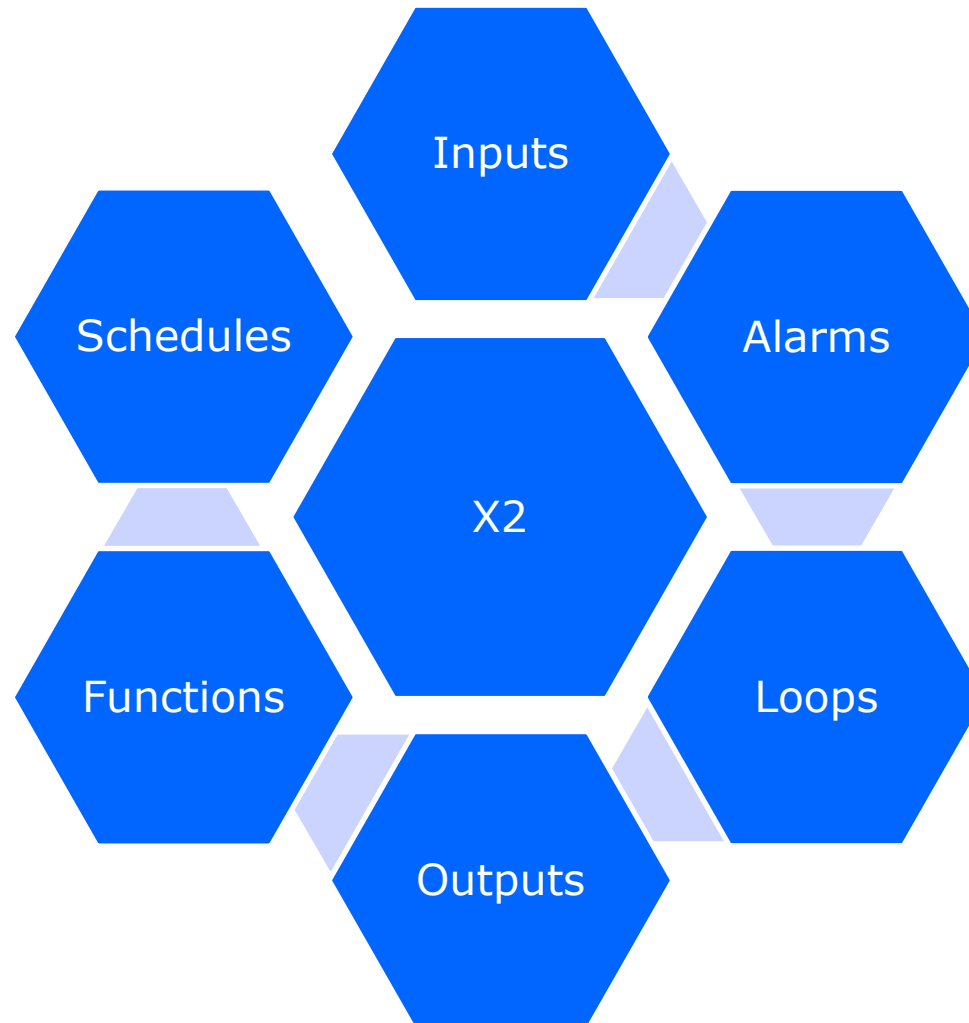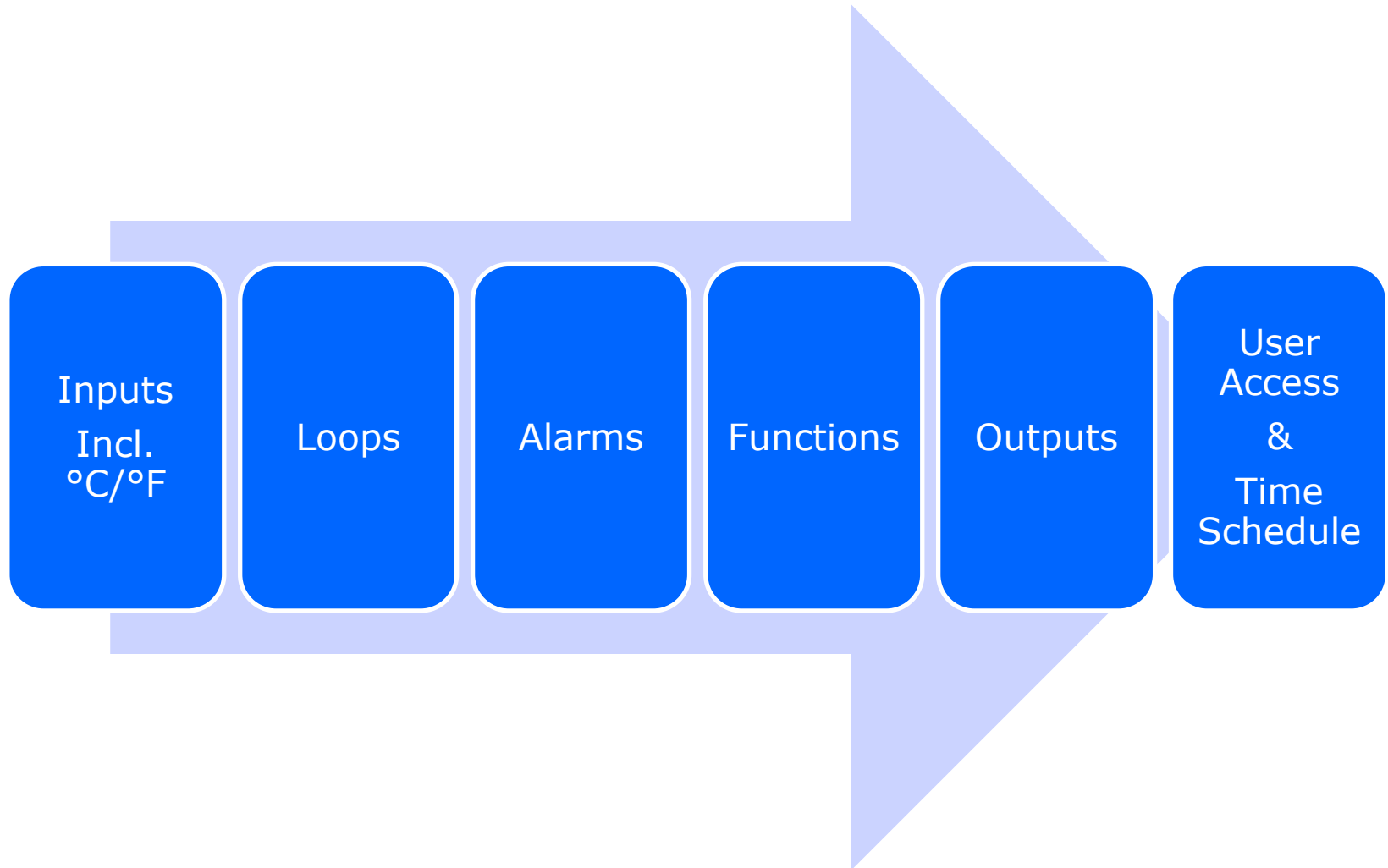# Welcome to the
X2 Operating System
Introduction
of Vector Controls

December 2018

Contents

▲ **X2 Operating system**

- o   X2 Setup process
- o   Configuration tool: EasySet
- o   X2 Product ID & Series
- o   Cabinet mounted TCX2
- o   Cabinet compact TCI2
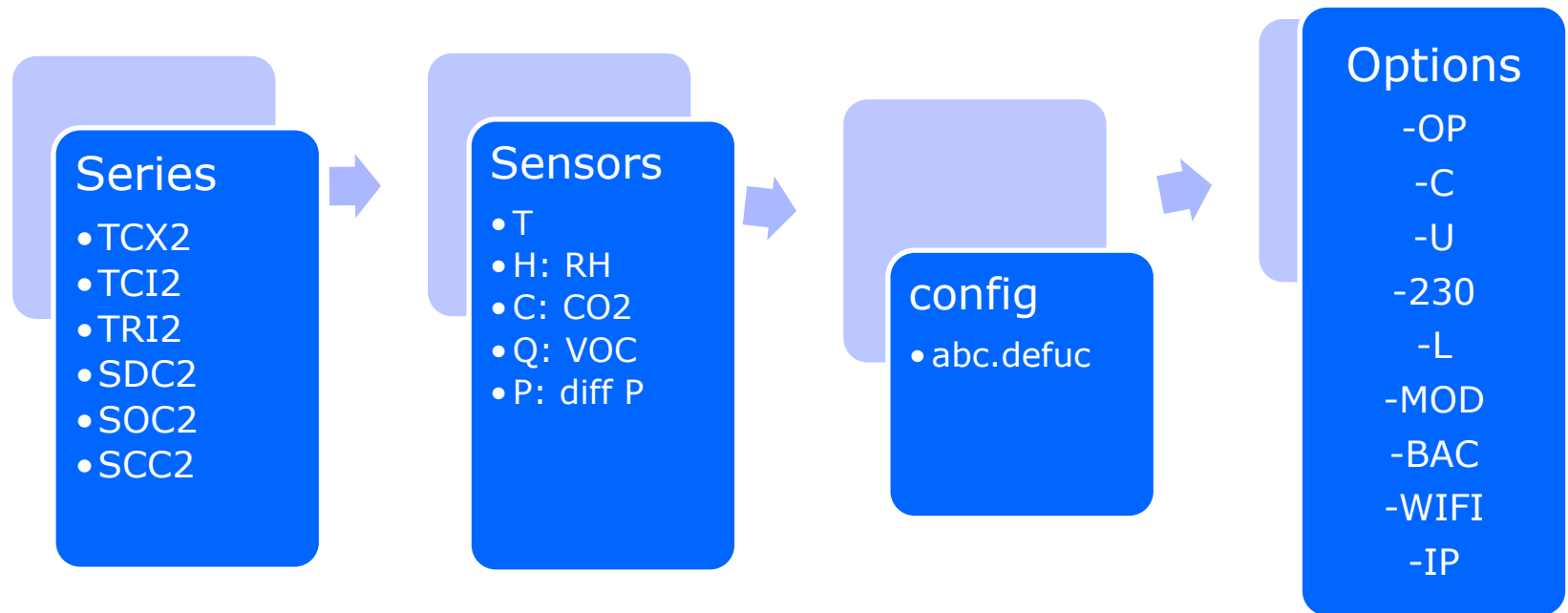- o   CONSENS SDC2/SOC2/SCC2
- o   Wall mounted TRI2

- ▲ One operating system for a complete generation of products

- ▲ Same functions, parameters, configuration and features

- ▲ Different numbers and specs of inputs, outputs, functions depending on type and series

- ▲ Communication plug-ins for Modbus and BACnet and coming soon: wi-fi and IP

VECTOR

Inputs Incl. °C/°F → Loops → Alarms → Functions → Outputs → User Access & Time Schedule
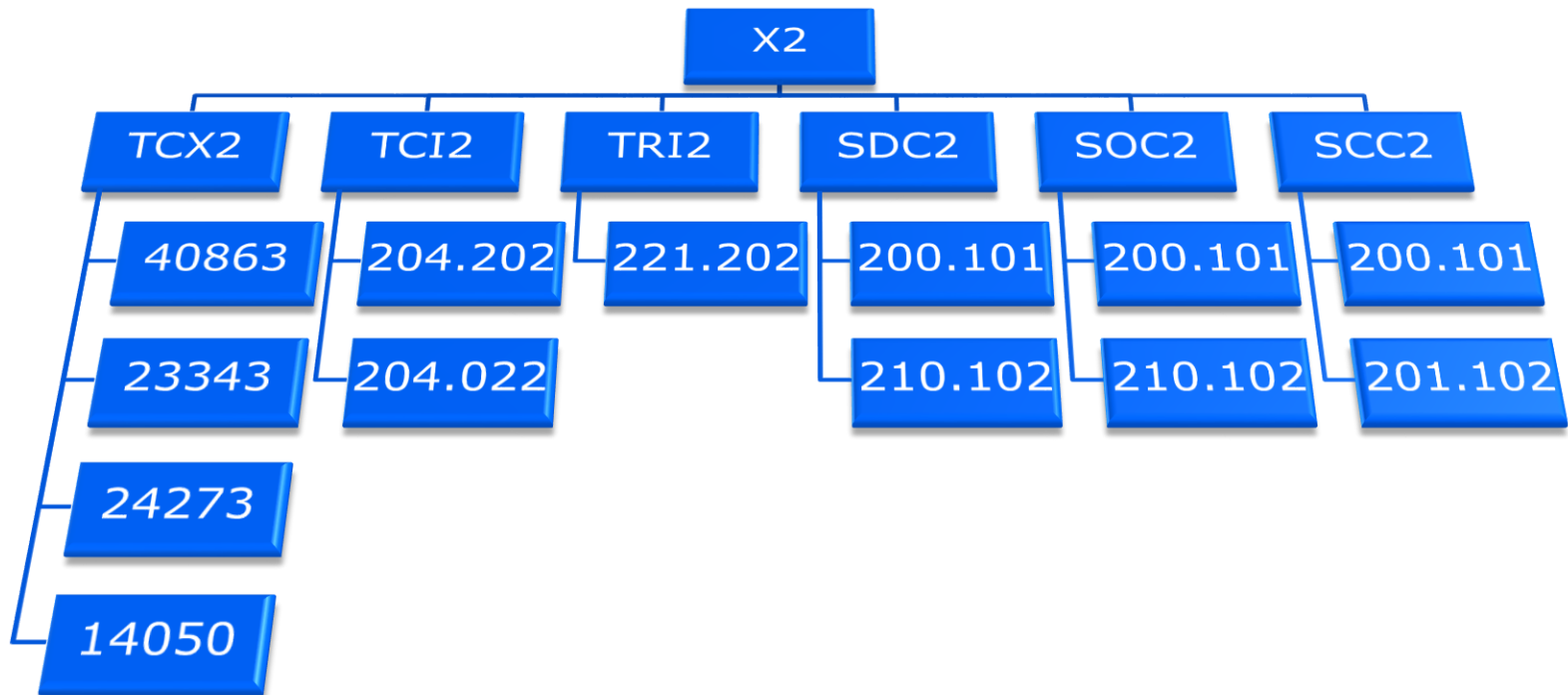
Easyset

- ▲ Upload/Download configuration
- ▲ Save projects
- ▲ Use Templates for efficient development
- ▲ Run Trends
- ▲ Easy configure time schedules

VECTOR

Series
- TCX2
- TCI2
- TRI2
- SDC2
- SOC2
- SCC2

Sensors
- T
- H: RH
- C: CO2
- Q: VOC
- P: diff P

config
- abc.defuc

Options
- -OP
- -C
- -U
- -230
- -L
- -MOD
- -BAC
- -WIFI
- -IP

VECTOR

▲TCI2-abc.def(uc)-zzz

- o a = Number of control loops
- o b = Number of passive inputs
- o c = Number of universal or analog inputs
- o d = Number of binary outputs relays
- o e = Number of binary outputs Triacs
- o f = Number of analog outputs mA und VDC
- o u = Universal: all universal inputs are NTC/mA/VDC and for TCI2: PT1000/NTC/mA/VDC, all analog outputs are mA/VDC no u = all analog in and outputs are VDC, all passive inputs are NTC.

VECTOR

```
                              ┌──────┐
                              │  X2  │
                              └──┬───┘
  ┌────────┬────────┬────────┬───┴────┬────────┬────────┐
┌─┴────┐ ┌─┴────┐ ┌─┴────┐ ┌─┴────┐ ┌─┴────┐ ┌─┴────┐
│ TCX2 │ │ TCI2 │ │ TRI2 │ │ SDC2 │ │ SOC2 │ │ SCC2 │
└─┬────┘ └─┬────┘ └─┬────┘ └─┬────┘ └─┬────┘ └─┬────┘
  │        │        │        │        │        │
┌─┴─────┐┌─┴──────┐┌┴───────┐┌┴───────┐┌┴───────┐┌┴───────┐
│ 40863 ││204.202 ││221.202 ││200.101 ││200.101 ││200.101 │
└───────┘└────────┘└────────┘└────────┘└────────┘└────────┘
┌─┴─────┐┌─┴──────┐          ┌┴───────┐┌┴───────┐┌┴───────┐
│ 23343 ││204.022 │          │210.102 ││210.102 ││201.102 │
└───────┘└────────┘          └────────┘└────────┘└────────┘
┌─┴─────┐
│ 24273 │
└───────┘
┌─┴─────┐
│ 14050 │
└───────┘
```

Cabinet mounted TCX2

- ➤ Up to 4 Control loops
- ➤ 8 Universal inputs NTC/mA/VDC
- ➤ 6 Binary outputs Relays
- ➤ 3 Analog outputs mA/VDC
- ➤ 8 Alarm conditions
- ➤ 12 weekly and annual schedules
- ➤ -OP = Integrated operation terminal
- ➤ MODBUS or BACnet MS/TP communication

- ▲ **General:**
  - o -MOD: Modbus RS485, -BAC: BACnet MS/TP RS485
  - o -OP: Integrated operation terminal
  - o -230: 230V power supply
- ▲ **TCX2-40863: ETL certified**
  - o 4LP, 8UI (NTC/VDC/mA), 6 Relays, 3 AO (VDC/mA)
- ▲ **TCX2-23343: ETL certified**
 - o 2LP, 3 IN NTC, 3 IN VDC, 4 DO (Relays), 3 AO VDC
- ▲ **TCX2-24273**
  - o 2LP, 3 IN NTC, 3 IN VDC, 5 DO (Relays), 2 DO (TRIAC), 3 AO VDC
- ▲ **TCX2-14050: ETL certified**
  - o 1LP, 4 IN NTC, 5 DO (Relays)

VECTOR

- ➢ 24V or Line Voltage version
- ➢ 2 Control loops
- ➢ 4 Universal inputs:
  NTC, PT1000, mA, VDC
- ➢ 2 Binary outputs: TRIAC or
  Relays
- ➢ 2 Analog outputs: mA/VDC
- ➢ 8 Alarm conditions
- ➢ Optional time schedules and RTC
- ➢ Optional integrated operation
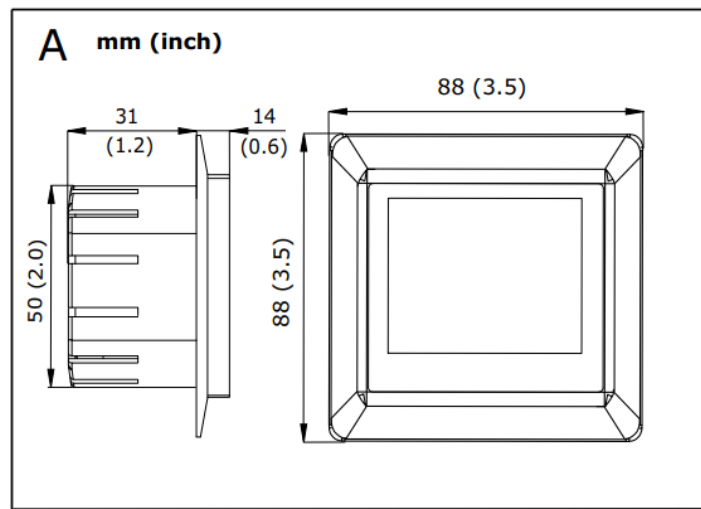 terminal
- ➢ MODBUS, BACnet MS/TP

Member of
BACnet
International

BTL
BACnet TESTING LABORATORIES

Easyset

VECTOR
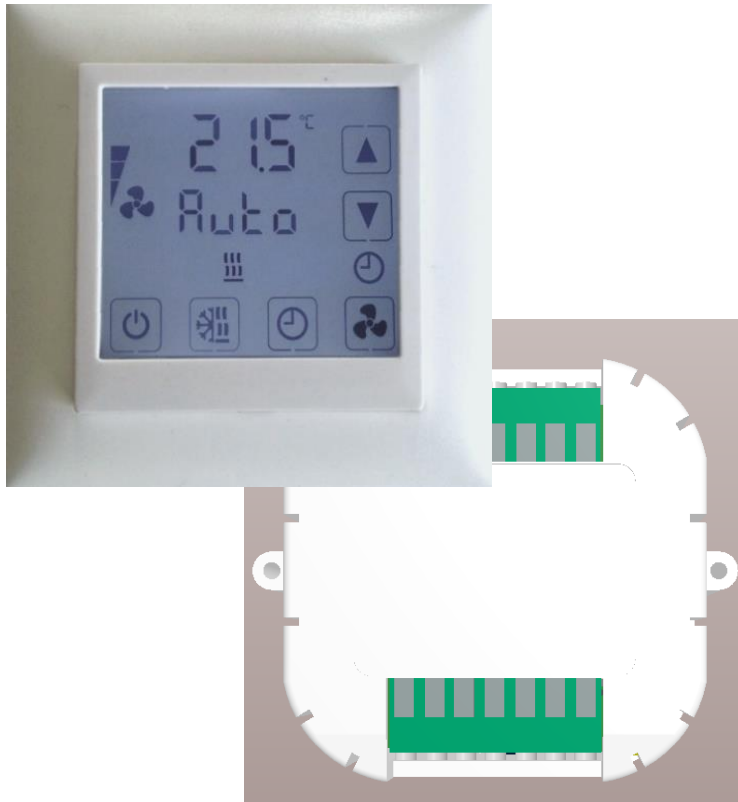
- 24V
- 2 Control loops
- 2 passive inputs: NTC
- 1 active input: VDC
- 2 Binary outputs: Relays NO
- 2 Analog outputs: VDC
- 8 Alarm conditions
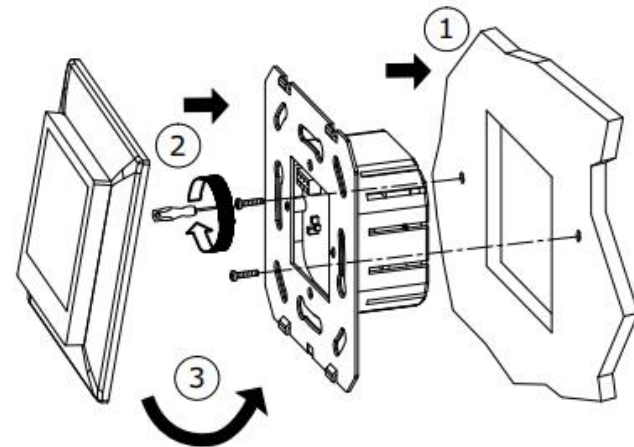- Optional time schedules and RTC
- MODBUS, BACnet MS/TP

Member of **BACnet** International

BTL BACnet TESTING LABORATORIES

Easyset

➤ Modular concept allows for flexible mounting

➤ Independent frame simplifies customization
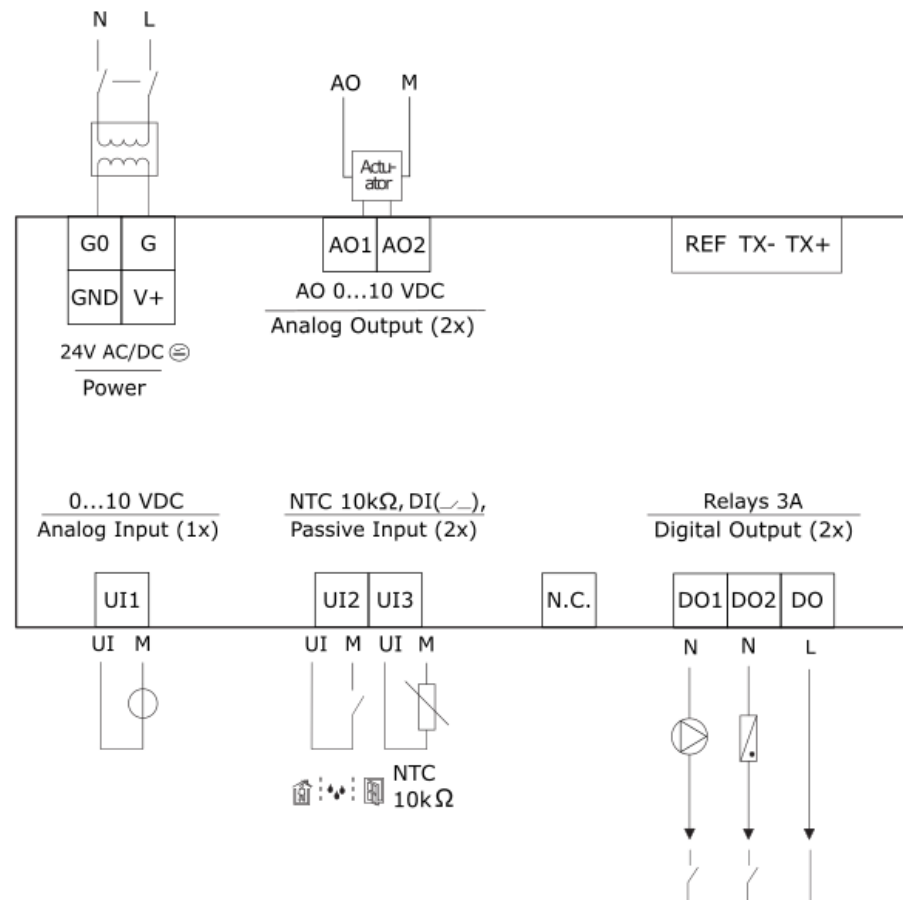
➤ Sufficient space for client logo if required

VECTOR

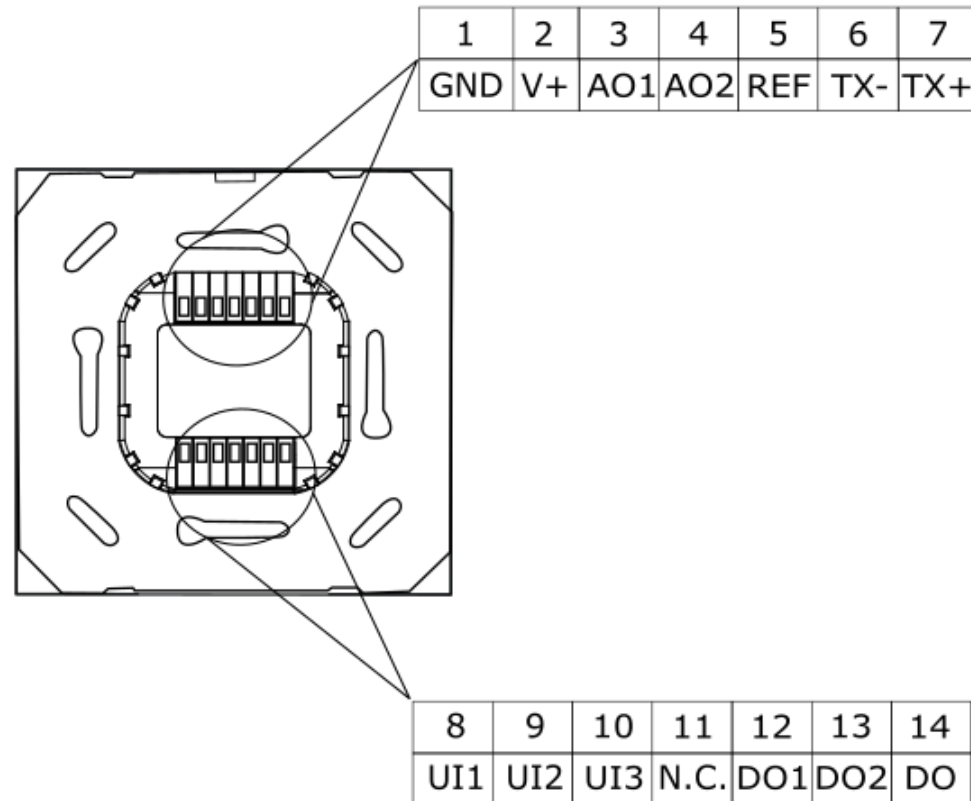▲ OPT1 Housing: US, EU and CH frame

▲ Dimensions and installation same as OPT1

1	2	3	4	5	6	7
GND	V+	AO1	AO2	REF	TX-	TX+

8	9	10	11	12	13	14
UI1	UI2	UI3	N.C.	DO1	DO2	DO

Measures

- ▲ -T: Temperature
- ▲ -H: Relative Humidity
- ▲ -C: CO2: Air quality through CO2
- ▲ -Q: VOC: Air quality through volatile compounds
- ▲ - P: differential air pressure

SDC2

SDC2-OP

SOC2

SCC2

SDC2-New Flange

- ▲ Easy mounting
- ▲ No tools required for sensor removal
- ▲ Patented twist and fix mechanism
- ▲ Mounts on flat and round ducts

SxC2: Controller + Sensor

- ➢ 2 Control loops
- ➢ 1 passive input
- ➢ 2 TRIAC or 1 SPDT Relays
- ➢ 2 Analog outputs mA/VDC
- ➢ 4 Assignable alarm conditions
- ➢ Optional
  - ➢ RTC/Time schedules
  - ➢ integrated operation Terminal
  - ➢ External operation terminal
  - ➢ Bus plug-in
  - ➢ AEC-PM2

OPT1 Operation terminal

- ➢ Temperature Sensor
- ➢ Opt. Humidity Sensor
- ➢ Universal mounting

Touch

Frame & Mounting plate
Square
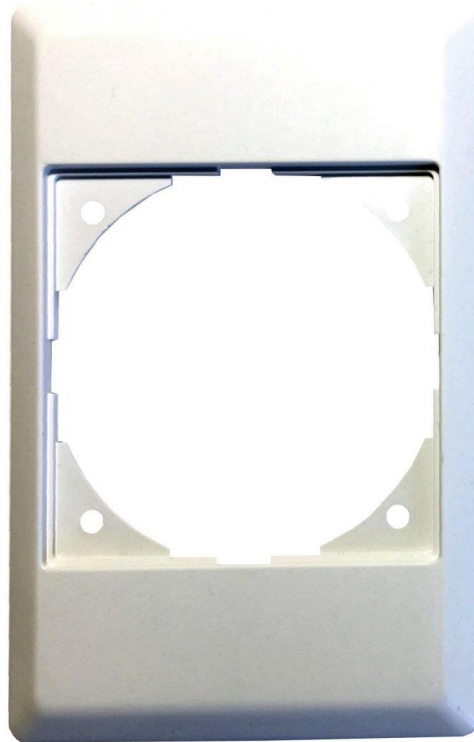
Frame & Mounting plate
Rectangular

AEC-PM1/PM2 Copy module

▲ To Save Applications to Multiple Controllers

▲ As Backup or as configuration tool

▲ Automatic load on power up

▲ Automatic increment of address