

## IloT device overview

### Wireless and wired devices for IloT applications

#### IloT Multi-Function Device with server connection





## Devices for IIoT applications

Device	Designation	specification
	<p><b>IIoT Multi-Function Device</b> for IIoT solutions</p>	<p><b>Applications:</b> suitable as a <b>gateway, beacon scanner, tracking module, telemetry unit, camera control</b> , and much more</p> <p><b>Cellular:</b> LoRa/LoRaWAN, BLE, Wi-Fi, mobile radio, GNSS</p> <p><b>Wired:</b> DigIn, DigOut, AnIn, AnOut, RS232, RS485, 1Wire, Ethernet (PoE)</p> <p><b>Power supply:</b> 220V power supply, vehicle electrical system (6V/12V/24V), battery, solar</p> <p><b>Miscellaneous:</b> buzzer, reed relay, temperature sensor, humidity sensor, battery charging circuit, 2 processors for double the computing power, waterproof IP67, operating temperature: -40 °C ~ 80 °C Size: 130x80x35 mm, weight: 200 g</p>
	<p><b>Autonomous Tracking Device</b> for IIoT solutions</p>	<p><b>Applications:</b> suitable as a <b>tracking module, beacon scanner</b></p> <p><b>Cellular:</b> LoRa, LoRaWAN, BLE, mobile radio</p> <p><b>Miscellaneous:</b> 3D acceleration sensor up to 2 high-performance lithium batteries, 16Ah, 3.9 V, Mono-D battery, at least 10 years with 1 position per day, waterproof IP66K, operating temperature: -40 °C ~ 80 °C size: 150x80x41 mm, weight: approx. 480 g</p>
	<p><b>IIoT Sensor box</b> LoRa, robust, waterproof</p>	<p><b>Applications:</b> temperature sensor, humidity sensor, 3-axis motion sensor, other sensors on request</p> <p><b>Cellular:</b> LoRa, range: up to 1000 m in clear line of sight</p> <p><b>Miscellaneous:</b> batteries: e.g. 2 x 8,500 mAh waterproof IP67, operating temperature: -40 °C ~ 80 °C, size: 82x80x55 mm, weight: 102-200 g depending on the battery</p>
	<p><b>LoRa Beacon</b> robust, waterproof</p>	<p><b>Applications:</b> identification of objects, places, people, animals in harsh environments or in difficult radio conditions at long distances</p> <p><b>Cellular:</b> LoRa / LoRaWAN, range up to 1000 m in clear line of sight</p> <p><b>Miscellaneous:</b></p> <ul style="list-style-type: none"> <li>▪ temperature sensor, 3D acceleration sensor</li> <li>▪ battery: 700 mAh, at least 5 years battery life</li> <li>▪ waterproof IP68, operating temperature: -20 °C ~ 60 °C</li> <li>▪ size: 57x35x16 mm</li> <li>▪ weight: 35 g</li> </ul>

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Device	Designation	specification
	<b>BLE Beacon</b> BLE, robust, waterproof	<p><b>Applications:</b> identification of objects, places, people in harsh environments</p> <p><b>Wireless:</b> Bluetooth 5.2, range up to 100 m in clear line of sight</p> <p><b>Miscellaneous:</b> data format: iBeacon, Eddystone, TLM battery: 550 mAh, at least 5 years battery life waterproof IP69k operating temperature: -20 °C ~ 85 °C size: 38x32x16 mm, weight: 27 g</p>
	<b>BLE EYE Beacon</b> BLE, robust, waterproof	<p><b>Applications:</b> Identification of objects, places, people in harsh environments</p> <p><b>Wireless:</b> Bluetooth 5.2, range up to 80 m in clear line of sight</p> <p><b>Miscellaneous:</b> data format: iBeacon, Eddystone battery: 600 mAh, at least 5 years battery life waterproof IP67 operating temperature: -20 °C ~ 60 °C size: 56.6x38x13 mm, weight: 18 g</p>
	<b>BLE Beacon</b> BLE, simple	<p><b>Applications:</b> identification of objects, places, people</p> <p><b>Wireless:</b> Bluetooth 5.2, range up to 100 m in clear line of sight</p> <p><b>Miscellaneous:</b> data format: iBeacon, Eddystone, TLM battery: 220 mAh, at least 2 years battery life waterproof IP55 operating temperature: -20 °C ~ 85 °C size: 37x22x6 mm weight: 7 g</p>
	<b>Temperature Sensor</b> LoRa, robust, waterproof	<p><b>Applications:</b> temperature recording in refrigerators, incubators, data centers, animal transport, etc.</p> <p><b>Radio:</b> LoRa, range: up to 1000 meters with clear line of sight</p> <p><b>Miscellaneous:</b> batteries: AAA 3.6 V, 750 mAh, replaceable waterproof IP67 operating temperature: -30 °C ~ 85 °C size: 70x34x15 mm weight: 31 g</p>

## Devices for IIoT applications

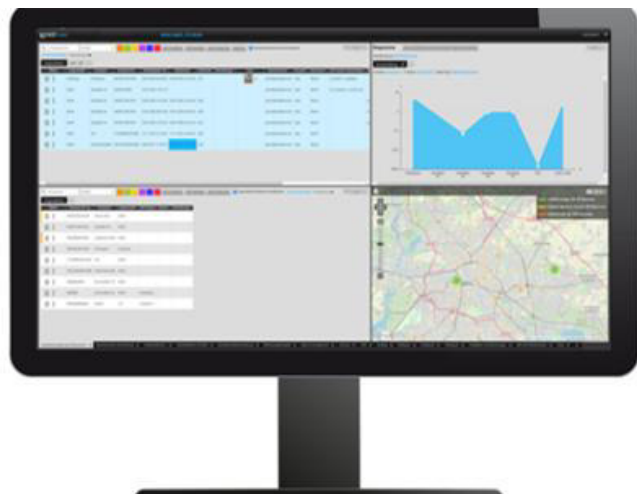
Device	Designation	specification
	<p><b>Camera Extension</b> In the housing of the multifunction device</p>	<p><b>Applications:</b></p> <ul style="list-style-type: none"> <li>determining the progress of unloading trailers</li> <li>security applications</li> </ul> <p><b>Characteristics:</b></p> <ul style="list-style-type: none"> <li>installation in the housing of the multifunctional device; thus IP67 waterproof, mechanically well protected, cable connection</li> <li>operating temperature: -20 °C ~ 60 °C</li> <li>size: 130x80x50 mm</li> <li>transparent cover for camera view and 6 status LEDs</li> </ul>
	<p><b>iButton Key and Reader</b> Very robust, magnetic</p>	<p><b>Applications:</b></p> <p>ID of people</p> <ul style="list-style-type: none"> <li>Drivers of vehicles</li> <li>Access control</li> <li>Time recording</li> </ul> <p><b>Characteristics:</b></p> <ul style="list-style-type: none"> <li>1Wire connection, 2 LEDs for booking confirmation</li> <li>magnetic</li> <li>for indoor use</li> </ul>

## Connection to the ENAIKOON web portal inViu pro

ENAIKOON inViu pro is the **web platform for monitoring any trackables** such as cars, trucks, construction machinery, containers, agricultural vehicles, cranes, small equipment, animals, people and much more

In addition to GPS tracking, the platform offers a variety of **evaluations**, e.g. logbooks, operating hours, preventive maintenance data, temperature monitoring, tank level management and much more.

Mobile **Asset Management** is an integral part of the platform. Key reports in this context include:



- Where is each **small device** currently:  
GPS coordinates / construction site name / warehouse
- Who is responsible for which small appliance:  
**seamless chain of responsibility** – at any given time, a specific employee is responsible for each part
- Which small device is assigned to which **cost center** :  
Raw data for the post-calculation of a construction site
- Which small equipment is currently available / not available:  
**Optimization of the inventory** of small equipment; no unwanted hoarding of small equipment on construction sites
- What is the **utilization rate** of a category of small appliances: are there too many appliances of one type, so that their stock should be reduced?
- How high is the **loss** of small equipment per equipment class, per construction site, per employee?