

## TOPAX<sup>®</sup> MC Multi-channel controller



### A versatile partner

The **TOPAX<sup>®</sup> MC** is Lutz-Jesco GmbH's multi-channel controller. 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, relay or relay high current and servomotors via a relay or a 20 mA output. The output module digital universal can be operated either as an optocoupler or as a relay.

Depending on the controller version, the high-resolution 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 have the choice:** 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. A settable time interval can be used e.g. to issue an automatic reminder for wear-related sensor change.

### 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.  $\Delta$ pH)
- 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
- 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

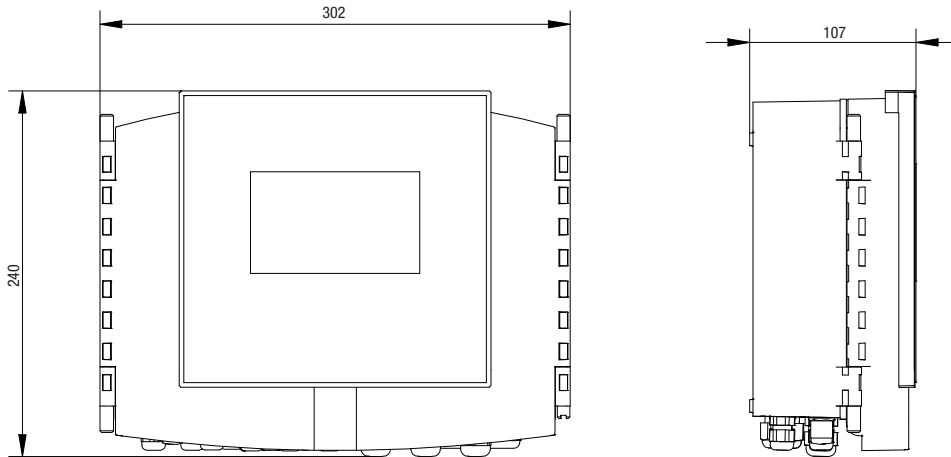
## Technical data

TOPAX® MC			
Voltage 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	Diaphragm-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)
	Diaphragm-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)
	Diaphragm-covered measuring cell	mg/l	0 – 20 (dependant on the measuring cell)
Total chlorine	Diaphragm-covered measuring cell	mg/l	0 – 10 (dependant on the measuring cell)
Ozone	Diaphragm-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	Diaphragm-covered measuring cell	mg/l	0 – 2 (dependant on the measuring cell)
Hydrogen peroxide	Diaphragm-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)
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) relays or 2 x 80 V DC, 5 mA optocouplers

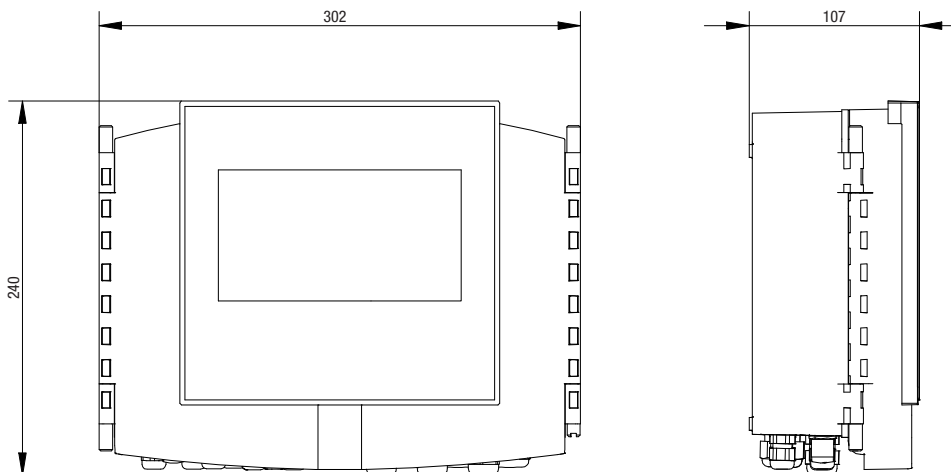
\* An additional temperature sensor can be connected per sensor input.

## Dimensions

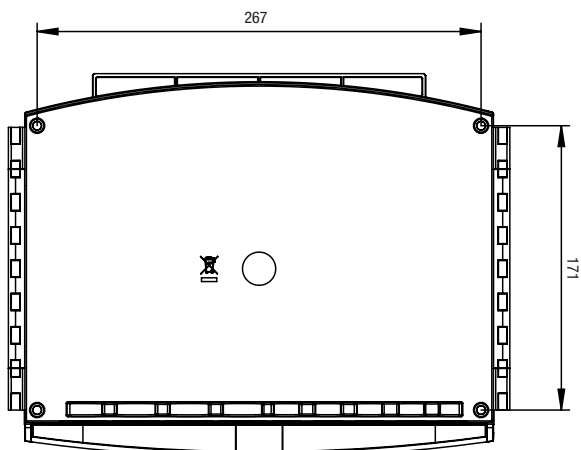
All dimensions in mm



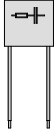
TOPAX<sup>®</sup> MC with 5" display (single- and two-channel controller)



TOPAX<sup>®</sup> MC with 7" display (three- and four-channel controller)

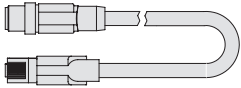


## Accessories



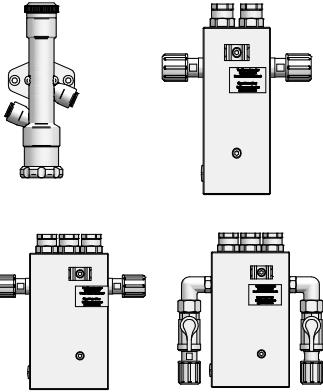
### Switching device suppression module

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



### Ethernet cable

- CAT5, 2 m PUR with M12x1 plug
- 4-pin, D-coded with 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 clamps and measuring cell housings



### Visualisation Software TopView 4

- 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)