


isoTek [®] SMART Power	Alpha, Delta, Theta	29.01.2020
	RS232 / TCP communication protocol	

IsoTek Alpha, Delta, Theta

RS232 / TCP communication protocol



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1. COM connection

Please setup port for 115200bd, No Parity, 8 data bits, 1 stop bit. This setting is similar to RS232 and virtual COM port over USB.

All text commands has to be followed by new line character (\n or RETURN).

Device sends automatic status message in 1s interval.

2. TCP connection

There is TCP server running on the device. Please use TCP client to connect device on port 501 on it's local IP address. To obtain device IP address of all IsoTek devices on the LAN segment please use UDP broadcast in format:

UDP packet send to IP: **255.255.255.255** Port: **501** Data: **A?**

Answer from all devices on LAN:

A=SerialNum|MAC|ServerIP1|ServerPort1|ServerIP2|ServerPort2|

This is only one command that works with integrated UDP listener. By receiving answers for the UDP broadcast, you can setup table of devices that are connected to LAN with their IP address, MAC addresses and Serial Numbers. Then you can connect to each device using TCP client and control it by all supported commands.

When TCP socket is established, device sends automatic status message in 1s interval.

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3. Commands

3.1 Get Device Address setting

Syntax: **A?**

Answer from device:

A=SerialNum|MAC|ServerIP1|ServerPort1|ServerIP2|ServerPort2|

3.2 Get Device Status

Syntax: **?**

Answer from device:

CH0=s|vvv|ppp|

CH1=s|vvv|ppp|

.

CH16=s|vvv|ppp|

RTC=yyyy|mm|dd|hh|min|ss|

OK

>

Where:

s – outlet status 0-OFF 1-ON

vvv – outlet voltage [V]

ppp – outlet power [W]

yyyy – year

mm – month

dd – day

hh – hour

min – minute

ss – second

2.2 Control Outlet

Syntax: **Sx=s**

Where:


x – outlet number from 1 up to 16

s – desired state 0-OFF 1-ON

Answer from device:

OK

>

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2.3 Date and time setup

Syntax: **T=yyyy|mm|dd|hh|min|ss|**

Where:

dd – day

mm – month

yyyy – year

hh – hour

min – minute

ss – second

Answer from device:

OK

>

2.4 Read Device Scheduler

Syntax: **P?**

Answer from device:

P1=id|type|name|hh:min|dd|power|operator|channel|status_value|status_slot|setup|

P2=id|type|name|hh:min|dd|power|operator|channel|status_value|status_slot|setup|

.

Px=id|type|name|hh:min|dd|power|operator|channel|status_value|status_slot|setup|

OK

>

Where:

id – record id

type – schedule type 1-time plan 2-power plan

hh – hour

min – minute

dd – day

power – power level in [W]

operator – 1-greater then 2-less then


channel – target outlet number 1 – 16

status_value – not used

status_slot – not used

setup – 1-turn ON, 2-turn OFF, 3-restart

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2.5 Set Device Scheduler

Syntax: **P=nn**

Where:

nn – scheduler record count

Answer from device:

OK

>

2.6 Insert Scheduler record

Syntax: **PW=**

id|type|name|hh:min|dd|power|operator|channel|status_value|status_slot|setup|

Where:

id – record id

type – schedule type 1-time plan 2-power plan

hh – hour

min – minute

dd – day

power – power level in [W]

operator – 1-greater then 2-less then

channel – target outlet number 1 – 16

status_value – not used

status_slot – not used

setup – 1-turn ON, 2-turn OFF, 3-restart

Answer from device:

OK

2.7 Read Outlet config

Syntax: **C?**

Answer from device:

C1=nnnnnnnn|t|d|

C2=nnnnnnnn|t|d|

.

C16=nnnnnnnn|t|d|

OK

>

Where:

nnnnnnnn – outlet name (8 characters)

t – outlet type (1-normal, 2-router, 3-locked)

d – reset sequence delay in seconds [s]

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2.8 Set Outlet config

Syntax: **Cx=nnnnnnnn|t|d|**

Where:

nnnnnnnn – outlet name (8 characters)
t – outlet type (1-normal, 2-router, 3-locked)
d – reset sequence delay in seconds [s]

Answer from device:

OK
>

2.9 Device RESTART

Syntax: **X**

Answer from device:

OK
>

2.10 All Outlets OFF

Syntax: **G**

Answer from device:

OK
>

2.11 All Outlets ON

Syntax: **H**

Answer from device:

OK
>