SIEMENS



DESIGO™ RXC

0 23

Gateway EnOcean/LonWorks

RXZ95.1/LON

661P01, 1661P02

For use with:

- DESIGO RXC
- Devices / systems with LONWORKS® communication
- Wireless receiver with LONWORKS® interface FTT10A
- Evaluation of up to 16 EnOcean room units
- Operating voltage AC / DC 24 V

Validity

This data sheer is valid for devices with index B and higher.

For devices with index A see CM2N1661en_02.

With the RXC room controllers, wireless room units can be used in place of the QAX3x standard room units. One of the wireless technologies used is EnOcean. Here, the **room unit** is powered by a solar cell. A battery is only needed if light conditions are poor.

The **gateway** requires a separate AC / DC 24 V supply (not in the scope of delivery).

Integration ot the EnOcean room units (QAX9x.x) into the system is made via the RXZ95.1/LON EnOcean/LONWORKS gateway. It handles up to 16 EnOcean room units. The telegrams received via radio are converted to LONWORKS standard network variables (SNVT).

Type summary

Product number	Order number	Designation
RXZ95.1/LON	S55842-Z100	Gateway EnOcean/LONWORKS

An external antenna is included in the delivery.

Ordering

When ordering, please give quantity, designation, product number and order number.

Example:

10 Gateways EnOcean/LONWORKS, RXZ95.1/LON, S55842-Z100

Equipment combinations

EnOcean room units	Product number	Order number	Designation
	QAX95.1	S55623-H100	Wireless and battery-less room unit with
			EnOcean interface (temperature sensor)
	QAX96.1	S55623-H101	Wireless and battery-less room unit with
			EnOcean interface (temperature sensor
			with setpoint adjuster)
	QAX95.4	S55623-H104	Wireless and battery-less room unit with
			EnOcean interface (temperature sensor)
	QAX96.4	S55623-H105	Wireless and battery-less room unit with
			EnOcean interface (temperature sensor
			with setpoint adjuster)
	QAX97.4	S55623-H106	Wireless and battery-less room unit with
			EnOcean interface (temperature sensor
			with setpoint adjuster, freely programmable
			button and 2-stage switch)
	QAX98.4	S55623-H108	Wireless and battery-less room unit with
			EnOcean interface (temperature sensor
			with setpoint adjuster, freely programmable
			button and 5-stage switch)

Note The RXZ95.1/LON can be used in all systems with LONWORKS communication



Integration of EnOcean room units into DESIGO RXC

Mechanical design



System requirements

Thermokon_LNS_PlugIn-FT5000 (Template: srca_16_1_01)
Functions: Monitoring and configuration gateway / room units For use with RXT10 tool or standard LNS tool
The device resource files contain information about supplier-specific configuration parameters and network variables (UNVTs and UCTPs).
Prerequisite for installation is LONMARK® resource files version 13.00 or, alternatively, LonMARK resource file API version 2.3 (bothersome installation).
srca_16_1_01.XIF; .NXE; .XFB; .XIF; .PDF (if SRC-FTT plug-in is not used)
 LNS plug-in, device resource files, LONWORKS application: Download from the DESIGO RX intranet: <u>https://intranet.for.siemens.com/org/bt/en/business/products-</u> systems/bacs/desigo/ra/des_ra_qax/Pages/des-ra- <u>units.aspx?tabcardname=qax95%20/%20qax96%20/%20qax97%20/%20qax98</u> <u>#Downloads</u> Plug-In: Thermokon LNS Plug-In_x.x.xxxx.xxxx_setup.exe Download from <u>www.thermokon.de/en/media-downloads.html</u> LonMark resource files version 13.00:

Environment for engineering tool

Integration of QAX95.x/QAX96.x: The RXT10 tool or a standard LNS tool can be used.

Integration of QAX97.x/QAX98.x: A standard LNS tool must be used.

Limitations

- With a DESIGO system, it is not possible to integrate additional EnOcean products, such as buttons, presence detectors, etc., via the RXZ95.1/LON gateway with the RXT10 tool.
 - Reason: In the gateway, temperature and setpoint adjustment are available as static network variables. However, additional functions are configured dynamically, and the RXT10 does not support dynamic network interfaces.
- RXT10 does not support the multifunctional button of the QAX97.4 und QAX98.4 room units.
- For technological reasons, the control performance of an RXC... room controller in connection with an EnOcean room unit is inferior to that with a standard QAX3x room unit

Infrastructure

Basis:	PC with DESIGO infrastructure RXT10 version 4 or higher
Note:	The following components must be installed in the order indicated.
Step 1: Source:	Installation of LONMARK resource files version 13.00 or higher http://www.lonmark.org/technical_resources/resource_files/
Step 2: Source:	Installation of device resource files: Download from the DESIGO RX intranet: <u>https://intranet.for.siemens.com/org/bt/en/business/products-</u> <u>systems/bacs/desigo/ra/des_ra_qax/Pages/des-ra-</u> <u>units.aspx?tabcardname=qax95%20/%20qax96%20/%20qax97%20/%20qax98#Downloads</u>
Step 3: Source:	Installation of Thermokon plug-in Download from the DESIGO RX intranet: <u>https://intranet.for.siemens.com/org/bt/en/business/products-</u> <u>systems/bacs/desigo/ra/des_ra_qax/Pages/des-ra-</u> <u>units.aspx?tabcardname=qax95%20/%20qax96%20/%20qax97%20/%20qax98#Downloads</u>

Engineering with RXT10 and LNS plug-in Set up the gateway with the RXT10 tool by following the standard procedure for integration of third-party devices (for details, refer to User Manual RXT10, CM110669).

Step	Procedure		
1	Device > A	dd	
	Select tab Device Type .		
	From menu	Device Type, sel	ect PLG: Plug In Support.
	On the "Dev	vice" list. highlight	PlugInDevice.
	Device	, 3 3	×
	Overview Applica	ation Device Type Settings	
		1.21	Calculated Applications
		permanencommencement	Selected Application.
	Device Type:	PLG: Plug In Support	<u> </u>
	Device	Description	
	(none) PlugInDevic	ce LNS Plug In Device	
		hà	
			INS POWERED
			LINS FOWERED
	•	 	Olum in
	Device for LNS	Plug In Support	Plug·m
		<u></u>	1
			OK Cancel
	Step 1	Step Procedure 1 Device > A Select tab I From menu On the "Device Overview Application Device Device Device Image: Select tab I Device Device Device Image: Select tab I Device Device Device Image: Select tab I Device I	Step Procedure 1 Device > Add Select tab Device Type. From menu Device Type, sele On the "Device" list, highlight I • Device • Device Type: PLG: Plugin Device Type: PLG: Plugin Device Image: Plugin Device Image: Plugin Device Image: Plugin Device Image: Plugin Device Perice Image: Plugin Device Image

Step	Procedure		
2	Select tab Overview and enter the location.		
	Confirm by clicking OK .		
3	RXT: Select <no networkinterface=""></no>		
	Enocean workflow.tbp - DESIGO RXT10.2 Droiset Edit View Davise Tools Natural Window Halp		
	Kno networkinterface>		
	NIC_852_1_000		
	NIC_852_1_002 NIC_852_1_003 NIC_852_1_004		
	NIC_852_1_005		
	Network > Connect (Attached offnet)		
4	Device > Configure > ThermokonLNSPlugIn.Plug-In > OK		
	Installed plug-ips		
	Select a device plug-in		
	spega econtrol shading controller		
	spega econtrol sistema ML16 spega econtrol sistema MC		
	spega econtrol temp sensor spega econtrol setpoint adjuster		
	spega econtrol sunblind actuator spega econtrol sunblind actuator		
	spega econtrol anti-glare controller spega econtrol switch sensor		
	spega econtrol thermo controller spega econtrol web command module		
	spega econtrol web switche		
	Select device template "srca_16_1_01" > OK		
	Available Device Templates		
	Device templates for plug-ins		
	stcs to F0 F0 F, F0 grammid, 0x9FFAD 4600860420) stcn_55_1_01 (, Programmid: 0x9FFAD 4600860420)		
	stor_33_r_02 (; Programmid: 0x9FFFAD4600860421) stor_55_1_01 (; Programmid: 0x9FFFAD4600860424)		
	srca_hwl_16_1_02 (, Programmid: 0x9FFFAD0400E60409)		
	OK Cancel		
	Select function "ThermokonLNSPlugIn Device Configuration" >		
	Click OK.		
	Select Plug-in Function		
	Available Functions Function Description		
	Thermokon SRC-FTT -		
	OK		
	Select a device Plug-In		
	LPAConvPlugin		
	HXC Plugin AppLib V1 RXC Plugin AppLib V2		
	SBT Generic Plug In Thermokon_SRC-FTT		
	Re:register Plug-in Close		
	Communessage by selecting TES.		

Step	Procedure					
5a	Configure the gatew	vay:				
	Select tab General	settings:				
	Thermokon Sensortechnik GmbH	I [ENG]- STC_FTT: PlugInDevice_6				
	General	.th.				
	General settings	General settings				
	Oisplay settings	Sensors-settings				
		Lower set point change [K]:	3.0 ·			
		Fan speed:	3 Stage with Auto			
		Presence key [min]:				
		Receive time (ming.	60 -			
		Receiver-settings	Elashing with each telegram received			
		Heartbeat function NV's [s]:				
	Sensors					
			L			
		Function not a	available with the RXT10			
	Receive time:	For monitoring	g the RF link to the room unit			
		(optional)				
	Sending interval:	Recommenda	ation: Same as RXC ⇒ Default			
		2700 [s] (45 r	nin)			
5b	Configure the gatew	vay:				
	select tab Switch s	ettings:				
	File Extra Help	I [ENG]- STC_FTT: PlugInDevice_6				
	General	Putton_sottings				
	S General settings	bacton sectings				
	Oisplay settings	Long press time				
		Dim				
		Sending interval [s]: Step value [%]:	þ.3 🗮			
		Blind / shutter				
		Telegram up:	SET_UP 100 ÷ 0 ÷			
		Telegram up:	SET_DOWN THE			
		Telegram STOP: Telegram idle mode:				
		Reverse time [ms]:	500			
	Sensors	Drive time [s]:	100			
	-	-the second states				
	Fun	ictions not available	e with the RX110			

Step	Procedure					
5c	Configure the gateway:					
	select tab Sensor 116:					
	Thermokon Sensortechnik GmbH [ENG]- STC_1 File Extra Help	TT: PlugInDevice_6				
	General A	Gensor-settings: Sens	or[0]			
	Sensors General sensor settings					
	Sensor[1] Device:		Universal Temperatu	re sensor – Ol	RG 7	
	Sensor[3] Sensor-II	D:		Learn-in		
	Sensor[4] Sending i	nterval NV's [s]: output [%]:				
	Sensor[6] Lower ter	mperature range [°C]: mperature range [°C]:	0 ÷			
	Image: Sensor[8] Temperal Image: Sensor[9] Image: Sensor[9]	ture offset [K]:	0			
	Sensor[10]	variable-Type (SNVT)	SNUT setting		V	
	Sensor[12]	Dut_2:	SNVT setting		Ţ	
	Sensor[13] Button fu	nction				
	Sensor[15] Button 2:		Not used 👻 🕅	lot used lot used		
	Button 3: Button 4:		Not used 💌 🕅	lot used lot used		
	Visualisa	tion	Monitor on			
	Network Device st	access: ate:	offnet (no con	nection to nel nection to de	twork) vice)	
	nviMultiO	ut_1_Fb:			Write	
	nvoHVAC	ut_z_ru: Temp [°C]:			wrice	
	nvoSetpo nvoMultiC	wint: Dut_1:				
	nvoMultic	Dut_2:			-	
	X	Function	ot availat	le wit	th the RXT10	
	Device:	For room	units QAX	95.x,	QAX96.x, select	:
	SanaariDi	setting 7	onginoori	ina th		£
	Sensond.	the room	init can be	niy, ii e ente	red here if desi	" red
		Normally,	it is learne	ed-in (online (with	ou.
		connectio	n to the ne	etwork	k, see step 10).	
	SCPTmaxSendTime:	Heartbeat	room unit	t		
		Recommendation: Same as RXC ⇒ Default 2700 [s] (45 min)				
	Note relating to SCPTmaxSendTime:					
	With the default setting	of 0.0 s (O	F) and in	the e	event the RF link	
	breaks down (faults, no	light, etc.),	the tempe	eratur	e value in the R	KC
	will change to "invalid"	when the he	eartbeat h	as ela	apsed. When usi	ng a
	setting greater than 0.0 transmitted.	s, the temp	erature va	alue r	eceived last will	be
6	> Apply					
	(Question "transmit to	device?":	Answer wi	th YE	S)	
	Network > Disconnec	(Attached	onnet)			
7	Make RXT10 bindings:					
	Datapoint	Gateway	Tanca	_ _	RXC	
	Room Lemperature:	nvoSotoci	iemp_x		nviSpace i emp	.t
	Serpoint Onnet.	Invogerhor	···^	7	inioethouirouse	i.

Step	Procedure			
8	Network > Connect (online)			
9	Assign devices and install			
10	Learn-in the i Open Plug-in Configuration Click button ne > Learn-in > F	room units: (Device > Configure > n > OK > YES ext to SensorID Press button on the roor	ThermokonLNSPlugIn Device	
	File Extra Help Image: General Image: General Image: General Image: General Image: General Image: General	Learn-in sensor Learn-in Please press learn-in button at the sensor! Result Sensor-ID: OK	iversal Temperature sensor - ORG 7 niversal temperature range with SCPTminRnge and 181:73:36 Learn-in Cancel Cancel	
11	Function chec	k gateway / room unit: nk GmbH [ENG]- STC_FTT: PlugInDevice_6		
	General Sensor Sensor[0] Sensor[1] Sensor[2] Sensor[3] Sensor[4] Sensor[6] Sensor[7] Sensor[8] Sensor[9] Sensor[1]	Sensor-settings: Sensor-settings: Sensor-Settings General sensor settings Device: Sensor-ID: Sending interval NV's [s]: Maximum output [%]: Lower temperature range [°C]: Upper temperature range [°C]: Temperature offset [K]: Network variable-Type (SNVT) nvoMubiOut_1: nvoMubiOut_2: Button function Button 1: Button 2: Button 3: Button 4: Visualisation Network access: Device state:	Sor[0] Universal Temperature sensor - ORG 7 Universal temperature sensor - ORG 7 Universal temperature range with SCPTminRnge and SCP 00:81:73:36 Learn-in 0 100 0 40 5 SNVT_setting SNVT_setting Not used	
		nviMultiOut_2_Fb: nvoHVACTemp [°C]: nvoSetpoint:	0.0 0 Write	

Infrastructure

Basis:	PC with DESIGO infrastructure RXT10 version 4 or higher
Step:	Download: SRC04_SRC65-FTT.zip
	Extract and save LON application: \2_LON-Software\1_deutsch\EasySens, Funk-Empfangsmodule\SRC04_SRC65- FTT\srca_16_1_01\srca_16_1_01.XIF (.apb; .nxe; .xfb; .xif)
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<u>Software L</u>	<u>ON</u> » <u>English</u>	EasySens			« Ba	ck to overview
Additio	nal files					
Preview	Туре	Name		Size	Date	
	zip	SRC04 SRC65-FTT.zip		1,69 MB	08.04.2016	
	zip	STC04 STC65-FTT.zip		1,26 MB	08.04.2016	

Set up the gateway with the RXT10 tool by following the standard procedure for integration of third-party devices (for details, refer to User Manual RXT10, CM110669).



Step	Procedure					
4	Device > Configure > SBT Generic	Plug In > OK				
	Installed plug-ins	×				
	Select a device plug-in					
	Echelon LNS Report Generator					
	RXC Plugin AppLib V1 BXC Plugin AppLib V2					
	SBT Generic Plug In					
	0					
		OK Cancel				
	Select function Import XIF > OK					
	Select Plug-in Function	×				
	Available Functions	Function Description				
	Impart Xit • Configure Device -	Get the Lon Interface out of device or read it from a file				
	Browse Device -					
		OK N				
	Select a device Plug-In					
	Echelon LNS Report Generator LPAConvPlugin					
	BXC Plugin AppLib V1 BXC Plugin AppLib V2					
	SBT Generic Plug In					
		Reregister Plug-in Close				
	> Read XIF File > Select path for srca_16_1_01.XIF > OK					
	> Select Plug-in > Close					
5	Device > Configure > OK (dependin	a on plug-in: Configure Device)				
5						
	Ausiable Eurotiens	Europier Description				
	Configure Device -	Browse & Configure the Device				
	Browse Device -	_				
		<u> </u>				
	Select a device Plug-In					
	LPAConvPlugin					
	RXC PlugIn AppLib V1 RXC PlugIn AppLib V2					
	SBT Generic Plug In					
		Reregister Plugrin Close				

Step	Procedure					
6	Configure the gateway: Select Node Object					
	SRCA_16_1_01 (PlugInDevice_6) (Unable to communicate with the device!)					
	Location srca Description Default Device					
	NVs CPs (LNS)					
	SRCA_16_1_01 Name NodeObject Sensor(0) Sensor(1) Sensor(2) Sensor(3) Sensor(4) Name Name Name Name Name Name Name Name	ssTime Time on endTime endTime Jalue opeReuTom	Object NodeObject NodeObject NodeObject NodeObject NodeObject NodeObject NodeObject	Value 90 100.0 2700.0 0.3 5.0 50		
	Sensor[5] UCPT fanS; Sensor[6] UCPT fanS; Sensor[7] UCPT long; Sensor[8] UCPT spMir Sensor[9] UCPT spMir Sensor[10] UCPT spMir Sensor[11] UCPT sunbl Sensor[12] UCPT sunbl	earnic Villi doStages raICP1 YressTime seDelay xxValue tvalue indDOwN indDDLE indSTOP	NodeObject NodeObject NodeObject NodeObject NodeObject NodeObject NodeObject NodeObject NodeObject	3 1,0,0,0,0,0,0,0, 1,0,2,0,2,0,2,0 500 3,00 -3,00 SET_DOWN 1 SET_NUL 0.0 SET_STOP 0		
	Sensor[13] Sensor[14] Sensor[15]	INdUP	NodeUbject	SET_OP 100.0		
	Lautomatic Update		<u>U</u> pdate A	All Close		
	SCPTmaxSendTime:	Sending in Recommen Default 27 0	terval LONWO ndation: Same 00 [s] (45 min)	RKS as RXC ⇔		
	UCPTenoceanRcvTm:	Receive tir For monito (optional)	ne ring the RF lin	k to the room unit		
-		Setpoint O	ffset (± 3 K, d	efault)		
1	Configure the gateway: Select Sensor Object 10, 151					
	SRCA_16_1_01 (PlugInDevice_6) (Unable to communicate with the device!)					
	Location srca Description Default Device					
	NVs CPs (LNS)					
	SRCA_16_1_01 Node0bject Sensor[0] Sensor[1] Sensor[2] Name NvoHVACT NvoHVACT NvoHVACT NvoHVACT NvoHVACT NvoHVACT	emp_1.SCPTmaxRn emp_1.SCPTminRnge emp_1.SCPTtempOf t_1_1.SCPTnvType	Object Sensor[0] Sensor[0] Sensor[0] Sensor[0]	Value 40.00 0.00 0.00 PID 0:0:0:0:0.0		
	Sensor[3] nvoMultiUu Sensor[4] SCPTmax0	t_2_1.SCPInviype lut endTime	Sensor[U] Sensor[0] Sensor[0]	PID 0:0:0:0:0:0:0 100.0 2700.0		
	Sensor[5] UCPT devic Sensor[6] UCPT dicor	eType nfig	Sensor[0] Sensor[0]	7 0,0,0,0		
	Sensor[7] UCPTenoco Sensor[8] Sensor[9] Sensor[10] Sensor[11] Sensor[12] Sensor[13] Sensor[14] Sensor[15]	eanID	Sensor[0]	0.0.0		
	🗖 Automatic Update		Update A	All Close		
	SCPTmax/minRnge:	Measuring range of temperature sensor [040 °C, default]				
	SCPTmaxSendTime:	Sending inf Recommer Default 27(terval LONWO ndation: Same)0 [s] (45min)	RKS as RXC ⇒		

Step	Procedure			
8	> Close > Active Plug-in finish			
	Network > Disconnect (Attached offnet)			
9	Make RXT10 bindings:			
	Datapoint	Gateway		RXC
	Room Temperature:	nvoHVACTemp_x	(⇔	nviSpaceTemp
	Setpoint Offnet:	nvoSetpoint_x	⇒	nviSetpointOffset
10	Netwok > Connect (online)			
11	Assign devices and install			
12	Device > Configure > OK			
	Select Plug-in Function			×
	Available Functions	Fu	Inction De	scription
	Configure Device - Browse Device -	Bro	owse & Co	nfigure the Device
,			OK N	
Select a device Plug-In Echelon LNS Report Generator				
	RXC PlugIn AppLib V1 BXC PlugIn AppLib V2			
	SBT Generic Plug In			
			Bernald	
	J		Heregiste	er Hugan Llose

Step	Procedure			
13	Learn-in the room unit: Select Node Object			
	SRCA_16_1_01 (PlugInDevice_6)			
	NVs CPs (Device)			
	SRCA_16_1_01 NodeObject Sensor(0) Sensor(1) Sensor(2) Sensor(3) Sensor(4) Sensor(5) Sensor(5) Sensor(6) Sensor(7) Sensor(8) Sensor(10) Sensor(10) Sensor(10) Sensor(11) Sensor(14)	Name Se. EnviLeamSensor Image: Comparison of the sensor EnvoAlarmSensor EnvoFileDirectory EnvoStatus Image: Comparison of the sensor	Value 1.0.0.0.0.0.0.0.0.0.0.0.0.0 0.0.0_NORMAL 0.0.0.0.0.0.0.0.0.0.0.0.0.0 4002 0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	
	Sensor[15]			
	Automatic Update		Update All Close	
	Double click nviLearn > Set Bit [0] = 1 to learn-in Sensor [0] > Press button on the room unit SRCA_16_1_01 (PlugInDevice_6) Location srca Description Default Device N's CPs (Device) SRCA_16_1_01 Name Se Value NodeDbject Sensor[0] Sensor[1] Sensor[2] NuckeamSensor 0.00.00.00.00.00.00.00.000 Sensor[2]			
	Sensor[4] Sensor[5] Sensor[6] Sensor[7] Sensor[8] Sensor[9] Sensor[10] Sensor[11] Sensor[12] Sensor[14] Sensor[14] Sensor[15] ▼			
	Latomatic Update		Close	
	When the learn telegram is received, bit [0] is automatically reset.			
	Additional room un	its: Repeat procedure		
	set bit $[1] = 1$ to lease to bit $[2] = 1$ to lease to	arn-in Sensor [1] arn-in Sensor [2]		
	etc.			

р	Procedure				
	Function check gateway / room unit:				
	SRCA_16_1_01 (PlugInDevice_6)				
	Location srca Description Default Device				
	NodeDbject ImmiMultiOut_1_Fb_1 0.00 Sensol[0] sensol[1] 0.00 Sensol[2] rviMultiOut_2_Fb_1 0.00 Sensol[3] rvoHVACTemp_1 25.30 Sensol[4] sensol[5] sensol[6] Sensol[6] sensol[7] sensol[9] Sensol[9] sensol[10] rvoSetpoint_1 Sensol[11] sensol[12] Sensol[12] sensol[14] Sensol[15] sensol[15]				
	Automatic Update All Close				
	nvoHVACTemp_1: Receive room temperature from room unit				
	nvoSetpoint_1: Receive setpoint offset from room unit				

Sources of errors



Gateway receives no telegrams from the room unit

- ⇒ Room unit exhausted ⇒ poor light conditions Check documentation on room unit
- ⇒ RF link faulty ⇒ distance, interference emitters
 Check documentation on room unit
- ⇒ Room unit not / incorrectly learned-in in the gateway (SensorID)
- ⇒ Room unit faulty

Impact on the system:

When UCPTenoceanRcvTm has elapsed, nvoAlarmSensor is set (evaluation optional).

	ТО		
	T1	Last valid value from T0; other	wise 0.0 °C
	Т2	With SCPTmaxSendTime	⇔ T1
		Without SCPTmaxSendTime	⇒ invalid (327.7 °C) after RXC heartbeat has elapsed (60 min)
	Т3	Ditto; if 0.0 °C ⇔ frost alarm	
F2:	Poss	ible causes:	
RXC receives no	⇒	Gateway has no power (power	r fail)
LONWORKS telegrams	⇒	Bus interruption	_ ,
from the gateway	⇒	Error in configuration of gateway	
	⇒	Gateway faulty	
	Impa	ct on the system:	
	T0		
	T1		
	Τ2	Invalid (327.7 °C) after RXC he	eartbeat has elapsed (60 min)
		power_fail gateway:	
		nvo temp p = 0.0 °C until roor	n unit sends again (up to approx. 20 min.)
		Ohne SCPTmaxSendTime	⇒ T2 = last valid T2
		SCPTmaxSendTime < approx.	20 min ⇒ T2 = 0.0 °C (frost alarm)
		SCPTmaxSendTime > approx.	30 min ⇒ T2 = last valid T2
	Т3	Ditto; at 0.0 °C ⇔ frost alarm	
F10:	Impa	ct on the system:	
Power_up / Power_fail	T0		
system	T1	All temperatures = 0.0 °C after	r Power_fail / Power_up.
		Room unit sends current tempe	erature after about 20 to 30 minutes.
	Τ2	RXC polls the gateway (0.0 °C	c) and sends value to the system.
	Т3	Frost alarm (0.0 °C). This stat	te continues until all EnOcean room units
		have transmitted a valid tempe	rature. This takes about 20 to 30 min, but
		may take longer than an hour s	should short breakdowns occur.
		If a room unit does not send (e that room unit sends as well.	.g. exhausted), frost alarm is maintained until
			failure of the DVC and the action when

With each simultaneous power failure of the RXC and the gateway, the system triggers frost alarm for 20 to 30 minutes. The same applies to power-up.

	The devices are supplied in an operational status. Installation is made by means of anchors and screws (not included) to the smooth wall surface, or by means of screws to an installation socket .			
	For operation a separate external 868 MHz receiving antenna is required (included in delivery).			
Notes for the radio reception	 The antenna with magnet foot should be mounted on the center of a 180 mm x 180 mm metal plate (galvanized sheet steel). In rooms the antenna should be mounted 1 m below the ceiling. The antenna should be vertically aligned downwards. Minimal distance to the wall: 90 mm. Distance to other transmitters (e.g. GSM / DECT/ wireless LAN / EnOcean etc.): min. 2 m. The antenna cable shall be routed in an electric conduit. Avoid crushing of the antenna cable. The minimal bend radius of the cable is 50mm. As for the cable installation, avoid the use of an active pull-up device, otherwise the sheathing or on the connectors may damaged. For details on positioning of the EnOcean room units, refer to data sheet CM2N1660. 			
Commissioning				
	Wireless room units are sending time or event controlled telegrams to the gateway. The gateway verifies the incoming telegrams and outputs them directly via its LONWORKS interface.			
	Each telegram allows a precise allocation and consists of the format: type of the telegram, data, sender ID (32bit).			
EnOcean connection	In order to assure a correct evaluation of the measuring values by the gateway, it is necessary to have the devices learned-in by the gateway. This is done automatically by means of a "learn button" at the room unit (or manually by input of the 32bit sensor ID) and a special "learning" procedure between room unit and gateway.			
	For details, refer to the data sheet of the EnOcean room units, CM2N1660.			

LonWorks commissioning

Disposal



The device is considered an electronics device for disposal in terms of European Directive 2012/19/EU and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

In order to press the service pin, the lid must be opened.

Technical data

General device data	Operating voltage	DC 1524 V	
		AC 24 V +/- 10%	
	Power consumption 0.5W / 0.82VA		
	Interface	LONWORKS Transceiver FTT, free topology	
	Antenna connector	FME female	
	Antenna (included in delivery)	External antenna with magnetic stand	
	Terminals	Screw terminals max. 1,5 mm ²	
	Cable entry	M20 for 1 cable max. D = 8 mm	
		or 2 cables max. D = 7 mm	
	Mounting	Wall mounting	
Housing protection	Protection	IP42 to EN60529	
Ambient conditions	Temperature	-2060 °C	
	Humidity	max. 70 % r.h. non-condensing	
Standards, directives and	Product standard	EN 60730-1	
approvals		Automatic electrical controls for household	
		and similar use	
	Electromagnetic compatibility	For use in residential, commercial, light-	
	(Applications)	industrial and industrial environments	
	EU conformity (CE)	CM2T1661xx *)	
Enclosure	Material	ABS	
	Color	white, similar to RAL9010	
Weight	Without / with packaging	173 g / 248 g	

*) The documents can be downloaded from http://siemens.com/bt/download.

Supply LonWorks bus

Connection terminals

Dimensions in mm



Published by: Siemens Switzerland Ltd. Building Technologies Division International Headquarters Gubelstrasse 22 6301 Zug Switzerland Tel. +41 41-724 24 24 www.siemens.com/buildingtechnologies

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