# SIEMENS



DESIGO™ RXC

081

# 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 9 EnOcean room units
- Operating voltage AC / DC 24 V

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 9 EnOcean room units. The telegrams received via radio are converted to LONWORKS standard network variables (SNVT).

## Type summary

Product number	Stock 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 stock number. When ordering, please give, Product number and Stock number. *Example:* 

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

#### Equipment combinations

EnOcean room units	Product number	Stock 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

Software LNS PlugIn	SRC04-FTT plug-in (template: Thermokon srcn_9_1_02)
	<i>Functions:</i> Monitoring and configuration gateway / room units For use with RXT10 tool or standard LNS tool
Device resource files: Thermokon_DRF22.exe	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).
LONWORKS application	srcn_9_1_02.APB; .NXE; .XFB; .XIF; .PDF (if SRC-FTT plug-in is not used)
Software source / documentation	LNS plug-in, device resource files, LONWORKS application: Download from the DESIGO RX intranet:https://intranet10.sbt.siemens.com/ https://intra.industry.siemens.com/bt/global/en/business/building_comfort/systems/ desigo/ra/Pages/des-ra-units.aspx?TabcardNo=6
	Download from <u>http://www.lonmark.org/technical_resources/resource_files/</u>

#### **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

		1	Device > Add
		Step	Procedure
Enginee RXT10 a LNS plu	ring with nd g-in	Set up the g integration ( CM110669)	gateway with the RXT10 tool by following the standard procedure for of third-party devices (for details, refer to User Manual RXT10, ).
	Step 3: Source:	Installation Download f https://intra. desigo/ra/P	of SRC04-FTT plug-in rom the DESIGO RX intranet: .industry.siemens.com/bt/global/en/business/building_comfort/systems/ ages/des-ra-units.aspx?TabcardNo=6
	Step 2: Source:	Installation Download f https://intra. desigo/ra/P	of device resource files: from the DESIGO RX intranet: .industry.siemens.com/bt/global/en/business/building_comfort/systems/ ages/des-ra-units.aspx?TabcardNo=6
	Step 1: Source:	Installation http://www.l	of LONMARK resource files version 13.00 or higher lonmark.org/technical_resources/resource_files/
	Note:	The followir	ng components must be installed in the order indicated.
	Basis:	PC with DE RXT10 vers	SIGO infrastructure sion 4 or higher

Step	Procedure
1	Device > Add
	Select tab <b>Device Type</b> .
	From menu <b>Device Type</b> , select <b>PLG: Plug In Support</b> .
	On the "Device" list, highlight <b>PlugInDevice</b> .
	Device
	Overview   Application Device Type   Settings
	Selected Application:
	Device Type: PLG: Plug In Support
	Device Description
	(none)
	LNS POWERED
	Plug-in
	Device for LNS Plug In Support
	OK Cancel
2	Select tab <b>Overview</b> and enter the location.
	Confirm by clicking <b>OK</b> .
	· · · · · · · · · · · · · · · · · · ·

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Step	Procedure
3	RXT: Select <no networkinterface=""></no>
	Senocean workflow.tbp - DESIGO RXT10.2
	Project Edit View Device Tools Network Window Help
	□ 2 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日
	LON1 NIC_852_1_000
	NIC_852_1_001
	NIC_852_1_003 NIC_852_1_004
	NIC_852_1_005 _▲
	Network > Connect (Attached offnet)
4	Device > Configure > Thermokon_SRC-FTT > OK
	Installed plug-ins
	Select a device plug-in
	Echelon LNS Report Generator
	RXC Plugin AppLib V1
	SBT Generic Plug In
	Thermokon SRC-FTT
	OK Cancel
	Confirm message by selecting <b>YES</b> .
	Select function "Thermokon SRC-FTT" > Click <b>OK</b> .
	Select Plug-in Function
	Available Functions Function
	Configure -
	Thermokon SHL+TT-
	Select a device Plug-In
	LPAConvPlugin
	RXC Plugin AppLib V1 RXC Plugin AppLib V2
	SBT Generic Plug In Thermotion, SBC-FTT
	Heregister Hug-m Close
	Confirm message by selecting <b>YES</b> .

Step	Procedure	
5a	Configure the gateway: Select tab <b>General settings</b> :	
	Thermokon Sensortechnik GmbH	_ 🗆 🗙
	Hie Heip Sensor 5 Sensor 6 Sensor 7 Sensor 8 Sensor 9	Information:
	General settings Switch settings Sensor 1 Sensor 2 Sensor 3 Sensor 4	SCPT Type: SCPTmaxSendTime, Index 49,
	Lower setpoint adjustment [K]: 3.00	SNVT_time_sec Function: Heartbeat function. Stipulates
	Upper setpoint adjustment [K]: 3.00	interval time after which all output variables of the device are sent
	Pan stages: AutoTLHe.9	means of the input values = 0, the heartbeat function is deactivated.
	Receive Time (min):	(Preset value: 0, i.e. the output variables are only sent, if an output value has changed e.g. with an
	Receiver settings	alarm message or if a sensor telegram is received)
	Receive LED flashes: by every received telegram	
	Sending interval NV's (s): 2700 🗄	
		thermokoo
	Monitoring: Device selection Cancel Apply	Sensortechnik GmbH
	PludinDevice 8 SRC-FTT NeuronID: 00000000000	Offnet
		,,,
	Function not available with	the RXT10
	Receive time: For monitoring the RF link to	o the room unit
	(optional)	
	Sending interval:Recommendation: Same as2700 [s] (45 min)	s RXC ⇔ Default
5b	Configure the gateway: select tab <b>Switch settings</b> :	
	▶ Thermokon Sensortechnik GmbH	X
	File Help Sensor 5 Sensor 6 Sensor 7 Sensor 8 Sensor 9	Information:
	General settings Switch settings Sensor 1 Sensor 2 Sensor 3 Sensor 4	SCPT Type: SCPTmaxSendTime, Index 49,
		SNVT_time_sec Function: Heatheat function, Stigulates
	Sun blind / Shutter [s]: 20 - Button 4 Button 2	interval time after which all output variables of the device are sent
	Scene (s) 20 - Button 3 Button 1	independently of a value change. By means of the input values = 0, the heartbeat function is deactivated.
	Sending interval [s]: 0.3	(Preset value: 0, i.e. the output variables are only sent, if an output
	Step value [%]: 50	alarm message or if a sensor telegram is received)
	Sun blind / Shutter	
	Telegram UP: SET_DOWN I 100.0	
	Telegram STOP: SET STOP V 0.0	
	Telegram IDLE: SET_NUL 0.0	
	Reverse time (ms): 500	
	Monitoring:         Device selection         Cancel         Apply           Pollinterval (s):         5	Sensortechnik GmbH
	PlugInDevice_8 SRC-FTT NeuronID: 00000000000	Offnet
	Functions not available with the RXT	-10

Step	Procedure			
5c	Configure the gateway:			
	select tab Sensor 19:			
	Thermokon Sensortechnik GmbH     Image: Sensortechnik GmbH     Image: Sensortechnik GmbH			
	Sensor 5 Sensor 7 Sensor 8 Sensor 9 Information:			
	General settings   Switch settings   Sensor 1   Sensor 3   Sensor 4   SCPT Type: Sensor parameter   SNPT maxSendTime, Index 49, SNPT time, sec			
	Device 7 = SR04 / SR07 / SR65 - Temperature sensor  Function: Heartbeat function. This			
	SensoriD: 10,0,0 BE SNVT-rvoMultiOut_1: STVF_switch SCPTmaxSendTime: 2700 E variable is sent. By input values = 0,			
	SNVT- nvoMultiOut_2: SNUH occupancy SCPT maxOut for heartbeat function is deactivated. (Preset value: 0,0 s)			
	Temperature range / temperature offset			
	Upper measuring range (K) 40.00			
	Temperature offset [K]: 0.00			
	nviMultiDut_1_Fb: rvoHVACTemp: *C			
	nviMultiOut_2_Fb: "C nvoSetpoint "C			
	Sensor is sending: nvoMultiDut_2.			
	Monitoring: Device selection Cancel Apply Hipermokon			
	Polimerval (s): 5 Sensortechnik GmbH			
	PlugInDevice_8 SRC:FTT NeuronID: 00000000000 Offnet			
	Eurotian not available with the DVT10			
	<b>Device:</b> For room units QAX95.1, QAX96.1, select			
	setting 7			
	SensorID: For offline engineering, the EnOcean ID of			
	the room unit can be entered here, if desired.			
	connection to the network, see step 10)			
	Connection to the network, see step 10).			
	Becommondation: Same as BYC rb Default			
	<b>2700 [s]</b> (45 min)			
	Note relating to SCPTmaxSandTima:			
	With the default setting of 0.0 s (OFF) and in the event the RF link			
	breaks down (faults, no light, etc.), the temperature value in the RXC will change to "invalid" when the heartheat has elansed. When using a			
	setting greater than 0.0 s, the temperature value received last will be			
	transmitted.			
8				
U	(Question "transmit to device?": Answer with <b>YES</b> )			
	Network > Disconnect (Attached offnet)			
7	Make RXT10 bindings:			
,	Datapoint Catoway BYC			
	<i>Latapoliti Gateway K⊼C</i> Room Temperature: nvoHVACTemp v ⇔ nviSpaceTemp			
	Setpoint Offnet: $nvoSetpoint x \Rightarrow nviSetpointOffset$			
<u> </u>	Network > Connect (online)			
9	Assign devices and install			

Step	Procedure	
10	Learn-in the room units:	
	Open Plug-in (Device > Configure > Thermokon S	SRC-FTT > OK >
	YES	
	Click button next to SensorID	
	> Learn-in > Press button on the room unit	
	Thermokon Sensortechnik GmbH	×
	Sensor 5 Sensor 6 Sensor 7 Sensor 8 Sensor 9	Information:
	General settings Switch settings Sensor 1 Sensor 2 Sensor 3 Sensor 4	
	Device 7 = SR04 / SR07 / SR65 · Temperature sensor	If you want some informations about a Networkvariable, then feel free and click in the
	SensorID: 0.0.0 🛃 🛶	Textbox.
	SNV1-nvoMultiDut_1: 20/Learn-in Sensor1D XI E SNVT-nvoMultiDut_2: Einlemprozedur	wishes you a lot of fun using this tool, which helps to save
	SensoriD: Byte 3 Byte 2 Byte 1 Byte 0	your time.
	Lower measuring range [K]  C Learning sensor ID by learn-in button	
	Upper measuring range [K] Temperature offset [K] Cancel	
	Network variables	
	rviMultiOut_1_Fb: Press button	
	Abbruch CUPIED	
	Monitoring:  Device selection Cancel Apply	thermokon
	Poliintervai (s): 5	Sensortechnik GmbH
	PlugInDevice_8 SRC-FTT NeuronID: 0407D0370200	Cnfg Online Monitoring On
11	Function check gateway / room unit:	
	C Thermokon Sensortechnik GmbH	×
	Sensor 5 Sensor 6 Sensor 7 Sensor 8 Sensor 9	Information:
	General settings   Switch settings   Sensor 1   Sensor 2   Sensor 3   Sensor 4   Sensor parameter	If you want come informations
	Device 7 = SR04 / SR07 / SR65 - Temperature sensor	about a Networkvariable, then feel free and click in the
	SensoriD: 0.0.27.53	Textbox.
	SNVT-rvoMulliDut_1. SNVT_switch SCPTmaxDend Ime. 2700.0	wishes you a lot of fun using this tool,which helps to save
	Temperature range / temperature offset	your time.
	Lower measuring range [K] 0.00	
	Upper measuring range [K] 40.00	
	Network variables	
	nviMultiOut_1_Fb: 0.0.0 nvoHVACTemp: 25.60 °C	
	Sensor sends	
	nvoMultiOut_2: [OC_UNOCCUPIED	·
	Monitoring         Image: Concel         Apply           Poliinterval (s):         5         Device selection         Cancel         Apply	Sensortechnik GmbH
	writing Networkvariables.         19:3           P BXT Segment 1: PluginDevice 8: nvil.earn = 1.00000000000000000000000000000000000	6:50
	RKT_Segment_1: PlugInDevice_8: UCPTenoceanID = 0.0.27,53         19:3	6:54
	PlugInDevice_8 SRC-FTT NeuronID: 0407D0370200	Cnfg Online Monitoring On

# Infrastructure

Basis:	PC with DESIGO infrastructure RXT10 version 4 or higher
Step:	<i>Download:</i> EasySens_Empfaenger_Receiver_SRC04FTT_SRC65FTT_160108_156.zip <i>Extract and save LON application:</i> srcn_9_1_01 (.apb; .nxe; .xfb; .xif) / optional: srcn_12_1_01
Source:	Download from the DESIGO RX intranet: <u>https://intranet10.sbt.siemens.com/</u> business/building_comfort/systems/desigo/ra/_des_ra_qax/_des_ra_qax95.htm

Engineering withSet uRXT10 and XIF-Importinteg

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 > Add
	Select tab <b>Device Type</b> .
	From selection menu Device Type, select PLG: Plug In Support.
	On the "Device" list, highlight PlugInDevice.
	levice
	Overview Application Device Type Settings
	Selected Application:
	Device Type: PLG: Plug In Support
	Description
	LNS POWERED
	Device for LNS Plug In Support
2	Select tab <b>Overview</b> to enter the location. Confirm by clicking <b>OK</b> .
3	RXT: Select <no networkinterface=""></no>
	Y Enocean workflow.tbp - DESIGO RXT10.2
	Project Edit View Device Tools Network Window Help
	NIC 852 1 000 MS
	NIC_852_1_002 NIC_852_1_003
	NIC_852_1_004
	Network > Connect (Attached offnet)

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
	SBT Generic Plug In
	N
	OK Cancel
	Select function Import XIF > OK
	Select Plug in Function
	Available Functions Function Description
	Get the Lon Interface out of device or read it Configure Device •
	Browse Device -
	Select a device Plug-In
	Echelon LNS Report Generator
	EPAC Plugin AppLib V1
	SBT Generic Rug In
	Revegister Plug-in Close
	> Dead VIE File > Calact path for even 0, 1, 02 wife OK
	> Read XIF File > Select path for sich_9_1_02.xil > OK
	> Select Plug-in > Close
5	Device > Configure > OK (depending on plug-in: Configure Device
	Select Plug-in Function
	Available Functions Function Description
	Browse & Conligure the Device
	OK N
	Select a device Plug-In
	Echelon LNS Report Generator
	BXC PlugIn AppLib V1
	SBT Generic Plug In
	Rereaister Plug-in Close

Step	Procedure						
6	Configure the gateway:						
	Select Node Object						
	SRCN_9_1_02 ( PlugInDevice_6 ) (Unable to communicate with the device!)						
	Location LOC_01	Location LOC_01					
	Description Enocean Gateway						
	NVs CPs (LNS)						
	SRCN_9_1_02	Name		Object	Value		
	Sensor[0]	SCPT bypas SCPT driveT	slime ime	NodeUbject NodeObject	90 100.0		
	Sensor[1]	SCPTIocatio	n	NodeObject	100.0		
	Sensor[2]	SCPTmaxSe	endTime	NodeObject	2700.0		
	Sensor[3]	SCPTminSe	ndTime	NodeObject	0.3		
	Sensor[4]	SCPT stepV	alue c_H	NodeUbject	5.0		
	Sensor[5]	LUCPTdiCon	11g7 1 6a/2	NodeObject	0,0,0,0		
	Sensor[6]	UCPTdiCon	fia/3	NodeObject	0000		
	Sensor[7]	UCPTdiCon	fig/4	NodeObject	0,0,0,0		
	Sensor[8]	UCPTdiCon	fig/5	NodeObject	0,0,0,0		
	LearnedID	UCPTdiCon	fig/6	NodeObject	0,0,0,0		
		UCPTdiCon	fig/7	NodeObject	0,0,0,0		
		UCPTdiCon	hg/8 6-70	NodeUbject	0,0,0,0		
			ng/9 vanBoyTm	NodeObject	0,0,0,0		
		UCPTfanSp	dStages	NodeObject	3		
		UCPTgener	alCP1	NodeObject	1,0,0,0,0,0,0,0,		
		UCPTiongP	ressTime	NodeObject	1.0;2.0;2.0;2.0		
		,					
	Automatic Update				Update All Close		
		LUCPTfanSr	ndStages	NodeObject	3		
		UCPTgener	ralCP1	NodeObject	1,0,0,0,0,0,0,0,0,		
		UCPTiongF	ressTime	NodeObject	1.0;2.0;2.0;2.0		
		UCPTrever	seDelay	NodeObject	500		
		UCPTspMa	xValue	NodeObject	3.00		
		UCPTspMin	Walue	NodeUbject	-3.00 SET_DOV/N_1		
		UCPTsunbl	indDU F	NodeObject	SET_DOWNT		
		UCPTsunbl	indSTOP	NodeObject	SET STOP 0		
		UCPTsunbl	indUP	NodeObject	SET_UP 100.0 🔽		
		·					
					Update All Close		
	SCDTmaxSandTin	20 <sup>.</sup>	Sonding	intonyal I ON			
	SCPTmaxSendTin	ne:	Sending	interval LON	WORKS		
	SCPTmaxSendTin	ne:	Sending Recomr	interval LON nendation: S	NWORKS ame as RXC ⇔		
	SCPTmaxSendTin	ne:	Sending Recomm	interval LON nendation: S	NWORKS ame as RXC ⇔		
	SCPTmaxSendTin	ne:	Sending Recomr Default	i interval LON nendation: S <b>2700 [s]</b> (45	NWORKS ame as RXC ⇔ min)		
	SCPTmaxSendTin	ne: /Tm·	Sending Recomm Default	interval LOM nendation: S 2700 [s] (45	NWORKS ame as RXC ⇔ min)		
	SCPTmaxSendTin UCPTenoceanRcv	ne: 'Tm:	Sending Recomr Default Receive	i interval LOM nendation: S 2700 [s] (45 time	NWORKS ame as RXC ⇔ min)		
	SCPTmaxSendTin UCPTenoceanRcv	ne: /Tm:	Sending Recomr Default Receive	interval LON nendation: S 2700 [s] (45 time nitoring the R	NWORKS ame as RXC ⇔ min) E link to the room unit		
	SCPTmaxSendTin UCPTenoceanRcv	ne: /Tm:	Sending Recomr Default Receive For mor	i interval LON nendation: S 2700 [s] (45 time hitoring the R	NWORKS ame as RXC ⇔ min) Pr link to the room unit		
	SCPTmaxSendTin UCPTenoceanRcv	ne: /Tm:	Sending Recomr Default Receive For mor (optiona	i interval LOM nendation: S 2700 [s] (45 time iitoring the R I)	WORKS ame as RXC ⇔ min) F link to the room unit		
	SCPTmaxSendTin UCPTenoceanRcv	ne: 'Tm:	Sending Recomm Default Receive For mor (optional	interval LOM nendation: S 2700 [s] (45 time nitoring the R I)	WORKS ame as RXC ⇔ min) F link to the room unit		

Step	Procedure				
7	Configure the gateway:				
	Select Sensor Object [08]				
	SRCN_9_1_02 ( PlugInDevice_6 ) (Unable to communicate with the device!)				
	Location LOC_01 Description Enocean Gateway				
	NVs CPs (LNS)				
	SRCN_9_1_02 Name Object Value				
	Sensor(0)         nvoHVACTemp_1.5CFTminRnge         Sensor(0)         40.00           Sensor(1)         nvoHVACTemp_1.5CPTminRnge         Sensor(0)         0.00				
	Sensor[2]         nvoMultiOut_1_1.SCPTnvType         Sensor[0]         PID 0:0:0:0:0           Sensor[2]         nvoMultiOut_2_1.SCPTnvType         Sensor[0]         PID 0:0:0:0:0				
	Sensor[0]         SCPTmaxDut         Sensor[0]         100.0           Sensor[4]         SCPTmaxSendTime         Sensor[0]         2700.0				
	Sensor[0]         UCPTdeviceType         Sensor[0]         7           Sensor[6]         UCPTenoceanID         Sensor[0]         0,0,0,0				
	Sensor(7) Sensor(8)				
	LearnedID				
	☐ <u>A</u> utomatic Update All Close				
	SCPTmax/minRnge. Measuring range of temperature sensor				
	SCPTmaxSendTime: Sending interval LONWORKS				
	Default <b>2700 [s]</b> (45min)				
8	> Close > Active Plug_in finish				
Ū	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 Function Description Reprint Provide Provi				
	Browse & Configure the Device				
	Colorba davies Plug la				
	Echelon LNS Report Generator				
	LPAConvPlugin RXC PlugIn AppLib V1				
	RXC PlugIn AppLib V2 SBT Generic Plug In				
	Heregister Hug-m Llose				

Step	Procedure				
13	Learn-in the room unit:				
	Select Sensor Object [08]				
	SRCN_9_1_02 ( PlugInDevice_6 )				
	Location LOC_01				
	Description Enocean Gateway				
				i	
	NodeObject	Name         Sem Docu         Value           Image: Invitearn         1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0			
	Sensor[0] Sensor[1]	nviRequest	0,RQ_NORMAL	200	
	Sensor[2]	nvoFileDirectory	4015	5,0,0	
	Sensor[4]	📱 🖥 nvoStatus	0 0,0,0,0,0,0,0,0,0,0,0,0,0,0	0,0,0,0,0,0,0,0,0,0,0,0	
	Sensor[5] Sensor[6]				
	Sensor[7]				
	LearnedID				
	Automatic Undate			((	
			Update All		
	Double click <b>nviLea</b>	arn			
		. 0			
	> Set Bit [0] = 1 to $I$	earn-in Sensor [0]			
	> Press button on the	he room unit			
	SRCN 9 1 02 ( PlugInDevi	ice 6)		×	
	Location LOC_01				
	Description Enocean Gateway				
	NVs CPs (Device)				
	NodeObject	Name Self Docu	Value 0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	0.0.0	
	Sensor[0] Sensor[1]	a nviRequest	0,RQ_NORMAL		
	Sensor[2]	a nvoAlarm_Sensor	4015	1,0,0	
	Sensor[3] Sensor[4]	📱 🖥 nvoStatus	0 0,0,0,0,0,0,0,0,0,0,0,0,0,0	0,	
	Sensor[5]				
	Sensor[7]				
	Sensor[8]				
	Edunidar				
	Automatic Update		Update All	Close	
	When the learn telegram is received, bit [0] is automatically reset.				
	Additional room units: Repeat procedure				
	set bit [1] = 1 to learn-in Sensor [1]				
	etc.				

Step	Procedure				
14	Function check gateway / room unit:				
14	SRCN_9_1_02 (PlugInDev Location LOC_01 Description Enocean Gateway NVs CPs (Device) SRCN_9_1_02 NodeObject Sensor(0) Sensor(2) Sensor(3) Sensor(4) Sensor(5) Sensor(6) Sensor(7) Sensor(8) LearnedID	Name         ImviMultiOut_1_Fb_1         ImviMultiOut_2_Fb_1         ImvoHVACTemp1         ImvoMultiOut_2_1         ImvoMultiOut_2_1         ImvoSetpoint_1	Self Docu	Value 0.00 0.00 26.20 SET_OFF 0.00.00 SET_OFF 0.00.00 0.88	
	□ Automatic Update nvoHVACTemp_1: nvoSetpoint_1:	: Receive ro Receive se	oom tem	Update All perature from r	Close oom unit n unit

<b>F1</b>	<b>F2</b>	1661208_01
Second Se	RXC PXX-L	PXC00D
ТО	T1     T2       nvoHVACTemp     nvi/nvoSpaceTemp	T3 TR
F1: Gateway receives no telegrams from the room unit	Possible causes:         ⇒       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 (Senser ⇒         ⇒       Room unit faulty	orID)
	<i>Impact on the system:</i> When UCPTenoceanRcvTm has elapsed, nvoAlarmSensor is set (e optional).	evaluation
	<ul> <li>T0</li> <li>T1 Last valid value from T0; otherwise 0.0 °C</li> <li>T2 With SCPTmaxSendTime ⇔ T1 Without SCPTmaxSendTime ⇔ invalid (327.7 °C) after R has elapsed (60 min)</li> </ul>	XC heartbeat
	<b>T3</b> Ditto; if 0.0 °C ⇔ frost alarm	
F2: RXC receives no LONWORKS telegrams from the gateway	Possible causes:         ⇒       Gateway has no power (power_fail)         ⇒       Bus interruption         ⇒       Error in configuration of gateway         ⇒       Gateway faulty	
	Impact on the system:         T0          T1          T2       Invalid (327.7 °C) after RXC heartbeat has elapsed (60 min);         power_fail gateway:       nvo_temp_p = 0.0 °C until room unit sends again (up to app Ohne SCPTmaxSendTime         ⇔ T2 = last valid T2         SCPTmaxSendTime       ⇔ T2 = last valid T2         SCPTmaxSendTime > approx. 20 min       ⇔ T2 = last valid T2         T3       Ditto; at 0.0 °C ⇔ frost alarm	) 22 <b>st alarm</b> ) 2

F10:
Power_up / Power_fail
system

#### Impact on the system:

 T0 - T1 All temperatures = 0.0 °C after Power\_fail / Power\_up. Room unit sends current temperature after about 20 to 30 minutes.

**T2** RXC polls the gateway (0.0 °C) and sends value to the system.

**Frost alarm** (0.0 °C). This state continues until all EnOcean room units have transmitted a valid temperature. This takes about 20 to 30 min, but may take longer than an hour should short breakdowns occur.
 If a room unit does not send (e.g. exhausted), frost alarm is maintained until that room unit sends as well.

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	<ul> <li>The antenna with magnet foot should be mounted on the center of a 180 mm x 180 mm metal plate (galvanized sheet steel).</li> <li>In rooms the antenna should be mounted 1 m below the ceiling.</li> <li>The antenna should be vertically aligned downwards.</li> <li>Minimal distance to the wall: 90 mm.</li> <li>Distance to other transmitters (e.g. GSM / DECT/ wireless LAN / EnOcean etc.): min. 2 m.</li> <li>The antenna cable shall be routed in an electric conduit.</li> <li>Avoid crushing of the antenna cable. The minimal bend radius of the cable is 50mm.</li> <li>As for the cable installation, avoid the use of an active pull-up device, otherwise the sheathing or on the connectors may damaged.</li> <li>For details on positioning of the EnOcean room units, refer to data sheet CM2N1660.</li> </ul>
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.

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

commissioning

LonWorks

# Disposal



The device is classified as waste electronic equipment in terms of the European Directive 2002/96/EC (WEEE) and should not be disposed of as unsorted municipal waste. The relevant national legal rules are to be adhered to. Regarding disposal, use the systems setup for collecting electronic waste.

Observe all local and applicable laws.

# **Technical data**

General device data	Operating voltage	DC 1524 V		
	Devenue the	AC 24 V +/- 10%		
	Power consumption	0.5VV / 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 <sup>2</sup>		
	Cable entry	M20 for 1 cable max. D = 8 mm		
		or 2 cables max. $D = 7 \text{ mm}$		
	Mounting	Wall mounting		
Housing protection	Protection	IP42 to EN60529		
Ambient conditions	Temperature	-2060 °C		
	Humidity	max. 70 % r.h. non-condensing		
CE conformity	Electromagnetic Compatibility	89/336/EEC		
	Radio and Telecommunications	R&TTE 1999/5/EC		
	Terminal Equipment Directive			
	RoHS Reduction of hazardous substances	2002/95/EC		
Standards	Electromagnetic compatibility			
	Emission	EN 61000-6-2		
	Immunity	EN 61000-6-3		
	Telecommunications	ETSI EN 301 4893 V.1.4.1		
	Home and building electronic systems EN 50090-2-2 (HBES)			
	Registration for radio operation	EC countries and CH		
Enclosure	Material	ABS		
	Color	white, similar to RAL9010		
Weight	Without / with packaging	173 g / 248 g		

# **Connection terminals**



#### Dimensions

#### Dimensions in mm





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Siemens Building Technologies RXZ95.1/LON – Gateway EnOcean/LonWorks Dimensions Subject to change