# XH 2.5 mm Wire-to-Board Connector Parts

**Vertical through-hole PCB headers (2, 3 and 6 pins) and empty plug housings (3, 5 and 6 ways). Made to the XH family standard dimensions.**

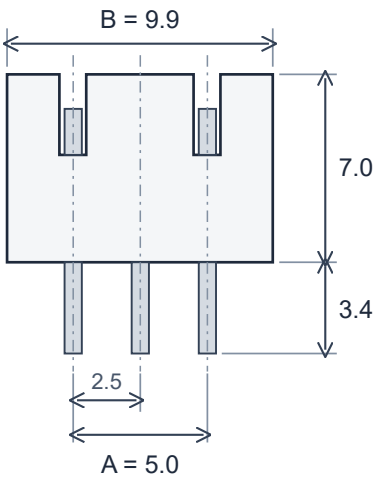
## 1 PARTS COVERED

| PART | TYPE | POSITIONS | BODY L X D X H (MM) | PIN SPAN A (MM) | MATES WITH |
|---|---|---|---|---|---|
| XH 2-pin PCB header | Vertical, through-hole | 2 | 7.4 x 5.75 x 7.0 | 2.5 | XH 2-way housing |
| XH 3-pin PCB header | Vertical, through-hole | 3 | 9.9 x 5.75 x 7.0 | 5.0 | XH 3-way housing |
| XH 6-pin PCB header | Vertical, through-hole | 6 | 17.4 x 5.75 x 7.0 | 12.5 | XH 6-way housing |
| XH 3-way housing | Wire housing, empty | 3 | 9.8 x 5.7 x 7.5 | 5.0 | XH 3-pin header |
| XH 5-way housing | Wire housing, empty | 5 | 14.8 x 5.7 x 7.5 | 10.0 | XH 5-pin header |
| XH 6-way housing | Wire housing, empty | 6 | 17.3 x 5.7 x 7.5 | 12.5 | XH 6-pin header |

A = (positions - 1) x 2.5 mm. Header body length B = A + 4.9 mm; housing width = A + 4.8 mm. Housings have one cavity per position; crimp terminals are not included.

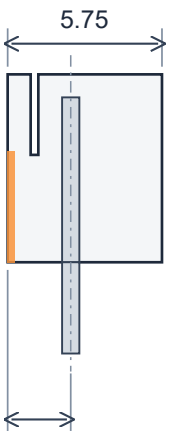
## 2 HEADER DRAWING, 3-PIN AND 6-PIN

Front view, latch-side wall (3-pin shown)



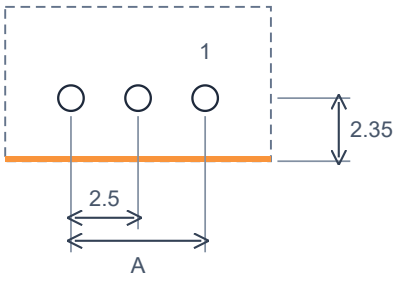

Pin 1 is the right-hand pin seen from the latch side

Side view




Latch side (orange)

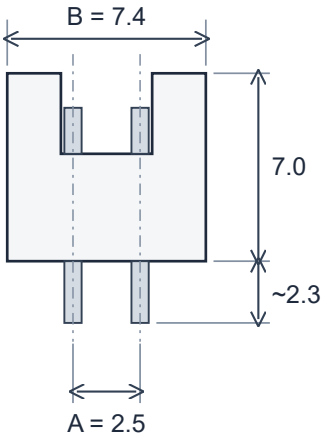
PCB footprint, component side

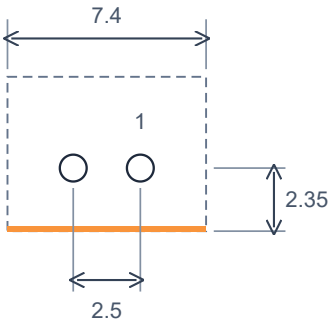



3 x hole 0.9 to 1.0 mm
Latch side = orange edge
Board 1.6 mm suits the 3.4 mm pins

Nominal dimensions in mm, XH family standard. Front view from the latch side; footprint is the top view from the component side with the latch side at the bottom. Simplified, not to scale between views. The 6-pin header is the same section with A = 12.5 and B = 17.4; its two slots also line up with the end pins.

## 3 HEADER DRAWING, 2-PIN




2 x hole 1.0 mm
(0.9 to 1.0 mm for 3 pins and up)

Latch side = orange edge

Pin 1 on the right, latch side towards you

One wide latch slot, no centre tongue

Left: front view from the latch side. Right: PCB footprint seen from the component side, latch side at the bottom. Nominal dimensions in mm, XH family standard; ~2.3 is the pin length scaled from Click IT stock photos. Depth 5.75 mm and the 2.35 mm row offset are as the 3-pin side view. Simplified, not to scale between views.

## 4 HEADER DATA

| PARAMETER | VALUE |
|---|---|
| Pitch | 2.5 mm |
| Pins | 0.64 mm square, straight, silver finish |
| Pin below board seat | 3.4 mm family value; stock scales to ~3.5 mm (3-pin) and ~2.3 mm (2-pin) |
| Height above board | 7.0 mm (9.8 mm with plug fitted) |
| Pin row offset | 2.35 mm from the latch-side face |
| Shroud | White moulded plastic, open top |
| Polarisation | Latch wall with 2 slots (3-pin and 6-pin) or one wide slot (2-pin); plug fits one way |
| PCB hole | 1.0 mm (2-pin); 0.9 to 1.0 mm (3-pin and 6-pin) |
| Markings | None |

## 5 FOOTPRINT AND PITCH

**Holes:** 1.0 mm finished for the 2-pin and 0.9 to 1.0 mm for 3 pins and up, in one row at 2.5 mm. Pitch tolerance must not accumulate along the row. A board of 1.6 mm suits the pins.

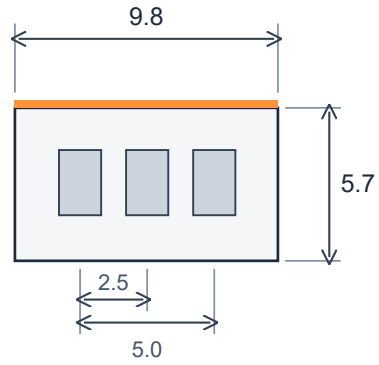
**On a 2.54 mm (0.1 in) grid:** the row is 0.04 mm wider per position. That is 0.04 mm over the 2-pin, 0.08 mm over the 3-pin and 0.20 mm over the 6-pin, which all fit these holes. Draw a 2.5 mm footprint for a new board.

**Pin 1:** seen from the component side with the latch side towards you, pin 1 is the right-hand hole.

**Not interchangeable with PH:** PH is 2.0 mm pitch and smaller all round. A PH plug does not seat in an XH header.

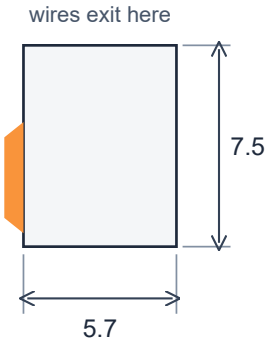
## 6 PLUG HOUSING AND MATING

Housing, wire-entry end (3-way)



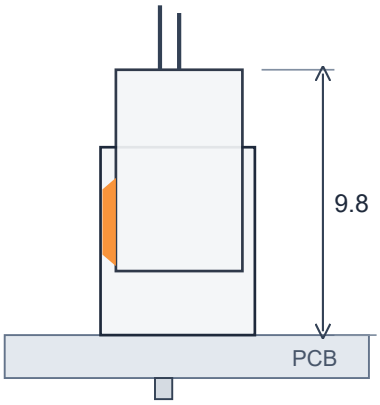

Latch side = orange edge
3 cavities for XH crimp terminals

Housing, side view




Latch ramp (orange)
mating end at the bottom

Fitted to a header

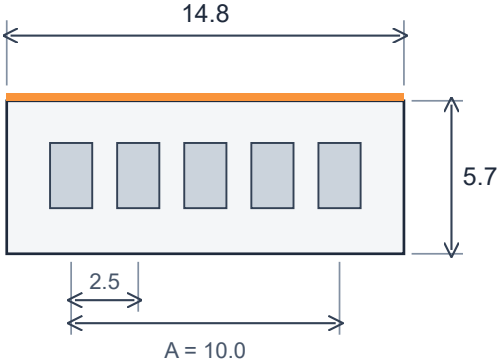



Plug latch ramps face the
header's slotted wall

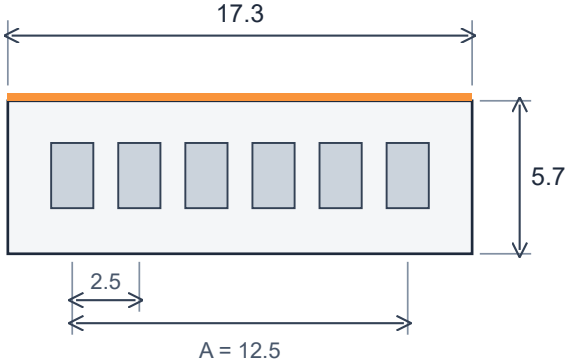
Nominal dimensions in mm, XH family standard. Simplified, not to scale between views. 9.8 mm is the height from the board to the top of the fitted plug, before the wires. The 5-way and 6-way housings have the same side view and fitted height.

## 7 HOUSINGS, 5-WAY AND 6-WAY

Housing, wire-entry end (5-way)




Housing, wire-entry end (6-way)




Latch side = orange edge. One cavity per position for XH crimp terminals.

Nominal dimensions in mm, XH family standard. Simplified, not to scale between views. Length along the wires is 7.5 mm, as the 3-way housing in section 6.

## 8 WIRE AND TERMINAL DATA

| PARAMETER | VALUE |
|---|---|
| Terminal type | XH 2.5 mm crimp socket terminal (not included) |
| Wire size, standard terminal | 28 to 22 AWG (0.08 to 0.33 mm²) |
| Insulation diameter | 0.9 to 1.9 mm |
| Thin-wire terminal | 30 to 26 AWG, insulation 0.9 to 1.3 mm |
| Recommended current | 2 A or less per contact |
| Crimping | Open-barrel crimp tool with a 2.5 mm terminal die |

The XH family is commonly quoted at 3 A per contact on 22 AWG wire. We recommend 2 A for these parts.

## 9 ASSEMBLY AND USE

- **Fit the header:** push it flat onto the board, solder one pin, check it is square, then solder the rest. Keep each joint short so the plastic does not soften.
- **Make the lead:** crimp a terminal to each wire, then push it into the back of the housing until it clicks. Tug each wire to check it has locked.
- **Mate:** line the housing's latch ramps up with the header's slotted wall and push straight down until it latches.
- **Unplug:** pull on the housing, not the wires. Rock it gently along the row if it is tight.
- **Balance leads:** 3-way, 5-way and 6-way XH plugs are the usual 2S, 4S and 5S balance connectors. Check the wire order against your charger before connecting.

## 10 REVISION HISTORY

| REV | DATE | CHANGE |
|---|---|---|
| 1.0 | 2026-10-19 | First release covering the 3-pin and 6-pin headers and the 3-way housing |
| 2.0 | 2026-11-02 | Added the 2-pin header (one wide latch slot, 1.0 mm holes) and the 5-way and 6-way housings, with drawings; pin 1 note added to the footprint section |