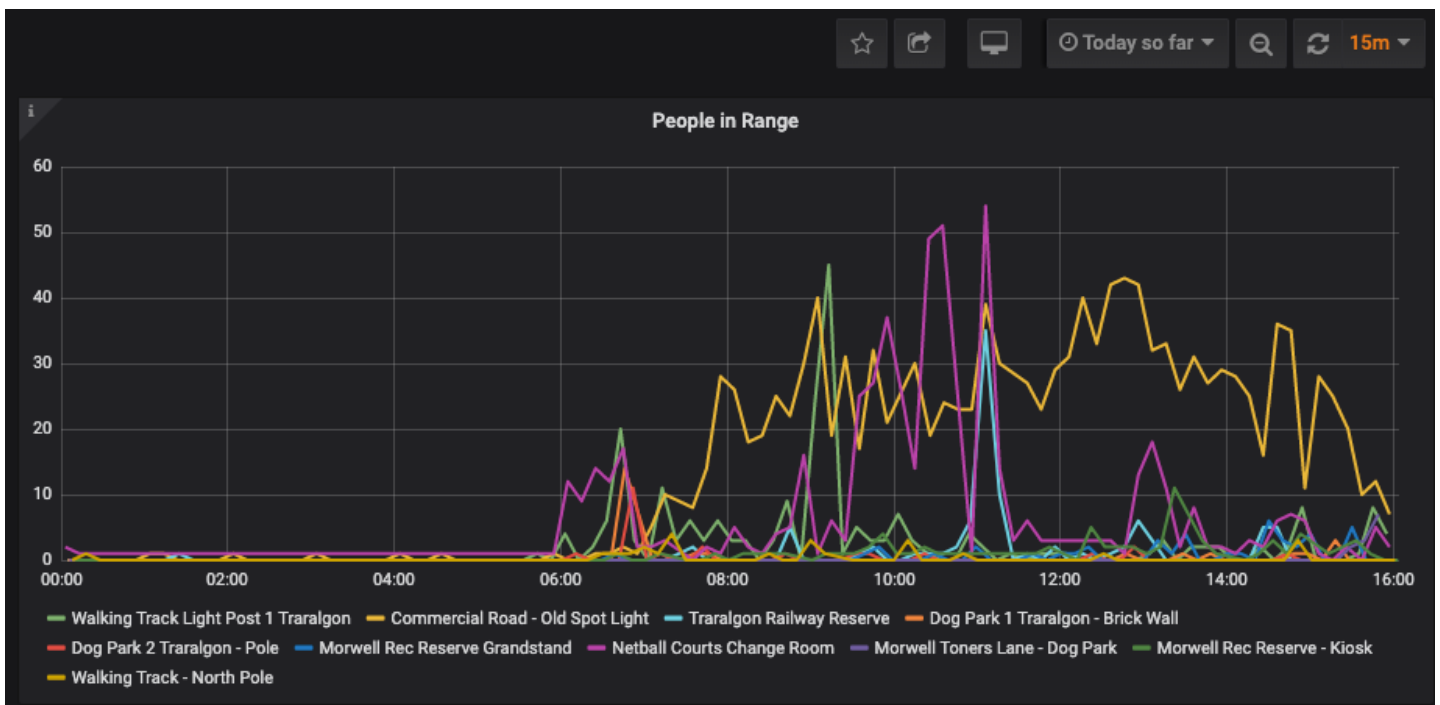## Description

Meshed nCounter is a people counting solution designed to provide a close approximate count of the number of people in a given area. It achieves this by anonymously counting the number of WiFi enabled devices within a user definable range. Data is transmitted in 10 minute segments & reports over a secure LoRaWAN® connection to the nCounter platform where the data is visualized. An annual subscription for platform, dashboard, data access & storage applies. Meshed nCounter devices require LoRaWAN coverage. LoRaWAN coverage can be created easily for a nominal additional cost if none exists at your location.

Applications

- 24/7 People counting insights for
- Parks & Playgrounds
- Sidewalks/Walking Trails
- Cycle Trails/Bike Ways/Paths
- Malls & Shopping Precincts
- Commercial/Central Business Districts
- Town Hall/Libraries/Community Halls
- Smart Precincts & Digital Hubs
- Events Festivals
- Sports Fields/Recreation areas
- Public Amenities
- Tourism Hotspots
- Entertainment Districts
- Train Stations
- Bus Stops
- & More

Data Metrics

- Number of Devices:
  - Total - Total in range in this period (i.e. current + new)
  - New - Detected in this period who were not here in the previous period.
  - Current - Still in range from previous period.
  - Left - That have left in this period.
- Dwell Times per Hour, Day, Month, Year
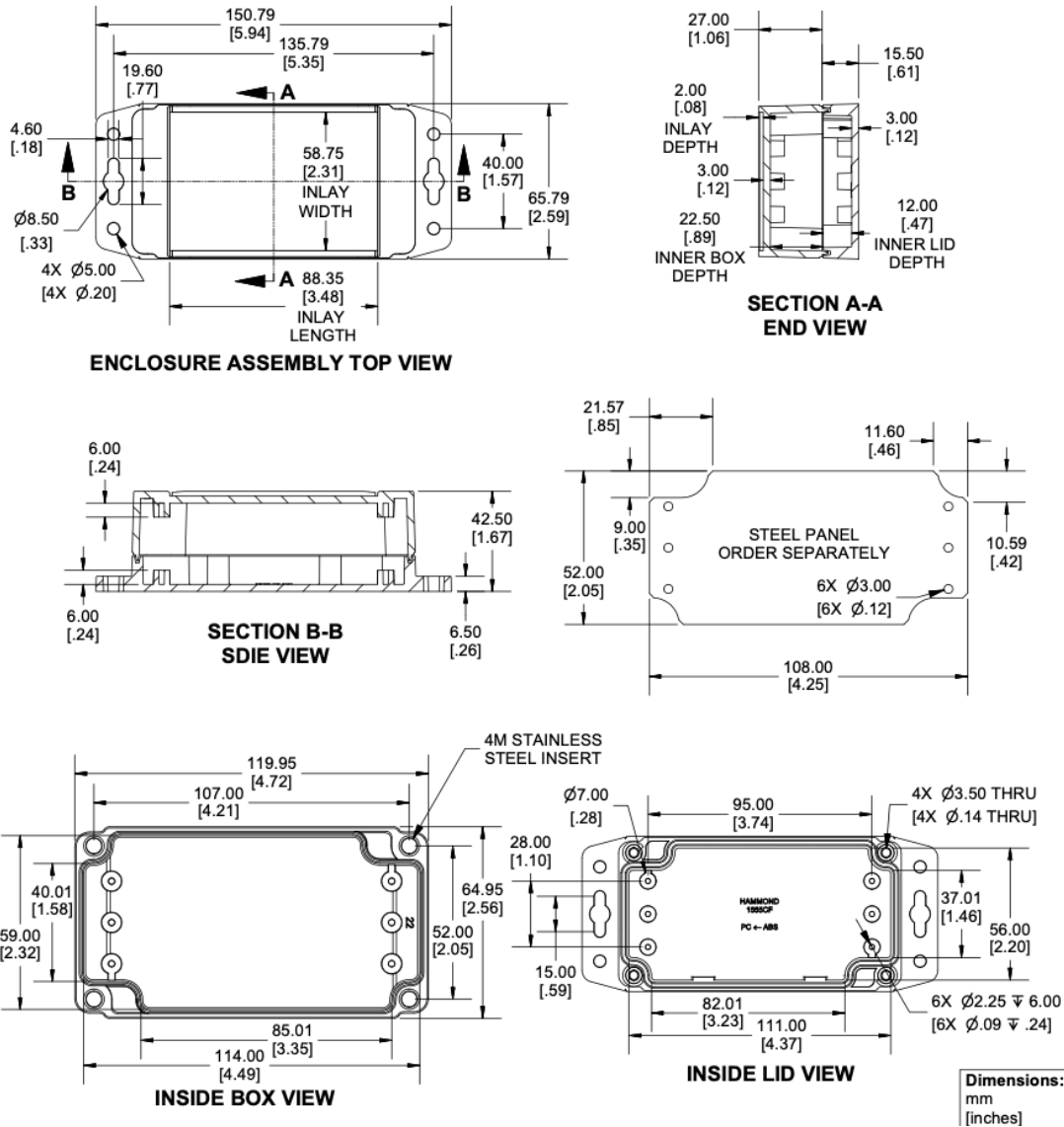- Specify Your Own Time Periods
- Average Dwell Times

Visualization Dashboard

Key Functionality

Limits	– **Maximum cell phones counting limit per 10-minute period:** 300 – **Maximum Wi-Fi range:** Approximately up to 164 feet (50 metres). Typical range of any personal electronics with Wi-Fi. The range can be user definable. – **Default Wi-Fi range:** Around 66 feet (20 meters) Can be increased or decreased by setting Wi-Fi RSSI Threshold remotely (contact Meshed Support). – **LoRaWAN® range:** Up to 10 miles (16 kms) in flat/rural areas, down to 1–2 miles (1.6 to 3kms) in dense urban areas. Typical range for any LoRaWAN®. Physical limitations include terrain, hard obstacles e.g. concrete/buildings & position of LoRaWAN® gateway.
Range	The people counting range can be changed from less than 3.28 feet (1 metre) all the way up to the maximum range of the Wi-Fi module. Things to consider: – **Accuracy:** There is a trade-off between range, accuracy and the speed at which people pass through the area. Too small ranges with fast traffic will yield low accuracy (under-counting). – **Maximum limit:** If the range is too large, the maximum counting limit maybe reached. Also, if there are more than approx. 300 present per 10 minute segment.
Location	– When an nCounter device is powered up, the nCounter platform will attempt to locate the device & place it on the map. If there are no (or few) Wi-Fi networks nearby, its location may be inaccurate or unavailable. The device position can be manually entered if necessary.
API	– Data can be pushed to other platforms in most instances using a REST API call, specifically a HTTP POST.
Privacy	– Only the aggregated device count data is transmitted over LoRaWAN & never any information that can identify an individual mobile WiFi device, cell phone or its owner. – The nCounter LoRaWAN node device has no external interface, other than a power connector, & no data can be read directly from the device. The device can only communicate over secure LoRaWAN.
Conditions of Use	– Meshed offers the nCounter Solution including devices, platform & maintenance subscription using a "licence to use" arrangement. – Customers own the hardware and data & can extract/export their data for internal purposes. However, as the licensor of the solution, Meshed should be attributed if/when nCounter data and insights are re-used and/or published to online public websites including news media, professional journals, public digital twins or public third party platforms. – Meshed reserves the right to use the data for its own marketing, product development or commercial purposes.

Product Specifications

Dimensions	151(W) x 66(D) x 42(H)mm
Weight	160 gm
Power requirements	5-16 VDC, <300mA (Solar powered optional)
IP Rating	IP67 for nCounter device. USB Power Supply not IP rated
Operating Temperature	-40°C to +85°C (-40°F to +185°F)
Regional Parameters	LoRaWAN Band Plans AU915, AS923, US915
LoRaWAN Device Type	Class C
Wireless Technology	LoRaWAN® v1.0.4
	LoRaWAN® is a mark used under license from the LoRa Alliance®.

nCounter Device Dimensions

ENCLOSURE ASSEMBLY TOP VIEW

150.79 [5.94]
135.79 [5.35]
19.60 [.77]
4.60 [.18]
58.75 [2.31] INLAY WIDTH
40.00 [1.57]
65.79 [2.59]
Ø8.50 [.33]
4X Ø5.00 [4X Ø.20]
88.35 [3.48] INLAY LENGTH

SECTION A-A END VIEW

27.00 [1.06]
15.50 [.61]
2.00 [.08] INLAY DEPTH
3.00 [.12]
3.00 [.12]
22.50 [.89] INNER BOX DEPTH
12.00 [.47] INNER LID DEPTH

SECTION B-B SDIE VIEW

6.00 [.24]
42.50 [1.67]
6.00 [.24]
6.50 [.26]

STEEL PANEL ORDER SEPARATELY

21.57 [.85]
11.60 [.46]
9.00 [.35]
10.59 [.42]
52.00 [2.05]
6X Ø3.00 [6X Ø.12]
108.00 [4.25]

INSIDE BOX VIEW

4M STAINLESS STEEL INSERT
119.95 [4.72]
107.00 [4.21]
40.01 [1.58]
64.95 [2.56]
59.00 [2.32]
52.00 [2.05]
85.01 [3.35]
114.00 [4.49]

INSIDE LID VIEW

Ø7.00 [.28]
95.00 [3.74]
4X Ø3.50 THRU [4X Ø.14 THRU]
28.00 [1.10]
37.01 [1.46]
56.00 [2.20]
HAMMOND 1555CF PC ← ABS
15.00 [.59]
82.01 [3.23]
111.00 [4.37]
6X Ø2.25 ▽ 6.00 [6X Ø.09 ▽ .24]

Dimensions:
mm
[inches]

Items Supplied in the box	
nCounter Device	**Power Cable 6ft (2m).** Various lengths available.
USB Power Adapter Country specific plugs and compliance.	**Optional nCounter Solar Power Kit** includes solar panel, bracket, rechargeable battery, cables & connectors