IQtronic

Solutions to control and save energy

User Guide

IQSocket IQSW-RS232

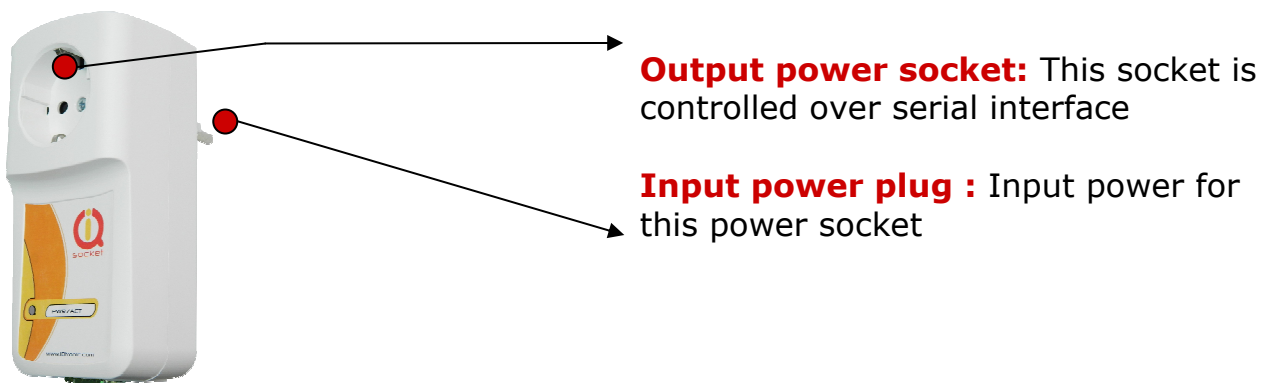Version v1.4 rev1

Table of Contents

1. Introduction

Noone doubt in this information age, that communication technologies help us with everyday life. Communication skills are more and more required at devices, which had no networking features in the past. Intelligent power socket IQsocket IQSW-RS232 is a member of wide portfolio of intelligent power sockets which help to people perform many tasks remotely. IQsocket products can provide:

- Various communication interfaces
- Various output power sockets
- Sockets and plugs for different countries
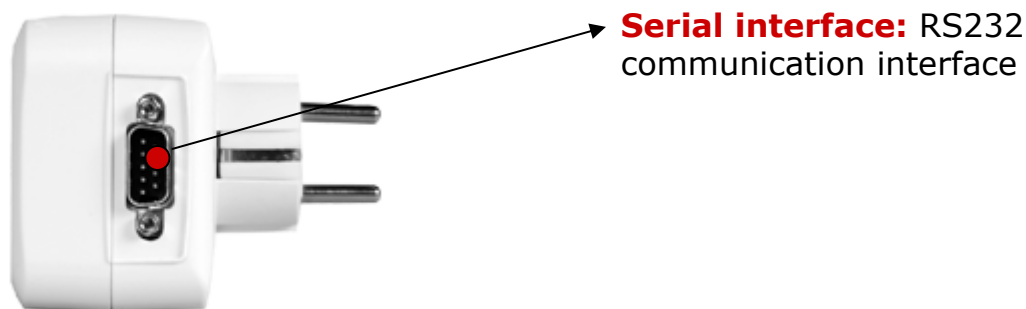- Various input/output interfaces

2. Device description

Intelligent power socket IQsocket IQSW-RS232 control output power socket different ways on serial RS232 interface. Power can be controlled manually by serial commands or automatically when the event is present. In general we can control output power socket different ways:

- Turning on/off manually by AT command
- Restarting on serial interface inactivity (Watchdog feature)
- Manual restarting by AT command

Output power socket: This socket is controlled over serial interface

Input power plug : Input power for this power socket

Output power socket has 230V with maximal load current 16A.

Serial interface: RS232 communication interface

3. Installation

Attach serial cable with DB9 connector and configure serial interface of device connected to IQS-RS232 to send keep-alive data periodically.

Serial interface of monitored device must be configured for following parameters:

9600 Baud, bits 8, No parity, stop bits 1,   No flow control

4. Basic control commands

4.1 Controlling output power by commands

Commands which control output power socket over serial RS232 interface has following syntax:

Command	Description	Answer
AT+TURNON	Turn output power socket on. Applicable only if WATCHDOG=OFF.	---
AT+TURNOFF	Turn output power socket off. Applicable only if WATCHDOG=OFF.	---
AT+RESET	Interrupt ouput power for 10 seconds. Applicable anytime.	---
AT+TURN?	Request for output power status	ON OFF

4.1 Watchdog feature

Command	Description	Answer
AT+WATCHDOGON	Turn on watchog feature. Power socket monitor serial interface for activity and provides power until no data are received within 2 minutes.	---
AT+WATCHDOGOFF	Turn off watchog feature.	---
AT+ECHOON	Turn on all ECHO messages. Useful feature with some applications.	---
AT+ECHOOFF	Turn off all ECHO messages. Useful feature with some applications.	---

If watchdog feature is activated and no data are coming within 2 minutes (it's expected that monitored device stopped to work from some reasons), IQsocket interrupts power on output power socket for 10 seconds. Sending keepalive data must be performed by any way (from linux by echo command, or by any special OS tool). IQsocket is switched into watchdog monitoring mode 6 minutes after it is powered on.

5. Default values

Each new device is preconfigured with default parameters.

Parameter	Value
Output power	ON
WATCHDOG	ON
ECHO	OFF

6. Firmware upgrade

Firmware upgrade can be performed only by authorised specialist or by authorised service center.

7. LED lights

POWER/ACT

FLASHING RED AND GREEN	6 minutes from socket is turned on
LIGHTS GREEN	Output power is ON
LIGHTS RED	Output power is OFF

POWER/ACT
Indicator of output power socket status and data activity

8. Technical specification

Model	IQSW-RS232-F, IQSW-RS232-E
Mains power	100-230VAC / 50-60Hz, own consumption avg. 20mA@230V
Input power plug	230V / 50Hz , CEE 7/7
Output power socket	230V , CEE 7/4 German "Schuko" earthed 230V, CEE 7/4 French type
Output socket load	16A max (resistance load)
Software features	Turn on/off manually Manual restart Watchdog
Data interfaces	RS232 , DB9 connector
Management	Configuration over serial interface
Indicators	POWER/ACT: two-color LED
Environment protection	IP40, for normal environment
Dimensions	(LxWxH) 140 x 65 x 55mm(92mm w/ plug)
Weight	0.3 kg netto
Operating temperature	-10 to +50 °C
Humidity	Max. 80%, non-condensing
Operating temperature	0 to +50 °C
Installation category	Class II, overvoltage max. 2500V
Compliance	CE, FCC
Accessories	1,9meters F/F DB9 cross cable included

9. Maintenance and security instructions

Product is designed for indoor use such as house, block of flats or office.
Keep against humid, wet or chemically aggresive environment. Products is not
designed for heavy industry applications in aggressive environment. Keep
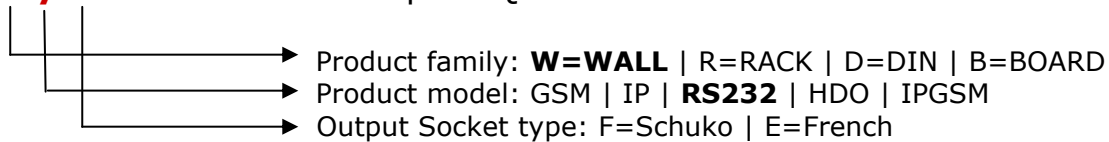against shaking, bumps or any breaks because it can be damaged.

Improper use, unauthorised disassembling or additional manual changes on
device can cause termination of warranty. Device doesn't provide safe
disconnection from power source, only functional switching is performed.

10. Ordering

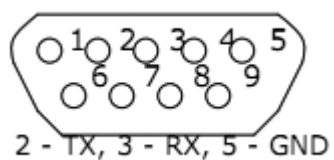Product family IQsocketWALL uses following ordering scheme:

IQS**x-y-z**   Example: IQSW-RS232-E

Product family: **W=WALL** | R=RACK | D=DIN | B=BOARD
Product model: GSM | IP | **RS232** | HDO | IPGSM
Output Socket type: F=Schuko | E=French

Appendix A

Serial interface pinout

2 - TX, 3 - RX, 5 - GND

Output power socket switching scheme