

## Wireless module - FL BT EPA MP - 2701416

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Bluetooth Ethernet port adapter with external antenna connection for the wireless connection of Ethernet devices, BT access point and client mode, omnidirectional antenna supplied as standard

### Product Description

Our Bluetooth modules can be used to easily, reliably, and cost-effectively integrate mobile or difficult to access automation devices or I/O modules into your Ethernet automation network.

With "black channel listing" and "low emission mode", Industrial Bluetooth can also be operated parallel to WLAN networks without any interference. Quick and straightforward startup with configuration via MODE button, web interface or directly from a controller is yet another feature of this solution.

### Product Features

- External RSMA antenna connection
- Range\* of up to 200 m
- Protocol-transparent communication on Layer 2
- IP65 protection class
- WLAN coexistence functions AFH, LEM, black channel listing



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Weight per Piece (excluding packing) | 280.0 g  |
| Custom tariff number                 | 85176200 |
| Country of origin                    | Sweden   |

### Technical data

#### Dimensions

|                    |                     |
|--------------------|---------------------|
| Width              | 66 mm               |
| Height             | 91 mm               |
| Depth              | 34 mm               |
| Note on dimensions | Without connections |

#### Ambient conditions

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### Technical data

#### Ambient conditions

|  |  |
|--|--|
| Ambient temperature (operation)          | -40 °C ... 65 °C   |
| Ambient temperature (storage/transport)  | -40 °C ... 85 °C   |
| Permissible humidity (operation)         | 5 % ... 90 % (non-condensing)                            |
| Permissible humidity (storage/transport) | 5 % ... 90 % (non-condensing)                            |
| Air pressure (operation)                 | 795 hPa ... 1080 hPa (up to 2000 m above mean sea level) |
| Degree of protection                     | IP65   |

#### Ethernet interface

|                   |                                   |
|-------------------|-----------------------------------|
| Interface         | Ethernet                          |
| Number            | 1                                 |
| Connection method | M 12 connectors (D-coded, female) |

#### Wireless interface

|  |  |
|--|--|
| Designation                            | Bluetooth                              |
| Wireless standard                      | Bluetooth 2.1 + EDR                    |
| Antenna connection method              | RSMA (female)                          |
| Frequency range                        | 2.402 GHz ... 2.48 GHz (ISM bandwidth) |
| Frequency band                         | 2.4 GHz                                |
| Transmission power                     | max. 12 dBm (EIRP)                     |
| Number of wireless interfaces          | 1                                      |
| Wireless modules that can be connected | 7                                      |
| Profiles supported                     | PAN                                    |

#### Wireless card

|                       |                       |
|-----------------------|-----------------------|
| Number                | 1                     |
| Assembly instructions | Permanently installed |

#### Antenna

|                       |   |
|-----------------------|---|
| Assembly instructions | External OMNI omnidirectional antenna supplied as standard, antennas can be exchanged |
| Number                | 1   |
| Connection method     | RSMA (male)   |
| Gain                  | 3 dBi ((2.4 GHz))   |
| Length                | 83 mm   |

#### Power supply for module electronics

|                      |                               |
|----------------------|-------------------------------|
| Connection method    | M12 connector (A-coded, male) |
| Supply voltage       | 24 V DC                       |
| Supply voltage range | 9 V DC ... 30 V DC            |
| Supply current       | 46 mA (at 24 V DC)            |

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#### Power supply for module electronics

|                     |                               |
|---------------------|-------------------------------|
| Current consumption | 46 mA (at 24 V DC)            |
|                     | 46 mA ((at 24 V DC, typical)) |

#### Functions

|                             |   |
|-----------------------------|---|
| Operating modes             | BT access point                                       |
| Configuration               | Web interface, MODE button, AT commands (TCP/IP), SSC |
| Automatic channel selection | FHSS, AFH   |
| Quality of service (QoS)    | Yes   |
| Security                    | 128-bit data encryption                               |
|                             | Authentication  |
|                             | PIN   |
|                             | Non-discoverable                                      |

#### Digital inputs

|                  |   |
|------------------|---|
| Number of inputs | 1 |
|------------------|---|

#### General

|                   |               |
|-------------------|---------------|
| Net weight        | 120 g         |
| Mounting type     | Wall mounting |
| Wireless licences | Belgium       |
|                   | Bulgaria      |
|                   | Denmark       |
|                   | Germany       |
|                   | Estonia       |
|                   | Finland       |
|                   | France        |
|                   | Greece        |
|                   | Great Britain |
|                   | Ireland       |
|                   | Iceland       |
|                   | Italy         |
|                   | Japan         |
|                   | Canada        |
|                   | Latvia        |
|                   | Liechtenstein |
|                   | Lithuania     |
|                   | Luxembourg    |
|                   | Malta         |
|                   | Netherlands   |

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### Technical data

#### General

|               |   |
|---------------|---|
|               | Norway                                    |
|               | Austria                                   |
|               | Poland                                    |
|               | Portugal                                  |
|               | Romania                                   |
|               | Sweden                                    |
|               | Switzerland                               |
|               | Slovakia                                  |
|               | Slovenia                                  |
|               | Spain                                     |
|               | Czech Republic                            |
|               | Hungary                                   |
|               | USA                                       |
|               | Cyprus (rep.)                             |
| Mounting type | Wall mounting, optional DIN rail mounting |

#### Standards and Regulations

|                                |  |
|--------------------------------|--|
| Conformity with EMC directives | Noise immunity test in accordance with EN 61000-6-2 EN 61000-6-4 |
| Protection class               | III, IEC 61140, EN 61140, VDE 0140-1                             |

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27240409 |
| eCl@ss 4.1 | 27240409 |
| eCl@ss 5.0 | 27242215 |
| eCl@ss 5.1 | 27250501 |
| eCl@ss 6.0 | 27242208 |
| eCl@ss 7.0 | 27242208 |
| eCl@ss 8.0 | 19170101 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001423 |
| ETIM 4.0 | EC000515 |
| ETIM 5.0 | EC000515 |

#### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 6.01 | 20142601 |
|-------------|----------|

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## Classifications

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 7.0901 | 20142601 |
| UNSPSC 11     | 20142601 |
| UNSPSC 12.01  | 20142601 |
| UNSPSC 13.2   | 20142601 |

## Approvals

### Approvals

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#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

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#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

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#### Approvals submitted

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### Approval details

UL Listed

cUL Listed

EAC

cULus Listed

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