MultiCon

CMC-99 (RS 825-1382)

multichannel

CONTROLLERS data recorders



Measure,

Control and Log Data

The MultiCon series includes advanced controllers and recorders with great potential closed in small casings. MultiCon CMC has been specifically designed for advanced applications in industrial automatic control engineering. It does not mean, however, that the device cannot be applied in smaller systems. MultiCon CMC can be equipped with three isolated RS-485 interfaces which make it a perfect solution for distributed systems to work as CPU. Thanks to Ethernet interface the device can be monitored via the Internet. A wide range of input and output modules allows to customize CMC precisely as the customer requires it. Thanks to a colour touchscreen working with the user interface becomes a pleasure, while MultiCon operation playing the role of HMI is intuitive and comfortable. Our devices are LINUX-based products to ensure stable operation.

MultiCon is modular and installed interfaces, inputs and outputs will vary - check the Specification page below for the defined capabilities of this RS Components-supplied version.

It's a Controller...

One of the most important functions of MultiCon CMC is control. Besides the usual ON/OFF control, MultiCon CMC with the help of relays, MultiCon CMC allows to apply PID control in a current loop, SSR outputs and time control with a determined profile.

PID control

Thanks to PID control you can control your process more accurately. Every channel (out of 60) can be set to work as a controller: PD, PI or PID with an independent set point, input and output. The user has 8 sets of control parameters to choose from and every one of them can be assigned to various controllers. It is a perfect solution for many similar processes to be controlled.





External inputs/outputs

External inputs/outputs (i.e. inputs/outputs for other devices) are particularly useful when there is a need to control a large number of physical execution units or collect data from distant sources. MultiCon CMC equipped with Modbus RTU can read data and control outputs of other devices interconnected within a network.

Profiles/timers

The user can create profiles to generate specific waveform signals. Generation of a signal is released by an event occurrence (e.g. signal edge) or if the task was planned to take place on a specific day and time. Thanks to profiles/timers it is possible to control temperature, lighting and ventilation depending on time of the day. All you have to do is to programme your profile/timer once to assign the object in question with the same operating conditions every day.



...and a recorder in the same package

1.5 GB for data!

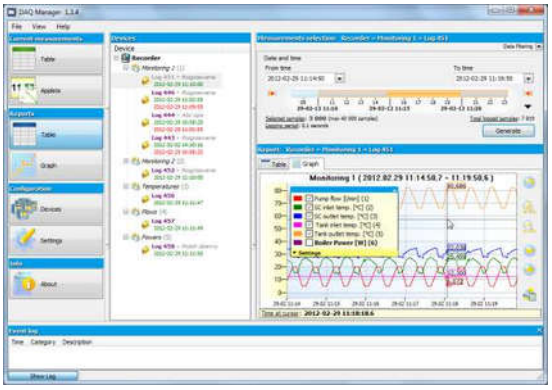
Every MultiCon can also work as a data recorder. Its internal memory of 1.5 GB can store over 125,000,000 samples. It means that even if intense sampling mode (every second) is selected, you can record data from 24 channels for 2 months.

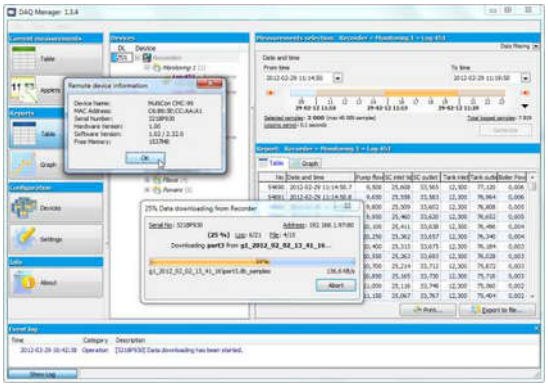
Every CMC from RS Components includes lifetime licence key for data recording.

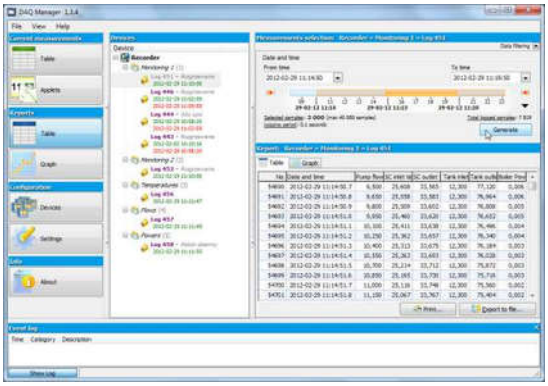
recording mode	intense (every 1 sec.)	medium (every 10 sec.)	economy (every 1 min.)
60 channels	20 days	6 months	3 years
48 channels	30 days	8 months	4 years
24 channels	50 days	15 months	7 years

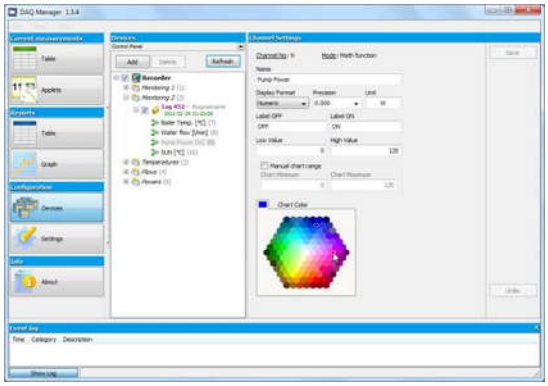
DAQ Manager

To manage such vast amount of data we have designed the DAQ Manager software to help you. It is free of charge and helps to manage all the data. The software allows to visualize data in the form of graphs and tables, group measurement results, create reports and export data into other files.









Comfort in your every move

Colour LCD touchscreen

The time when you had to press buttons to move the cursor within a virtual keyboard to enter one character is long gone. Now you have colour touchscreens to use your device more efficiently and with higher level of comfort. The display reacts accurately even to a slight touch. But if you prefer a traditional keyboard and a USB mouse it's not a problem. Simply connect and use them. On the 9cm (3.5 inch) TFT LCD 340 x 240 pixels, 65 536 colours - everything is clear and in pleasant colours.



Download data in a comfortable way

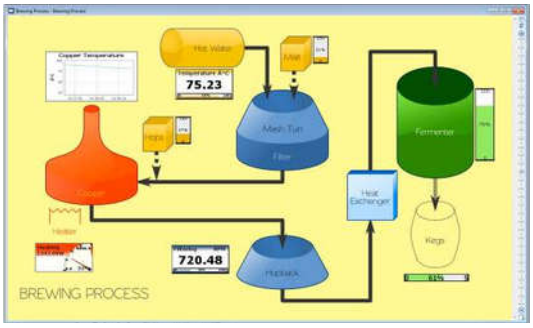
The recorded data can be downloaded from the internal memory in a way which suits you best. Use a USB flashdrive or Ethernet which allows you to perform the task wherever you are. Current data can be downloaded via the Internet or a Modbus RTU link.

Really easy update

Thanks to the cooperation with our customers we can continue to develop the software and provide it with new useful functions. Interesting suggestions and needs of our customers have been contributing to better firmware. MultiCon CMC update means three easy steps: download the update free of charge from the website, send it to a USB flashdrive, start the procedure and it is done.

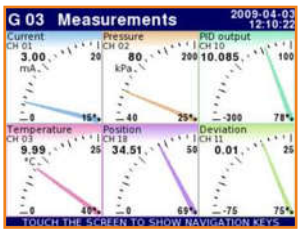
Use Java applets

An applet is software which can be opened by an Internet browser. It is possible to create your own website or use one of the templates included in MultiCon. This solution helps to visualize your system and display the data downloaded from CMC by means of Ethernet. Tank visualisations with bar graphs which indicate liquid level and pipes connected to the tanks with valves, valve state indicators and flow meters indicating flow speed or total liquid flow. This solution makes monitoring of the entire system much more transparent and pleasant.

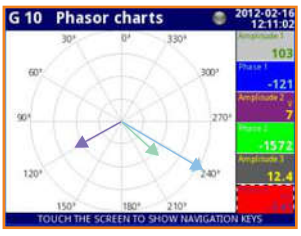


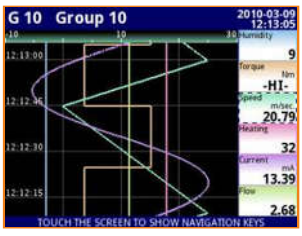
Measure, recalculate, control and display in your way

Recalculate any data according to your own functions. One result can be used as an argument of another function. For instance, current measurement from 8 channels and voltage from another 8 channels compose the result you require - total power from 8 objects. All data can be visualized in a range of ways: as numerical values, quasi-analog indicators, phasor charts, horizontal or vertical charts, horizontal or vertical bars or other meters.











Accessories

STD-99 (RS 7116060)

Lockable transparent door with IP54 rating with 2 keys. The door and its frame are manufactured using injection moulding to ensures that they fit the CMC-99 perfectly. The material has been selected to eliminate corrosion and ensure maximum durability.



mini USB flashdrive MS (RS 7116064)

An unusually small and light 2GB USB flashdrive has been designed with easy storage and transport in mind. It fits the CMC-99 perfectly and can be secured inside the protection of the closed and locked optional IP54 rated door (only USB Host (front) versions)



DAQ Manager CD included

Software for managing the recorded data. It is fully functional and a free of charge version can be downloaded from www.multicon24.eu A CD-ROM version ships with the Multicon CMC-99.



SRH-99, SRH-141

Assembly brackets for installation of the MultiCon e.g. in control cabinets with typical 35 mm bus bars.



Specification CMC-99 (RS 825-1382)

	Multicon CMC-99 with front USB for USB flashdrive or keyboard/mouse
Power supply/consum.	19 - 50V DC, 16 - 35V AC, typ. 15 VA, max. 20 VA
Display	9cm (3.5 inch) graphic TFT, 16-bit colour, 320 x 240 pixels, with touchscreen navigation Available languages: English, Polish, Spanish, German, Russian, French, Czech, Romanian and Hungarian.
Measurement inputs	• Total 3 analogue inputs: • 3 "universal" inputs for current or voltage or RTD or thermocouple or resistance - fully isolated current inputs:0/4...20 mA; voltage inputs:0/1...5V, 0/2...10V, -10...25/100mV, 0...600mV thermocouple inputs:J, K, S, T, N, R, B, E (PN-EN), L (GOST) [sensor included for cold junction compensation] RTD inputs: (2, 3, 4-wire);including Pt100, Pt500, Pt1000 (PN-EN); resistance input:0...300 Ω, 0...3 kΩ
Digital inputs	•1 digital
Outputs	- 4 relay 5A/250V SPDT
Sensor supply output	N/A
Communication interface	**Basic** version: RS-485, 1 x USB Host (front) MB Protocols: Modbus RTU Master or Slave
IP rate protection	IP 40 (version with front USB port) option: transparent door with key (IP 54) STD-99 (RS 7116060) can fit mini USB Flashdrive MS (RS 7116064) while closed
Data memory **Data recording speed**	internal 1.5 GB - expandable with external USB Flashdrive - option: mini USB Flashdrive MS (RS 7116064) available from 0.1 s to 24 hours with resolution 0.1 s
Operating temperature **Storage temperature**	0°C ... +50°C -10°C ... +70°C
Case dimensions **- panel cut-out**	96 x 96 x 100 mm 90,5 x 90,5 mm
Installation depth **Panel thickness**	102 mm min. 5 mm max.