Qurails®
Powered by GOELST.

RS232
Communication

version 0.3

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Introduction

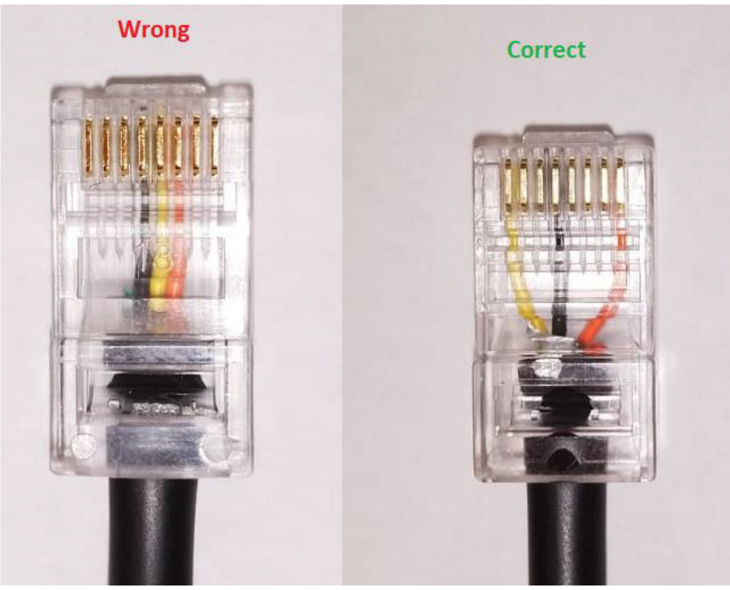
This document contains all details concerning the RS232 interface with the Qurails Curtain Controller system.

Connection

Hardware connection

USB – Qurails Service Cable
The most convenient way to connect to a Qurails Motion 4 curtain system is using an official Qurails Service Cable. This cable converts the RS232 based protocol to USB for easy usage with computer-based systems.

Note: its important to have a Qurails Service Cable compatible with the Qurails Motion 4 curtain system



UART / TTL 3V

The Qurails Motion 4 curtain system uses 3V TTL serial communication on an RJ45 connector using the following pinout:

Pin	Function
1	TX DATA (CCM out, external in)
2	DNC – Do not connect
3	DNC – Do not connect
4	GND
5	DNC – Do not connect
6	DNC – Do not connect
7	DNC – Do not connect
8	RX DATA (CCM in, external out)

Connection Settings

The Qurails interface uses a serial connection with the following connection settings.

Setting	Value
Baud rate	115200
Data bits	8
Stop bits	1
Parity	None
Line ending	CR+LF

Commands

Commands can be transmitted towards the curtain controller to retrieve data or to execute.

Overview

Command	Parameter	Short description
ver	None	Retrieve the firmware version of the current device
sn	None	Retrieve the serial number of the current device
get	(pos|tmp|lux)	Retrieve the current position, measured temperature or value of the lux sensor of the current device
remote get	<Remote address>, (pos|tmp|lux)	Retrieve the current position, measured temperature or value of the lux sensor of the device with serial number <Remote address> over RS485
mv	(open|close|stop|[1..5])	Execute an open, close or stop command on the current device, or move to a preset
remote mv	(open|close|stop|[1..5])	Transmit an open, close, stop or preset event over the RS485 bus
config set	<key>	Retrieve a configuration value of the current device
config set	<key>	Set a configuration value of the current device

Return values

Every command sent towards the Curtain controller elicits a response. This response can be one of the following:

- **The retrieved value** – For the commands that retrieve a specific value, only this value is given
- **“cmd ok”** – After successfully handling an executing or setting command
- **“cmd failed”** – After a timeout event or incorrect parameters
- **“cmd unknown”** – When a command is sent that is not recognized by the controller.

Details

ver - Firmware version

Command	“ver”
Parameters	None
Response	A string value containing the firmware version currently used on the controller
Response format	String
Example	“ver”
Example response	v1.2.6

sn - Serial number

Command	“sn”
Parameters	None
Response	A hexadecimal number that is the serial number of the attached device
Response format	Hexidecimal number
Example	“sn”
Example response	14EA8D15

pos get - Retrieve current position

Command	“pos get ”
Parameters	None
Response	Retrieve the current position of the slider on the rails on the attached device. Integer in millimeters.
Example	“get pos”
Example response	25

lux get - Retrieve current value of the lux sensor

Command	“lux get ”
Parameters	None
Response	Retrieve the current lux value of the attached device. Only valid when a lux sensor is attached to the device. Integer in lux
Example	“get lux”
Example response	25

tmp - Retrieve current temperature

Command	“tmp”
Parameters	None
Response	Retrieve the current temperature as measured by the attached device. Integer in °C
Example	“tmp”
Example response	25

remote get - Retrieve current values/ measurements of remote devices

Command	“remote get“
Parameters	<Remote address> ◆ “pos” ◆ “tmp” ◆ “lux”
Response	◆ pos – Retrieve the current position of the slider on the rails of the device with <Remote address> as serial number. Integer in millimeters. ◆ tmp – Retrieve the current temperature as measured by the device with <Remote address> as serial number. Integer in °C ◆ lux – Retrieve the current lux value of the device with <Remote address> as serial number. Only valid when a lux sensor is attached to the remote device. Integer in lux
Notes	A request for data is transmitted over G-Motion BUS. This feature requires the G-Motion BUS extension boards If a device with the given serial number is not attached or does not respond, the command will time-out and will give “cmd failed” Only the last 16 bits of the serial number are used.
Example	“remote get 14EA8D15 pos”
Example response	25

mv – Execute a command

Command	"mv "
Parameters	◆ "open" ◆ "close" ◆ "stop" ◆ [1..5]
Result	Opens or closes the curtain, stops movement or moves to a predefined preset.
Response format	Command result string
Example	"mv 1"
Example response	cmd ok

remote mv – Transmit a move event over the GM-BUS bus

Command	"remote mv "
Parameters	◆ "open" ◆ "close" ◆ "stop" ◆ [1..5] <UserAddress>
Result	Transmits an open, close, stop or preset event with the specified UserAddress over the GM-BUS bus.
Response format	Command result string
Notes	The event is transmitted over GM-BUS. This feature requires the GM-BUS extension boards An event is transmitted with the UserAddress as specified in the command. There are maximum 31 UserAddresses available. User Addresses can be activated in the motor with G-motion IR-Remote curtain controllers (UA 1-15) or with G-Motion Customer software tool (UA 1-31) Each motor have to be subscribed to this specific UserAddress for controllers to respond to the event. Motors activated on the same UA form a group and can be controlled with 1 command. Standard UA 1 is activated as factory setting.
Example	"remote mv open 23"
Example response	cmd ok

config get - Retrieve configuration value

Command	“config get”
Parameters	<key>
Response	Retrieve the value of a specific key in the configuration of the curtain controller. See the user manual for the available keys.
Response format	Integer value
Example	“config get e_mt”
Example response	1

config set - Set configuration value

Command	“config set”
Parameters	<key> value
Response	Set the value of a specific key in the configuration of the curtain controller. See the user manual for the available keys.
Response format	Command result string
Example	“config set e_mt 1”
Example response	cmd ok