | Mated with corresponding connector                |                        |

Note1 : Includes temperature rise caused by current flow.

Note2 : Information contained in this catalog represents general requirements for this Series. Contact us for the drawings and specifications for a specific part number shown.

## Materials / Finish

### ●Receptacles

| Part      | Material        | Finish                         | Remarks |
|-----------|-----------------|--------------------------------|---------|
| Insulator | LCP             | Micro-B: Black, Micro-AB: Gray | UL94V-0 |
| Contacts  | Copper alloy    | Selective gold plated          | _____   |
| Shell     | Stainless steel | Tin alloy plating              | _____   |

### ●Plugs

| Part      | Material        | Finish                         | Remarks |
|-----------|-----------------|--------------------------------|---------|
| Insulator | LCP             | Micro-B: Black, Micro-AB: Gray | UL94V-0 |
| Contacts  | Copper alloy    | Selective gold plated          | _____   |
| Shell     | Stainless steel | Tin alloy plating              | _____   |

## Product Number Structure

Refer to the chart below when determining the product specifications from the product number.

Please select from the product numbers listed in this catalog when placing orders.

### ●Receptacles

**ZX 62 RD - B - 5 P \* 8**  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

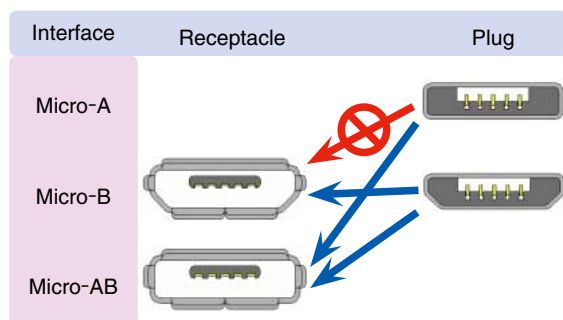
### ●Plugs

**ZX 40 - B - 5 S \* - UNIT**  
 ① ② ④ ⑤ ⑥ ⑦ ⑨

**ZX 40 - B - SLDA**  
 ① ② ④ ⑨

|                                      |                                                                                                                                                                  |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ① Series name                        | ZX                                                                                                                                                               |
| ② Termination style                  | 10's : Right-angle PCB wire, SMT<br>20's : Straight, PCB wire<br>40's : Direct wire<br>60's : Right-angle, PCB wire<br>80's : Cradle SMT                         |
| ③ Board mounting style (Receptacles) | Blank Standard (Bottom mount)<br>D Standard (Bottom mount) through hole<br>R Reverse (Top mount)<br>RD Reverse (Top mount) through hole<br>M Drop-in (Mid-mount) |
| ④ Mating side configuration          | A Micro-A<br>B Micro-B<br>AB Micro-AB                                                                                                                            |
| ⑤ Number of contacts                 | 5                                                                                                                                                                |
| ⑥ Contact type                       | P Receptacle- Male<br>S Plug - Female                                                                                                                            |
| ⑦ Serial No.                         |                                                                                                                                                                  |
| ⑧ Shell termination style -Blank     | SMT                                                                                                                                                              |
| ⑧ Receptacles                        | 8 Through hole (solder tab length: 0.8mm)                                                                                                                        |
| ⑨ Components-plugs                   | UNIT Assembly (Insulator/contact/lock)<br>Cover (Note 1)                                                                                                         |

Note 1 : Classifiers such as A, B, and C are entered for \*.



## ■ Configurations

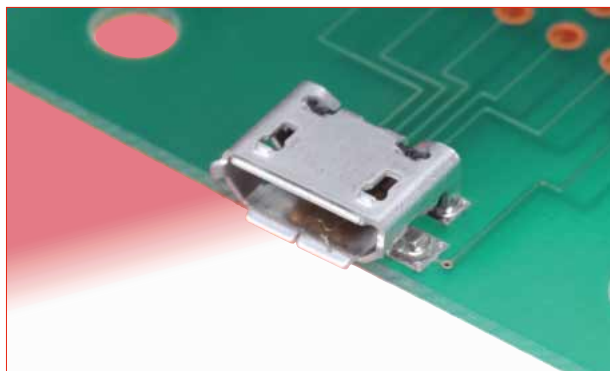
|                       | Mating side configuration | Type                                        |           | Part No.                                                                                                       | 3D Image                                                                                           | Page      |
|-----------------------|---------------------------|---------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------|
| R e c e p t a c l e s | Micro-B                   | Standard                                    | SMT       | ZX62-B-5PA(33)                                                                                                 |                 | 4         |
|                       |                           |                                             | SMT + DIP | ZX62D-B-5PA8(30)                                                                                               |                 | 4         |
|                       |                           | Reverse                                     | SMT       | ZX62R-B-5P(30)                                                                                                 |                 | 5         |
|                       |                           | Drop-in                                     | SMT       | ZX62M-B-5P(30)                                                                                                 |                 | 5         |
|                       | Micro-AB                  | Standard                                    | SMT       | ZX62-AB-5PA(31)                                                                                                |                 | 6         |
|                       |                           |                                             | SMT + DIP | ZX62D-AB-5P8(30)                                                                                               |                 | 6         |
|                       |                           | Reverse                                     | SMT       | ZX62R-AB-5P(30)                                                                                                |                 | 7         |
|                       |                           |                                             | SMT + DIP | ZX62RD-AB-5P8(30)                                                                                              |               | 7         |
| P l u g s             | Micro-B                   | Direct wire soldering                       |           | Assembly (insulator/contacts/lock) : ZX40-B-5S-UNIT(31)<br>Cover-top : ZX40-B-SLDA<br>Cover-bottom : ZX40-SLDB |               | 9 and 10  |
|                       |                           | PCB wire soldering (straight, through hole) |           | Assembly (insulator/contacts/lock) : ZX20-B-5S-UNIT(30)<br>Cover : ZX20-B-SLDC                                 |               | 11        |
|                       |                           | PCB wire soldering (SMT)                    |           | Assembly (insulator/contacts/lock) : ZX64-B-5S-UNIT(31)<br>Cover-top : ZX64-B-SLDA<br>Cover-bottom : ZX64-SLDB |               | 12 and 13 |
|                       |                           | PCB wire soldering (SMT)                    |           | Assembly (insulator/contacts/lock) : ZX64-B-5S-UNIT(31)<br>Cover : ZX64-B-SLDC                                 |               | 12 and 13 |
|                       | Micro-A                   | Direct wire soldering                       |           | Assembly (insulator/contacts/lock) : ZX40-A-5S-UNIT(30)<br>Cover-top : ZX40-A-SLDA<br>Cover-bottom : ZX40-SLDB |               | 14 and 15 |
| C r a d l e s         | Micro-B                   | SMT + DIP                                   |           | ZX80-B-5S(30)                                                                                                  | With lock     | 16        |
|                       |                           |                                             |           | ZX80-B-5SA(30)                                                                                                 | Without lock  | 16        |

Note : 1 Part numbers in the Plugs section of the above table list the Assembly (insulator/contacts/locks) and the corresponding Shields/Covers.

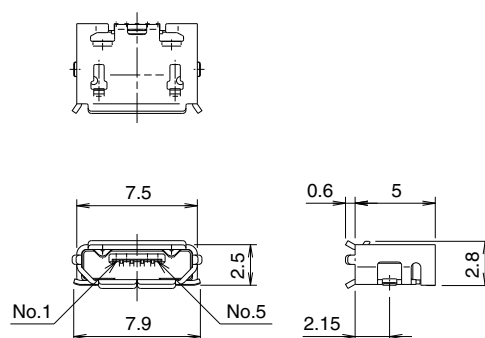
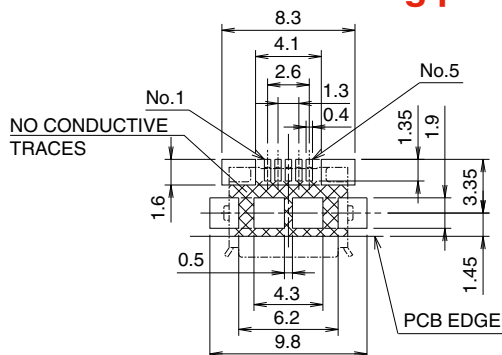
Note : 2 Optional Printed Circuit boards for the Plugs are shown for reference only. Not supplied with applicable connectors.

Note : 3 The color of the insulators body in the Assembly (insulator/contacts/lock) shown in the 3D Image column above is blue for clarity. Refer to the Materials (Page 2) for correct colors.

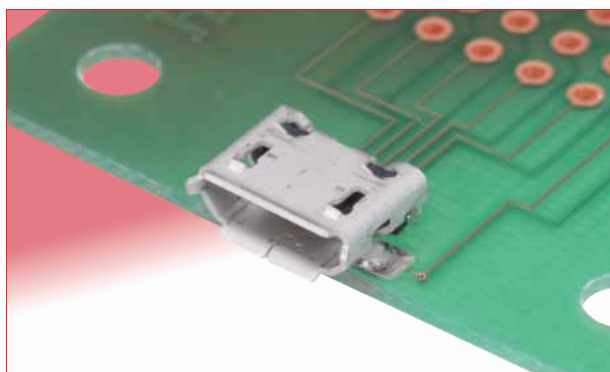
### ●Micro B - Standard (Bottom mount), Shell SMT



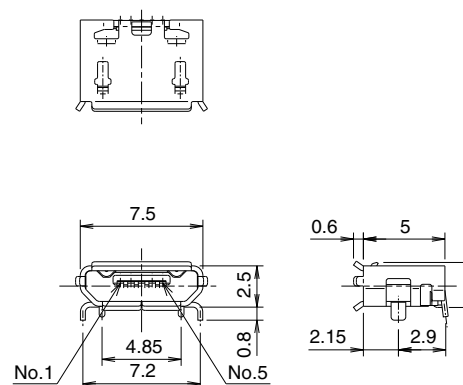
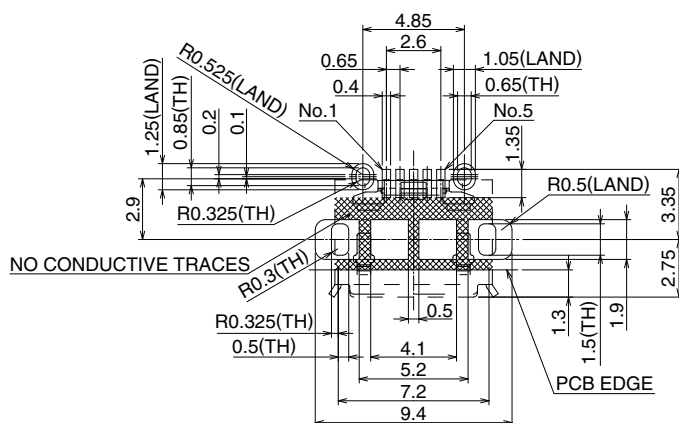
### ◆ Recommended PCB mounting pattern



●Micro B - Standard (Bottom mount), Shell through hole



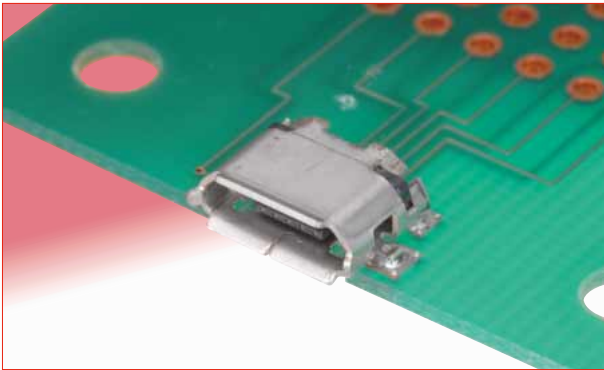
**◆ Recommended PCB mounting pattern**



4 HRS

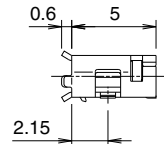
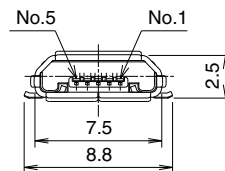
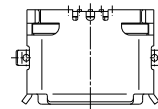
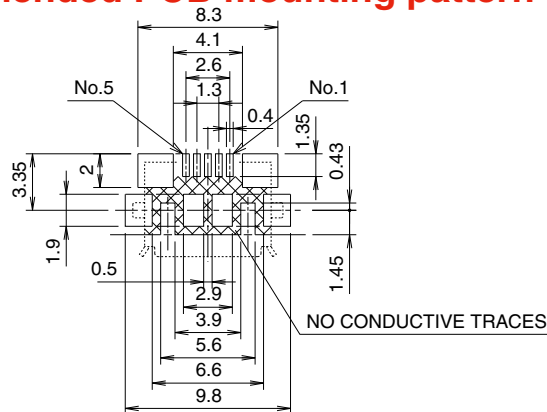
## ■Receptacles

### ●Micro B - Reverse (Top mount) Shell SMT



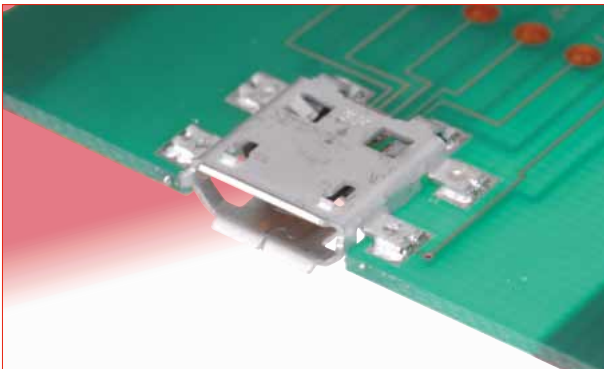
| Part No.       | HRS No.       | Packaging     |
|----------------|---------------|---------------|
| ZX62R-B-5P(30) | 242-0028-8 30 | 2,000pcs/reel |

### ◆Recommended PCB mounting pattern

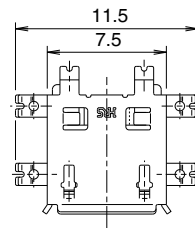


All dimensions : mm

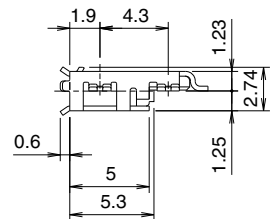
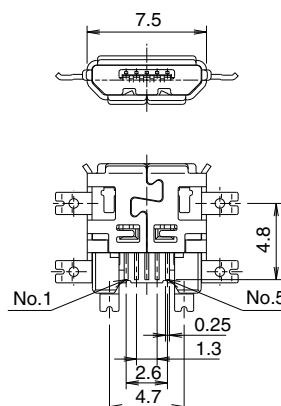
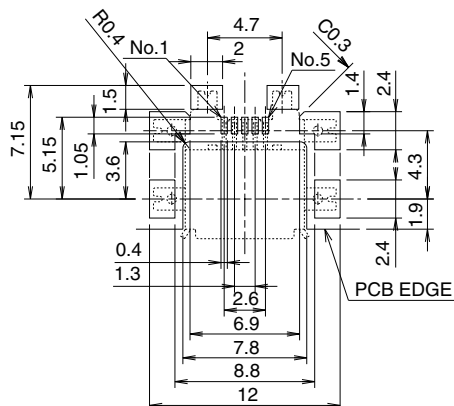
### ●Micro B - Drop-in (Mid-mount), Shell SMT



| Part No.       | HRS No.       | Packaging     |
|----------------|---------------|---------------|
| ZX62M-B-5P(30) | 242-0024-7 30 | 1,500pcs/reel |



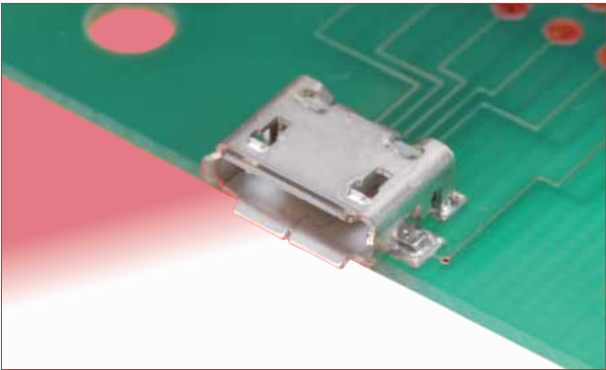
### ◆Recommended PCB mounting pattern



All dimensions : mm

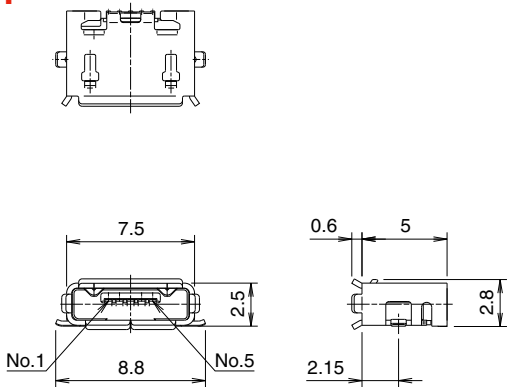
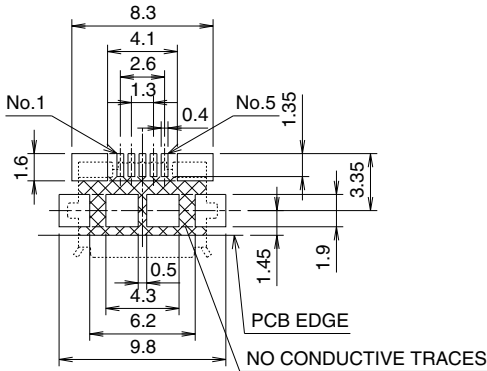
■Receptacles

●Micro AB - Standard (Bottom mount), Shell SMT



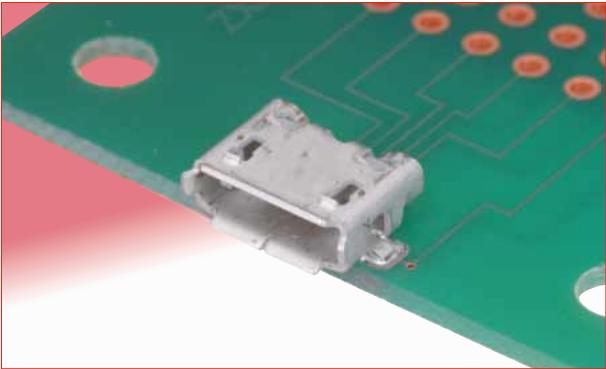
| Part No.        | HRS No.       | Packaging     |
|-----------------|---------------|---------------|
| ZX62-AB-5PA(31) | 242-0045-7 31 | 3,500pcs/reel |

◆Recommended PCB mounting pattern



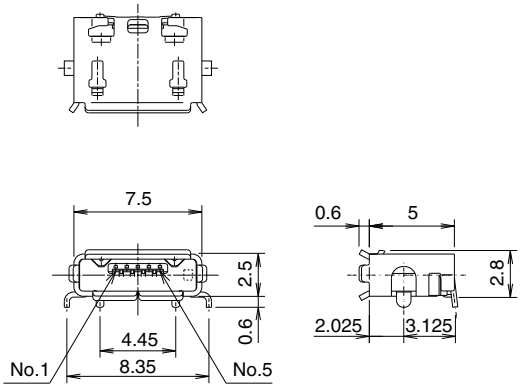
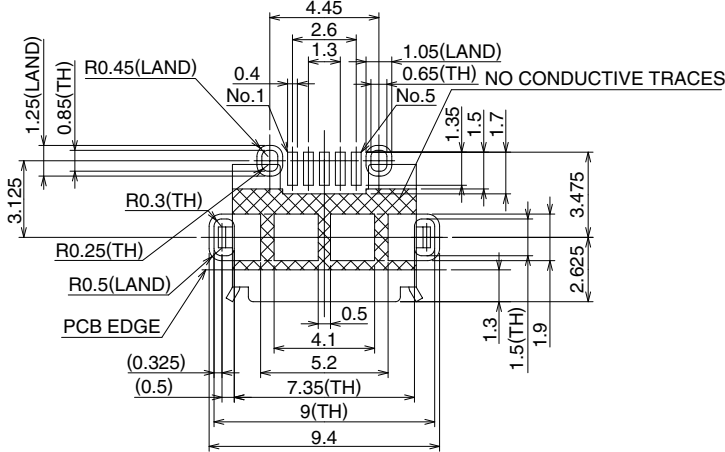
All dimensions : mm

●Micro AB - Standard (Bottom mount), Shell through hole



| Part No.         | HRS No.       | Packaging     |
|------------------|---------------|---------------|
| ZX62D-AB-5P8(30) | 242-0027-5 30 | 2,000pcs/reel |

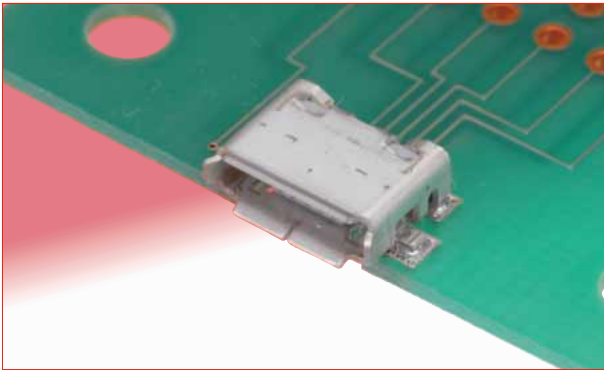
◆Recommended PCB mounting pattern



All dimensions : mm

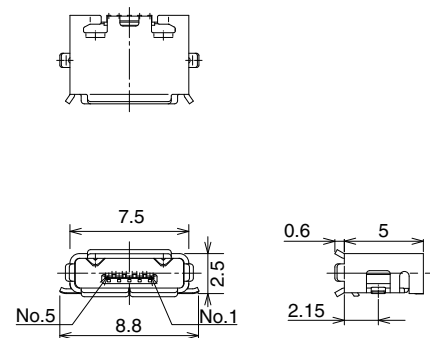
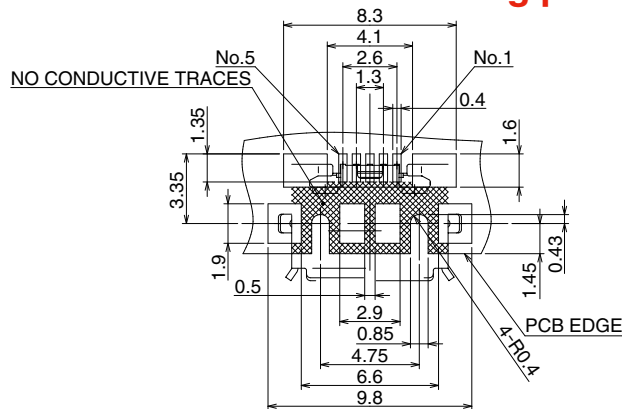
## ■ Receptacles

### ● Micro AB - Reverse (Top mount), Shell SMT



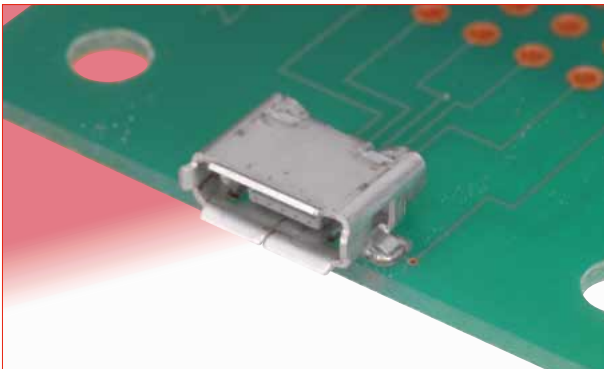
| Part No.        | HRS No.       | Packaging     |
|-----------------|---------------|---------------|
| ZX62R-AB-5P(30) | 242-0035-3 30 | 2,000pcs/reel |

### ◆ Recommended PCB mounting pattern



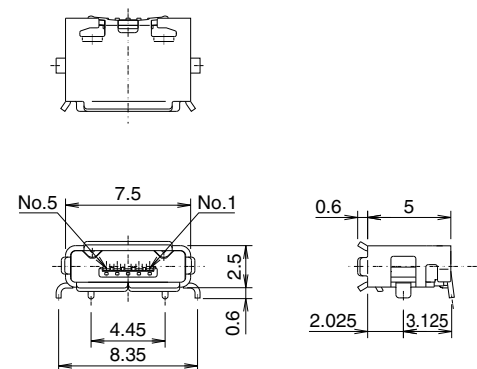
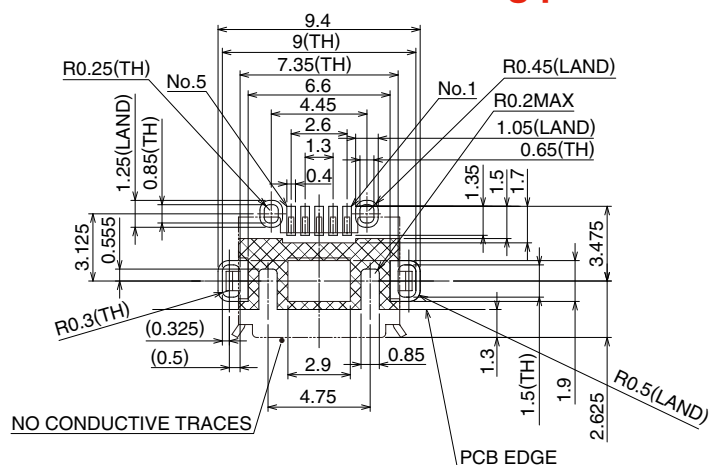
All dimensions : mm

### ● Micro AB - Reverse (Top mount), Shell through hole

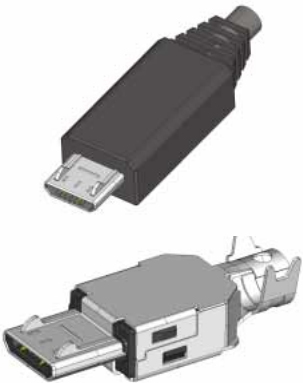
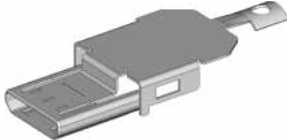
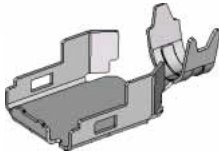
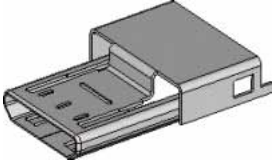
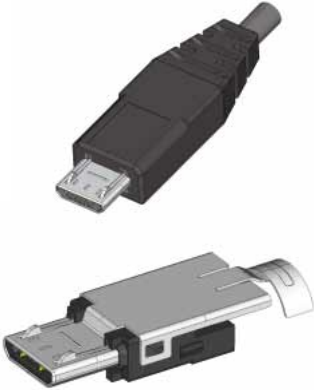
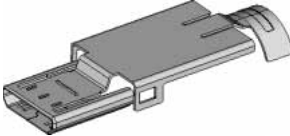
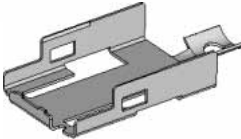


| Part No.          | HRS No.       | Packaging     |
|-------------------|---------------|---------------|
| ZX62RD-AB-5P8(30) | 242-0025-0 30 | 2,000pcs/reel |

### ◆ Recommended PCB mounting pattern



All dimensions : mm

| Plugs – assembled (not-terminated, without overmold)                                                                                 | Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>ZX40 - Direct wire soldering</div> <div></div> | <div><div>ZX40-*SLDA<br/>Cover-top</div></div> <div><div>ZX40-*5S-UNIT<br/>Assembly (insulator/<br/>contacts/lock)<br/>*No PCB required</div></div> <div><div>ZX40-SLDB<br/>Cover-bottom</div></div>                                    |
| <div>ZX20 - PCB wire soldering</div> <div></div>   | <div><div>ZX20-*SLDC<br/>Cover</div></div> <div><div>ZX20-*5S-UNIT<br/>Assembly<br/>(insulator/contacts/lock)<br/>*Vertical through hole PCB<br/>termination</div></div>                                                                                                                                                 |
| <div>ZX64 - PCB wire soldering</div> <div></div>  | <div><div>ZX64-*SLDA<br/>Cover-top</div></div> <div><div>ZX64-*5S-UNIT<br/>Assembly (insulator/<br/>contacts/lock)<br/>*Right angle through hole<br/>PCB termination</div></div> <div><div>ZX64-SLDB<br/>Cover-bottom</div></div> |

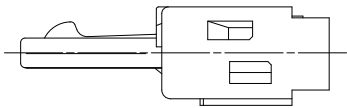
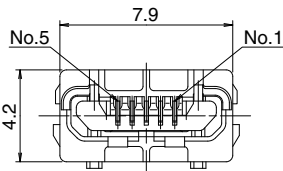
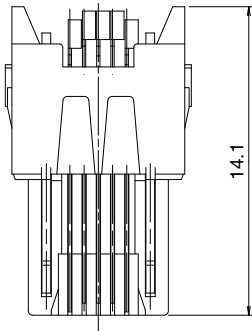
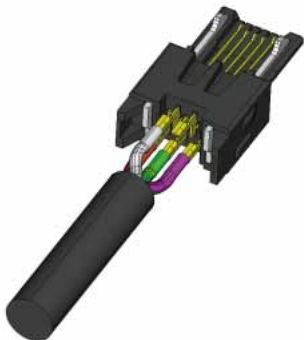
■Plugs

●Micro B - Assembly (insulator/contacts/lock) – Direct wire soldering



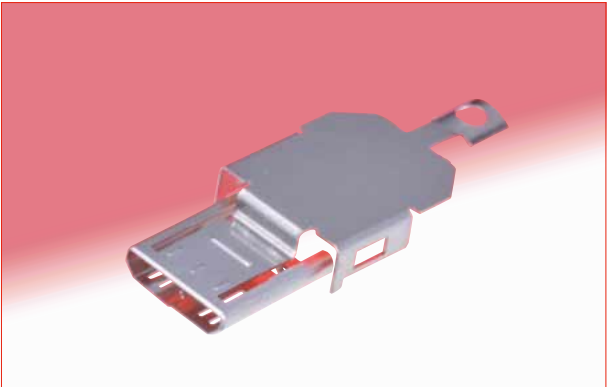
| Part No.           | HRS No.       | Packaging |
|--------------------|---------------|-----------|
| ZX40-B-5S-UNIT(31) | 242-0002-4 31 | 1 piece   |

Contact HRS for Cable Termination Procedure Manual.

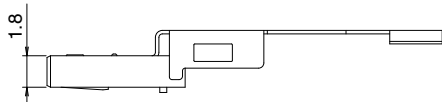
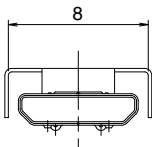
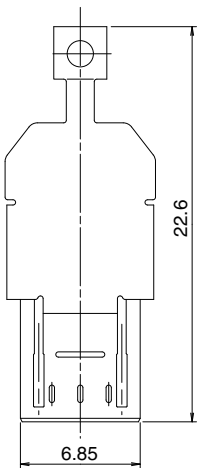


All dimensions : mm

●Micro B - Component, Cover-top - Direct wire soldering



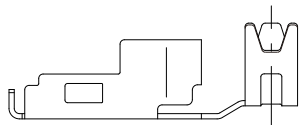
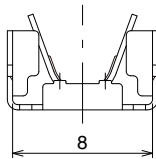
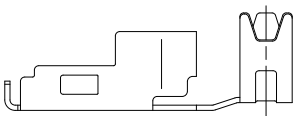
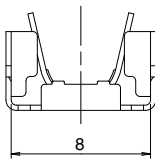
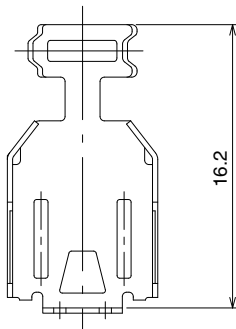
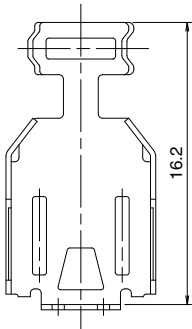
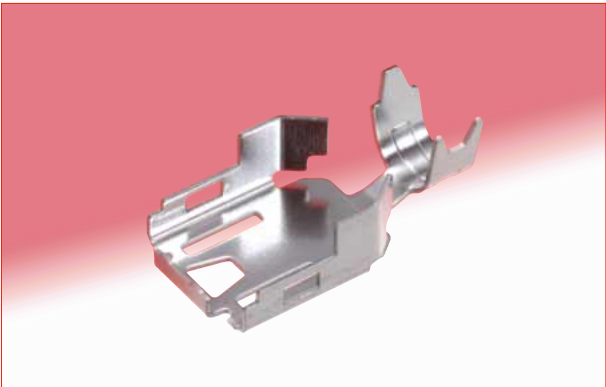
| Part No.    | HRS No.    | Packaging     |
|-------------|------------|---------------|
| ZX40-B-SLDA | 242-0003-7 | 4,000pcs/reel |



All dimensions : mm

■Plugs

●Micro A, Micro B - Component, Cover-bottom - Direct wire soldering



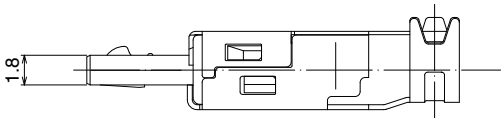
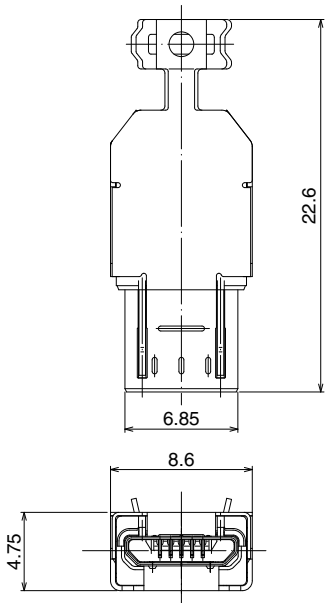
All dimensions : mm

ZX40-SLDB

ZX40-SLDB(3.3)

| Part No.       | HRS No.    | Packaging     | Cable dia. |
|----------------|------------|---------------|------------|
| ZX40-SLDB      | 242-0004-0 | 4,000pcs/reel | φ3.8       |
| ZX40-SLDB(3.3) | 242-0023-4 |               | φ3.3       |

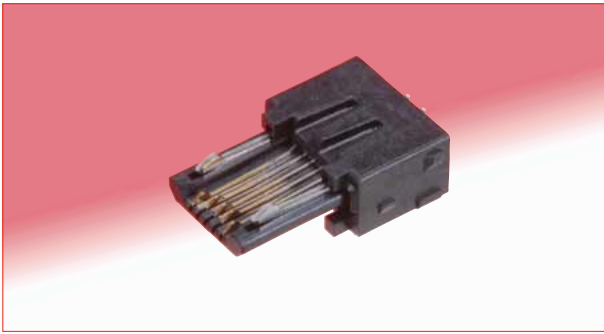
●Assembled



All dimensions : mm

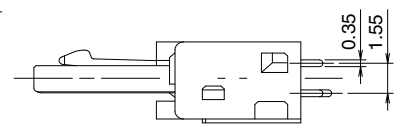
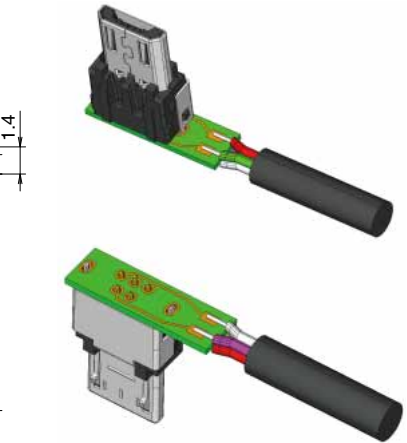
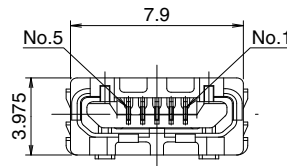
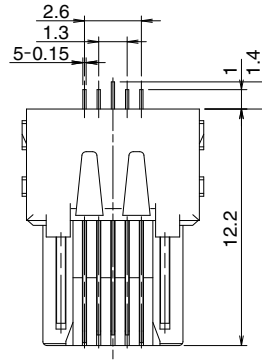
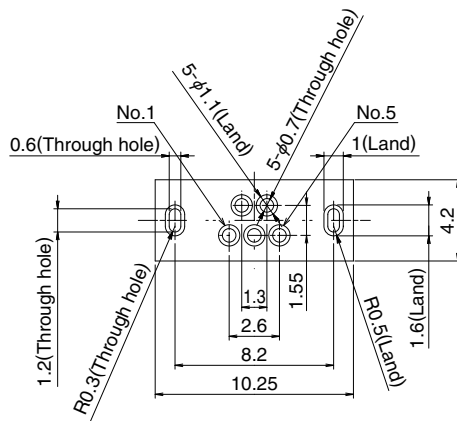
## Plugs

### ●Micro B - Assembly (insulator/contacts/lock) - Vertical through hole PCB wire soldering (non-direct)



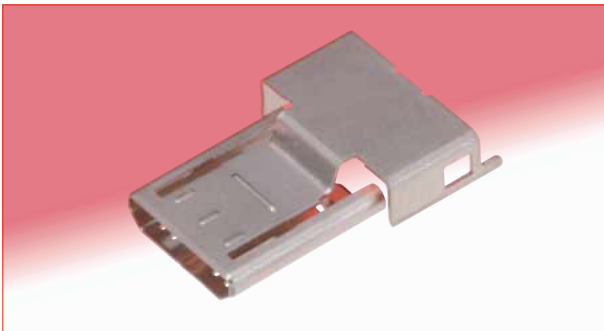
#### PCB mounting pattern

\*PCB required (not supplied)  
Max. thickness: 0.6mm

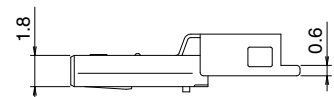
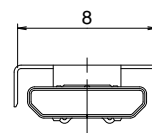
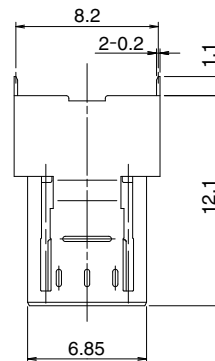


All dimensions : mm

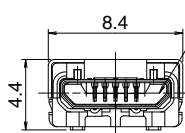
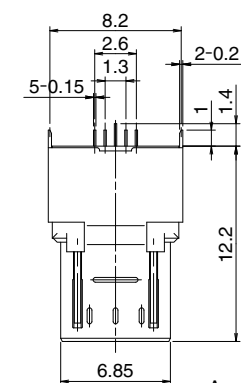
### ●Micro B - Component, Cover - through hole



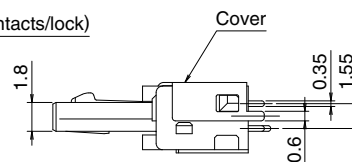
| Part No.    | HRS No.    | Packaging     |
|-------------|------------|---------------|
| ZX20-B-SLDC | 242-0022-1 | 4,000pcs/reel |



### ●Assembled



Assembly  
(insulator/contacts/lock)



Cover

All dimensions : mm

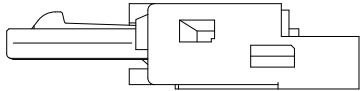
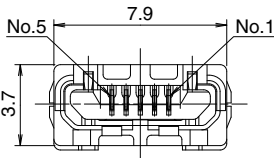
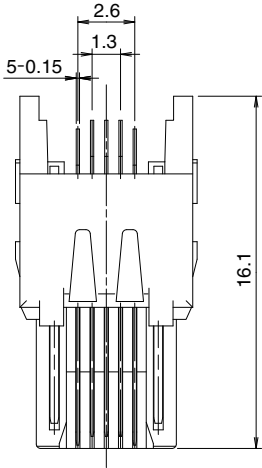
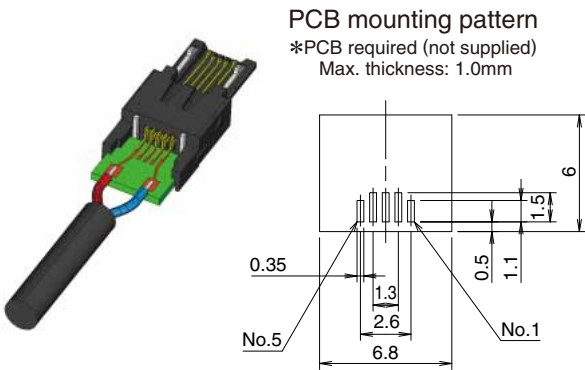
# Plugs

## ●Micro B - Assembly (insulator/contacts/lock) - Right angle SMT



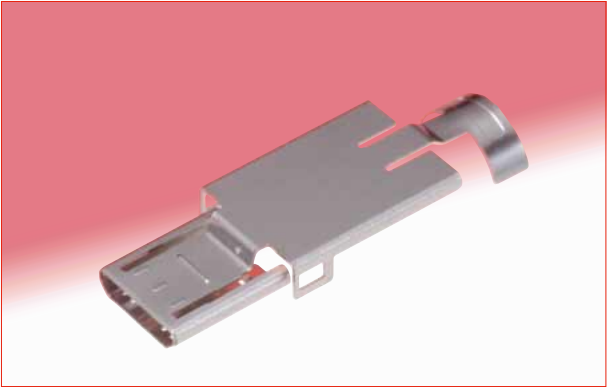
| Part No.           | HRS No.       | Packaging |
|--------------------|---------------|-----------|
| ZX64-B-5S-UNIT(31) | 242-0009-3 31 | 1 piece   |

Contact HRS for Cable Termination Procedure Manual.

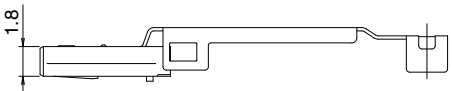
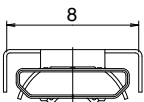
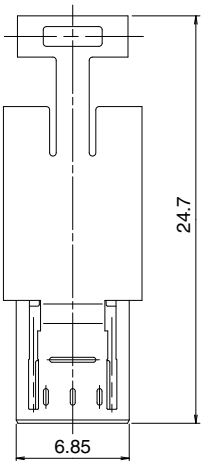


All dimensions : mm

## ●Micro B - Component, Cover-top – Right angle SMT



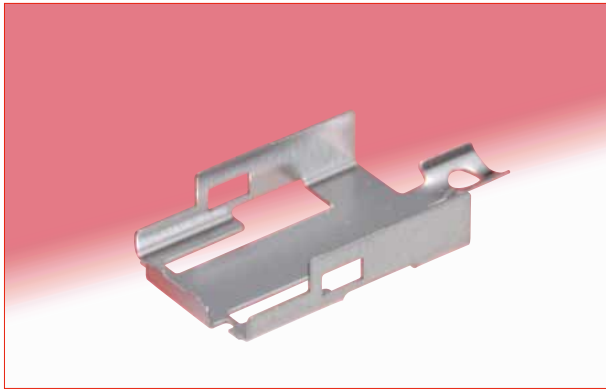
| Part No.    | HRS No.    | Packaging     |
|-------------|------------|---------------|
| ZX64-B-SLDA | 242-0013-0 | 4,000pcs/reel |



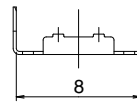
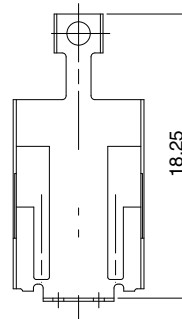
All dimensions : mm

## Plugs

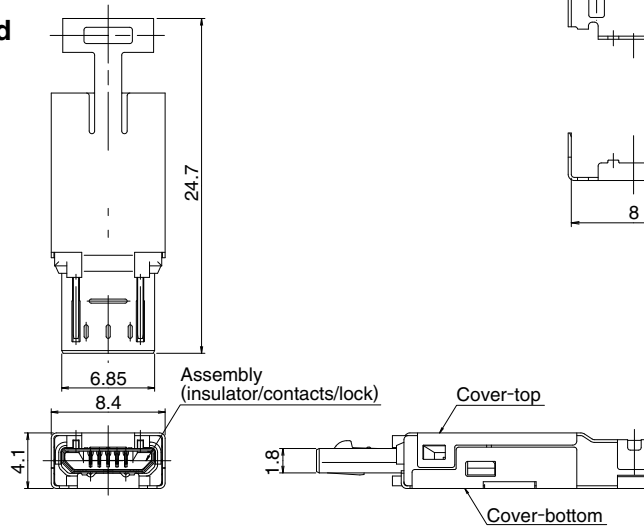
### Micro B - Component, Cover-bottom - Right angle SMT



| Part No.  | HRS No.    | Packaging     |
|-----------|------------|---------------|
| ZX64-SLDB | 242-0049-8 | 4,000pcs/reel |



### Assembled



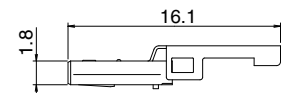
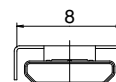
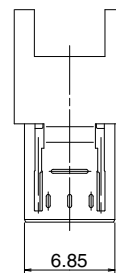
All dimensions : mm

### Micro B - Component, Shell/cover – Right angle SMT

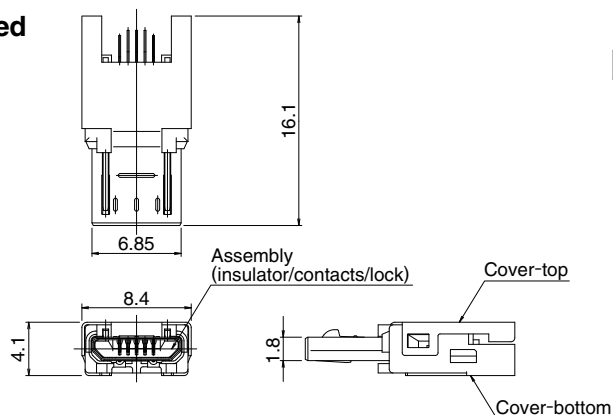


Shell/cover, without cable clamp  
This shell/cover does not require ZX64-SLDB.

| Part No.    | HRS No.    | Packaging     |
|-------------|------------|---------------|
| ZX64-B-SLDC | 242-0018-4 | 4,000pcs/reel |



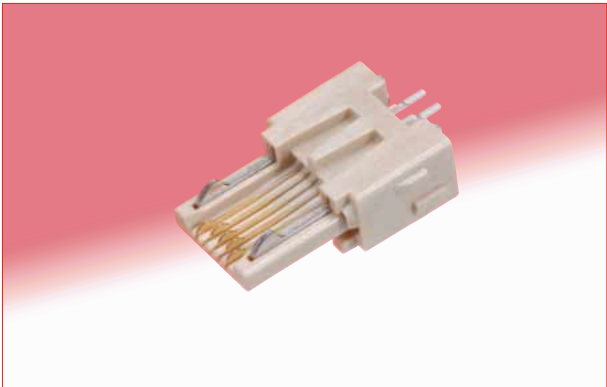
### Assembled



All dimensions : mm

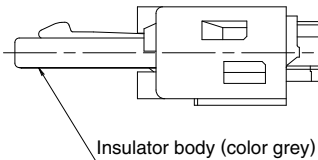
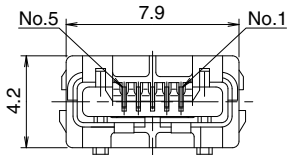
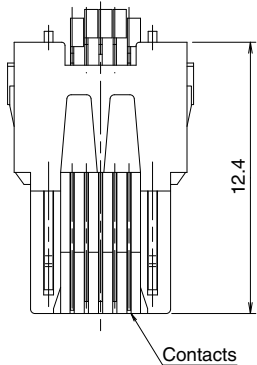
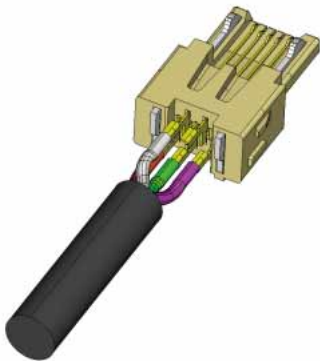
■Plugs

●Micro A - Assembly (insulator/contacts/lock) - Direct wire soldering



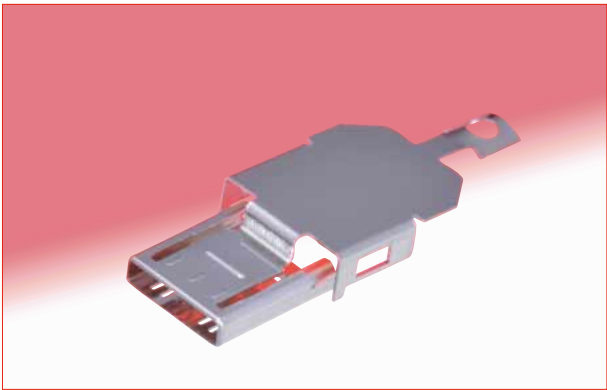
| Part No.           | HRS No.       | Packaging |
|--------------------|---------------|-----------|
| ZX40-A-5S-UNIT(30) | 242-0010-2 30 | 1 piece   |

Contact HRS for Cable Termination Procedure Manual.

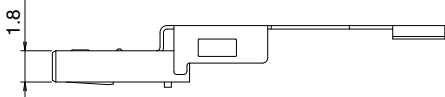
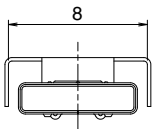
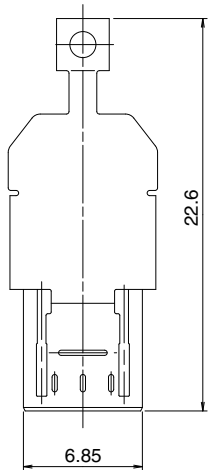


All dimensions : mm

●Micro A - Component, Cover-top - Direct wire soldering



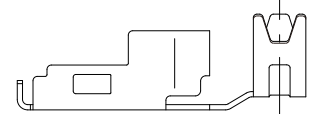
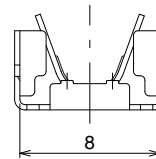
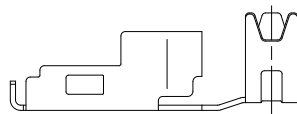
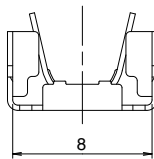
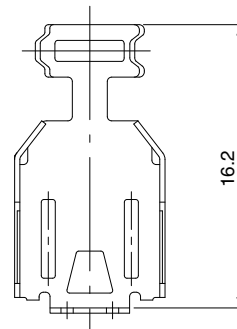
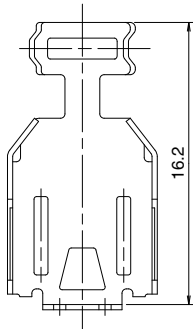
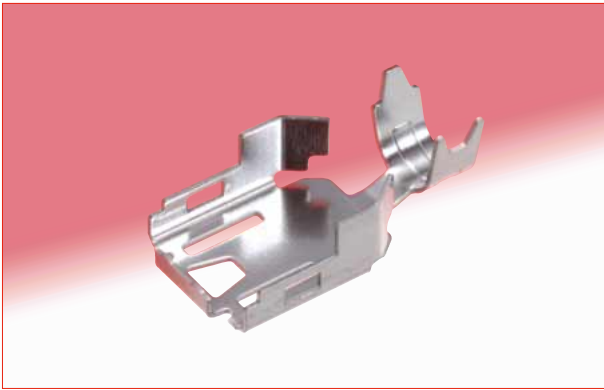
| Part No.    | HRS No.    | Packaging     |
|-------------|------------|---------------|
| ZX40-A-SLDA | 242-0011-5 | 4,000pcs/reel |



All dimensions : mm

## ■ Plugs

### ● Micro A, Micro B - Component, Cover-bottom - Direct wire soldering



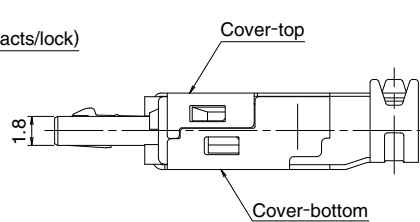
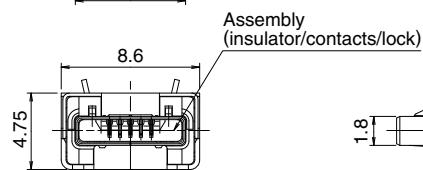
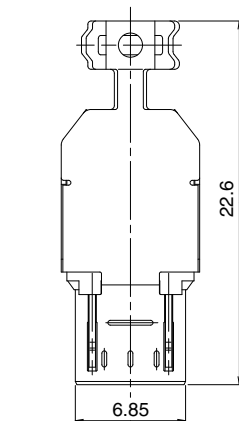
All dimensions : mm

**ZX40-SLDB**

**ZX40-SLDB(3.3)**

| Part No.       | HRS No.    | Packaging     | Cable dia. |
|----------------|------------|---------------|------------|
| ZX40-SLDB      | 242-0004-0 | 4,000pcs/reel | φ3.8       |
| ZX40-SLDB(3.3) | 242-0023-4 |               | φ3.3       |

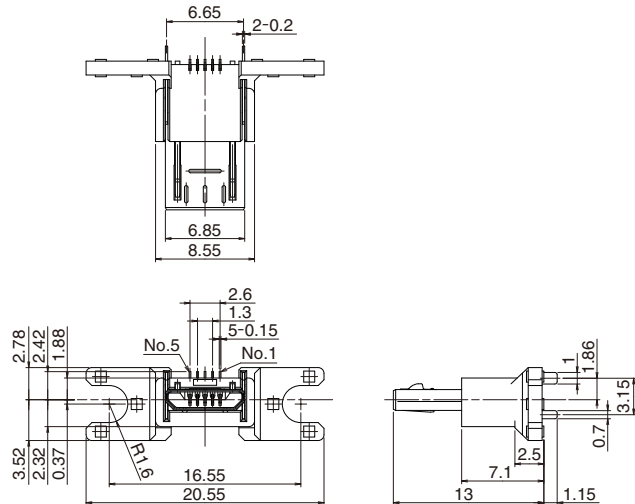
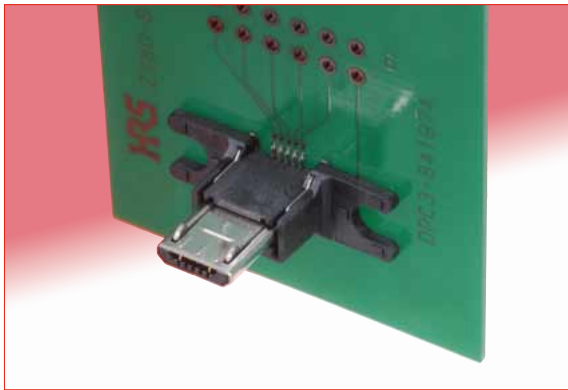
### ● Assembled



All dimensions : mm

## ■Plug-Vertical, cradle mount, Shell through hole

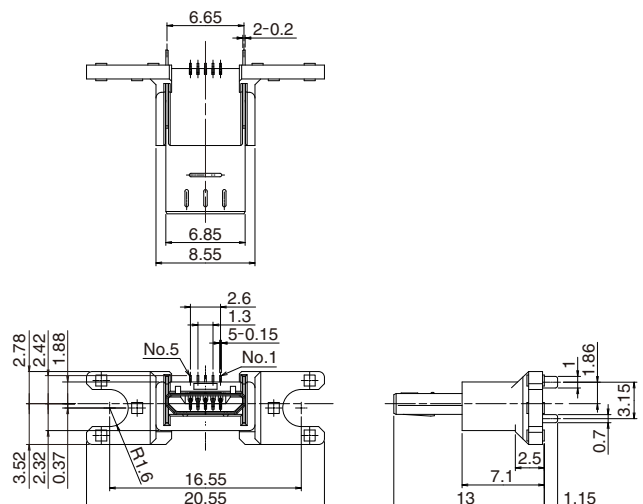
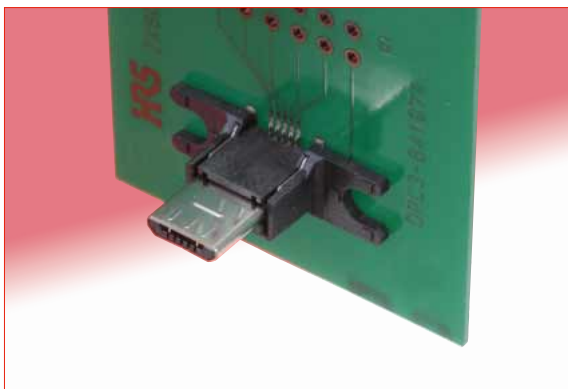
### ●Micro B, with lock



| Part No.      | HRS No.       | Packaging  |
|---------------|---------------|------------|
| ZX80-B-5S(30) | 242-0017-1 30 | 100pcs/pks |

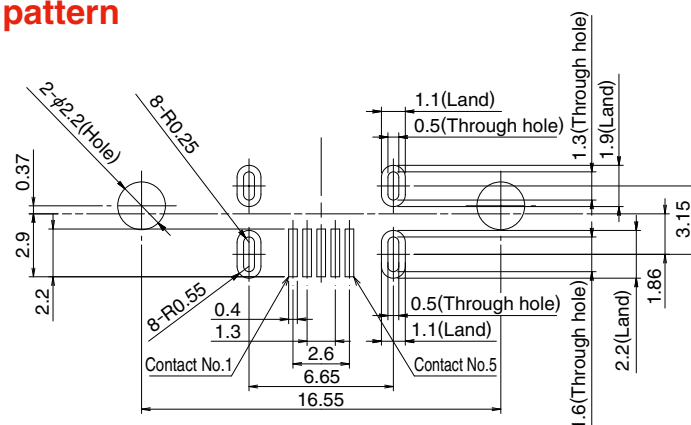
All dimensions : mm

### ●Micro B, without lock



| Part No.       | HRS No.       | Packaging  |
|----------------|---------------|------------|
| ZX80-B-5SA(30) | 242-0019-7 30 | 100pcs/pks |

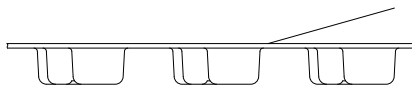
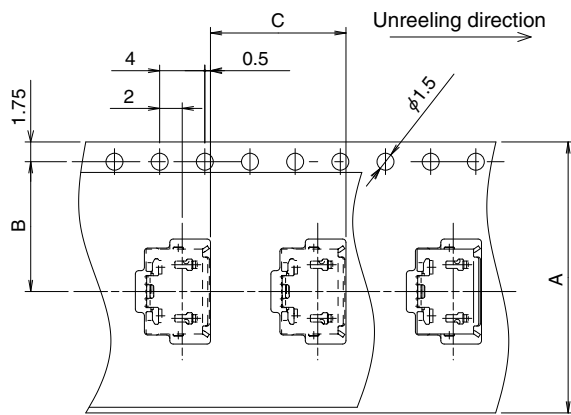
## ◆PCB mounting pattern



All dimensions : mm

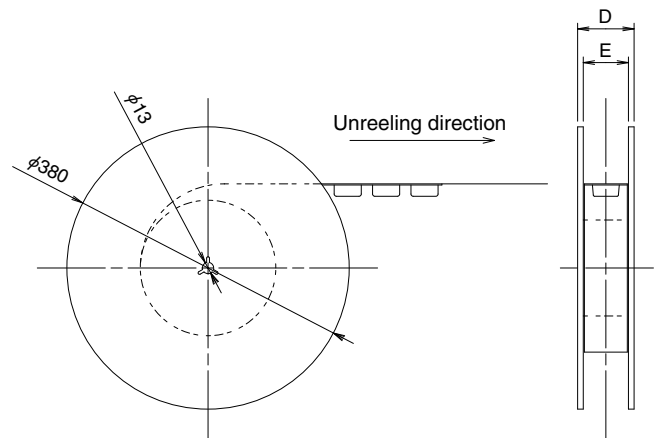
## ◆ Packaging Specifications

### ● Embossed carrier tape dimensions



| Part No.        | A dimension | B dimension |
|-----------------|-------------|-------------|
| ZX62-B-5PA(33)  | 24          | 11.5        |
| ZX62-AB-5PA(31) | 24          | 11.5        |
| ZX62M-B-5P(30)  | 24          | 11.5        |
| Other           | 16          | 7.5         |

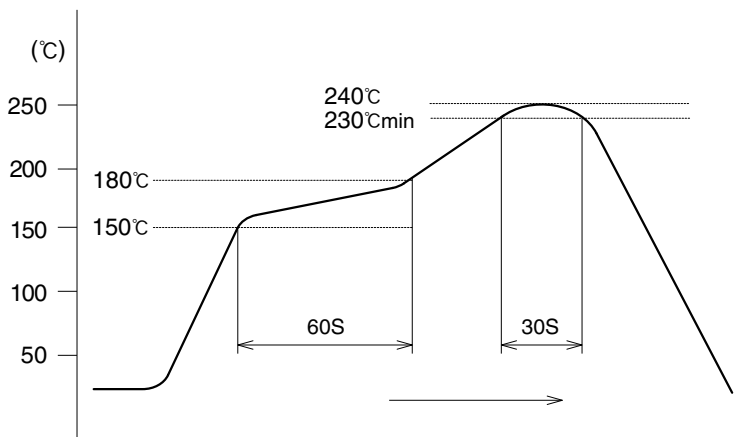
### ● Reel Dimensions



| Part No.        | D dimension | E dimension |
|-----------------|-------------|-------------|
| ZX62-B-5PA(33)  | 30.4        | 24.4        |
| ZX62-AB-5PA(31) | 30.4        | 24.4        |
| ZX62M-B-5P(30)  | 30.4        | 24.4        |
| Other           | 22.4        | 16.4        |

## ◆ Recommended Temperature Profile - Receptacles

### ● Using lead-free solder paste



The temperature profile is based on the left conditions.

In individual applications the actual temperature may vary, depending on solder paste type, volume/thickness and board size/thickness. Contact your solder paste and equipment manufacturer for specific recommendations.

Note 1 : Up to 2 cycles of Reflow soldering are possible under the same conditions, provided that there is a return to normal temperature between the first and second cycle.

Note 2 : The temperature profile indicates the board surface temperature at the point of contacts with the connector terminals.

## ◆ Precautions

- Exercise care when handling the connectors. Do not subject them to excessive external forces when mating/un-mating.
- Mate and un-mate as intended, holding by the overmolded body, in the correct direction. Do not un-mate by pulling on the cable.
- Some tooling marks may be visible on the surfaces of receptacle (shell/cover). No form/fit or function is affected.
- Appearance of the surface finishes on the receptacles may vary between production runs. No affect on form, fit or function.

MEMO :

Handwriting practice area consisting of multiple horizontal dashed lines.

[illegible]

**USA:**

**HIROSE ELECTRIC (U.S.A.), INC. HEADQUARTERS CHICAGO OFFICE**  
2300 Warrenville Road, Suite 150,  
Downers Grove, IL 60515  
Phone : +1-630-282-6700  
<http://www.hirose.com/us/>

**USA:**

**HIROSE ELECTRIC (U.S.A.), INC. BOSTON OFFICE**  
300 Brickstone Square Suite 201,  
Andover, MA 01810  
Phone : +1-978-662-5255

**GERMANY:**

**HIROSE ELECTRIC EUROPE B.V. NUREMBERG OFFICE**  
Neumeyerstrasse 22-26, 90411 Nurnberg  
Phone : +49-911 32 68 89 63  
Fax : +49-911 32 68 89 69  
<http://www.hirose.com/eu/>

**UNITED KINGDOM:**

**HIROSE ELECTRIC EUROPE BV (UK BRANCH)**  
4 Newton Court, Kelvin Drive, Knowlhill,  
Milton Keynes, MK5 8NH  
Phone : +44-1908 202050  
Fax : +44-1908 202058  
<http://www.hirose.com/eu/>

**CHINA:**

**HIROSE ELECTRIC TECHNOLOGIES (SHENZHEN) CO., LTD.**  
Room 09-13, 19/F, Office Tower Shun Hing Square, Di Wang Commercial Centre,  
5002 Shen Nan Dong Road, Shenzhen City, Guangdong Province, 518008  
Phone : +86-755-8207-0851  
Fax : +86-755-8207-0873  
<http://www.hirose.com/cn/>

**KOREA:**

**HIROSE KOREA CO.,LTD.**  
143, Gongdan 1-daero, Siheung-si,  
Gyeonggi-do, 15084, Korea  
Phone : +82-31-496-7000  
Fax : +82-31-496-7100  
<http://www.hirose.co.kr/>

**INDIA:**

**HIROSE ELECTRIC SINGAPORE PTE. LTD. BANGALORE LIAISON OFFICE**  
Unit No-403, 4th Floor, No-84, Barton Centre, Mahatma  
Gandhi (MG) Road, Bangalore 560 001, Karnataka, India  
Phone : +91-80-4120 1907  
Fax : +91-80-4120 9908  
<http://www.hirose.com/sg/>

**USA:**

**HIROSE ELECTRIC (U.S.A.), INC. SAN JOSE OFFICE**  
2841 Junction Ave, Suite 200  
San Jose, CA. 95134  
Phone : +1-408-253-9640  
Fax : +1-408-253-9641  
<http://www.hirose.com/us/>

**THE NETHERLANDS:**

**HIROSE ELECTRIC EUROPE B.V.**  
Hogehillweg #8 1101 CC Amsterdam Z-O  
Phone : +31-20-6557460  
Fax : +31-20-6557469  
<http://www.hirose.com/eu/>

**GERMANY:**

**HIROSE ELECTRIC EUROPE B.V. HANOVER OFFICE**  
Bayernstr. 3, Haus C 30855 Langenhagen, Germany  
Phone : +49-511 97 82 61 30  
Fax : +49-511 97 82 61 35  
<http://www.hirose.com/eu/>

**CHINA:**

**HIROSE ELECTRIC (SHANGHAI) CO., LTD.**  
18, Enterprise Center Tower 2, 209# Gong He  
Road, Jing'an District, Shanghai, CHINA 200070  
Phone : +86-21-6391-3355  
Fax : +86-21-6391-3335  
<http://www.hirose.com/cn/>

**HONG KONG:**

**HIROSE ELECTRIC HONGKONG TRADING CO., LTD.**  
Room 1001, West Wing, Tsim Sha Tsui Centre, 66  
Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong  
Phone : +852-2803-5338  
Fax : +852-2591-6560  
<http://www.hirose.com/hk/>

**SINGAPORE:**

**HIROSE ELECTRIC SINGAPORE PTE. LTD.**  
03, Anson Road, #20-01, Springleaf Tower,  
Singapore 079909  
Phone : +65-6324-6113  
Fax : +65-6324-6123  
<http://www.hirose.com/sg/>

**MALAYSIA:**

**PENANG REPRESENTATIVE OFFICE**  
73-3-1, Ideal@The One, Jalan Mahsuri, Bayan  
Lepas Penang, 11950, Malaysia  
Phone : +604-648-5536  
<http://www.hirose.com/sg/>

**USA:**

**HIROSE ELECTRIC (U.S.A.), INC. DETROIT OFFICE (AUTOMOTIVE)**  
17197 N. Laurel Park Drive, Suite 253,  
Livonia, MI 48152  
Phone : +1-734-542-9963  
Fax : +1-734-542-9964  
<http://www.hirose.com/us/>

**GERMANY:**

**HIROSE ELECTRIC EUROPE B.V. GERMAN BRANCH**  
Schoenbergstr. 20, 73760 ostfildern  
Phone : +49-711-456002-1  
Fax : +49-711-456002-299  
<http://www.hirose.com/eu/>

**FRANCE:**

**HIROSE ELECTRIC EUROPE B.V. PARIS OFFICE**  
130 Avenue Joseph Kessel, Bat E, 78960  
Voisins le Bretonneux, France  
Phone : +33-1-85764886  
Fax : +33-1-85764823  
<http://www.hirose.com/eu/>

**CHINA:**

**HIROSE ELECTRIC (SHANGHAI) CO.,LTD. BEIJING BRANCH**  
A1001, Ocean International Center, Building 56# East 4th  
Ring Middle Road, ChaoYang District, Beijing, 100025  
Phone : +86-10-5165-9332  
Fax : +86-10-5908-1381  
<http://www.hirose.com/cn/>

**TAIWAN:**

**HIROSE ELECTRIC TAIWAN CO., LTD.**  
103 8F, No.87, Zhengzhou Rd., Taipei  
Phone : +886-2-2555-7377  
Fax : +886-2-2555-7355  
<http://www.hirose.com/tw/>

**INDIA:**

**HIROSE ELECTRIC SINGAPORE PTE. LTD. DELHI LIAISON OFFICE**  
Office NO.552, Regus-Green Boulevard, Level5, Tower C,  
Sec62, Plot B-9A, Block B, Noida, 201301, Uttar Pradesh, India  
Phone : +91-12-660-8018  
Fax : +91-120-4804949  
<http://www.hirose.com/sg/>

**THAILAND:**

**BANGKOK OFFICE (REPRESENTATIVE OFFICE)**  
Unit 4703, 47th FL., 1 Empire Tower, South Sathorn  
Road, Yannawa, Sathorn, Bangkok 10120 Thailand  
Phone : +66-2-686-1255  
Fax : +66-2-686-3433  
<http://www.hirose.com/sg/>



## HIROSE ELECTRIC CO.,LTD.

2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN  
TEL: +81-45-620-3526 Fax: +81-45-591-3726  
<http://www.hirose.com>  
<http://www.hirose-connectors.com>