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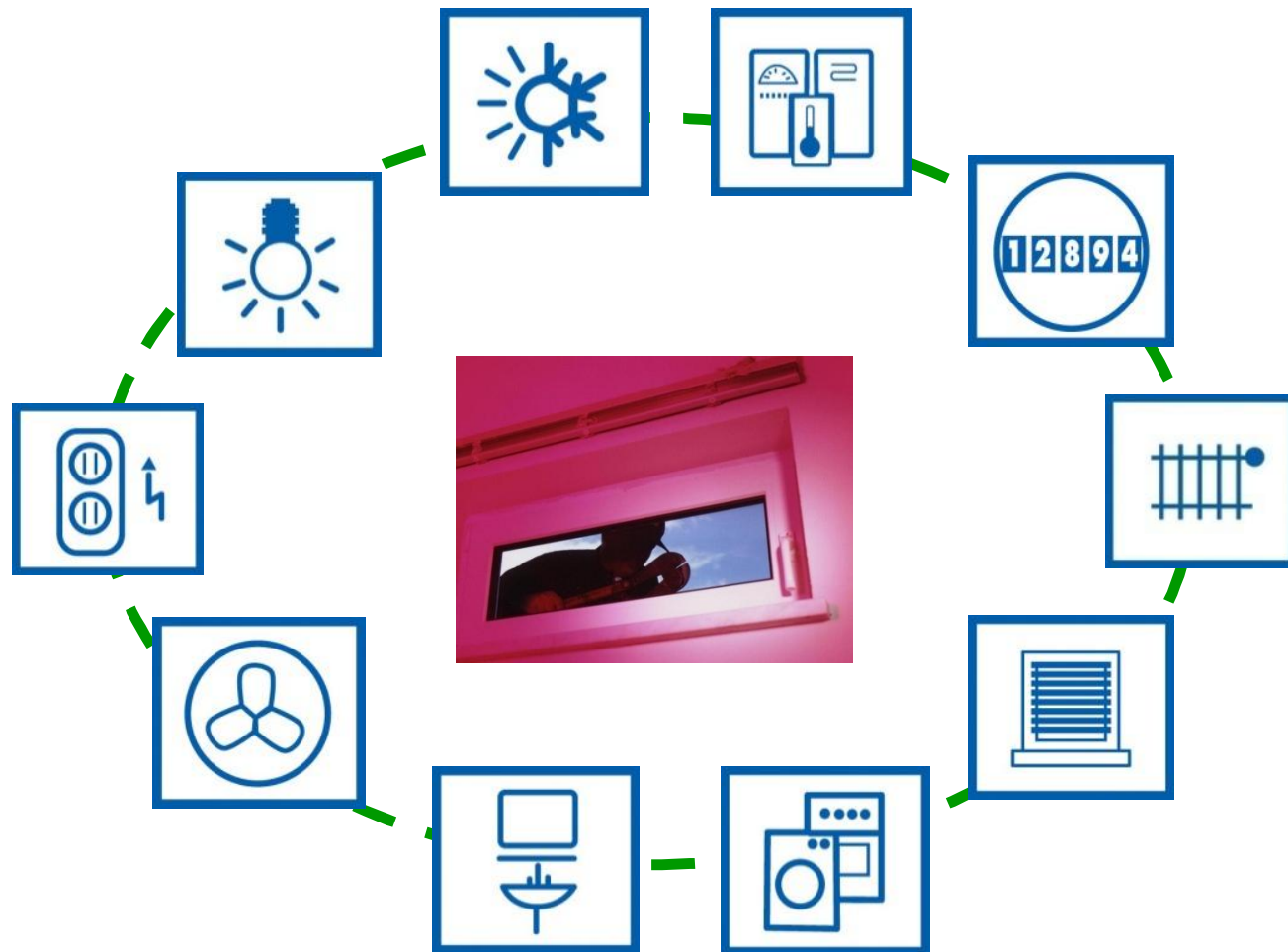
ABB STOTZ-KONTAKT GmbH

Webinar ABB i-bus[®] KNX

“Security Terminal MT/x”



KNX can be used for all applications in home and building control



KNX and Security System Benefits



The connection of KNX to security technology offers the user many significant advantages

§ Clear operation features

The overview is assured by the clear operation and display features of the KNX. The building/property always informs the user in plain text about the current state of the building and security functions

§ Cost-effectiveness

New possibilities provide economic benefits: Detectors can be used for several tasks.

A motion detector in an unset system can be used to switch lighting.

§ Comfort functions

Central functions can be activated in conjunction with setting the alarm system.

When leaving the building and setting the system, the lighting is switched off and the room temperature is reduced

KNX and Security System Benefits



- § Using the following range of security products, it is possible to implement a variety of tasks from basic monitoring functions to professional security installations in conjunction with ABB i-bus[®] KNX
- § Typical applications range from simple functions, e.g.,
 - § Opening surveillance or lock monitoring of doors and windows
 - § Reporting fractures in water pipes
 - § Reporting the early detection of smoke

KNX and Security

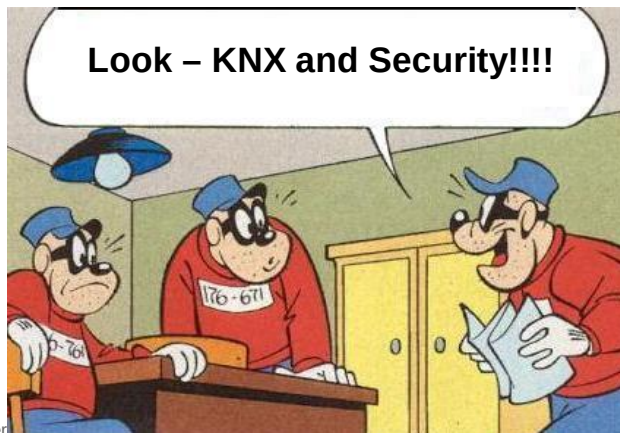
Additional Benefits



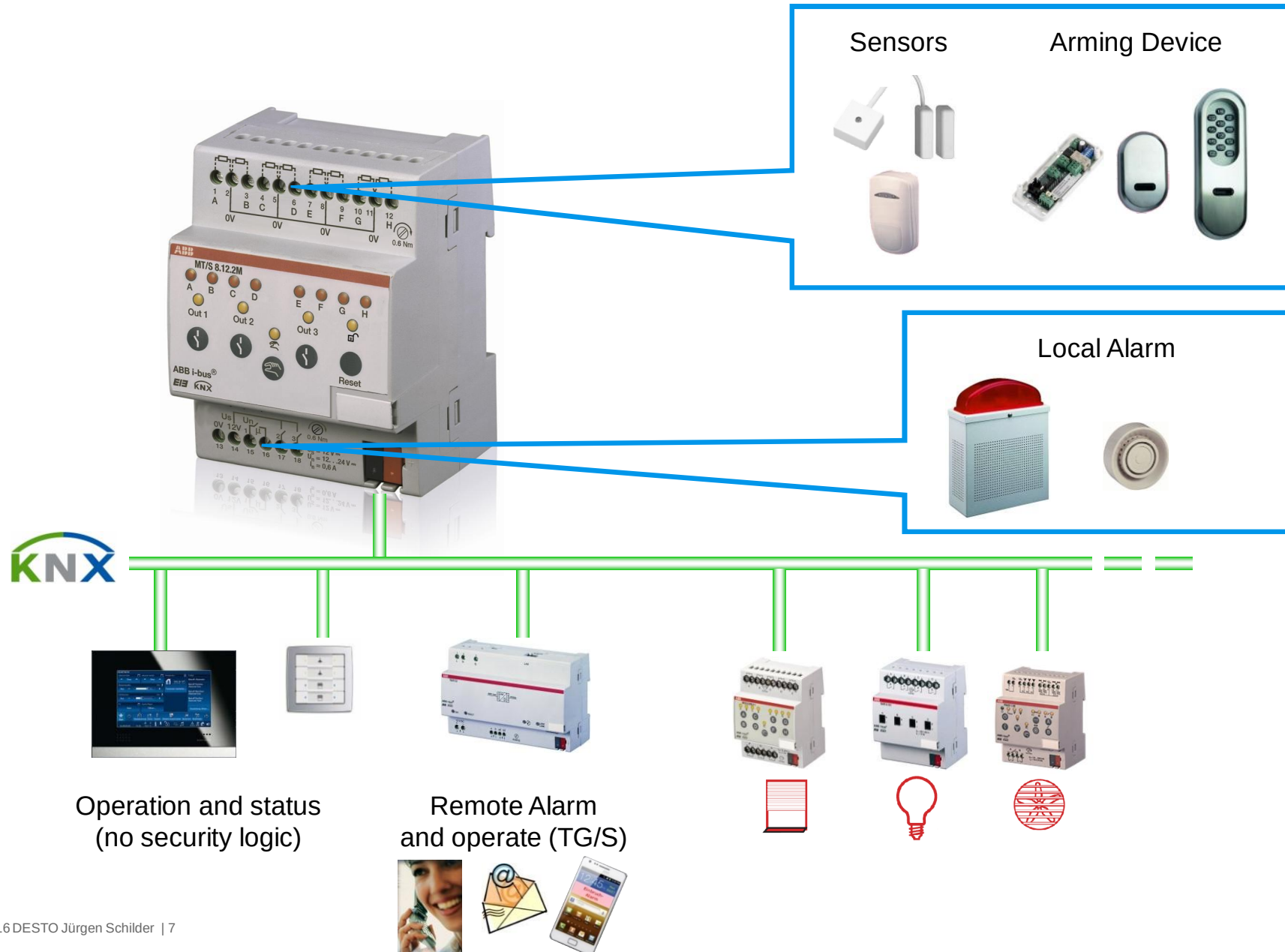
- § Magnetic reed contacts can also be use for air-conditioning and heating control
- § Motion detectors can also be used to switch on illumination with an unset system
- § In case of technical hazards (e.g. gas or water leak) power circuits can be switched off
- § Setting a system can automatically set the object into an energy saving mode
- § An alarm event can be used to trigger an predefined event (e.g. switch on of the illumination or opening of shutters)
- ... and many more

KNX and Security Product Overview

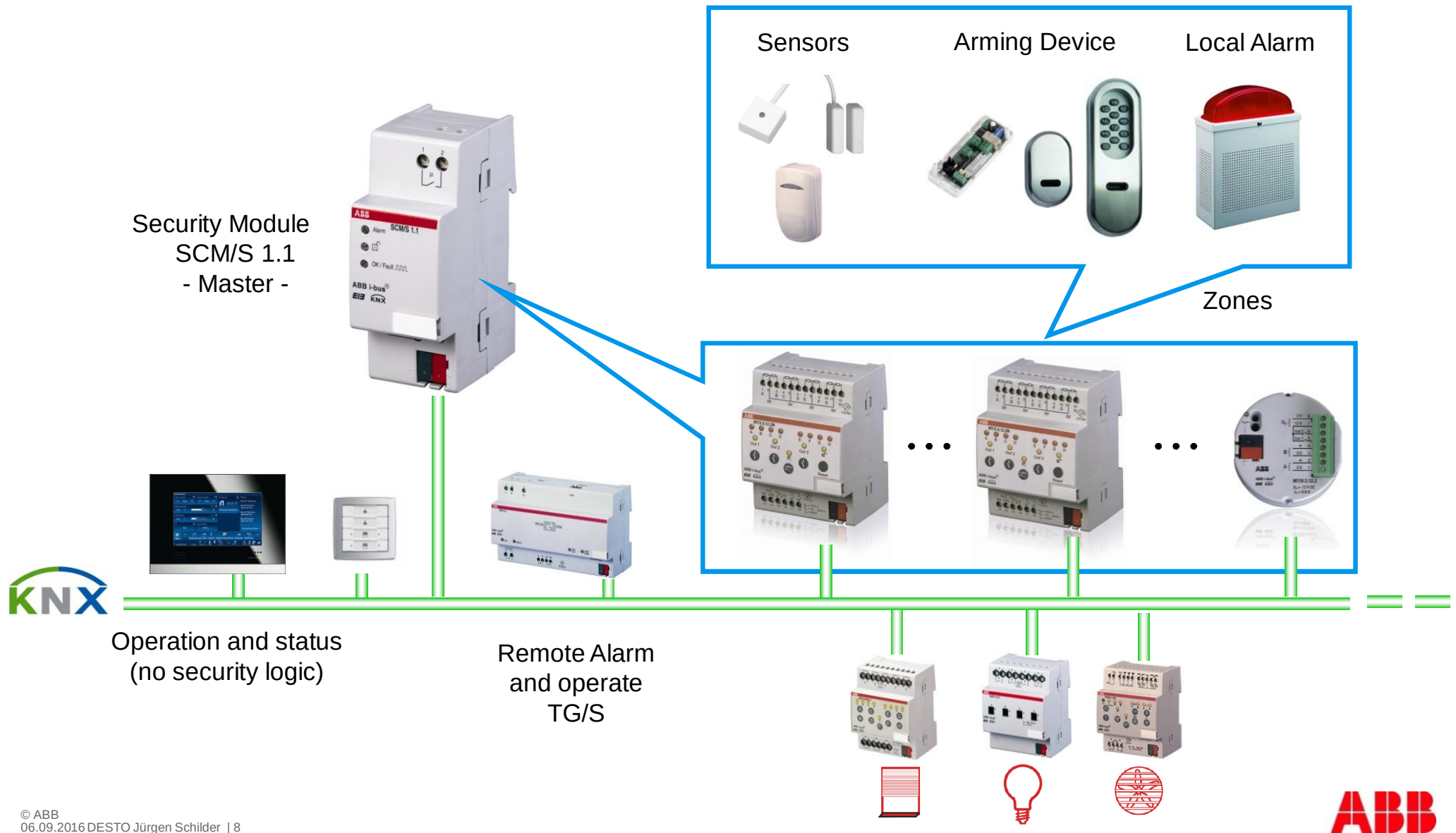
- § Uninterruptible KNX Power Supply SU/S
- § Uninterruptible Power Supply Unit 12V NTU/S
- § Security Terminals
 - § MT/S
 - § MT/U
- § Security Module SCM/S
- § SafeKey Switching Module SSM
- § KNX-Interface XS/S (Intrusion Alarm Panel L240)



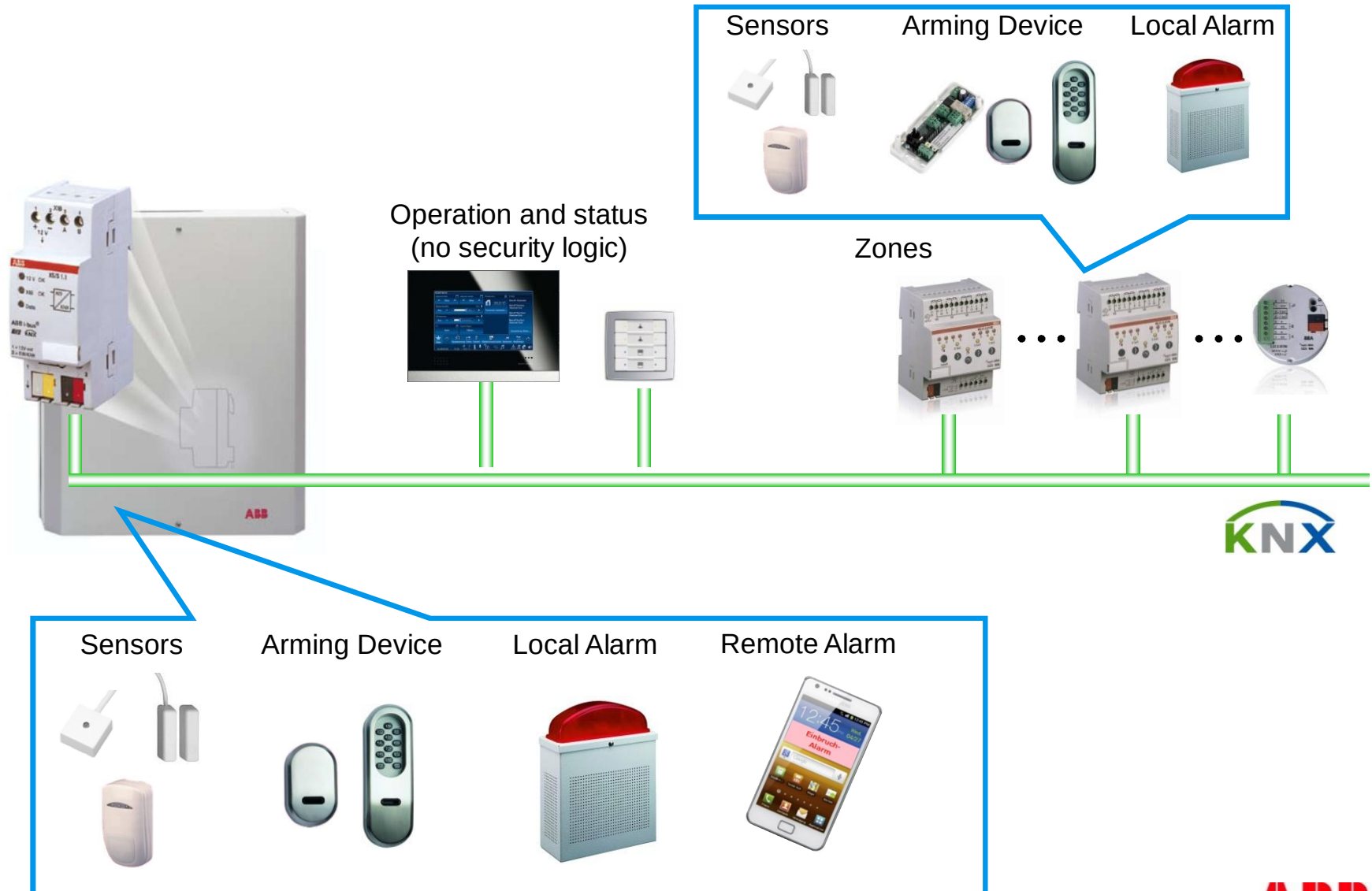
Basic Security Solution with only one Security Terminal



Extendable Security Solution with Security Module and Security Terminals



Professional Security Solution with KNX Interface XS/S and L240 Alarm System



Uninterruptible KNX Power Supply SU/S 30.640.1



Power supply with integrated choke for supplying a bus line from an uninterrupted supply

- § The accumulator module or up to 2 rechargeable batteries can be charged in normal operation
- § The bus voltage is provided by the batteries in the event of a mains failure
- § Back-up time depends on battery capacity and output current
- § Fault and battery level as well as a floating contact for a fault signal indication
- § Electronic monitoring of the batteries every 15 minutes

Uninterruptible Power Supply Unit 12V NTU/S 12.2000.1



Uninterruptible operation of

- § 12 V DC components (Motion detectors, technical sensors, signaling device, ...)
- § 12 V DC KNX-devices
 - § **Security Terminals MT/x**
 - § Telephone Gateway TG/S ...
- § Buffered voltage of 12 V DC at a max. current of 2 A
- § Back-up time depends on battery capacity and output current
- § Compatible with all standard storage battery types (SAK 7...17 and battery module AM/S)

Security Terminals

MT/S and MT/U



- § Security Terminals are used as the interface between security technology sensors and the KNX
- § They are used for monitoring connected passive detectors, e.g. magnetic contacts and/or glass break sensors on the ABB i-bus® KNX and/or for connection of floating contacts in applications with enhanced security requirements.



Burglary

- § Window-/Door Contacts
- § Motion Detectors
- § Glass Breakage Detectors



Water

- § Water Leakage Detectors



Fire

- § Smoke Detectors
- § Gas Detectors



Panic Alarm

- § Emergency Push Buttons

Security Terminals MT/S and MT/U



§ Application

- § Compact security solution for KNX applications
- § Monitored connection of sensors from security technology
- § Direct connection of signalling devices and arming device

§ Use

- § Simultaneous using of security sensors to support heating and lighting control
- § Individual operation and display via KNX
- § Event-driven sequence control

§ Location

- § Residential buildings
- § Small and home offices
- § Small Shops
- § Apartments

Security Terminals

Components for Surveillance, Arming and Signalling



Motion Detectors



Arming Device



Magnet Reed Contacts



Smoke Detectors



Glas Break Sensors



Gas Detectors



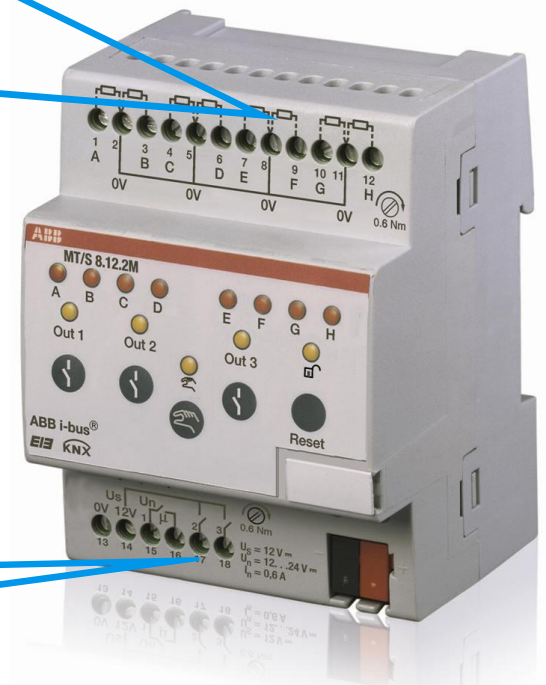
Water Detectors



Signalling Device for external alarming



Siren for internal alarming



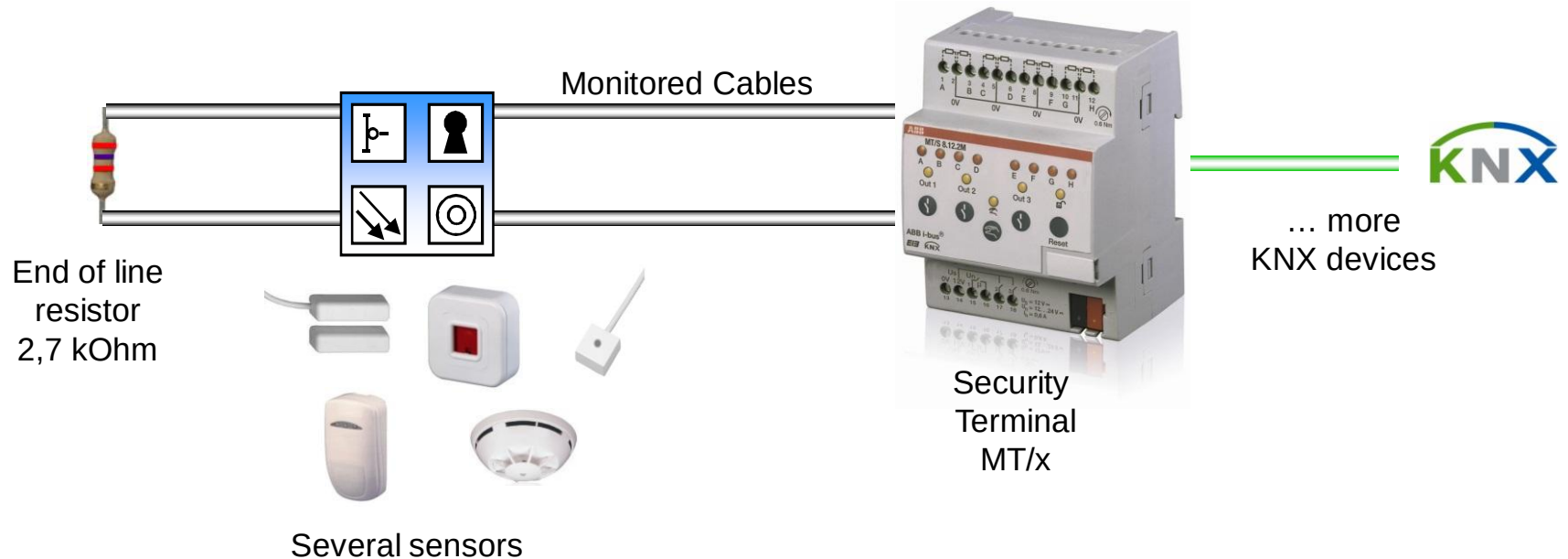
Uninterruptible Power Supply for KNX and 12 V DC

Security Terminals

MT/S and MT/U



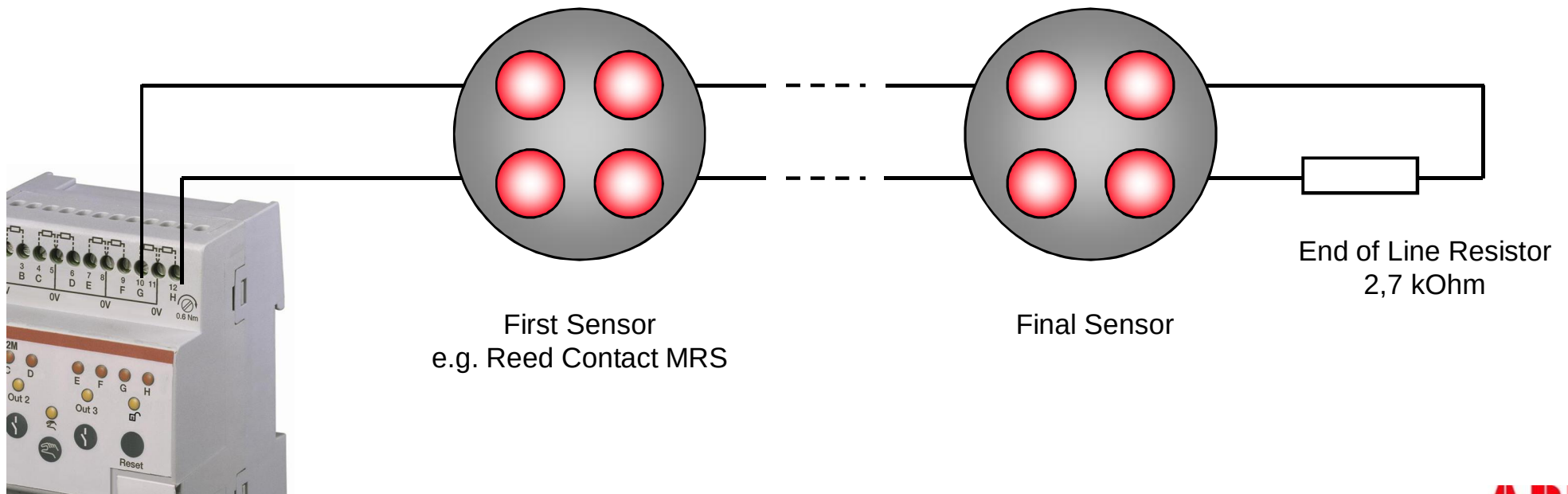
§ Security Terminals are used for connecting security sensors via monitored cables to the KNX and /or for the connection of other potential free contacts in applications where greater security is required



Security Terminals MT/S and MT/U

Connection of sensors

- § In each case any 2 cores running next to one another are connected to the zone loop or terminal and the two remaining wires to the next sensor
- § The end of line resistor must be connected across the circuit after the last sensor



Security Terminals

Peripheral monitoring



- § The sensors monitor the opening of all doors, gates and windows of all kinds, e.g. cellar windows/entrances, skylights and stairwells leading out of the building
- § Doors and windows
 - § Opening: Magnet reed contact
 - § Glass break: Glass break sensor
- § Additional benefits via KNX:
 - § Switch off of air-conditioning when a window is open
 - § Closing of a heating or cooling valve when a window is open

Security Terminals

Interior monitoring



- § The rooms are monitored for movement using motion detectors
- § Rooms and halls
 - § Detection of motion: Motion detector
- § Additional benefits via KNX:
 - § Switch on of illumination when a motion is detected

Security Terminals

Lock monitoring



§ Lock monitoring is used to ensure enforcement, i.e. a lock monitoring detector that is not closed will prevent setting

§ Doors

§ Locking of the door: Lock bolt switching contact



§ Windows

§ Closing of the window: Blocking bolt

Security Terminals

Technical monitoring



- § Water leak
 - § Water detector



- § Gas leak
 - § Gas detector



- § Occurance of smoke
 - § Smoke detector
- § Additional benefits via KNX:
 - § Switch off of the power circuits
 - § Internal alarm (siren inside)
 - § Raising of the blinds, opening of shutters and roof windows

Security Terminals Setting



- § Setting is used to activate the Security Terminal as well as the intrusion detection sensors and to issue an alarm if an intrusion attempt is detected
- § Setting is differentiated in the following ways:

- § Internal setting 
- § External setting 
 - § Direct (immediately – arming device outside)
 - § Delayed (arming device inside)



- § An error during setting means that the Security Terminal could not be set
 - § Triggered detector
 - § Non-deleted alarm memory
 - § Existing alarms
 - § Malfunction in the auxiliary voltage supply



Operation and
status
(no security logic)

Security Terminals

MT/S and MT/U - Alarming matrix

	Unset	Internal setting 	External setting 
Intrusion detector: peripheral protection	-	Internal alarm 	External alarm 
Intrusion detector: internal protection	-	-	External alarm 
Tamper contact	Internal alarm 	Internal alarm 	External alarm 
Personal attack	Panic alarm	Panic alarm	Panic alarm
Technical sensor	Technical alarm	Technical alarm	Technical alarm
Lock monitoring	Prevents setting	-	-

Security Terminals

Alarm types



§ Intrusion alarm

An intrusion alarm is activated if the system is internally or externally set and an interior or peripheral detector is triggered. Panic alarm



§ Technical alarm

A technical alarm occurs when a technical detector is triggered. A local alarm occurs in the unset and internally set state. Should a technical alarm be triggered in the externally set state, there is no local alarm, even after unsetting.



§ A panic alarm is triggered when a panic button is pressed

§ Tamper alarm

A tamper alarm is triggered when a tamper contact (e.g. opening the housing of a siren) is triggered or a manipulation of the setting zone (attack on arming device) is done

Security Terminals

Alarm

- § The local alarm is used to indicate an alarm via optical and/or acoustic signalling devices, and the following differentiation is made:



- § External signalling device
An external signalling device describes optical (strobe or flashing light) or acoustic (siren) signalling on the exterior of a building



- § Internal signalling device
Acoustic signalling devices are usually used for internal signalling and include internal sirens inside the building. They alert persons located in a building when there is an alarm



- § Remote alarming (silent alarm)

- § The remote alarm is used to notify an alarm, e.g. intrusion or panic alarm, via voice message, sms or email



Security Terminals

MT/S and MT/U – Functionality



Operation mode

- § Stand-alone security system
- § With security module SCM/S or XIB-Interface XS/S and intrusion alarm system L240



Setting (only Stand-alone security system)

- § External setting/unsetting
- § Internal setting/unsetting, e.g. over night
- § Direct and delayed setting/unsetting (started inside the building)



Relais outputs

- § Controlled via communication objects or device state (unset, intrusion alarm, ready to set, ...)

Security Terminals

MT/S and MT/U – Functionality

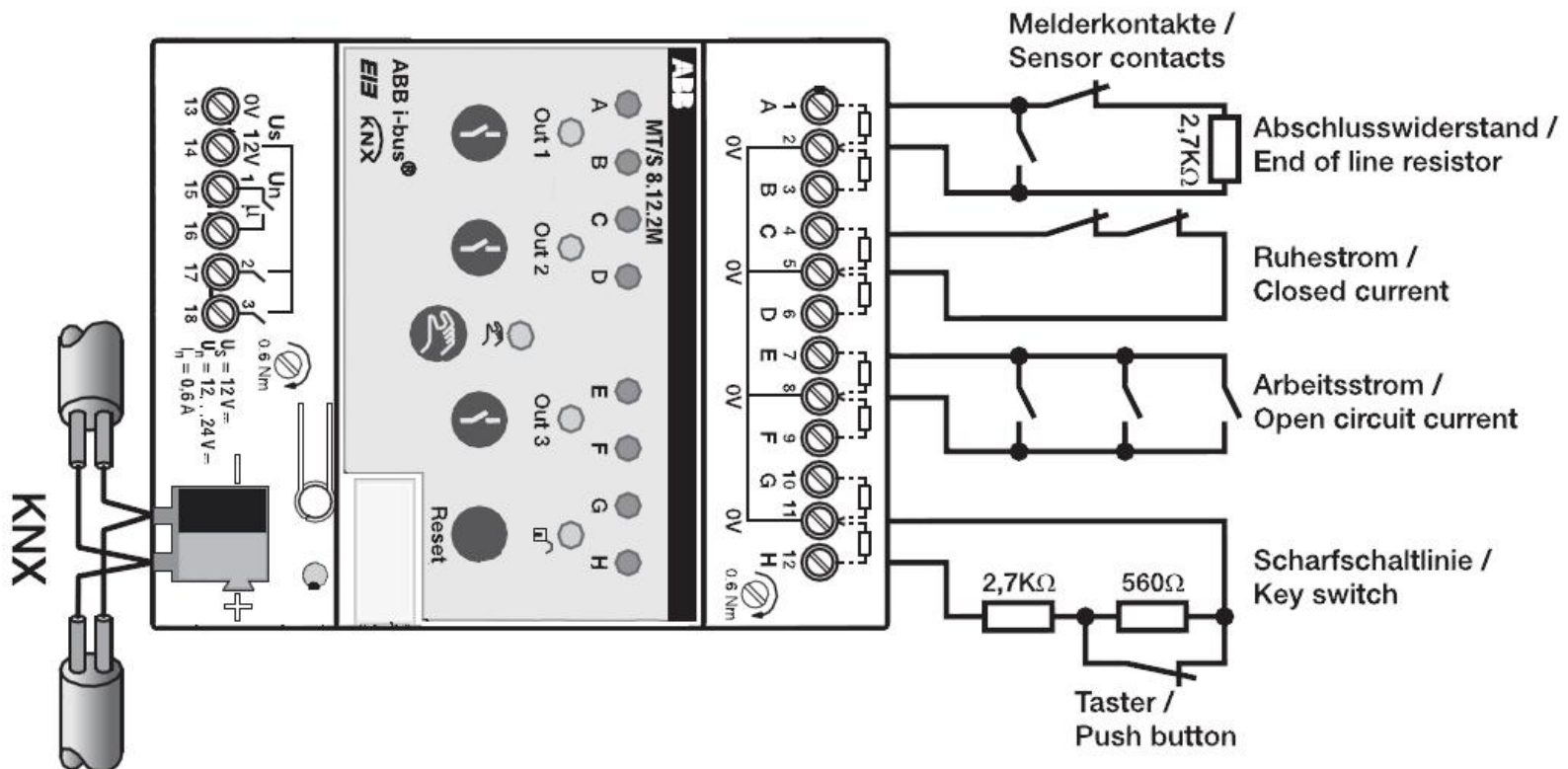


Zones

- § Type of monitoring
 - § End of line resistor 2k7 Ohm
 - § Closed circuit (NC)
 - § Open circuit (NO)
- § Input
 - § Intrusion detector internal or external protection
 - § Personal attack
 - § Tamper / sabotage contact
 - § Technical alarm detector 1 or 2
 - § Set/unset input
 - § Lock monitoring detector
 - § Reset input
- § Alarm memory
- § Zones can be disabled

Security Terminals

MT/S and MT/U – Functionality



Security Terminal MT/S 8.12.2M, 8-fold



- § Security Terminal, 8-fold, MDRC
- § MT/S 8.12.2M
- § 2CDG 110 110 R0011
- § Technical data
 - § 8 zones (=inputs)
 - § 1 floating relay output (12...24 V DC)
 - § 2 x 12 V DC relay outputs (max. 0,6 A)
 - § 12 V DC auxiliary voltage (Current consumption: 13 - 83 mA)

Security Terminal MT/S 8.12.2M, 8-fold



Zones A-H

LEDs

- Status of the zones A-H
- Set/Unset
- Manual operating
- 12 V DC relay output

Key

-  Manual operating
-  Reset
-  12 V DC relay output

12 V DC relay output

Floating relay output(12/24V DC)

12 V DC auxiliary voltage

Security Terminal

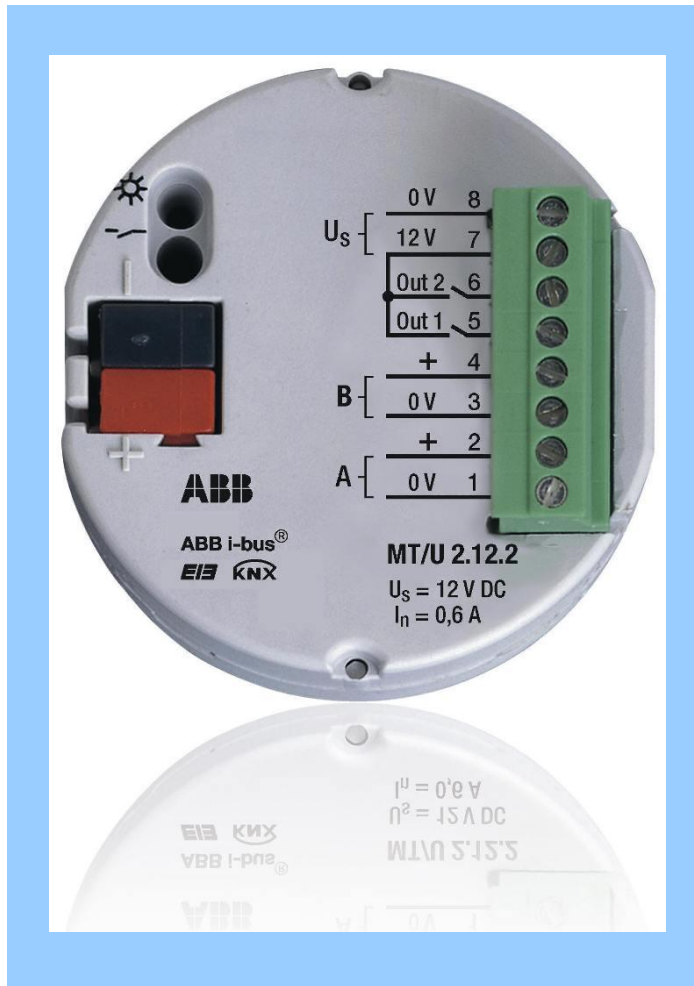
MT/S 4.12.2M, 4-fold



- § Security Terminal, 4-fold, MDRC
- § MT/S 4.12.2M
- § 2CDG 110 109 R0011
- § Technical data
 - § 4 zones (=inputs)
 - § 1 floating relay output (12...24 V DC)
 - § 2 x 12 V DC relay outputs (max. 0,6 A)
 - § 12 V DC auxiliary voltage (Current consumption: 13 - 63 mA)

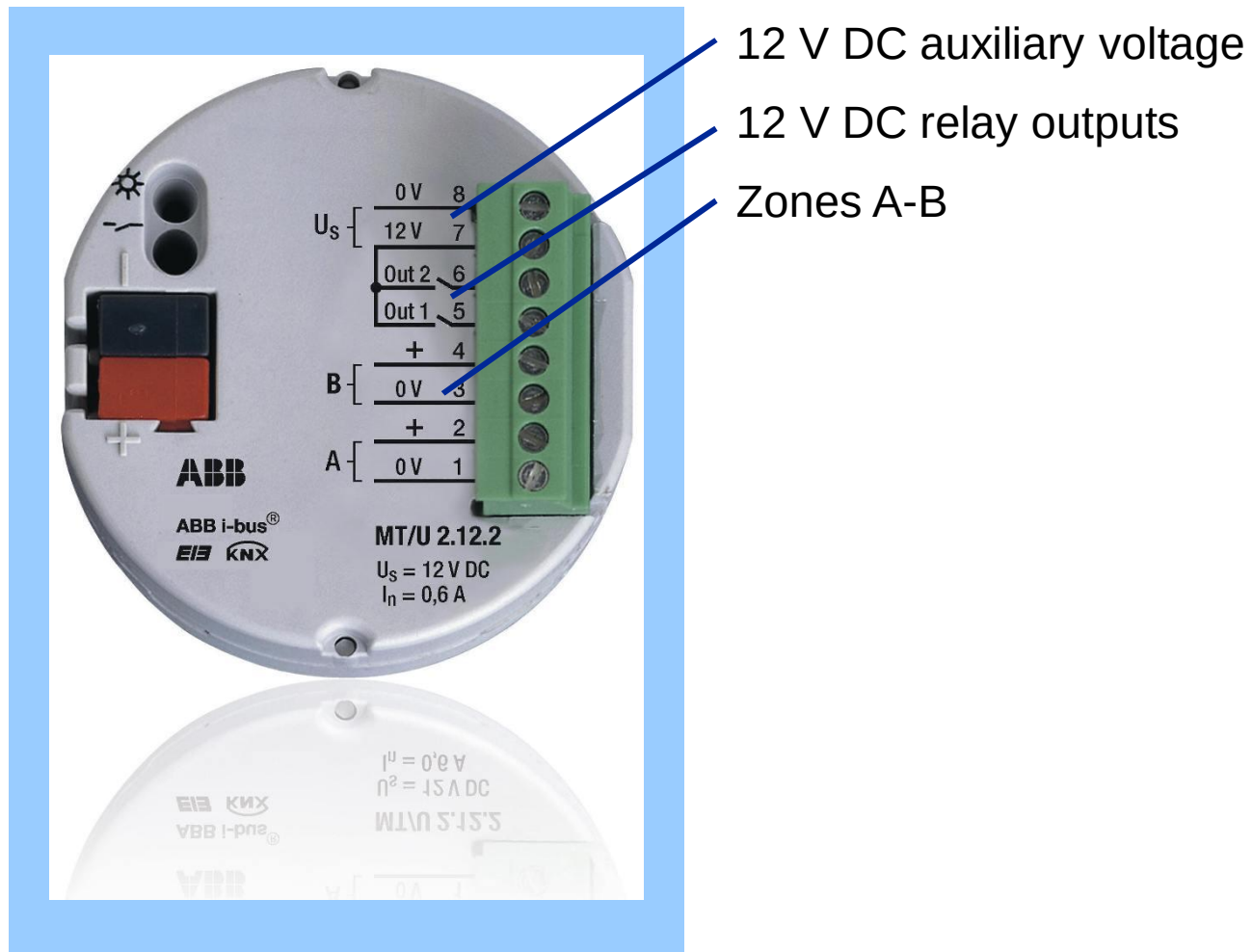
Security Terminal

MT/U 2.12.2, 2-fold



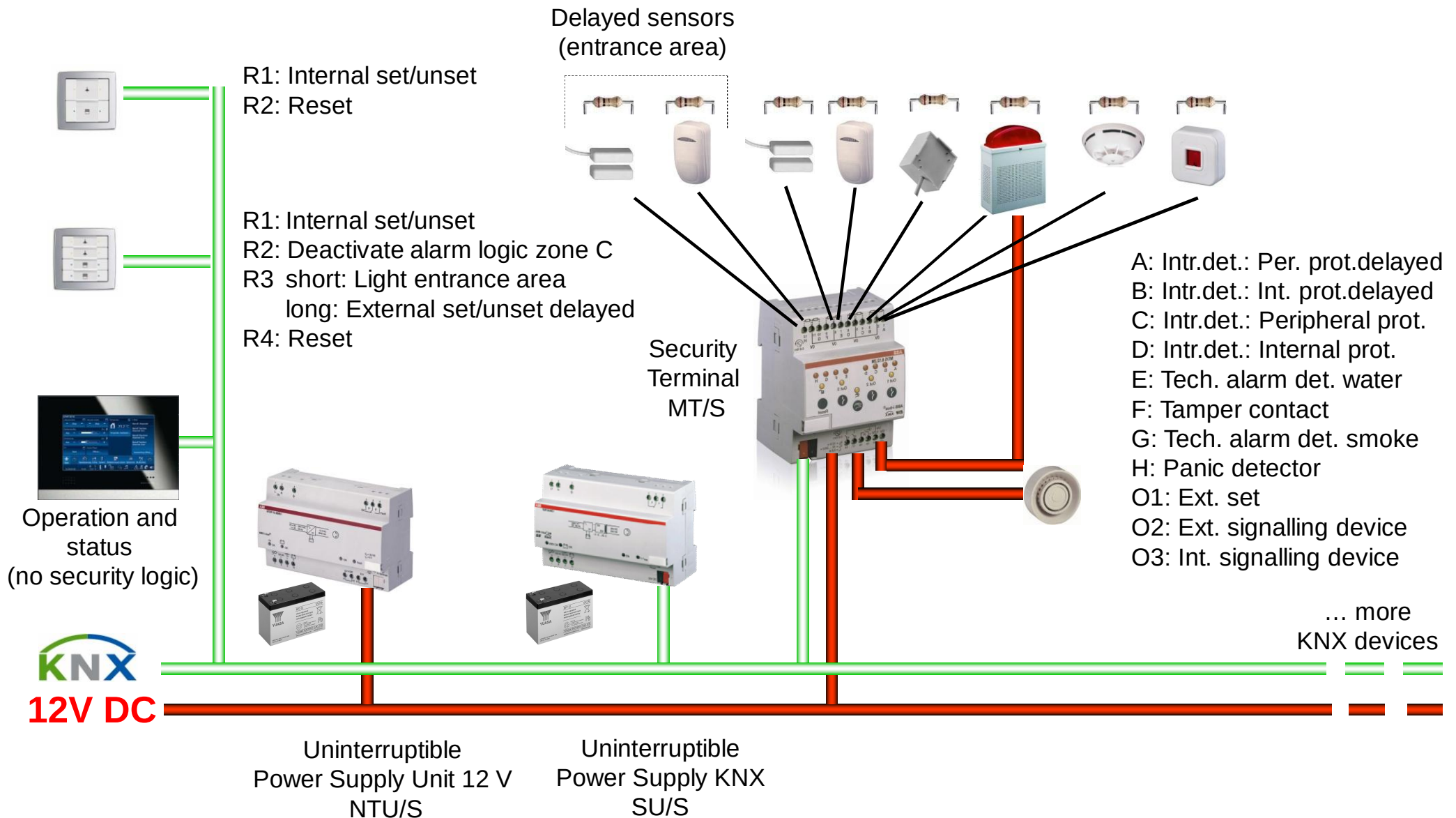
- § Security Terminal, 2-fold, FM
- § MT/U 2.12.2
- § 2CDG 110 111 R0011
- § Technical data
 - § 2 zones (=inputs)
 - § 2 x 12 V DC relay outputs (max. 0,6 A)
 - § 12 V DC auxiliary voltage (Current consumption: 13 - 83 mA)

Security Terminal MT/U 2.12.2, 2-fold



Basic Security Solution with one Security Terminal

Delayed setting/unsetting



Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Operation mode	stand-alone security system	stand-alone security system with Security Module / Intrusion alarm system
Manual operation	Sending and switching delay after bus voltage recovery in s [2...255]	2	
Setting/Unsetting	Enable communication object "In operation/error 12 V" 1 bit	yes	
Zone A	Send object value	not cyclical: 0 = OK, 1 = Error	
Zone B	Reset error 12 V	automatically, if error is eliminated	
Zone C	Sending alarm reports cyclically	no	
Zone D	Enable communication object "Request status values" 1 bit	yes	
Zone E	Request with object value	1	
Zone F			
Zone G			
Zone H			
Output 1			
Output 2			
Output 3			

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Operation mode	stand-alone security system
Manual operation	Sending and switching delay after bus voltage recovery in s [2...255]	2
Setting/Unsetting	Enable communication object "In operation/error 12 V" 1 bit	yes
Zone A	Send object value	not cyclical: 0 = OK, 1 = Error
Zone B	Reset error 12 V	automatically, if error is eliminated
Zone C	Sending alarm reports cyclically	no
Zone D	Enable communication object "Request status values" 1 bit	yes
Zone E	Request with object value	1
Zone F		
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

yes
no

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Operation mode	stand-alone security system
Manual operation	Sending and switching delay after bus voltage recovery in s [2...255]	2
Setting/Unsetting	Enable communication object "In operation/error 12 V" 1 bit	yes
Zone A	Send object value	not cyclical: 0 = OK, 1 = Error
Zone B	Reset error 12 V	automatically, if error is eliminated
Zone C	Sending alarm reports cyclically	no
Zone D	Enable communication object "Request status values" 1 bit	yes
Zone E	Request with object value	1
Zone F		
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

automatically, if error is eliminated via reset

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	
Manual operation	Manual operation enable/disable via push button
Setting/Unsetting	Reset from manual operation to automatic operation automatically and via push button
Zone A	
Zone B	
Zone C	
Zone D	
Zone E	
Zone F	
Zone G	
Zone H	
Output 1	
Output 2	
Output 3	

Manual operation	enable/disable via push button
Reset from manual operation to automatic operation	automatically and via push button
Time to reset automatic operation in s [10...6000]	60
Enable communication object "Status man. operation" 1 bit	yes
Send object value	after a change
Key "Reset"	enabled
Key "Out 1"	enabled
Key "Out 2"	enabled
Key "Out 3"	enabled

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Mode of setting/unsetting the system	normal
Manual operation	Period of message "Setting confirmation"	3s
Setting/Unsetting	Period of message "Unsetting confirmation"	3s
Zone A	Period of message "Error during setting"	3s
Zone B		
Zone C		
Zone D		
Zone E		
Zone F		
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

normal

delayed

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	
Manual operation	
Setting/Unsetting	
Zone A	
Zone B	
Zone C	
Zone D	
Zone E	
Zone F	
Zone G	
Zone H	
Output 1	
Output 2	
Output 3	

Mode of setting/unsetting the system	delayed	
Setting Delay in s [1...3600]	60	
Alarm Delay in s [1...3600]	60	
On triggering a delayed detector for peripheral protection when internally set	start alarm delay	
On closing a delayed detector for peripheral protection during setting delay	set the system	
Reaction of run-out of delay period	remain unset, send error message	
Period of message "Setting confirmation"	3s	
Period of message "Unsetting confirmation"	3s	
Period of message "Error during setting"	3s	

normal
delayed

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Mode of setting/unsetting the system	delayed
Manual operation	Setting Delay in s [1...3600]	60
Setting/Unsetting	Alarm Delay in s [1...3600]	60
Zone A	On triggering a delayed detector for peripheral protection when internally set	start alarm delay
Zone B	On closing a delayed detector for peripheral protection during setting delay	set the system
Zone C	Reaction of run-out of delay period	remain unset, send error message
Zone D	Period of message "Setting confirmation"	3s
Zone E	Period of message "Unsetting confirmation"	3s
Zone F	Period of message "Error during setting"	3s
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

start alarm delay
trigger alarm instantly

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Mode of setting/unsetting the system	delayed
Manual operation	Setting Delay in s [1...3600]	60
Setting/Unsetting	Alarm Delay in s [1...3600]	60
Zone A	On triggering a delayed detector for peripheral protection when internally set	start alarm delay
Zone B	On closing a delayed detector for peripheral protection during setting delay	set the system
Zone C	Reaction of run-out of delay period	remain unset, send error message
Zone D	Period of message "Setting confirmation"	3s
Zone E	Period of message "Unsetting confirmation"	3s
Zone F	Period of message "Error during setting"	3s
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

no reaction
set the system

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Mode of setting/unsetting the system	delayed
Manual operation	Setting Delay in s [1...3600]	60
Setting/Unsetting	Alarm Delay in s [1...3600]	60
Zone A	On triggering a delayed detector for peripheral protection when internally set	start alarm delay
Zone B	On closing a delayed detector for peripheral protection during setting delay	set the system
Zone C	Reaction of run-out of delay period	remain unset, send error message
Zone D	Period of message "Setting confirmation"	3s
Zone E	Period of message "Unsetting confirmation"	3s
Zone F	Period of message "Error during setting"	3s
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

set the system
remain unset, send error message

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Mode of setting/unsetting the system	delayed
Manual operation	Setting Delay in s [1...3600]	60
Setting/Unsetting	Alarm Delay in s [1...3600]	60
Zone A	On triggering a delayed detector for peripheral protection when internally set	start alarm delay
Zone B	On closing a delayed detector for peripheral protection during setting delay	set the system
Zone C	Reaction of run-out of delay period	remain unset, send error message
Zone D	Period of message "Setting confirmation"	3s
Zone E	Period of message "Unsetting confirmation"	3s
Zone F	Period of message "Error during setting"	3s
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

1s

2s

3s

4s

5s

6s

7s

8s

9s

10s

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.0.1 MT/S 8.12.2M Security Terminal, 8-fold, MDRC

General	Input	Intrusion detector: peripheral	Intrusion detector: internal protection
Manual operation			Intrusion detector: peripheral protection
Setting/Unsetting			Intrusion detector: internal protection, delayed
Zone A	Type of monitoring	End of line resistor (2.7 kOhm)	Intrusion detector: peripheral protection, delayed
Zone B	Deactivate alarm logic via communication object	no	Panic detector
Zone C			Tech. alarm detector 1
Zone D	Enable communication object "Alarm memory" 1 bit	no	Tech. alarm detector 2
Zone E			Tamper contact
Zone F	Set minimum signal time manually	no	Lock monitoring detector
Zone G			Setting/Unsetting input
Zone H			Reset input
Output 1			
Output 2			
Output 3			

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.0.1 MT/S 8.12.2M Security Terminal, 8-fold, MDRC		
General	Input	Intrusion detector: internal protection
Manual operation		Intrusion detector: peripheral protection
Setting/Unsetting		Intrusion detector: internal protection, delayed
Zone A	Type of monitoring	Intrusion detector: peripheral protection, delayed
Zone B		Panic detector
Zone C	Deactivate alarm logic via communication object	Tech. alarm detector 1
Zone D		Tech. alarm detector 2
Zone E	Enable communication object "Alarm memory" 1 bit	Tamper contact
Zone F		Lock monitoring detector
Zone G	Set minimum signal time manually	Setting/Unsetting input
Zone H		Reset input
Output 1		
Output 2		
Output 3		

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.0.1 MT/S 8.12.2M Security Terminal, 8-fold, MDRC

General	Input	Intrusion detector: per	Intrusion detector: internal protection
Manual operation			Intrusion detector: peripheral protection
Setting/Unsetting	Type of monitoring	End of line resistor (2.7 kOhm)	Intrusion detector: internal protection, delayed
Zone A			Intrusion detector: peripheral protection, delayed
Zone B	Deactivate alarm logic via communication object	no	Panic detector
Zone C			Tech. alarm detector 1
Zone D	Enable communication object "Alarm memory" 1 bit	no	Tech. alarm detector 2
Zone E			Tamper contact
Zone F	Set minimum signal time manually	no	Lock monitoring detector
Zone G			Setting/Unsetting input
Zone H			Reset input
Output 1			
Output 2			
Output 3			

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.0.1 MT/S 8.12.2M Security Terminal, 8-fold, MDRC

General	Input	Intrusion detector: peripheral protection	
Manual operation	Type of monitoring	End of line resistor (2.7 kOhm)	↔
Setting/Unsetting	Deactivate alarm logic via communication object	no	
Zone A	Enable communication object "Alarm memory" 1 bit	no	
Zone B	Set minimum signal time manually	no	
Zone C			
Zone D			
Zone E			
Zone F			
Zone G			
Zone H			
Output 1			
Output 2			
Output 3			

Closed circuit (N/C)

Open circuit (N/O)

End of line resistor (2.7 kOhm)

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.0.1 MT/S 8.12.2M Security Terminal, 8-fold, MDRC

General	Input	Intrusion detector: peripheral protection
Manual operation	Type of monitoring	End of line resistor (2.7 kOhm)
Setting/Unsetting	Deactivate alarm logic via communication object	no
Zone A	Enable communication object "Alarm memory" 1 bit	no
Zone B	Set minimum signal time manually	no
Zone C		
Zone D		
Zone E		
Zone F		
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

yes

no



Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.0.1 MT/S 8.12.2M Security Terminal, 8-fold, MDRC

General	Input	Intrusion detector: peripheral protection
Manual operation	Type of monitoring	End of line resistor (2.7 kOhm)
Setting/Unsetting	Deactivate alarm logic via communication object	no
Zone A	Enable communication object "Alarm memory" 1 bit	no
Zone B	Set minimum signal time manually	no
Zone C		
Zone D		
Zone E		
Zone F		
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

yes

no



Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.0.1 MT/S 8.12.2M Security Terminal, 8-fold, MDRC

General	Input	Tech. alarm detector 1		Intrusion detector: internal protection
Manual operation	Type of monitoring	End of line resistor (2.7 kOhm)		Intrusion detector: peripheral protection
Setting/Unsetting	Deactivate alarm logic via communication object	no	Intrusion detector: internal protection, delayed	
Zone A	Enable communication object "Alarm memory" 1 bit	no	Intrusion detector: peripheral protection, delayed	
Zone B	Prevent setting if zone detects a fault	no	Panic detector	
Zone C	Reset technical alarm	automatically, if error is eliminated	Tech. alarm detector 1	
Zone D	Set minimum signal time manually	no	Tech. alarm detector 2	
Zone E			Tamper contact	
Zone F			Lock monitoring detector	
Zone G			Setting/Unsetting input	
Zone H			Reset input	
Output 1				
Output 2				
Output 3				

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Operating mode of output	via communication object		no function
Manual operation	Enable time function	no		via communication object
Setting/Unsetting	Invert output	no		via device state
Zone A	Output behavior after bus voltage recovery	contact unchanged		
Zone B				
Zone C				
Zone D				
Zone E				
Zone F				
Zone G				
Zone H				
Output 1				
Output 2				
Output 3				

Security Terminal

ETS4 Parameter – stand-alone security system

Device: 1.1.1 MT/S8 stand-alone

General	Operating mode of output	via device state
Manual operation	Select device state	Unset
Setting/Unsetting	Enable time function	no
Zone A	Invert output	no
Zone B		
Zone C		
Zone D		
Zone E		
Zone F		
Zone G		
Zone H		
Output 1		
Output 2		
Output 3		

Unset
Ready to set (internally)
Ready to set (externally)
Delay time is active
Error during setting
Internally set
Externally set
Intrusion alarm
Panic alarm
Technical alarm
Tamper alarm
Internal signaling device
External signaling device
Reset
Auxiliary supply voltage o.k.

Security Terminal

ETS4 Communication Objects – stand-alone sec. sys.

	Number ▲	Name	Object Function	Length
➡	0	Device state	In operation/error 12 V	1 bit
➡	1	Setting/Unsetting	Internal setting/unsetting	1 bit
➡	2	Setting/Unsetting	Status internally set	1 bit
➡	3	Setting/Unsetting	External setting/unsetting	1 bit
➡	4	Setting/Unsetting	Status externally set	1 bit
➡	5	Setting/Unsetting	Status int. or ext. set	1 bit
➡	6	General	Reset	1 bit
➡	7	General	Status reset	1 bit
➡	11	Output 1	Status	1 bit
➡	12	Output 2	Status	1 bit
➡	13	Output 3	Status	1 bit
➡	14	Manual operation	Enable/block manual operation	1 bit
➡	15	Manual operation	Status of manual operation	1 bit
➡	16	Setting/Unsetting	Ready to set (internally)	1 bit
➡	17	Setting/Unsetting	Ready to set (externally)	1 bit
➡	18	Setting/Unsetting	Setting confirmation	1 bit
➡	19	Setting/Unsetting	Unsetting confirmation	1 bit
➡	20	Setting/Unsetting	Error during setting	1 bit
➡	21	Setting/Unsetting	Delay time is active	1 bit
➡	22	Setting/Unsetting	Alarm delay is active	1 bit

Security Terminal

ETS4 Communication Objects – stand-alone sec. sys.

	Number ▲	Name	Object Function	Length
➡	23	Alarming	Internal signaling device	1 bit
➡	24	Alarming	External signaling device	1 bit
➡	25	Alarming	Intrusion alarm	1 bit
➡	26	Alarming	Panic alarm	1 bit
➡	27	Alarming	Technical alarm	1 bit
➡	28	Alarming	Tamper alarm	1 bit
➡	30	Zone A	Status	1 bit
➡	31	Zone B	Status	1 bit
➡	32	Zone C	Status	1 bit
➡	33	Zone D	Status	1 bit
➡	34	Zone E	Status	1 bit
➡	35	Zone F	Status	1 bit
➡	36	Zone G	Status	1 bit
➡	37	Zone H	Status	1 bit
➡	40	Zone C	Alarm memory	1 bit
➡	56	Zone C	Deactivate alarm logic	1 bit
➡	62	Device state	Request status values	1 bit

Basic Security Solution with one Security Terminal

Delayed setting/unsetting

...	Name	Group Addresses
0	Rocker switch 1.0 - Switching	5/2/1
1	LED rocker 1 left.0 - Status	5/2/2
2	LED rocker 1 right.0 - Status	5/2/2
3	Rocker switch 2.0 - Switching	5/2/56
4	LED rocker 2 left.0 - Status	5/2/56
5	LED rocker 2 right.0 - Status	5/2/56
6	Rocker switch 3 left.0 - Value switching for short	6/0/111
7	Rocker switch 3 left.1 - Value switching for long	5/2/3
8	Rocker switch 3 right.0 - Value switching for short	6/0/111
9	Rocker switch 3 right.1 - Value switching for long	5/2/3
10	LED rocker 3 left.0 - Status	5/2/21
11	LED rocker 3 right.0 - Status	5/2/4
12	Rocker 4.0 - Value switching	5/2/6
13	LED rocker 4 left.0 - Status	5/2/7
14	LED rocker 4 right.0 - Status	5/2/7

Nu...	Group A...	Name	Object Function	Length
0	5/2/0	Device state	In operation/error 12 V	1 bit
1	5/2/1	Setting/Unsetting	Internal setting/unsetting	1 bit
2	5/2/2	Setting/Unsetting	Status internally set	1 bit
3	5/2/3	Setting/Unsetting	External setting/unsetting	1 bit
4	5/2/4	Setting/Unsetting	Status externally set	1 bit
5	5/2/5	Setting/Unsetting	Status int. or ext. set	1 bit
6	5/2/6	General	Reset	1 bit
7	5/2/7	General	Status reset	1 bit
11	5/2/11	Output 1	Status	1 bit
12	5/2/12	Output 2	Status	1 bit
13	5/2/13	Output 3	Status	1 bit
15	5/2/15	Manual operation	Status of manual operation	1 bit
16	5/2/16	Setting/Unsetting	Ready to set (internally)	1 bit
17	5/2/17	Setting/Unsetting	Ready to set (externally)	1 bit
18	5/2/18	Setting/Unsetting	Setting confirmation	1 bit
19	5/2/19	Setting/Unsetting	Unsetting confirmation	1 bit
20	5/2/20	Setting/Unsetting	Error during setting	1 bit
21	5/2/21	Setting/Unsetting	Delay time is active	1 bit
22	5/2/22	Setting/Unsetting	Alarm delay is active	1 bit
23	5/2/23	Alarming	Internal signaling device	1 bit
24	5/2/24	Alarming	External signaling device	1 bit
25	5/2/25	Alarming	Intrusion alarm	1 bit
26	5/2/26	Alarming	Panic alarm	1 bit
27	5/2/27	Alarming	Technical alarm	1 bit
28	5/2/28	Alarming	Tamper alarm	1 bit
30	5/2/30	Zone A	Status	1 bit
31	5/2/31	Zone B	Status	1 bit
32	5/2/32	Zone C	Status	1 bit
33	5/2/33	Zone D	Status	1 bit
34	5/2/34	Zone E	Status	1 bit
35	5/2/35	Zone F	Status	1 bit
36	5/2/36	Zone G	Status	1 bit
37	5/2/37	Zone H	Status	1 bit
38	5/2/38	Zone A	Alarm memory	1 bit
39	5/2/39	Zone B	Alarm memory	1 bit
40	5/2/40	Zone C	Alarm memory	1 bit
41	5/2/41	Zone D	Alarm memory	1 bit
44	5/2/44	Zone A	Deactivate alarm logic	1 bit
55	5/2/55	Zone B	Deactivate alarm logic	1 bit
56	5/2/56	Zone C	Deactivate alarm logic	1 bit
57	5/2/57	Zone D	Deactivate alarm logic	1 bit
62	5/2/62	Device state	Request status values	1 bit

R1: Request Internal set/unset

LED R1 left: Status Internal set

LED R1 right: Status Internal set

R2: Deactivate alarm logic zone C

LED R2 left: Status Deactivate alarm logic zone C

LED R2 right: Status Deactivate alarm logic zone C

R3 short: Light entrance area on/off

R3 long: Request External set/unset - delayed

LED R3 left: Alarm/Delaytime active

LED R3 right: Status External set

R4: Request Reset (left and right „1“)

LED R4 left: Status Reset

LED R4 right: Status Reset

Security Terminals

Advantages MT/... vs. Binary Input

- § Monitored lines protect against manipulation (tamper) or damage by mistake
- § Max. length of input-line of a Security Terminal is greater than an input line of a normal push-button interface
- § The zone-lines are galvanic isolated to the KNX line
- § The Security terminal is able to reset certain sensors (e.g. glass breakage sensors) by a short-circuit of the line
- § The zone input is compatible to security sensors
- § The control signals „Walk Test“ and „Set/Unset“ allow the connection of motion detectors and setting devices

Hazard Warning System: Approved Security with KNX



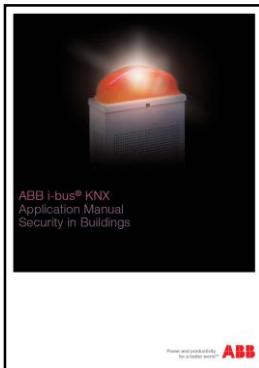
- § This system is based on special adjusted ABB i-bus KNX devices which are combined for the reliable detection and warning of intrusion attempts and technical hazards
- § The high technical and functional quality of the used ABB i-bus KNX devices has been approved by the German VdS Schadenverhütung GmbH, an independent institution certifying solutions in the field of security and fire protection
- § The VdS has awarded the VdS certificate 3438 to the ABB Hazard Warning System, which guarantees reliability and a well-tested function
- § Based on special adjusted ABB i-bus KNX devices, e.g. Security Terminals MT/S

Security Terminals Documentation



§ Product Manual: Security Terminals
Order Number 2CDC 513 038 D0201

§ Product Information: Security Solutions with KNX
Order Number 2CDC 513 045 D0201



§ Application Manual: Security in Buildings
Order Number CDC 500 074 M0201



§ E-Learning module: Security Terminals from ABB

E-Learning module: Security Terminals from ABB

ABB i-bus KNX Security Terminals - Windows Internet Explorer provided by IBM

http://knx-gebaeudesysteme.de/sto_g/English/ELEARNING/MTS/player.html

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ABB i-bus KNX Security Terminals

ABB i-bus KNX Security Terminals (11:31 / 15:07) ATTACHMENTS EXIT

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Standard security solution Single Security Terminal

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