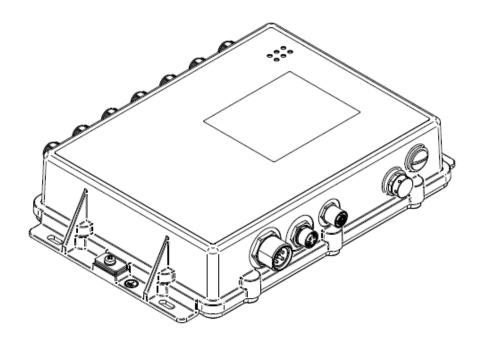


# Information sheet

# **Outdoor safety instructions DAP847**





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## Safety instructions



#### **UNCONTROLLED MACHINE ACTIONS**

To avoid uncontrolled machine actions caused by data loss, configure all the data transmission devices individually.

Before you start any machine which is controlled via data transmission, be sure to complete the configuration of all data transmission devices.

Failure to follow this instruction can result in death, serious injury, or equipment damage.

#### ■ General safety instructions

You operate this device with electricity. Improper usage of the device entails the risk of physical injury or significant property damage. The proper and safe operation of this device depends on proper handling during transportation, proper storage and installation, and careful operation and maintenance procedures.

transportation, proper storage and installation, and careful operation and maintenance procedures.
<b>3</b> . <b>7</b>
instructions and warnings.  Operate the device with undamaged components exclusively.
The device is free of any service components. In case of a damaged or malfunctioning device, turn off the supply voltage and return the device to Hirschmann for inspection.
Certified usage
<ul> <li>Use the product only for the application cases described in the Hirschmann product information, including this manual.</li> </ul>
☐ Operate the product only according to the technical specifications. See "Technical data" on page 27.
<ul> <li>Connect to the product only components suitable for the requirements of the specific application case.</li> </ul>

#### Installation site requirements

"Equipment is intended for installation in Restricted Access Area" Restricted access location:

- ▶ The location is outside the operator access area.
- ► The location is accessible to the service personnel even when the device is switched on.
  - ☐ During the installation, make sure that you adhere to the regulations of the country in which you are operating the device.
  - ☐ In ambient temperature under -10 °C (+14 °F), use the wiring suitable for minimum temperatures.

#### Outdoor installation

Applies to device variants featuring supply voltage (24 V DC / 110 V DC) that comply with all of the following requirements:

- ☐ You connect the device to a power supply that complies with the requirements for a safety extra-low voltage (SELV) according to IEC 60950-1 or ES1 according to IEC/EN 62368-1 and with the overvoltage category II (OVC II).
- You connect the device supply via Power over Ethernet (PoE), the circuit classification ID 1 according to IEC/EN 62368-1, Table 14 applies (max. transient voltage 1500 V, 10/700 μs).
- ☐ The device has been approved for outdoor installation in a pollution degree 2 environment.
- ☐ Observe the mounting instructions in chapter, "Installing the antennas". See "Installing the antennas" on page 18.

## Device casing

Only technicians authorized by the manufacturer are permitted to open the casing.

- □ Never insert pointed objects (narrow screwdrivers, wires, etc.) into the device or into the connection terminals for electric conductors. Do not touch the connection terminals.
- ☐ At ambient air temperatures > +60 °C (+140 °F): The surfaces of the device housing may become hot. Avoid touching the device while it is operating.

## Qualification requirements for personnel

Only allow qualified personnel to work on the device.

Qualified personnel have the following characteristics:

Qualified personnel are properly trained. Training as well as practical knowledge and experience make up their qualifications. This is the prerequisite for grounding and labeling circuits, devices, and systems in accordance with current standards in safety technology.

- Qualified personnel are aware of the dangers that exist in their work.
- Qualified personnel are familiar with appropriate measures against these hazards in order to reduce the risk for themselves and others.
- Qualified personnel receive training on a regular basis.

#### ■ National and international safety regulations

Verify that the electrical installation meets local or nationally applicable safety regulations.

#### Grounding the device

Grounding the device is by means of a separate protective ground
connection on the device.
☐ Ground the device before connecting any other cables.
☐ Disconnect the grounding only after disconnecting all other cables.
The overall shield of a connected shielded twisted pair cable is connected
to the ground connection on the metal housing as a conductor.

#### Requirements for connecting electrical wires

Before connecting the electrical wires, **always** verify that the requirements listed are complied with.

#### The following requirements apply without restrictions:

- ► The electrical wires are voltage-free.
- ► The cables used are permitted for the temperature range of the application case.

## ■ Requirements for connecting the supply voltage

Before connecting the supply voltage, **always** verify that the requirements listed are complied with.

**All variants** All of the following requirements are complied with:

#### The following requirements apply without restrictions:

- ► The supply voltage corresponds to the voltage specified on the type plate of the device.
- ▶ The power supply conforms to overvoltage category I or II.
- The power supply has an easily accessible disconnecting device (for example a switch or a plug). This disconnecting device is clearly identified. So, in the case of an emergency, it is clear which disconnecting device belongs to which power supply cable.
- ► The cross-section of the ground conductor is the same size as or bigger than the cross-section of the power supply cables.
- ► The power supply cable is suitable for the voltage, the current and the physical load.

#### Lightning protection and surge protection

Applies exclusively to devices and antennas installed outdoors:

The installation of the device must be carried out by a lightning protection professional in accordance with valid standards (such as IEC 62305 / DIN EN 62305 (VDE 0185-305), and in accordance with the lightning protection procedures recognized and proven for the application and the environment.
 Refer to the information in the "WLAN Outdoor Guide" on "Lightning protection and surge protection". The manual is available for download on the internet: https://www.doc.hirschmann.com.
 Ensure that the lightning protection professional installs lightning protection devices (for example lightning conductors) to protect antennas installed outdoors.
 Ensure that the lightning protection professional takes appropriate lightning protection measures that mitigate the effects of lightning

#### ■ RF exposure warning

strikes.

- ► This equipment complies with FCC and CE radiation exposure limits set forth for an uncontrolled environment.
- This product may not be collocated or operated in conjunction with any other antenna or transmitter.
- Confirm that this equipment is installed and operated in accordance with the provided instructions. Make sure that the antenna(s) used for this transmitter is installed at a distance of at least 20 cm from every person and must not be collocated or operating in conjunction with any other antenna or transmitter.

## ■ Recycling note

After usage, this device must be disposed of properly as electronic waste, in accordance with the current disposal regulations of your county, state, and country.

# Key

The symbols used in this manua	I have the following meanings:
☐ List	
☐ Work step	
Subheading	

# 1 Description

## 1.1 Device name and product code

The device name corresponds to the product code. The product code is made up of characteristics with defined positions. The characteristic values stand for specific product properties.

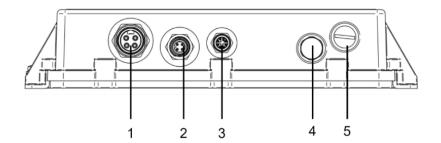
Product No.	Product Code	Product Description
9AA 101 001	DAP847-RWAPKT899THH	Dragonfly Outdoor Wi-Fi 6 (802.11ax) Access Point, PoE PD only, Extended Temp
9AA 101 002	DAP847-RWAPKT899EHH	Dragonfly Outdoor Wi-Fi 6 (802.11ax) Access Point, PoE PD only, Extended Temp with Conf. Coating
9AA 101 003	DAP847-RWAKKT899THH	Dragonfly Outdoor Wi-Fi 6 (802.11ax) Access Point, PoE PD and 24 V / 110 V DC, Extended Temp
9AA 101 004	DAP847-RWAKKT899EHH	Dragonfly Outdoor Wi-Fi 6 (802.11ax) Access Point, PoE PD and 24 V / 110 V DC, Extended Temp with Conf. Coating
9AA 101 005	DAP847-RWCPKT899THH	Dragonfly Outdoor Wi-Fi 6 (802.11ax) Client, PoE PD only Extended Temp
9AA 101 006	DAP847-RWCPKT899EHH	Dragonfly Outdoor Wi-Fi 6 (802.11ax) Client, PoE PD only Extended Temp with Conf. Coating
9AA 101 007	DAP847-RWCKKT899THH	Dragonfly Outdoor Wi-Fi 6 (802.11ax) Client, PoE PD and 24 V / 110 V DC, Extended Temp
9AA 101 008	DAP847-RWCKKT899EHH	Dragonfly Outdoor Wi-Fi 6 (802.11ax) Client, PoE PD and 24 V / 110 V DC, Extended Temp with Conf. Coating

Table 1: Device name, product code and description

Product Code	Explanation
Device	DAP847
RW	RW
Α	AP
С	Client
P PoE only	
K	24V-110V DC and PoE
K	Approval EN 50121-4, EN 50155
T8	100/1000/2500 Mbit/s M12
99	Not assembled
T Extended, -40 to +70 °C	
E	Extended, -40 to +70 °C with conformal coating
НН	Reserved

Table 2: Product code explanation

## 1.2 Device view



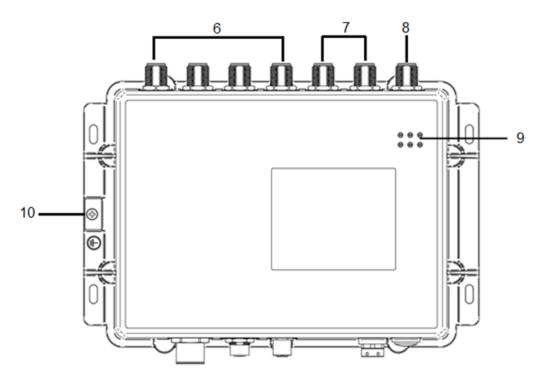


Figure 1: Device View

1	Supply voltage connection	24V/110V DC, 4-pin, 7/8" socket
2	V. 24	4-pin, "A"-coded M12 socket
3	Ethernet port (PoE)	8-pin, "X"- coded M12 socket for
		10/100/1000/2500 Mbit/s twisted pair connections.
		This port supports POE+. IEEE 802.3at/bt compliant.
4	Air valve	Do not open
5	Reset button	
6	ANT1~ANT4 port	Used to connect WiFi 5G antennas
7	ANT5, ANT6 port	Used to connect WiFi 2.4G antennas
8	ANT7 port	Used for scanning
9	LED display element	
10	Connection for protective ground	

## 1.3 Power supply

The device supports the DC input power supply and the power supply through PoE. The following options for power supply are available.

#### 1.3.1 DC Power supply

The device supports the DC input power supply. One typical voltage is 24 V DC, and the other typical voltage is 110 V DC.

## 1.3.2 Power supply through PoE

Your device is a PD (Powered Device). PSE (power sourcing equipment) connected via a twisted pair cable to the PoE PD port serves as the PoE power supply voltage. The PoE power supply means that no separate power supply is required for your device.

## 1.4 Ethernet port

You have the option of connecting end devices or other segments to the ports of the device via twisted pair cables.

You can find the information on the pin assignments for making patch cables in "Pin assignments" on page 12.

#### 1.4.1 10/100/1000 Mbit/s PoE port

This port is an 8-pin, "X"- coded M12 socket. The 10/100/1000/2500 Mbit/s PoE port allows you to connect network components.

This port supports:

- Autocrossing (if auto-negotiation is activated)
- Auto-negotiation
- Auto-polarity
- ▶ 10 Mbit/s half-duplex mode, 10 Mbit/s full-duplex mode
- 100 Mbit/s half-duplex mode, 100 Mbit/s full-duplex mode
- ▶ 1000 Mbit/s full-duplex mode
- 2500 Mbit/s full-duplex mode
- Delivery state: Auto-negotiation activated

The socket housing is electrically connected with the device housing.

Delivery state: Auto-negotiation activated.

The PoE power is supplied via the wire pairs transmitting the signal (phantom voltage).

## 1.4.2 Pin assignments

This table shows the pin assignments of the 10/100/1000/2500 Mbit/s POE PD port.

Connector	Pin	Function	РоЕ			
	1	MDX1+	Negative VPSE	Positive VPSE		
	2	MDX1-	Negative VPSE	Positive VPSE		
8, ,1	3	MDX0+	Positive VPSE	Negative VPSE		
7 0 0 2	4	MDX0-	Positive VPSE	Negative VPSE		
6 3	5	MDX2+			Positive VPSE	Negative VPSE
5 4 3	6	MDX2-			Positive VPSE	Negative VPSE
	7	MDX3-			Negative VPSE	Positive VPSE
	8	MDX3+			Negative VPSE	Positive VPSE

Table 3: Pin assignments of the 10/100/1000/2500 Mbit/s POE PD port

#### 1.5 Antenna connections

The device has connections for external antennas. These connections are N sockets.

The "Antenna Guide" document provides an overview of the antennas that can be used as well as the suitable antenna accessories.

The manual is available for download on the Internet: https://catalog.belden.com

## 2 Installation

# **WARNING**

#### **ELECTRIC SHOCK**

Exclusively install this device in a restricted access location, to which maintenance staff have exclusive access. Install the device in such a way that it is protected against mechanical forces in the area of the power supply.

Failure to follow this instruction can result in death, serious injury or damage of the equipment.

The devices are developed for practical application in a harsh industrial environment. On delivery, the device is ready for operation.

To protect the exposed uninstalled contacts of the components from dirt, connect the individual system components in a dry and clean working area.

The device fulfills the protection class IP67 under the following conditions exclusively:

- All the connectors and cables connected also fulfill protection class IP67.
- All the unused connections and ports are sealed with the appropriate protection screws.
- ► The protection screws that are available as accessories comply with degrees of protection IP67.

To install the device, perform the following work steps:

- Checking the package contents
- Installing and grounding the device
- Installing the antennas
- Connecting the power supply
- Operating the device
- Connecting data cables

# 2.1 Checking the package contents

According to the device variant, check whether the package contains all
items listed in the scope of delivery. See "Scope of delivery, order numbers
and accessories" on page 29.
Check the individual parts for transport damage.

## 2.2 Installing and grounding the device

#### 2.2.1 Installing the device onto or on a flat surface

You have the option of attaching the device with suitable hardware to a vertical flat surface.

Proceed as follows:

Prepare the assembly at the installation site. See "Dimension drawings" on
page 28.
Install the device with 4 x M5 screws on a flat surface > Width 300 mm x
Height 210 mm.

☐ Seal all unused sockets or ports with protection screws.

#### 2.2.2 Grounding the device



#### **ELECTRIC SHOCK**

Ground the device before connecting any other cables.

Failure to follow this instruction can result in death, serious injury, or equipment damage.

Grounding the device is by means of a separate ground connection on the device. The overall shield of a connected shielded twisted-pair cable is connected to the metal housing as a conductor. The device variants have a connection for protective grounding, see Figure 2.

CO	inection for protective grounding, see Figure 2.
	Terminate the ground conductor between the fastening plates.
	Make sure the fastening plates cover the stripped part of the ground
	conductor completely.
	Tighten the grounding screw (M4×10 mm) with a tightening torque of 3 Nm
	± 0.5 Nm.

**Note:** Use toothed washers to ensure good electrical conductivity for the connection.

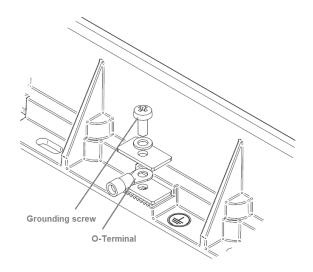


Figure 2: Connection for Protective Ground

## 2.3 Installing the antennas



## ELECTRIC SHOCK ÉLECTROCUTION

Mount the antennas outdoors only with the surge protection device BAT ANT-Protector m-f.

Montez les antennes uniquement à l'extérieur avec le dispositif de protection contre les surtensions BAT ANT-Protector m-f.

See "Scope of delivery, order numbers and accessories" on page 29.

Failure to follow this instruction can result in death, serious injury, or damage of equipment.

Le non-respect de cette instruction peut entraîner la mort, des blessures graves ou des dommages matériels.



## ELECTRIC SHOCK OR FALLING ÉLECTROCUTION OU CHUTE

Avoid mounting the antenna near power lines.

Évitez de monter l'antenne à proximité des lignes électriques.

When installing an antenna from a ladder or elevating equipment, take precautions to avoid falling and ensure the equipment is securely positioned on solid ground.

Lors de l'installation d'une antenne depuis une échelle ou un équipement élévateur, prenez des précautions pour éviter les chutes et assurez-vous que l'équipement est solidement positionné sur un sol stable.

Failure to follow this instruction can result in death, serious injury, or damage of equipment.

Le non-respect de cette instruction peut entraîner la mort, des blessures graves ou des dommages matériels.

The device has connections for external antennas. These connectors are N female sockets.

On delivery, the antenna connections are sealed with protection caps. When an antenna port is not used, Hirschmann recommends using an N-Abschl-Wdst. 50 Ohm resistor to avoid suffering from signal interference.

#### ■ BAT-ANT-Protector m-f connectors

BAT-ANT-Protector m-f is the surge protection device. The BAT-ANT-Protector m-f is recommended for protecting the interior electronics of the device with outdoor antennas. Despite outer surge protection measures, partial discharges can still cause surges that can damage the device. The BAT-ANT Protector m-f should be mounted as close as possible to the device.

The BAT-ANT-Protector m-f provides two connectors, one for connecting to the Access Point and the other for connecting to the antenna (see Figure 3).



Figure 3: BAT-ANT-Protector m-f connectors

- 1 N socket for connection to the antenna (unprotected end)
- 2 N plug for connection to the Access Point (protected end marked in red)

## Prerequisites

- Only qualified personnel are permitted to install the device in accordance with the relevant national installation and safety rules. Its usage is only permitted under the conditions stated and shown in this instruction.
   The BAT-ANT-Protector m-f and the equipment connected to it can be destroyed by EM surges exceeding the given specification, for example due to a direct lightning strike.
   The operational voltage of the system/equipment to be protected must not exceed the maximum permissible operating voltage (rated voltage) of the BAT-ANT-Protector m-f.
- ☐ Disconnect or switch off inline equipment when installing or removing the BAT-ANT-Protector m-f.
- ☐ Do not open the BAT-ANT-Protector m-f. Opening the BAT-ANT

Protector m-f will void the warranty and may result in the accidental destruction of electronic components.  If exposed to extreme environmental conditions, especially icy conditions or a polluted atmosphere, the connectors should be covered with a self-vulcanizing tape or a cold shrink tube.  If the BAT-ANT-Protector m-f is mated with connectors made of copperalloy base material and trimetal or nickel plating, the connector area must be taped to improve long-term durability.  All pertinent country, state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to help ensure compliance with documented system data, only the manufacturer should perform repairs to components. This equipment must only be installed and serviced by qualified personnel.
■ Work steps
<ul> <li>Remove the pre-mounted protection caps from the antenna connections</li> <li>Mount the BAT-ANT-Protector m-f as described below.</li> <li>Connecting to the Access Point</li> </ul>
<ul> <li>To connect the BAT-ANT-Protector m-f to the Access Point proceed as follows:</li> <li>□ Connect one end of the adapter cable supplied with the antenna to the N plug of the BAT-ANT-Protector m-f.</li> <li>□ Connect the other end of the adapter cable to the antenna output of the Access Point.</li> </ul>
<ul> <li>Note: Depending on the type, you can connect the BAT-ANT-Protector m-f directly to the antenna output of the Access Point. In this case you do not need an adapter cable.</li> <li>Connecting to the antenna</li> </ul>
<ul> <li>To connect the BAT-ANT-Protector m-f to the antenna proceed as follows</li> <li>□ Connect one end of the antenna cable to the N socket of the BATANT-Protector m-f.</li> <li>□ Connect the other end of the antenna cable to the antenna input.</li> </ul>
<ul> <li>Seal an unused socket with a terminating resistor to avoid interferences from radio signals. The terminating resistor is available as accessory.</li> </ul>
Note: Depending on the connector type, you may require an adapter or an adapter cable.  • Grounding the BAT-ANT-Protector m-f

Ground the BAT-ANT-Protector m-f appropriately according to all national, state, and local regulations to ensure that any surges can be conducted away from the device to the building's earthing system.

Fix a cable lug with a nut as shown in Figure 4.

**Note:** Use a sufficiently sized grounding cable (min. 16 mm2 or 0.02 in2 / AWG 6) as short a distance as possible (max. 0.5 m or 19.69 in).



Figure 4: Grounding the BAT-ANT-Protector m-f

## 2.4 Connecting the power supply

# **WARNING**

#### **ELECTRIC SHOCK**

Before connecting the electrical wires, always verify that the requirements listed are complied with.

See "Requirements for connecting electrical wires" on page 7. See "Requirements for connecting the supply voltage" on page 7.

Failure to follow this instruction can result in death, serious injury, or damage of equipment.

The supply voltage is electrically isolated from the casing.

You have the option of supplying the supply voltage redundantly, without load distribution.

## 2.4.1 Supply voltage (24 V DC / 110 V DC)

One 4-pin 7/8" plug is available for the power supply to the device. The prescribed tightening torque can be found in "Technical data" section on page 27.

The supply voltage is connected to the device casing through protective elements exclusively.

Connect the electrical wires to the socket according to the pin assignment.

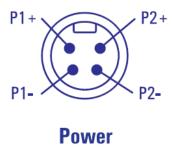


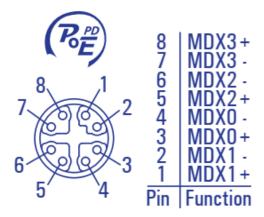
Figure 5: Pin assignment of the power supply socket

#### 2.4.2 Supply voltage with PoE

Your device is a PD. An 8-pin, "X"-coded M12 socket is available for PoE port.

PSE (power sourcing equipment) connected via a twisted pair cable on the PoE PD port serves as the PoE power supply voltage. The PoE power supply means that no separate power supply is required for your device.

Connect the electrical wires to the socket according to the pin assignment.



## **Ethernet**

Figure 6: Pin assignment of the Ethernet socket

## 2.5 Operating the device



#### **ELECTRIC SHOCK**

Before connecting the electrical wires, always verify that the requirements listed are complied with.

See "Requirements for connecting electrical wires" on page 7. See "Requirements for connecting the supply voltage" on page 7.

Failure to follow this instruction can result in death, serious injury, or damage of equipment.

## **Notice**

#### **MATERIAL DAMAGE**

In a PoE installation, use only devices that comply with the IEEE 802.3at/bt standard.

Failure to follow this instruction can lead to equipment damage.

By connecting the supply voltage via a connector, you start the operation of
the device.
Proceed as follows:
☐ Connect the power supply cable.
☐ Enable the supply voltage.

## 2.6 Connecting data cables

Note the following general recommendations for data cable connections in environments with high electrical interference levels:

- ▶ Keep the length of the data cables as short as possible.
- Use optical data cables for the data transmission between the buildings.
- When using copper cables, provide a sufficient separation between the power supply cables and the data cables. Ideally, install the cables in separate cable channels.
- Verify that power supply cables and data cables do not run parallel over longer distances. To reduce inductive coupling, verify that the power supply cables, and data cables cross at a 90° angle.
- ▶ Use shielded data cables for gigabit transmission via copper cables, for example SF/UTP cables according to ISO/IEC 11801. Exclusively use shielded data cables to meet EMC requirements according to EN 50121-4 and marine applications.
- Connect the data cables according to your requirements. See "Ethernet ports" on page 12.
- ➤ You can find the prescribed tightening torque of the locking screw in "General technical data" on page 27.

# 2.7 Disassembly

Disconnect the data cable.
Disable the supply voltage.
Remove the antennas.
Disconnect the grounding wire.

# 3 Technical data

## 3.1 General technical data

Dimensions W × H × D	DAP847	See "Dimension drawings" on page 28.	
Weight	DAP847	2.5 kg (5.51 lb)	
Supply voltage	Connection type	4-pin, 7/8" connector	
		Tightening torque 2.5 Nm (22 lb-in)	
	Rated voltage	DC Input: 24 V DC	
	Rated current	DC Input: 1150 mA	
	Maximum tolerances	DC Input: 16 V DC 30 V DC	
	Overload current protection on the device	fuse	
Supply voltage	Connection type	4-pin, 7/8" connector	
		Tightening torque 2.5 Nm (22 lb-in)	
	Rated voltage	DC Input: 110 V DC	
	Rated current	DC Input: 250 mA	
	Maximum tolerances	DC Input: 77 V DC 138 V DC	
	Overload current protection on the device	fuse	
Supply voltage	Connection type	8-pin, "X"-coded M12 socket for PoE port	
		Tightening torque 0.6 Nm (5.3 lb-in)	
	Rated voltage	PoE Input: 54 V DC	
	Rated current	PoE Input: 500 mA	
	Maximum tolerances	PoE Input: 42.5 V DC 57 V DC	
	Overload current protection on the device	Non-replaceable fuse	
Climatic conditions	Minimum clearance around	Top and bottom device side: 30 cm (11.81 in)	
during operation	the device	Left and right device side: 2 cm (0.79 in)	
	Ambient air temperature <sup>a</sup>	-40°C +70°C (-40° F +158° F)	
	Humidity	0 % 95 % (non-condensing)	
Climatic conditions during storage	Ambient air temperature <sup>a</sup>	-40°C +85°C (-40° F +185° F)	
	Humidity	0 % 95 % (non-condensing)	
Pollution degree		2	
Wind resistance		Up to 100 MPH sustained winds	
		Up to 165 MPH sustained gusts	
Protection classes	Laser protection	Class 1 in compliance with IEC 60825-1	
	Degree of protection	IP67	

# 3.2 Dimension drawings

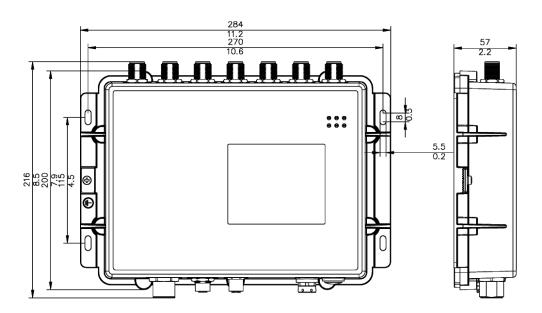


Figure 7: DAP847 dimensional measurements (unit:  $\frac{mm}{inch}$ )

# 4 Scope of delivery, order numbers and accessories

## ■ Scope of delivery

Amount	Article	Order number	Comments
1 ×	DAP 847 Device		
1 ×	General safety instructions		
1 ×	Information sheet and Outdoor safety instructions		
1 ×	RKC40/9, 7/8" socket: 7/8" connector, 4-pin for Power supply	942 086 004	Only for device with PSU

## Ordered on demand

Amount	Article	Order number
	EM12G OCTOPUS: Field attachable Gigabit Ethernet connector, M12 male, 8-pole, "X"-coded	942 083 001
Ordered on demand	Terminal Cable, M12-4pin to DB9: Terminal cable, Side A: M12 "A"-coded 4-pin connector, Side B: Sub-D connector, 9-pin	943 902 001
	BAT-ANT-Protector m-f	943 903 373
	N-Abschl-Wdst. 50 Ohm	942 118 001
	BAT-CLB-RJ142-5 N m-m	942 325 503
	BAT-ANT-N-MiMoDB-11N-IP65-R	943 981 117

#### Order number

Product Code	Order number
DAP847-RWAPKT899THH	9AA 101 001
DAP847-RWAPKT899EHH	9AA 101 002
DAP847-RWAKKT899THH	9AA 101 003
DAP847-RWAKKT899EHH	9AA 101 004
DAP847-RWCPKT899THH	9AA 101 005
DAP847-RWCPKT899EHH	9AA 101 006
DAP847-RWCKKT899THH	9AA 101 007
DAP847-RWCKKT899EHH	9AA 101 008

#### Accessories

Accessories	Order number
EM12G OCTOPUS	942 083 001
Terminal Cable, M12-4pin to DB9	943 902 001
BAT-ANT-Protector m-f	943 903 373
N-Abschl-Wdst. 50 Ohm	942 118 001
BAT-CLB-RJ142-5 N m-m	942 325 503
BAT-ANT-N-MiMoDB-11N-IP65-R	943 981 117

**Note:** Products recommended as accessories may have characteristics that do not fully correspond to those of the corresponding product. This may limit their possible usage in the overall system.

