

## Datasheet

### ADA-1040PC4

#### AquaMatic to MODBUS-RTU protocol converter



### APPLICATION

Protocol converter AquaMatic/SP100 to MODBUS-RTU ADA-1040PC4 is a device solves a problem of connection rainwater station AquaMatic Industrial equipped with RS232 interface and communicate by AquaMatic protocol to multipoint RS-485 bus with devices communicate by MODBUS-ASCII protocol.

Simultaneously, the converter convert RS232 to RS485/422 standards, with setting of data format. Depending on configurations, can be set baud rate, data bits, parity, number of stop bits. The setting can be different for RS232 and RS485/RS422 port. The converter does not require power supply from RS232 port and support the asynchronous transmission data with baud rate 230,4 kbps. via one or two pairs of twisted pair of RS485 / RS422 interface.

ADA-1040PC4 has DB-9F connector for connecting RS232 interface of controller RS\* AquaMatic and screw terminal block for connection of RS485/422 network and power supply. The DB-9F connector is DCE type to connecting RS232 interface. ADA-1040PC4 use Tx, Rx and GND for communication with RS232 interface.

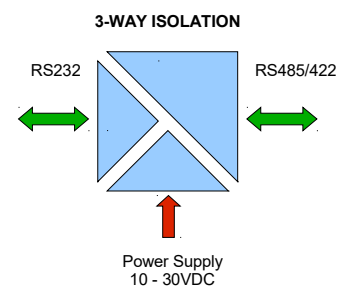
Overvoltage protection was made on base safety diodes and fuses on each RS485/RS422 lines.

### TECHNICAL DATA

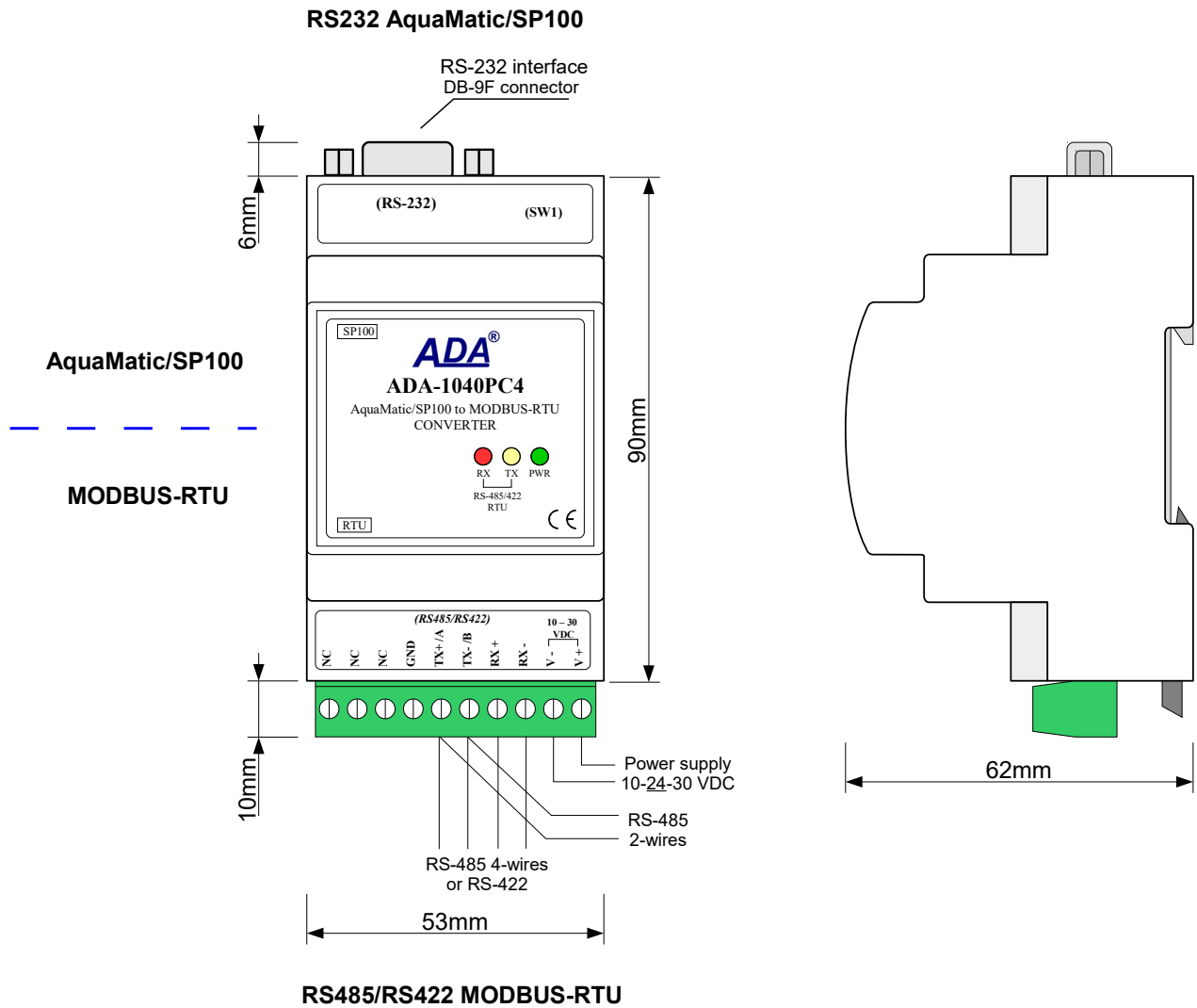
Transmission Parameters		
Interface	RS-232	RS-485/RS-422
Connector	DSUB-9 socket, female	Screw terminal, wire max. Ø 2,5mm <sup>2</sup>
Max. Line length	up to 15m	1200m
Max. number of connected device	1	32
Transmission line	DB9F/DB9M cable, multicore 9x0,34 shielded (up to 15m)	Twisted cable 1-pair or 2-pair, UTP Nx2x0,5 (24AWG), shield inside large interferences STP Nx2x0,5(24AWG)
Standards	EIA-232, CCITT V.24,	EIA-485, CCITT V.11

Protocol	AquaMatic/SP100	Modbus-RTU
Baud rate	Up to 230,4 kbps	Up to 230,4 kbps
Transmission type	Asynchronism full duplex, half duplex.	
Optical Signalization	<ul style="list-style-type: none"> <li>PWR – green LED power supply,</li> <li>RX - red LED data receiving from RS485/RS422 interface,</li> <li>TX - yellow LED data transmission through RS485/RS422 interface.</li> </ul>	
<b>Electrical Parameters</b>		
Power requirements	10 - 24 – 30 V DC	
Power Cable	Recommended length of power cable – up to 3m.	
Power	< 2W	
Protection from reverse power polarization	Yes	
Galvanic Isolation	1kVDC or 3kVDC, between power circuit and RS232 and RS485/422 signal line,	
Optoisolation	~3kV - between signal line RS-232 and RS485/422.	
Electromagnetic compatibility	Resistance to disruptions according to the standard PN-EN 55024. Emission of disruptions according to the standard PN-EN 55022.	
Safety requiring	According to the PN-EN60950 norm.	
Environment	Commercial and light industrial.	
<b>Environmental Parameters</b>		
Operating temperature	-30 ÷ 60°C	
Humidity	5 ÷ 95% - non-condensing	
Storage temperature	-40 ÷ 70°C	
<b>Casing</b>		
Dimensions (W x D x H)	53mm x 90mm x 62 mm	
Material	PC/ABS	
Degree of casing protection	IP40	
Degree of terminal protection	IP20	
Weight	0,10 kg	
According to standards	DIN EN50022, DIN EN43880	
Location during work	Free	
Mounting method	On the rail compliant with DIN35 / TS35 standard.	

### GALVANIC ISOLATION



## DIMENSIONS AND CONNECTION



## VERSIONS

ADA-1040PC4 - [ ] - [ ]	
Version:	
Standard	1
<b>3-way galvanic isolation:</b>	
1kV=	23
3kV=	33

Order example:  
 Product Symbol: **ADA-1040PC4-1-23**  
 1 – standard version,  
 23 – 1kV=, 3-way galvanic isolation,

\*  
 RS – Rain Station  
 Names of companies and logotypes have been used only for informational purposes.