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COMFORT v2

Pinout Guide

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Table of Contents

1 Pinout Configuration

The pinout configuration of the external connectors on COMFORT v2 are listed in Table 1-1.

Table 1-1: Pinout Configuration (Pin and Signal Names)

PIN	SIGNAL NAME	PIN	SIGNAL NAME
A1	GND	B12	GND
A4	VBUS	B9	VBUS
A5	CC1	B8	SBU2
A6	DP1	B7	DN2
A7	DN1	B6	DP2
A8	SBU1	B5	CC2
A9	VBUS	B4	VBUS
A12	GND	B1	GND

- The input contacts are SBU1 (A8) and SBU2 (B8).
- The valve control function is on VBUS / GND.

Important Notes:

- These USB-C type connectors are custom and proprietary. They do not conform to the USB-C standards.
- For valve control functions, it is recommended to use a cable where the shield is not connected to GND as it may cause unexpected behavior.
    - Two such examples are Würth Elektronik 632910731611 and Connective Peripherals Pte Ltd MB-C-1M-BK
- For monitoring logic levels, please bear in mind that SBU2 is grounded on the PCBA. Therefore, the connector is not symmetric, and the orientation of the USB-C cable will matter.

Figure 1-1 shows the pin layout for the receptacle end of the USB-C connectors on the PCBA.

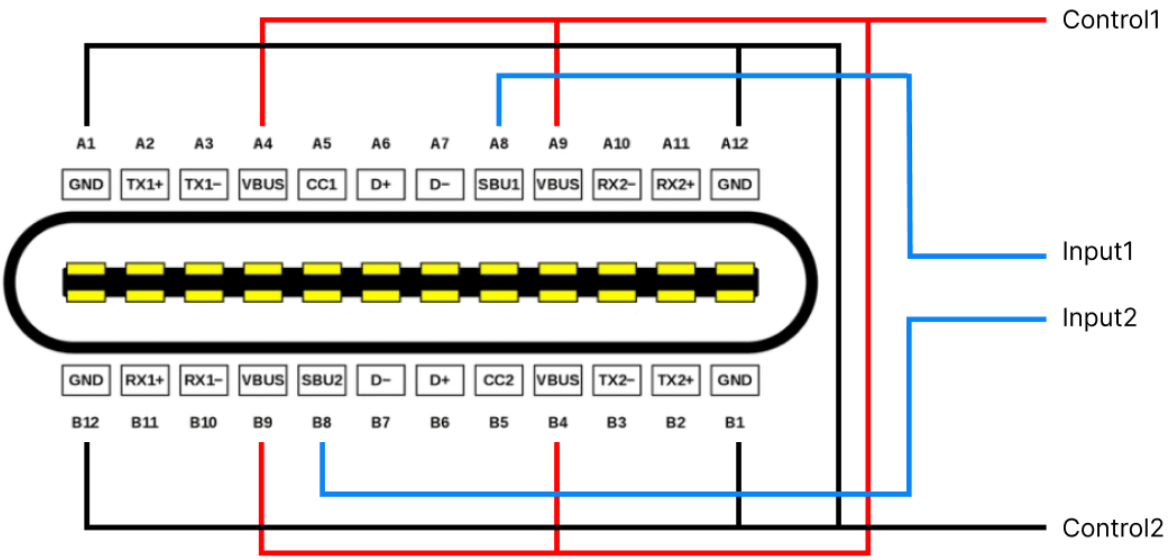

Figure 1-1: USB-C External Connector Pin Layout

Revision History

Revision	Date	Editor	Position	Comments
1.0	November 30, 2024	Emma Tholl	Systems Engineer	Initial Draft
1.1	December 4, 2024	Emma Tholl	Systems Engineer	Incorporated feedback from design team.
1.2	May 1, 2025	Rob Sizeland	Digital HW Manager	Added example valve control USB cables