technologies

MCT 100

Intelligent Climate Touch Display

The MCT 100 is an intelligent 4-inch touchscreen display designed for environmental monitoring, sensor visualization and process control.
Featuring a high-resolution graphical interface, it provides real-time measurement data, trend visualization, configurable alarm thresholds and relay control.
The MCT 100 can operate as a standalone display connected directly to an MW environmental sensor or as part of the MW Secure Edge Gateway system, supporting up to 10 sensors with centralized monitoring and secure cloud connectivity via the Finder OPTA controller.

Features



- High-resolution 4-inch capacitive touchscreen (480 × 480 pixels)
- Intuitive graphical user interface with multilingual support (de/en)
- Live trend graphs with interactive zoom functionality
- Support for up to 10 environmental sensors
- Configurable alarm thresholds and hysteresis control
- Control and monitoring of up to 4 relay outputs via external device
- Automatic sensor identification and status monitoring
- Sensor diagnostics, communication status and event logging
- RS485 communication with Modbus RTU protocol
- Secure network and Digital Twin status visualization
- Standalone operation or integration into the MW Secure Edge Gateway architecture

Smart Monitoring. Simple Control.

The MCT 100 combines real-time environmental monitoring, intuitive touchscreen operation and intelligent sensor management in one compact device.

From standalone measurements to secure cloud-connected monitoring systems, the MCT 100 provides a flexible and scalable solution for data centers, industrial applications and environmental monitoring.

Applications

- Data centers and server rooms
- Industrial climate monitoring
- HVAC and building automation
- Environmental monitoring systems
- Cleanrooms and laboratories
- Storage facilities and warehouses
- Temperature and humidity control applications
- Sensor monitoring and process visualization
- Remote monitoring via Secure Edge Gateway and Digital Twin

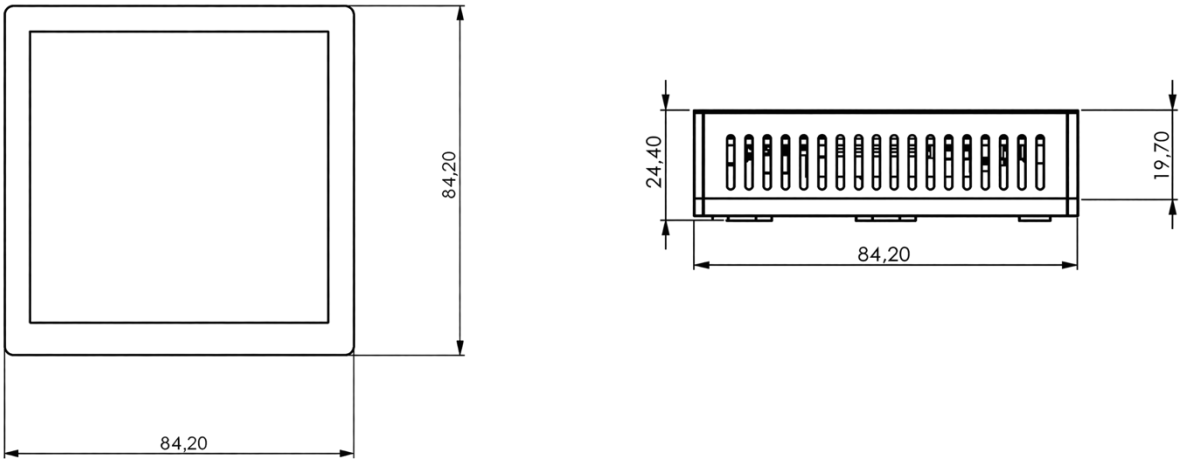
Specifications

Electrical Data

All specifications at T_A = 25 °C unless otherwise noted.

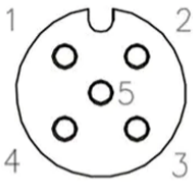
Parameter	*Min.*	*Typ.*	*Max.*	*Unit*	*Conditions/Comments*
Environmental Conditions					
Operating temperature	0		65	°C	
Storage temperature	5		50	°C	
Power Supply					
DC voltage	7	24	36	V DC	
Current consumption		350	600	mA	@5V DC
Power consumption		1,75	3,0	W	@5V DC
Display & User Interface					
Display size		4.0		Inch	IPS LCD
Resolution			480x480	pixels	
Touch technology		Capacitive		-	GT911 capacitive touch controller
Languages		DE / EN		-	German / Englisch
Communication Parameters					
Interface		RS485			Modbus RTU
Baud Rate		9600		baud	
Data Format		8N1			8 data bits, no parity, 1 stop bit
Modbus Slave ID		200			Finder OPTA Mode
Sensor Capacity		1	10		10 sensors via MW OPTA Gateway
Control Functions					
Relay Output		-	4	channels	Via Finder OPTA
Alarm thresholds		Configurable		-	High / Low
Hysteresis		Configurable		-	Software Control
EMC Standards					
Standard		Electromagnetic emissions			EN 55032:2015+A11:2020
		Electromagnetic immunity			EN 55035:2017+A11:2020

Mechanical Data



[1] All dimensions in millimeter
(tolerance : ±0.2)
[2] Scale : freestyle
[3] Housing : Aluminium black hard-anodised coating concerning to ISO 10074:2021; MIL-PRF-8625F and LN 9368-4-2200

Pin Assignment

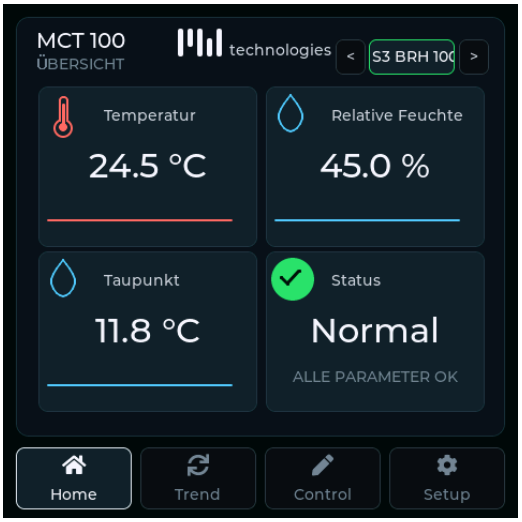


Pin	Signal	Description
1	+UB	Supply Voltage
2	B-RS485 / Data-	RS485 B inverted Data
3	GND	Ground
4	A-RS485 / Data+	RS485 A non-inverted Data
5	Shield	Shield GND

Marking

Each device is marked with a label at back.

Typical Views









Accessories



OPTA PLR



M12 Y Splitter



M12 4pol cable

Ordering

Product/Replacement part	*Order number*
MCT 100	750000
OPTA PLR	220000
M12 4pol. Connection cable 2m	290004
M12 4pol. Connection cable 5m	290005
M12 Y Splitter	290007

Revision History

2026-11-14	**Rev. 0:** Initial Version

Disclaimer

All product, product specifications and data are subject to change without notice.

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