



## Applications

- General Meteorology
- Research Institutions
- Offshore Oil and Gas
- Aviation
- Sports

## Features and Benefits

- Measures flexible set of parameters
- Simple to use
- High accuracy
- Low power consumption
- Possible powering with alternative sources (wind, solar panels)
- Internal data storage, expandable with SD memory cards
- Communication over RS-232, RS-485, Ethernet, GSM/GPRS
- Support FTP and Websocket protocols
- Optional with touch LCD

The SPA170 is an affordable, low power and compact general-purpose data acquisition and logging unit.

SPA170 measures and calculates the following values: instant data, average value (in pre-set intervals), maximum (in pre-set intervals), minimum (in pre-set intervals), addition, etc.,

At the end of each measuring interval, station stores measures and calculated data into its memory on a FIFO principle. Data are not lost if the station is powered off. Stored data can be reviewed or transmitted to the external computer. Much longer data storing intervals (up to several years) may be achieved using SD memory card. This card can be removed from the station and used as portable data-transfer media.

It has internal memory, 8 16-bit and 4 12-bit analog inputs, 13 digital inputs, 2 x PT100 (PT1000) and 4 digital counters, all with the possibility of additional expansion and serial, mobile and network data transmission.

SPA170 electronics of the station is enclosed in a cabinet that can be, easily mounted on a standard mounting DIN rail. Station can accept all standard meteorological sensors (temperature, relative humidity, atmospheric pressure, wind, ground temperature, precipitation, etc.). Other sensors (meteorological, hydrological, environmental, etc.) can be added. Meteorological calculations, such as evaporation, sunshine duration, etc., can be incorporated in the SPA170 software. SPA170 has internal Flash memory, which can be enlarged by standard removable SD memory cards.

All configurations parameters can be set via RS-232 communications or Touch screen display (optional) and are stored in the internal memory.

SPA170 can communicate through RS-232, RS-485, Ethernet or GPRS/GSM module.

## Technical specifications

<b>Dimensions</b>	160mm x 105mm x 60mm ( L x W x H )
<b>Weight</b>	1 kg
<b>Protection</b>	Closed housing IP30
<b>Mounting</b>	DIN mounting rail
<b>Operating temperature</b>	-30 to +60 °C
<b>Power consumption</b>	No display: 30 mA With display: 110 mA With GSM/GPRS module: 130 mA
<b>Connectors</b>	5 x 10 pin, 2 x 4 pin, 1 x DB9 male RS232 (opcija), 1 x SD/MMC (opcija)
<b>Electronics</b>	CMOS technology
<b>Display</b>	5" LCD touch screen (optional)
<b>Power supply</b>	external, +10V to 15 VDC (optional 24V)
<b>Analog inputs</b>	2 x PT100 (PT1000) (2, 3, 4- wire connect) 8 16-bit channels (or 4 differential) configurable as voltage or current 4 12-bit channels configurable as voltage or current
<b>Digital inputs</b>	13 ( 0 to 24V ) (4 inputs configurable as counter, frequency)
<b>Digital counters</b>	4 ( 16 bit 0 - 24V )
<b>Current generators</b>	2 x 0.2 - 20mA 2 x 200uA (optional)
<b>Voltage generators</b>	2 x 0.2 -10V, 1 x 3V (optional)
<b>Digital outputs</b>	1 x rele switch (optional)
<b>Sensor connection</b>	direct, parallel up to 2 km or: 2-wire RS485 to 5 km RS232A, RS 485, SDI-12
<b>Data logging memory</b>	2 MB internal Flash memory; expandable with 2GB - 32GB external SD memory card (optional)
<b>Distance of data transfer</b>	RS232 15m max; RS485 5km max
<b>Air pressure sensor</b>	optionally built in, 300 to 1200hPa accuracy 1hPa
<b>Communication outputs</b>	RS232, RS485, GSM/GPRS (optional), LAN (optional)
<b>Data transfer protocol</b>	through FTP, Websocket, RS232 or RS485

