16 Specific protocols

– Aurora (ABB PV inverters protocol) – PowerOne (ABB PV inverters protocol) – SMA Net (SMA PV inverters protocol) – Kaco (Kaco PV inverters protocol) – Ginlong (Ginlong PV inverters protocol) – Solplus (Solutronic AG PV inverters protocol) – ComLynx (Danfoss PV inverters protocol) – Delta (Delta PV inverters protocol) – Windlog (Wind sensors from RainWise Inc.) – Vestas (Wind turbines protocol) – VBus.

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16.1 At command

Overview

At command protocol is used for communications with AT Commands.

Configuration

At command parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of a device	No			
device_alias	string	Alphanumeric string to identify a device	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Protocol to be used.	Yes		at command	
device	string	Communication port	Yes		PORT1	PORT2
baudrate	integer	Communication speed (bauds/s)	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600,115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option	No	none	none, even, odd	
flowcontrol	string	Communication device flow control option.	No	none	none	
timeout_ms	integer	Timeout of waiting for incoming request in milliseconds	Yes		0	60000
serial_close_delay	integer	Delay before closing serial port	No	400		

At command parameters for *Signals* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max

signal_name	string	User-friendly signal name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Enable logging in event log	No	0		
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
job_todo	string	Tag job as single or multiple comma separated OBIS codes	Yes			
tag_job_todo	string	Tag sub job	Yes			

16.2 Aurora

Overview

The Aurora Protocol is a link layer communications protocol for use on point-to-point serial links. It is intended for use in highspeed (gigabits/second and more) connections internally in a computer or in an embedded system. It uses either 8b/10b encoding or 64b/66b encoding

Aurora parameters for Device tab:

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of the device	No			
device_alias	string	Device alias to be used in configuration	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Selection of protocol	Yes		Aurora	
baudrate	integer	Communication speed, bauds/s (See values 33.1.2)	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option ("none"/"even"/"odd")	No	none	None, Even, Odd	
flowcontrol	string	Communication device flow control option.	No	none		
scan_rate_ms	integer	If provided and positive all reads and writes will be executed within the timeframe in milliseconds.	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		
timeout_ms	integer	Timeout in milliseconds	No	2500		
id	integer	Inverter ID	No	0		
device	string	Communication port	Yes		PORT1	PORT2

Aurora parameters for Signals tab:

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
signal_name	string	User-friendly device name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Enable logging in event log (Default: 0)	No	0	0	
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
job_todo	boolean	Define tag-function	Yes			
tag_job_todo	string	Define tag action that depends on tag function	Yes			
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		

16.3 COMLYNX

Overview

Comlynx protocol is used to communicate with Comlynx inverters over serial communication.

Comlynx parameters for *Device* tab:

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of the device	No			
device_alias	string	Device alias to be used in configuration	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Selection of protocol	Yes		Comlynx	
address	integer	Device address	No	1		
subnet	integer	Subnet address	No	0		
network	integer	Network address	No	0		
device	string	Communication port	Yes		PORT1	PORT2
baudrate	integer	Communication speed (bauds/s)	No	19200	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option ("none"/"even"/"odd")	No	none		
flowcontrol	string	Communication device flow control option. (Default: (case-sensitive): "none")	No	none		
scan_rate_ms	integer	If provided and positive all reads and writes will be executed within the timeframe in milliseconds.	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		
timeout_ms	integer	Timeout in milliseconds	Yes		0	60000

Comlynx parameters for *Signals* tab:

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
signal_name	string	User-friendly device name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Allow signal to be logged.	No	0		
job_todo	boolean	Define tag-function	Yes			
tag_job_todo	string	Define tag action that depends on tag function	Yes			
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		

16.4 Delta

Overview

Delta protocol is used to communicate with Delta inverters over serial communication.

Configuration

Delta parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of the device	No			
device_alias	string	Device alias to be used in configuration	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Selection of protocol	Yes		Delta	
baudrate	integer	Communication speed (bauds/s)	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option ("none"/"even"/"odd")	No	none	None, Even, Odd	
flowcontrol	string	Communication device flow control option. (Default: (case-sensitive): "none")	No	none		
scan_rate_ms	integer	If provided and positive all reads and writes will be executed within the timeframe in milliseconds.	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		
timeout_ms	integer	Timeout in milliseconds	Yes		0	60000
id	integer	Inverter ID	Yes	0		
device	string	Communication port	Yes		PORT1	PORT2

Delta parameters for *Signals* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
signal_name	string	User-friendly signal name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Enable logging in event log	No	0		
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
job_todo	string	Tag job as single or multiple comma separated OBIS codes	Yes			
tag_job_todo	string	Tag sub job	Yes			
pulse_short_time_ ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ ms	integer	Time interval for long output pulse to stay active	No	0		

16.5 GINLONG

Overview

Ginlong protocol is used to communicate with Ginlong inverters over serial communication.

GINLONG parameters for *Device* tab:

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of the device	No			
device_alias	string	Device alias to be used in configuration	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Selection of protocol	Yes		Ginlong	
baudrate	integer	Communication speed (bauds/s) (See values 33.1.2)	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option ("none"/"even"/"odd")	No	none	None, Even, Odd	
flowcontrol	string	Communication device flow control option. (Default: (case-sensitive): "none")	No	none		
scan_rate_ms	integer	If provided and positive all reads and writes will be executed within the timeframe in milliseconds.	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		
timeout_ms	integer	Timeout in milliseconds	No	2500		
id	integer	Inverter ID	Yes	0		

device	string	Communication port	Yes		PORT1	PORT2

GINLONG parameters for Signals tab:

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
signal_name	string	User-friendly device name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Allow signal to be logged.	No	0		
job_todo	string	Define tag-function	Yes			
tag_job_todo	string	Define tag action that depends on tag function	Yes			
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		

16.6 Kaco

Overview

This protocol is meant to be used by inverters that convert the DC power generated by the photovoltaic (PV) modules into AC power and feed this into the power grid.

> ℹ This protocol handles serial communication parameters (baudrate, databits, stopbits, etc.) automatically.

Configuration

Kaco parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range Min	Range Max
name	string	User-friendly device name	Yes			
description	string	Description of a device	No			
device_alias	string	Alphanumeric string to identify a device	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Protocol to be used.	Yes		Kaco	
scan_rate_ms	integer	All reads and writes will be executed within the timeframe in milliseconds.	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		
timeout_ms	integer	Timeout of waiting for incoming request in miliseconds	Yes	2500	0	60000
subid	integer	Inverter serial number display	Yes	0		
ext_device	boolean	0 - Inverter is connected directly 1 - Inverter is connected via remote terminal	Yes	0	0	1
id	integer	Inverter serial number	Yes			
device	string	Communication port	Yes		PORT1	PORT2

Kaco parameters for *Signals* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	

| | | | | specified) | | |
					Min	Max
signal_name	string	User-friendly signal name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Enable logging in event log	No	0		
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
job_todo	string	Tag job as single or multiple comma separated OBIS codes	Yes			
tag_job_todo	string	Tag sub job	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		

16.7 POWERONE

Overview

PowerOne protocol is used to communicate with Aurora inverters over serial communication. Serial communication parameters (baudrate, parity, etc.) are handled automatically by the protocol.

Configuration

PowerOne parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
Min	Max					
name	string	User-friendly device name	Yes			
description	string	Description of a device	No			
device_alias	string	Alphanumeric string to identify a device	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Protocol to be used.	Yes		powerone	
serialnumber	integer	Inverter serial number	Yes			
type	string	Inverter type : - CU - Collecting unit - CB - Normal CB - HID - HID with integrated CB	No	CU	CU, CB, HID	
device		Communication port	Yes		PORT1	PORT2
baudrate	integer	Communication speed (bauds/s)	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600,115200	
scan_rate_ms	integer	Delay before closing serial port in milliseconds	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		

					Range	
timeout_ms	integer	Timeout of waiting for incoming request in milliseconds	Yes	1000	0	60000

PowerOne parameters for *Signals* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
signal_name	string	User-friendly signal name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Enable logging in event log	No	0		
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
job_todo	string	Tag job as single or multiple comma separated OBIS codes	Yes			
tag_job_todo	string	Tag sub job	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		

16.8 SMA NET

Overview

SMA Net can transfer SMA Data, TCP/IP and many more telegrams due to its multiprotocol capability. Thus, it is the preferred telegram frame in case of new developments.

Configuration

SMA NET parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of a device	No			
device_alias	string	Alphanumeric string to identify a device	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Protocol to be used.	Yes		sma net	
baudrate	integer	Communication speed (bauds/s)	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600,115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option	No	none	none, even, odd	
flowcontrol	string	Communication device flow control option.	No	none	none	
scan_rate_ms	integer	Delay before closing serial port in milliseconds	No	10000		
poll_delay_ms	integer		No	200		
timeout_ms	integer	Timeout of waiting for incoming request in milliseconds	No	2500		
serial_number	string	Inverter serial number	Yes			
device		Communication port	Yes		PORT1	PORT2
serial_close_delay	integer	Delay before closing serial port	No	400		

SMA NET parameters for *Signals* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
signal_name	string	User-friendly signal name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Enable logging in event log	No	0		
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
job_todo	string	Tag job as single or multiple comma separated OBIS codes	Yes			
tag_job_todo	string	Tag sub job	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		

16.9 SOLPLUS

Overview

Solplus protocol is used to download inverter data from Solplus inverters using a HTTP client.

Configuration

Solplus parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of a device	No			
device_alias	string	Alphanumeric string to identify a device	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Protocol to be used.	Yes		Solplus	
scan_rate_ms	integer	All reads and writes will be executed within the timeframe in milliseconds	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		
timeout_ms	integer	Timeout of waiting for incoming request in milliseconds	No	2500	0	60000
url	string	HTTP server location URL	Yes			

Solplus parameters for *Signals* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
signal_name	string	User-friendly signal name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			

enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Enable logging in event log	No	0		
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
job_todo	string	Tag job as single or multiple comma separated OBIS codes	Yes			
tag_job_todo	string	Tag sub job	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		

16.10 VBUS

Overview

Vbus is a protocol used for communication with solar station automation via serial link.

Configuration

VBUS parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range Min	Range Max
name	string	User-friendly device name	Yes			
description	string	Description of the device	No			
device_alias	string	Device alias to be used in configuration	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Selection of protocol	Yes		Vbus	
slave_address	integer	Slave device address	Yes		0	255
master_address	integer	Master device address	Yes		0	255
device	string	Communication port	Yes		PORT1	PORT2
baudrate	integer	Communication speed (bauds/s)	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option	No	none	none, even, odd	
flowcontrol	string	Communication device flow control option.	No	none	none	
scan_rate_ms	integer	If provided and positive all reads and writes will be executed within the timeframe in milliseconds.	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		
timeout_ms	integer	Timeout in milliseconds	No	2500	0	60000

VBUS parameters for *Signals* tab:

Parameter	Type	Description	Required	Default value (when not specified)	Range

			specified)		Min	Max
signal_name	string	User-friendly device name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Allow signal to be logged.	No	0	0	
job_todo	string	Define tag-function	Yes			
tag_job_todo	string	Define tag action that depends on tag function	Yes			
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		

16.11 VESTAS

Overview

Vestas is a protocol used for communication with solar station automation via serial link.

Configuration

Vestas parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of the device	No			
device_alias	string	Device alias to be used in configuration	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Selection of protocol	Yes		Vestas	
slave_address	integer	Slave device address	Yes		0	255
master_address	integer	Master device address	No	0	0	255
device	string	Communication port	Yes		PORT1	PORT2
baudrate	integer	Communication speed (bauds/s)	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option ("none"/"even"/"odd")	No	none	none, even, odd	
flowcontrol	string	Communication device flow control option. (Default: (case-sensitive): "none")	No	none		
scan_rate_ms	integer	If provided and positive all reads and writes will be executed within the timeframe in milliseconds.	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		
timeout_ms	integer	Timeout in milliseconds	No	500	0	60000

Vestas parameters for *Signals* tab:

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
signal_name	string	User-friendly device name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Allow signal to be logged.	No	0		
job_todo	string	Define tag-function	Yes			
tag_job_todo	string	Define tag action that depends on tag function	Yes			
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		

16.12 Windlog

Overview

Windlog protocol is used for communications with the *Windlog data logger*.

Configuration

Windlog parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of a device	No			
device_alias	string	Alphanumeric string to identify a device	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Protocol to be used.	Yes		Windlog	
device	string	Communication port	Yes		PORT1	PORT2
baudrate	integer	Communication speed (bauds/s)	No	115200	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600,115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option	No	none	none, even, odd	
flowcontrol	string	Communication device flow control option.	No	none	none	
timeout_ms	integer	Timeout of waiting for incoming request in milliseconds	Yes		0	60000
serial_close_delay	integer	Delay before closing serial port	No	400		

Windlog parameters for the *Signals* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
signal_name	string	User-friendly signal name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			

enable	boolean	Enabling/disabling an individual signal	No	1	0	1
log	integer	Enable logging in the event log	No	0		
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
job_todo	string	Tag job as single or multiple comma-separated OBIS codes	Yes			
tag_job_todo	string	Tag sub job	Yes			

16.13 M-Bus

Overview

M-Bus or Meter-Bus is a protocol for the remote reading of water, gas, or electricity meters. M-Bus is also usable for other types of consumption meters, such as heating systems or water meters. The M-Bus interface is made for communication on two wires, making it cost-effective. M-bus over TCP is also supported. When configured, meters will deliver the data they have collected to a WCC Lite RTU that is connected at periodic intervals (scan_rate_ms) to read all utility meters.

Configuration

M-Bus parameters for *Device* tab

Parameter	Type	Description	Required		Default Value (when not specified)	Range	
			TCP	RTU		Min	Max
name	string	User-friendly device name	Yes	Yes			
description	string	Description of a device	No	No			
device_alias	string	Alphanumeric string to identify a device	Yes	Yes			
enable	boolean	Enabling/disabling a device	No	No	1	0	1
protocol	string	Protocol to be used.	Yes	Yes		mbus serial, mbus tcp	
scan_rate_ms	integer	All reads and writes will be executed within the timeframe in milliseconds.	No	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	No	200		
timeout_ms	integer	Timeout of waiting for an incoming response in milliseconds	Yes	Yes		0	60000
address	string	Device address	Yes	Yes			
device	string	Communication port	-	Yes		PORT1	PORT2
baudrate	integer	Communication speed (baud/s)	-	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	
databits	integer	Data bit count for communication	-	No	8	6	9
stopbits	integer	Stop bit count for communication	-	No	1	1	2

parity	string	Communication parity option	-	No	none	none, even, odd	
serial_close_delay	integer	Delay before closing the serial connection.	-	No	400		
ip	string	The IP address of the TCP slave device	Yes	-			
port	integer	TCP communication port	Yes	-		0	65535

M-Bus parameters for the *Signals* tab

| Parameter | Type | Description | Required | | Default Value (when not specified) | Range | |
			TCP	RTU		Min	Max
signal_name	string	User-friendly signal name	Yes	Yes			
device_alias	string	Device alias from a Devices tab	Yes	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	No	1	0	1
log	integer	Enable logging in the event log	No	No	0		
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes	Yes			
job_todo	string	Tag job as single or multiple comma-separated OBIS codes	Yes	Yes			
tag_job_todo	string	Tag sub job	Yes	Yes			

16.14 KOSTAL

Overview

Kostal protocol is used to communicate with Kostal devices over serial communication.

Configuration

Kostal parameters for *Device* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range	
					Min	Max
name	string	User-friendly device name	Yes			
description	string	Description of a device	No			
device_alias	string	Alphanumeric string to identify a device	Yes			
enable	boolean	Enabling/disabling of a device	No	1	0	1
protocol	string	Protocol to be used.	Yes		kostal	
id	integer	Kostal device id	Yes			
device		Communication port	Yes		PORT1	PORT2
baudrate	integer	Communication speed (bauds/s)	No	9600	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600,115200	
databits	integer	Data bit count for communication	No	8	6	9
stopbits	integer	Stop bit count for communication	No	1	1	2
parity	string	Communication parity option	No	none	none, even, odd	
scan_rate_ms	integer	Delay before closing serial port in milliseconds	No	10000		
poll_delay_ms	integer	Minimum time delay in milliseconds to wait before sending any data on port.	No	200		
timeout_ms	integer	Timeout of waiting for incoming request in milliseconds	Yes		0	60000

Kostal parameters for *Signals* tab

Parameter	Type	Description	Required	Default value (when not specified)	Range

					Min	Max
signal_name	string	User-friendly signal name	Yes			
device_alias	string	Device alias from a Devices tab	Yes			
signal_alias	string	Unique alphanumeric name of the signal to be used	Yes			
enable	boolean	Enabling/disabling of an individual signal	No	1	0	1
log	integer	Enable logging in event log	No	0		
number_type	string	Type of a number (FLOAT, DOUBLE, DIGITAL, etc.)	Yes			
job_todo	string	Tag job as single or multiple comma separated OBIS codes	Yes			
tag_job_todo	string	Tag sub job	Yes			
pulse_short_time_ms	integer	Time interval for short output pulse to stay active	No	0		
pulse_long_time_ms	integer	Time interval for long output pulse to stay active	No	0		