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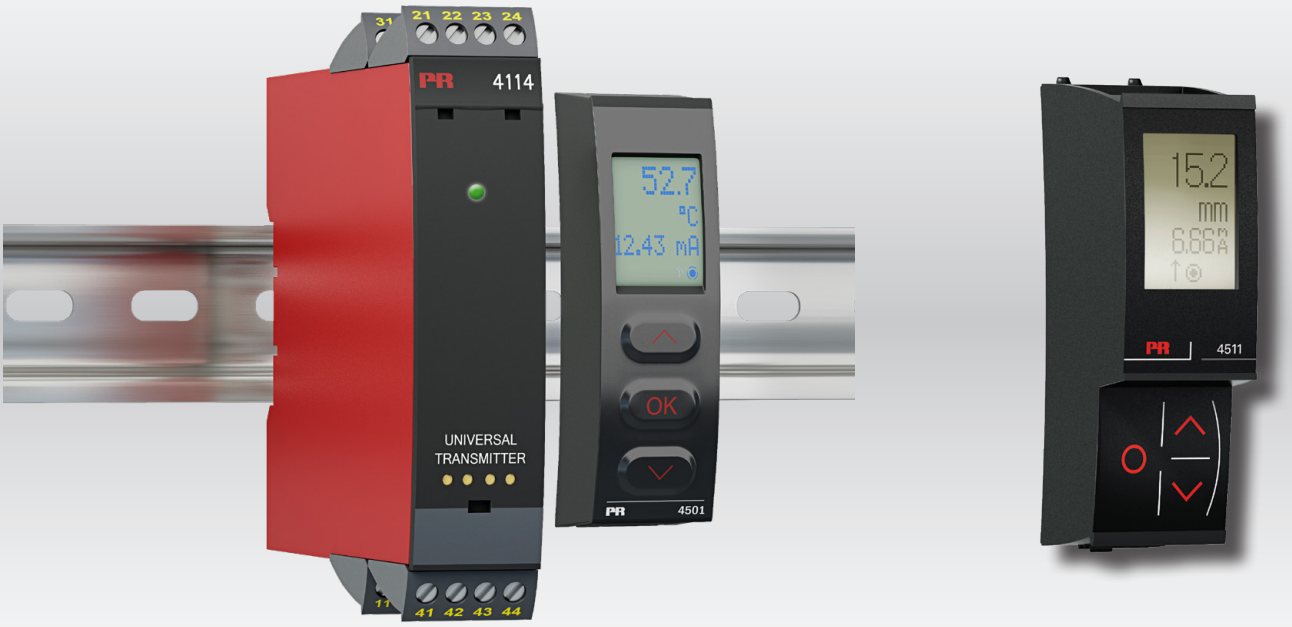
Configuration manual
4114 / 4511
Modbus RTU configuration of
4114 Universal transmitter



TEMPERATURE | I.S. INTERFACES | COMMUNICATION INTERFACES | MULTIFUNCTIONAL | ISOLATION | DISPLAY

No. 4114MCM102-UK
For 4511 devices from ser. no. 141590001

PR electronics

6 Product Pillars
to meet your every need

Individually outstanding, unrivalled in combination

With our innovative, patented technologies, we make signal conditioning smarter and simpler. Our portfolio is composed of six product areas, where we offer a wide range of analog and digital devices covering over a thousand applications in industrial and factory automation. All our products comply with or surpass the highest industry standards, ensuring reliability in even the harshest of environments and have a 5-year warranty for greater peace of mind.

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Our range of temperature transmitters and sensors provides the highest level of signal integrity from the measurement point to your control system. You can convert industrial process temperature signals to analog, bus or digital communications using a highly reliable point-to-point solution with a fast response time, automatic self-calibration, sensor error detection, low drift, and top EMC performance in any environment.

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We deliver the safest signals by validating our products against the toughest safety standards. Through our commitment to innovation, we have made pioneering achievements in developing I.S. interfaces with SIL 2 Full Assessment that are both efficient and cost-effective. Our comprehensive range of analog and digital intrinsically safe isolation barriers offers multifunctional inputs and outputs, making PR an easy-to-implement site standard. Our backplanes further simplify large installations and provide seamless integration to standard DCS systems.

Communication

We provide inexpensive, easy-to-use, future-ready communication interfaces that can access your PR installed base of products. All the interfaces are detachable, have a built-in display for readout of process values and diagnostics, and can be configured via push-buttons. Product specific functionality includes communication via Modbus and Bluetooth and remote access using our PR Process Supervisor (PPS) application, available for iOS and Android.

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Our unique range of single devices covering multiple applications is easily deployable as your site standard. Having one variant that applies to a broad range of applications can reduce your installation time and training, and greatly simplify spare parts management at your facilities. Our devices are designed for long-term signal accuracy, low power consumption, immunity to electrical noise and simple programming.

Isolation

Our compact, fast, high-quality 6 mm isolators are based on microprocessor technology to provide exceptional performance and EMC-immunity for dedicated applications at a very low total cost of ownership. They can be stacked both vertically and horizontally with no air gap separation between units required.

Display

Our display range is characterized by its flexibility and stability. The devices meet nearly every demand for display readout of process signals, and have universal input and power supply capabilities. They provide a real-time measurement of your process value no matter the industry, and are engineered to provide a user-friendly and reliable relay of information, even in demanding environments.

Contents

Introduction

This configuration manual

contains the necessary information for configuring a PR 4114 device which is connected to a PR 4511 Modbus RTU enabler.

Modbus is a "master-slave" system,

where the "master" communicates with one or multiple "slaves".

The master typically is a PLC (Programmable Logic Controller), DCS (Distributed Control System), HMI (Human Machine Interface), RTU (Remote Terminal Unit) or PC.

The three most common Modbus versions used are: MODBUS ASCII, MODBUS RTU and MODBUS/TCP.

In Modbus RTU, data is coded in binary, and requires only one communication byte per data byte. This is ideal for use over multi-drop RS485 networks, at speeds up to 115,200 bps.

The most common speeds are 9,600 bps and 19,200 bps.

Modbus RTU is the most widely used industrial protocol and is supported by the 4511.

Modbus RTU

To communicate with a slave device, the master sends a message containing:

Device Address - Function Code - Data - Error Check

The Device Address is a number from 0 to 247.

Messages sent to address 0 (broadcast messages) will be accepted by all slaves, but numbers 1-247 are addresses of specific devices. With the exception of broadcast messages, a slave device always responds to a Modbus message so the master knows the message was received.

4511 Supported Modbus function codes

Command	Function code
Read Holding Registers*	03
Read Input Registers*	04
Write Single Register	06
Diagnostics	08
Write Multiple Registers	16

*Holding Registers and Input Registers contain identical data in PR 4511.

The Function Code defines the command that the slave device is to execute, such as read data, accept data, report status. Some function codes have sub-function codes.

The Data defines addresses in the device's memory map for read functions, contains data values to be written into the device's memory, or contains other information needed to carry out the function requested.

The Error Check is a 16-bit numeric value representing the Cyclic Redundancy Check (CRC).

Maximum number of registers which can be read or written at once

For a read command, the limit is 8 registers at a baud rate up to 38,400 bps, 16 registers @ 57,800 bps and 32 registers @ 115,200 bps.

For a write command, the limit is 123 registers at baud rates up to 115,200 bps.

4511 Modbus parameter settings

Automatic Baudrate Detection:	Can be configured YES or **NO**
Supported baudrates:	2400, 4800, 9600, **19.2k**, 38.4k, 57.6k, 115.2k bps
Parity Mode:	**Even**, Odd or None parity
Stop Bits:	**1** or 2 stop bits
Response delay:	0...1000 ms **(0 ms = default)**
Modbus slave addressing range:	1 - 247 **(247 = default address)**
Modbus Parameter Storage:	Saved in non-volatile memory in the 4511 device

(Factory Default Values are marked in **bold**)

Modbus RTU segment line termination

A 120 Ohm resistor should be installed on both ends of a RS485 Modbus RTU segment loop to prevent signal echoes from corrupting data on the line.

4114 Configuration parameter list

Category	Parameter Name	Modbus Address	Register Size	Read/ Write	Type	Description	Values			
							Ver 0	Ver 1	Ver 2	Ver 3
GENERAL	DEVICE NUMBER	0	1	RO	UNSIGNED INTEGER	Defines the actual device type	4114 = 16660 (0x4114)			
GENERAL	DEVICE VERSION	1	1	RO	UNSIGNED INTEGER	Product version	0	1	2	3
GENERAL	PASSWORD	2	1	R/W	UNSIGNED INTEGER	Password for entering configuration menu	Range: 0...9999			
INPUT	INPUT TYPE	3	1	R/W	UNSIGNED INTEGER	Selected input type (Voltage, Current, Resistance, Potentiometer, Temperature)	TEMP = 0 POTM = 1 LINR = 2 CURR = 3 VOLT = 4			
INPUT	INPUT VOLTAGE RANGE	4	1	R/W	UNSIGNED INTEGER	Fixed input range for voltage measurements	0...1 V = 0 0.2...1 V = 1 0...5 V = 2 1...5 V = 3 0...10 V = 4 2...10 V = 5			
INPUT	INPUT CURRENT RANGE	5	1	R/W	UNSIGNED INTEGER	Fixed input range for current measurements	0...20 mA = 0 4...20 mA = 1			
INPUT	CONNECTION TYPE	6	1	R/W	UNSIGNED INTEGER	Sensor connection type for RTD / resistance measurements	2-wire = 0 3-wire = 1 4-wire = 2			
INPUT	LIN RES LOW	7	1	R/W	UNSIGNED INTEGER	Input range low for Linear resistance measurements	Range: 0...9998			
INPUT	LIN RES HIGH	8	1	R/W	UNSIGNED INTEGER	Input range high for Linear resistance measurements.	Range: 1...9999			
INPUT	TEMP UNIT	9	1	R/W	UNSIGNED INTEGER	Temperature units	°C = 0 °F = 1			
INPUT	TEMP SENSOR TYPE	10	1	R/W	UNSIGNED INTEGER	Temperature sensor type	TC = 0 Ni = 1 Pt = 2			TC = 0 Ni = 1 Pt = 2 Cu = 3
INPUT	PT TYPE	11	1	R/W	UNSIGNED INTEGER	Pt value (Pt10, Pt20, Pt50...)	Pt10 = 0 Pt20 = 1 Pt50 = 2 Pt100 = 3 Pt200 = 4 Pt400 = 5 Pt500 = 6 Pt1000 = 7	Pt10 = 0 Pt20 = 1 Pt50 = 2 Pt100 = 3 Pt200 = 4 Pt250 = 5 Pt300 = 6 Pt400 = 7 Pt500 = 8 Pt1000 = 9		
INPUT	NI TYPE	12	1	R/W	UNSIGNED INTEGER	Ni value (Ni50, Ni100...)	Ni50 = 0 Ni100 = 1 Ni120 = 2 Ni1000 = 3			
INPUT	TC TYPE	13	1	R/W	UNSIGNED INTEGER	Thermocouple type (TCB, TCK...)	TC type B = 0 TC type E = 1 TC type J = 2 TC type K = 3 TC type L = 4 TC type N = 5 TC type R = 6 TC type S = 7 TC type T = 8 TC type U = 9 TC type W3 = 10 TC type W5 = 11 TC type Lr = 12			
DISPLAY	DISPLAY UNIT	14	1	R/W	UNSIGNED INTEGER	Units shown as display units for non-temperature input types	table 1	table 2 (except [blank])	table 2	
DISPLAY	DECIMAL POINT	15	1	R/W	UNSIGNED INTEGER	Decimal point place for display reading of non-temperature input types	XXXX = 0 X.XXX = 1 XX.XX = 2 XXX.X = 3			
DISPLAY	DISPLAY LOW	16	1	R/W	INTEGER	Low display range for display reading of non-temperature input types	Range: -1999...9999			
DISPLAY	DISPLAY HIGH	17	1	R/W	INTEGER	High display range for display reading of non-temperature input types	Range: -1999...9999			
OUTPUT	OUTPUT TYPE	45	1	R/W	UNSIGNED INTEGER	Output type	CURR = 0 VOLT = 1			

Category	Parameter Name	Modbus Address	Register Size	Read/ Write	Type	Description	Values			
							Ver 0	Ver 1	Ver 2	Ver 3
OUTPUT	VOLTAGE OUTPUT RANGE	46	1	R/W	UNSIGNED INTEGER	Fixed output range for voltage output	0...1 V = 0 0.2...1 V = 1 0...5 V = 2 1...5 V = 3 0...10 V = 4 0.2...10 V = 5 1...0 V = 6 1...0.2 V = 7 5...0 V = 8 5...1 V = 9 10...0 V = 10 10...2 V = 11			
OUTPUT	CURRENT OUTPUT RANGE	47	1	R/W	UNSIGNED INTEGER	Fixed output range for current output	0...20 mA = 0 4...20 mA = 1 20...0 mA = 2 20...4 mA = 3	0...20 mA = 0 4...20 mA = 1 (SIL) 20...0 mA = 2 20...4 mA = 3 (SIL)	0...20 mA = 0 4...20 mA = 1 4...20 mA (SIL) = 2 20...0 mA = 3 20...4 mA = 4 20...4 mA (SIL) = 5	
OUTPUT	OUTPUT ERROR	48	1	R/W	UNSIGNED INTEGER	Analog output action on error. This sets the output error signaling value (If set to none sensor error detection is disabled)	NONE = 0 0 mA = 1 3.5 mA = 2 23 mA = 3			
OUTPUT	OUTPUT LOW	49	2	R/W	INTEGER	Temperature for output low value for temperature input types in 1/10°	Range equals the measurement range for the selected sensor type and must be lower than OUTPUT HIGH			
OUTPUT	OUTPUT HIGH	51	2	R/W	INTEGER	Temperature for output high value for temperature input types in 1/10°	Range equals the measurement range for the selected sensor type and must be higher than OUTPUT LOW			
DISPLAY	DISPLAY CONTRAST	53	1	R/W	UNSIGNED INTEGER	Contrast on the LCD display	Range: 0...9			
DISPLAY	DISPLAY BACKLIGHT	54	1	R/W	UNSIGNED INTEGER	Backlight intensity on LCD	Range: 0...9			
DISPLAY	TAG TEXT	55	3	R/W	ASCII CHAR	Tag of the device (6 characters)	Range: ASCII values from 32 to 90 (' ' to 'Z').			
DISPLAY	LINE 3 FUNCTION	58	1	R/W	UNSIGNED INTEGER	Information shown in line 3 of display in monitor mode (normal mode). Choose between the analog output value or the configured tag.	Output value = 0 TAG = 1			
INPUT	USE CALIB	59	1	R/W	UNSIGNED INTEGER	Use the applied calibration values	NO = 0 YES = 1			
GENERAL	ENABLE PASSWORD	60	1	R/W	UNSIGNED INTEGER	Password protect entry to configuration menu via display	NO = 0 YES = 1			
INPUT	CALIB RANGE LOW	62	2	R/W	FLOAT	Actual process value for low calibration point in either display values or 1/10°C	**For non-temperature input types:** range is DISPLAY LOW...DISPLAY HIGH. **For temperature input types:** the range equals the measurement range for the selected sensor type.			
INPUT	CALIB RANGE HIGH	64	2	R/W	FLOAT	Actual process value for high calibration point in either display values or 1/10°C	As CALIB RANGE LOW			
INPUT	CALIB POINT LOW	66	2	R/W	FLOAT	Measured process value for low calibration point in either display values or 1/10°C. (Must be copied from PROCESS DATA)	As CALIB RANGE LOW			
INPUT	CALIB POINT HIGH	68	2	R/W	FLOAT	Measured process value for high calibration point in either display values or 1/10°C. (Must be copied from PROCESS DATA)	As CALIB RANGE LOW			
GENERAL	HELPTEXT LANGUAGE	72	1	R/W	UNSIGNED INTEGER	Language for the help texts shown in display	UK = 0 DK = 1 DE = 2 FR = 3 SE = 4 IT = 5 ES = 6			

Category	Parameter Name	Modbus Address	Register Size	Read/ Write	Type	Description	Values			
							Ver 0	Ver 1	Ver 2	Ver 3
INPUT	CJC TYPE	73	1	R/W	UNSIGNED INTEGER	CJC compensation type for TC temperature types (internal/connector)	None - Fixed internal		INTERNAL = 0 CONNECTOR = 1	
INPUT	CU TYPE	76	1	R/W	UNSIGNED INTEGER	Cu value (Cu10, Cu20, Cu50...)	None (Cu temperature type not implemented)			Cu10 = 0 Cu20 = 1 Cu50 = 2 Cu100 = 3
GENERAL	SERIAL NUMBER	77	2	RO	UNSIGNED INTEGER	Device serial number	None (Serial Number not part of CONFIGURATION DATA)			Range: 0... 999999999
GENERAL	CHECKSUM	100	1	RO	UNSIGNED INTEGER	CRC16 checksum of the configuration	Range 0...65535			
GENERAL	Configu-ration counter	101	1	RO	UNSIGNED INTEGER	This counter will count the number of times the configuration has been changed. The counter is reset on power-up	Range 0...65535			

Table 1: Display units, ver. 0

0	°C	10	m^3	20	ft/min	30	MPa	40	GW	50	mV	60	gal/h
1	°F	11	l	21	in/h	31	kPa	41	MW	51	Ω	61	t/h
2	K	12	s	22	ft/h	32	hPa	42	kW	52	S	62	mol
3	%	13	min	23	rpm	33	bar	43	hp	53	µS	63	pH
4	m	14	m/s	24	Hz	34	mbar	44	A	54	m^3/min		
5	cm	15	m/min	25	t	35	kJ	45	kA	55	m^3/h		
6	mm	16	m/h	26	kg	36	Wh	46	mA	56	l/s		
7	ft	17	in/s	27	g	37	MWh	47	µA	57	l/min		
8	in	18	ft/s	28	N	38	kWh	48	V	58	l/h		
9	yd	19	in/min	29	Pa	39	W	49	kV	59	gal/min		

Table 2: Display units, ver. 1-3

0	°C	10	mils	20	in/s	30	t	40	kJ	50	kA	60	m^3/h
1	°F	11	yd	21	ips	31	kg	41	Wh	51	mA	61	l/s
2	K	12	m^3	22	ft/s	32	g	42	MWh	52	µA	62	l/min
3	%	13	l	23	in/min	33	N	43	kWh	53	V	63	l/h
4	m	14	s	24	ft/min	34	Pa	44	W	54	kV	64	gal/min
5	cm	15	min	25	in/h	35	MPa	45	GW	55	mV	65	gal/h
6	mm	16	m/s	26	ft/h	36	kPa	46	MW	56	Ω	66	t/h
7	µm	17	mm/s	27	m/s^2	37	hPa	47	kW	57	S	67	mol
8	ft	18	m/min	28	rpm	38	bar	48	hp	58	µS	68	pH
9	in	19	m/h	29	Hz	39	mbar	49	A	59	m^3/min	69	[blank]*

[blank]* - not available in ver. 1.

4114 Input types and ranges

Input type	Min. value	Max. value	Standard
mA	0 mA	20 mA	-
V	0 V	10 V	-
Pt10...Pt1000	-200°C	+850°C	IEC 60751
Ni50...Ni1000	-60°C	+250°C	DIN 43760
Cu10...Cu100	-200°C	+260°C	α = 0,00427
Lin. R	0 Ω	10000 Ω	-
Potentiometer	10 Ω	100 kΩ	-
TC B	0°C	+1820°C	IEC 60584-1
TC E	-100°C	+1000°C	IEC 60584-1
TC J	-100°C	+1200°C	IEC 60584-1
TC K	-180°C	+1372°C	IEC 60584-1
TC L	-200°C	+900°C	DIN 43710
TC N	-180°C	+1300°C	IEC 60584-1
TC R	-50°C	+1760°C	IEC 60584-1
TC S	-50°C	+1760°C	IEC 60584-1
TC T	-200°C	+400°C	IEC 60584-1
TC U	-200°C	+600°C	DIN 43710
TC W3	0°C	+2300°C	ASTM E988-90
TC W5	0°C	+2300°C	ASTM E988-90
TC LR	-200°C	+800°C	GOST 3044-84

4114 Process parameter list

Parameter Name	Register Address	Register Size	Read/ Write	Type	Description	Values
DISPLAY VALUE	1000	2	RO	INTEGER	The measured value in 1/10 of °C/°F for temperature Input types, or the scaled display value for non-temperature input types (INTEGER version of PRIMARY VALUE)	**Range for non-temperature input types:** DISPLAY LOW...DISPLAY HIGH **Range for temperature input types:** equals the measurement range for the selected sensor type
PERCENT PV	1002	1	RO	INTEGER	The relative input value as 1/100 of % calculated from PRIMARY VALUE. For temperature input types 0..100% corresponds to the selected temperature range (OUTPUT LOW...OUTPUT HIGH) For non-temperature input types 0..100% corresponds the selected fixed range (e.g. 4...20 mA)	Range: 0...9999 (e.g. 7898 = 78.98%)
MEASURE STATUS	1003	1	RO	INTEGER	The actual measurement status	OUTPUT UNDERRANGE bit 0 = 1 OUTPUT OVERRANGE bit 1 = 1 OUTPUT LOW LIMITED bit 2 = 1 OUTPUT HIGH LIMITED bit 3 = 1 INPUT UNDERRANGE bit 4 = 1 INPUT OVERRANGE bit 5 = 1 SENSOR SHORTED bit 6 = 1 SENSOR BROKEN bit 7 = 1
ERROR STATUS	1004	1	RO	INTEGER	The actual error status (Device errors)	AD COMM. ERROR bit 0 = 1 CJC ERROR bit 1 = 1 RAM ERROR bit 2 = 1 EEP ERROR bit 3 = 1 FLASH ERROR bit 4 = 1 NOT CALIBRATED bit 5 = 1 BAD OUTPUT bit 6 = 1 NO OUTPUT bit 7 = 1 OUTPUT SUPPLY ERROR bit 8 = 1 INPUT SUPPLY ERROR bit 9 = 1 EXT. FLASH ERROR bit 10 = 1
PRIMARY RAW VALUE	1006	2	RO	FLOAT	The measured value in 1/10 of °C/°F for temperature Input types, or the scaled display value for non-temperature input types, NOT PROCESS CALIBRATED.	**Range for non-temperature input types:** DISPLAY LOW...DISPLAY HIGH Range for temperature input types equals the measurement range for the selected sensor type
PRIMARY VALUE	1008	2	R/W	FLOAT	The measured value in 1/10 of °C/°F for temperature Input types, or the scaled display value for non-temperature input types	**Range for non-temperature input types:** DISPLAY LOW...DISPLAY HIGH Range for temperature input types equals the measurement range for the selected sensor type
RELATIVE PV	1010	2	RO	FLOAT	The relative input value calculated from PRIMARY VALUE. For temperature input types relative to selected temperature range (OUTPUT LOW...OUTPUT HIGH) For non-temperarure input types relative to selected fixed range (e.g. 4...20 mA)	Range: 0.0...1.0
OUTPUT VALUE	1012	2	R/W	FLOAT	Calculated output value in µA or µV	**Range:** CURRENT: 0.0...23000.0 (23 mA) VOLTAGE: 0.0...1150000.0 (11.5 V)
MEASURE CONTROL	1014	1	R/W	INTEGER	Measurement control. By disabling update of certain READ/WRITE parameters PRIMARY VALUE, OUTPUT VALUE or RELAY STATUS, these can be simulated by writing values. All bits are cleared when TIMEOUT COUNTER reaches 0	DISABLE PRIMARY VALUE UPDATE (INCL. MEASURE STATUS) bit 2 = 1 DISABLE OUTPUT VALUE UPDATE bit 3 = 1 DISABLE CONFIGURATION CHECK bit 5 = 1 REMAINING BITS SHALL BE SET TO 0
TIMEOUT COUNTER	1015	1	R/W	INTEGER	Time out counter, increments every 0.075 second. When reaching 256 (if not refreshed) all bits in MEASURE CONTROL will be cleared.	Range: 0...255
INTERNAL TEMPERATURE	1016	1	RO	INTEGER	Internal measured or connector temperature in 1/10 of °C/°F	**Range:** -200...800 (-20.0...80.0 °C) or -40...1760 (-4.0...176.0 °F)

4511 Modbus configuration parameter list

Parameter Name	Register Address	Register Size	Read/ Write	Type	Description	Values
ENABLE MODBUS	3000	1	R/W	INTEGER	Enable Modbus communication. If disabled, 4511 ignores all frames sent from the Modbus master and the only way to re-enable Modbus communication is by using the 4511 menu.	NO = 0 YES = 1
BAUDRATE	3001	1	R/W	INTEGER	The baud value used for Modbus communication	2400 BAUD = 0 4800 BAUD = 1 9600 BAUD = 2 19200 BAUD = 3 38400 BAUD = 4 57600 BAUD = 5 115200 BAUD = 6
ENABLE AUTOBAUD	3002	1	R/W	INTEGER	Enable automatic baudrate detection. If enabled, 4511 determines the baudrate automatically by listening to frames sent on the Modbus line.	NO = 0 YES = 1
PARITY	3003	1	R/W	INTEGER	Configures parity check on Modbus frames	NONE = 0 EVEN PARITY = 1 ODD PARITY = 2
STOPBITS	3004	1	R/W	INTEGER	Configures the number of stopbits in Modbus frames	ONE STOPBIT = 0 TWO STOPBITS = 1
ADDRESS	3005	1	R/W	INTEGER	Configures the Modbus address of the 4511 (Address 0 is broadcast address)	Range: 1...247
RESPONSE DELAY	3006	1	R/W	INTEGER	Configures minimum delay for Modbus response in ms	Range: 0...1000

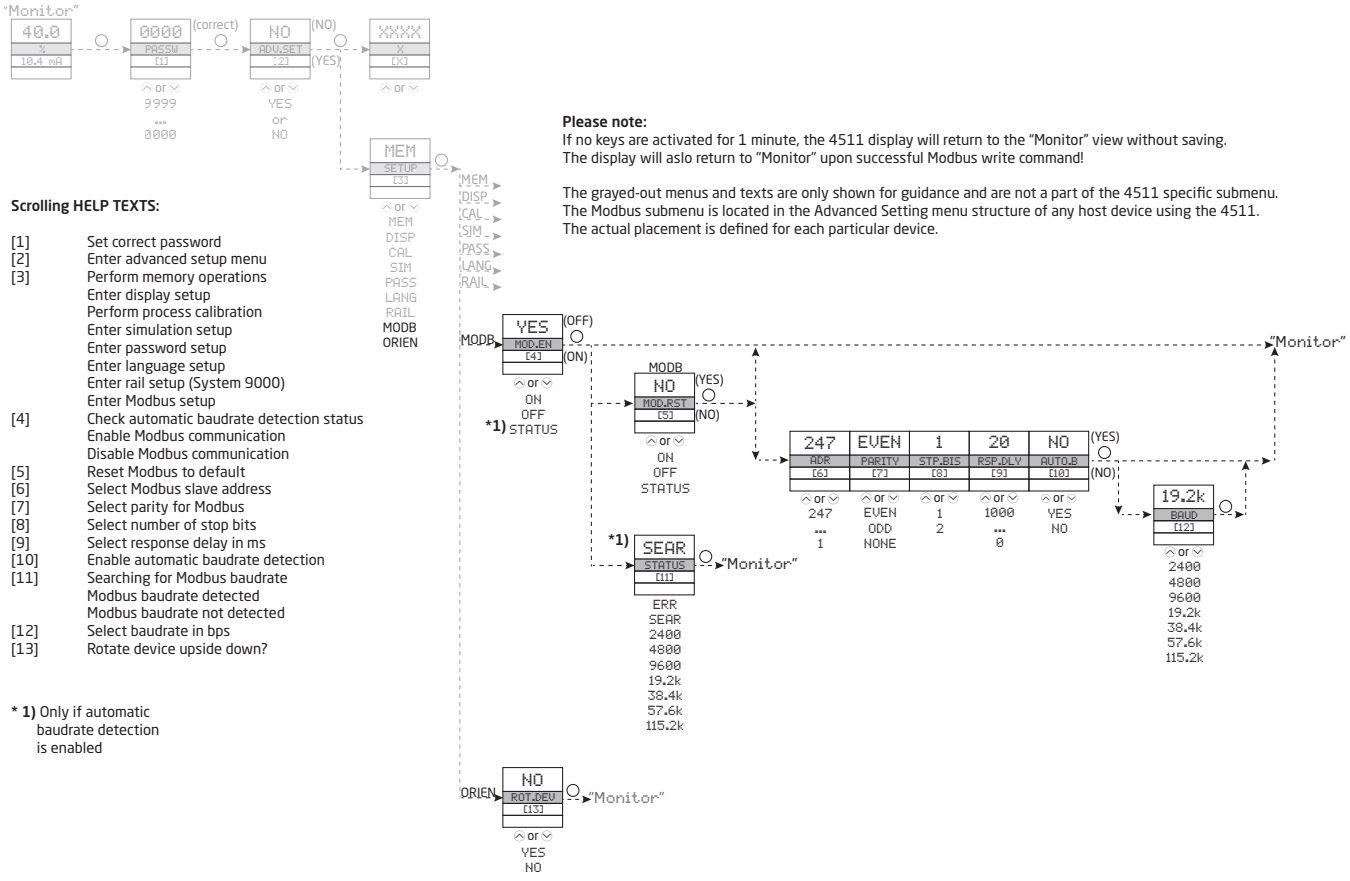
4511 Additional parameter list

Parameter Name	Register Address	Register Size	Read/ Write	Type	Description	Values
ROTATE DEVICE	3100	1	R/W	INTEGER	Enables the display and key buttons to be used normally when the host device is mounted upside down	NO = 0 YES = 1

4511 Modbus status parameter list

Parameter Name	Register Address	Register Size	Read/ Write	Type	Description	Values
AUTOBAUD STATUS	4000	1	RO	INTEGER	Actual state of automatic baudrate detection	2400 BAUD = 0 4800 BAUD = 1 9600 BAUD = 2 19200 BAUD = 3 38400 BAUD = 4 57600 BAUD = 5 115200 BAUD = 6 SEARCHING = 7 ERROR = 8
IDENTIFY DEVICE	4001	1	R/W	INTEGER	Enables the device to flash the LCD background with appr. 4 Hz. **Value will automatically return to NO if not written within 10 seconds!**	NO = 0 YES = 1
MAXIMUM READ REGISTERS	4002	1	RO	INTEGER	Maximum allowed number of registers that can be read in one command, with the given/ detected baudrate	Range: 8...32

4511 Modbus front programming parameter menu



Please note:
If no keys are activated for 1 minute, the 4511 display will return to the "Monitor" view without saving.
The display will aslo return to "Monitor" upon successful Modbus write command!

The grayed-out menus and texts are only shown for guidance and are not a part of the 4511 specific submenu.
The Modbus submenu is located in the Advanced Setting menu structure of any host device using the 4511.
The actual placement is defined for each particular device.

Scrolling HELP TEXTS:

[1]	Set correct password
[2]	Enter advanced setup menu
[3]	Perform memory operations
	Enter display setup
	Perform process calibration
	Enter simulation setup
	Enter password setup
	Enter language setup
	Enter rail setup (System 9000)
	Enter Modbus setup
[4]	Check automatic baudrate detection status
	Enable Modbus communication
	Disable Modbus communication
[5]	Reset Modbus to default
[6]	Select Modbus slave address
[7]	Select parity for Modbus
[8]	Select number of stop bits
[9]	Select response delay in ms
[10]	Enable automatic baudrate detection
[11]	Searching for Modbus baudrate
	Modbus baudrate detected
	Modbus baudrate not detected
[12]	Select baudrate in bps
[13]	Rotate device upside down?

*** 1)** Only if automatic baudrate detection is enabled

Document history

The following list provides notes concerning revisions of this document.

Rev. ID	Date	Notes
102	1938	Changes to Process parameter list, no 10 & 11

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