GSM Switch
GS 300

Socket outlet driven by Mobile Phone

User's Guide

**Mikrovlny s.r.o., www.mikrovlny.cz**

1. Description

GSM Switch is designated for remote appliance control by SMS or ring-on from mobile phone. Also GSM Switch can be used as thermostat due to integrated thermal sensor. Other inputs and outputs are – relay output, real time clock and microphone for tapping.

GSM Switch can drive appliance powered by 230V and max. current is 10A.

GSM Switch features:

- Turn ON/OFF connected appliance by SMS or Ring-on: 230V, 10A
- Turn ON/OFF connected devices by SMS or Ring-on: 50V, 0.5A
- Computer Server restart
- Power input and Temperature monitoring
- Other sensors: motion detector, gas detector, door open switch, voltmeter with recorder
- Tapping
- Thermostat function
- Temperature alarm
- Time planning
- Security alarm
- Can be driven by SMS from internet
- Planed switching ON/OFF
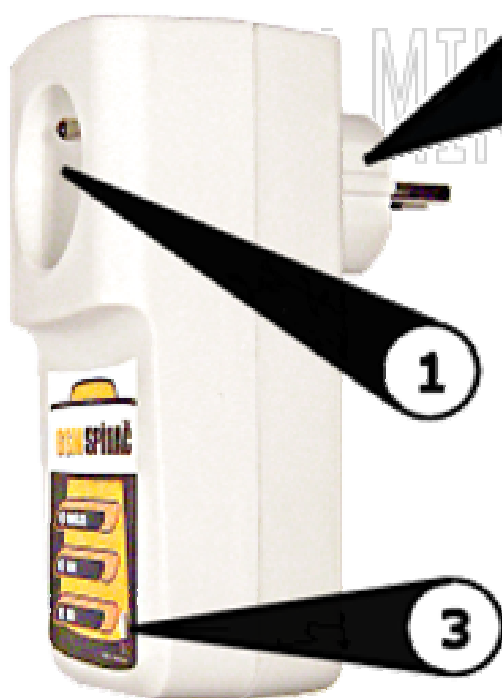
1 .   SMS driven output outlet

2 .   Power input 230V

3 . Tapping microphone
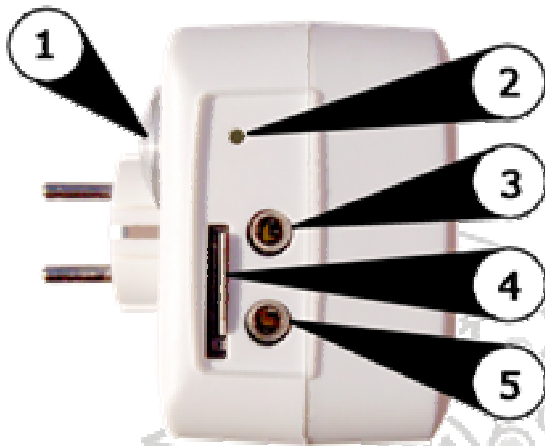
1. **1.** Temperature sensor

2. **2.** Control button for state switch or factory setting

3. **3.** Output JACK1 - toggle

4. **4.** SIM card slot

5. **5.** Input JACK2 for sensors (gas detection, motion detector etc.)

2. Instalation

2.1. Connection
- Insert SIM card into SIM card slot like on left figure. By pressing SIM card next time you can remove it. (*SIM card should have turned OFF PIN check. PIN check should be set in mobile phone. Please see documentation for your mobile phone.*)
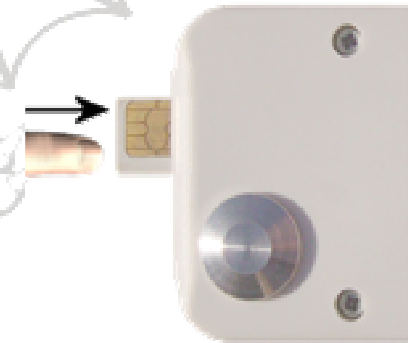
- In case when PIN check is turned ON, GSM indicator is flashing – see Error codes chapter (10.2).
- Connect GSM Switch to 230VAC.
- All indicators are flashing for a while, then start self testing for 10 sec.
- When done, RED indicator Power is shining.
- GSM indicator is flashing (GREEN) when is looking for network. After network register flash for short time each 2 sec.
- Relay indicator is shining/dark if output is ON/OFF.
- Now is GPS Switcher prepared for using.

2.2. Basic Operating

Commands are send by SMS to phone number assigned with inserted SIM card.

 Command example:
1. pinCOMMAND - e.g. 1234Vypni– *If pin check is turned ON SMSPIN=1234*
2. COMMAND - e.g.   Vypni – *with PIN check (default)*

SMS commands has two types:
1. Control -   are used to operate outlet in any time. Are used with SMS PIN and list of Allowed numbers.
2. Configure – are used for configuration other services without any security restriction, but Configure commands can be used only in first 10 minutes after turn ON or after last Configure command.

Commands for base outlet control			
SMS command	*Description*	*SMS response*	*Command Type*
TUNROFF	Turn OFF outlet and JACK1 output	TurnedOFF	*Control*
TURNON	Turn ON outlet and JACK1 output	TurnedON	*Control*
TURNOFF=123	Turn OFF outlet for 123 minutes, max. 180 min	TurnedOFF 123 min	*Control*
TURNON=123	Turn ON outlet for 123 minutes, max. 180 min	TurnedON 123 min	*Control*
TURNON1	Turn ON outlet	TurnedON	*Control*
TURNOFF1	Turn OFF outlet	TurnedOFF	*Control*
TURNON2	Turn ON JACK1	TurnedON	*Control*
TURNOFF2	Turn OFF JACK1	TurnedOFF	*Control*
RESTART	Change Relay state for certain time period	Restarted	*Control*
STATUS	Return switch status	TurnedOFF, Temperature = 25°C, Signal = 35%, Input=Disconnect, Time= rr/mm/dd,hh:mm:ss, Alarm ACT *	*Control*
RINGON	Call back, important for pre-paid SIM card	This SMS is not confirmed	*Control*
CREDIT*XX#	Return credit amount on SIM card	Your credit is XXX	*Control*
	VODAFONE KREDIT*22# EUROTEL KREDIT*102# T-MOBILE KREDIT*101#		

* -Temperature is shown in 10 minutes after GSM switch restart. Alarm is shown after activation by **ACT** or **DIS** event from JACK2 when alarm is activated. When alarm is deactivated and there is some activity on input sensor, message **DET** is shown. In normal operating mode is ZAP or VYP message returned.

"Input" shown actual value on input JACK2. JACK2 can be used for status monitoring. In case CREDID command, GSM Switch return the same message like in mobile phone after entering *XX# code,(codes 22,102 and 101 are used in Czech Republic!)

If you enter wrong command, there is no Error message. Please test command(s) function before using it. If you enter wrong command, you can reconfigure your SIM card. Command TURNON/TURNOFF=123 and power outage is time count down from last value before power outage.

2.3. Control by RING-ON

GSM Switch can be controlled by Ringing-on. To set action which start after incoming call is command **RINGING.**

Commands for outlet control			
SMS command	*Description*	*SMS response*	*Command Type*
RINGING=NOACTION	Hang up incoming call	RINGING=NOACTION - OK	*Configure*
RINGING=RESTART	Restart after incoming call, hang up	RINGING=RESTART - OK	*Configure*
RINGING=SWITCH	Switch the outlet, hang up	RINGING=SWITCH - OK	*Configure*
RINGING=TAPPING	Answer the phone and start tapping for one minute	RINGING=TAPPING - OK	*Configure*
RINGING?	Return options for Ring-on configuration. In parenthesis is current settings	RINGING=(NOACTION),REST ART,SWITCH,TAPPING	*Configure*

To set Time delay for **RESTART** you can use command **RESTARTTIME**.

Restart Time setiings			
SMS Command	*Description*	*SMS response*	*Command Type*
RESTARTTIME=XXX	Time in sec. for RESTART, 1 to 180 sec	RESTARTTIME=XXX - OK	*Configure*
RESTARTTIME?	Current settings	RESTARTTIME=10 second	*Configure*

2.4. Manual Control

GSM switch can be controlled by small button beside the SIM card slot (figure on the right). By short press you can turn ON/OFF output outlet.

3. Safety

GSM Switch can be configured for maximum safety to avoid unauthorized Switch control.
There are two authorization types:
- Allowed phone numbers
- SMS PIN

Both types can be used together. In first case, GSM switch can be controlled only from allowed phone numbers. In second case, only SMS with correct pin are accepted by GSM Switch.

Note: SMS PIN is different from SIM card PIN, it is some kind of security code written in control SMS.

3.1. Basic security settings

Security commands

Advanced configuration			
SMS command	*Description*	*SMS response*	*Command Type*
SMSPIN=NOPIN	Turn OFF PIN checking	SMSPIN = NOPIN - OK	*Configure*
SMSPIN=1234	Turn ON PIN checking	SMSPIN=1234 - OK	*Configure*
SMSPIN?	Show current settings	SMSPIN = (NOPIN), 1234	*Configure*
PERMITNUMBER=NO	Turn OFF allowed numbers checking	PERMITNUMBER=NE – OK	*Configure*
PERMITNUMBER=YES	Turn ON allowed numbers checking	PERMITNUMBER=ANO – OK	*Configure*
PERMITNUMBER= CHECKLIST	Return list of allowed numbers	Nothing or list of allowed numbers XXX	*Configure*
PERMITNUMBER?	Show current settings	PERMITNUMBER=(NE),ANO,CHECKLIST	*Configure*
PERMITNUMBER+420 XXXXXXXXX	Insert allowed number for outlet control.	PERMITNUMBER+420XX XXXXXXX, OK	*Configure*
PERMITNUMBER- 420XXXXXXXXX	Remove number from allowed number(s) list.	PERMITNUMBER- 420XXXXXXXXX - OK	*Configure*
PERMITNUMBER-ALL	Delete whole allowed numbers list	PERMITNUMBER-ALL – OK	*Configure*
SMSWWW=NO	Disable control by SMS sent from Internet	SMSWWW=NO - OK	*Configure*
SMSWWW=YES	Enable control by SMS sent form Internet	SMSWWW=YES - OK	*Configure*
SMSWWW?	Show current settings	SMSWWW=(NO),YES	*Configure*

List of Allowed numbers can hold 7 numbers (15 characters long)

4. Confirmation SMS

Confirmation SMS is used for information that Command was executed successfully. In case of Incoming call GSM switch use Confirmation by Ring-on.

Confirmation SMS			
SMS command	*Description*	*SMS response*	*Command Type*
SMSCONFIRM= YES	Enable confirmation SMS	SMSCONFIRM = YES - OK	*Configure*
SMSCONFIRM=NO	Disable confirmation SMS	SMSCONFIRM = NO - OK	*Configure*
SMSCONFIRM?	Show current settings	SMSCONFIRM = NO,(YES)	*Configure*
RINGCONFIRM=YES	Enable confirmation by Ring-on. Hang up after 10 sec.	RINGCONFIRM = YES - OK	*Configure*
RINGCONFIRM=NO	Disable confirmation by Ring-on.	RINGCONFIRM = NO - OK	*Configure*
RINGCONFIRM?	Show current settings	RINGCONFIRM = (NO),YES	*Configure*
BADRESPONSE=YES	Inform about wrong commands	BADRESPONSE = YES - OK	*Configure*
BADRESPONSE=NO	Disable wrong commands info	BADRESPONSE = NO - OK	*Configure*
BADRESPONSE?	Show current settings	BADRESPONSE = NO,(YES)	*Configure*

5. Thermostat settings

GSM switch has integrated temperature sensor, you can get actual sensor temperature by SMS command **STATUS.** Sensor is used for Thermostat function – switch on or off output outlet depend on temperature boundaries.

Thermostat settings			
SMS command	*Description*	*SMS response*	*Command Type*
THERMOSTAT=NO	Disable temperature check	THERMOSTAT = NO - OK	*Control*
THERMOSTAT=YES	Enable temperature check	THERMOSTAT= YES - OK	*Control*
TEMPON=XX	Temp boundary for switch ON output outlet if value is bellow this value. Default value: 20	TEMPON = XX - OK	*Control*
TEMPOFF=XX	Temp boundary for switch OFF output outlet if temp value exceed this settings. Default value: 25	TEMPOFF = XX - OK	*Control*
THERMOSTAT?	Show current settings	THERMOSTAT = (NO), YES ON=20 OFF=25	*Control*

e.g. for turn ON heating between 20 and 30 °C you set:
THERMOSTAT=YES,
TEMPON=20, TEMPOFF=30, *for air condition* **TEMPON=30, TEMPOFF=20.**

5.1. Temperature calibration settings

Temperature sensor is placed near the other electronic parts and temperature measuring can be inexact, because other electronic parts are heating the sensor. Temperature value is accessible by **STATUS** command after 10 minutes from GSM Switch turn ON, when the temperature is stable in all system. In system is used correction constant to disable electronic influence in temperature measurement. This constant is subtracted from measured temperature.

Temperature calibration			
SMS command	*Description*	*SMS response*	*Command Type*
TEMPCAL=X	Calibration constant settings	TEMPCAL = X - OK	*Configure*
TEMPCAL?	Show current settings	TEMPCAL=4	*Configure*

Note: Calibration constant is from factory set to 4 ° C. The range of calibration constant is 1 do 9° C.

6. Actual date and time setting

You can set actual date and time by **DATE** commands. There are two ways how to set datum and time by this command:
- Automatic – used Date and Time from incoming SMS
- Manual – you can enter any time by using this command format
  DATE=yy/mm/dd,hh:mm:ss+zz
  zz is time zone – enter with + or - sign.

GSM Switch has own time generator, which is back-upped by battery for at least 16 hours in Power outage.

Aktuální čas			
SMS command	*Description*	*SMS response*	*Command Type*
DATE	Set date and time from incoming SMS	DATE yy/mm/dd,hh:mm:ss+zz - OK	*Configure*
DATE=yy/mm/dd,hh:mm:ss+zz	Set date and time from command.	DATE=rr/mm/dd,hh:mm:ss+zz – OK	*Configure*
DATE?	Show current settings	DATE rr/mm/dd,hh:mm:ss+zz	*Configure*

6.1. Time planning

GSM Switch can be used as Timer switch. There is Plan function which can hold 8 entries.

Timer planning			
SMS command	*Description*	*SMS response*	*Command Type*
SCHEDULER+ hh:mm,*,ON	Store entry for switch ON output outlet in entered time each day	SCHEDULER+ hh:mm,*,ON - OK	*Control*
SCHEDULER-hh:mm	Remove time plan entry	SCHEDULER-hh:mm - OK	*Control*
SCHEDULER?	Show current settings	hh:mm,*,ACTION	*Control*

Asterisk character (*****) is used for any day in week. If you enter number instead asterisk, the command will be executed in selected time only in entered day.

Day number:
1 – Monday, 2 – Tuesday , 3 - Wednesday , 4 – Thursday, 5 – Friday, 6 – Saturday, 7 – Sunday

Commands for outled shoud be: **ON** or **OFF** for turn ON or turn OFF output outlet in entered time or command **INF** for information send to number configured by **ALARM** command described in chapter 7.

Only 8 entries can by stored in Timer planning.

Timer planning command **SCHEDULER?** response example (5 actions is stored)

|	***Description***
10:00,*,ON	each day in 10:00 turn on outlet
14:30,*,OFF	each day in 14:30 turn off outlet
01:00,1,AON	each Monday in 1:00 turn on alarm
02:00,2,AOF	each Tuesday in 2:00 turn off alarm
02:11,3,INF	each Wednesday in 2:11 send status about output outlet

7. Alarm

Alarm function is one from most important. You can watch actual status of GSM Switch and connected sensors. Also you can turn on automatic Alarm watch or you can see sensor activation history. This history is stored independent from alarm settings. For example if Motion sensor is connected, into sensor activation history is written each sensor activity. This activity can turn on Alarm, switch outlet, ring-on selected number, send SMS or switch JACK1 output.

Input JACK2 for external sensors   Output JACK1 micro-relay
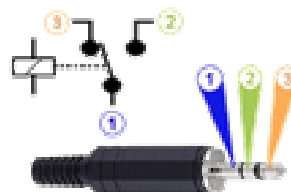
If the external sensor is correctly connected, the LED power indicator change color from RED to Green. If GSM Switch detect change on Sensor input, LED indicator start fast flashing. Alarm commands are listed in next table.

Alarm functions			
SMS command	*Description*	*SMS response*	*Command Type*
ALARM+420123456789	Enter callback (or SMS) number for Alarm activate message	ALARM+420123456789 - OK	*Command*
ALARMON	Enable alarm	ALARMON 420123456789 - OK	*Command*
ALARMOFF	Disable alarm	ALARMOFF - OK	*Command*
Error status			
Alarm – No sensor	No sensor connected.		*Error*
Alarm - No number	No callback number		*Error*

If the Alarm is configured, power LED indicator starts flashing in 1 sec. interval.

If the Alarm is activated, power LED indicator change color to RED and starts fast flashing. Selected action is immediately executed. You can configure alarm action by **ALERT** command.

Alert functions			
SMS command	*Description*	*SMS response*	*Command Tpe*
ALERT=RINGON	Ring-on in alarm is activated	ALARM+420123456789 - OK	*Configure*
ALERT=SMS	Send SMS in alarm is activated	ALERT=SMS - OK	*Configure*
ALERT=SMSCHANGE	If input state changed, sent a SMS	ALERT=SMSCHANGE -OK	*Configure*
ALERT?	Show current settings	ALERT=(RINGON),SMS, SMSCHANGE	*Configure*

If you choose Ring-on action, when alarm is activated, GSM switch call to selected number for 30 sec. After 1 minute is GSM Switch prepared for new alarm event. This function can be used with PIR motion sensor. This function isn't useful for Door contacts or other sensors which stay in activated mode, because GSM switch will execute alarm action each minute (there is still reason for alarm action). In this case you can use command **ALERT=SMSCHANGE**. This command is also useful for UPS monitoring, in case alarm detection GSM Switch send SMS related to input change.

7.1. Output JACK1 settings for ALARM

This output can be set to turn ON connected device like Alarm Horn or other.

Alarm functions , control output JACK1			
SMS command	*Description*	*SMS response*	*Command Type*
ALARMOUTPUT=XXX	In alarm case, switch output for time period defined by XXX, range 0 to 180 sec, 0 disable this function	ALARMOUTPUT=XXX - OK	*Configure*
ALARMOUTPUT?	Show current settings	ALARMOUTPUT=XXX seconds	*Configure*

Note: If alarm output is configured, you can't use **TURNON2** and **TURNOFF2** commands for this output.

7.2. Time when alarm was activated

You can get list of Alarm or sensor events by DUMPALARM=XX Command. Last 5 events are stored, first one is most current.

Alarm function , events dump			
SMS command	*Description*	*SMS response*	*Command Type*
DUMPALARM=XX	Return all alarm/sensor events with time.	yy/mm/dd:hh:ss	*Control*

This function is useful for monitoring person movement with disabled Alarm function. Entries are updated witch each JACK2 input change.

Important note: If alarm is activated **(ALARMON)**, you can deactivate it by small button beside SIM card slot then you can control JACK1 output and factory settings – see chapter 11. You can use more sensors with branch piece (see figure on bottom) but watch out the maximum power load - 50mA.

7.3. Temperature Alarm

If you like to be informed about exceeding temperature boundaries, use **TMEPALARM** command. This command is an extension of **TEMPON=MAX** and **TEMPOFF=MIN.** configuration, also is used in Thermostat function.
For proper functionality you have to set Alarm number by **ALARM+0420123456789** command.

Temperature boundary watching is activated 10 minutes after turning ON GSM Switch or after last configuration.

Temperature alarm functions			
SMS command	Description	SMS response	Command Type
TEMPALARM=NE	Disable temp. watching	TEMPALARM=NO - OK	Control
TEMPALARM=MAX	Send SMS if MAX temperature is exceeded	TEMPALARM=MAX - OK	Control
TEMPALARM=MIN	Send SMS if temperature is bellow MIN temp.	TEMPALARM=MIN -OK	Control
TEMPALARM=MIX	Send SMS in both cases (MIN or MAX)	TEMPALARM=MIX -OK	Control
TEMPALARM?	Show current settings	TEMPALARM=(NO),MAX,MIN,MIX	Control

Note:
- In case of temperature alarm, GSM Switch send: **Alarm ! Temperature : XX C**. To avoid unwanted messaging due temperature changing, temperature must achieve both boundaries. For example – if MAX is exceed, GSM Switch send a SMS. Other SMS is sent after MIN temperature is achieved and after then MAX temperature is exceeded.

8. Other SMS commands

Other			
Power outlet state after power outage			
SMS Command	*Description*	*SMS response*	*Command Type*
OUTPUT=REMEMBER	Set output outlet to state which was before GSM Switch was turned OFF	OUTPUT=REMEMBER – OK	*Configure*
OUTPUT=ON	After turn ON is power outlet always ON	OUTPUT=ON - OK	*Configure*
OUTPUT=OFF	After turn ON is power outlet always OFF	OUTPUT=OFF - OK	*Configure*
OUTPUT?	Show current settings	OUTPUT=(REMEMBER),ON,OFF	*Configure*
Input JACK2 settings for alarm detect			
INPUT=DISCONNECT	Alarm status for sensor is set to Not Connected. If status changed to Not Connected, alarm function is executed.	INPUT=DISCONNECT -OK	*Configure*
INPUT=CONNECT	Alarm status sensor is set to connected, Alarm function is executed if 0V is switched on Input. Almost all PIR sensors have this behavior.	INPUT=CONNECT - OK	*Configure*
INPUT?	Show current settings	INPUT=DISCONNECT, (CONNECT)	*Configure*
Version of firmware			
VERSION	Show Firmware version	Ver. 1.0.8 © 2008	*Control*

9. SMS Error response
Error messages are sent only if they are Enabled – see chapter 3.

Error SMSm list	
SMS response	*Description*
Error !	Wrong command or incorrect SMS PIN.
Not permited !	Number is not in allowed numbers list.
Timeout !	Configuration SMS Timeout, you have to Restart GSM Switch. Timeout is 10 minutes after power on or last configuration command.
Full memory !	Memory for Allowed numbers is Full – only 7 numbers can be stored
No sensor	No sensor connected - Alarm related error.
No number	No alarm callback number entered or entered number isn't in allowed numbers list.
No record	Nothing to Erase – in case allowed numbers list or alarm history entry delete

10. LED indicators

10.1. Function indicator

GSM Switch has 3 color LED indicator on main panel:

Power - red, continuous light indicate Power ON, fast flashing for times per second indicated Alarm enabled detection
Green, continuous light = external sensor is connected. Fast flashing four times per second indicated alarm detection without alarm activation.

GSM - green, indicate GSM network, flashing one time per second – looking for GSM network, short flashing – successfully registered in GSM Network.

Relay - yellow, continuous light/dark – indicated outlet status – ON/OFF

10.2. Error indication

Power - red, flashing two times per second – no SIM card inserted

GSM - green, flashing two times per second, SIM card with PIN enabled was inserted. You have to turn OFF PIN check in your mobile phone. Please see documentation of your phone.

Relay - yellow, fast flashing, HW error – for example due to invalid GSM module and etc.

11. Control button

11.1. Manual Power ON/OFF output outlet

Power outlet can be controlled by small button beside SIM card slot. By short press you can turn ON or OFF outlet.

11.2. Default (factory) settings

Default (factory) configurations can be set by pressing control button for 5 sec. After release all LED indicators flashing for few times. By other short button press are Default values set.

Default settings				
Command	**Value**		**Command**	**Value**
RINGING	NO		THERMOSTAT	NO
RESTARTTIME	10		TEMPON	20
SMSPIN	NOPIN		TEMPOFF	25
PERMITNUMBER	NO		ALARMOUTPUT	0
SMSWWW	NO		OUTPUT	REMEMBER
SMSCONFIRM	YES		INPUT	CONNECT
RINGCONFIRM	NO		TEMPALARM	NO
BADRESPONSE	YES		ALERT	RINGON

12. Technical Parameters

| Model	GSM SOCKET GS300
Power	230V, CEE 7/7, 15mA
Output otlet	230V, CEE 7/4, 10A (resistance load)
Working temperature	0 to 50° C, max 80%
Working condition	Normal
Output JACK1, 3 pins	50V , 0.5A, switching
Input JACK2, 3 pins	GND, INPUT, 12V, power load max. 50mA with electronic 140mA shorting fuse.
GSM	900 / 1800 MHz
SIM	Plug-in 3V
Antenna	Inner
Configuration	By SMS
Temperature sensor	Precision +-2° C, range 0 – 50°C
LED indicators	1x due color POWER, 1x green GSM, 1x yellow RELAY
Weight	0.31 kg
Dimensions HxWxD/h+outlet	140x65x55/92 mm
Features	Switch ON/OFF connected appliance
	Remote restart
	Temperature monitoring
	Input Monitoring/Alarm
	Tapping
	Sensors watching
Security	SMS PIN and allowed numbers list

13. Maintenance and safeness
- Is forbidden disassembly this device or used it disassembled.
- Device is not designed to secure unplugging appliances from power, it's designed for switch ON or OFF connected appliance.
- GSM Switch hasn't his own Fuse, must be connected to power network with protection.
- GSM Switch is not Alarm – it's just bonus feature of this device.
- GSM Switch is designed for In Door usage. Don't expose GSM Switch to humid, wet or chemically aggressive environment. Don't expose GSM Switch to shake, shocks and falls, you can damage it.
- Before use, check if GSM devices are allowed in place where you want to use HSM Switch.
- If you want use Tapping function you have to have permission from person which you want Tapping.
- Max allowed power load connected to power outlet is 10A (resistant load), for higher load use clamper.
- Before SIM card insertion, please erase all SMS stored on your SIM card.
- Watch for children, SIM card can be swallowed

14. Other notes

- SMS commands aren't case sensitive – e.g. Turnon = TURNON = TuRnOn
- All incoming SMS longer than 30 characters or SMS contained whitespaces or dots are automatically erased.

15. Delivery

GSM Switch is delivered with standard Czech republic outlet – French Type. GSM Switch can be equipped with SCHUKO outlet (used in Germany, Italy etc.) like on figure bellow.
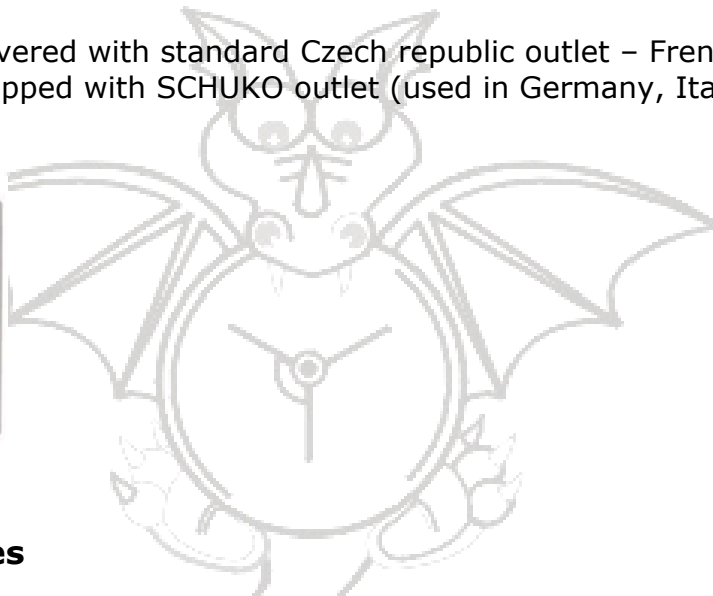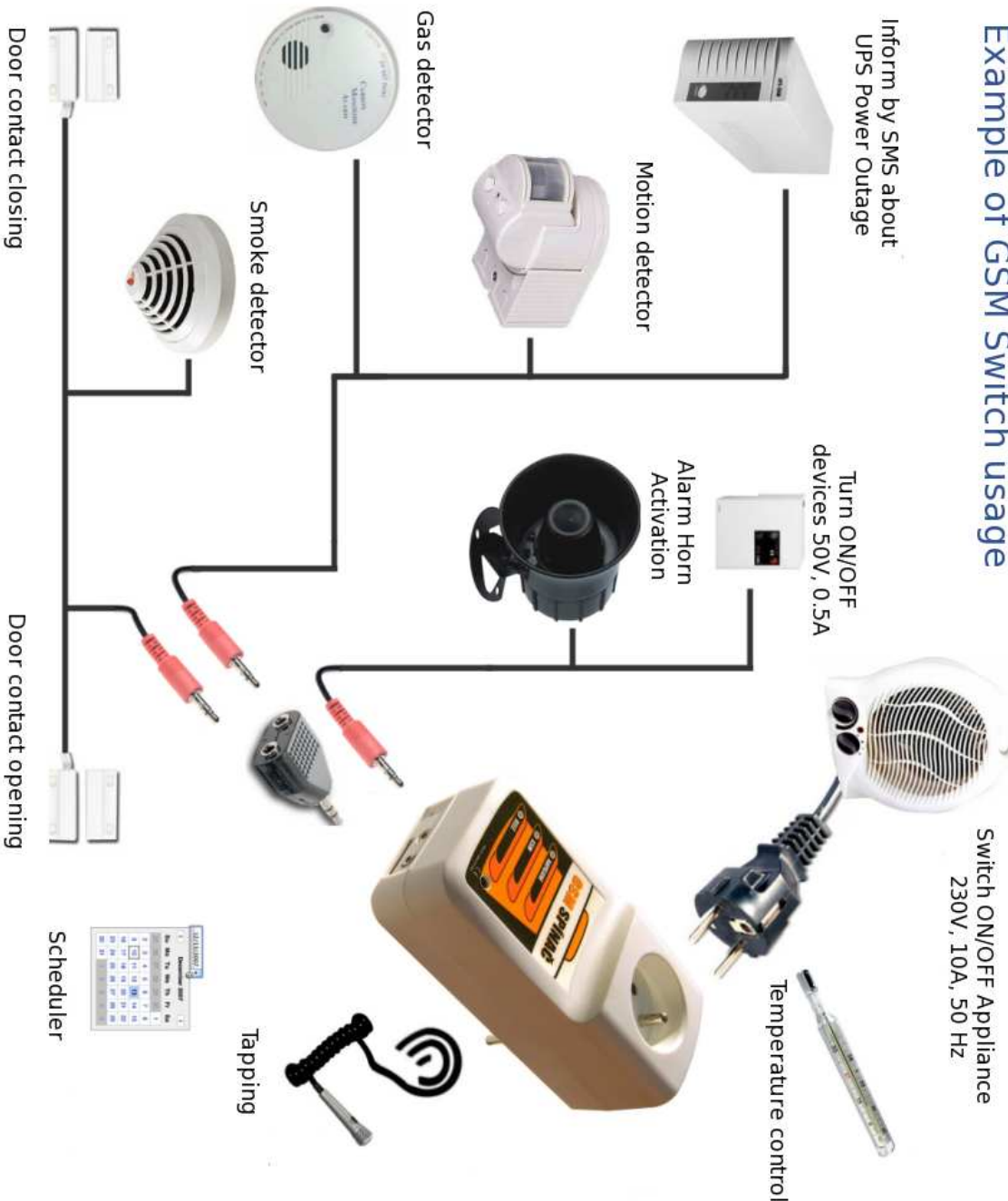
15.1 Accessories

Name	Description
PIR-X	Motion detector, cable 5m
DK-X	Door contact, cable 5m
SD-X	Fire alarm, cable 5m
HD-X	Humidity detector, cable 5m
GD-X	Flammable gas detector, cable 5m
COD-X	Carbon dioxide detector
TRAFO4V	Outage watch transformer detector
JACK Splitter	Branch piece for more sensor connection

16. Declaration of Incorporation

Company MIKROVLNY S.R.O. claims to that for product GSM Switch described in this Manual was issued Declaration if Incorporation EU by law 1999/5/ES (R&TTE) and Government Regulations no.426/2000 Sb.

ČMI TESTCOM Praha, test protocols number: 0221-PT-B0017B-08
FTZÚ Ostrava-Radvanice, test protocols number: 08.0764-83/1,
08.0763-83, 08.0764-76, 08.0764-82, 08.0764-77, 08.0764-79.

Example of GSM Switch usage

Door contact closing

Gas detector

Smoke detector

Motion detector

Inform by SMS about
UPS Power Outage

Alarm Horn
Activation

Turn ON/OFF
devices 50V, 0.5A

Door contact opening

Switch ON/OFF Appliance
230V, 10A, 50 Hz

Scheduler

Tapping

Temperature control

GSM Switch connection for switching bigger current (more than 10A) or 3 phase devices

Wall outlet 230V AC

GSM Switch

Power cable to Clamper's control pins.

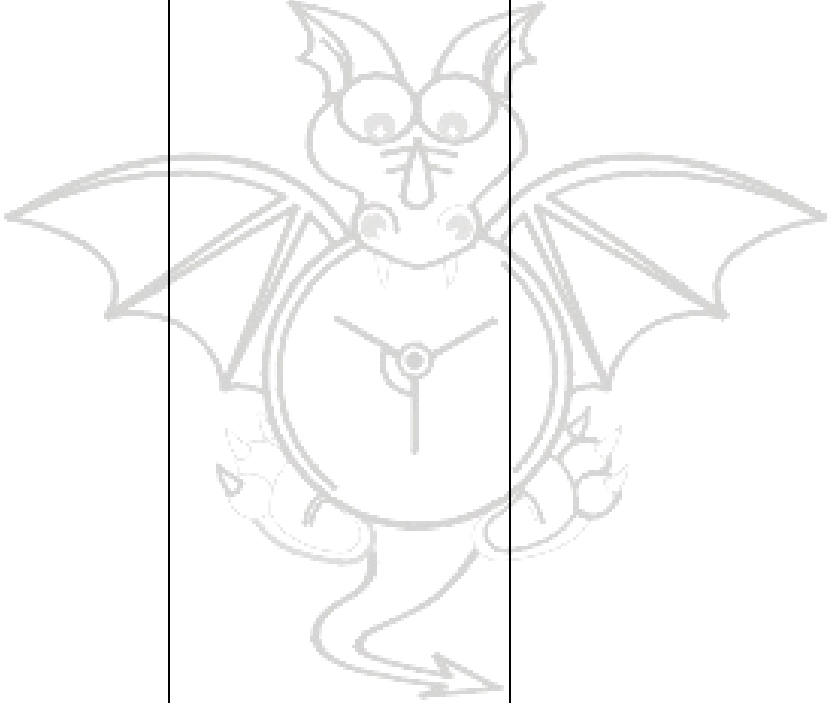Clamper with 230V control coil directly connected to GSM Switch outlet.

GSM Switch Antenna

WARNING:
Clamper must be installed by competent person and must achieve Electrotechnical regulations.

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PE

L

1
2
3
4
5
6

A1   A2
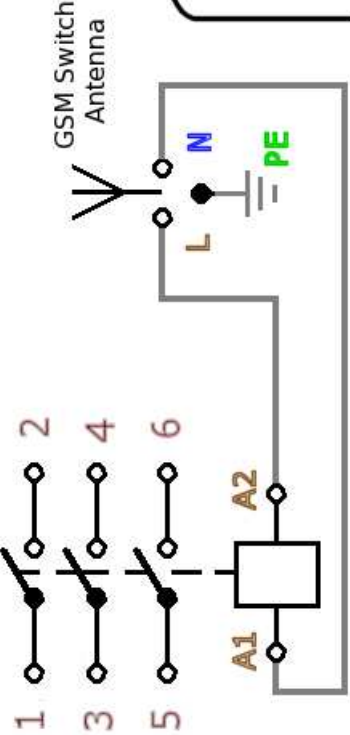
Clamper with control coil

Warranty

GSM Switch has 2 years warranty from purchase date. Wrong usage, overloading, disassembling or other damage are excluded from Warranty.

Serial number	Purchase date	Provider signature and stamp

Warranty is valid only if GSM switch serial number is identical with number on Certificate if warranty. If the Serial number on GSM Switch is missing, different or unreadable, warranty can't be acceptable. Warranty avoid if GSM switch is used in wrong way, overloaded, damaged by user, over-voltage, modified by user or unauthorized service.

Advise for Customers: Please store purchase recipe and Certificate of Warranty. If the Warranty list is empty, warranty period starts with date on receipt.