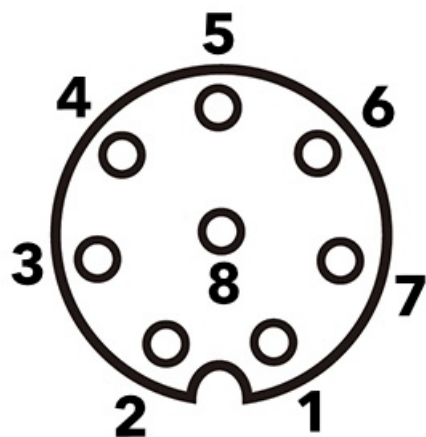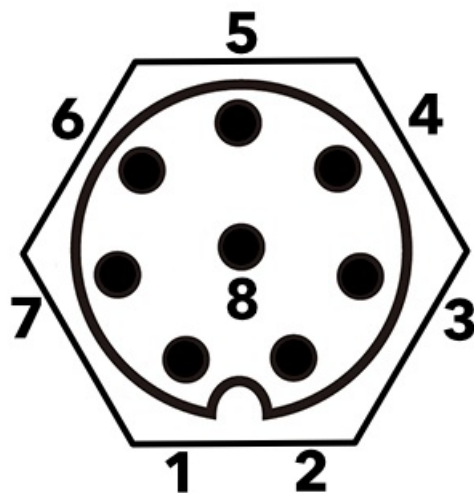# Tracker M8 Accessories$^{(001)}$

## M8 Pinouts



**M8 Connector on cable**

Facing sockets on connector end of cable



**M8 Connector on Tracker One**

Facing pins on the panel connector from the outside of the case

The 8-pin connector has these signals:

| M8 Pin | Function | Function | Function | I/O | Color |
|---|---|---|---|---|---|
| 1 | CAN_P | | | IO$^2$ | Yellow |
| 2 | VIN$^3$ | | | I | Red |
| 3 | Analog A3 | | GPIO D3 | IO$^1$ | White |
| 4 | Serial1 RX | Wire3 SDA | GPIO D8 | IO$^1$ | Green |
| 5 | Serial1 TX | Wire3 SCL | GPIO D9 | IO$^1$ | Brown |
| 6 | CAN_5V$^4$ | | CAN_PWR | O | Orange |
| 7 | CAN_N | | | IO$^2$ | Blue |
| 8 | GND | | | | Black |

[1]MCU GPIO is limited to 3.3V maximum.

[2]CAN Bus specifications can be found in the [Tracker SoM datasheet](). CAN Bus termination is provided on the carrier board.

[3]6.0 to 30 VDC at 2A when using the M8 connector.

[4]5V, 400 mA maximum. Controlled by the `CAN_PWR` GPIO.

You typically connect the cable to your custom external interface device by routing the cable through a cable gland in your enclosure and to your custom board and:

- Terminate with pins in a PHR-8 to mate with a B8B-PH on your expansion board
- Terminate with screw terminals on your board
- Terminate by soldering the wires to your board

For more information on expanding your Tracker One using the M8 connector, see the [Tracker One Expansion Tutorials]().
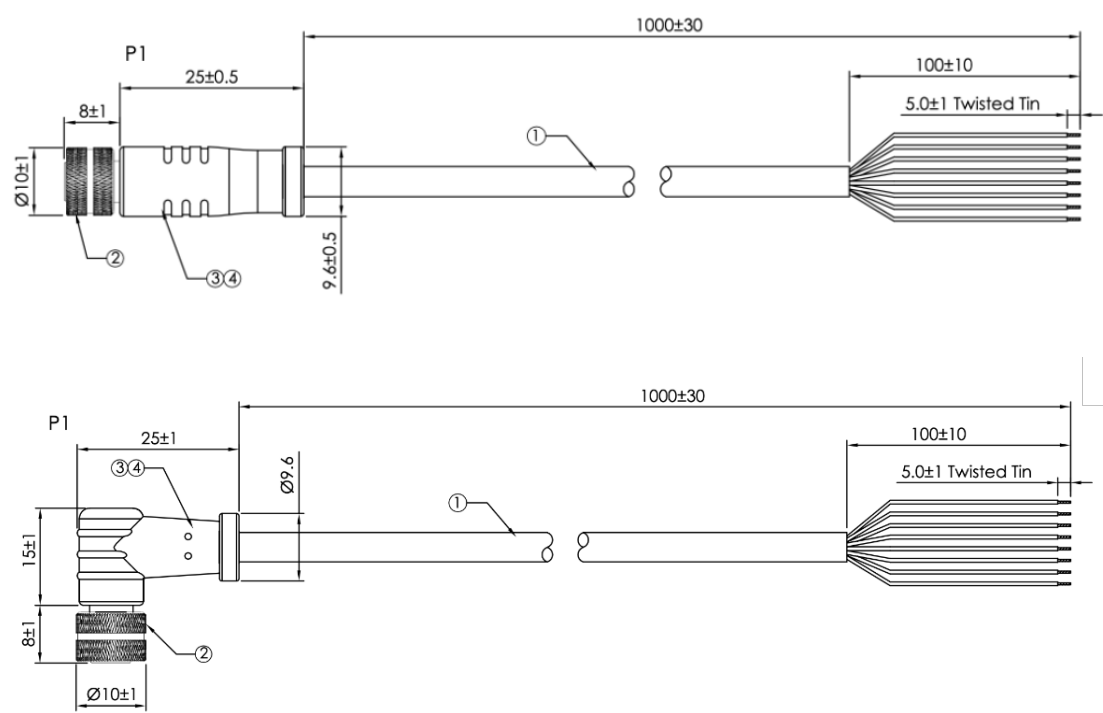
# M8 Cables



The M8 cables provide a convenient way to connect external devices to the Tracker One while preserving the IP67 waterproof rating and not having to disassemble the Tracker One.

## WIRE GAUGE - M8 CABLES

| M8 Pin | Function | Color | Wire Gauge |
|--------|----------|-------|------------|
| 1 | CAN_P | Yellow | 26 AWG |
| 2 | VIN | Red | 24 AWG |
| 3 | A3 | White | 26 AWG |
| 4 | TX_SDA_D8 | Green | 26 AWG |
| 5 | TX_SCL_D9 | Brown | 26 AWG |
| 6 | CAN_5V | Orange | 26 AWG |
| 7 | CAN_N | Blue | 26 AWG |
| 8 | GND | Black | 24 AWG |

## DIMENSIONS - M8 CABLES



| Parameter | Value |
|-----------|-------|
| Length | 1 meter ±3 cm |
| Outer jacket stripped | 10 cm ±1 cm |
| Inner wires stripped and tinned | 5 mm ±1 mm |
| Outer Diameter | 5.0 mm |
| Approvals | UL2464, RoHS |

## SKUS - M8 CABLES

| SKU | Description |
|-----|-------------|
| ONEM8CABEA | Tracker One M8 Accessory Cable (Straight), (x1) |
| ONEM8CABTY | Tracker One M8 Accessory Cable (Straight), (x40) |
| ONEM8CABRAEA | Tracker One M8 Accessory Cable (Right Angle), (x1) |
| ONEM8CABRATY | Tracker One M8 Accessory Cable (Right Angle), (x40) |

# M8 Connector



**SKUS - M8 CONNECTOR**

| SKU | Description |
| --- | --- |
| ONEM8CONNEA | Tracker One M8 Connector (Straight), (x1) |
| ONEM8CONNTY | Tracker One M8 Connector (Straight), (x40) |

This connector has the same pinouts as the cable above, but without the cable, so you can substitute your own cable of the desired length.

# Revision history

| Revision | Date | Author | Comments |
|----------|------|--------|----------|
| 001 | 2020 Sep 15 | RK | First release |