TOPAX® MC

Product information

Single and multi-channel controller

A versatile partner
The TOPAX®MC is a multifunctional measuring and control device of Lutz-Jesco GmbH. Its modular design makes it an adaptable and extremely competent partner for all your measurement and control technology requirements. Whether you need to measure chlorine, the pH value, Redox value or the pH value four times, the modular design permits any combination.

The outputs can also be selected freely. For instance, you can actuate dosing pumps via an optocoupler or various relays. Actuators can be operated via relays or 20 mA outputs. The output module digital universal can be operated either as an optocoupler for pulse frequencyfunction or as a relay for pulse length function, which enables favourable stepless control. Depending on the controller version, the colour display has a diagonal of 5" or 7". The user-friendly user interface is rounded off with a simple touch control and multi-lingual intuitive menu navigation.

You can chose: You can use the four analogue outputs (0/4 – 20 mA) or the network capability to transfer the measured values to a web browser or a tele-maintenance point. Many timer functions are integrated in the TOPAX® MC. For example, dosing can be time-controlled, but attractions or filters in the pool can also be controlled. Reminder functions are also integrated, reminders when sensors need to be replaced, or for servicing or adjustments.

General
- Modular structure of the inputs and outputs
- Up to four sensors and additionally up to four temperature sensors
- Freely-configurable overviews
- Difference value measurement (e.g. ΔpH)
- Up to four reference sets can be configured and loaded via a digital input or time control
- Service entries and sensor change can be saved
- Limit value control (can be used as a DIN contact for partial load operation in accordance with DIN 19643)
- 1 – 9 potential-free relay outputs
- Web server and Modbus protocol via Ethernet, optional RS485
- Trend Display
- Large colour touch-display
- Data is saved on a USB flash drive
- Many languages (DE, EN, FR, ES, PT, NL, DK, CZ, RU, PL, HU, LT) already included; other languages on request

safety is our concern

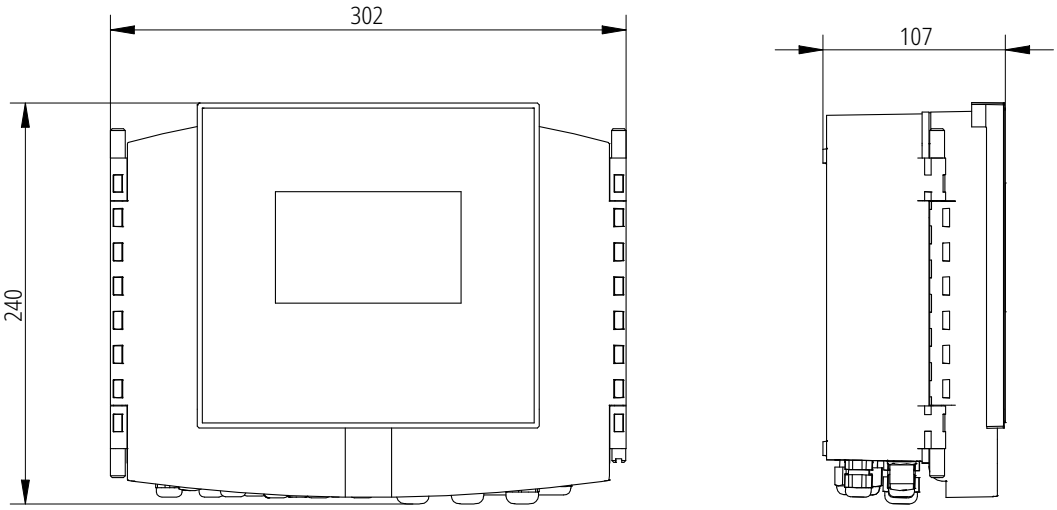
Technical data

TOPAX® MC			
Power supply			100 – 240 V AC, 50/60 Hz
Power consumption		W	max. 20
Analogue outputs for remote transmission			4 x 0/4 – 20 mA, working resistance max. 500 Ω
Disturbance variable input		mA	0/4 – 20
Interfaces			Ethernet TCP/IP or RS485 Modbus RTU (optional)
Protection class			IP65
Ambient temperature		°C	-5 to +45, no exposure to direct sunlight
Control characteristic			P, PI, PID or PD behaviour, control direction selectable with disturbance variable feed forward, 2-side control selectable
Measuring inputs (depending on version)			
Number of measuring inputs			up to 4*
Bromine	Membrane-covered measuring cell	mg/l	0 – 5 (dependant on the measuring cell)
Free chlorine	Amperometric 3-electrode measuring cell with potentiostat (DMZ3.1)	mg/l	0 – 2 or 0 – 15 (dependant on the input module and the measuring cell transconductance)
	CS120 excess chlorine measuring cell	mg/l	0 – 10 (dependant on the measuring cell transconductance)
	Membrane-covered measuring cell	mg/l	0 – 20 (dependant on the measuring cell)
Chlorine dioxide	Amperometric 3-electrode measuring cell with potentiostat (DMZ3.1)	mg/l	0 – 2 or 0 – 15 (dependant on the input module and the measuring cell transconductance)
	CS120 excess chlorine measuring cell	mg/l	0 – 10 (dependant on the measuring cell transconductance)
	Membrane-covered measuring cell	mg/l	0 – 20 (dependant on the measuring cell)
Total chlorine	Membrane-covered measuring cell	mg/l	0 – 10 (dependant on the measuring cell)
Ozone	Membrane-covered measuring cell	mg/l	0 – 2 (dependant on the measuring cell)
pH value	pH single-rod measuring cell	pH	0 – 14 (dependant on the single-rod measuring chain)
Redox value	Redox single-rod measuring cell	mV	-1000 to +1000 (dependant on the single-rod measuring chain)
Chlorite	Membrane-covered measuring cell	mg/l	0 – 2 (dependant on the measuring cell)
Hydrogen peroxide	Membrane-covered measuring cell	mg/l	0 – 200 (dependant on the measuring cell)
Conductivity (conductive)	Conductivity measuring (k=1)	mS/cm	0 – 2, 0 – 20 or 0 – 100 (dependant on the configuration, corresponds to approx. 0 – 1 % or 0 – 5 % salt content)
Dissolved oxygen	Optical membrane-covered measuring cell	mg/l	0 – 20
Turbidity	Optical measuring cell	NTU	0 – 10, 0 – 100 (dependant on the measuring cell)
Temperature	Pt100	°C	-10 to +90
Output modules (depending on version)			
Servomotor relay			2 x 230 V AC, 5 A (ohmic load)
		kΩ	Potentiometer feedback: 1 – 10
Servomotor 20 mA			Constant 0/4 – 20 mA output
		mA	Servomotor with 20 mA feedback
Relays			2 x 230 V AC, 5 A (ohmic load)
Relay high current			2 x 230 V AC, 8 A (ohmic load)
Optocoupler			2 x 80 V DC, 5 mA
Digital universal			selectable: 2 x 230 V AC, 5 A (ohmic load) relay or 2 x 80 V DC, 5 mA optocoupler

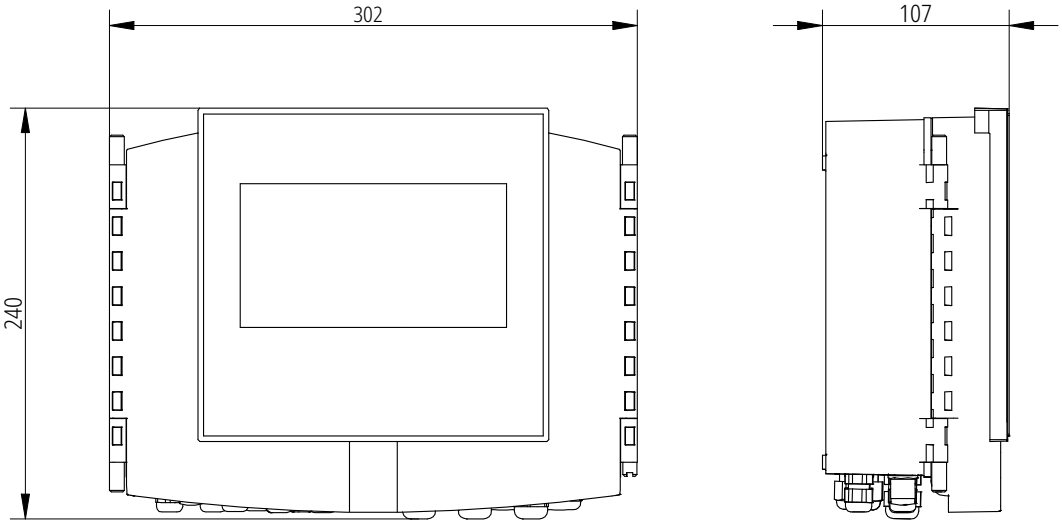
* An additional temperature sensor can be connected per sensor input.

Dimensions

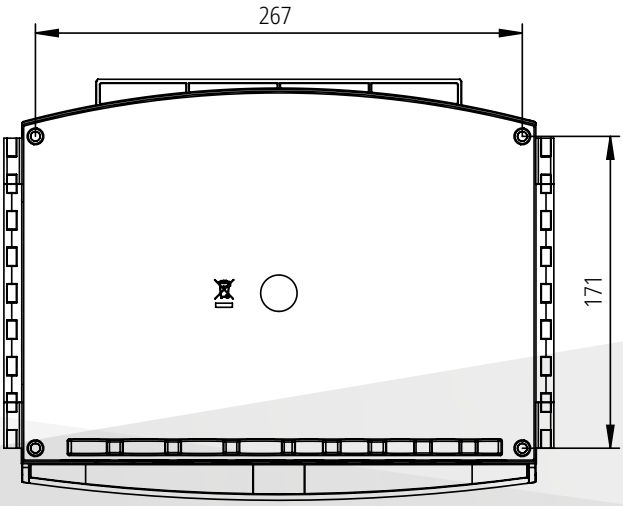
All dimensions in mm



TOPAX® MC with 5" display (single- and two-channel controller)



TOPAX® MC with 7" display (three- and four-channel controller)



Accessories

Switching device suppression module
- -20 to +70 °C
- 22 × 27 × 11 mm
- 50 W (VA)

Ethernet cable
- CAT5, 2, 5, 10 m PUR cable
  with M12x1 plug 4-pole D-coded and RJ45 plug

Fittings
- Different versions available in different nominal widths and made of different materials
- Measuring cell fittings, throughflow fittings, immersion fittings and changeover devices
- Accessories for fittings: Clamping collars, wet holding trays and measuring cell housings

TopView 4 visualisation software
- Visualisation and monitoring of TOPAX® MC
- Retrieval and display of data from the browser for up to 10 users with user-specific view configurations
- Pre-installed TopView license and operating system on an energy-saving microcomputer
- Connection to controller via Modbus TCP network
- Simple configuration and remote access via LAN/WLAN
- Secure connection through VPN and https
- Archiving of all alarms issued and all measured values
- Automatic daily log
- Operating log (optional)

Order no. PI-46020EN | State of the art 09.2024 | Subject to technical changes

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