

KNX Safety Module

SCN-SAFE.01

Further documents:

Datasheet:

https://www.mdt.de/EN_Downloads_Datasheets.html



Assembly and Operation Instructions:

https://www.mdt.de/EN_Downloads_Instructions.html



Proposed solutions for MDT products:

<https://www.mdt.de/en/for-professionals/tips-tricks.html>



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2 Overview

2.1 Overview devices

This manual refers to the following devices (Article number in **bold**)

- **SCN-SAFE.01** KNX Safety Module, 2 SU MDRC

2.2 Functions

The MDT Safety Module prevents all connection-oriented accesses of the ETS, such as the programming and also the unloading of the bus devices, in the KNX line. This significantly increases the safety of the protected line in the inner and in the outdoor area.

A manipulation of the device programming is no longer possible. The safety function is started automatically after bus voltage recovery / programming of the safety module. The deactivation of the safety function is possible depending on the set safety level via the control buttons on the device and /or with the safety password via telegram. The integrated device monitoring system controls up to 100 KNX devices cyclically. As soon as a device is missing or no longer responds due to a defect, an alarm message is sent.

Device monitoring is either active (polling of physical addresses or group addresses) or passive (detection if group addresses are sent cyclically). Events like an unauthorized programming process or a missing bus device are indicated by an alarm LED on the device, sent as an alarm object and additionally stored as a plain text message with time stamp in the internal ring memory of the safety module.

2.3 Wiring diagram

The following figure shows an exemplary wiring diagram:

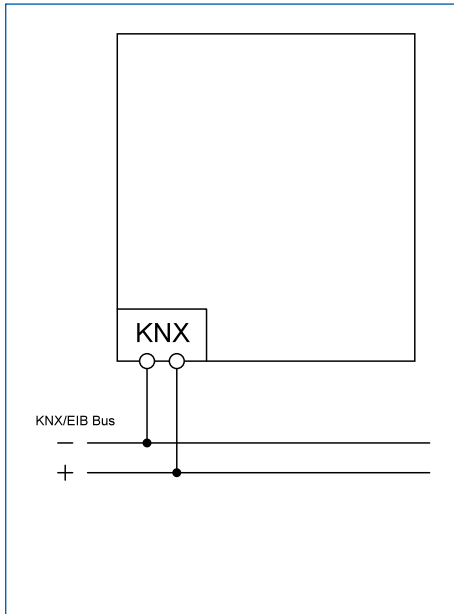


Figure1: Wiring diagram

2.4 Structure and Handling

The following picture shows the structure of the device:



Figure2: Structure and Handling

- | | |
|--|------------------------|
| 1 – KNX Bus connecting terminal | 2 – Programming button |
| 3 – Programming LED (red) | 4 – Status LEDs |
| 5 – Keys for selecting the operating modes | |

Operating functions		
	Button function	Status LEDs
Safe	Activate safety mode	Safety mode active
2h	Interrupt safety mode for 2 hours	Safety mode interrupted for 2 hours
12h	Interrupt safety mode for 12 hours	Safety mode interrupted for 12 hours
Clear	Cancel alarm	
Alarm		Alarm registered

Table 1: Manual operating functions

2.5 Commissioning

1. Wire the device according to the wiring diagram.
2. Connect programming interface to the bus.
3. Switch on bus voltage.
4. Press the programming button on the device for at least 1 s. (red programming LED lights up continuously).
5. Set and programme the individual address in the ETS (Programming LED turns off).
6. Configure and programme the settings in the application programme.

Note: If the safety mode of the device is active, the programming button on the device must be pressed before the application will transfer.

3 Communication objects

3.1 Standard settings of the communication objects

Standard settings - General settings									
No.	Name	Object Function	Length	C	R	W	T	U	
0	Operating	Send status	1 Bit	■			■		
1	Day time	Receive value	3 Byte	■		■	■	■	
2	Date	Receive value	3 Byte	■		■	■	■	
3	Date and time	Receive value	8 Byte	■		■	■	■	

Table 2: Communication objects – Standard settings: General settings

Standard settings - Device monitoring									
No.	Name	Object Function	Length	C	R	W	T	U	
4	Device 1	Monitoring via group address	1 Bit 1 Byte 2 Byte 4 Byte	■		■	■	■	
4	Device 1	Monitoring via group address	1 Bit 1 Byte 2 Byte 4 Byte	■		■			
+1	Next device								
104	Device 1	Monitoring result	1 Bit	■	■		■		
+1	Next device								
204	Device group 1:	Monitoring result	1 Bit	■	■		■		
+1	Next device group								
209	Device group 1	Switch	1 Bit	■			■		
+1	Next device group								
214	All device groups	Monitoring result	1 Bit	■	■		■		
215	Device monitoring	Lock	1 Bit	■		■			
216	Device monitoring	Status	1 Bit	■			■		

Table 3: Communication objects – Standard settings: Device monitoring

Standard settings - Status output									
No.	Name	Object Function	Length	C	R	W	T	U	
217	Status output of last event	Status text	14 Byte	■			■		
218	Status output for visualisation	Status text	14 Byte	■			■		
219	Menu navigation for visualisation	Scroll text messages	1 Bit	■		■			
220	Menu navigation for visualisation	Confirm menu selection	1 Bit	■		■			
221	Logging for status output	Reset	1 Bit	■		■			

Table 4: Communication objects – Standard settings: Status output

Standard settings - Operating hours counter									
No.	Name	Object Function	Length	C	R	W	T	U	
222	Operating hours counter	Operating hours	2 Byte	■	■		■		
223	Operating hours counter	Operating hours since last restart	2 Byte	■	■		■		
224	Operating hours counter	Reset	1 Bit	■		■			
225	Operating hours counter	Operating hours 4 Byte	4 Byte	■	■		■		
226	Operating hours counter	Operating hours since last restart 4 Byte	4 Byte	■	■		■		

Table 5: Communication objects – Standard settings: Operating hours

Standard settings - Safety mode									
No.	Name	Object Function	Length	C	R	W	T	U	
227	Safety mode	Activate	1 Bit	■		■			
228	Safety mode	Acknowledge Alarm	1 Bit	■		■			
229	Safety mode	Command / Password	14 Byte	■		■			
230	Safety mode	Status	1 Bit	■	■		■		
231	Safety mode	Alarm	1 Bit	■	■		■		

Table 6: Communication objects – Standard settings: Safety mode

The table above shows the preset default settings. The priority of the individual communications objects and the flags can be adjusted by the user as required. The flags assign the communication objects their respective tasks in programming, where C stands for communication, R for read, W for write, T for transmit and U for update.

4 ETS Parameter

4.1 General settings

The following table shows the available settings:

ETS Text	Dynamic range [Default value]	Comment
Startup timeout	2 ... 200 s [10]	Setting the time between a restart and the functional start-up of the device.
Operation cycle time	0 min (inactive) – 4 h [10 min]	Setting whether and at what interval a cyclic “in-operation” telegram will be sent.
Language selection for status output	<ul style="list-style-type: none"> ■ German ■ English 	Setting the language for the status output of the device monitoring.
Automatic switching of Summertime	<ul style="list-style-type: none"> ■ not active ■ active 	Setting for whether to automatically switch between summer/winter time (for result memory – status output).
Operating hours counter	<ul style="list-style-type: none"> ■ not active ■ active 	Activating the operating hours counter.
If „Operating hours counter“ → „active“		
Selection of objects	<ul style="list-style-type: none"> ■ 2 Byte ■ 4 Byte 	Setting the object size for the operating hours counter.
Report cyclic all (0 = not active)	0 ... 255 h [0]	Setting whether and at what interval the operating hours are sent.

Table 7: Settings – General

The following table shows the associated communication objects:

No.	Name / Object function	Length	Usage
0	Operation - Send status	1 Bit	Sending a cyclic telegram.
1	Day time – receive value	3 Byte	Receive the time.
2	Date – Receive value	3 Byte	Receive the date.
3	Date and time – Receive value	8 Byte	Receive time and date.
222	Operating hours counter – Operating hours	2 Byte	Sending of operating hours. If “Selection of objects” → “2 Byte”.
223	Operating hours counter – Operating hours since last restart	2 Byte	Sending the operating hours since the last restart. If “Selection of objects” → “2 Byte”.
224	Operating hours counter – Operating hours reset	1 Bit	Resetting the operating hours counter.
225	Operating hours counter – Operating hours 4 Byte	4 Byte	Sending of operating hours. If “Selection of objects” → “4 Byte”.
226	Operating hours counter – Operating hours since last restart 4 Byte	4 Byte	Sending the operating hours since the last restart. If “Selection of objects” → “4 Byte”.

Table 8: Communication objects – General

4.2 Status output

The following table shows the available settings:

ETS Text	Dynamic range [Default value]	Comment
Output mode for status output of the last event (Object 217)	<ul style="list-style-type: none"> ■ one-time sending of event ■ one-time sending of string 	Defines the sending behaviour of the status object.
Configuring the status text for visualization (Object 218)		
Cyclic output	no send 1 min – 24 h	Setting whether and at what interval the status text is sent.
Switching time for different sides	1 ... 255 [2]	Setting the time between single strings.
Number of repetitions	0 – 5 [2]	Setting whether and how often the object “Status output for visualizations – Status text” is repeated as a package.
Programming attempt		
event memory	<ul style="list-style-type: none"> ■ no log ■ log and send on bus ■ log 	Setting whether a programming attempt is logged and whether it is also sent directly to the bus.
display on Alarm-LED	<ul style="list-style-type: none"> ■ no ■ yes 	Setting to determine whether an attempt to programme the device is indicated on the alarm LED.
Log bus power reset into event memory	<ul style="list-style-type: none"> ■ not active ■ active 	Setting to determine whether a bus power return is logged in the event memory.
Device monitoring of Group 1 (... 5)		
event memory	<ul style="list-style-type: none"> ■ no log ■ log and send on bus ■ log 	Setting whether an event is logged in the device monitoring of the respective group and whether it is sent directly to the bus.
display on Alarm-LED	<ul style="list-style-type: none"> ■ no ■ yes 	Setting whether an event in the device monitoring of the respective group is displayed at the alarm LED.

Table 9: Settings – Status output

Log bus power reset into event memory

When activated, a bus voltage failure is written to the event memory. For this, it is necessary that the safe module is connected to a time server that sends cyclically. The message about the bus voltage failure occurs after the first receipt of time and date information after restart.

Important: Date and time must be available.

The following table shows the associated communication objects:

No.	Name / Object function	Length	Usage
217	Status output of last event – Status text	14 Byte	Sends the status message of the last event.
218	Status output for visualisation – Status text	14 Byte	Status output of the last 9 events for visualisations.
219	Menu navigation for visualisation – Scroll text messages	1 Bit	Scrolls through the status messages.
220	Menu navigation for Visualisation – Confirm menu selection	1 Bit	Starts the transmission of the data packet for the currently selected status message.
221	Logging for status output – Reset	1 Bit	Deletes the status messages in the ring buffer.

Table 10: Communication objects – Status output

4.2.1 Status message in plain text

There are two different status functions. These are described in the following chapters.

4.2.1.1 Status output of last event

The object “Status output of the last event – status text” sends its status immediately when a new event occurs. The parameter “Output mode for status output of the last event” can be used to set whether a single string or a more detailed string sequence should be sent. Sending a single string is achieved with the setting “**One-time sending of event**”.

The following message texts can be sent:

- Reset: A bus reset was done.
- DevLost: The monitored device cannot be found or is not responding.
- Attack: There has been one attempt to access the bus.

Sending a string sequence is achieved by setting “**one-time sending of string**” and can be used, for example, to send e-mails with the MDT IP interface / IP router. Here, the object “status output of the last event – status text” is transmitted three times in succession with different values.

1. Transmitting – Alarm type:

- Reset: A bus reset was done.
- DevLost: The monitored device cannot be found or is not responding.
- Attack: There has been one attempt to access the bus.

2. Transmitting – Device affected:

- PA: x.x.x: Display of the physical address that caused the alarm.
- Device x: Display of the device that caused the alarm.

3. Transmitting – Time (and optionally date) when the alarm occurred.

4.2.1.2 Status output for visualisation

The object saves the last 9 alarms in the ring buffer.

In the case of cyclical transmission, "OK" is transmitted via the object "Status output for visualization – status text" up to the first alarm, followed by "Messages: x", where x is the number of messages.

Object „Menu navigation for visualisation – Scroll text messages“

Each time a "1" is received at this object, starting with message 1, the ring buffer is incremented by one message and, when a "0" is received, the ring buffer is decremented by one message. Each time the buffer is scrolled, the object "Menu navigation for visualization – Status text" is used to send the sequence number and the type of alarm, as described below under "1. Transmission". (Example 1/8: DevLost)

Object „Menu navigation for Visualisation – Confirm menu selection“

This object can be used to call up detailed information about the alarm. When a "1" is received on this object, three messages with different contents are sent via the object "Status output for visualization – status text".

1. Transmitting – Alarm type:

- x/y Reset: A bus reset was done.
- x/y DevLost: The monitored device cannot be found or is not responding.
- x/y Attack: There has been one attempt to access the bus.

Where x is the message number and y the total number of messages.

2. Transmitting – Device affected:

- Device x: Display of the device that caused the alarm.

3. Transmitting – Time (and optionally date) when the alarm occurred.

The "Number of repetitions" parameter in the ETS menu can be used to set how often the message package is sent in sequence.

The messages can be displayed in plain text in a visualization.

Object „Logging for status output – Reset“

Sending a "1" to this object clears the ring buffer and sets the message counter to 0. If the alarm memory is successfully reset, an "OK" is transmitted via the object "Status output for visualization - Status text" up to the first alarm.

4.3 Safety functions

The activated safety function increases safety against attempts to access the line. It prevents every connection-oriented access by the ETS, such as programming and unloading of devices. The function is started automatically after bus power return / programming of the module. Depending on the set safety mode, activation is possible via the operating buttons and / or an object.

The following table shows the available settings:

ETS Text	Dynamic range [Default value]	Comment
Safety of hand control	<ul style="list-style-type: none"> ■ off ■ low ■ medium ■ high 	Setting the safety level in manual mode.
Activation of safety mode		
over 1 Bit object (Value 1 at object 227)	<ul style="list-style-type: none"> ■ not active ■ active 	Activation of the safety mode via a 1 Bit object.
over 14 Byte object (Object 229)	<ul style="list-style-type: none"> ■ not active ■ active 	Activation of the safety mode via a 14 Byte object.
command / password	Any value (14 Byte permitted) [LockPW]	Defines the password for activation. If „over 14 Byte Object“ → „active“.
Deactivation of safety mode		
over 1 Bit object (Value 0 at object 227)	<ul style="list-style-type: none"> ■ not active ■ active 	Deactivation of the safety mode via a 1 Bit object.
over 14 Byte object (Object 229)	<ul style="list-style-type: none"> ■ not active ■ active 	Deactivation of the safety mode via a 14 Byte object.
command / password	Any value (14 characters permitted) [UnlockPW]	Defines the password for deactivation. If „over 14 Byte Object“ → „active“.
Duration of deactivation	unlimited 1 min – 24 h [2 h]	Specify the maximum time for deactivating the safety mode. If „over 1 Bit Object“ or „over 14 Byte Object“ → „active“.
Reset of Alarms (programming attempt)		
over 1 Bit object (Value 0 at object 227)	<ul style="list-style-type: none"> ■ not active ■ active 	Resetting alarms via the 1 Bit object.
over 14 Byte object (Object 229)	<ul style="list-style-type: none"> ■ not active ■ active 	Resetting alarms via the 14 Byte object.
command / password	Any value (14 characters permitted) [ResetPW]	Defines the password for deactivation. Only if „over 14 Byte Object“ → „active“.

ETS Text	Dynamic range [Default value]	Comment
Status for safety mode	<ul style="list-style-type: none"> ■ not active ■ active 	Activating a status message.
Send cyclic	no send 1 min – 24 h	Setting whether and at what interval sent cyclically. If „Status for safety mode“ → „active“.
Send message of programming attempt via 1 Bit object	<ul style="list-style-type: none"> ■ not active ■ active 	Activation of a monitoring function to detect any attempts at programming.

Table 11: Settings – Safety functions

Safety of hand control

The “Safety of hand control” parameter can be used to set which functionalities can be activated on the device.

The following safety settings are possible::

- **off:** Every button on the device can be operated. This means that the safety of the line can be completely deactivated at the device and all alarms can be acknowledged.
- **low:** All buttons on the device, up to the “Clear” button, are operable. Thus, the safety of the line can be completely deactivated on the device, however, not all alarms can be acknowledged.
- **medium:** The temporary activation of the line and the acknowledgement of the alarms on the device are deactivated. However, the device itself can be programmed by pressing the programming button.
- **high:** The temporary activation of the line and the acknowledgement of the alarms on the device are deactivated. The device itself can only be programmed if the safety mode is temporarily deactivated via the corresponding objects.

Activating / Deactivating of safety mode

The Safety mode can be activated/deactivated via a 1 Bit object (Safety mode – Activate) as well as a 14 Byte object (Safety mode – Command / Password). The set text for activation/deactivation must be sent to the 14 Byte object.

It is possible to activate/deactivate the safety mode via the objects at any time – regardless of the settings of the “Safety of hand control” parameter.

Important: If the “safety of hand control” parameter is set to “high”, it is only possible to deactivate the safety mode (and thus reprogram the line) via the objects!
 If the Safety mode is deactivated via the object, it will remain inactive for the period set in the “Duration of deactivation” parameter or up to the time it is reactivated via the object.

Reset of alarms

Alarms displayed on the device can also be reset via the 1 Bit object “Safety mode – Acknowledge alarm” and via a 14 Byte object “Safety mode – Command / Password”. To do this, the set text for resetting the alarms must be sent to the 14 Byte object.

Status of safety mode

A status object can be displayed that indicates whether the safety mode is active or not. This status can be sent at intervals using the “send cyclically” parameter.

Send message of programming attempt via 1 Bit object

Activating this parameter causes a status object to be displayed and any programming attempt to be reported via the “Safety mode – Alarm” object.

The following table shows the associated communication objects:

No.	Name / Object function	Length	Usage
227	Safety mode – Activate	1 Bit	Activating/deactivating the safety mode.
228	Safety mode – Acknowledge alarm	1 Bit	Confirming alarms.
229	Safety mode – Command / Password	14 Byte	Activating/deactivating safety mode and acknowledging alarms.
230	Safety mode – Status	1 Bit	Status of whether safety mode is active..
231	Safety mode – Alarm	1 Bit	Displaying alarms.

Table 12: Communication objects – Safety functions

4.4 Device monitoring

With device monitoring, up to 100 devices can be requested to see if they are on the bus. The test can be carried out both actively (actively querying physical addresses or group addresses) and passively (detecting whether group addresses are sent cyclically). In the event of an error, the devices can be temporarily disconnected from the bus (using an additional switching actuator) to avoid a false alarm. The monitored devices can be divided into up to 5 groups. These groups are also used to generate collective messages.

4.4.1 Identical parameter

A text field is available for each device monitoring group for customized labelling.

Device monitoring of Group 1 (... 5)	Example group
--------------------------------------	---------------

Figure3: Identical parameter – Labelling field

A text with up to 14 characters can be used for the field.

The text entered in “Device monitoring of group 1 (... 5)” appears in the communication objects of the device group:

Communication objects
■ ↵ 204 Device group 1: Example group

Figure4: Identical parameter – Description of group monitoring

4.4.2 Device monitoring: General settings

The following table shows the available settings:

ETS Text	Dynamic range [Default value]	Comment
Device monitoring	<ul style="list-style-type: none"> ■ not active ■ active 	Activation of device monitoring.
If „Device monitoring“ → „active“		
Polarity of status	<ul style="list-style-type: none"> ■ as alarm (if available = „Off“) ■ as operation object (if available = „On“) 	Setting the polarity of the status
Duration of locking of device monitoring at bus power return	10 s – 8 h [10 min]	Setting the duration after which the device monitoring starts again after a bus voltage recovery.
Duration of locking of device monitoring via lock object	unlimited 1 min – 8 h [10 min]	Setting to determine whether and after what interval the device monitoring is automatically restarted.
Cyclic time for collective message “All devices”	no send 1 min – 24 h	Setting whether and at what interval sending takes place.
Device monitoring of group 1 (... 5)	Any value (max. 14 characters permitted)	This text is displayed in the communication objects. For a more detailed description, see chapter 4.4.1 Identical parameter .
Cyclic sending of group Message “Group 1 (... 5)”	no send 1 min – 24 h	Setting whether and at what interval sending takes place.
Objects for disconnecting of KNX - devices (all groups)	<ul style="list-style-type: none"> ■ not active ■ active 	Activating the objects for disconnecting device groups from the bus.
Time of “OFF”-signal	5 s - 4 min [5 s]	Duration of disconnection from the KNX bus. If „Objects for disconnecting ...” → „active“.

Table 13: Settings – Device monitoring: General

Duration of locking of device monitoring at bus power return

Defines the duration for which device monitoring is inactive after a bus voltage recovery:

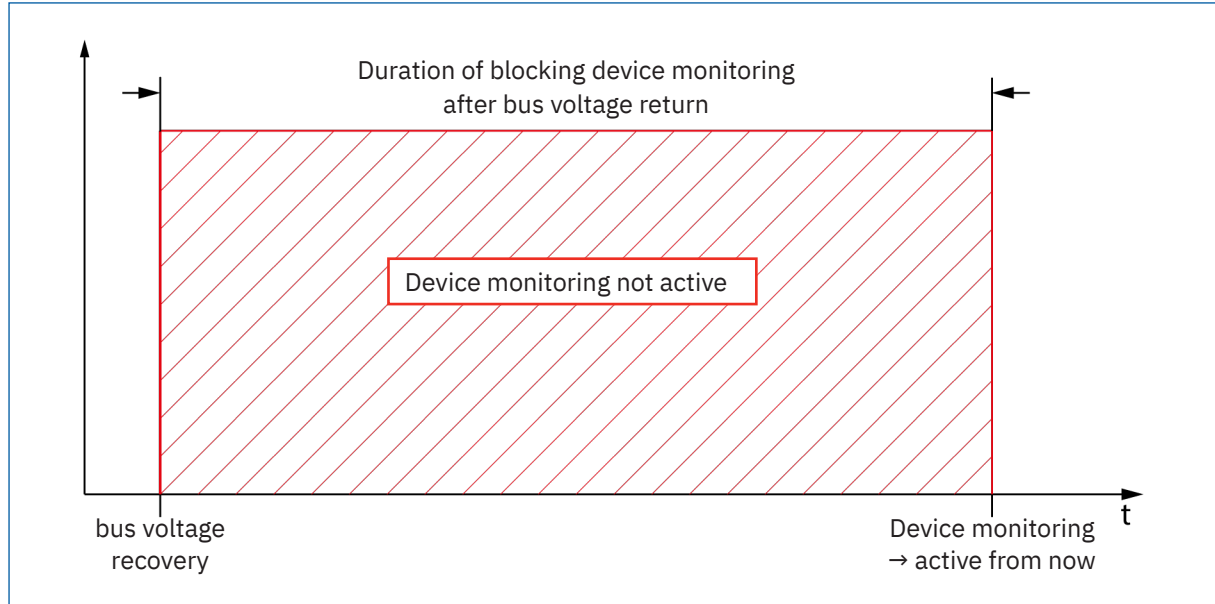


Figure5: Diagram – Device monitoring after bus voltage recovery

Duration of locking of device monitoring via lock object

Defines the duration after which the device monitoring is active after a locking via lock object:

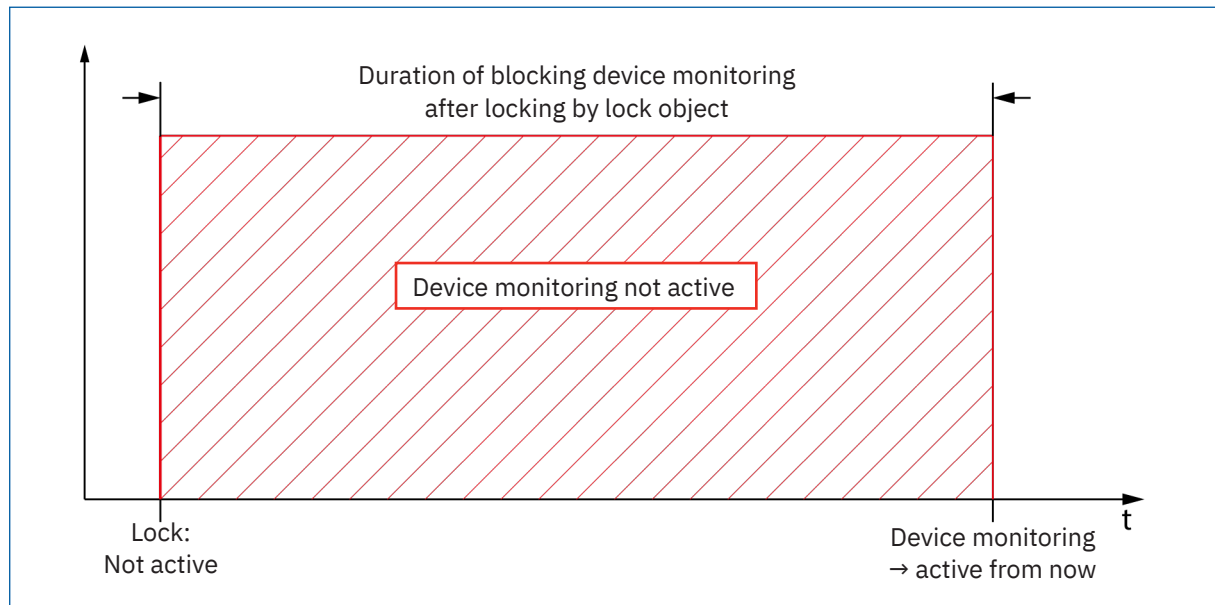


Figure6: Diagram – Device monitoring after locking by lock object

Objects for disconnecting of KNX - devices (all groups)

This setting allows to disconnect devices from the bus automatically in the event of a fault. This is particularly useful where older/faulty devices are used that can only be reset in the event of a fault by a bus voltage reset.

To do this, the following structure is required in the topology:

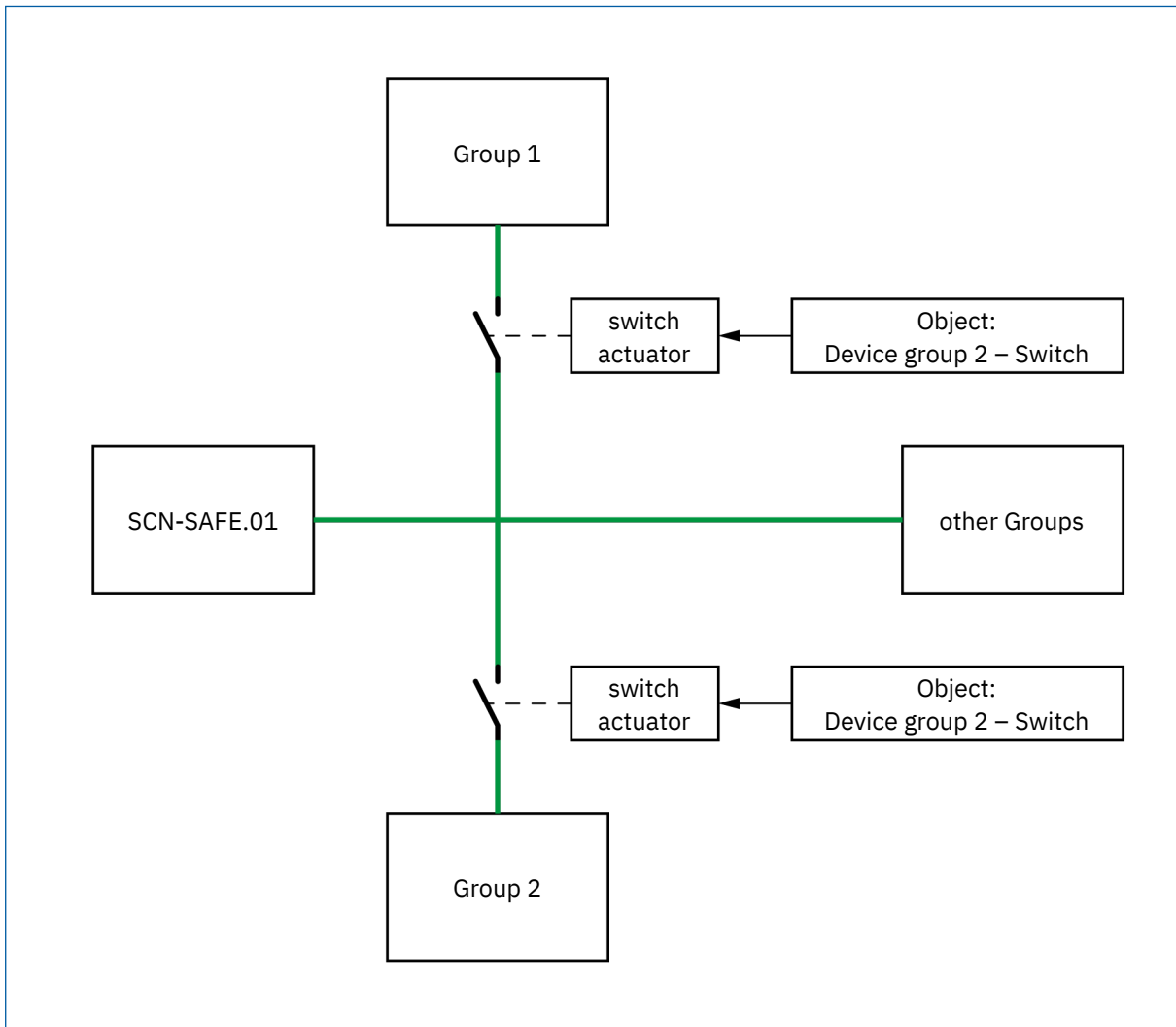


Figure7: Diagram – Topology for switching KNX participants

The KNX bus must be routed via the contact of a switch actuator. The switch actuator is switched with the associated communication object for this group. If a fault is detected in a device of the group, the switch actuator assigned to this group is switched off for the set duration and then switched on again. If the fault persists, this switching operation will not be repeated.

The following table shows the associated communication objects:

No.	Name / Object function	Length	Usage
204	Device group 1: – Monitoring result	1 Bit	Send when at least one device in device group 1 has failure.
+1	next Device group		
209	Device group 1 – Switch	1 Bit	Switches device group 1 on/off
+1	next Device group		
214	All device groups – Monitoring result	1 Bit	Sends when at least 1 device has failed in all device groups.
215	Device monitoring – Lock	1 Bit	Disables device monitoring.
216	Device monitoring – Status	1 Bit	Sends the status of the device monitoring.

Table 14: Communication objects – Device monitoring: General

4.4.3 Device 1 (... 100)

The following table shows the available settings:

ETS Text	Dynamic range [Default value]	Comment
Monitor device	<ul style="list-style-type: none"> ■ not active ■ via physical address (active request) ■ via group address (active request) ■ via group address (passive receiving) 	Activates device monitoring and defines the type of monitoring.

Table 15: Settings – Monitoring device 1 (... 100)

The setting options and the function depend on the kind of monitoring. If possible, passive monitoring via group address should always be used to minimize the bus load. This kind of monitoring is particularly useful where values are already sent cyclically (in operation, temperature, etc.).

The following table shows the associated communication objects:

No.	Name / Object function	Length	Usage
104	Device 1 – Monitoring result	1 Bit	Sends if “Device 1” has failed.
+1	next device		

Table 16: Communication objects – Monitoring device 1 (... 100)

4.4.3.1 Monitor device via physical address (active request)

With the active request “via physical address”, the devices to be monitored are defined by their physical address. The devices are actively requested at the set monitoring interval.

The following table shows the available settings:

ETS Text	Dynamic range [Default value]	Comment
Addresses selection	<ul style="list-style-type: none"> ■ individual setting ■ same area and line as safety module 	Setting whether the device is in the same line as the safety module.
Area	0 – 15 [0]	Setting the area. If „Addresses selection“ → „individual settings”
Line	0 – 15 [0]	Setting the line. If „Addresses selection“ → „individual settings”
Device	0 ... 255 [0]	Setting of the device address that is being monitored.
Monitoring interval	20 s – 24 h [30 s]	Setting the interval at which the address is requested.
Group assignment	<ul style="list-style-type: none"> ■ no mapping ■ group 1 ■ group 2 ■ group 3 ■ group 4 ■ group 5 	Assignment of the device to a device group.

Table 17: Settings – Monitor device via physical address

4.4.3.2 Monitor device via Group address (active request)

When polling actively, a communication object appears that must be linked to an object of the device to be monitored. The object to be monitored must have an L flag and is being requested in the set monitoring interval. For 1 Bit objects, the object value can also be filtered.

The following table shows the available settings:

ETS Text	Dynamic range [Default value]	Comment
Object size	<ul style="list-style-type: none"> ■ 1 Bit ■ 1 Byte ■ 2 Byte ■ 4 Byte 	Setting the object size.
Monitoring interval	20 s - 24 h [30 s]	Setting the interval at which the device is requested.
Group assignment	<ul style="list-style-type: none"> ■ no mapping ■ group 1 ■ group 2 ■ group 3 ■ group 4 ■ group 5 	Assignment of the device to a device group.
Expected object value	<ul style="list-style-type: none"> ■ device available at OFF ■ device available at ON ■ device available at each value 	Setting which object value is expected. If "Object size" → „1 Bit“.

Table 18: Settings – Monitor device via group address (active)

The following table shows the associated communication objects:

No.	Name / Object function	Length	Usage
4	Device 1 – Monitoring via group address	1 Bit 1 Byte 2 Byte 4 Byte	device monitoring object DPT depending on parameter setting.
+1	next device		

Table 19: Communication objects – Monitor device via group address (active)

4.4.3.3 Monitor device via group address (passive receiving)

In the case of passive monitoring, a communication object is displayed that must be connected to a cyclically sending object of the device to be monitored. There is no active monitoring, but rather the device waits for a telegram input within the monitoring interval.

In the case of 1 Bit objects, the object value can also be filtered.

The following table shows the available settings:

ETS Text	Dynamic range [Default value]	Comment
Object size	<ul style="list-style-type: none"> ■ 1 Bit ■ 1 Byte ■ 2 Byte ■ 4 Byte 	Setting the object size.
Monitoring interval	20 s - 24 h [30 s]	Setting the interval at which the device is requested.
Group assignment	<ul style="list-style-type: none"> ■ no mapping ■ group 1 ■ group 2 ■ group 3 ■ group 4 ■ group 5 	Assignment of the device to a device group.
Expected object value	<ul style="list-style-type: none"> ■ device available at OFF ■ device available at ON ■ device available at each value 	Setting which object value is expected. If "Object size" → „1 Bit“.

Table 20: Settings – Monitor device via group address (passive)

The following table shows the associated communication objects:

No.	Name / Object function	Length	Usage
4	Device 1 – Monitoring via group address	1 Bit 1 Byte 2 Byte 4 Byte	device monitoring object DPT depending on parameter setting.
+1	next device		

Table 21: Communication objects – Monitor device via group address (passive)

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6 Appendix

6.1 Statutory requirements

The devices described above must not be used in conjunction with devices which directly or indirectly serve human, health, or life-safety purposes. Furthermore, the devices described must not be used if their use may cause danger to people, animals, or property.

Do not leave the packaging material carelessly lying around. Plastic foils/ bags etc. can become a dangerous toy for children.

6.2 Disposal



Do not dispose of the old devices in the household waste. The device contains electrical components that must be disposed of as electronic waste. The housing is made of recyclable plastic.

6.3 Assembly



Danger to life from electric current!

The device may only be installed and connected by qualified electricians. Observe the country-specific regulations and the applicable KNX guidelines.

The devices are approved for operation in the European Union and in the United Kingdom. The products are respectively marked with the CE and UKCA symbols.

Use in the USA and Canada is prohibited!

6.4 History

V 1.0 First version of the manual

DB V1.0 03/2025