

# Technical Data MCC

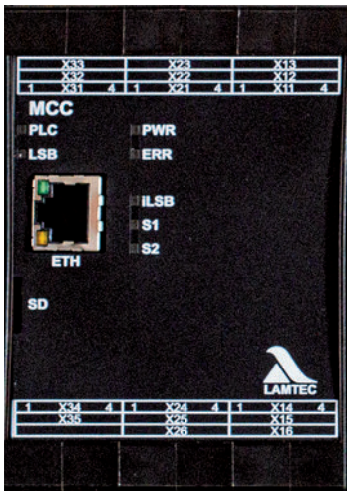


Fig. 1 Figure of MCC

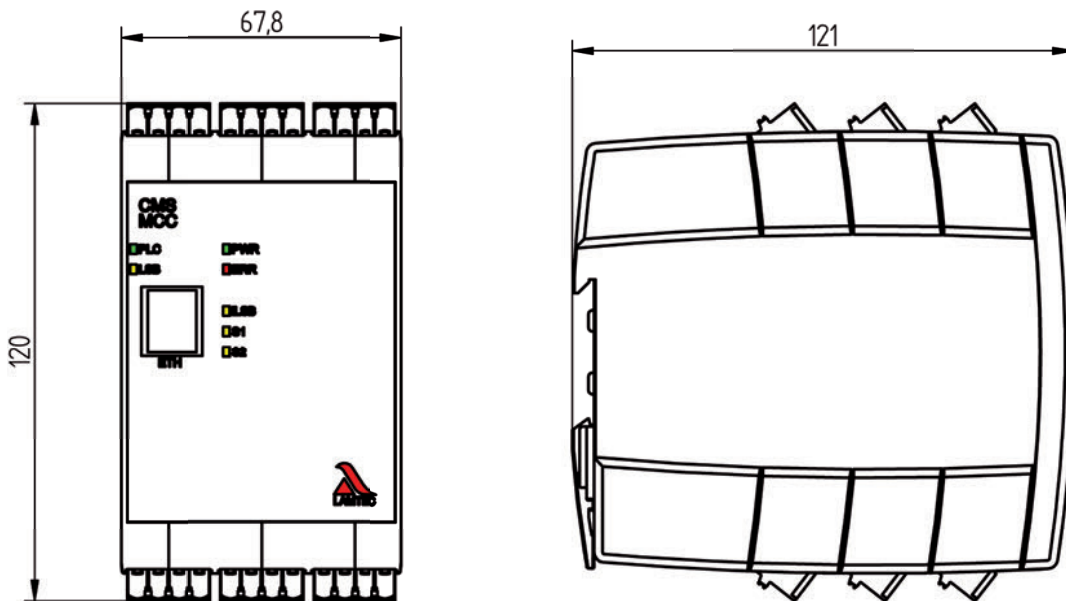


Fig. 2 MCC dimensional drawing

Part number	
MCC – Master Control Component	Type 668R0100-XX*

\* XX = dependent on the configuration

Technical Data MCC	
Dimensions (H × W × D)	120 x 67.8 x 121 mm / 4.72 x 2.67 x 4.76" in
Weight	0.505 kg / 1.11 lb
Power supply:	
MCC	24 VDC +/-20 %, SELV
Inputs	230 V/120 V +10/-15 %, 47-63 Hz, 24 VDC ± 20 %
Outputs	230 V/120 V +10/-15 %, 47-63 Hz, 24 VDC ± 20 %
Maximum backup fuse/outputs	8 A fast acting
Current draw	minimum: 200 mA maximum: 335 mA
Maximum power consumption	10 W

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Digital inputs				
		24 VDC	120 VAC	230 VAC
nominal current		2.1 mA	2.1 mA	2.3 mA
		impedance 11 kΩ	impedance 75 kΩ	impedance 100 kΩ
<b>Due to the low inrush currents of the CMS, we recommend using appropriate contact material, e.g. gold-plated silver contacts or wiring the encoder contacts accordingly.</b>				
signal ON (min)		0.55 mA ≧ 6.9 VDC	0.97 mA ≧ 56 VAC	0.78 mA ≧ 77 VAC
signal OFF (max)		0.27 mA ≧ 4 VDC	0.35 mA ≧ 21 VAC	0.35 mA ≧ 36 VAC
cable length max. 200 m / 656.17 ft				
Digital outputs				
I <sub>max</sub> = 2 A per output, maximum total current over all outputs: 8 A cosφ ≥ 0.2				
For operation with PLC or similar, digital inputs: – Logical 1 = Output ON: U = 230 V/120 V/230 V incl. tolerance – Logical 0 = Output OFF see Fig. 3 Output of the additional resistor when the output is switched ON see Fig. 4 Residual voltage when output is switched OFF				
		24 VDC	120 VAC	230 VAC
short circuit current		1.23 mA	1.41 mA	1.47 mA
residual voltage by self-test functions see Fig. 4 Residual voltage when output is switched OFF)				
cable length max. 200 m / 656.17 ft				

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<p>Flame sensor input</p>	<p>optical: flame sensor connection  <math>U_{nom} = 27\text{ V} \pm 1\text{ V}</math>            Cable length max.            FFS07/FFS08: 300 m / 984.25 ft, shielded            FLS09: 100 m / 328.08 ft, shielded            ionisation: supply voltage 230 VAC (120 VAC)  <math>I_{min} = 1\ \mu\text{A}</math>  <math>I_{max} = 50\ \mu\text{A}</math>            Output for measurement values Ion Meas- and Ion Meas+            0 ... 500 mV            1 mA corresponds to 10 mV            depending on the cable used. Maximum line capacitance            12nF            (including ionisation measurement output)            depending on the cable used. Maximum line capacitance            12nF            (including ionisation electrode)</p>
<p>Current output</p>	<p>0 ... 20 mA <math>\pm 2\%</math>            output current max.: 25 mA            load max.: 1 k<math>\Omega</math>,            cable length max. 200 m / 656.17 ft, use shielded cables only!</p>
<p>Analogue input</p>	<p>Multifunctional input for the connection of:            – potentiometer (2 k<math>\Omega</math> ... 10 M<math>\Omega</math>)            – current input 0/4 ... 20 mA, <math>R_i = 150\ \Omega</math>            – voltage input 0 ... 10 V, <math>R_i = 100\ \text{M}\Omega</math>            reference voltage 10 V, short-circuit proof            tolerance <math>\pm 2\%</math>            cable length max. 200 m / 656.17 ft., use shielded cables only!</p>
<p>Fieldbus</p>	<p>MODBUS/TCP Ethernet specifications            PROFINET Ethernet specifications            LAMTEC SYSTEM BUS            other fieldbus couplings via separate module            Cable lengths:            0 - 40 m / 0 - 131.23 ft            2x2x0,22 mm<sup>2</sup> / 14x14x24 AWG            twisted pairs with shielding, impedance 120 <math>\Omega</math>            40 - 300 m / 131.23 ft - 984.25 ft            2x2x0,34 mm<sup>2</sup> / 14x14x22 AWG            twisted pairs with shielding, impedance 120 <math>\Omega</math>            300 - 500 m / 984.25 ft - 1,640.42 ft            2x2x0,50 mm<sup>2</sup> / 14x14x20 AWG            twisted pairs with shielding, impedance 120 <math>\Omega</math></p>
<p>Flammability</p>	<p>UL94 V-0</p>

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## Environmental Conditions

<b>Operation</b>	permitted temperature range	-30 ... +70 °C (condensation prohibited) -22 ... +158 °F
	permitted humidity	5 % ... 95 % relative humidity
<b>Transport/Storage</b>	permitted temperature range	-40 ... +80 °C (condensation prohibited) -40 ... +176 °F
	permitted humidity	5 % ... 95 % relative humidity
<b>Degree of protection</b>	DIN EN 60529	IP20 (as long as all terminals are mounted)

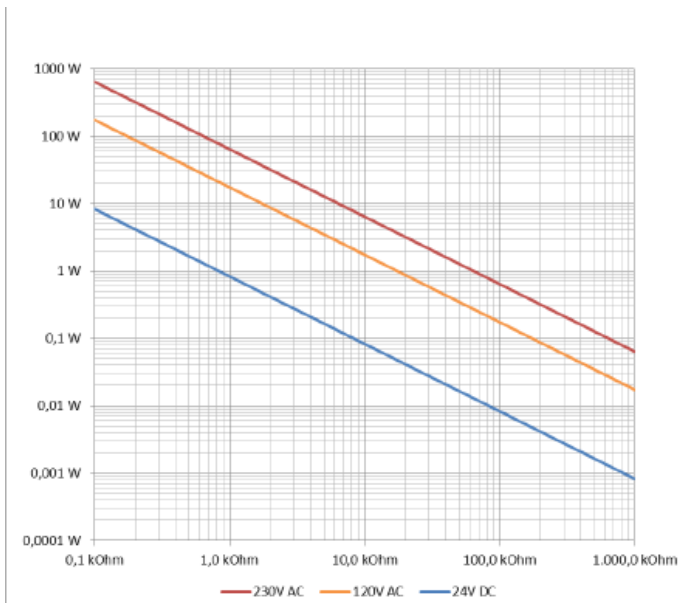


Fig. 3 Output of the additional resistor when the output is switched ON

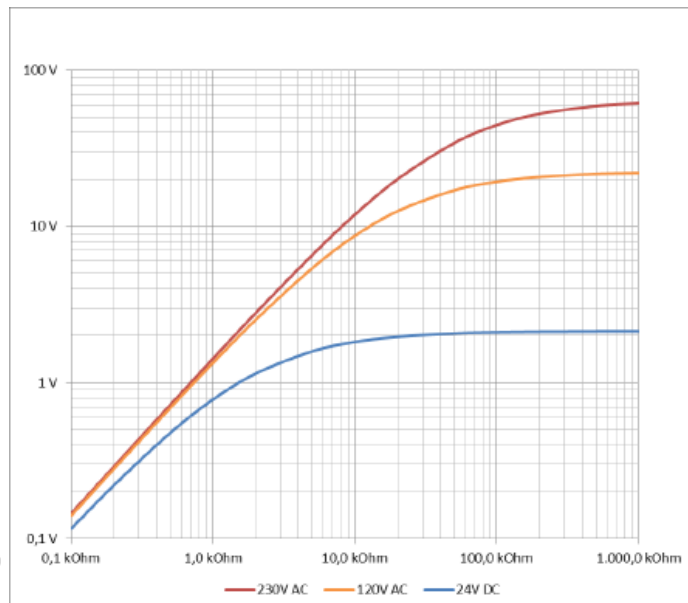


Fig. 4 Residual voltage when output is switched OFF

## EU Declaration of Conformity

2014/35/EU	Low Voltage Directive
2014/68/EU	Pressure Equipment Directive Kat. 4 Mod. B+D
(EU) 2016/426	Gas Appliance Regulation (GAR)
2011/65/EU	RoHS

## NOTICE

The limits of the technical data must be strictly adhered to.

# Technical Data MCC

## Order Information

Description/Type	Order no.
MCC Master Control Component, power supply 24 VDC/8 W Burner module	668R0100...

A 10 – VOLTAGE IN/OUT	Selection
INPUT 230 VAC/OUTPUT 230 VAC	230VAC
INPUT 120 VAC/OUTPUT 120 VAC	120VAC
INPUT 24 VDC/OUTPUT 230 VAC	24-230
INPUT 24 VDC/OUTPUT 120 VAC	24-120
INPUT 24 VDC/OUTPUT 24 VDC	24VDC

A 20 – FLAME MONITORING	Selection
EXTERNAL FLAME MONITORING VIA DIGITAL INPUT	0
INTERNAL FLAME MONITORING OPTICAL FFS...	OP
INTERNAL FLAME MONITORING IONISATION, SUPPLY VOLTAGE	IO-230

A 30 – CUSTOMER	Selection
STANDARD	S

A 40 – COLOUR	Selection
BLACK (STANDARD)	SW

A 50 – CONNECTOR SET	Selection
SCREW TERMINALS Connector set included	SC
SPRING TERMINALS Connector set included	FED
WITHOUT Connector set not included, must be ordered separately, see „Separate Connector Sets for MCC“	0

A 60 – MEMORY EXTENSION	Selection
WITHOUT	0

### Separate connector sets for MCC

when attribute 50 „CONNECTOR SET“ = selection „0“

Description/Type	Order no.
Screw terminals MCC input 120/230 VAC / output 120/230 VAC	668R0085
Screw terminals MCC input 24 VDC / output 120/230 VAC	668R0086
Screw terminals MCC input 24 VDC / output 24 VDC	668R0087
Spring terminals MCC input 120/230 VAC / output 120/230 VAC	668R0095
Spring terminals MCC input 24 VDC / output 120/230 VAC	668R0096
Spring terminals MCC input 24 VDC / output 24 VDC	668R0097

## Approvals



The information in this publication is subject to technical changes.



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