

# FLM BT DIO 8/8 M12 - Wireless module



2736767

<https://www.phoenixcontact.com/us/products/2736767>

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Wireless IO device, 8 digital inputs, 8 digital outputs, M12, Bluetooth V1.2; frequency band 2.4 GHz; 1 wireless interface; WLAN-BlackChannelList; LEM; transmission power max. 8 dBm

## Product description

The products are offered exclusively for export outside the EU and the European Economic Area.

## Your advantages

- WLAN coexistence functions AFH, LEM, black channel listing
- Parallel operation of numerous Bluetooth systems
- Extremely rugged and reliable
- Quick and easy startup

## Commercial data

Item number	2736767
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DN26
Product key	DNC663
GTIN	4046356042666
Weight per piece (including packing)	442.3 g
Weight per piece (excluding packing)	310 g
Customs tariff number	85176200
Country of origin	DE

## Technical data

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### Product properties

Product type	Wireless module
Product family	Fieldline
Type	modular
Set comprises	2736783 FLM BT ID-PLUG M12
MTBF	757 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day)) 216 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))

#### Wireless card

Number	1
Assembly note	Permanently installed

### System properties

#### Fieldbus data telegram

Required parameter data	4 Byte
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### Electrical properties

Maximum power dissipation for nominal condition	2.4 W
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#### Supply: Module electronics

Connection method	M12 circular connector
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including ripple)
Supply current	< 100 mA

### Input data

#### Digital:

Input name	Digital inputs
Description of the input	IEC 61131-2 type 1
Number of inputs	8 (double-occupancy)
Connection method	M12 connector
Connection technology	2-, 3-conductor
Input voltage range "0" signal	< 5 V
Input voltage range "1" signal	> 11 V
Filter time	500 µs

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## Output data

Digital:

Output name	Digital outputs
Connection method	M12 connector
Connection technology	2-, 3-conductor
Number of outputs	8 (double-occupancy)
Protective circuit	Short-circuit protection, overload protection, protected against reverse voltages
Maximum output current per channel	500 mA

## Interfaces

Antenna

Number	1
Connection method	SMA (male)
Gain	0 dBi (Antenna gain)

Functions

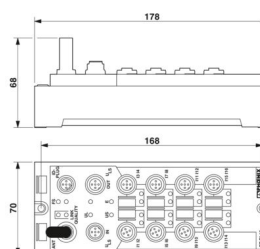
Wireless licenses	Europe, additional countries in the e-shop
Country support	Australia (Special rule: Please contact the Product Manager)
	Canada
	Russia (Special rule: Please contact the Product Manager)
	Switzerland
	Singapore
	Turkey
	USA

Wireless

Designation	Bluetooth
Antenna connection method	SMA (female)
Frequency range	2.402 GHz ... 2.48 GHz (ISM bandwidth)
Wireless standard	Bluetooth 1.2
Transmission power	8 dBm (with automatic control)
Receiver sensitivity	-88.00 dBm
Wireless modules that can be connected	1 (FLM BT BS 3, FL BT MOD IO AP)

## Dimensions

Dimensional drawing



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Width	70.5 mm
Height	178.5 mm
Depth	50 mm
Drill hole spacing	168 mm

## Material specifications

Color (Housing)	anthracite gray (RAL 7016)
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## Mechanical properties

### Technical data

Drill hole spacing	168 mm
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
Ambient temperature (operation)	-25 °C ... 60 °C
Air pressure (operation)	795 hPa ... 1080 hPa (up to 2000 m above sea level)
Permissible humidity (operation)	95 %

### Mechanical test

Shock in accordance with EN 60068-2-27/IEC 60068-2-27	25g
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g

## Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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## Mounting

Mounting type	Panel mounting, optionally on mounting panel
	Panel mounting
Assembly note	OMNI antenna is included

# FLM BT DIO 8/8 M12 - Wireless module

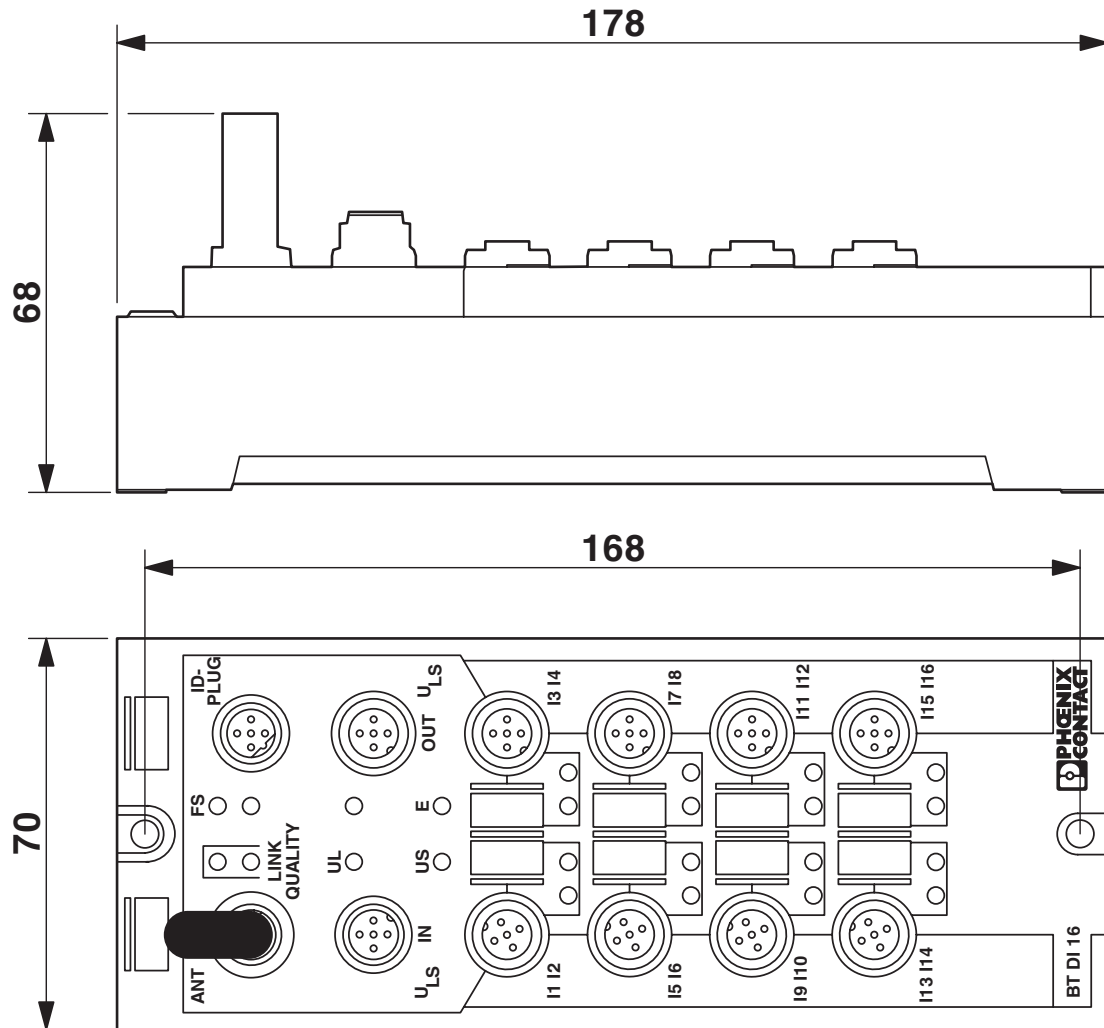


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## Drawings

Dimensional drawing

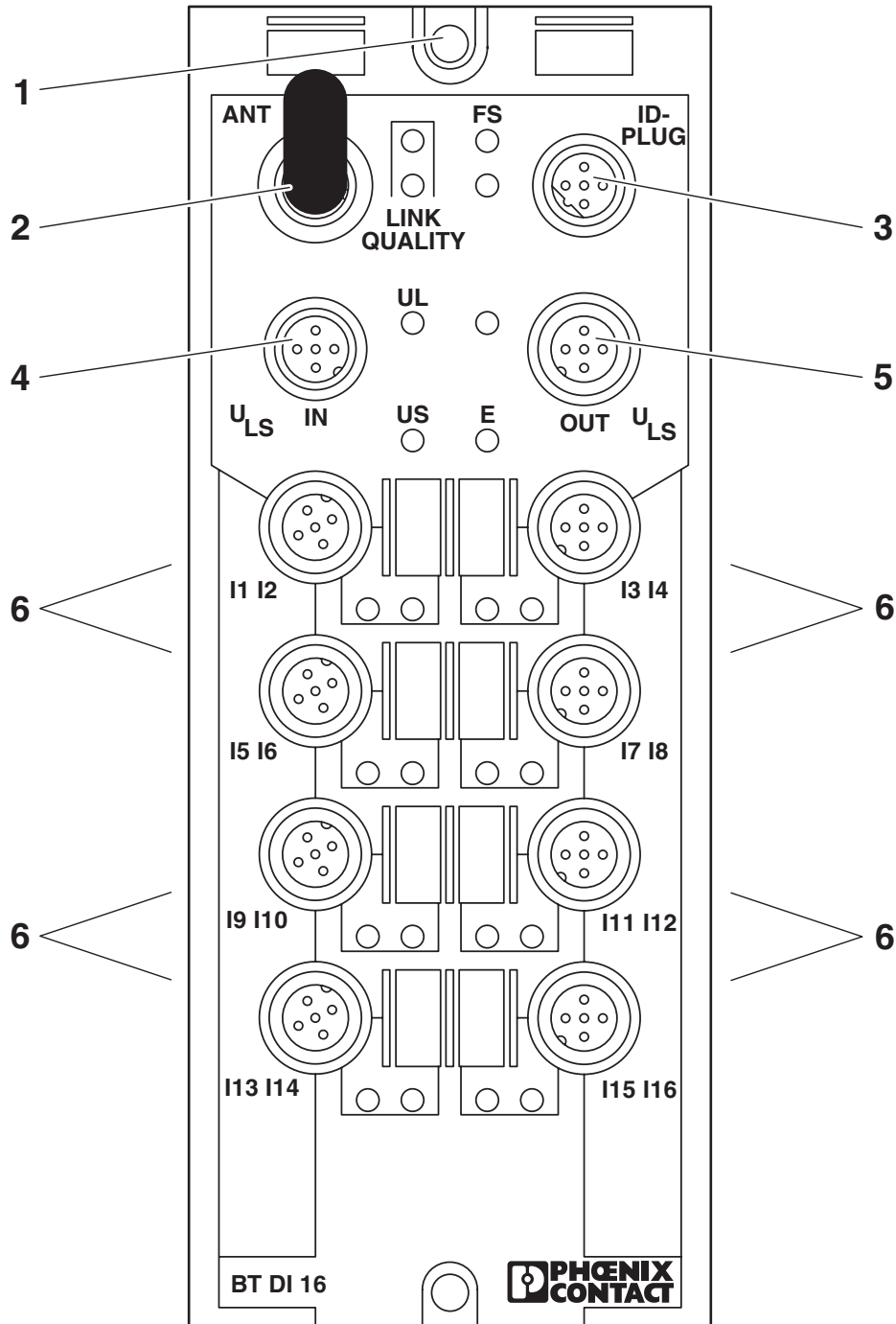


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Product drawing



- 1 FG: Functional ground
- 2 ANT: Antenna
- 3 ID PLUG: ID PLUG connection
- 4 ULS IN: Voltage supply ULS IN
- 5 ULS OUT: Voltage supply ULS OUT
- 6 IN: Inputs (1-16)

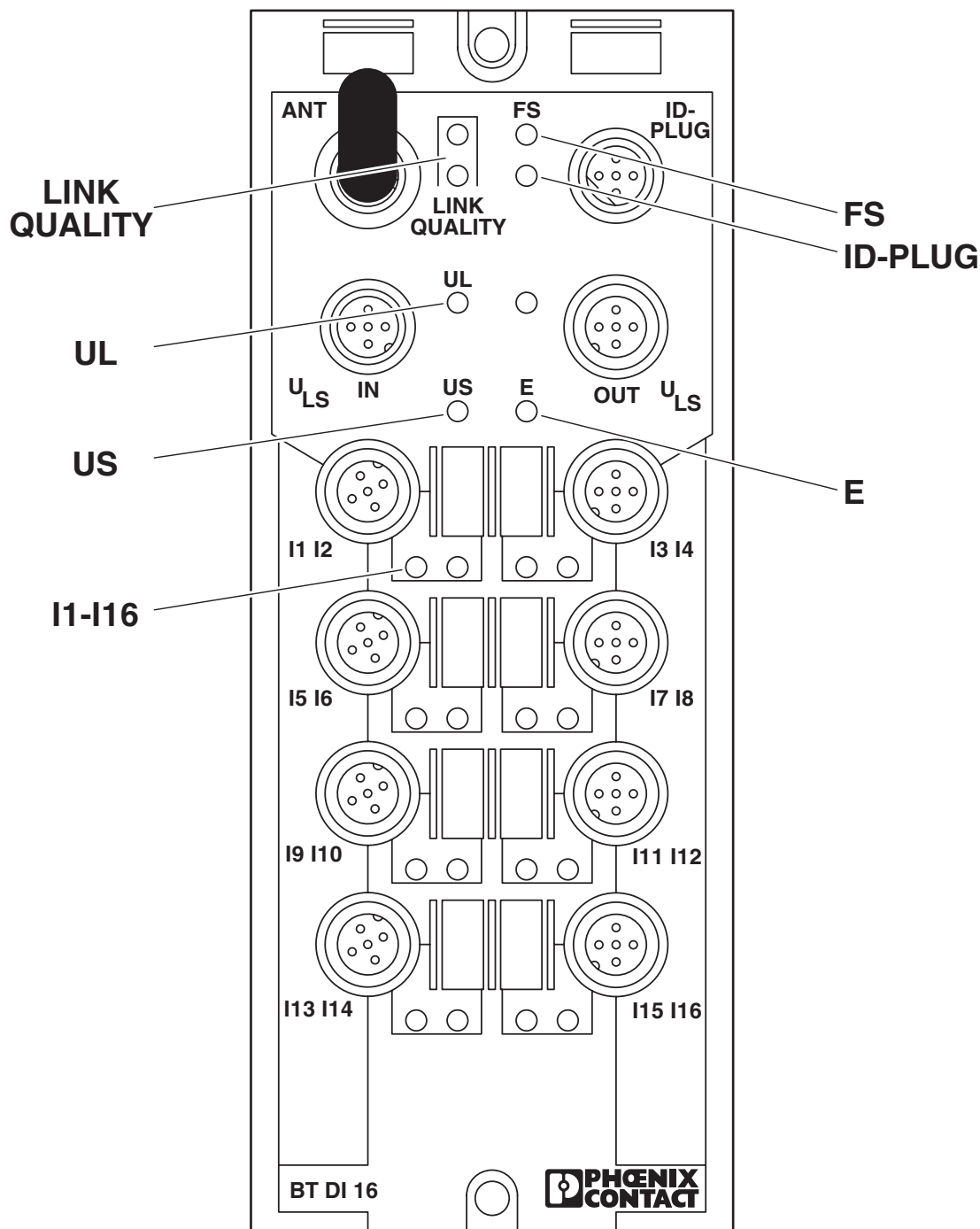
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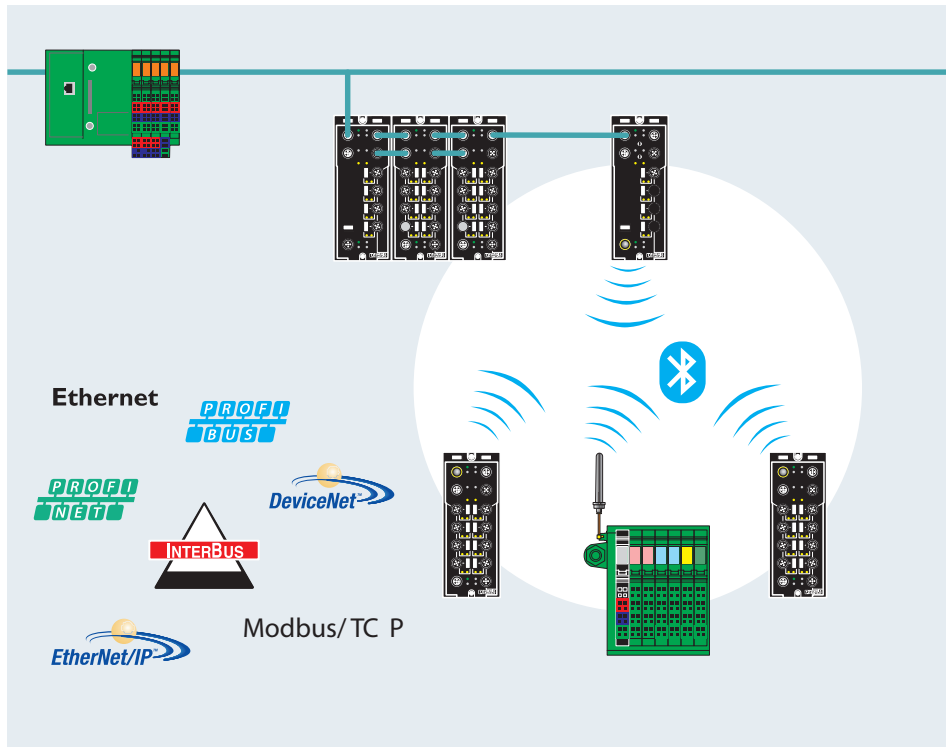
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Product drawing



- LINK QUALITY: Green/yellow  
Quality of Bluetooth
- FS connection: Red
- Failure state ID-PLUG: Green/yellow/red
- ID-PLUG UL status: Green
- US communications power: Green
- E sensor supply: Red
- Short-circuit/overload of sensor supply I1-I16: Yellow
- Status of the inputs

## Application drawing



### Possible areas of application

The Fieldline Modular wireless IO system is particularly suitable for use in moving, temporarily installed or inaccessible machine units in all industrial areas, when time-critical process signals are to be transmitted.

- Fast data transmission in typ. 10 ms per module
- Short range\* of 20 to 50 m in industrial halls and more than 100 m outdoors.

\* The range may be considerably above or below that stated, and depends on the environment, antenna technology and the product used.

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## Environmental product compliance

### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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