

ComatReleco PLC + HMI

## BoxX 2

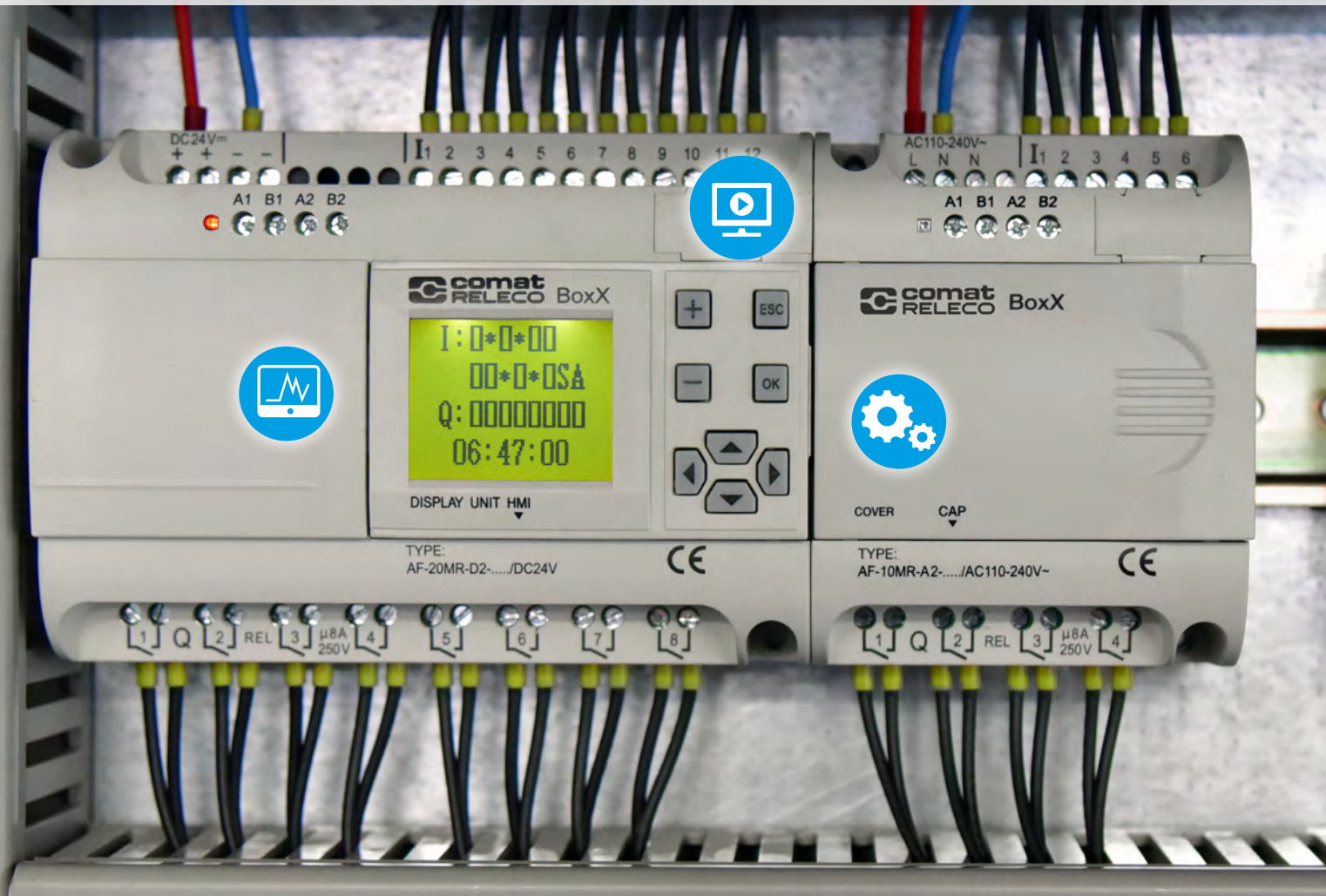


### Versatile small control

- Compact small controller for versatile applications in buildings, plant construction, industry, etc.
- Free programming software
- Efficient programming: one single software for display and ladder diagram
- Function block programming and large programme memory capacity
- Real-time clock function for time controls
- Removable LCD display with security password lock function
- Integrated inputs and outputs



BoxX 2: Versatile and reliable small controller for efficient programming



### Digital and analogue inputs:

Three unit types with different inputs are available:



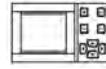
- ✓ AC 110 – 240 V
- ✓ DC 12 – 48 V
- ✓ DC 0 – 10 V
- ✓ DC 4 – 20 mA

6 or 8 inputs



### Plug and play:

Programming via display or with PC.



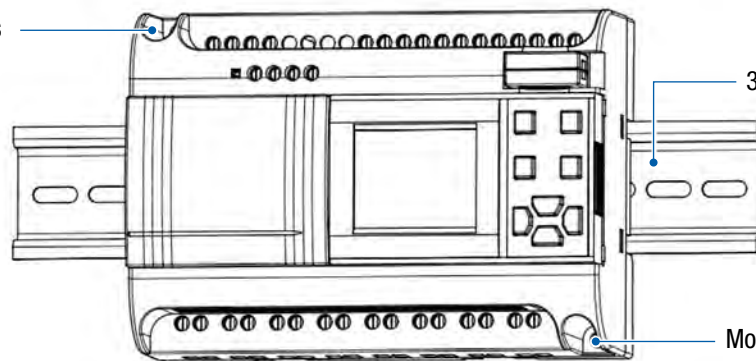
## ComatReleco BoxX 2 PLC with display

The compact PLC (programmable logic controller) is a reliable controller for small applications. You create the applications quickly and easily according to your needs.

### Your advantages:

- + The LCD display with buttons can be mounted and dismounted according to your needs.
- + The BoxX 2 comes in a compact and high-quality housing and can be mounted on a DIN rail or mounting plate.
- + The Free QUICK II programming software can be downloaded from our website under [Download](#).
- + Efficient programming thanks to a single software for display and ladder diagram.
- + The control is programmed with function blocks. An extensive function block library is available.
- + The programme is permanently saved in the unit and can be overwritten or read out again if necessary.
- + The BoxX 2 has a real-time clock with which you can programme up to 127 different time functions.
- + The simulation tool can be used to check the programme on the PC before commissioning.
- + You can set your own security password to block access to the programme.
- + Two RS-485 ports are available as communication interfaces. The BoxX 2 supports the standard MODBUS RTU protocol.

Mounting hole for screws



35 mm DIN rail

Mounting hole for screws

Snap-in mechanism on the underside



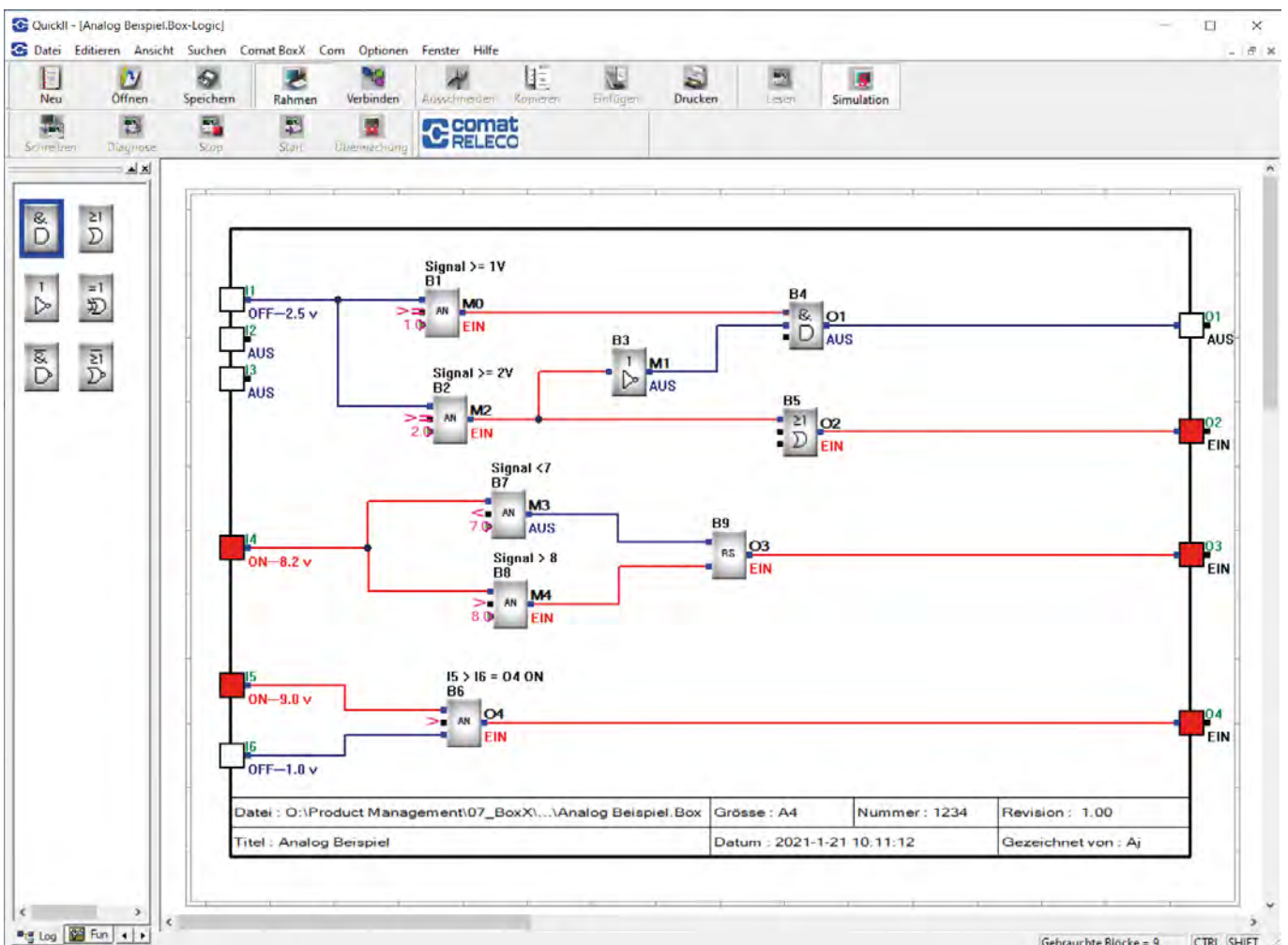
- Compact PLC for small and versatile applications
- as a single controller or several units in a network via Modbus RTU
- Removable LCD display with security password lock function
- with connection to a higher-level system (e.g. connection to a control system via Modbus RTU)

Commissioning

- To shorten commissioning, the programme can be simulated on the PC.
- The programme is transferred to the unit via the USB interface (AF-DUSB2).
- The LCD display can be used for visualisation and operation.

QUICK II software

- Programming is done with the intuitive programming software QUICK II. See screenshot below.
- The programme in the BoxX 2 can hold up to 127 function blocks.
- The BoxX 2 has a real-time clock function and you can set up to 127 different time functions.
- You are completely Free in the input and output configuration of the unit. You decide which inputs and outputs are active and how they are physically assigned.
- The programme is permanently saved in the unit and can be overwritten or read out again if necessary.





«  
*All-in-one device for  
automation and control  
of building  
services equipment.*  
»

---

## Service

---

We offer you the following services with our professional competence:

- individual consultation
- defined solution approaches
- Planning and project engineering based on specifications
- Customised programming solutions

---

## Replacement for previous device series

---

- The 6 unit types AF-10MR-A2 / AF-20MR-A2; AF-10MR-D2 / AF-20MR-D2 as well as AF-10MT-GD2 / AF-20MT-GD2, cover all units already in the field from ComatReleco.
- The dimensions, the connection diagram as well as the nominal voltages are identical to the previous unit series.
- Existing BoxX programmes can be reused.

---

## Function block library

---

### Logical functions

AND, OR, NOT, NAND, XOR, NAND, NOR

### Time functions

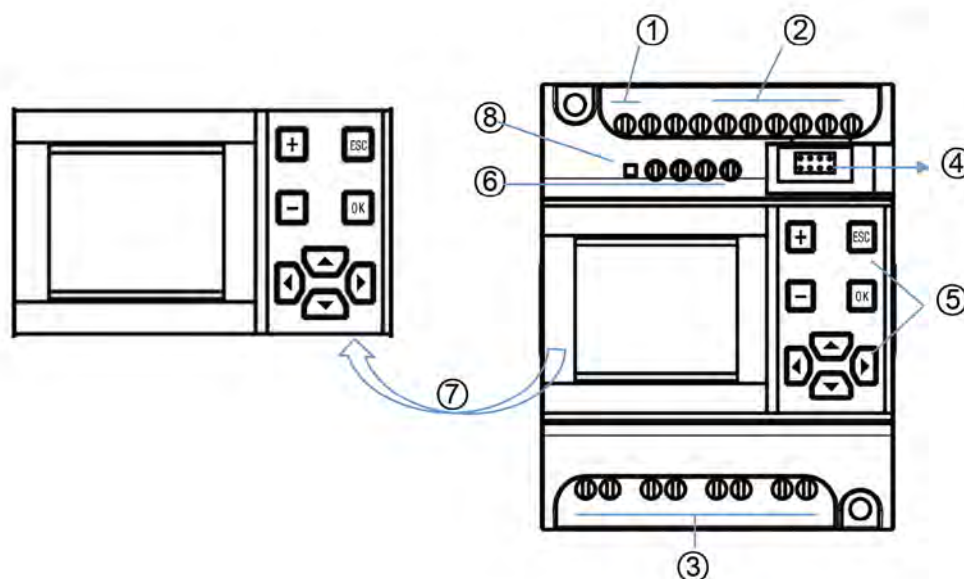
ON time delay, OFF time delay, Single pulse time relay, Puls relay, Clock pulse generator, Hold ON time delay relay

### Clock switch function block

Weekly, date

### Counter function blocks

Up and down counter



- ① Power supply
- ② Inputs
- ③ Outputs (relay or transistor)
- ④ Programme download connection
- ⑤ Operating buttons
- ⑥ Two channels of RS-485 communication interface (A1/B1 + A2/B2)
- ⑦ LCD visualisation
- ⑧ Power indicator (red indicator, flashing frequency 1 Hz)

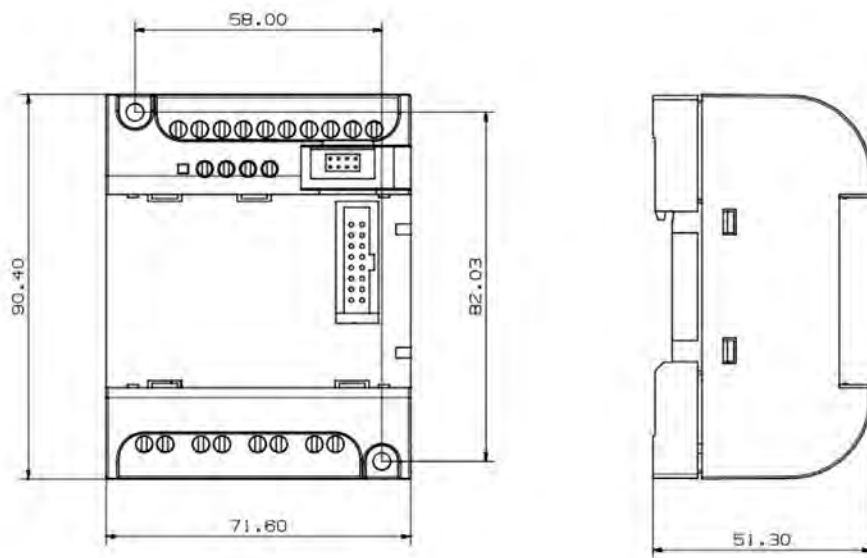
## Accessories

Type	ELDAS number	Description
AF-HMI	560820910	Removable LCD display, for visualisation and operation
AF-CAP	560895200	Cover, if the BoxX 2 is operated without LCD display
AF-DUSB2	560990010	Communication cable with USB interface to download programmes

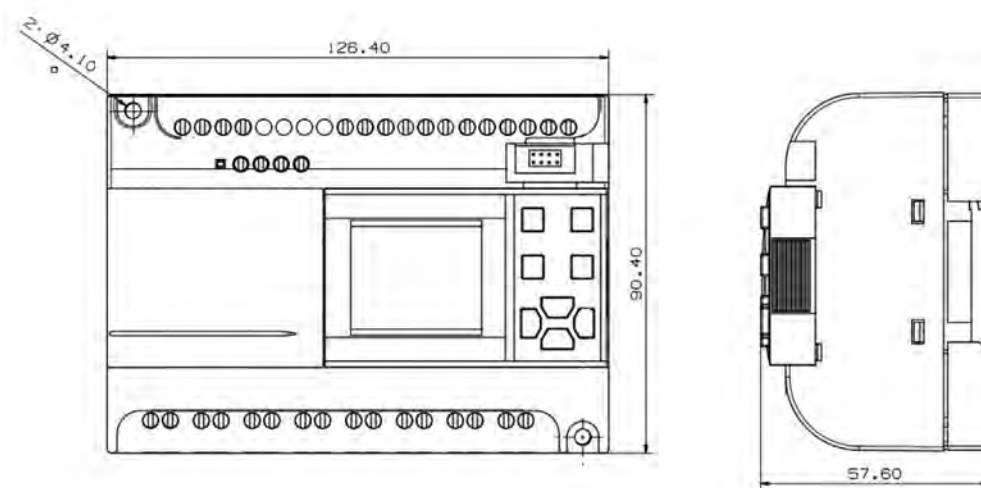
## Technical data

Type	AF-10MR-A2 / AF-20MR-A2	AF-10MR-D2 / AF-20MR-D2	AF-10MT-GD2 / AF-20MT-GD2
Rated voltage and frequencies	110 - 220 V AC 50 - 60 Hz	12 - 24 V DC	12 - 24 V DC
Operating voltage and frequency ranges	85 - 260 V AC 47 - 63 Hz	10 - 28 V DC	10 - 28 V DC
Maximum / typical power consumption	6 W / 10 W	4 W / 5 W	2 W
Inputs	6 x / 12 x digital Switch-on threshold Signal 0: 0 - 40 V AC Signal 1: 80 - 240 V AC	6 x / 12 x per input optionally digital or analogue Digital: Switch-on threshold Signal 0: < 3.5 V DC Signal 1: 10 - 24 V DC Analogue: 0 - 10 V DC	6 x / 12 x per input optional digital or analogue Digital: Switch-on threshold Signal 0: < 3.5 V DC Signal 1: 10 - 24 V DC Analogue: 0 - 10 V DC
Number of switching outputs / Max. switching capacity	4 x / 8 x 10 A 250 V relay outputs		4 x / 8 x 2 ≤ 80 V DC transistor outputs (equivalent NPN)
Ambient conditions	-40 - +70 °C Ambient temperature -40 - +70 °C Operating temperature 0 - 95 % relative humidity (non-condensing) Protection class: IP 20		

**AF-10 Serie:**



**AF-20 Serie:**



**Order references**

Type	ELDAS number	Power supply	Inputs	Outputs
AF-10MR-A2	560820200	110 - 220 V AC	6 x digital inputs AC	4 x relay outputs
AF-10MR-D2	560820217	12 - 24 V DC	6 x digital inputs (with analogue) DC	4 x relay outputs
AF-10MT-GD2		12 - 24 V DC	6 x inputs (with analogue) DC	4 x transistor outputs (equivalent NPN)
AF-20MR-A2	560820230	110 - 220 V AC	12 x digital inputs AC	8 x relay outputs
AF-20MR-D2	560820247	12 - 24 V DC	12 x digital inputs (with analogue) DC	8 x relay outputs
AF-20MT-GD2		12 - 24 V DC	12 x inputs (with analogue) DC	8 x transistor outputs (equivalent NPN)

