

PETERSIME

INCUBATORS

X-Streamer Hardware



Lode Martens



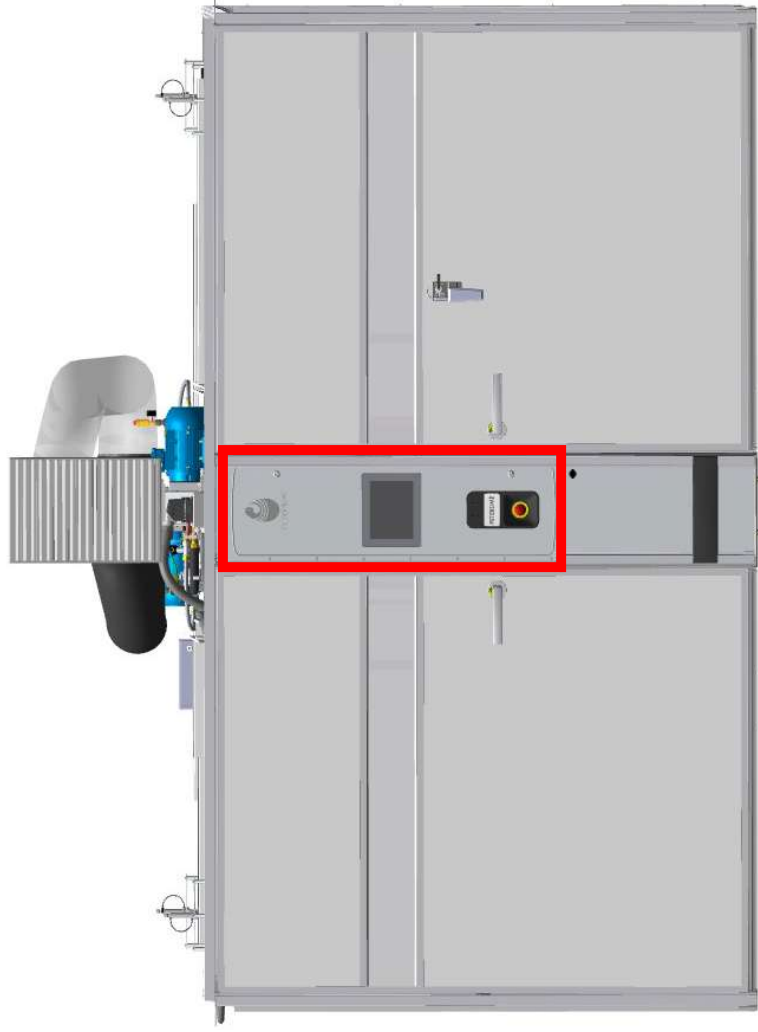
03/2026

Overview



- ▶ The console
- ▶ Sensors
- ▶ Pulsator
- ▶ Heating
- ▶ Humidification
- ▶ Ventilation
- ▶ Cooling
- ▶ Turning
- ▶ Status lamp
- ▶ Alarm
- ▶ Hardware alarm
- ▶ Rear temp
- ▶ OvoscantTM
- ▶ Master Control
- ▶ Synchro-HatchTM
- ▶ Hatch-Scan TM

The X-Streamer



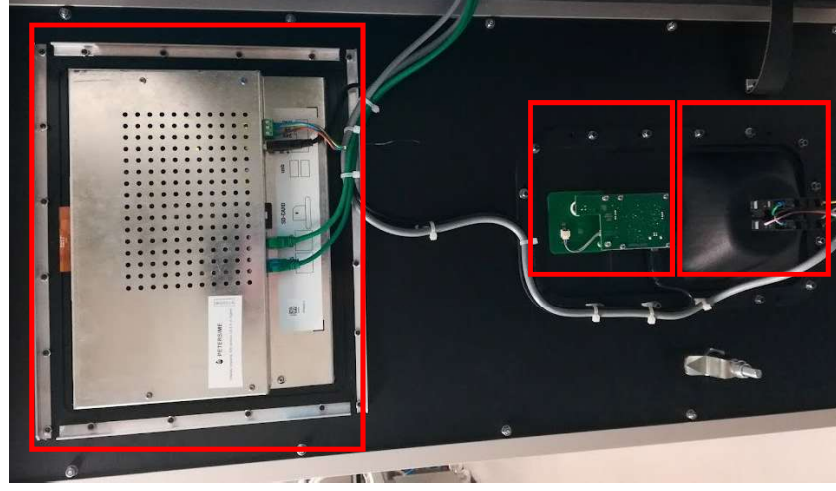
The X-Streamer



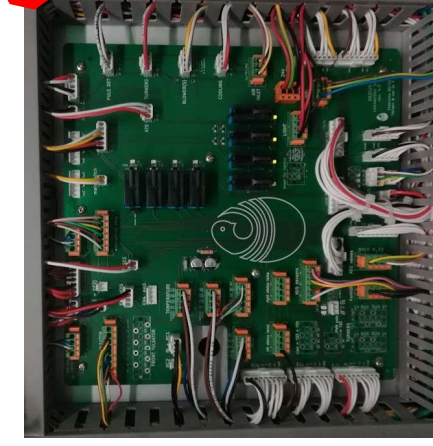
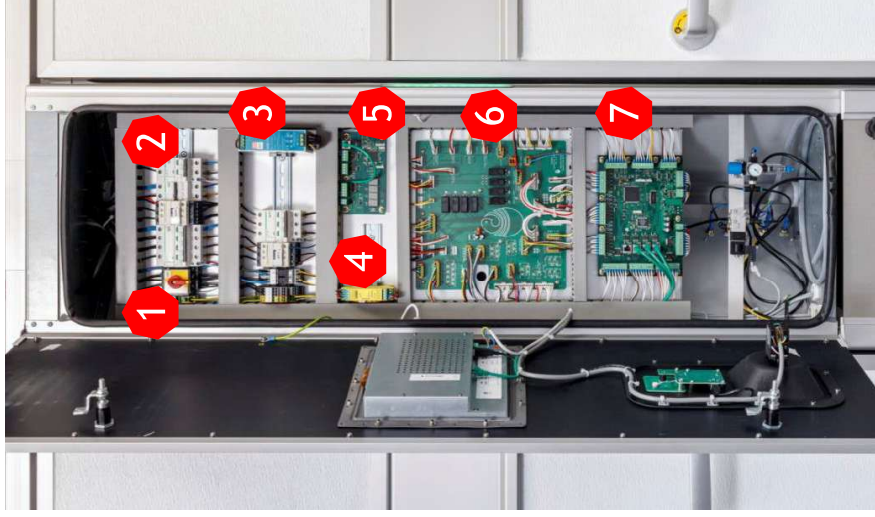
Operational
Excellence
controller

Badge reader

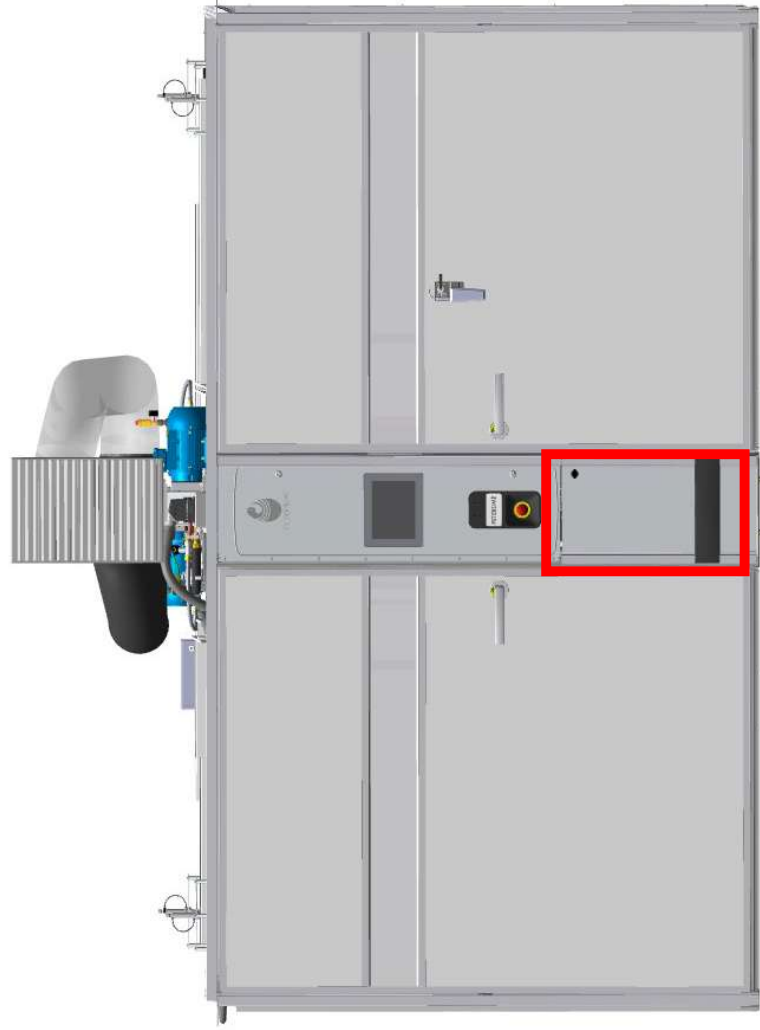
Emergency
button



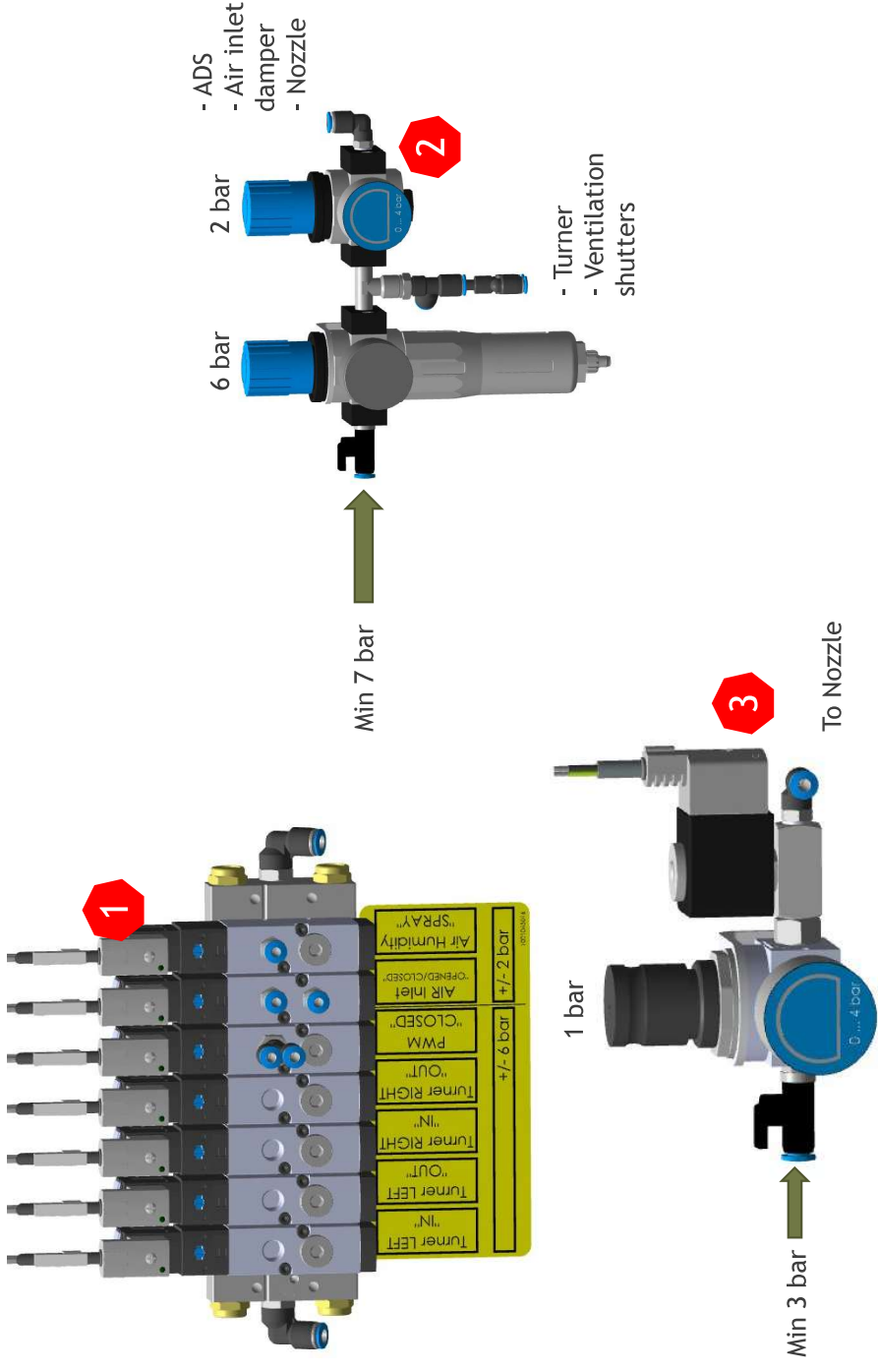
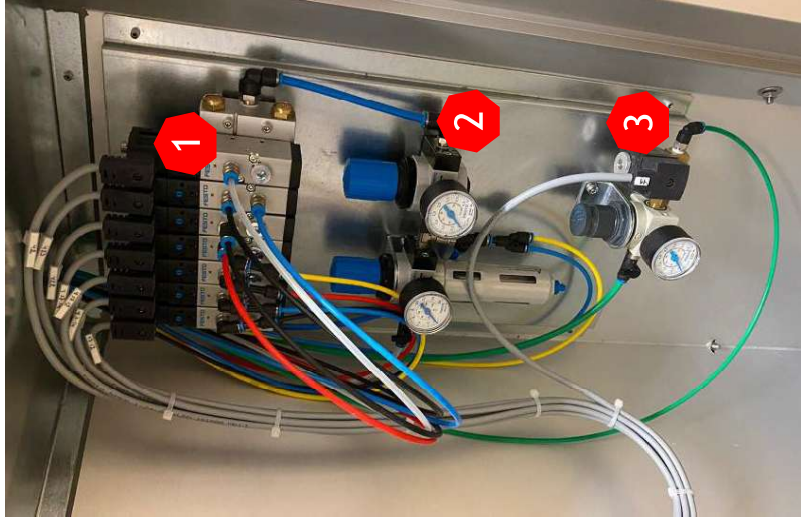
The console (Dry zone)



The X-Streamer



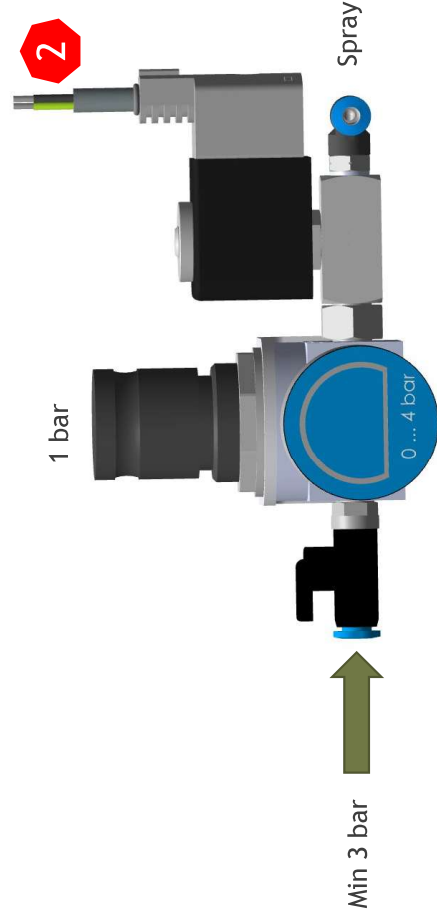
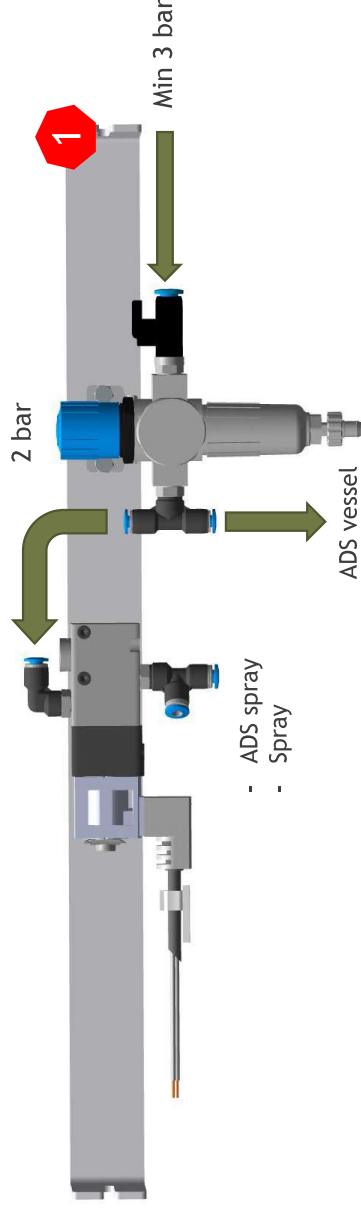
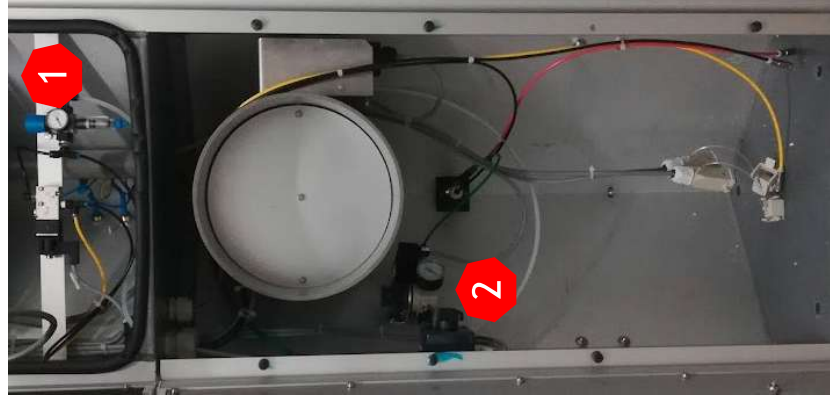
The console (Wet zone - Setters)



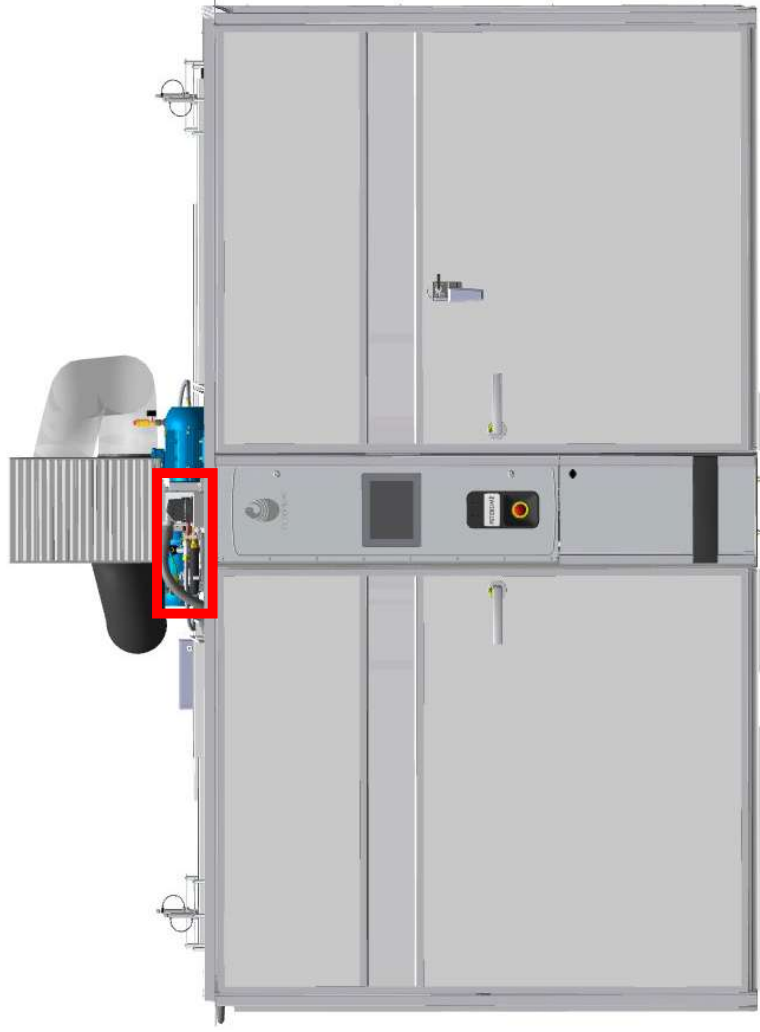
The X-Streamer



The console (Wet zone - hatchers)



The X-Streamer

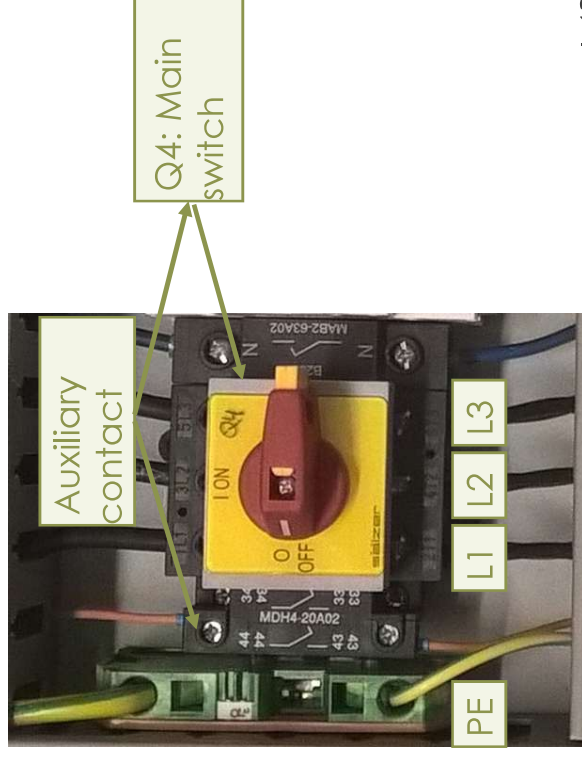
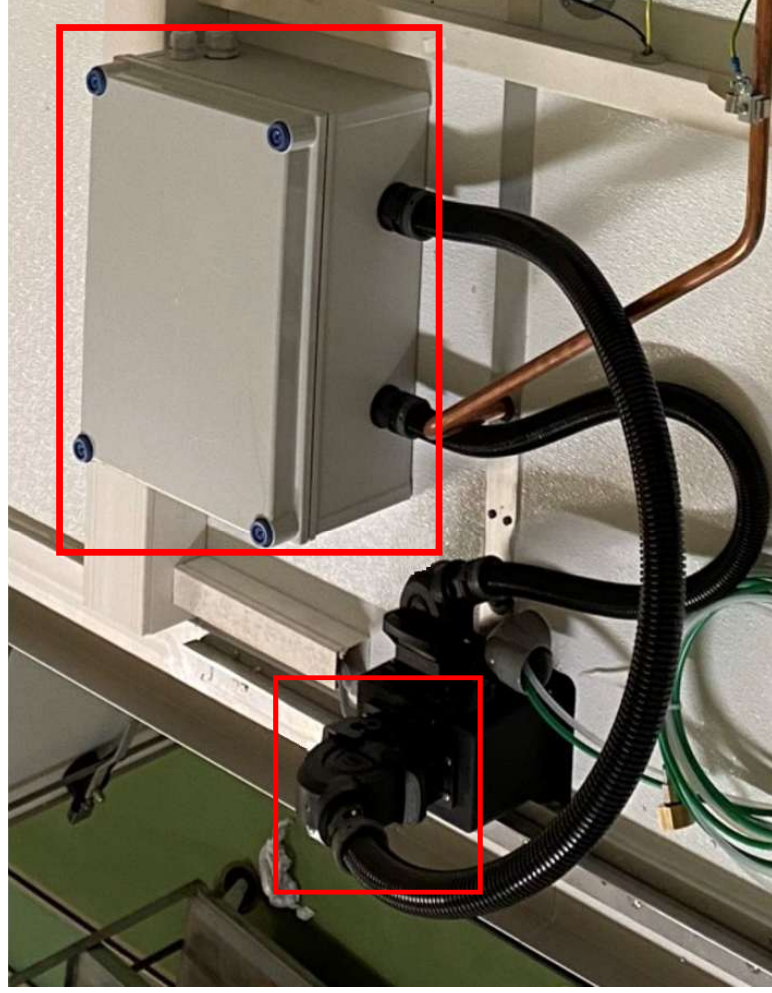
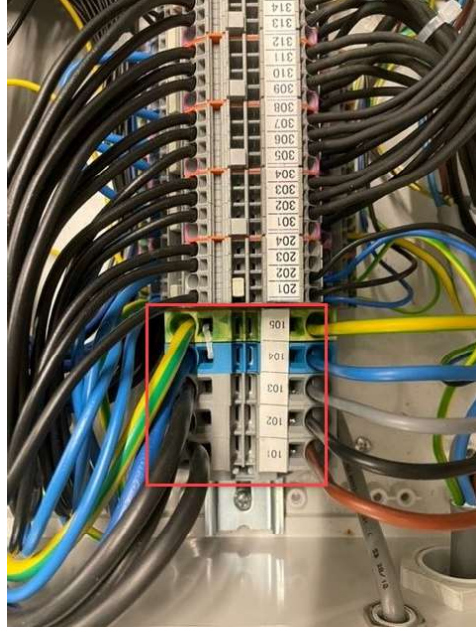


Elbow connector (X-streamer)

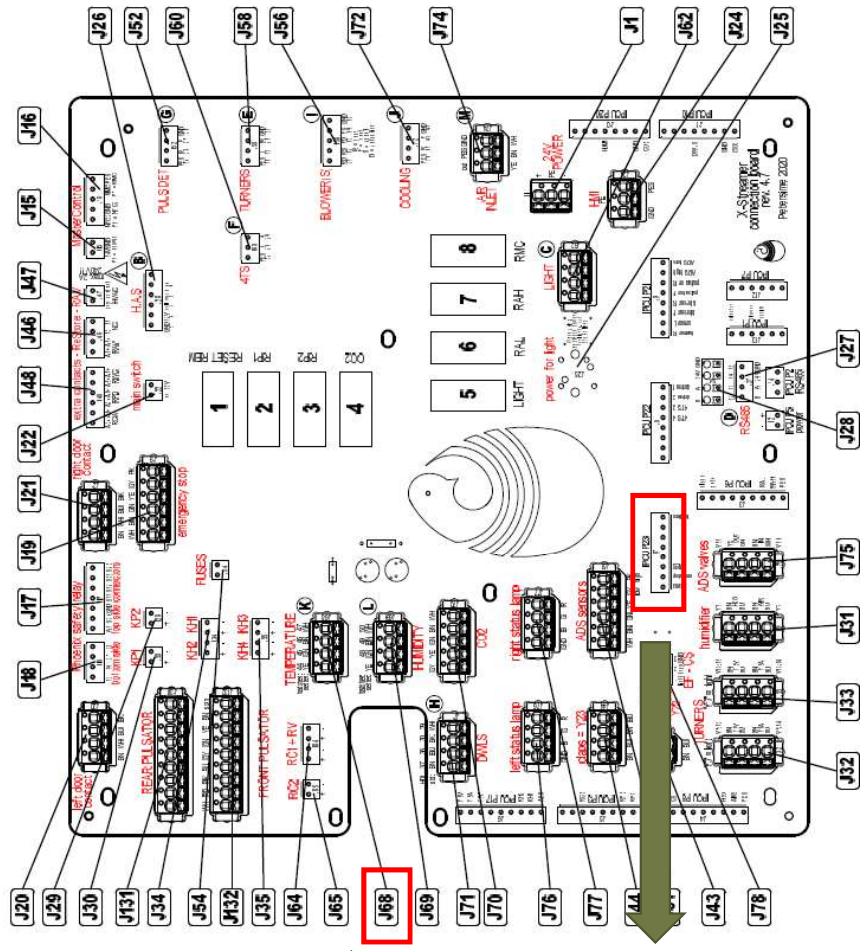
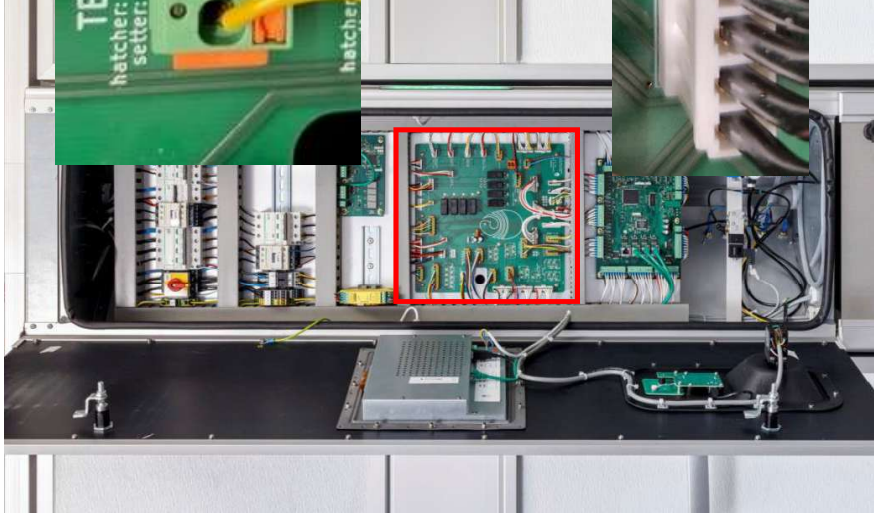


- 1) Power connector (X200)
 - Power supply
 - Heating elements
 - Blower and cooling pump
- 2) Control connector (X205)
 - Control blower (analogue I+O)
 - Light
 - Connections HAS
 - DWLS connections
 - 3-way valve
 - Pulsator sensor(s)
 - Turning sensors
 - Ovoscanner

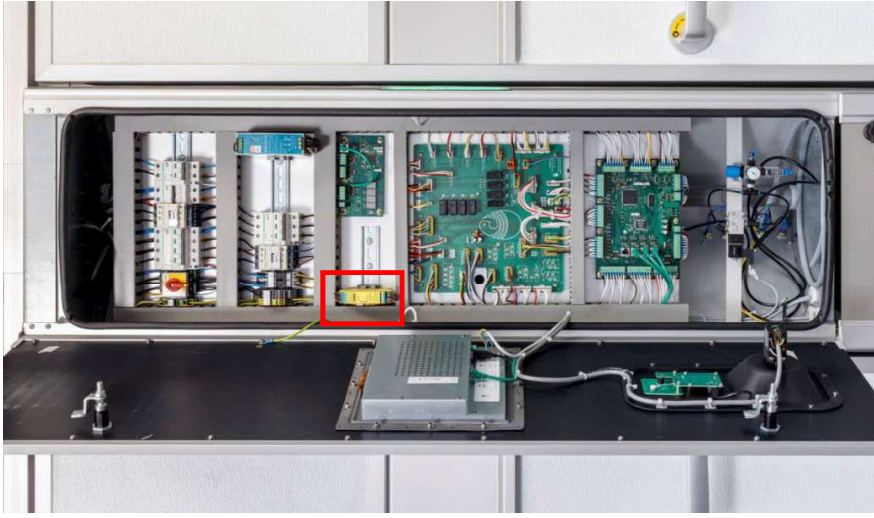
Power Supply (Main)



Connector Board



Emergency relay



PETERSIME



PES

- 24V DC
- SENSORS
 - WATER VALVES
 - HUMIDIFICATION
 - VENTILATION
 - LIGHT

AES

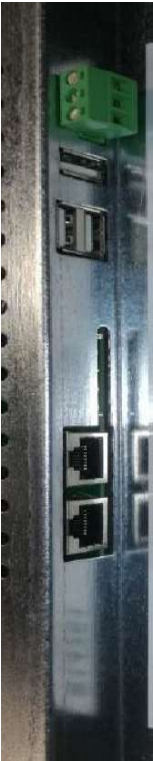
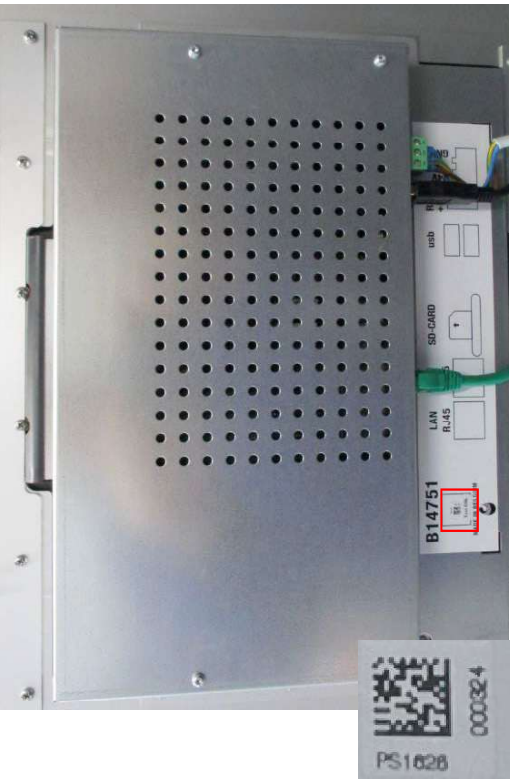
- 24V DC only when doors are closed
- PULSATOR
 - AIR EXTRACTOR OR INTAKE FAN
 - HEATER
 - TURNER
 - ADS

PES=Prior to Emergency Switch
AES=After Emergency Switch

Emergency relay



Display



I/O board



DO= Digital Output
DI=Digital Input
AO=Analog Output
AI=Analog Input

PES
AES
AES

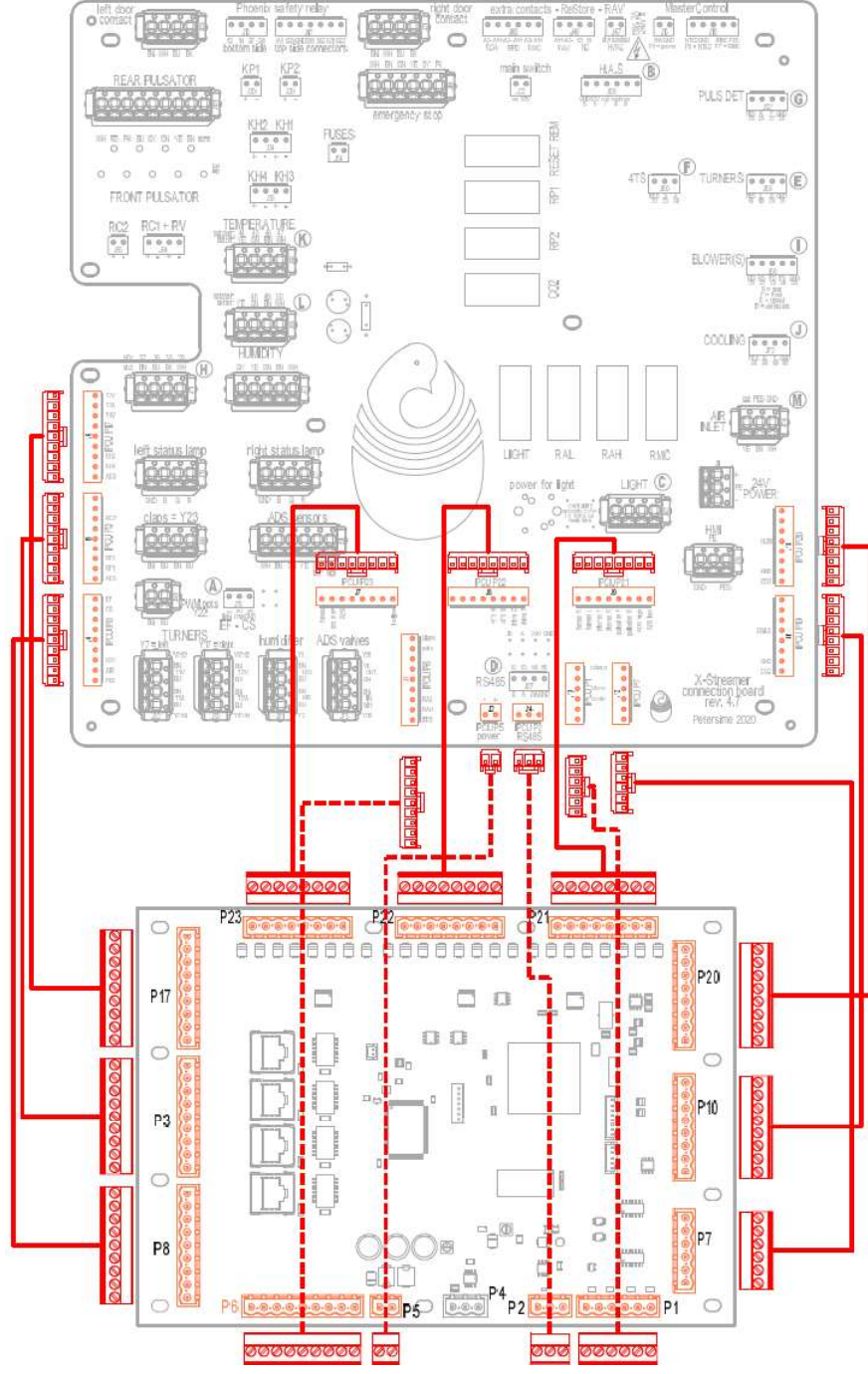
P8: DO
P3: DO
P17: DO



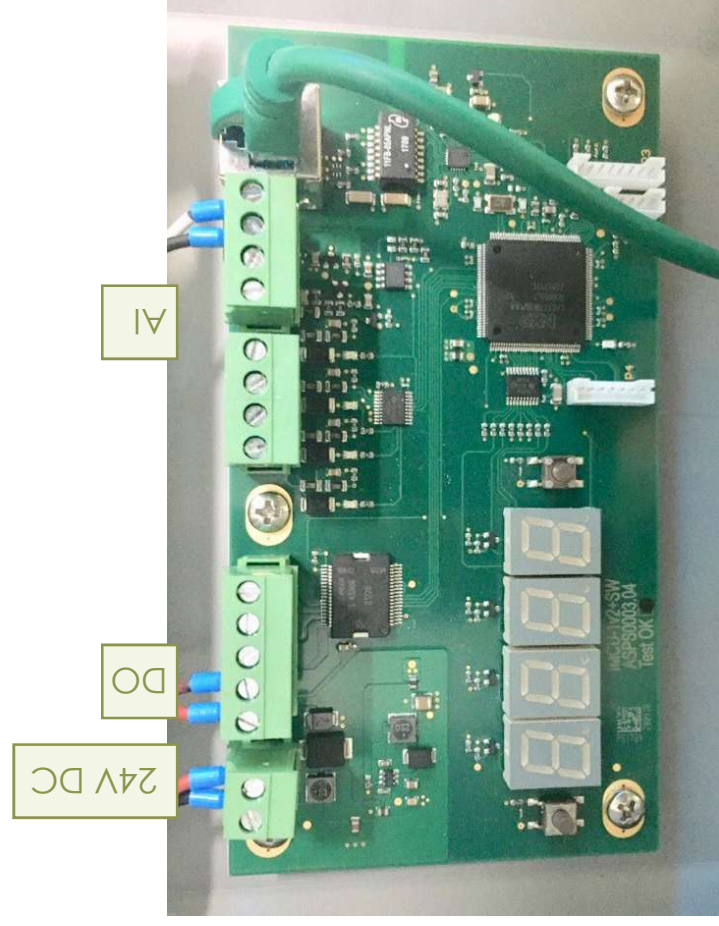
PES
P6: DO
P5: 24V DC
P2: RS485 Ovoscan/SH
P1: AO
P7: AO
P10: AI
P20: AI
P21: DI
P22: DI
P23: DI



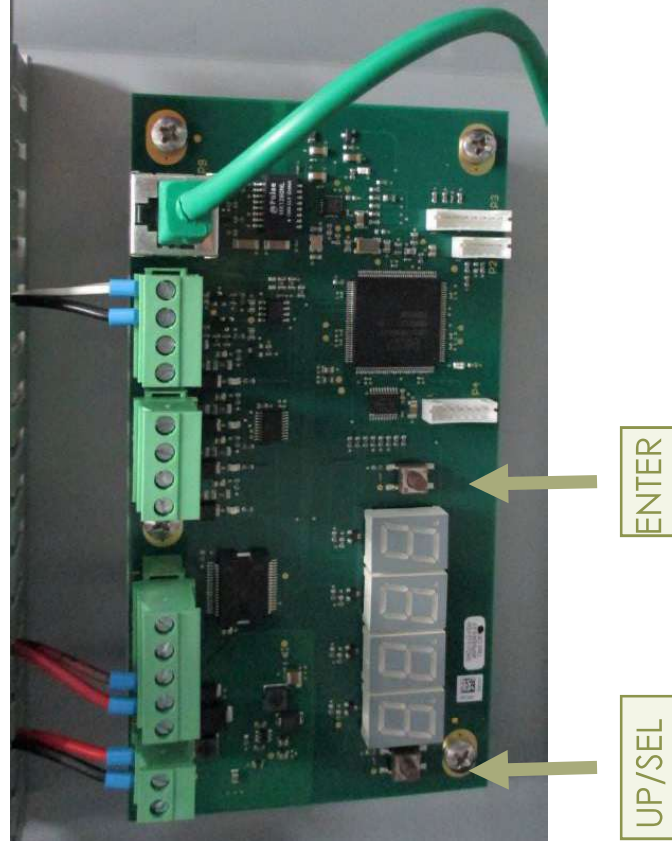
Connection I/O Board - Connection board



Master Control board

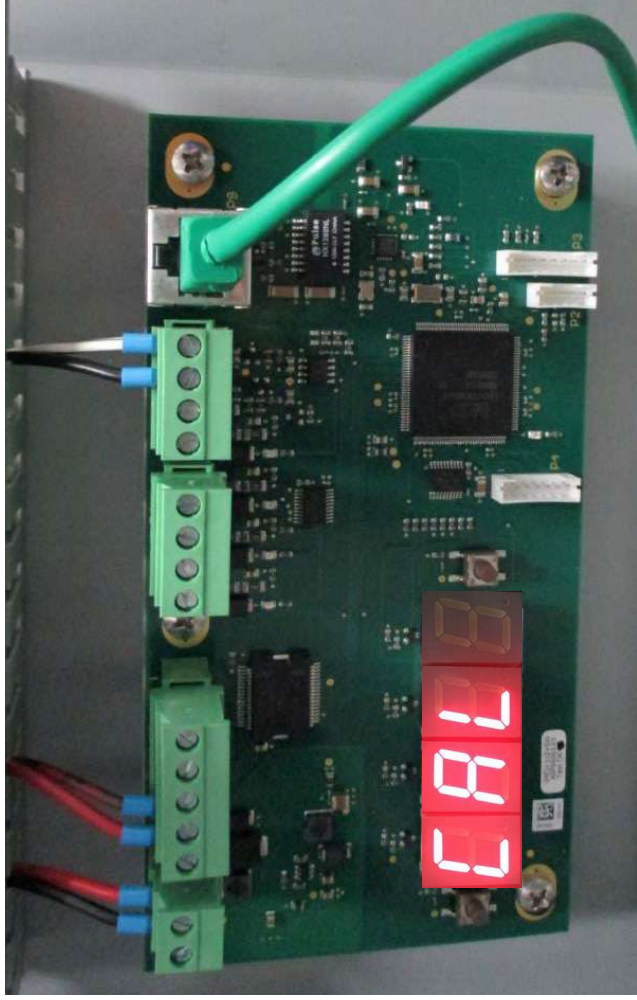


Master Control board



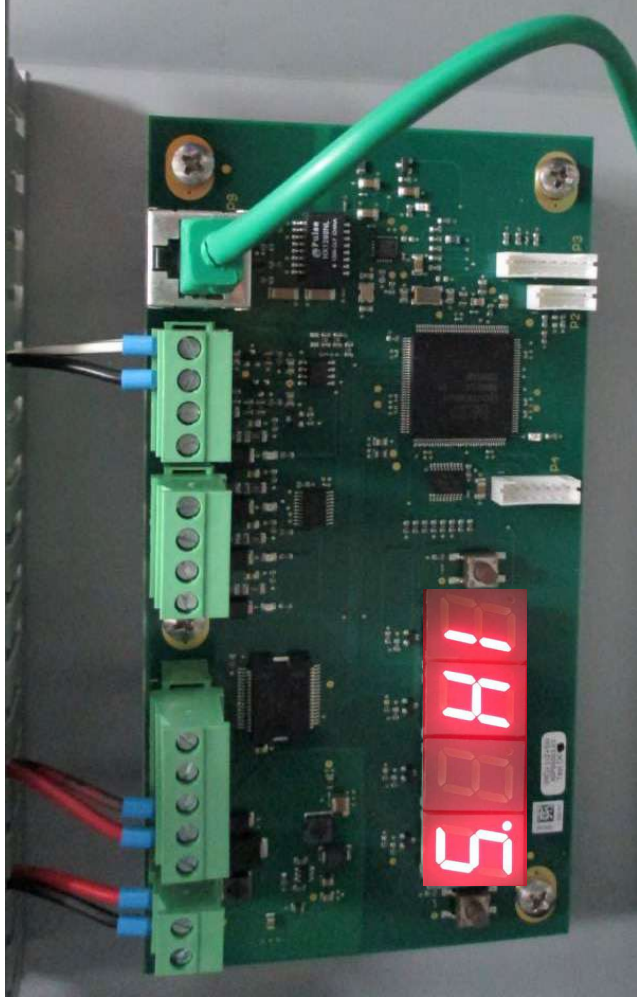
Master Control board

- Min temp to calibrate: 96° F
- Doors must be closed



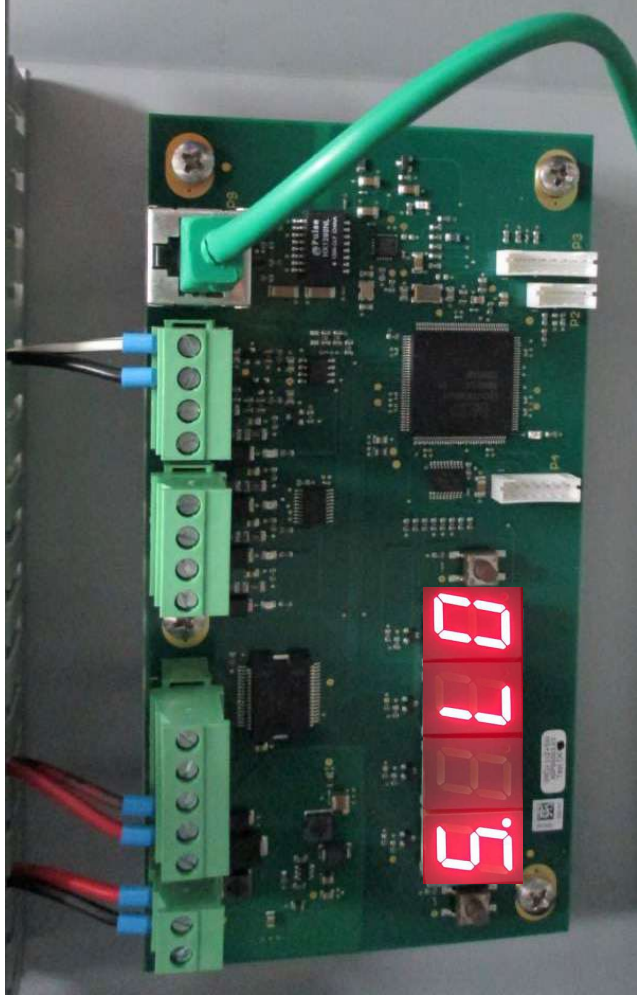
Master Control board

Highest value:
102° F
Lowest value:
100.5° F



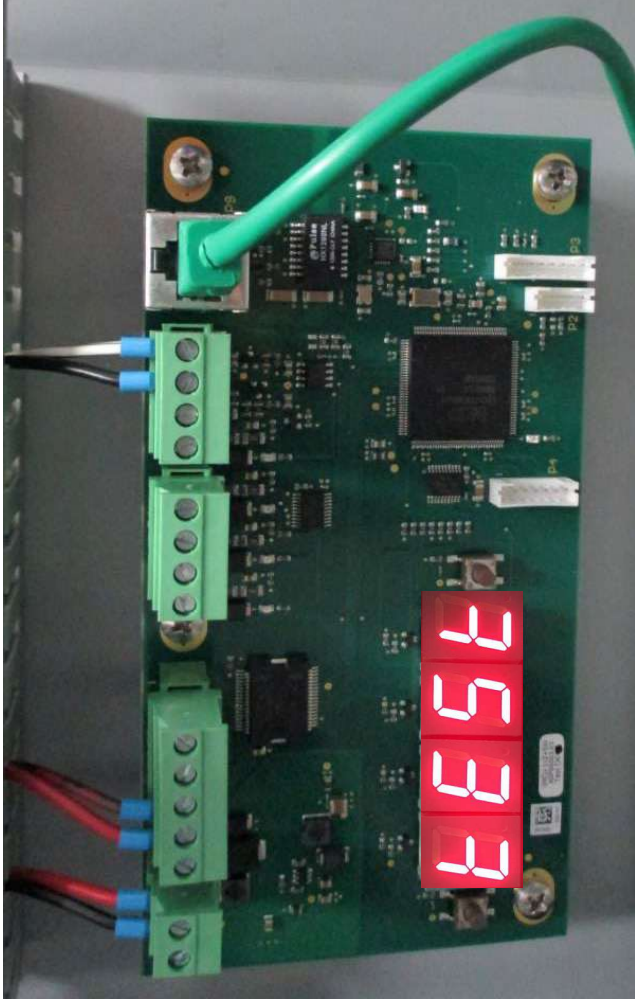
Master Control board

Highest value:
97.0° F
Lowest value:
90.0° F or disable



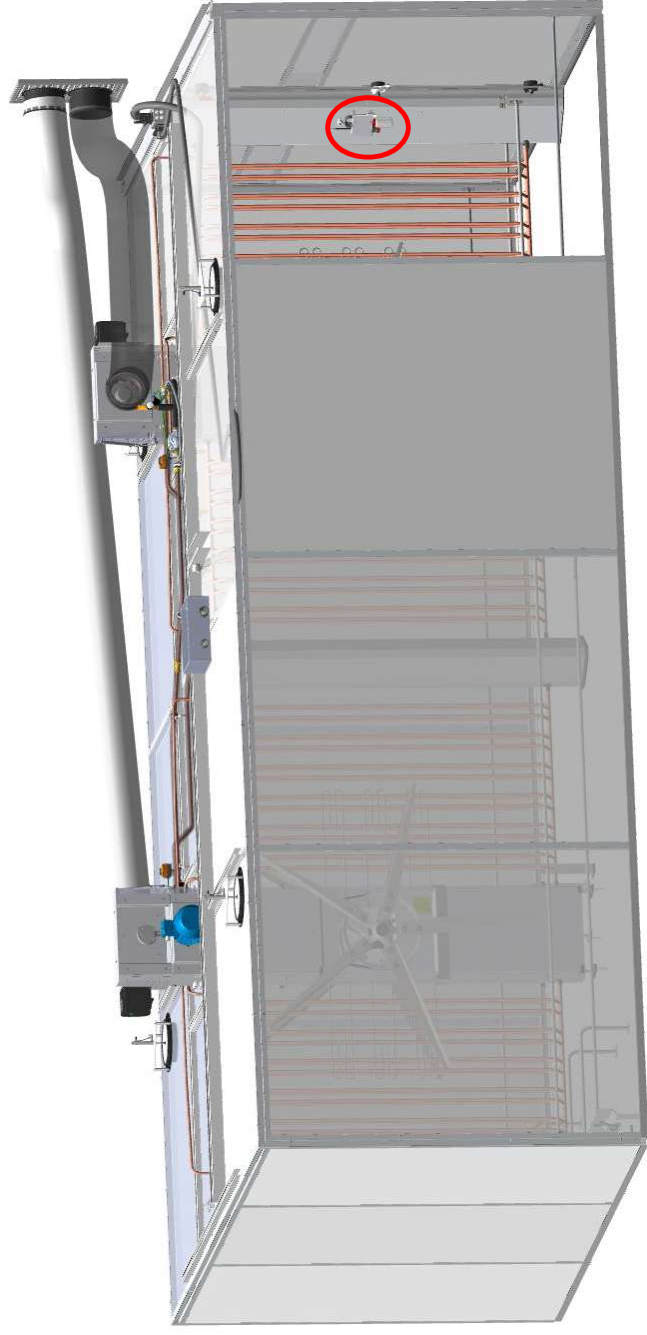
Master Control board

Alarm:
Acoustic + LED



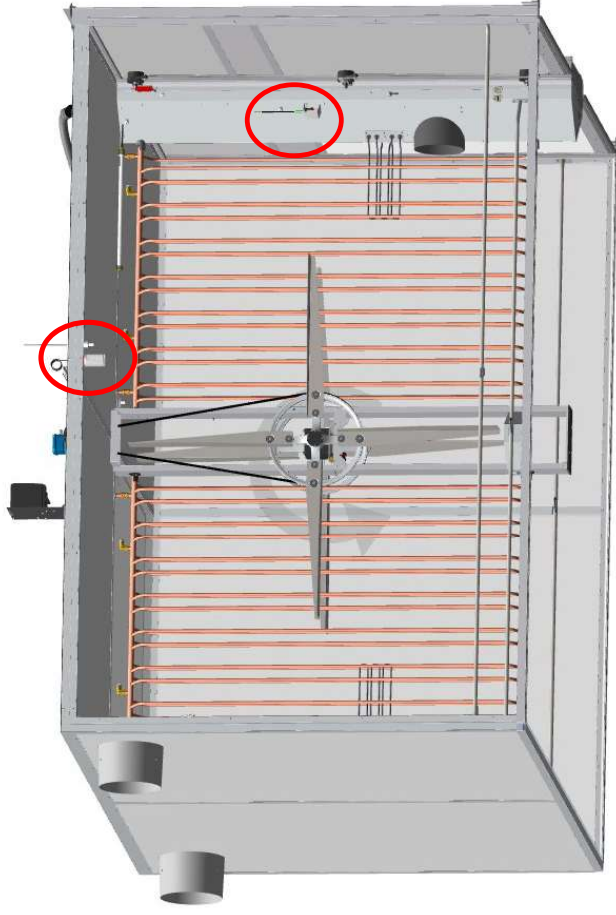
Sensors

Setters

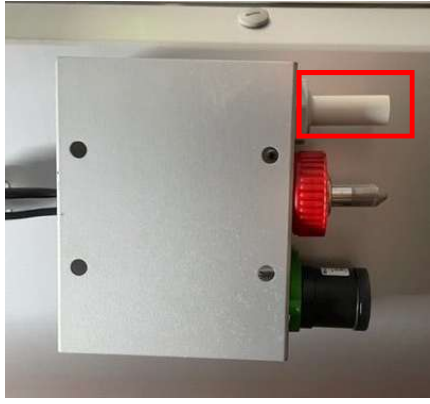


Sensors

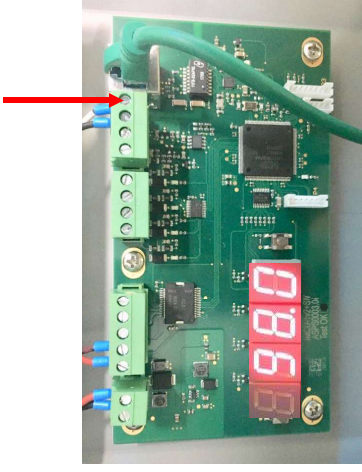
Hatchers



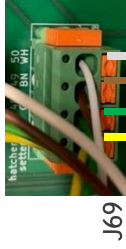
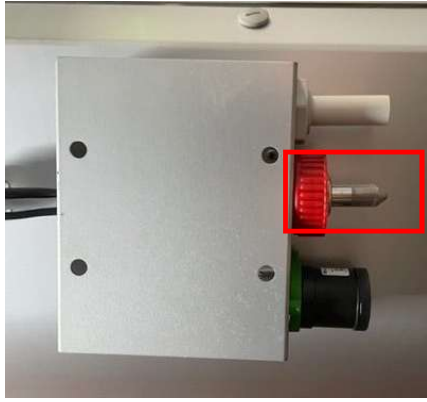
Temperature Sensor



NTC100



Humidity Sensor



J69

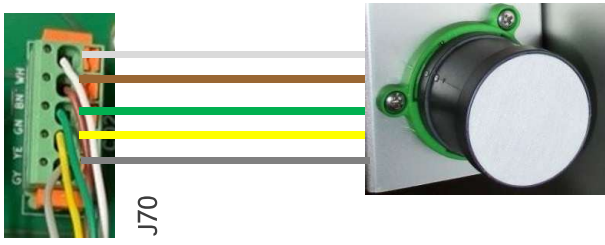
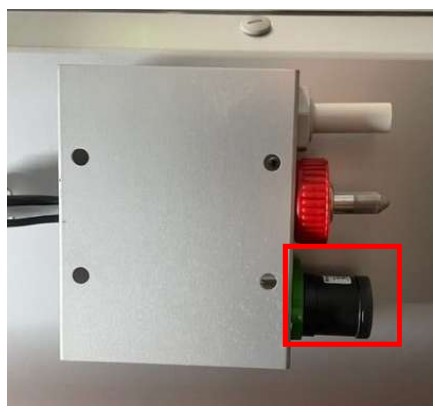


P20

0-1 VDC | 0-100% RH

97.9 °F	87.8 °F	0.60 %	1 %
98.0	87.0	0.60	0 - 100

CO2 Sensor



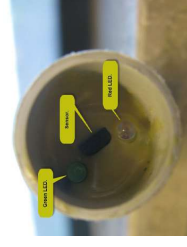
0-5VDC | 0-3%

	97.9 °F 98.0		87.8 °F 87.0		0.60 % 0.60
	1 % 0 - 100				

Rear sensor (only for 16S and 24S)



- GREEN LED flash: \pm every 1 second → communication with controller
- RED LED flash → alarm



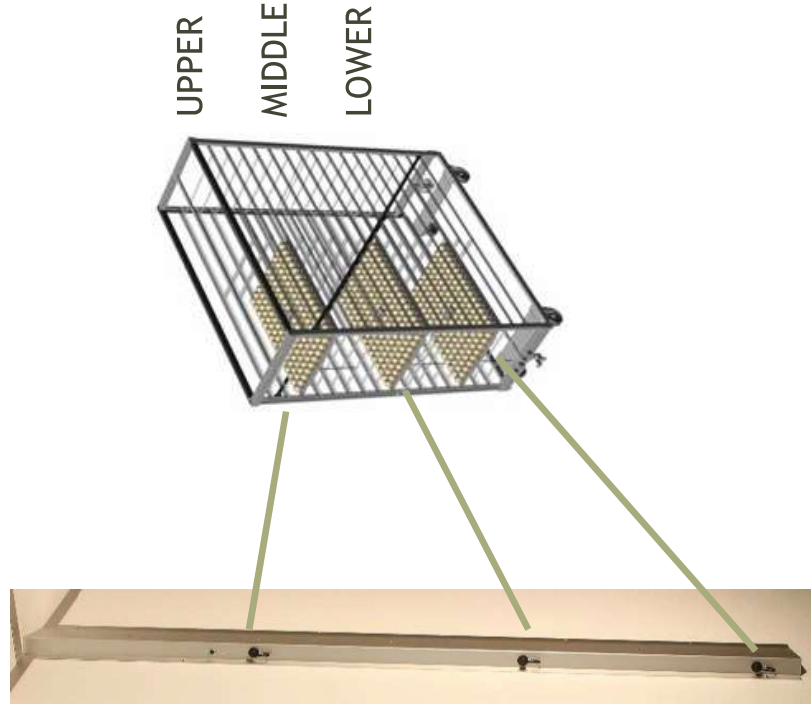
OvoScan™

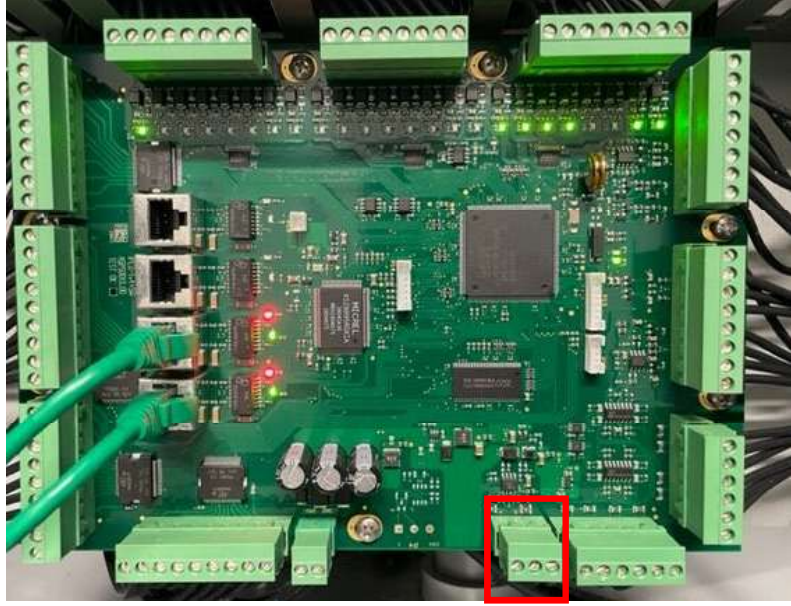


RS-485 Communication LED
With OvoScan I/O Module

Power LED
SCANNER 5V

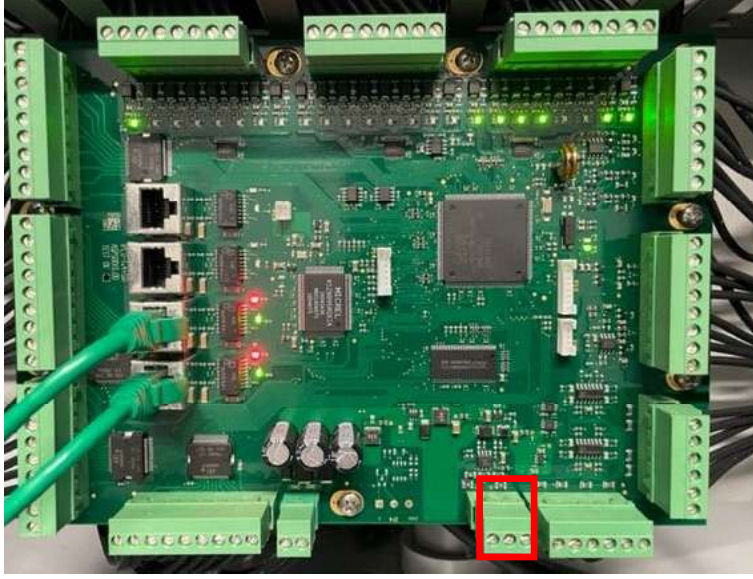
Temp sensor





P2





P2



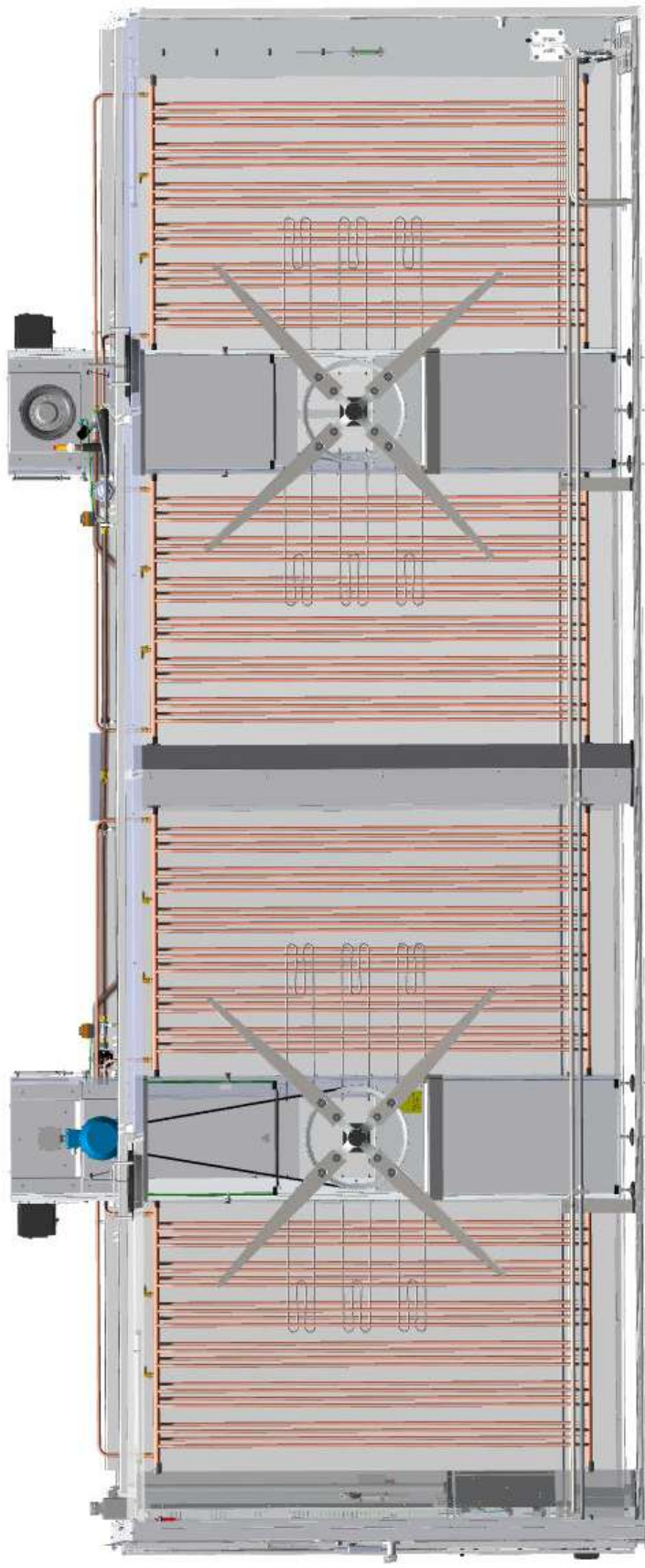
HatchScan™

Connections in console
default since March 20205



Product number	product description
HO-001777	Retrofit HatchScan X-Streamer 4H/8H
HO-001778	Retrofit HatchScan X-Streamer 2H
HO-001779	Retrofit HatchScan BS OX 4H/8H
HO-001780	Retrofit HatchScan BS OX 2H

Pulsator



PETERSIME

Pulsator - Power supply



L1-L2-L3



Q11

24V DC PES



KP1

16/24S

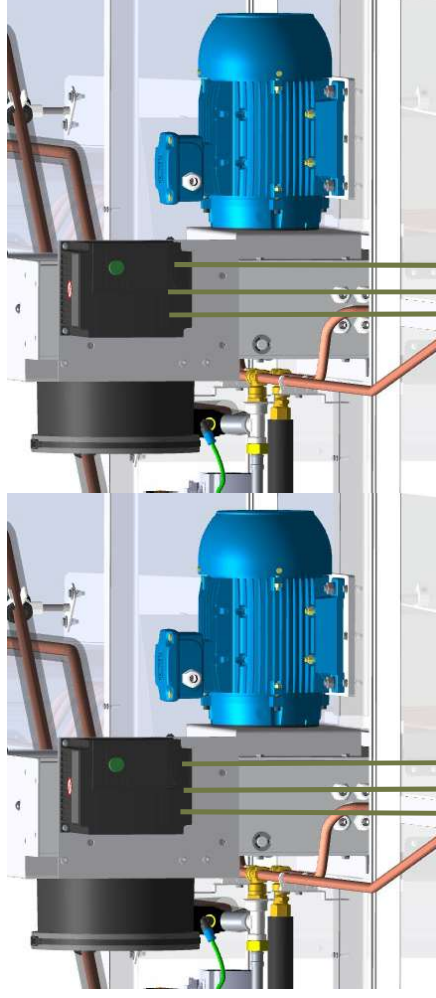
24V DC PES



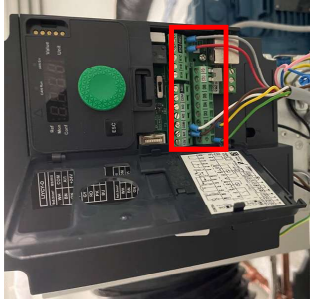
KP2



Q12



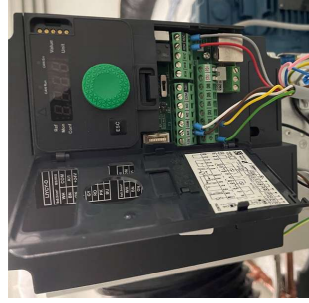
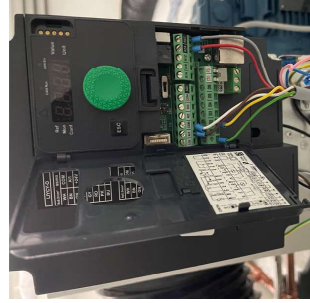
Pulsator - Control - Start



P3

DO - 24VDC AES

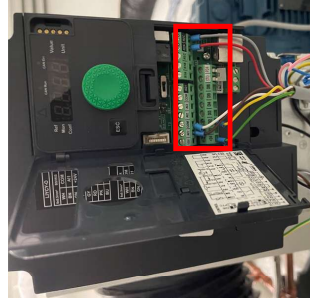
Pulsator - Control - Start (16/24S)



DO - 24VDC AES



Pulsator - Control - Speed



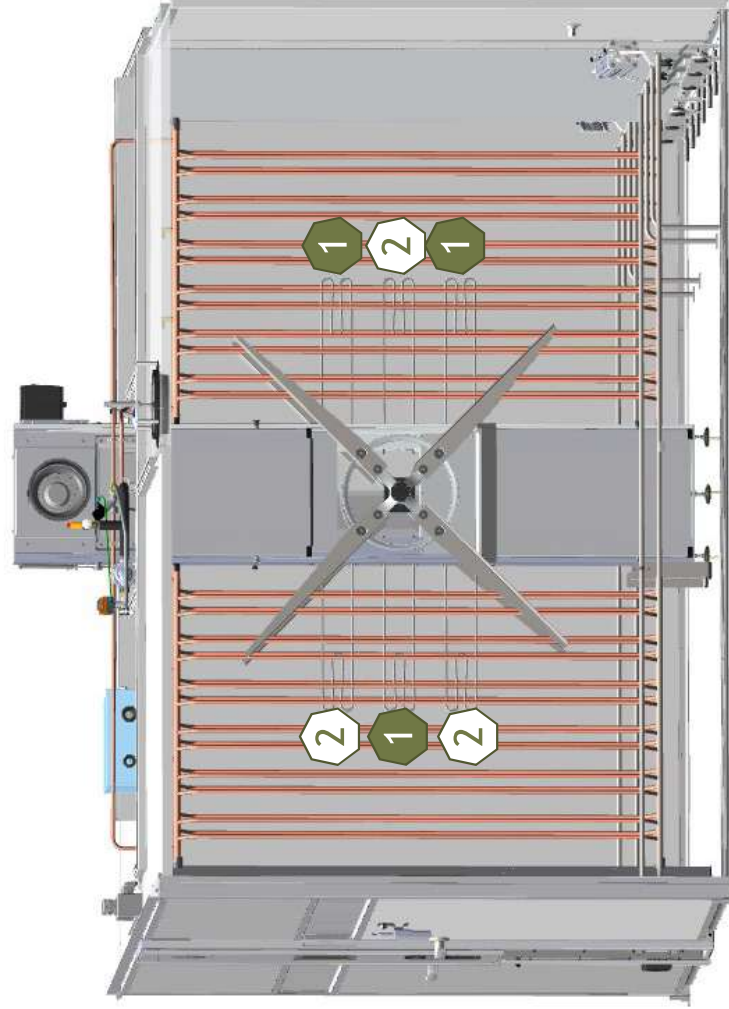
AO - 0-10VDC | 0-100% EcoDrive

Pulsator - Control - Speed (16/24S)



AO - 0-10VDC | 0-100% EcoDrive

Heating - Setters

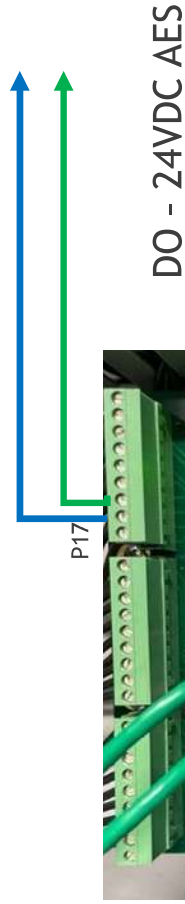
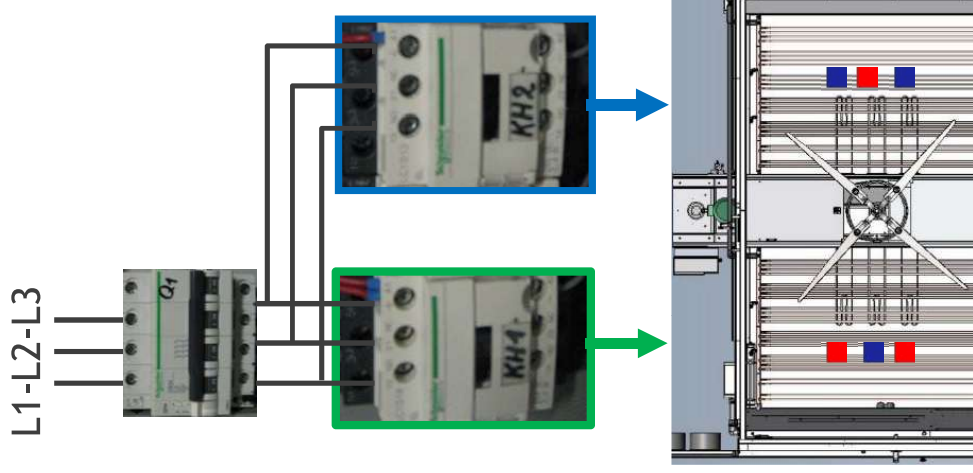


XS12S

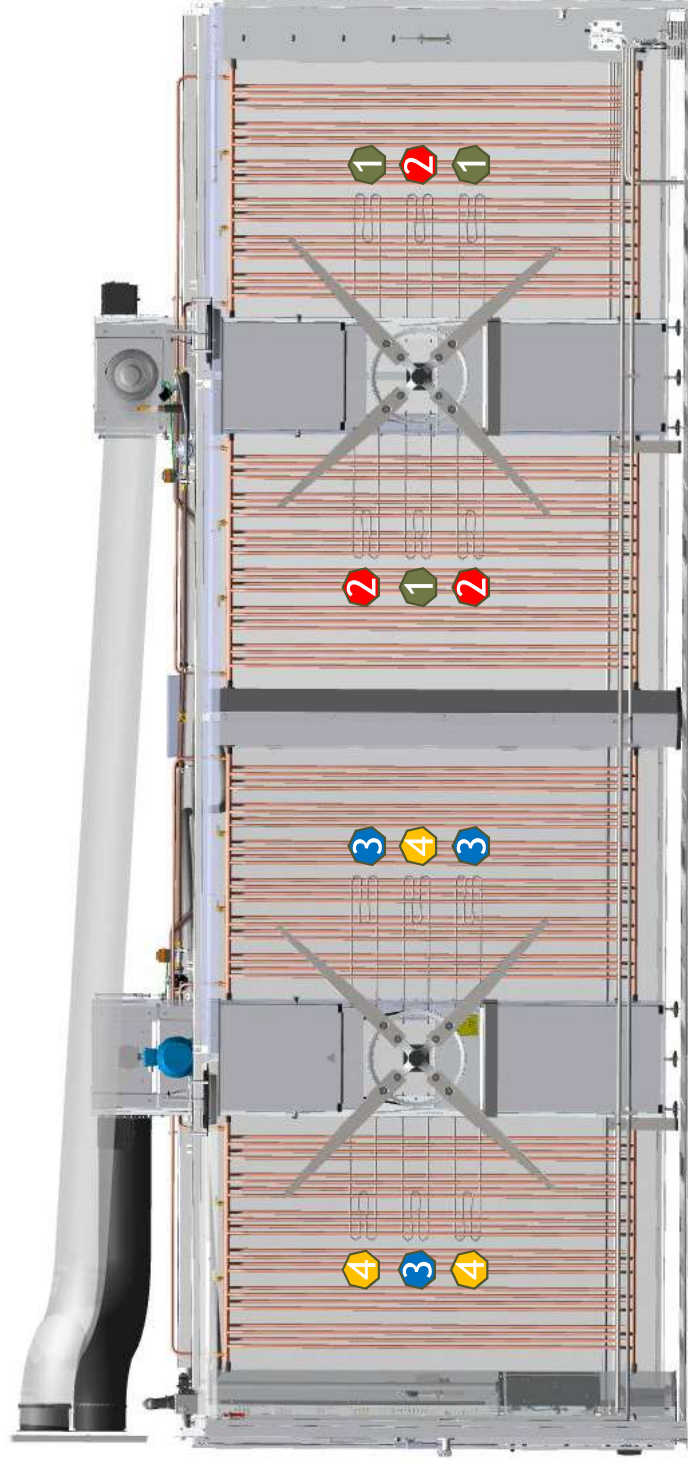
PETERSIME

Machine	Heating Elements
4S, 4TS	2x3 * 600W
8S, 12S	2x3 * 1000W
12SHD	2x3 * 1200W
12S-RS	2x3 * 2200W

Heating - Setters



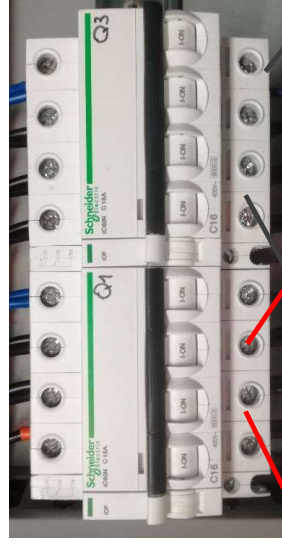
Heating Setters 16/24S



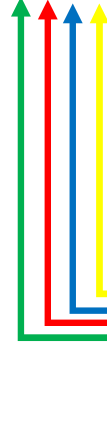
4 x 3*1000W

XS24S

Heating setters 16/24S



Heating: 16/24S



P17



DO - 24VDC AES



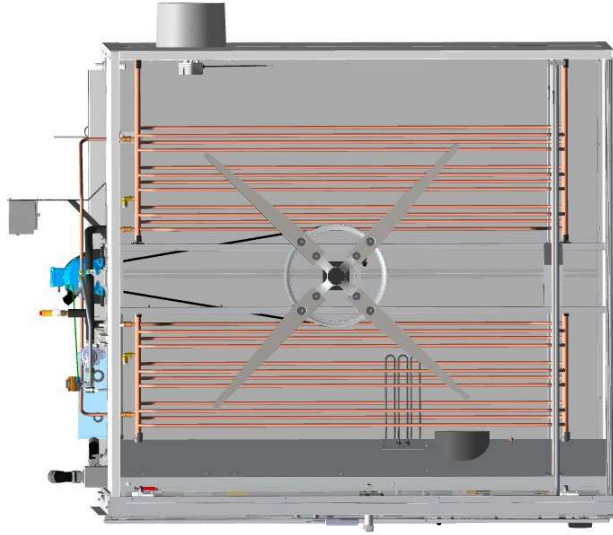
1

2

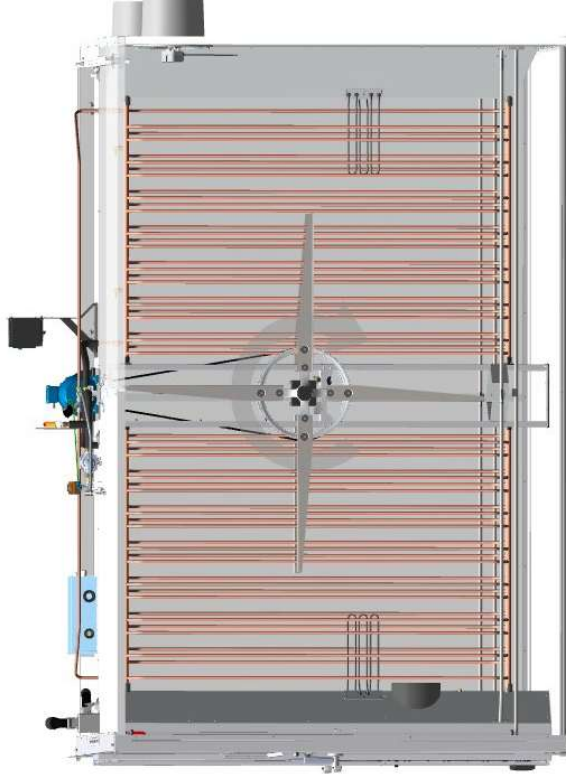
3

4

Heating - Hatchers



XS4H



XS8H

Machine	Heating Elements
4H	3 * 600W
8H	6 * 600W

Heating Hatchers

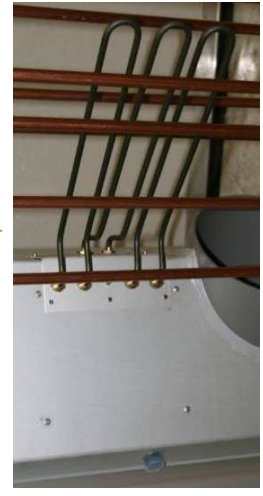
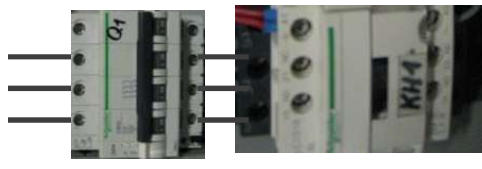


DO - 24VDC AES

P17



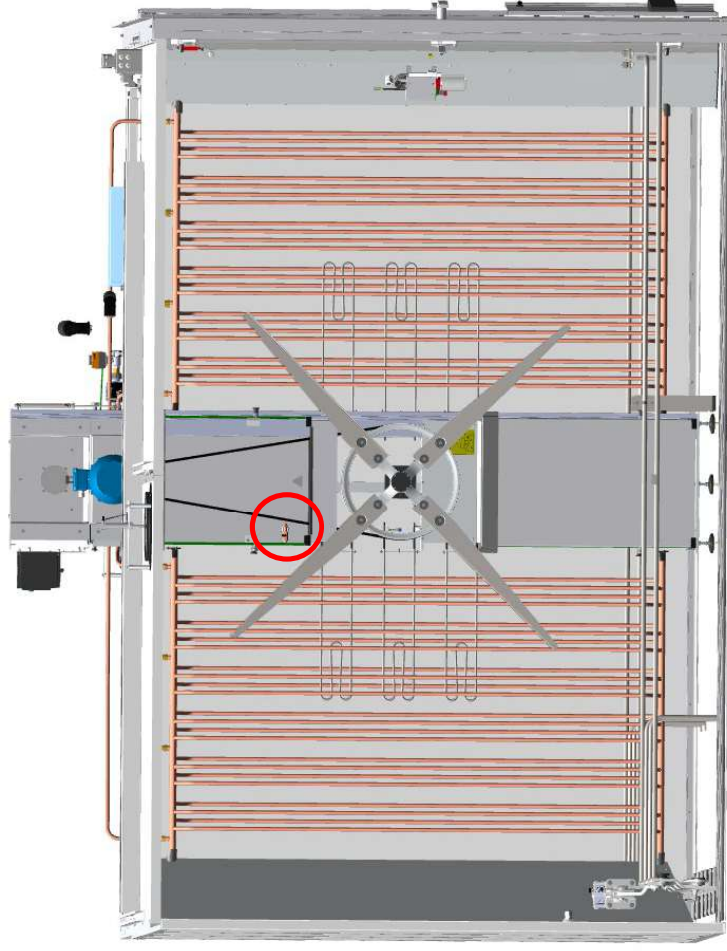
L1-L2-L3



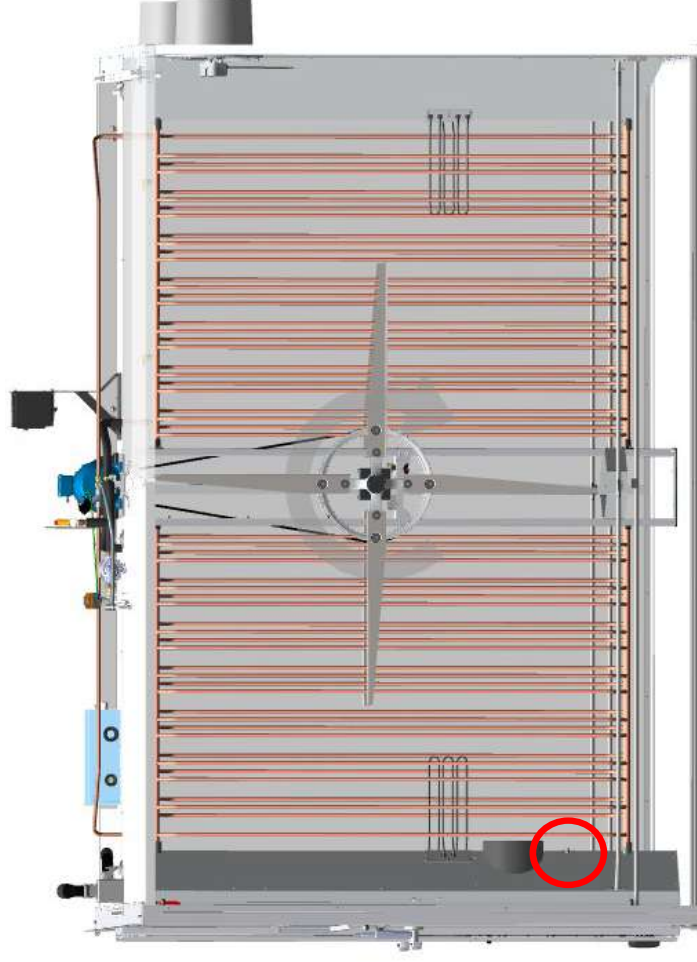
Humidification



Setters:



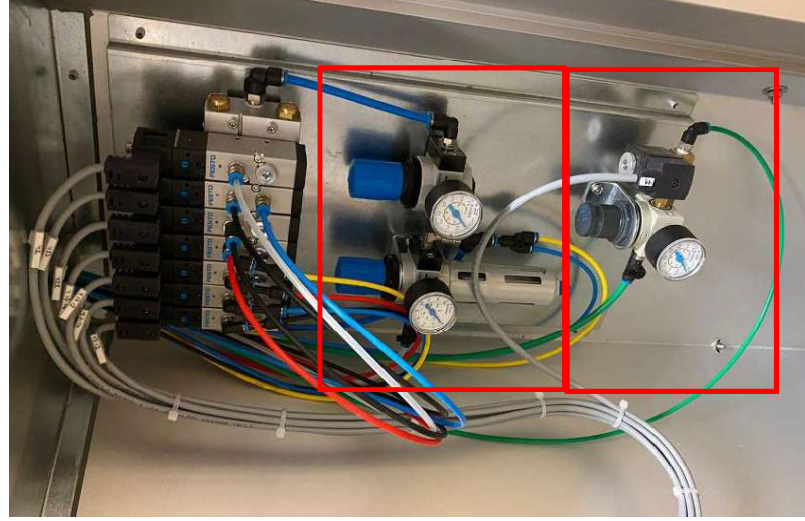
Hatchers:



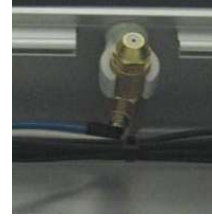
XS12S

XS8H

Humidification



AIR 2 Bar - WATER 1 Bar



**Air at the back of the nozzle
Water at the side**

**Air sprays 5 sec. longer then water (to
clear the nozzle completely).**

Humidification

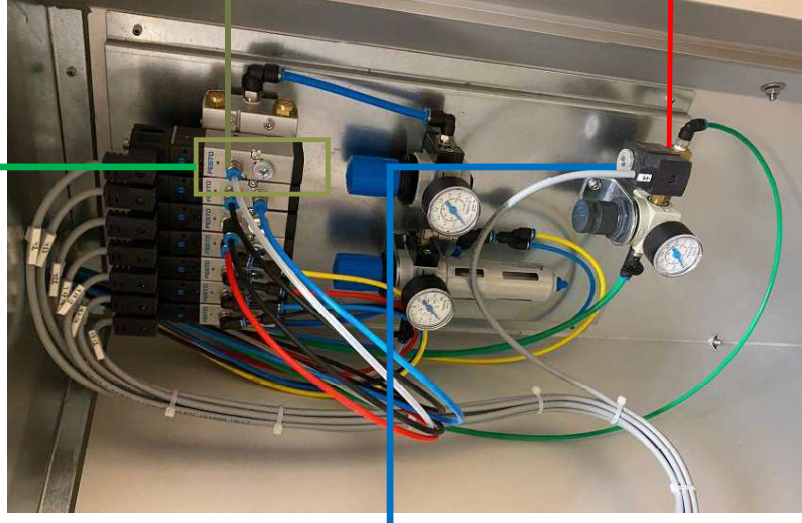
DO - 24VDC PES

Air Water

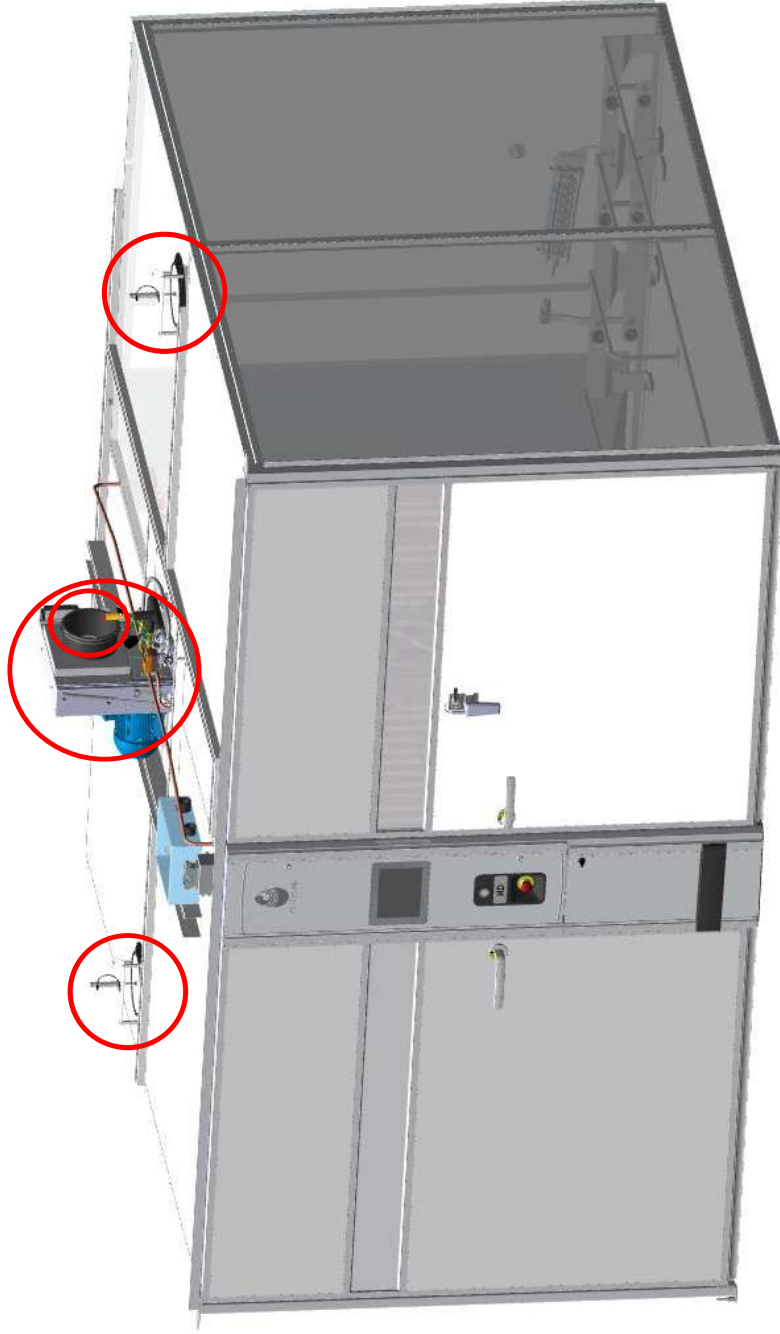
P8



J31

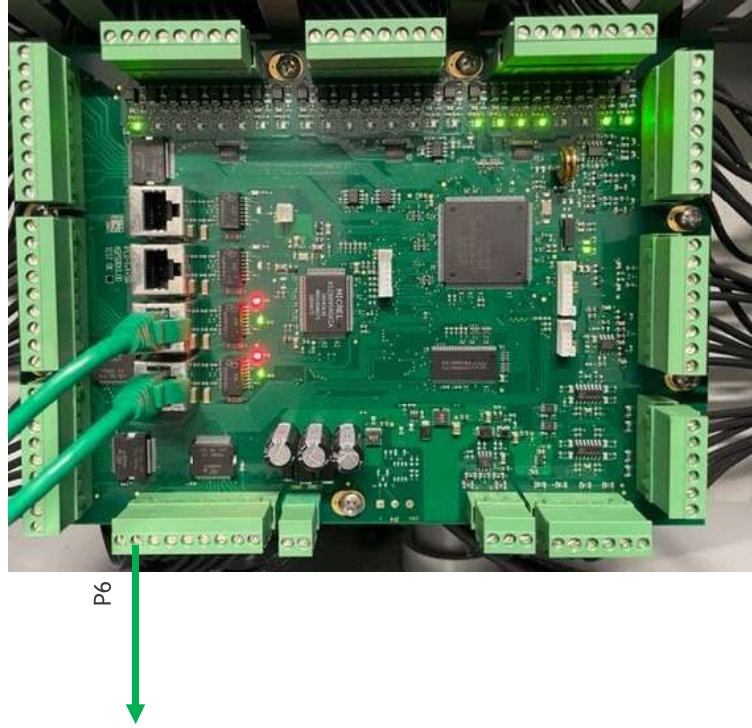


Ventilation: Setters



Ventilation shutters

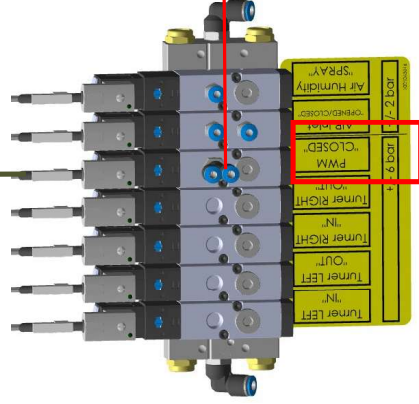
DO - 24VDC PES



AIR 2 Bar



J43

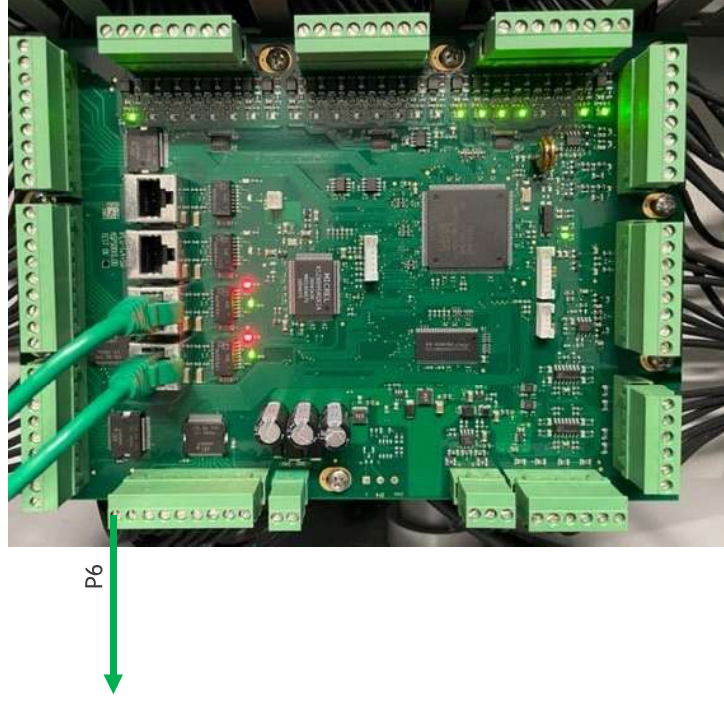


0V - damper open
24V - damper closed

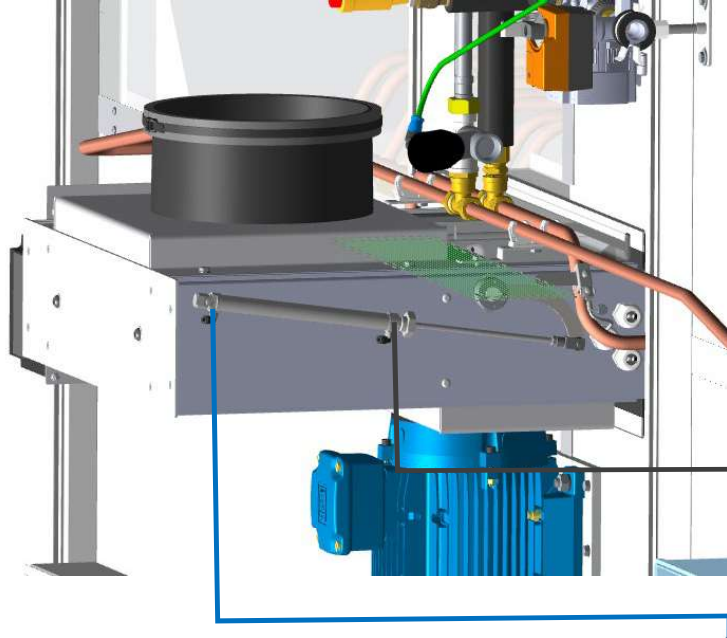
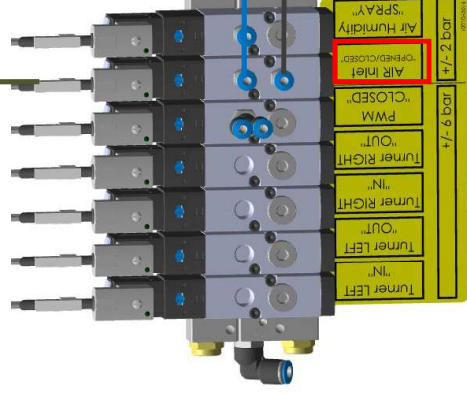


Air inlet damper

DO - 24VDC PES



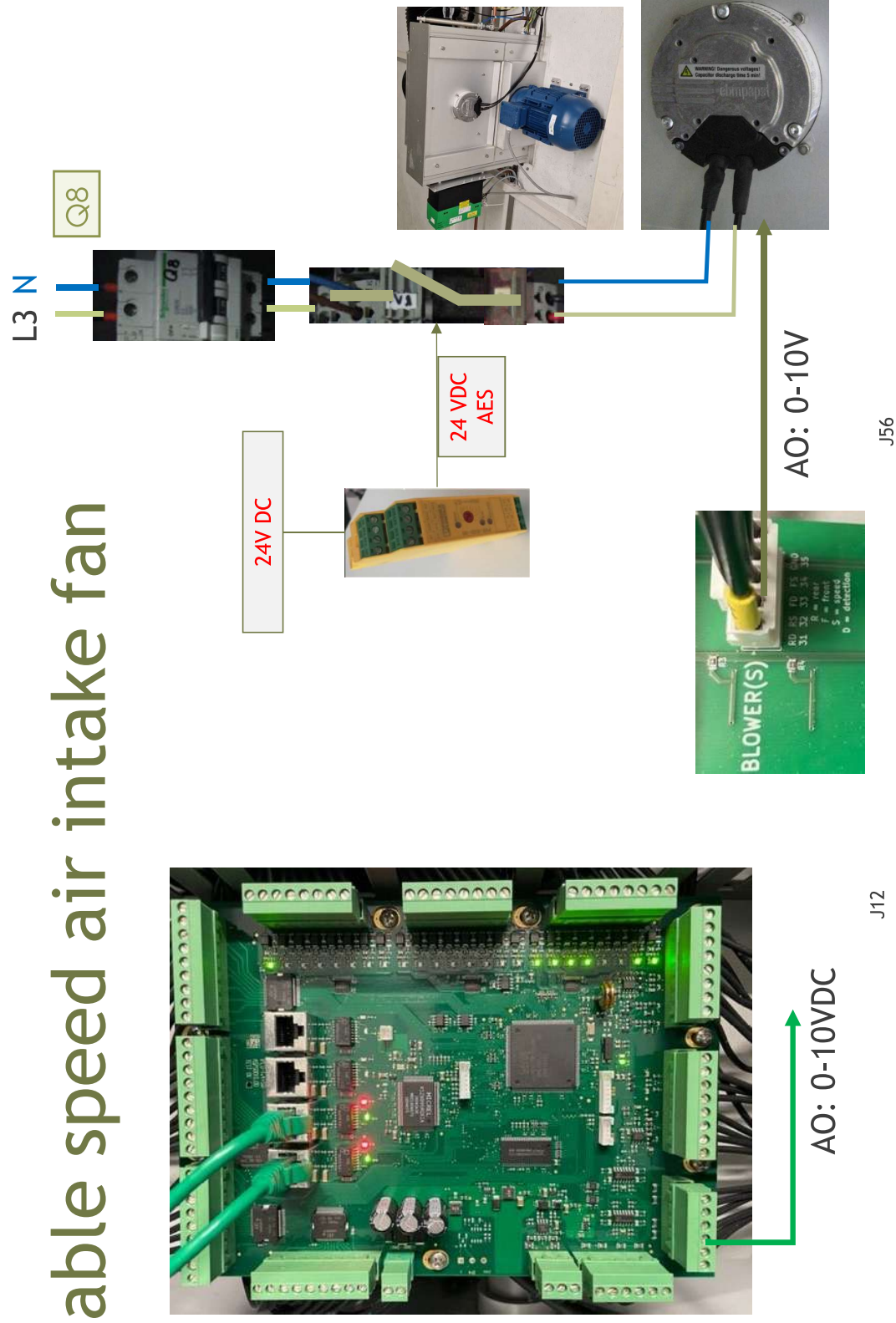
J44



0V - damper open
24V - damper closed



Variable speed air intake fan



Variable speed air intake fan (16/24S)



AO: 0-10V

AO: 0-10V

J12

PETERSIME



Q8

24V DC



24 VDC
AES

BACK



FRONT



AO: 0-10V



J13

Ventilation: Setters

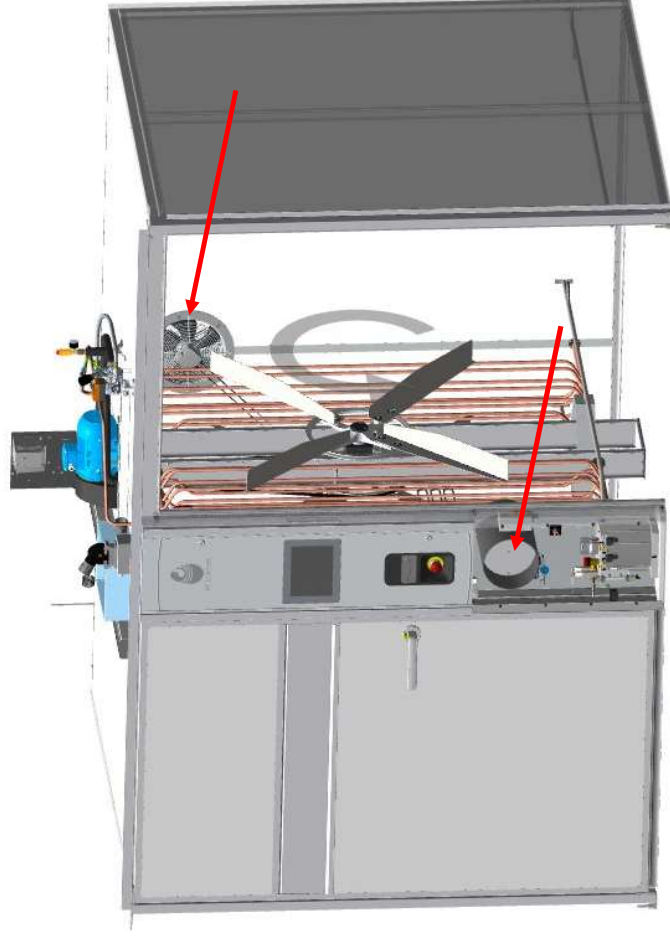


 100.0 °F 100.0	 3.0 %	 0.20 % 0.20
 98.4 °F 98.4	 77.8 °F 74.0	 15 % 8 - 90

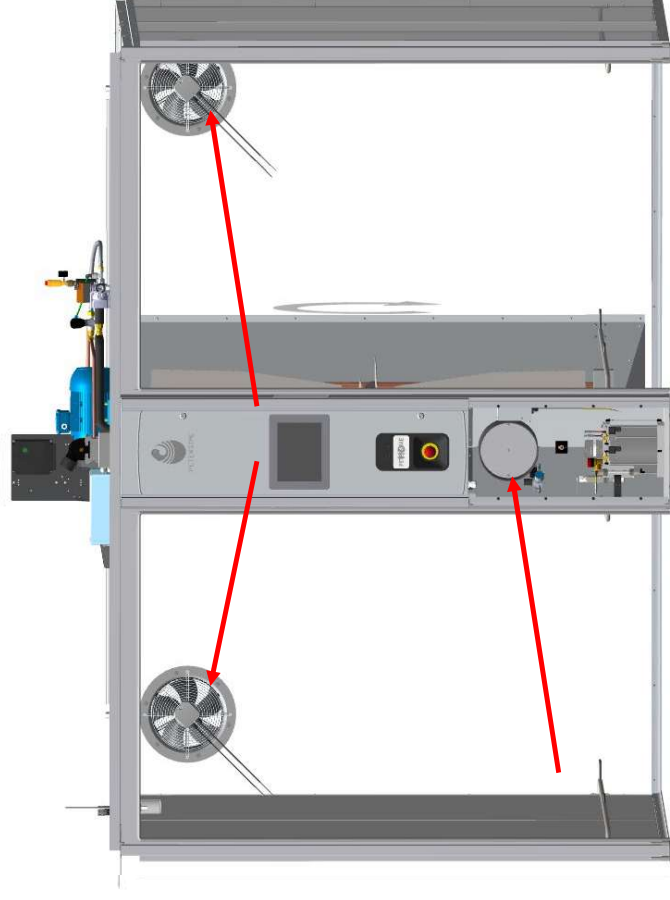
MEASURED VALUE	0		1..9		>=10	
	Shutter+Damper	Fan	Damper + Shutter	Fan	Damper + Shutter	Fan
0-100	100 % closed	stop	Pulsating x sec open	stop	100% open	x%/10 (V)



Ventilation: Hatchers

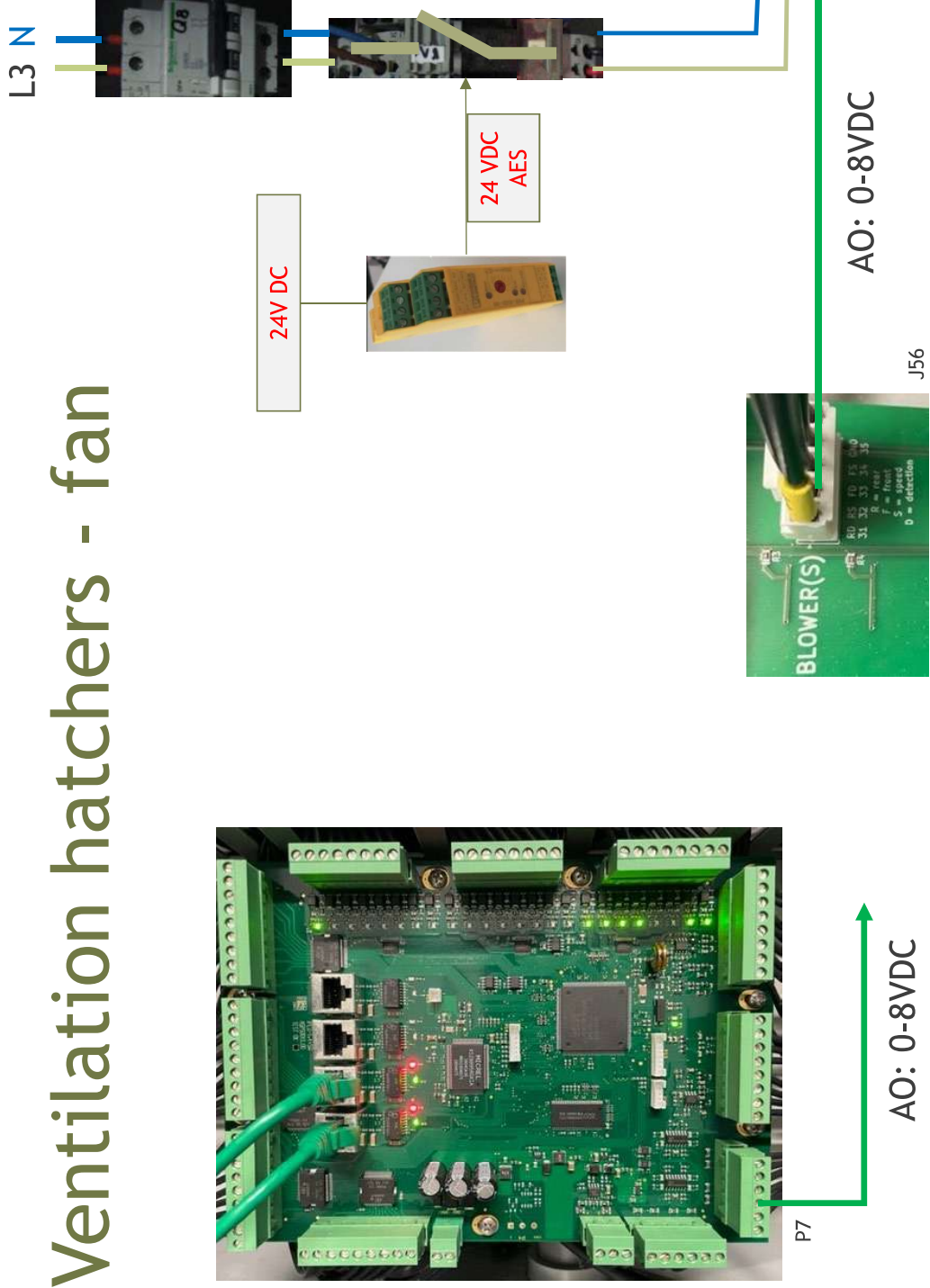


XS4HOX



XS8HOX

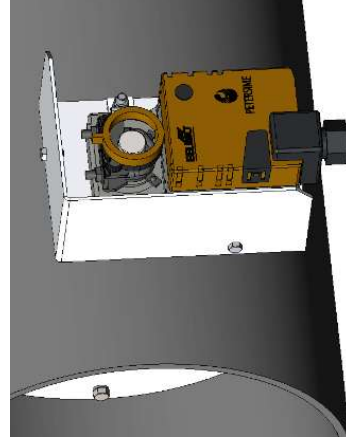
Ventilation hatchers - fan



Ventilation hatches - air inlet



AO - 2-10VDC | 0-100%



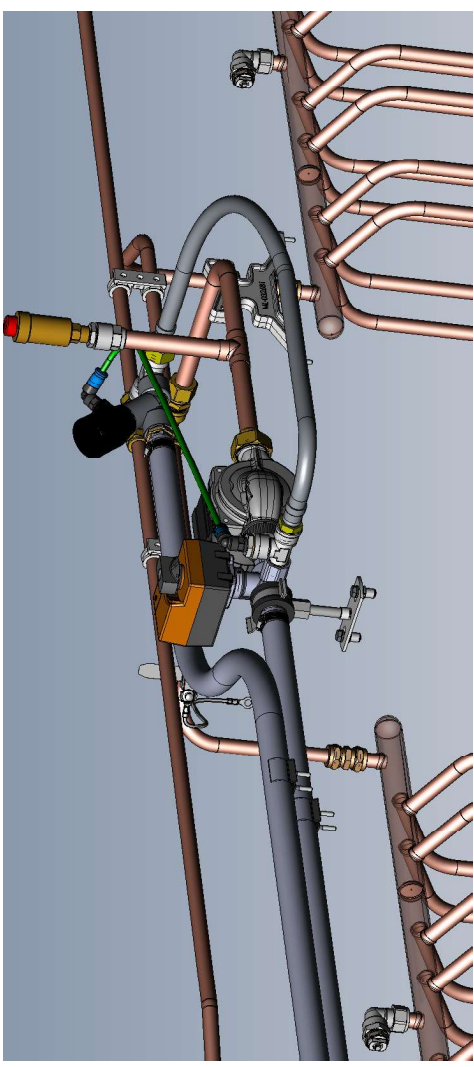
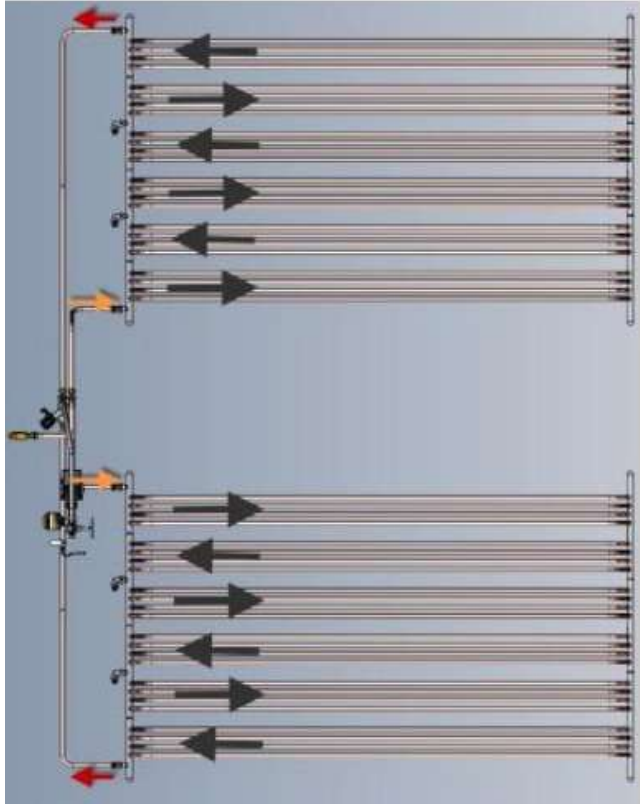
J74



Cooling



Cooling



Cooling



1. Three-way valve
2. Circulation pump
3. Automatic Air vent
4. Angle seat valve pressure-controlled

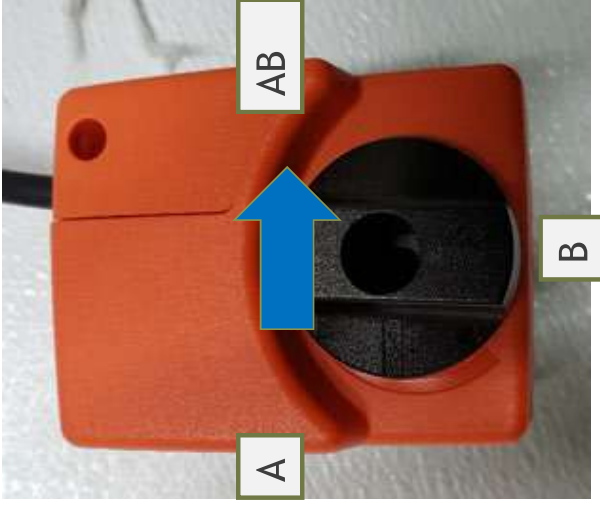
Cooling



Cooling: 3-way valve



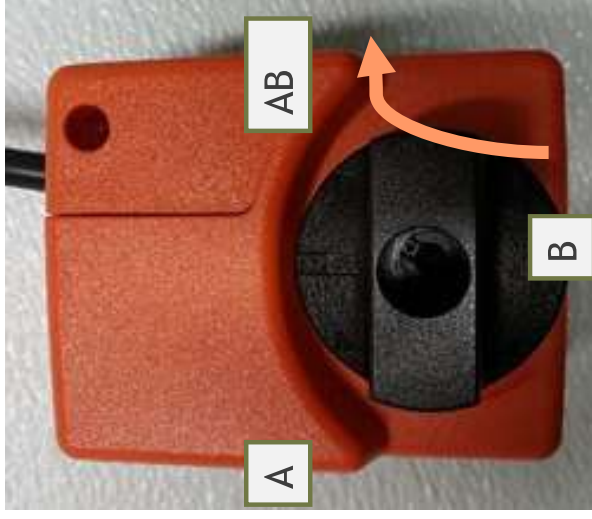
A-AB = 100% = open



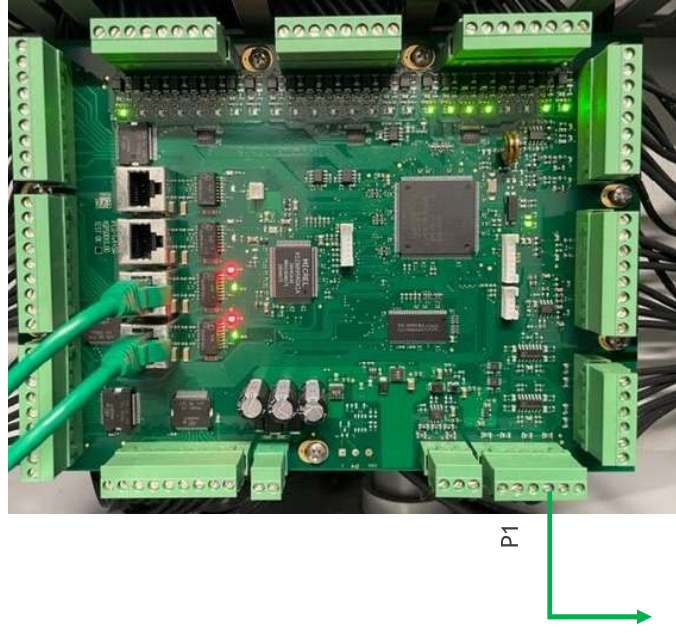
100% cold water



B-AB = 0% = closed



Cooling: 3-way valve



P1

AO - 2-10VDC | 0-100%

24V DC PES



J72



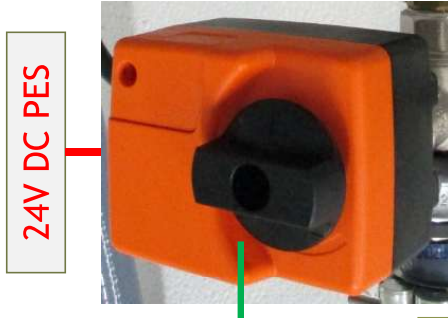
Cooling: 3-way valve (16/24S)



AO - 2-10VDC | 0-100%



J72



24V DC PES

Backside



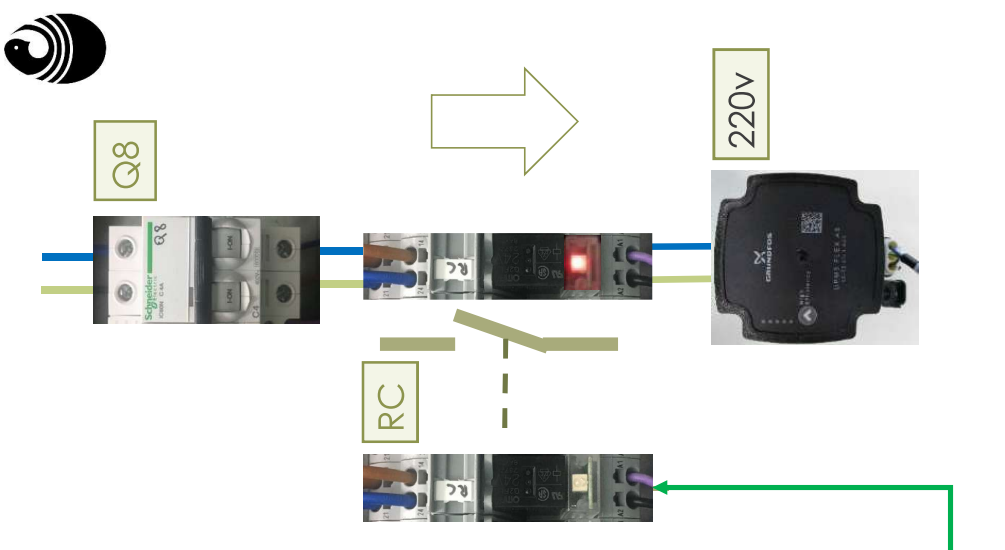
24V DC PES

Frontside

Cooling: Pump



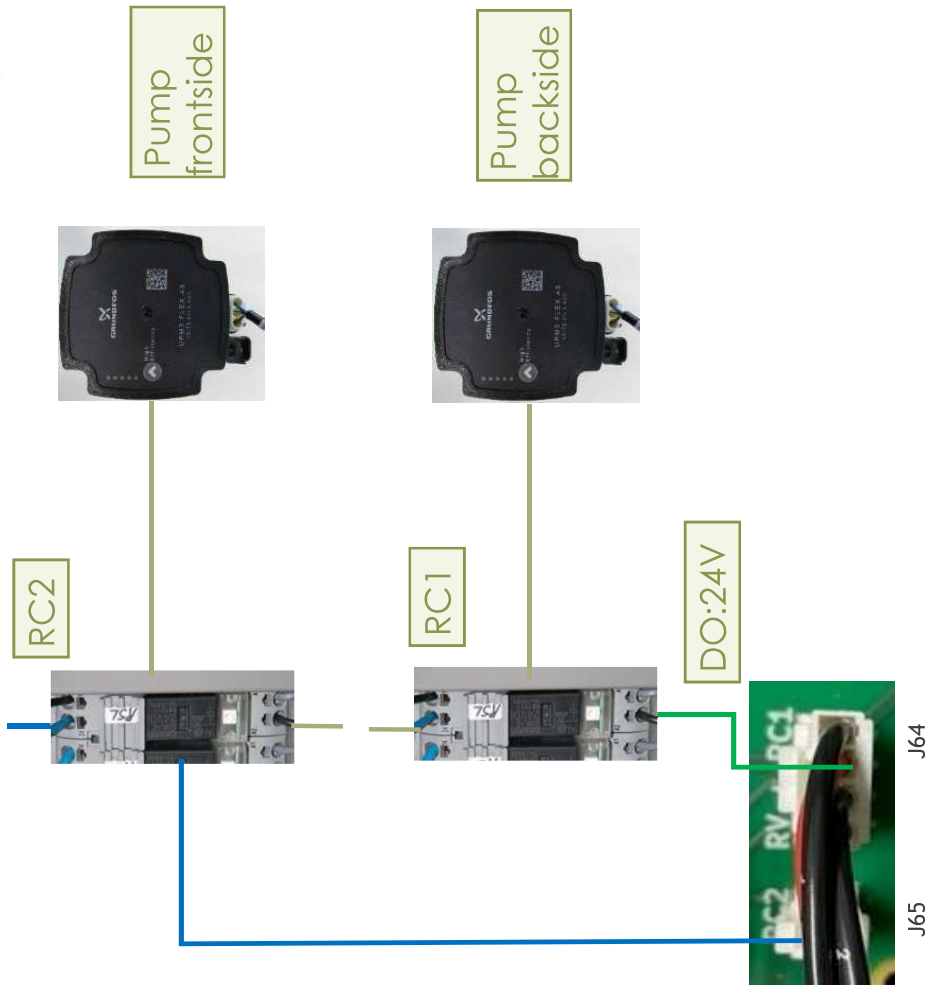
DO - 24VDC AES



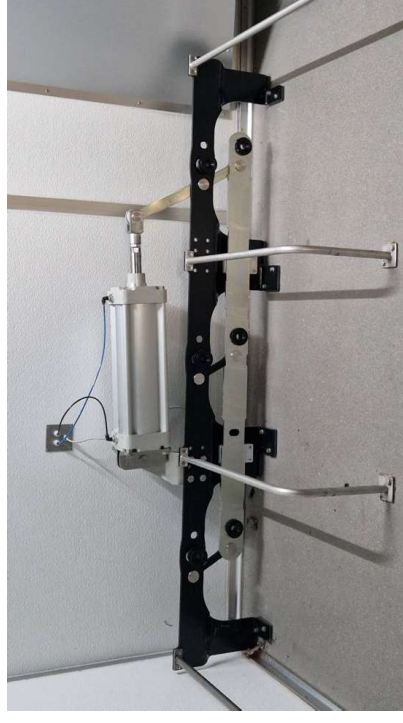
Cooling: pump (16/24S)



DO - 24VDC AES



Turning

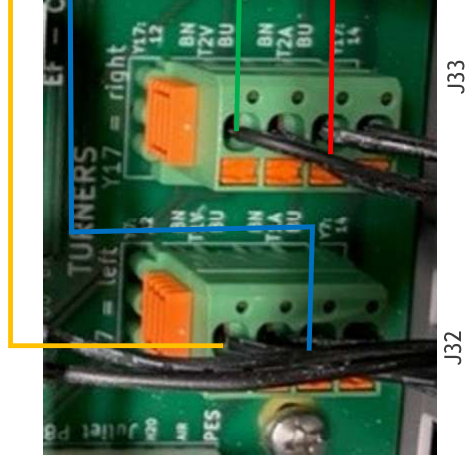


Turning

P17

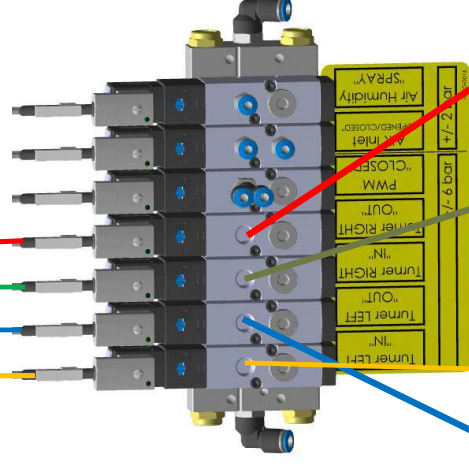


Turner 2: Right
 Turner 2: Left
 Turner 1: Right
 Turner 1: Left

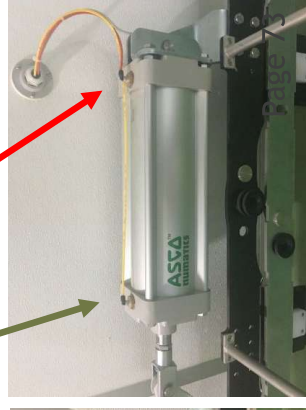
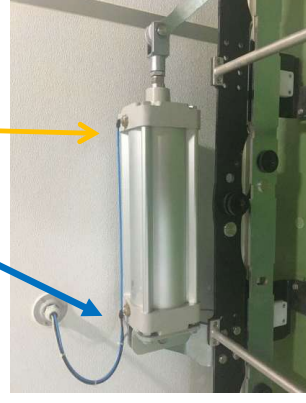


J33

J32



DO - 24VDC AES



Status lamp

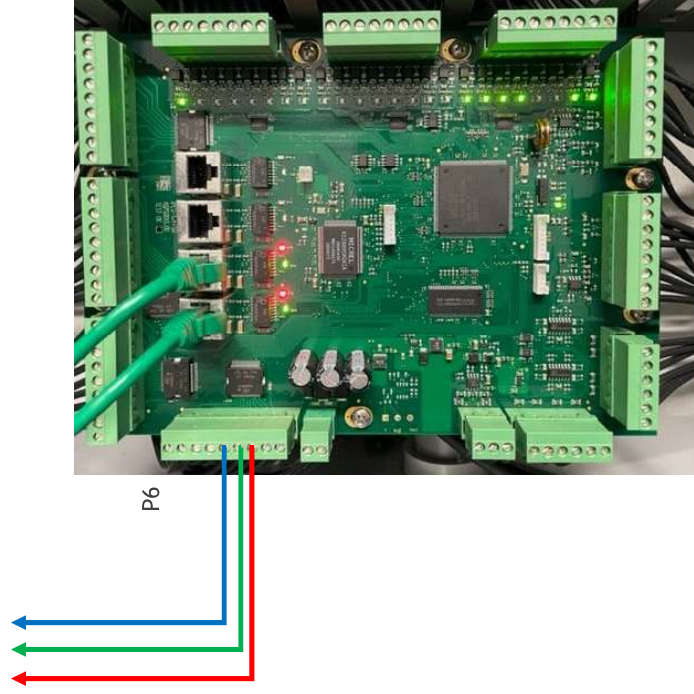


Status	LED colour
Machine switched off by main switch	No colour
Stop	Light blue
Pre-delayed Start	White
Delayed Start	Light green
Start	Dark green
Ready to calibrate	Orange
Drying mode	Dark blue
Indication alarm	LED colour
Active alarm/doors closed	Blinking status colour (0.5") / Red (0.5")
Active alarm/doors open	Blinking OFF (0.5") / Red (0.5")
Silenced alarm/doors closed	Continuously Red
Silenced alarm/doors open	Blinking Red (0.25") / OFF (0.25")
Emergency button pressed	Blinking Red (0.5") / OFF (0.5")
Emergency button pressed/silenced alarm	Blinking Red (0.25") / OFF (0.25")
Emergency button released again	Blinking Red (0.5") / Dark green (0.5")
Emergency button released again/silenced alarm	Continuously Red
Emergency button released again/OX window pressed	Dark green again
	OFF

Status lamp



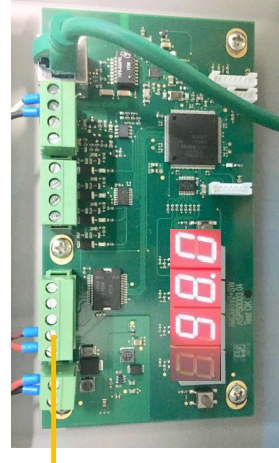
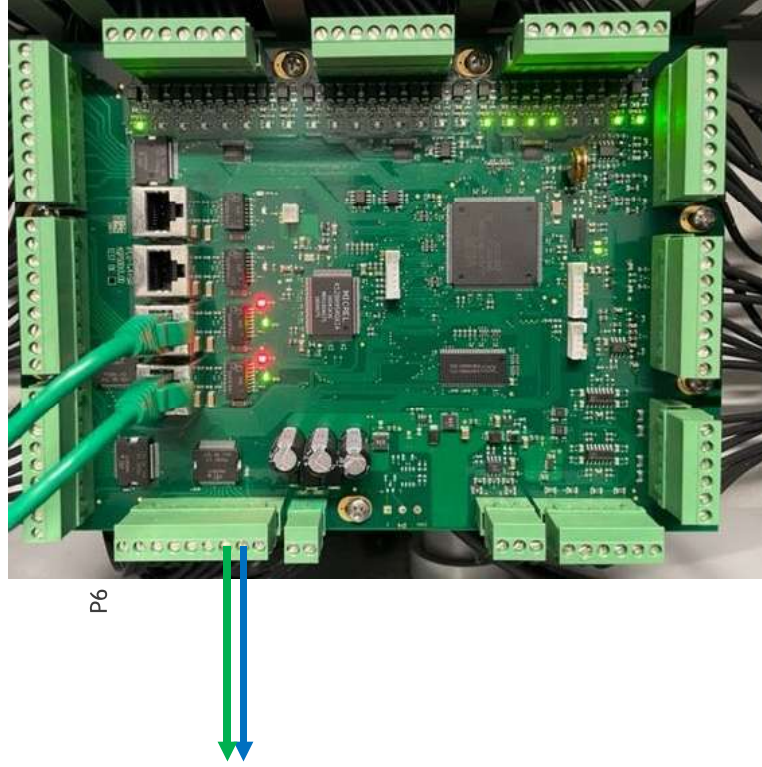
DO - 24VDC PES



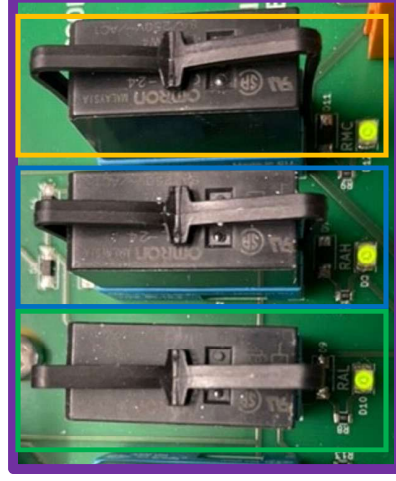
Alarm



DO - 24VDC PES



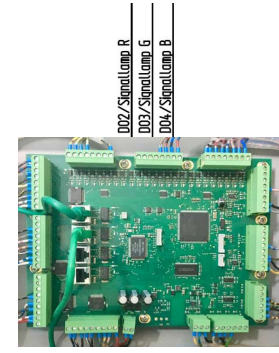
J16



- No alarm DO 24VDC
- Alarm DO 0VDC



STATUS LAMP

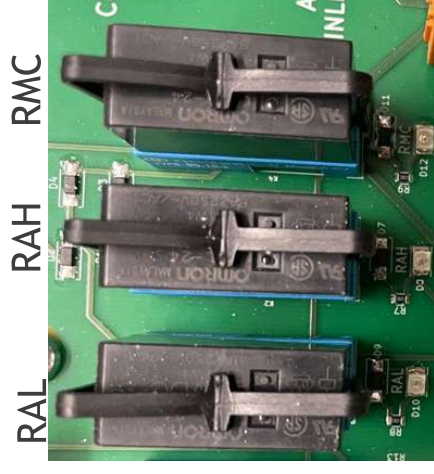


NUMBER

ACOUSTIC ALARM

Main switch off

12V dc

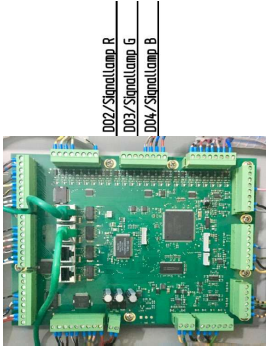
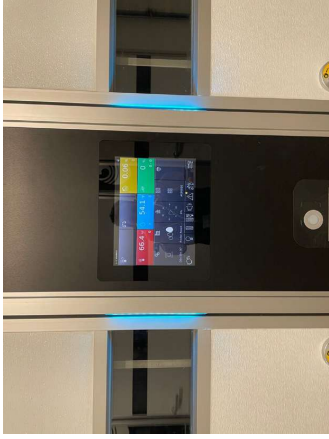




ACOUSTIC ALARM

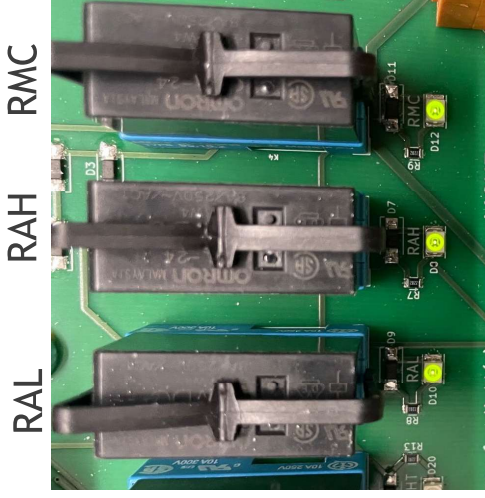
NUMBER

STATUS LAMP



Machine On - stop mode

12V dc

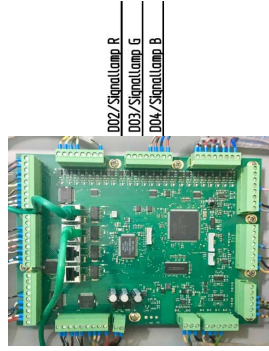




NUMBER

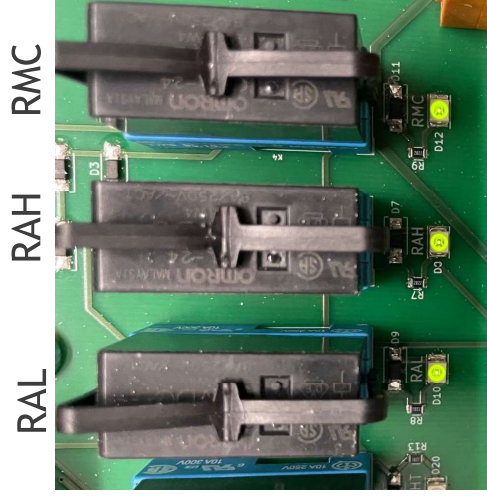
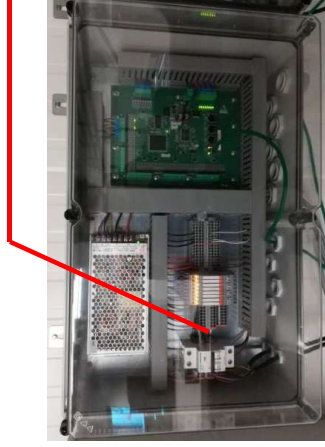
ACOUSTIC ALARM

STATUS LAMP



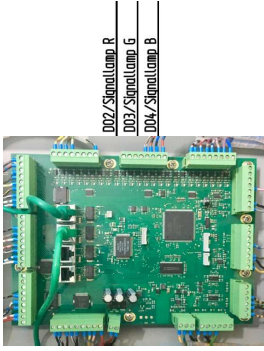
Machine On - start mode - no alarm

12V dc





STATUS LAMP

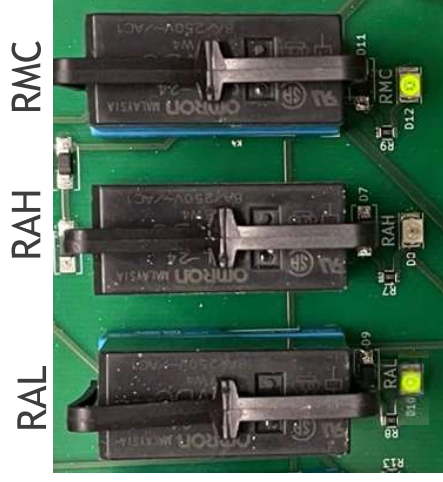


NUMBER

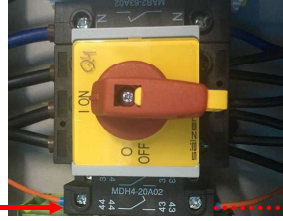
ACOUSTIC ALARM

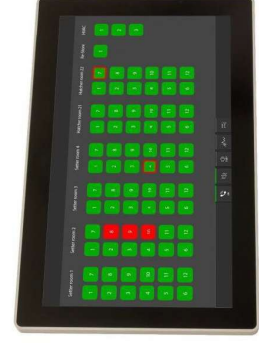
Blinking red

Machine On - start mode - alarm

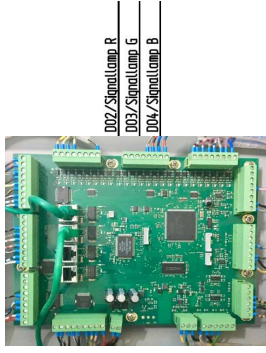


12V dc





STATUS LAMP

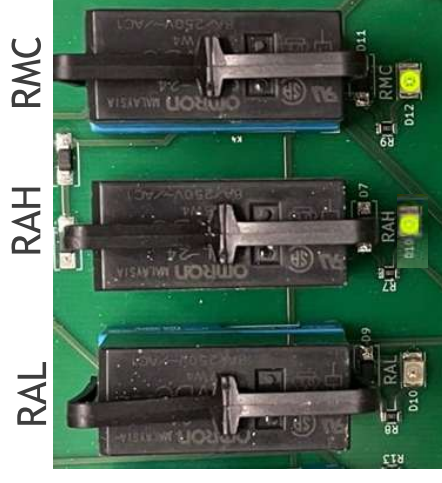


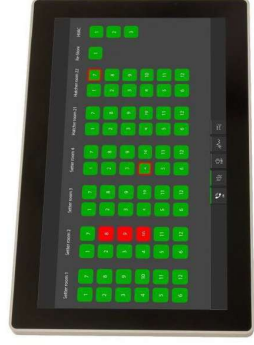
NUMBER

ACOUSTIC ALARM

Machine On - start mode - alarm silenced

12V dc

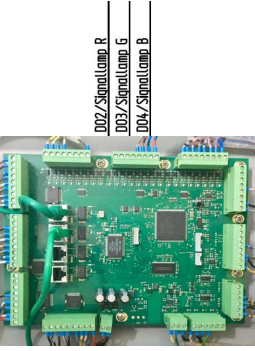




NUMBER

ACOUSTIC ALARM

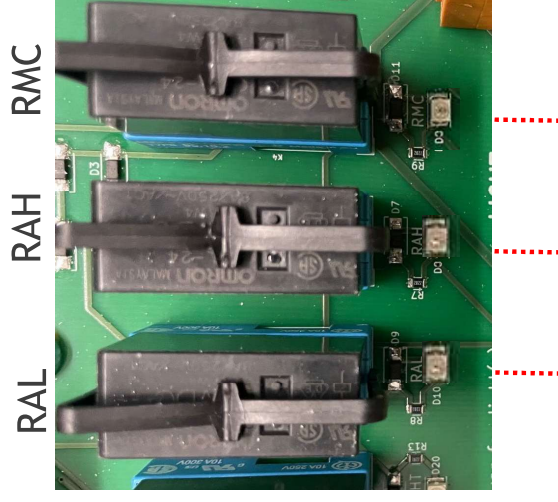
STATUS LAMP



Blinking red

Machine On - start mode - MC alarm

12V dc



Ventilation alarm - setters



24VDC block signal
Alarm if speed <10% lower



Ventilation alarm - setters (16/24S)



DI - 24VDC

24VDC block signal
Alarm if speed <10% lower



Front

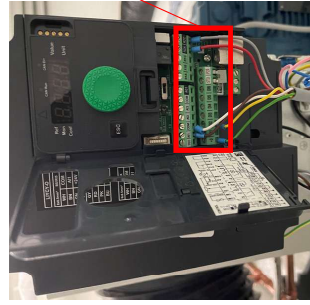


Back



J56

Pulsator Alarm (VSD)



J131

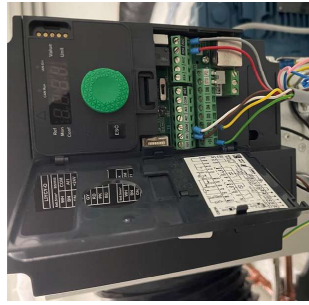


P22

DI - 24VDC

24VDC= no alarm
0VDC=alarm

Pulsator Alarm (VSD) - 16/24S



P22

DI - 24VDC

24VDC = no alarm
0VDC = alarm

Pulsator alarm - speed



DI - 24VDC

16/24S



24-0-24-0-24-0

Alarm if speed is 10% lower
than set point

Door open alarm



P23

DI - 24VDC

24VDC= no alarm
0VDC=alarm



Emergency button alarm

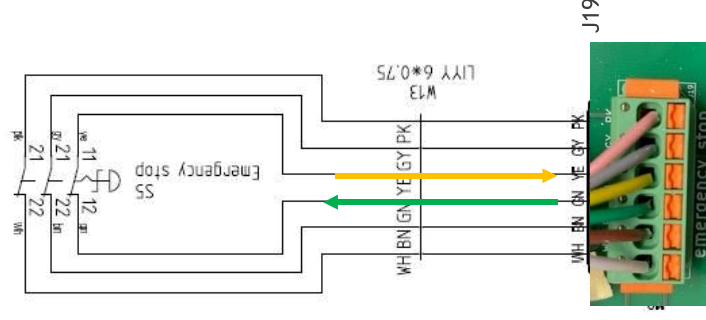


DI - 24VDC

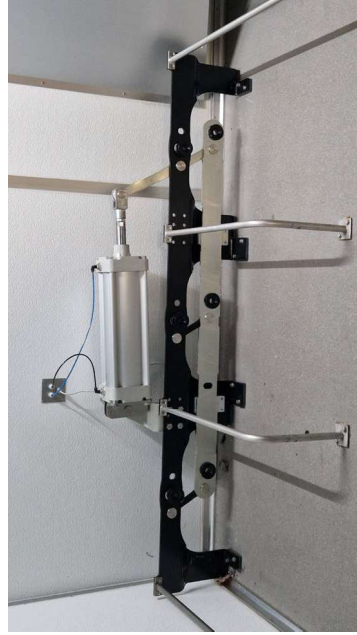
P23

LED = on : normal operation : 24 V = No alarm

LED = off : emergency switch pushed in : 0 V = alarm



Turner alarm



Turner alarm



DI - 24VDC

P21

LED on = detection metal
LED off = horizontal position

24VDC PES



Turn left



Turn right



Thank you!

Questions ? lode.martens@petersime.com

