

# MAKON: IIoT and Digital platform







# MBTech: Industries

Light industries and F&B



Water treatment



Heavy industry



Energy distribution



Building automation







# History of MAKON

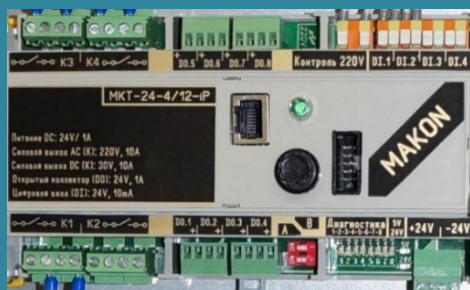
Logical relay



2015

Internal protocol only

Automation controller



2017

Modular automation controller



2018

Modbus RTU

Ethernet compatible controller



2020

Modbus TCP

PLC Data logging



2022

Modbus RTU  
Modbus TCP  
IEC 60870-5-104

SMART

- Manufacturing
- Buildings
- Grids
- Cities



2024

Codesys 3.5  
Masterscada  
TMIUS



# Range of controller equipment

## SMART grids



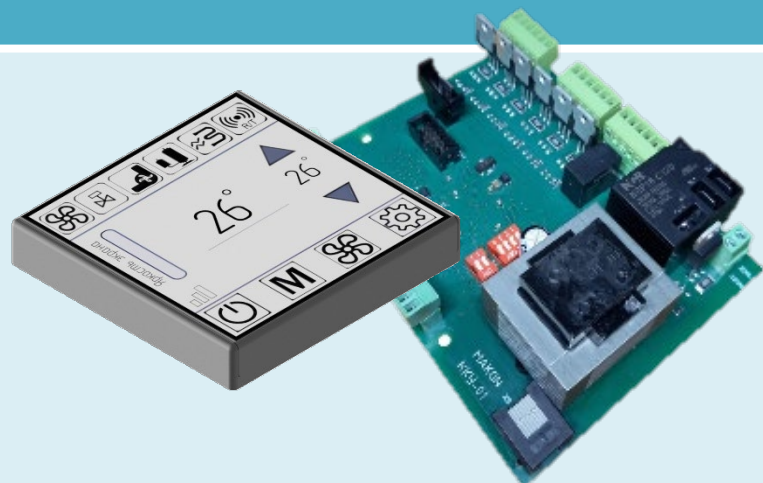
## Weight control



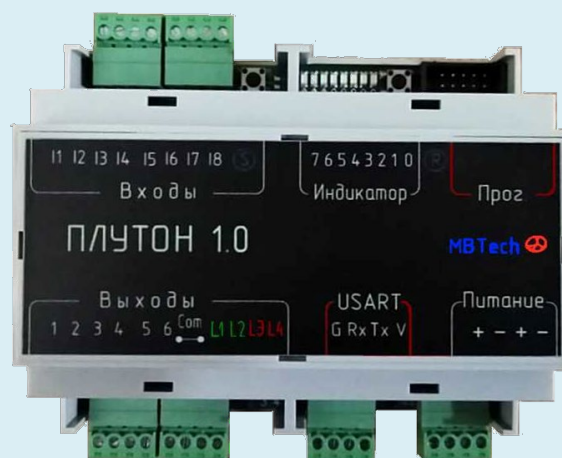
## CNC



## HVAC



## Lightning



## ATS and UPS







# MAKON: quality and reliability



- Reliability on stage of R&D



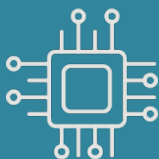
- Electrical circuits control of boards
- Automation components assembling line



- 100% quality control test



# MAKON: easy and complete



ARM Cortex-A55, 4  
cores, 2 GHz



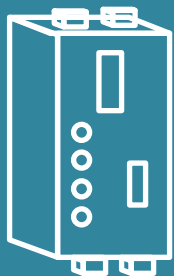
RAM 2GB



EMMC

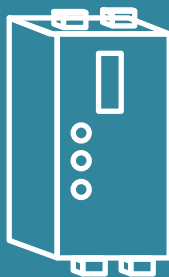
16GB

## Main module M-A-300



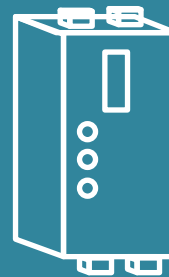
Up to 2x 1Gbe Ethernet  
7x RS485  
12x DIO  
2x USB  
1x HDMI  
2x FDIO

## Digital channels module DIO



Up to 32 DIO  
1x RS485 Modbus  
Universal I-O channels

## Analogue channels module AIO



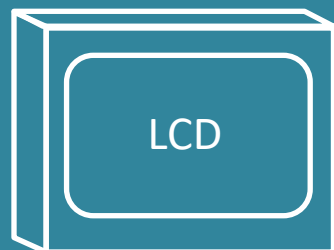
Up to 12 DIO  
1x RS485 Modbus  
Universal:  
4-20mA and 0-10V  
I-O channels

## Relay module RO



Up to 12 relay outputs  
Rated current 10A  
0,5 million operations  
1x RS485 Modbus

- Rich hardware platform
- Wide range supported protocols
- Local monitoring
- Power management



From 3,5 to 15 inches  
LCD modules

## Network control module CM



1x RS485 Modbus  
Connection to HV  
divider  
Current control



# MAKON: Wide communication range

## Runtimes and IDE



IEC 61131  
compatible

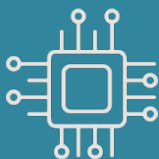
## Protocols

- Modbus RTU и TCP
- MQTT
- OPC DA, OPC HDA, OPC UA
- Profinet
- IEC 61850 MMS/GOOSE
- IEC 60870-5-104
- IEC 60870-5-103
- DLMS
- BACnet IP

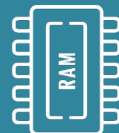




# MAKON: reliability and convenience



ARM Cortex-A55, 4  
cores, 2 GHz

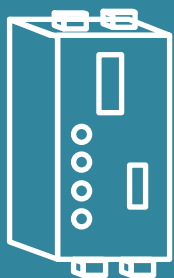


RAM 2GB



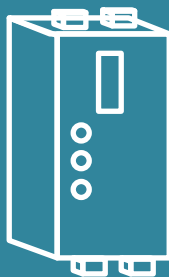
EMMC 16GB

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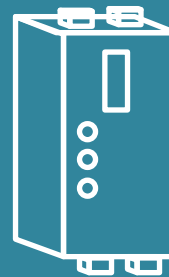
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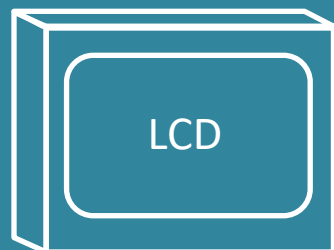
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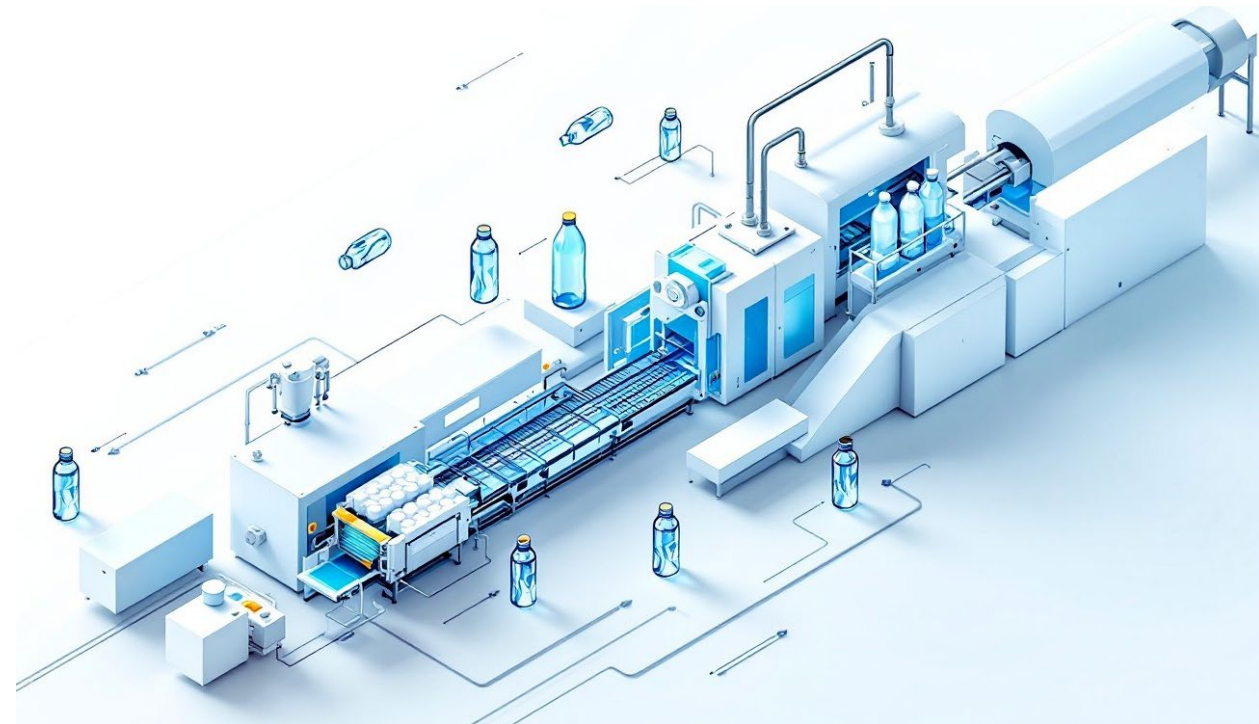
1x RS485 Modbus  
Connection to HV  
divider  
Current control





# MAKON: one solution

FROM



Process automation

TO



SMART manufacturing





# MAKON: Process automation

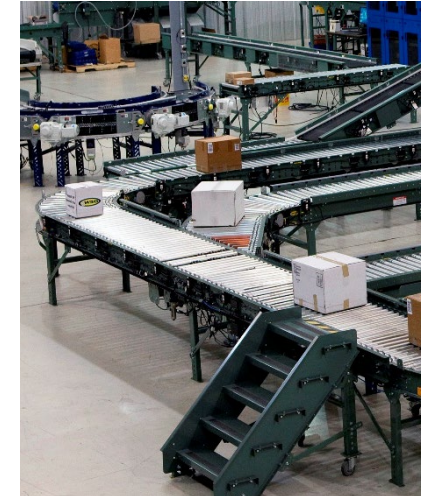
Forming and cutting



Ovens and thermal processes



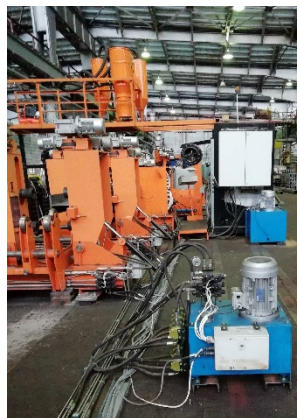
Transportation and sorting



Wood plate trimming



Welding



Packaging



And  
many other



# MAKON: SMART machines



## Process automation



## Remote control



## LOCAL Visualization and control





# MAKON: Digitalization

SMART manufacturing

Mobile devices



cloud



Digital industry

SMART machines



Local control and  
visualization

Safety

Power control

Process automation controller

Weight sensors

Step motors

DC motors

Speed drivers

SMART devices

Digital and Analogue inputs and outputs

Proximity Sensors

Encoders

Pushbuttons

Switches

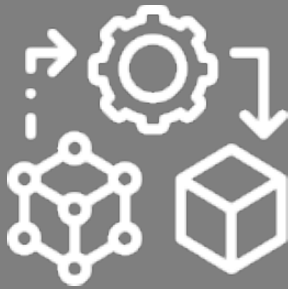
Signaling



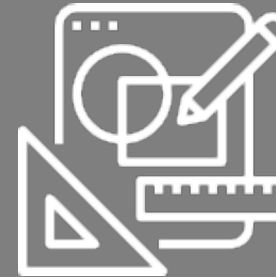


# Support from MBTech

R&D and  
customization



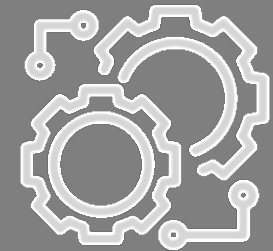
Project  
design



Programming and  
software development



Services



- Technical support on each level and all levels of project



# Partnership with MBTech

End user

Partner

MBTech

Automation issues



Send information



Confirmation



Automation solutions



Automation control



Order



Automation system



Automation solution



Automation control



Service



Technical support





# Partnership with MBTech

**MBTech provides customized solutions and R&D service**

Unique cutting edge solutions to be on top

Existing offer to continue sustainable business

Technical support on each stage and all stages of projects







# Why MBTech?

Tech support

Exclusive offer

Customized  
solutions

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