

# **KNX IR Gateway**

**Product Manual** 



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## 1. Content of The Document

This document contains Interra's ITR425–0001 coded KNX IR Gateway device's electronic and all essential feature information for programming this product. In each subtitle is explained the characteristics of the device are. Modifications of the product and special change requests are only allowed in coordination with product management.

### 2. Product Description

ITR425-0001 KNX IR Gateway is a multifunctional IR transmitter and it has a lot functions like single mode, repeat mode, sequence mode, receiving mode, logic and converter. The device can learn IR commands from any remote up to 64 channels without external learning device. Also, it has 4 emitting interfaces A, B, C and D. The KNX IR Gateway is used to control electronic devices such as TV, DVD, Air-Conditioner and other devices can be controlled by IR. Interra products are manufactured in accordance with EU standard for EMC, electrical safety compatibility.

### 2.1. Technical Information

The following table shows the technical information of the Interra KNX IR Gateway.

Product Code	ITR425-0001
Power Supply	KNX Power Supply
Current Consumption	< 15 mA
Power Consumption	< 450 mw
Push Buttons	1 x KNX Programming Button
Transmitting wave frequency	30, 33, 36, 37, 38, 40, 56 kHz
Emitting Distance	7 m
Mode of Commissioning	S-Mode
Type of Protection	IP 20
Temperature Bange	Operation (– 5°C45 °C)
remperature nange	Storage (- 20°C60 °C)
Maximum Air Humidity	< 90 RH
Colour	Light Grey
Dimensions	88 × 62 x 27 mm (W x H x D)
Certification	KNX Certified
Configuration	Configuration with ETS



#### 2.2. Dimensions

88 ITR425-0001 **'INTERRA** KNX PROG KNX LED 62 (X + K Í PWR ● S . . CH3-TX CH4-TX CH2-TX TP STATUS ● CH1-TX IR-RX CE

• All values given in the device dimensions are millimetres.

Fig. 1: Dimensions of KNX IR Gateway from the top view

### 2.3. Functional Descriptions

The prominent features of the KNX IR Gateway are the followings:

- > The universal IR codes control AC, TV, DVD and other devices which can be controlled by IR
- > KNX Gateway can work between KNX to IR and IR to KNX.
- > After learned, obtained and downloaded the infrared codes through "Infrared Learning Page" of device in the ETS database, the KNX IR Gateway can control TV, DVD, air conditioner etc.
- Single mode: System emits one universal IR code and the emitting channel is one channel and multichannel.
- Repeat mode: System emits one universal IR code several times repeatedly and the emitting channel is one channel and multichannel. Automatic switching between operating modes via the weekly program.
- > Sequence mode: System emits several universal IR codes sequent at one time.

### 2.4. Connection to The KNX Bus and Programming

The connection of the KNX bus line is made with the terminal block (black/red socket group) included in delivery and inserted into the slot of housing.



Fig. 2: Diagram of KNX IR Gateway

1	KNX Programming Button
2	KNX Programming LED
3	KNX Bus Connector
4	Power LED
5	Status LED
6	IR-RX LED
7	Channel X-TX LEDs

Table 1: Connection Diagram

To enter the programming mode, first press the button in the upper right corner. So red programming LED turn on and the device is ready for programming.



### 3. ETS Parameters

#### 3.1. General Page

When the KNX IR Gateway is attached to the project from the ETS program, a configuration setting must be made primarily before loading, depending on the model to be programmed. When entering the "GENERAL" in the parameter page, the configuration screen will appear shown above. As previously mentioned, all models can be configured via an ETS file thus the programmers can work flexibly.

🔀 General	Using status led	🔿 No 🔘 Yes
( Infrared Learning	Channel 1 Enabled	
€ Logic	Name	Channel 1
😂 Converter		Copy parameters to other channels
🎇 Scene Sequencer	Channel 2 Enabled	
+ 🗾 [1] Channel 1		Copy parameters to other channels
	Channel 3 Enabled	
		Copy parameters to other channels
	Channel 4 Enabled	
		Copy parameters to other channels
	Channel 5 Enabled	
		Copy parameters to other channels
	Channel 6 Enabled	
		Copy parameters to other channels
	Channel 7 Enabled	
		Copy parameters to other channels
	Channel 8 Enabled	
		Copy parameters to other channels

Fig. 3: General Parameter Configuration Page

#### 3.1.1. Parameters List and Button Function List

PARAMETERS	DESCRIPTION	VALUES
Using status led	This parameter, is used to enable or disable the Status Led.	No Yes
Channel 164 Enabled	This parameter is used to enable or disable the related Channel X.	Unchecked Checked
-> Name <sup>1</sup>	This parameter is used to type a channel name. The name can be consisting of 40 characters.	40 bytes allowed

<sup>1</sup>This parameter is visible when the function "Channels 1...64 Enabled" is set to "Checked".

BUTTONS	DESCRIPTION
Copy parameters to other channels	This parameter is used to copy data from the selected channel to all other channels.

### 3.2. Infrared Learning

The users can make many settings related to the LCD screen via ETS software. Many features such as screen theme, screen brightness, language selection, screen saver and password screen can be controlled with this tab.

🔀 General	Channel	Read	Learn	Write	Delete	Test	State	Selection
(+) Infrared Learning	All							Select
	[1] Channel 1						X	
D Logic	[2] Channel 2						X	
S Converter	[3] Channel 3						X	
🏪 Scene Sequencer	[4] Channel 4						X	
+ 🔟 [1] Channel 1	[5] Channel 5						X	
+ 이 [2] Channel 2								
+ 🕠 [3] Channel 3								
+ 🔟 [4] Channel 4								
+ 🔟 [5] Channel S								

Fig. 4: Infrared Learning Configuration Page

#### 3.2.1. Button Function List

BUTTONS	DESCRIPTION
Selection	This parameter is used to select channels.
Read	This parameter is used to read data from the channel.
Read Selected	This parameter is used to read data from the selected channels.
Learn	This parameter is used to learn the channel. If the teaching is successful, the green LED on the device flashes, if unsuccessful, the red LED flashes.
Write	This parameter is used to write data to the channel.
Write Selected	This parameter is used to write data to the selected channels.
Delete	This parameter is used to delete the data which is defined in the channel.
Delete Selected	This parameter is used to delete the data defined in the selected channels.
Test	This parameter is used to test the data on the channel. If the "Working Style" parameter is selected as "KNX to IR", it sends the defined value in the channel via IR transmitter.
Select	This parameter is used to select all channels.

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#### 3.3. Logic

This parameter page is used to make the logical relationships between inputs & output.

🔀 General	Logic 1	Disabled     Enabled
🕑 Infrared Learning		Copy parameters to other channels
D Logic	Logic 2	Disabled Enabled
😂 Converter		Copy parameters to other channels
🈤 Scene Sequencer	Logic 3	Disabled Enabled
		Copy parameters to other channels
	Logic 4	Disabled
		Copy parameters to other channels

Fig. 5: Logic Configuration Page

Logic 1	Oisabled O Enabled
> Type	AND 🔻
> Send status on	Each input event Change of output
> Number of inputs	1 Input 🔹
> Output behavior	Normal Inverted
> Switch on delay (sec)	0
> Switch off delay (sec)	0 *
> Send feedback periodically	Disabled 🔹
	Copy parameters to other channels

Fig. 6: Logic X Configuration Page

Up to 4 logic gates can be used with the gateway. In addition, each logic gate allows the use of up to 4 inputs. The standard logic operations AND, OR and XOR are available.

The status of the output of logic gates can be shown normally or inverted. This configuration can be applied via the parameter "Output behaviour" and when it is parameterized as inverted, the status of the output is shown inverted.

Through the parameter "Send status on", the type of feedback can be defined. The gateway allows sending the result of logic gates when the conversely logic output is changed or when one of the logic inputs is modified. Additionally, it is possible to define a cyclic sending of the feedback which permits getting information about the output status periodically.

The logic output can operate with previously configured delays. The logic output takes the values ON and OFF with delays. Depending on the switch delay parameters configuration, it is possible to set an ON delay (TON), and an OFF delay (TOFF) or both at the same time.





#### **Special Notes**



The number of logical gates can be selected up to 4. Since the characteristics of each gate are the same, only Logic 1 is described.

#### 3.3.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Logic X	This parameter is used to enable or disable the related logic function gate.	<b>Disabled</b> Enabled
Туре	This parameter is used to specify the type of logical gate to be used. There are 3 different logic gate types, AND, OR and XOR. Each logical gate generates a false or true value at its output as a logical association result.	<b>AND</b> OR XOR
Send status on	<ul> <li>This parameter is used to specify how the status of the output will be sent.</li> <li>Input Triggered: Output status will be sent when any logic input is received.</li> <li>Output Changed Output status will be sent when the logic output is changed.</li> </ul>	Input Triggered Output Changed
Number of inputs	This parameter is used to specify the number of inputs for the logical gate.	1 input 2 inputs 3 inputs 4 inputs
Output behaviour	<ul> <li>This parameter defines the behaviour of the logic output.</li> <li>Normal: The status of the output is sent without any modification.</li> <li>Inverted: If the value is true, the false value will be sent as a status value for the output or vice versa.</li> </ul>	Normal Inverted
Switch on delay	This parameter is used to set a delay time for output behaviour. The output communication object takes the value TRUE when time reaches the configured time in this parameter.	<b>00:00</b> 04:15 mm:ss
Switch off delay	This parameter is used to set a delay time for output behaviour. The output takes the value FALSE when time reaches the configured time in this parameter.	<b>00:00</b> 04:15 mm:ss
-> Send feedback periodically <sup>1</sup>	This parameter determines the Logic X output communication object sending period in minutes.	<b>Disabled</b> , 5 s, 10 s, 30s, 1 m, 5 m, 10 m, 20 m, 30 m, 1 h, 2 h, 3 h, 4h, 5 h, 6 h, 12 h, 24 h

#### 3.4. Converter

The main parameter settings of the Converter Parameter page are made on this page. Various control options for the Converters are enabled from this page.

🔀 General	Converter 1	Disabled 🔘 Enabled
🛃 Infrared Learning	> Input type	1 Bit 💌
€ Logic	> Input value	0 *
😂 Converter	> Output value	0
🎇 Scene Sequencer		Copy parameters to other channels
	Converter 2	Disabled Enabled Copy parameters to other channels
	Converter 3	Disabled Enabled Copy parameters to other channels
	Converter 4	Disabled Enabled Copy parameters to other channels
	Converter 5	Disabled Enabled Copy parameters to other channels
	Converter 6	Disabled Enabled Copy parameters to other channels
	Converter 7	Disabled Enabled Copy parameters to other channels
	Converter 8	Disabled Enabled Copy parameters to other channels

Fig. 8: Converter Configuration Page

Converters are used to convert the output to configured type value depending on the input value. There are 8 different types of data input that can be converted to 4 different data values.

Moreover, if the input is selected as 1 byte or 2 bytes, you can also make the four arithmetical operations (plus, minus, multiply, divide). Some examples are shown below:

<u>Ex 1:</u>	<u>Ex 2:</u>
Input type: 1 byte, 154	Input type: 1 byte, 215
Calculation: Plus	Calculation: Minus
Calculation value: 7	Calculation value: 51
Output type: 1 byte	Output type: 1 byte
Output = 154 + 7	Output = 215 - 51
Output = 161	Output = 164
<u>Ex 3:</u>	<u>Ex 4:</u>
Ex 3: Input type: 2 bytes, 862	<u>Ex 4:</u> Input type: 2 bytes, 46342
<u>Ex 3:</u> Input type: 2 bytes, 862 Calculation: Multiply	<i>Ex 4:</i> Input type: 2 bytes, 46342 Calculation: Divide
Ex 3: Input type: 2 bytes, 862 Calculation: Multiply Calculation value: 49	<u>Ex 4:</u> Input type: 2 bytes, 46342 Calculation: Divide Calculation value: 986
<i>Ex 3:</i> Input type: 2 bytes, 862 Calculation: Multiply Calculation value: 49 Output type: 2 bytes	<i>Ex 4:</i> Input type: 2 bytes, 46342 Calculation: Divide Calculation value: 986 Output type: 2 bytes
Ex 3: Input type: 2 bytes, 862 Calculation: Multiply Calculation value: 49 Output type: 2 bytes Output = 862 x 49	Ex 4: Input type: 2 bytes, 46342 Calculation: Divide Calculation value: 986 Output type: 2 bytes Output = 46342 : 986
Ex 3: Input type: 2 bytes, 862 Calculation: Multiply Calculation value: 49 Output type: 2 bytes Output = 862 x 49 Output = 42238	Ex 4: Input type: 2 bytes, 46342 Calculation: Divide Calculation value: 986 Output type: 2 bytes Output = 46342 : 986 Output = 47
Ex 3: Input type: 2 bytes, 862 Calculation: Multiply Calculation value: 49 Output type: 2 bytes Output = 862 x 49 Output = 42238	Ex 4: Input type: 2 bytes, 46342 Calculation: Divide Calculation value: 986 Output type: 2 bytes Output = 46342 : 986 Output = 47
<i>Ex 3:</i> Input type: 2 bytes, 862 Calculation: Multiply Calculation value: 49 Output type: 2 bytes Output = 862 x 49 Output = 42238	Ex 4: Input type: 2 bytes, 46342 Calculation: Divide Calculation value: 986 Output type: 2 bytes Output = 46342 : 986 Output = 47

#### 3.4.1. Parameters List

PARAMETERS	B DESCRIPTION VALUES			
Converter X	This parameter is used to enable the Converter X.	<b>Disabled</b> Enabled		
Input type	This parameter is used to specify the type of input value for the converter input. There are 8 different input values for each converter. When the input type is configured as 1-byte or 2- byte logic, the output data type is set as 1 bit. If the input value is non-zero, the output value will be 1. Otherwise, it will be zero.	<ol> <li>Bit</li> <li>Bits</li> <li>Byte</li> <li>Bytes</li> <li>Byte Logic</li> <li>Bytes Logic</li> <li>Byte Threshold</li> <li>Bytes Threshold</li> </ol>		
> Input value <sup>1</sup>	This parameter is used to set the value of the converter input. Several value types can be selected and these possible values are described below. The input type is 1 Bit: If the input type is selected as 1 bit, values are between 0-1. The input type is 2 Bits: If the input type is selected as 2 bits, values are between 0-3. The input type is 1 Byte: If the input type is selected as 1 byte, values are between 0-255. The input type is 2 Bytes: If the input type is selected as 2 bytes, values are between 0-65535. The input type is 1 Byte logic: If the input type is selected as 1-byte logic, values are between 0-255. The input type is 2 Bytes logic: If the input type is selected as 2-byte logic, values are between 0-255. The input type is 2 Bytes logic: If the input type is selected as 1-byte logic, values are between 0-255. The input type is 1 Byte Threshold: If the input type is selected as a 1-byte threshold, values are between 0-255. The input type is 2 Bytes Threshold: If the input type is selected as the 2-byte threshold, values are between 0-255.	01 03 0255 065535		
> Logical Operators <sup>2</sup>	This parameter is used to perform a mathematical operation with the input value.	<b>Disabled</b> Plus		
	<b>Disabled:</b> The calculation value is disabled. The input value is converted to output value without a mathematical operation.	Minus Multiply		
	<b>Plus:</b> The calculation value is summed with the input value and the result is applied to the output value.	Divide		

|--|

	<b>Minus:</b> The calculation value is subtracted from the input value and the result is applied to the output value.	
	<b>Multiply:</b> Input value and calculation value are multiplied and the result is applied to the output value.	
	<b>Divide:</b> The input value is divided by the calculation value and the result is applied to the output value.	
Calculation Value <sup>3</sup>	This parameter is used to specify the value to be processed along with the input value. This value type is the same as the output value type.	0255 065535
Lower Limit⁴	This parameter is used to set the lower limit value of the threshold for the input when the input is configured as 1 byte or 2-byte threshold. $\triangle$ Lower limit value can't be higher than Upper limit value.	0255 065535
Higher Limit⁴	This parameter is used to set the higher limit value of the threshold for the input when the input is configured as 1 byte or 2-byte threshold.	0255 065535
Output type <sup>1</sup>	This parameter is used to specify the type of output value for the converter output. There are 4 different output values for each converter.	1 Bit 2 Bit 1 Byte 2 Byte
Output value <sup>1</sup>	This parameter is used to set the value of the converter output. Several value types can be selected and these possible values are described below. The output type is 1 Bit: If the input type is selected as 1 bit, values are between 0-1. The output type is 2 Bit: If the input type is selected as 2 bits, values are between 0-3. The output type is 1 Byte: If the input type is selected as 1 byte, values are between 0-255.	01 03 0255 065535

<sup>1</sup> This parameter is visible when the function "Input type" is set to "1 Bit" or "2 Bits" or "1 Byte" or "2 Bytes".

<sup>2</sup> This parameter is visible when the function "Input type" is set to "1 Byte" or "2 Bytes".

<sup>3</sup> This parameter is visible when the function "Logical Operators" is set to "Plus" or "Minus" or "Multiply" or "Divide". If

<sup>4</sup> This parameter is visible when the function "Input type" is set to "1 Byte Threshold" or "2 Byte Threshold".

#### 3.5. Scene Sequencer

The users can configure the functions page's count and layout. Up to 6 different layouts are available in this section. Up to 8 function pages can be set.

🔀 General	🎬 Scene Sequence 1 enabled	×
(↓) Infrared Learning	🙏 Scene Sequence 1 Name	Sequence 1
		Copy parameters to other channels
Logic	Scene Sequence 2 enabled	
S Converter		Copy parameters to other channels
🎇 Scene Sequencer	🕌 Scene Sequence 3 enabled	
+ 🔀 Scene Sequence Configura		Copy parameters to other channels
	👑 Scene Sequence 4 enabled	
		Copy parameters to other channels
	🎬 Scene Sequence 5 enabled	
		Copy parameters to other channels
	🎬 Scene Sequence 6 enabled	
		Copy parameters to other channels

Fig. 9: Scene Sequencer Configuration Page

#### 4.5.1. Parameter List and Button Function List

PARAMETERS DESCRIPTION		VALUES
Scene Sequence X enabled	This parameter is used to enable the Scene Sequence X.	Unchecked Checked
-> Scene Sequence X Name	This parameter is used to type a Scene Sequence X Name. The name can be consisting of 40 characters.	40 bytes allowed

BUTTONS	DESCRIPTION
Copy parameters to other channels	This parameter is used to copy data from the selected channel to all other channels.

### 3.6. Scene Sequence Configuration

#### 3.6.1 Sequence X Configuration

Each button is linked to different function such as switch function, multifunction, thermostat control, AC control functions.

🔀 General	Input type	1 Bit 👻
🛃 Infrared Learning	Input value	0
1 Logic	Ctan 1	
S Converter	Step 1 Step 1 Channel Reference	0
Scene Sequencer	Delay(100 ms)	0
- X Scene Sequence Configura	Repetition count	1
Seguence 1 Configuration	Step 2	
	Step 2 Channel Reference	0 *
	Delay(100 ms)	0 *
	Repetition count	1 *
	Ctop 2	
	Step 3 Step 3 Channel Reference	<b>0 *</b>
	Delay(100 ms)	
	Repetition count	1

Fig. 10: Sequence X Configuration Page

#### 3.6.1.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES	
Input type	This parameter is used to determine data type of Input object.	1 Bit 1 Byte	
-> Input Value	This parameter determines the input value.	<b>0</b> 1 <b>0</b> 255	
Step X			
Step X Channel Reference	This parameter is used to select the channel to be active in the step. <b>0:</b> This value disables the step	064	
Delay (100 ms)	This parameter is used to determine the delay time.	065535	
Repetition count	This parameter is used to determine the number of repetitions of the selected step.	110	

## 4. ETS Objects List & Descriptions

The iX3 KNX Room Controllers can communicate via the KNX bus line. In this section, the group objects of the iX3 KNX Room Controllers are described, which of these group objects are visible and capable of being linked with group addresses are explained in sub-sections.

No	Nome	Eurotion	DTP	Longth			Flags							
NO	Name	Function	Туре	Length	С	CR		т	U					
1, 9,,	[V] Channel V	1 Bit input	1.006	1 bit	Х		Х							
497, 505		1 Bit output	1.006	1 bit	X		Х							
2, 10		2 Bit input	2.001	2 bits	Х		Х							
, 498, 506	[X] Channel X 06	2 Bit output	2.001	2 bits	x		х							
4, 12	[X] Channel X	1 Byte input	5.005	1 byte	х		Х							
500, 508		1 Byte output	5.005	1 byte	x		х							
		2 Byte input	7.001											
5, 13	[V] Channel V	2 Byte float input	9.001	0 Dutoo	v		v							
, 501. 509		2 Byte output	7.001	2 Dytes	^		^							
		2 Byte float output	9.001											
7,15	[V] Channel V	4 Byte input	13.001	4 bytes	х		х							
, 503, 511		4 Byte output	13.001	4 bytes	x		х							
	8,16         14 Byte raw data input         16.*           14 bytes ascii input         16.001													
8,16		14 bytes ascii input	16.001	14 bytes	v		v							
, 504, 512		14 Byte raw data output	16.*	14 Dytes			^							
		14 bytes ascii output	16.001											
513, 515 , 541, 543	[X] Sequence X	Scene sequence activation, 1 bit	1.001	1 bit	x		х							
514, 516 , 542, 544	[X] Sequence X	Scene sequence activation, 1 byte	5.010	1 byte	x		х							
613, 618, 623, 628	Logic X – Input 1	Logic Input	1.002	1 bit	x	x	x							
614, 619, 624, 629	Logic X – Input 2	Logic Input	1.002	1 bit	x	х	х							
615, 620, 625, 630	Logic X – Input 3	Logic Input	1.002	1 bit	х	х	х							
616, 621, 626, 631	Logic X – Input 4	Logic Input	1.002	1 bit	x	x	х							



617, 622, 627, 632	Logic X – Output	Logic Output	1.002	1 bit	x	x		x	
			1.006	1 bit	Х	Х	Х		
633, 641,	Converter X –	Converter Input	2.006	2 bits	Х	Х	Х		
, 688, 692	Input		5.010	1 byte	Х	Х	Х		
000,002		7.001	2 bytes	Х	Х	Х			
			1.006	1 bit	Х	Х	Х	х	
637, 645,	637, 645, Converter X -		2.006	2 bits	Х	Х	Х	х	
685, 696 Output	Output	Converter Output	5.010	1 byte	Х	Х	Х	Х	
		7.001	2 bytes	Х	Х	Х	х		

### 4.1. Logic Gate Objects

This section describes the "Logic Gate" group objects and their properties. Logic Gate group objects, as the name suggests, indicate the logical operations that can be made with Gateway.

Object Number	Object Name	Function	Туре	Flags
2, 3, 4, 5, 7, 8, 9, 10,12, 13, 14, 15, 17, 18, 19, 20	Logic X – Input 1 Logic X – Input 2 Logic X – Input 3 Logic X – Input 4	Logic Input	1 bit	CRW

This object is used to set the inputs of the logical gate to be used. Logical associations can be made over 1bit values. The result is obtained according to the type of logical gate selected.

DPT: 1.002 (Boolean)

6, 11, 16, 21 Logic X – Output Logic Output 1 bit CRT
---

This object is used to obtain the result of the logical gate to be used. The output value of the logical gate is 1 bit. The result is obtained according to the type of logical gate selected.

DPT: 1.002 (Boolean)

#### **Special Notes**



This is a fully compatible KNX device that must be configured and set up using the standard KNX tool ETS. Up to 4 different logic gates can be selected. Each logic gate can be set independently.

#### 4.2. Converter Objects

This section describes the "Converter" group objects and their properties. Converter group objects are used to make mathematical operations and data converting from different types. Up to 8 different converters can be configured.

Object Number	Object Name	Function	Туре	Flags
00 00 04 05/	Converter X – Input (1 Bit)	Converter Input	1 bit	CRW
22, 23, 24, 25/ 30, 31, 32, 33/ 78, 79, 80, 81	Converter X – Input (2 Bits)		2 bits	
	Converter X – Input (1 Byte)		1 byte	
	Converter X – Input (2 Bytes)		2 bytes	

This object is used to set the converter inputs to be used. The conversion processes can be made via 1 bit, 2-bit, 1 byte and 2 bytes values. The result is obtained according to the input type of the selected converter.

DPT:

Bit (1.006 Binary Value)
 Bits (2.006 Binary Value)
 Byte (5.010 Counter Pulses (0...255))
 Bytes (7.001 Pulses)

26, 27, 28, 29/	Converter X – Output (1 Bit)	Converter Output	1 bit	CRWT
34, 35, 36, 37/ 82 83	Converter X – Output (2 Bits)		2 bits	
84, 85	Converter X – Output (1 Byte)		1 byte	
	Converter X – Output (2 Bytes)		2 bytes	

This object is used to obtain the result of the converter to be used. The output value of the converter can be 1 bit, 2-bit, 1 byte and 2 bytes. The result is obtained according to the configuration of the selected converter.

DPT:

- Bit (1.006 Binary Value)
   Bits (2.006 Binary Value)
   Byte (5.010 Counter Pulses (0...255))
- 2 Bytes (7.001 Pulses)

#### 4.3. Sequence Objects

In this section, Button objects are described in the table below. In the first column name of the object, in the second column function name, the third column data type and fourth column the objects flags, information is given.

#### X: 1 ... 16,

Object Number	Object Name	Function	Туре	Flags
513, 515 ,	[X] Sequence X	Scene sequence activation, 1 bit	1 bit	CW
541, 543				

This object is used to trigger the sequence with selected bit value. DPT: 1.001 (switch)

514, 516				
,	[X] Sequence X	byte	1 byte	CW
542, 544				

This object is used to trigger the sequence with selected byte value.

DPT: 5.010 (counter pulses (0...255))



### 4.4. Channel Objects

This section describes the "general" group objects and their properties. General group objects, as the name suggests, indicate the general characteristics of the iX3.

Object Number	Object Name	Function	Туре	Flags
1, 9,				
,	[X] Channel X	1 Bit input / 1 Bit output	1 bit	CW
497, 505				

This object is used to trigger the IR send channel with the selected bit value for the KNX to IR operating style. For IR to KNX operation, it is triggered by IR and used to send bit value to the KNX bus. DPT: 1.006 (binary value)

2, 10	[X] Channel X	2 Bit input / 2 Bit output	2 bit	CW
498, 506		• •		

This object is used to trigger the IR send channel with the selected 2-bit value for the KNX to IR operating style. For IR to KNX operation, it is triggered by IR and used to send 2-bit value to the KNX bus. DPT: 2.001 (switch control)

4, 12				
,	[X] Channel X	1 Byte input / 1 Byte output	1 byte	CW
500, 508				

This object is used to trigger the IR send channel with the selected byte value for the KNX to IR operating style. For IR to KNX operation, it is triggered by IR and used to send byte value to the KNX bus. DPT: 5.005 (ratio (0..255)

5, 13	2 Byte input / 2 Byte output	2 Putoo	CW
, 501, 509	2 Byte float input / 2 Byte float output	2 Dytes	CW

This object is used to trigger the IR send channel with the selected 2 bytes value for the KNX to IR operating style. For IR to KNX operation, it is triggered by IR and used to send 2 bytes value to the KNX bus. DPT:

7.001 (pulses)

9.001 (temperature (°C))



7, 15				
,	[X] Channel X	4 Byte input / 4 Byte output	4 bytes	CW
503, 511				

This object is used to trigger the IR send channel with the selected 4 bytes value for the KNX to IR operating style. For IR to KNX operation, it is triggered by IR and used to send 4 bytes value to the KNX bus. DPT: 13.001 (counter pulses (signed))

8,16	14 Byte raw data input / 14 Byte raw data output	14 butes	0.11
, 504, 512	14 byte ascii input / 14 byte ascii output	14 bytes	CW

This object is used to trigger the IR send channel with the selected 14 bytes value for the KNX to IR operating style. For IR to KNX operation, it is triggered by IR and used to send 14 bytes value to the KNX bus. DPT:

16.\* (character string)

16.001 (Character string (ISO 8859-1)

#### **IR Gateway Accessories**

• The following table lists Receiver and Transmitter cables compatible with our IR Gateway product. These cables are not included with the product and customers need to place an additional order for them.

Cable Type	Cable Code	Cable Name	Cable Length
Receiver	HM002024	Assemble Cable IR Receiver Connection	1 Meter
Receiver	HM002026	Assemble Cable IR Receiver Connection	5 Meter
Receiver	HM002028	Assemble Cable IR Receiver Connection	10 Meter
Transmitter	HM002023	Assemble Cable IR Transmitter Connection	1 Meter
Transmitter	HM002025	Assemble Cable IR Transmitter Connection	5 Meter
Transmitter	HM002027	Assemble Cable IR Transmitter Connection	10 Meter



## **CONTACT INFORMATION**

#### THE INTERRA WEBSITE

Interra provides documentation support via our website www.interratechnology.com. This website is used as a means to make files and information easily available to customers. Accessible by using your favourite Internet browser, the website contains the following information:

- Information about our products and projects.
- Overview of Interra company and values.
- Product Support: Datasheets, product manuals, application descriptions, latest software releases, ETS databases and archived software.

#### EUROPE, Turkey

Interra

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