

# KKRP01-A ONLINECONTROLLER IN MODBUS SLAVE MODE

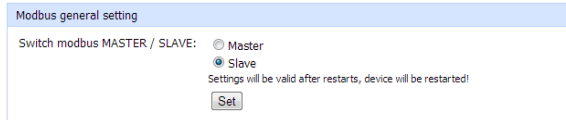
Refer to FW version V02.06.13

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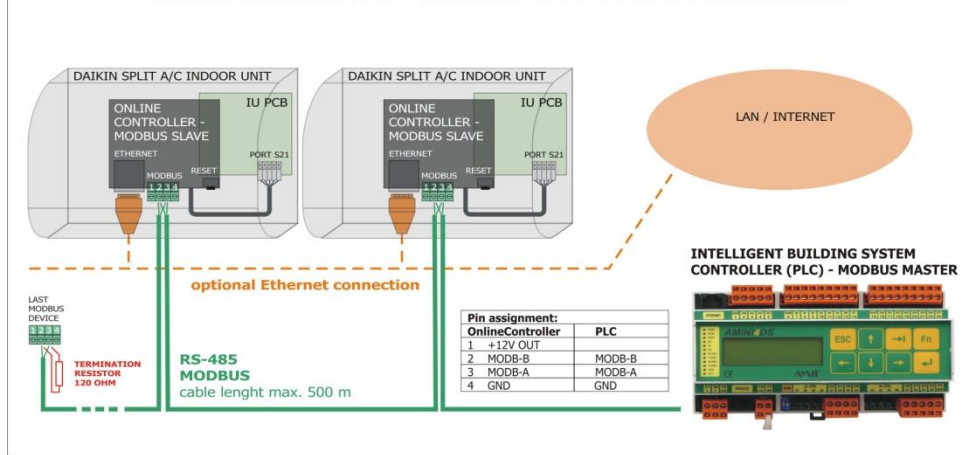
The OnlineController KKR01-A supports Modbus Slave mode. It allows to use the Online Controller for monitoring and control of air-conditioners which are connected to superior system via RS-485 Modbus interface. The superior PLC (Modbus Master) controls and manages one or more Online Controllers (Modbus Slaves) and this way controls and manages each air-conditioner.

## Requirements:

- Each Online Controller must be switched to **Modbus SLAVE mode** – Setup menu / Modbus devices / Modbus general setting
- Each Online Controller must be connected to the air-conditioner indoor unit.
- Each Online controller must be connected to RS-485 Modbus RTU bus of superior device (system). See Picture No. 1 for pin-out assignment.
- OnlineController Modbus RS-485 link is NOT equipped with terminator, therefore an external **terminating resistor 120 Ohm** must be connected to the line near the last OnlineController on the bus.

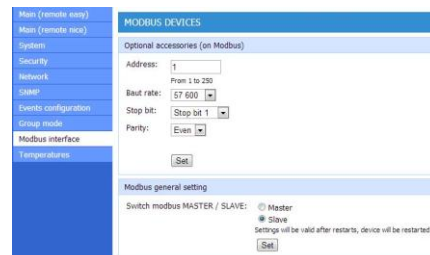


## ONLINECONTROLLER - MODBUS SLAVE MODE APPLICATION



Open the Online Controller web page (default IP address: 192.168.1.100, Login: admin, Password: admin) and set the communication parameters of Modbus interface on Modbus interface web page. Each Online Controller must have different Modbus address. Other parameters must be set in accordance with superior Modbus system. Default Modbus interface parameters of Online Controller:

Parameter	Range	Def. value
Modbus Address	1...250	1
Baud Rate	1.200, 2.400, 4.800, 9.600, 19.200, 38.400, 57.600, 115.200	57.600
Stop Bit	1, 1.5, 2	1
Parity	N, E, O	Even



## COMMON MODBUS REGISTER

Name	Register	Type	Description			
Communication	1	R	Information about onlinecontroller communication with A/C			
			0x00 – communication ERROR			
			0x01 – communication OK			
Remote	2	R/W	Enable or disable of air conditioning control via IR controller			
			0x30 – Enable			
			0x36 – Disable			
Klima ON / OFF	3	R/W	Turn OFF / ON of air conditioning			
			0x30 – OFF			
			0x31 – ON			
			0x32 – DRY			
Klima MODE	4	R/W	Setting of air conditioning mode			
			0x30 – AUTO COOL			
			0x31 – UNDEFINED			
			0x32 – DRY			
			0x33 – COOL			
			0x34 – HEAT			
			0x35			
Klima TEMPERATURE	5	R/W	Setting of air conditioning temperature			
			0x0A ~ 0x20			
			Setting of air conditioning fan intensity			
			0x33 – FAN 1			
			0x34 – FAN 2			
			0x35 – FAN 3			
			0x36 – FAN 4			
Klima SWING	7	R/W	Setting of air conditioning swinging			
			0x30 – OFF			
			0x31 – ON			
			Setting of Timer (Turn ON / OFF of air conditioning)			
			0x30 – OFF / OFF			
Klima TIMER	8	R/W	Setting of Timer (Turn ON / OFF of air conditioning)			
			0x30 – OFF / OFF			
			0x31 – ON / OFF			
			0x32 – OFF / ON			
Klima TIMER ON	9	R	Not supported			
			Klima TIMER OFF	10	R	Not supported
						Klima ERROR
0x30 – without error						
0x31 – error						
Klima ERROR CODE	12	R	Air conditioning error information according to A/C code			
			0xB4 – onlinecontroller not communicates with A/C			
Klima ERROR SUB CODE	13	R	Air conditioning error information – error specification			
			Room temp			
Out temp	15	R	Information of measured temperature (temperature is measured by indoor unit of air conditioning)			
			Outdoor temperature			
Exch. Temp	16	R	Temperature of exchanged			
			Humidity			
In rmp	18	R	Humidity			
			Indoor fan operating speed			
Trap code	19	R	Trap information (SNMP)			
			S/N high			
S/N middle	21	R	4th octet of MAC address			
			5th octet of MAC address			
S/N low	22	R	6th octet of MAC address			
			Id			
Version	24	R	Identification value 0x4041			
			Number of firmware version			

## Support Modbus function:

- 0x03 – Read function
- 0x06 – Write function
- 0x10 – Multi register write function