

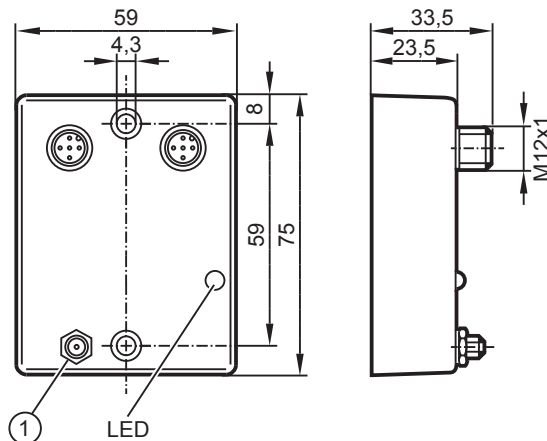
## CR3131

CANwireless  
für den Anschluss einer  
externen Antenne

CAN-WLAN-/Bluetooth-  
Schnittstelle

WLAN-Frequenzbänder  
2,4 GHz und 5 GHz

8...32 V DC



1: RP-SMA-Buchse

### Technische Daten

#### Elektrische Daten

Betriebsspannung  $U_B$

Stromaufnahme

Status-LED

8...32 V DC

$\leq 60$  mA (bei 24 V DC)

1 x 2-farbig (rot / grün)

#### CAN-Schnittstelle

Profil

Protokoll

CAN Empfangspuffer

CAN zu Wireless Puffergröße

CAN Interface 2.0 A/B, ISO 11898-2

CANopen, CAN Layer 2, J1939

2048 Nachrichten

2048 Nachrichten

#### WLAN

Frequenzband

Protokoll

Sicherheitsstandard

Reichweite <sup>1)</sup>

Funktionen

Übertragungsgeschwindigkeit <sup>2)</sup>

Durchschnittliche Latenzzeit <sup>3)</sup>

2,4 / 5 GHz

IEEE 802.11 a/b/g/n, IEEE 802.11 d/e/i/h

WPA2-PSK, WPA-PSK, WEP64, WEP128, LEAP, PEAP

$\leq 200$  m

WLAN-Bridge (Infrastructure Modus)  
WLAN-Interface (Infrastructure Modus oder Mini Access Point Modus)

1600 CAN-Nachrichten pro Sekunde

$\leq 20$  ms (WLAN-Bridge)

#### Bluetooth

Standard

Profil

Reichweite <sup>1)</sup>

Funktionen

Übertragungsgeschwindigkeit <sup>2)</sup>

Durchschnittliche Latenzzeit <sup>3)</sup>

Bluetooth Classic (2.1 + EDR)

SPP (Serial Port Profile)

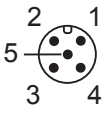
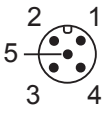
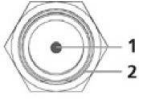
$\leq 100$  m

Bluetooth-Bridge  
Bluetooth-Interface

4000 CAN-Nachrichten pro Sekunde

$\leq 20$  ms (Bluetooth-Bridge)

<b>CR3131</b>
<b>Software</b>
Gerätekonfiguration
Hinweis
<b>Mechanische Daten</b>
Umgebungstemperatur
Schutzart
Gehäusematerial
Gewicht
<b>Prüfnormen und Bestimmungen</b>
CE
E1
FCC
<b>Anschlussbelegung</b>
CAN / Versorgung M12-Stecker, 5-polig
RS-232 M12-Stecker, 5-polig
WLAN-Antenne RP-SMA-Buchse <sup>1)</sup>
Hinweise

Technische Daten																	
ifm Maintenance Tool oder CODESYS mit EDS-Datei																	
weitere Informationen siehe <a href="http://www.ifm.com">www.ifm.com</a> → CR3131																	
Umgebungstemperatur	-30...75° C																
Schutzart	IP 65																
Gehäusematerial	Polyamid (schwarz)																
Gewicht	0,065 kg																
CE	EN 60950-1 EN 301489-1 V1.9.2 EN 301489-17 V2.2.1 EN 61000-6-2 EN 61000-6-3 EN 300328 V1.9.1 EN 301893 V1.8.1																
E1	UN/ECE-R10																
FCC	FCC Part 15/47 CFR Conducted Limits FCC Part 15/47 CFR Radiated Emission Limits regarding Part 15 of the FCC rules (Class B digital devices)																
CAN / Versorgung M12-Stecker, 5-polig		<table border="1"> <tr> <td>1</td> <td>GND</td> <td>Ground</td> </tr> <tr> <td>2</td> <td>U<sub>B</sub></td> <td>Versorgung</td> </tr> <tr> <td>3</td> <td>nicht belegt</td> <td>nicht belegt</td> </tr> <tr> <td>4</td> <td>CAN_H</td> <td>CAN-Schnittstelle (High)</td> </tr> <tr> <td>5</td> <td>CAN_L</td> <td>CAN-Schnittstelle (Low)</td> </tr> </table>	1	GND	Ground	2	U <sub>B</sub>	Versorgung	3	nicht belegt	nicht belegt	4	CAN_H	CAN-Schnittstelle (High)	5	CAN_L	CAN-Schnittstelle (Low)
1	GND	Ground															
2	U <sub>B</sub>	Versorgung															
3	nicht belegt	nicht belegt															
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WLAN-Antenne RP-SMA-Buchse <sup>1)</sup>		<table border="1"> <tr> <td>1</td> <td>Signal</td> <td>WLAN / Bluetooth</td> </tr> <tr> <td>2</td> <td>GND</td> <td>Ground</td> </tr> </table>	1	Signal	WLAN / Bluetooth	2	GND	Ground									
1	Signal	WLAN / Bluetooth															
2	GND	Ground															
Hinweise	<sup>1)</sup> mit / für Antenne Art.-Nr. EC2118																
	<sup>2)</sup> bei CAN-Nachrichten und 1 MBit/s																
	<sup>3)</sup> bei Übertragung einer einzelnen CAN-Nachricht																



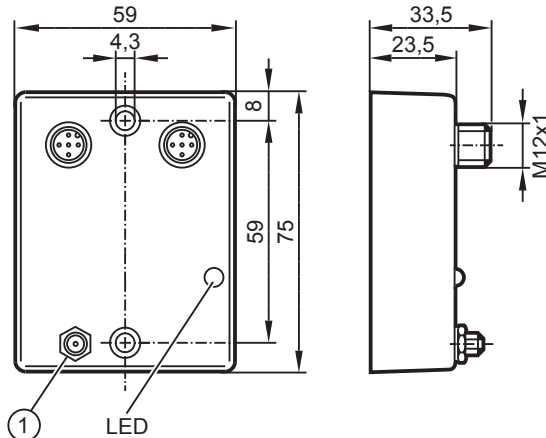
# CR3131

CANwireless  
for connection to an  
external antenna

CAN Wi-Fi/Bluetooth  
interface

Wi-Fi frequency bands  
2.4 GHz and 5 GHz

8...32 V DC



1: RP-SMA socket

## Technical data

### Electrical data

Operating voltage  $U_B$

8...32 V DC

Current consumption

$\leq 60$  mA (at 24 V DC)

Status LED

1 x 2 colours (red / green)

### CAN interface

Profile

CAN interface 2.0 A/B, ISO 11898

Protocol

CANopen, CAN Layer 2, J1939

CAN receive buffer

2048 messages

CAN to Wi-Fi buffer size

2048 messages

### Wi-Fi

Frequency band

2.4 / 5 GHz

Protocol

IEEE 802.11 a/b/g/n, IEEE 802.11 d/e/i/h

Safety standard

WPA2-PSK, WPA-PSK, WEP64, WEP128, LEAP, PEAP

Range <sup>1)</sup>

$\leq 200$  m

Functions

Wi-Fi bridge (infrastructure mode)  
Wi-Fi interface (infrastructure mode or mini access point mode)

Transmission rate <sup>2)</sup>

1600 CAN messages per second

Average latency time <sup>3)</sup>

$\leq 20$  ms (Wi-Fi bridge)

### Bluetooth

Standard

Bluetooth Classic (2.1 + EDR)

Profile

SPP (serial port profile)

Range <sup>1)</sup>

$\leq 100$  m

Functions

Bluetooth bridge  
Bluetooth interface

Transmission rate <sup>2)</sup>

4000 CAN messages per second

Average latency time <sup>3)</sup>

$\leq 20$  ms (Bluetooth bridge)



**CR3131**

**Software**

Device configuration

Remark

**Mechanical data**

Ambient temperature

Protection rating

Housing material

Weight

**Test standards and regulations**

CE

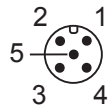
E1

FCC

**Wiring**

CAN / supply

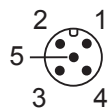
M12 connector, 5 poles



1	GND	Ground
2	U <sub>B</sub>	Supply
3	Not connected	Not connected
4	CAN_H	CAN interface (high)
5	CAN_L	CAN interface (low)

RS-232

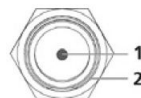
M12 connector, 5 poles



1	GND	Ground
2	Not connected	Not connected
3	DSR	Data Set Ready (boot)
4	RxD	RS-232 receive (input)
5	TxD	RS-232 transmit (output)

Wi-Fi antenna

RP-SMA socket <sup>1)</sup>



1	Signal	Wi-Fi / Bluetooth
2	GND	Ground

Remarks

<sup>1)</sup> with / for antenna article no. EC2118

<sup>2)</sup> for CAN messages and 1 MBit/s

<sup>3)</sup> for transmission of a single CAN message

**Technical data**

ifm maintenance tool or CODESYS with EDS file

For more information see [www.ifm.com](http://www.ifm.com) → CR3131

-30...75 °C

IP 65

polyamide (black)

0.065 kg

- EN 60950-1
- EN 301489-1 V1.9.2
- EN 301489-17 V2.2.1
- EN 61000-6-2
- EN 61000-6-3
- EN 300328 V1.9.1
- EN 301893 V1.8.1

UN/ECE-R10

FCC Part 15/47 CFR Conducted Limits  
FCC Part 15/47 CFR Radiated Emission Limits  
regarding Part 15 of the FCC rules (Class B digital devices)