# SCHNEID

BT (Bluetooth)
Data transfer using Bluetooth



User Guide



Schneid GesmbH | Gewerbering 16 | A-8054 | Graz/Pirka | Tel: +43 (316) 285022

Products, data sheets, documentation, MR12-SCHEMA-calculator: www.schneid.at

# © **SCHNEID** GesmbH All rights reserved. This document is provided by SCHNEID GesmbH. SCHNEID GesmbH reserves the right to revise and change this document at any time without being obliged to announce or report the changes made. SCHNEID GesmbH does not guarantee the accuracy and correctness of the information. SCHNEID GesmbH assumes no liability or responsibility for errors or omissions in the content of the documentation. All information in the documentation is given without any express, implied or tacit guarantee.



Schneid GesmbH | Gewerbering 16 | A-8054 | Graz/Pirka | Tel: +43 (316) 285022

Products, data sheets, documentation, MR12-SCHEMA-calculator: www.schneid.at

#### Plug-in card module CM08-BT (Bluetooth)

for SCHNEID module controller MR08 \*, MR12 (\*after 2013)

Order number: 130.xxxxx

Order code: Steckkartenmodul CM08-BT





#### Overview:

The SCHNEID plug-in card module CM08-BT Bluetooth module is only suitable for the SCHNEID communication basic modules of the module control series.

The SCHNEID communication module CM08-BT Bluetooth module is only suitable for the following components:

- SCHNEID module controller-MR08 / MR12
- SCHNEID Communication base module CM08 and higher
- SCHNEID controller version 8.19 (MR08) or higher

With this module card, the controller can transmit data over short distances using radio technology (WPAN).

#### Variants:

#### SCHNEID plug-in card module CM08-BT (Bluetooth class 1)

Order number: 130.13968

Order code: Steckkartenmodul CM08-BT

#### SCHNEID plug-in card module CM08-BT magnetic base antenna

Order number: 130.14271

Order code: Steckkartenmodul CM08-BT Magnetfußantenne

#### SCHNEID plug-in card module CM08-BT screw antenna

Order number: 130.14272

Order code: Steckkartenmodul CM08-BT Schraubantenne



#### Antennas and adapter cables:

SCHNEID antenna for Bluetooth module with magnetic base

Order number: 020.14264

Order code: Antenne für Bluetoothmodul mit Magnetfuß

SCHNEID antenna for Bluetooth module with screw base

Order number: 020.14265

Order code: Antenne für Bluetoothmodul mit Schraubfuß

SCHNEID antenna adapter cable 80mm for BT, RF (radio) and GPRS

Order number: 020.14254

Order code: Antennen-Adapterkabel 80

SCHNEID antenna adapter cable 250mm for BT, RF (radio) and GPRS

Order number: 020.14255

Order code: Antennen-Adapterkabel 250

SCHNEID antenna adapter cable 500mm for BT, RF (radio) and GPRS

Order number: 020.16196

Order code: Antennen-Adapterkabel 500

#### Repeater module Bluetooth:

SCHNEID repeater module Bluetooth with magnetic base antenna

Order number: 020.14269

Order code: Repeatermodul Bluetooth mit Magnetfußantenne

SCHNEID repeater module Bluetooth with screw antenna

Order number: 020.14259

Order code: Repeatermodul Bluetooth mit Schraub-Antenne



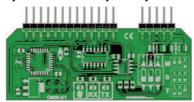


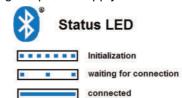
Page 4 © Schneid GesmbH

#### Installation:

#### Installation of BT module:

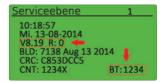
- Installation of the antenna (different depending on the type, screw or magnetic base)
  - The antenna must be installed outside of the controller housing.
  - The connection to the Bluetooth module must be established. (If the connection from the boiler room is weakened too much, there is the possibility for upgrading with an external unit via an RS485 connection).
- The module only works with the communication base board CM08 and higher.
- The slot on COM-C must be free.
- Insert the Bluetooth module in the "COM-C" slot, be sure to remove the jumpers J1-3!
- The module now starts with the initialization (this takes about 30 seconds).
  - The SLED (blue) flashes every 0.5 seconds, and the RX LED (red) flashes at the same time.
- When the initialization has been completed and the controller has been successfully recognized, the **§** LED only flashes briefly every 5 seconds. (see grafic).
  - In the case of a "default setup" of the control device, a new initialization must be started.
  - This can only be achieved by briefly disconnecting the power supply.

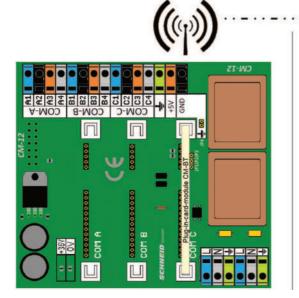




#### Settings on the controller:

- Check the controller software (version 8.19 or higher) and update if necessary.
  - The control is carried out by pressing and holding the "ESC" key.
  - If you need an update, please contact the operator of your system.







Serviceebene

Mi. 13-08-2014 V8.19 R; 0

BLD: 7138 Aug 13 2014 CRC: C853DCC5

BT: 1234

10:18:57

CNT: 1234X

#### **Configuration:**

#### Configuration on a tablet or smartphone:

- Configuration of the connection on the tablet or smartphone:
- Download and install the remote app (- downloads) www.schneid.at
- Select the app and select BT connect.
- Select "Search" in the pop-up window.
- The module appears with the following identifier: CM08-BT-XX-x The default value for this is "1234".
- After the connection has been successfully established, the message "Enter new pin code" appears.
  - A new code must be entered and confirmed with "OK". This serves to protect against unauthorized access by strangers and must therefore be adapted.
  - To check or if the code has been forgotten, it can be shown on the controller display via the "Service level 1" display (see Fig. Below).
- As soon as a connection has been successfully established, the DLED on the Bluetooth module lights up continuously.
  - At the same time, the RX and TX LEDs flash, signaling data exchange.
  - You can access further information on the operation of the remote app using the 1 info button.



Page 6 © Schneid GesmbH

#### Visualization app:

The SCHNEID visualization apps have been specially developed for end customers. With the help of a Bluetooth module or SinVis access, they have the option of accessing your control system in the house. The most important operating parameters can be viewed and configured via the apps. The end customer is thus given complete control over the control by means of remote access. This ensures that the control can also be optimally controlled and monitored from the outside if necessary. The operating instructions for the app are integrated in the program.











#### Terminal plan BT module and subcom:

If sub-communication with other controllers is also to be established in parallel, the following must be observed:

- Sub-communication is only possible via the RS485 interface.

The BT module has this already integrated. A CM08-485 interface card must then be used for the other controllers. The bus cabling and the RS485 termination are carried out according to an RS485 sub-communication. (Dip switch settings as for RS485).

The baud rate is selected according to the distances to the individual sub-controllers.

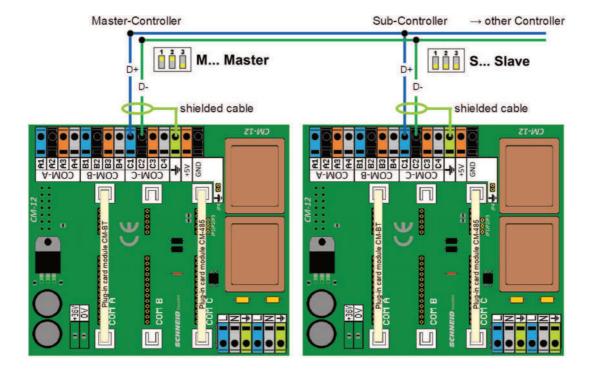
Addressing takes place as required for the subcom with address 0 for the master and 1-x for the slaves.

- The Bluetooth connection is then started up again as described above.
  - It should only be noted that in this case the address and baud rate of the Com-C on the controller may no longer be adjusted, since these have been set according to the sub-communication.
- The Bluetooth module automatically adapts to the parameters (address and baud rate) set on the controller for Com-C during initialization.
- If the Bluetooth module was put into operation before the interface parameters (address or baud rate) were changed, the Bluetooth module must then be initialized. This can only be achieved by briefly disconnecting the power supply.

#### Further information:

- A Bluetooth module can be used on the master controller or on one or more slave controllers.
- The Bluetooth module only ever transmits the data of the controller in which the module is installed.
- It is not possible to record several controllers with one Bluetooth module.

If you want to record several controllers via the Bluetooth module, a separate Bluetooth module is required for each controller.



Page 8 © Schneid GesmbH

#### Scope of delivery plug-in card module CM08-BT:

V1: SCHNEID plug-in card module CM08-BT (Bluetooth class 1) with adapter cable 80mm

V2: SCHNEID plug-in card module CM08-BT with adapter cable 80mm, magnetic base antenna, cable 3m

V3: SCHNEID plug-in card module CM08-BT with adapter cable 80mm, screw antenna

Technical data plug-in card module CM08-BT:		
Intrastat number:	8537.10.91.99	
Country of origin	EU/AT	

Height, width, depth (in mm) 32x65x9 (Plug-in card module) 80x10x10 (Adapter cable )

222x29x29 (Magnetic base antenna) + Antenna cable 3m

110x10x10 (Screw antenna)

Weight (in kg) 0,004 (Adapter cable 80mm)

0,011 (Plug-in card module + Adapter cable)

0,078 (PIC-module + Adapter + Magnetic base antenna + cable 3m)

0,025 (Plug-in card module + Adapter cable + Screw antenna)

Degree of protection IP-00

Ambient temperature 0°C....+40°C

Operating voltage 5VDC

Power consumption 75mA

Max baud rate 115200 Bit/s

Connection type Pin headers for base module

Mounting type Plug-in card module

Operating time Continuous operation

Degree of pollution 2

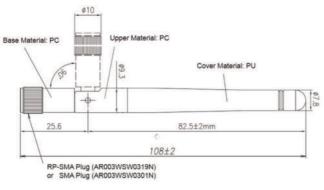
Range 100m (free field of view)

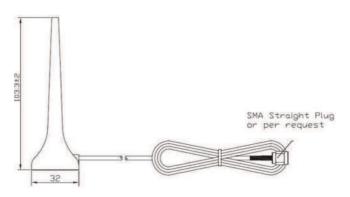
Transmit power 18dBm

Receiver sensitivity -86dBm

Transfer profile SPP

Technical data BTM: (not suitable for Apple products)





Technical data magnetic base antenna:		
Intrastat number:	8529.10.69.00	
Country of origin	no preferential origin	
Height, width, depth (in mm)	222x29x29 + Antenna cable 3m	
Weight (in kg)	0,063 (Magnetic base antenna + cable)	
Antenna	ABS	
Antenna cover	ABS	
Interconnects	SMA Straight	
Electric cable	Rg174 coaxial cable 1,5meter	
Operating temperatur	-10°C~+70°C	
Frequency	824-960/1710-1990-2200/2400 MHz	
Impedance	50 Ohm	
Return Loss	-14.557dB@824Mhz; -18.676dB@2700MHz	
VSWR	< 2.0 : 1	
Return loss	Omni-directional	
Polarization	Vertical	
Max Gain	0 dBi	

Technical data screw antenna:		
Intrastat number:	8529.10.69.00	
Country of origin	no preferential origin	
Height, width, depth (in mm)	110x10x10	
Weight (in kg)	0,010	
Antenna	PU	
Antenna cover	PC	
Interconnects	-20°C~+65°C	
Electric cable	-30°C~+75°C	
Operating temperatur	RP-SMA	
Frequency	0,3meter	
Impedance	2.4 Ghz ~ 5.8 Ghz	
Return Loss	50 Ohm	
VSWR	2.0 Max (2.4~2.5GHz & 5.15~5.825GHz)	
Return loss	-10 dB Max (2.4~2.5GHz & 5.15~5.825GHz)	
Polarization	Omni	
Max Gain	1.5 dBi @ 2.5 Ghz / 2.1 dBi @ 5.825 Ghz	

Page 10 © Schneid GesmbH

#### Scope of delivery of repeater module Bluetooth:

# SCHNEID repeater module Bluetooth with magnetic base antenna Scope of delivery:

SCHNEID plastic housing for repeater CM09-R (400.14253)

SCHNEID communication base module CM09-R (130.14198)

SCHNEID plug-in card module CM08-BT (130.13968)

SCHNEID plug-in card module CM08-485 (130.13558)

SCHNEID antenna for Bluetooth module with magnetic base antenna (020.14264)

SCHNEID antenna adapter cable 80 (020.14254)

# SCHNEID repeater module Bluetooth with screw antenna Scope of delivery:

SCHNEID plastic housing for repeater CM09-R (400.14253)

SCHNEID communication base module CM09-R (130.14198)

SCHNEID plug-in card module CM08-BT (130.13968)

SCHNEID plug-in card module CM08-485 (130.13558)

SCHNEID antenna for Bluetooth module with screw base antenna (020.14265)

SCHNEID antenna adapter cable 80 (020.14254)

#### Technical data repeater module Bluetooth:

Intrastat number:	8537.10.91.99
Country of origin	EU/AT
Height, width, depth (in mm)	222x65x56 (repeater module Bluetooth with magnetic base antenna) 270x65x56 (repeater module Bluetooth with screw antenna)
Weight (in kg)	0.254 (repeater module Bluetooth with magnetic base antenna) 0.204 (repeater module Bluetooth with screw antenna)
Degree of protection	IP-20
Operating temperatur	-0°C~+40°C
Mounting type	Wall mounting
Operating time	Continuous operation
Degree of pollution	2
Frequency range	2.4 Ghz ~ 5.8 Ghz
Impedance	50 Ohm

# Our services in summary



Hardware
Development at first hand



**Project management**Supervise and achieve your goals



**Software**Solve custom demands and requirements



SCHNEID

Monitoring system
The entire system at a glance



Quality management Safeguards a first-class quality



Support Your concern is our request



All rights reserved. This document is provided by the SCHNEID GesmbH.



Schneid GesmbH | Gewerbering 16 | A-8054 | Graz/Pirka | Tel: +43 (316) 285022

Products, data sheets, documentation, MR12-SCHEMA-calculator: www.schneid.at