

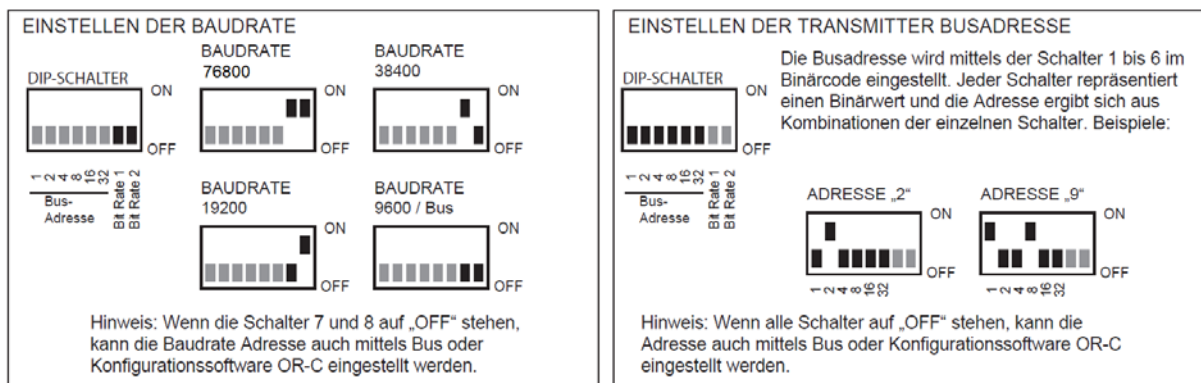
OPP-ROOM Raumtemperaturfühler, Raumfeuchte- Temperaturfühler und IO-Module

Protokoll BACnet-Schnittstelle (BACnet MS/TP)

Entwicklungsstand: **ab Software v1.53**

Einstellen der MAC-Adresse und der Baudrate

Die MAC-Adresse und die Baudrate werden in der Regel durch die DIP-Schalter eingestellt. Es ist auch möglich, die Adresse und Baudrate über die Konfigurationssoftware OR-C zusammen mit dem Datenkabel CAB-02 festzulegen.



Mittels der DIP-Schalter 1 bis 6 ist es möglich, Adressen im Bereich zwischen „1“ und „63“ direkt am Gerät einzustellen. Höhere Adressbereiche bis „247“ können mit Hilfe der Konfigurationssoftware OR-C und dem USB-Kabel CAB-02 eingestellt werden. Sehen Sie hierzu bitte das Datenblatt 20560. Die Schalter 1 bis 6 müssen hierbei auf „OFF“ stehen.

Ermitteln der Device-ID/Geräteinstanznummer

Initial/Standard Device-ID = MAC-Adresse (Lieferzustand)

Soll die Device-ID anders lauten, kann sie mittels der Konfigurationssoftware OR-C und des USB-Kabels CAB-02 überschrieben werden. Jede natürliche Zahl zwischen 1 und 4.194.302 ist gültig. Sehen Sie hierzu bitte auch das Datenblatt 20560.

Date: 13.07.2018

Vendor Name: Oppermann Regelgeraete GmbH (Vendor ID: 609)

Product Name: Raumtemperaturfühler, Raumfeuchte-Temperaturfühler, CO2-Temperatur-Messwertgeber, CO2-Temperatur-Feuchte-Messwertgeber und IO-Module

Product Model Number: T-BAC-R-..., HT-BAC-R-..., CO2T-BAC-R-..., CO2TRH-BAC-R-..., IO-BAC-R-...

Applications Software Version: 1.53 **Firmware Revision:** 1.53

BACnet Protocol Revision: 1.10 **Autor:** Werner Müller

Product Description:

Raumtemperaturfühler, Raumfeuchte-Temperaturfühler, CO2-Temperatur-Messwertgeber, CO2-Temperatur-Feuchte-Messwertgeber und IO-Module mit BACnet-Anbindung

BACnet Standardized Device Profile (Annex L)

	BACnet Operator Workstation (B-OWS)
	BACnet Building Controller (B-BC)
	BACnet Advanced Application Controller (B-AAC)
X	BACnet Application Specific Controller (B-ASC)
	BACnet Smart Sensor (B-SS)
	BACnet Smart Actuator (B-SA)

List all BACnet Interoperability Building Blocks supported (see Annex K in BACnet Addendum 135d):

DS-RP-B Read Property
 DS-WP-B Write Property
 DS-RPM-B ReadPropertyMultiple
 DM-RD-B Reinitialize Device
 DM-DDB-B Dynamic Device Binding
 DM-DOB-B Dynamic Object Binding
 DM-DCC-B Device Communication Control

Which of the following device binding methods does the product support? (check one or more)

	Send Who-Is, receive I-Am (BIBB DM-DDB-A)
X	Receive Who-Is, send I-Am (BIBB DM-DDB-B)
	Send Who-Has, receive I-Have (BIBB DM-DOB-A)
X	Receive Who-Has, send I-Have (BIBB DM-DOB-B)
	Manual configuration of recipient device's network number and MAC address
	None of the above

Standard Object Types Supported:

Analog Input Object Type

- | | |
|---|----|
| 1. Dynamically creatable using BACnet's CreateObject service? | No |
| 2. Dynamically deletable using BACnet's DeleteObject service? | No |
| 3. List of optional properties supported: | |

None

4. List of all properties that are writable where not otherwise required by this standard

Present_Value (conditional)
Out_Of_Service

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
Object Identifier	
Object Name	
Object Type	
Present Value	AI(0): 0...150 AI(1): -500...500 AI(2): 0...100 AI(3): 0...10000 AI(4): 0...10000 AI(5): 0...5000 AI(6): 0...10000
Status Flags	
Event State	
Out-Of-Service	
Units	

List of object identifiers and their meaning in this device

Object ID	Object Name	Description	Unit	Comment
AI0	Sensor_Temperature	n/a	°C oder °F	Temperatur-Istwert, supported statusflags: "fault" and "out of service"
AI1	Setpoint_Adjust	n/a	°C oder °F	Temperatur-Sollwertvorgabe supported statusflags: "fault" and "out of service"
AI2	Sensor_Humidity	n/a	%	Relative Luftfeuchtigkeit, supported statusflags: "fault" and "out of service"
AI3	RI1	n/a	Ohm, °C, °F *)	Widerstandseingang, supported statusflags: "fault" and "out of service"
AI4	RI2	n/a	Ohm, °C, °F *)	Widerstandseingang, supported statusflags: "fault" and "out of service"
AI5	Sensor_CO2	n/a	ppm	CO2-Konzentration, supported statusflags: "fault" and "out of service"
AI6	Sensor_Lux	n/a	Lux	Umgebunghelligkeit, supported statusflags: "fault" and "out of service"

*) Abhängig von der Konfiguration des Eingangs

Analog Output Object Type

1. Dynamically creatable using BACnet's CreateObject service? No _____
2. Dynamically deletable using BACnet's DeleteObject service? No _____
3. List of optional properties supported:
- | |
|------|
| None |
|------|

4. List of all properties that are writable where not otherwise required by this standard

Present_Value (conditional)
Out_Of_Service
Relinquish Default

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
Object Identifier	
Object Name	
Object Type	
Present Value	0...100
Status Flags	
Event State	
Out-Of-Service	
Units	
Priority Array	
Relinquish Default	

List of object identifiers and their meaning in this device

Object ID	Object Name	Description	Unit	Comment
AO(0)	Y1	n/a	%	Analog output 1 supported statusflags: "fault" and "out of service"
AO(1)	Y2	n/a	%	Analog output 2 supported statusflags: "fault" and "out of service"
AO(2)	Y3	n/a	%	Analog output 3 supported statusflags: "fault" and "out of service"

Analog Value Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:
None

4. List of all properties that are writable where not otherwise required by this standard

Present_Value (conditional)
Out_Of_Service
Relinquish Default

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
Object Identifier	
Object Name	
Object Type	
Present Value	AV(0): 0...150 AV(1): 0...100 AV(2): 0...5000 AV(3): 0...10000 AV(4): 0...4278190080 AV(5): 0...4278190080 AV(6): 0...10
Status Flags	
Event State	
Out-Of-Service	
Units	
Priority Array	
Relinquish Default	

List of object identifiers and their meaning in this device

Object ID	Object Name	Description	Unit	Comment
AV(0)	Setpoint_Temperature	n/a	°C oder °F	Analogwert Soll-Temperatur supported statusflags: "fault" and "out of service"
AV(1)	Setpoint_Humidity	n/a	%	Analogwert Soll-Feuchte supported statusflags: "fault" and "out of service"
AV(2)	Setpoint_CO2	n/a	ppm	Analogwert Soll-CO2 supported statusflags: "fault" and "out of service"
AV(3)	Setpoint_LUX	n/a	Lux	Analogwert Soll-Helligkeit supported statusflags: "fault" and "out of service"
AV(4)	DI1 PulseCount	n/a	[Anzahl Impulse]	Zählerwert am Eingang DI1 supported statusflags: "fault" and "out of service"
AV(5)	DI2 PulseCount	n/a	[Anzahl Impulse]	Zählerwert am Eingang DI2 supported statusflags: "fault" and "out of service"
AV(6)	Display Backlight	n/a	[X *10% Helligkeit]	Helligkeit LCD-Display supported statusflags: "fault" and "out of service"

Binary Input Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:

None

4. List of all properties that are writable where not otherwise required by this standard

Present_Value (conditional)
Out_Of_Service
Polarity

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
Object Identifier	
Object Name	
Object Type	
Present Value	0...1
Status Flags	
Event State	
Out-Of-Service	
Polarity	
Active Text	
Inactive Text	

List of object identifiers and their meaning in this device

Object ID	Object Name	Description	Comment
BI0	DI1	n/a	Digitaleingang 1, Statusflags Fault und Out of Service werden unterstützt Active Text default: „on“ Inack. Text default: “off”
BI1	DI2	n/a	Digitaleingang 2, Statusflags Fault und Out of Service werden unterstützt Active Text default: „on“ Inack. Text default: “off”
BI2	Occupancy	n/a	Präsenz-/Bewegungsmelder, Statusflags Fault und Out of Service werden unterstützt Active Text default: „on“ Inack. Text default: “off”
BI3	Push Button1	n/a	Taster, Statusflags Fault und Out of Service werden unterstützt Active Text default: „on“ Inack. Text default: “off”

Binary Output Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:

None

4. List of all properties that are writable where not otherwise required by this standard

Present_Value
Out_Of_Service
Polarity
Relinquish Default

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
Object Identifier	
Object Name	
Object Type	
Present Value	0...1
Status Flags	
Event State	
Out-Of-Service	
Polarity	
Priority Array	
Relinquish Default	
Active Text	
Inactive Text	

List of object identifiers and their meaning in this device

Object ID	Object Name	Description	Comment
BO0	DO1	n/a	Digitalausgang 1, Statusflags Fault und Out of Service werden unterstützt Active Text default: „on“ Inack. Text default: “off”
BO1	DO2	n/a	Digitalausgang 2, Statusflags Fault und Out of Service werden unterstützt Active Text default: „on“ Inack. Text default: “off”

Multi State Input Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:

None

4. List of all properties that are writable where not otherwise required by this standard

Present Value
Out-Of-Service

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
Object Identifier	
Object_Name	max 32 characters
Object Type	
Present Value	1, 2, 3 (Alarm Level: Hintergrundbeleuchtung Weiß, Gelb oder Rot)
Status Flags	
Event State	
Out-Of-Service	
Number-Of-States	

Device Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No

3. List of optional properties supported:

None

4. List of all properties that are writable where not otherwise required by this standard

Object Identifier
Object Name

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
Object Identifier	MAC-Address (std.), any individual No. between 1 and 4194302.
Object_Name	max 32 characters
Object Type	
System Status	
Vendor Name	
Vendor Identifier	
Model Name	
Firmware Revision	
Application Software Version	
Protocol Version	
Protocol Revision	
Services Supported	
Object Types Supported	
Object List	
MAX APDU Length	
Segmentation Support	
APDU TimeOut	
Number APDU Retries	
MaxMaster	
Max-Info_Frames	
Device Address Binding	
Database Revision	

Data Link Layer Options (check all that are supported):

	BACnet IP, (Annex J)	
	BACnet IP, (Annex J), Foreign Device	
	ISO 8802-3, Ethernet (Clause 7)	
	ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)	
	ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s):	
	MS/TP master (Clause 9), baud rate(s):	
X	MS/TP slave (Clause 9), baud rate(s):	9600 (default), 19200, 38400,76800
	Point-To-Point, EIA 232 (Clause 10), baud rate(s):	
	Point-To-Point, modem, (Clause 10), baud rate(s):	
	LonTalk, (Clause 11), medium:	
	Other:	

Networking Options (check all that are supported):

	Router, Clause 6 - List all routing configurations (e.g. ARCNET-Ethernet, Ethernet-MS/TP, etc.):
	Annex H.3, BACnet Tunneling Router over UDP/IP
	BACnet/IP Broadcast Management Device (BBMD)
	BBMD supports registrations by Foreign Devices

Segmentation Capability (check all that apply):

		Window Size
	Segmented requests supported	
	Segmented responses supported	

Character Sets Supported (check all that apply):

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

x	ANSI X3.4
	IBM™/Microsoft™ DBCS
	ISO 8859-1
	ISO 10646 (UCS-2)
	ISO 10646 (ICS-4)
	JIS C 6226

If this product is a communication gateway, describe the non-BACnet equipment/network(s) that the gateway supports:

N/A

Include any addition information about the product's BACnet capabilities relevant to interoperability: