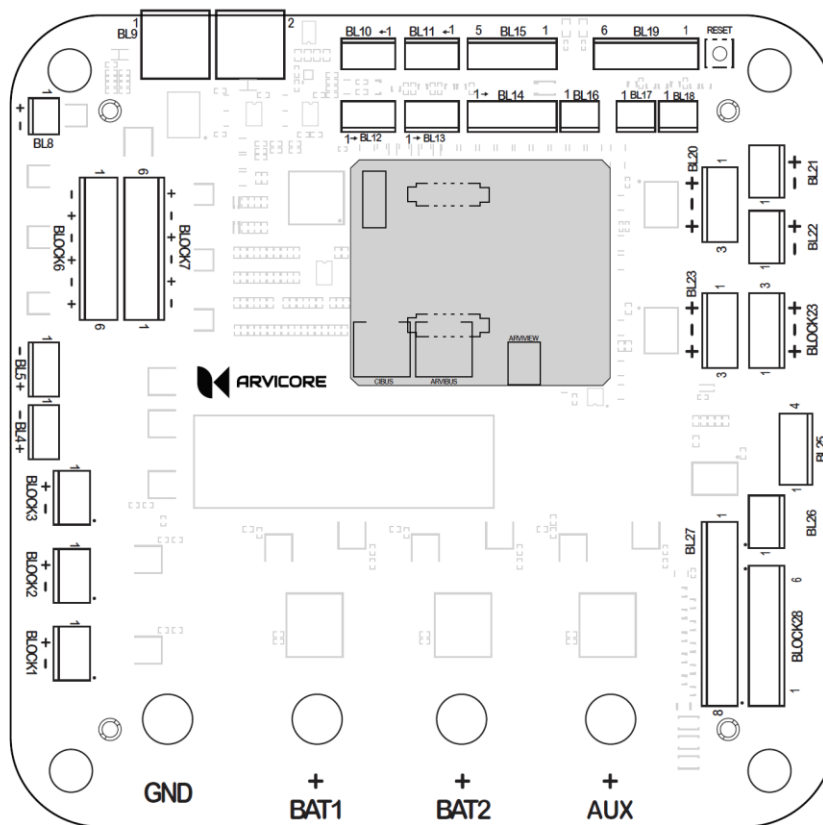


ARVIKON SMART CARAVANING™

ARVICORE

Installation Manual



V 3.0.2 (August 2023)

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1 INTRODUCTION

1.1 UPDATED DOCUMENTATION

PLEASE NOTE THAT THE CONTENT OF THE MANUAL WILL BE CONTINUOUSLY UPDATED. TO ENSURE THAT YOU HAVE THE LATEST VERSION, DOWNLOAD THE LATEST VERSION AVAILABLE

WWW.ARVIKON.COM/OFFICIALDOCS



1.2 OVERVIEW

ARVICORE is the next generation Electroblock from ARVIKON that is designed specifically for digital switching in recreational vehicles. With over 70 inputs, ARVICORE seamlessly connects to more than 160 devices from top-tier manufacturers, allowing for simple yet intelligent control. ARVICORE is an essential component of the ARVIKON SMART CARAVANING™ kit.

The ARVIKON SMART CARAVANING™ kit consists of:

- ARVICORE Electroblock
- ARVIVIEW multi-touch display (available as 7, 10 or 15")
- ARVIKON Smart Caravaning™ App (with remote access via ARVINET server)
- ARVIKON MASTER APP
- Accessory pack containing:
 - 19x connectors (2-8 pins),
 - 2x temperature probes
 - 10x water probes
 - 4x nuts M6
 - 1x mini-USB cable for connecting ARVIVIEW
 - 1x display jack connector

1.3 ABOUT

- This instruction manual contains all the necessary information for the installation of your ARVICORE device.
- For connecting compatible devices to your ARVICORE Electroblock please see manual **M02 - Compatible Equipment Installation Guide**. Available at <http://www.arvikon.com/officialdocs>.
- For the activation of the ARVIKON Smart Caravaning™ system please see manual **M03 - System Activation Guide**. Available at <http://www.arvikon.com/officialdocs>.

- Please note that this manual is continuously updated. To ensure you have the latest version please visit <http://www.arvikon.com/officialdocs> or contact us at dev@arvikon.com

2 SAFETY

2.1 WARNINGS AND SYMBOLS



DANGER!

Failure to comply with this warning may result in danger to life or serious physical injury.



BEWARE!

Failure to observe this warning may result in injury.



ATTENTION!

Failure to observe this warning may cause damage to the equipment and/or connected loads.

2.2 GENERAL SAFETY INSTRUCTIONS

- The installation of your ARVICORE device should be carried out only by authorized personnel, knowledgeable of the locally applicable standards and taking into consideration the safety guidelines located in chapter 2 of this manual.
- All applicable safety standards are adhered to in the design of this device. Noncompliance with safety regulations may result in harm to both individuals and the device itself.
- The ARVIKON System should not be used if there is any visible or known damage to the ARVICORE device. Attempting to repair the hardware or software without authorization from the manufacturer is not recommended. In the event of any damage, it is essential to contact an authorized service center of ARVIKON immediately.



DANGER!

High current equipment is accessible. There is a risk of serious injury or death due to short circuit.

- Connections should not be made at the main terminals while they are under voltage.
- If any damage to the terminals is observed, disconnect the equipment immediately.
- The product must never be installed in areas with water or where it may come into contact with liquids.



BEWARE!

High temperatures are present.

- During operation, the equipment generates high temperatures that can cause burns.
- The electronic fuse should never be jumpered if it trips.
- Objects that can burn, such as clothes or paper, must not be stored near the equipment.
- The internal components of the board must not be touched until the power is turned off.

2.3 OPERATION



ATTENTION!

HANDLING OF THE EQUIPMENT

- The ARVICORE device is controlled and operated through the use of an ARVIVIEW display, OEM display, compatible radio unit (i.e., ESX VISION), or via mobile device using the Smart Caravaning™ App.
- The unit should never be operated by itself except when a HARD RESET is being performed using the designated button for this purpose.

PROFESSIONAL SETTINGS

- Different settings regarding battery type, power supply, and other ARVICORE functions are set in the *professional menu*. These settings should only be set and adjusted by an authorized personnel of ARVIKON, taking into account the type of installation in the vehicle.
- Wrong adjustment can lead to equipment malfunction and even damage to the equipment or connected equipment. Please see the **M02 - Compatible Equipment Installation Guide**, available at <http://www.arvikon.com/officialdocs>.

2.4 START UP



ATTENTION!

- The installation of batteries with fuse protection should be ensured correctly.
- All loads must be properly connected.
- The professional settings menu must be accessed to configure the equipment accordingly.
- Before starting up the equipment or before connecting the power supply to the equipment, make sure that the equipment is completely clean and that no cable, copper and/or other materials are deposited on it.
- The ARVIKON device should only be used:
 - o in technically correct conditions
 - o in an enclosed space protected from rain, moisture, dust, and condensation
 - o by following the instructions provided in the installation manual

2.5 BATTERY REPLACEMENT



ATTENTION!

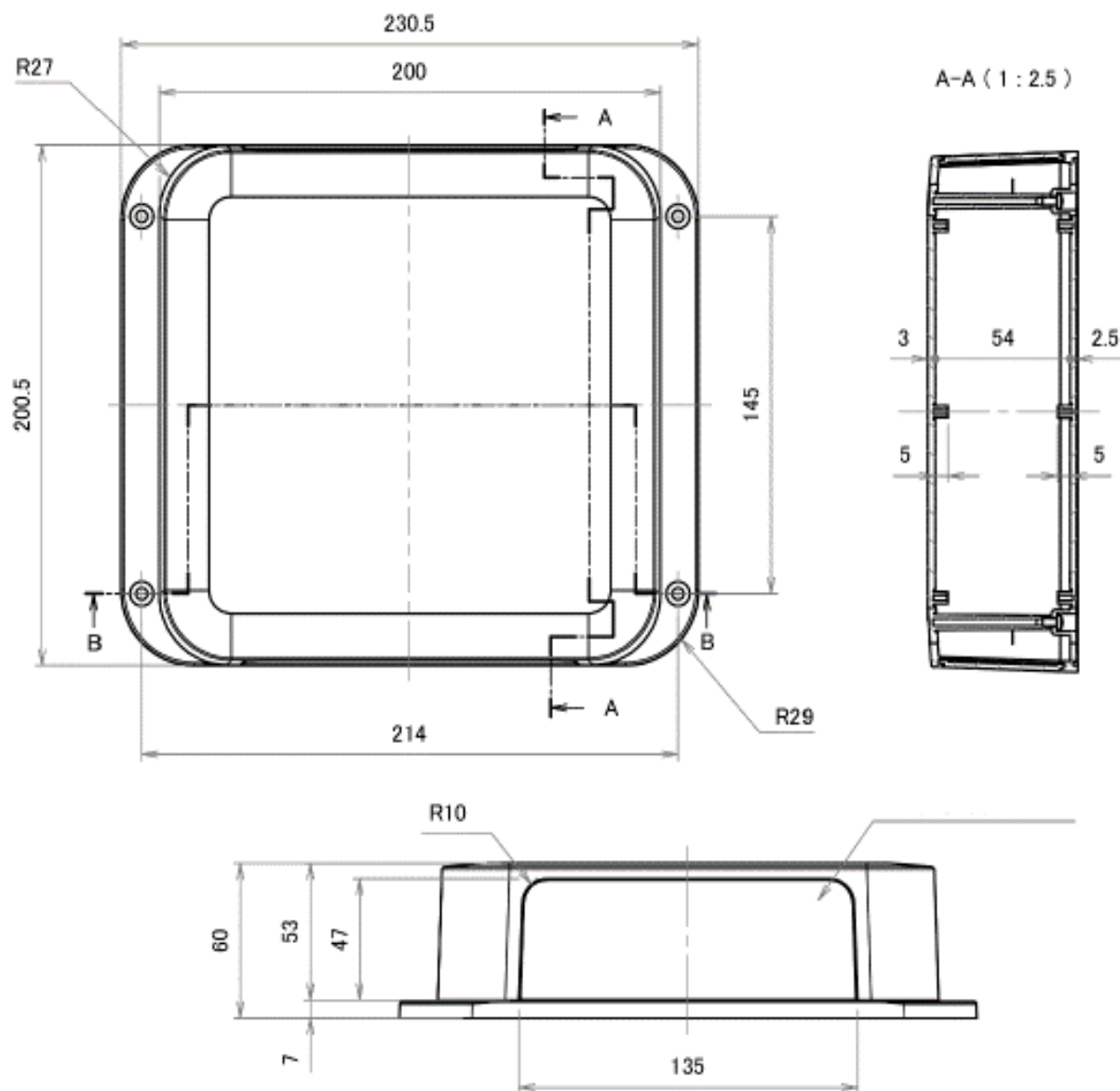
- Disconnect the battery from the corresponding terminal of the equipment.
- Replace the battery.
- Reconnect the battery to the terminal and ensure that the correct battery type has been selected (if the battery has been changed).

3 SPECIFICATIONS

3.1 TECHNICAL SPECIFICATIONS

Specifications	
Output channels	43 (3x50a, 0x30A, 20x1A)
Motor channels (H-bridge option)	3 (30A)
Tickets	23 (18 signal, 2x30A, 3x50A)
PWM	6 (15A)
Communication	CANBUS, CIBUS, LINBUS, ARVIBUS, CANOPEN NMEA2000, TCPIP
Sensor reading	Voltage, Current, Temperature, Switch
Protection	Electronic (digital) fuses
Stream	Current reading at all outputs
Voltage	12V or 24V upon request
Consumption	<ul style="list-style-type: none"> ○ At full power 650mA ○ With the display in SLEEP 330mA MAX ○ With the display OFF 110mA max
Certifications	CE, 10R, ROHS, IP65
Operating temperature	-20°C to +50°C
Storage temperature	-20°C to +70°C
Dimensions (W x H x D)	230 X 205 X 70 mm
Weight	2Kg (4.4lb)

3.2 DIMENSIONS



3.3 MAINTENANCE & REPAIR



ATTENTION!

- Visual inspection should be conducted at least once a year to ensure the equipment is clean and dry. Dust and lint should be removed regularly.
- The ARVICORE device or system should not be worked on if still connected to a power source.
- Changes to the electrical system should only be carried out by qualified electricians.
- When conducting maintenance and repair, the following measures should be taken:
 - The system's power supply should be switched off.
 - Measures taken must be made irreversible to third parties.
 - Only original spare parts should be used for maintenance and repairs.

3.4 MOUNTING



ATTENTION!

- When mounting the ARVICORE device, a few guidelines must be kept in mind.
- The device can be mounted on any solid surface within the RV. The device must not be mounted on a movable panel, such as drawer or a cupboard door.

THINGS YOU NEED

- ARVICORE device
- Accessories Pack
- TE Pro-Crimper III or similar for crimping UP TO 6mm (10AWG) wire (optional)
- Appropriate network cables
- Screwdriver and drill bits
- Electrical Tools

ENVIRONMENT

- Always mount your ARVICORE device vertically to favor heat release and avoid breakdowns due to accidental metallic contacts. Leave a minimum space of 50-60mm around the device to allow sufficient space for airflow.
- Ensure the ARVICORE device is located in a cool, dry location.
- Ensure the device is in an easily accessible location for maintenance & repairs.
- The device must be mounted at least 50mm away from high current carrying conductors.
- Ensure the bulkhead that the unit will be attached to is sufficiently strong to take the weight of the device and cabling when connected.

4 LEGAL INFORMATION

4.1 DECLARATION OF CONFORMITY & HOMOLOGATION

This product complies with the ECE 10R homologation standard with the homologation code E9*10R06/02*5052*00.

  MINISTERIO DE INDUSTRIA, COMERCIO Y TURISMO	
Homologación nº / Approval No.: E9*10R06/02*5052*00 Extensión Nº. 00	
1. Marca (razón social) / Mark (trade name of manufacturer): ARVIKON 2. Tipo y denominaciones comerciales generales / Type and general comercial description(s): SMART CONTROL KIT	
MANUFACTURER AND CUSTOMER SERVICE	ARVIMARINE CONTROL SYSTEMS SL Avd/ De las nieves, 21, 28935 Móstoles, Madrid (SPAIN) www.arvikon.com dev@arvikon.com

4.2 PATENTS & TRADEMARKS

The **ARVIKON** trademark is protected under the protection of the EUIPO with the following identification: 018630835.



The **ARVIKON SMART CARAVANING** control system is patented under the protection of:

GERMANY
Deutsches Patent- und Markenamt



SPAIN
Spanish Patent and Trademark Office



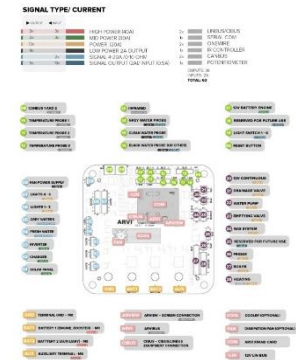
FRANCE
French Patent and Trademark Office (INPI)



5 CONNECTOR IDENTIFICATION

5.1 CONNECTORS LAYOUT

ARVIKON has mostly dedicated inputs and outputs, so that all devices are plug & play. Some like blocks 20 and 24, are customizable in a certain way.



The diagram on the next page shows all the connectors, with the type of input and output and the type of signal or current.

Then the next page is a list of all the connectors, and then comes a table with the detailed use of each connector:

- Name
- Use
- Configuration of each pin
- Sections of cables
- Type of signal
- Fuse protection and fuse default value

SIGNAL TYPE/ CURRENT

OUTPUT	INPUT
3x	3x
2x	3x
13x	
4x	
	2x
5x	19x

HIGH POWER (40A)
MID POWER (30A)
POWER (20A)
LOW POWER 2A OUTPUT
SIGNAL 4-20A /0-10 OHM
SIGNAL OUTPUT (2A)/ INPUT (0.5A)

2x LINBUS/CIBUS
1x SERIAL COM
2x ONEWIRE
1x IR CONTROLLER
2x CANBUS
1x POTENTIOMETER

OUTPUTS: 38
INPUTS: 25

TOTAL: 63

09 CANBUS 1 AND 2

2x CANBUS

10 TEMPERATURE PROBE 1

ONEWIRE

11 TEMPERATURE PROBE 2

ONEWIRE

12 TEMPERATURE PROBE 3

ONEWIRE

13 INFRARED

IR CONTROLLER

14 GREY WATER PROBE

2A 4x 0.5A

15 CLEAN WATER PROBE

2A 4x 0.5A

16 BLACK WATER PROBE (OR OTHER)

2A 0.5A

17 12V BATTERY ENGINE

30A

18 RESERVED FOR FUTURE USE

2x 0.5A

19 LIGHT SWITCH 1 - 6

6x 0.5A

RE RESET BUTTON

08 FAN POWER SUPPLY

2A

07 LIGHTS 4 - 6

20A

06 LIGHTS 1 - 3

20A

05 FRESH WATERS

4-20A /0-10 OHM

04 GREY WATER

4-20A /0-10 OHM

03 INVERTER

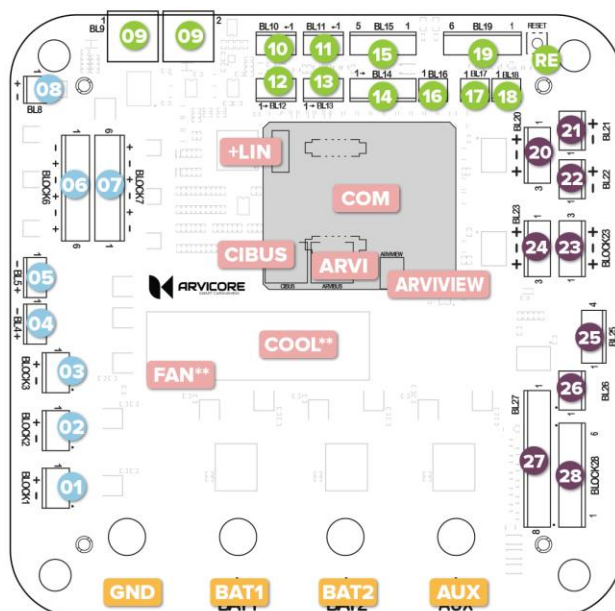
30A

02 CHARGER

30A

01 SOLAR PANEL

30A



20 FUEL SYSTEM OR UNIVERSAL ENGINE

2x 20A

21 DRAIN VALVE N.C.

20A

22 WATER PUMP

20A

23 DRAIN VALVE

20A

24 12V CONTINUOUS OR ELEVATING BED OR SIMILAR

2x 20A

25 RESERVED FOR FUTURE USE

2A

26 FRIDGE

20A

27 BOILER

20A

28 HEATING

POTE 20A

GND TERMINAL GND - M8

BAT1 BATTERY 1 (ENGINE, BOOSTER) - M8

40A

BAT2 BATTERY 2 (AUXILIARY) - M8

40A

AUX AUXILIARY TERMINAL - M8

40A

ARVIEW ARVIEW - SCREEN CONNECTION

SERIAL COM

ARVI ARVIBUS

LINBUS/CIBUS

CIBUS CIBUS - CIBUS/LINBUS EQUIPMENT CONNECTION*

COOL COOLER (OPTIONAL)**

FAN DISSIPATION FAN (OPTIONAL)**

COM ARVI XPAND CARD

+LIN 12V LIN BUS

5.2 CONNECTORS LIST

#	CONNECTOR NAME
1	BLOCK 01 - SOLAR CONTROLLER (INPUT)
2	BLOCK 02 - BATTERY CHARGER INPUT (INPUT)
3	BLOCK 03 - INVERTER (OUTPUT)
4	BLOCK 04 - GREY WATER 0-180 OHM + OTHERS
5	BLOCK 05 - CLEAN WATER 0-180 OHM / CBE + OTHERS
6	BLOCK 06 - LIGHTS 1-2-3
7	BLOCK 07 - LIGHTS 4-5-6
8	BLOCK 08 - +12 V LINBUS (BRIDGE BLOCK LIN+)
9	BLOCK 09 - CANBUS CONNECTOR 1 AND 2
10	BLOCK 10 - INSIDE TEMPERATURE PROBE
11	BLOCK 11 - OUTSIDE TEMPERATURE PROBE
12	BLOCK 12 - FRIDGE TEMPERATURE PROBE
13	BLOCK 13 - INFRARED
14	BLOCK 14 - GRAY WATER PROBE
15	BLOCK 15 - CLEAN WATER PROBE
16	BLOCK 16 - SEWAGE PROBE (OPTIONAL)
17	BLOCK 17 - ENGINE BATTERY
18	BLOCK 18 - RFU (RESERVED FOR FUTURE USE)
19	BLOCK 19 - SWITCH INPUTS
RESET	RESET BUTTON
20	BLOCK 20 - FUEL SYSTEM or UNIVERSAL ENGINE
21	BLOCK 21 - DRAIN VALVE (CLEAN WATER)
22	BLOCK 22 - WATER PUMP
23	BLOCK 23 - EMPTYING VALVE (GREY WATER)
24	BLOCK 24 - 12V CONTINUOUS OR LIFT-UP BED OR SIMILAR
25	BLOCK 25 - RFU (RESERVED FOR FUTURE USE)
26	BLOCK 26 - FRIDGE
27	BLOCK 27 - BOILER
28	BLOCK 28 - HEATING
+LIN	+12V LIN - POWER CONNECTOR +12V FOR LIN (JUMPER BLOCK 8)
ARVI	ARVIBUS CONNECTOR
ARVIEW	ARVIVIEW DISPLAY CONNECTOR
CIBUS	CIBUS - CIBUS/LINBUS EQUIPMENT CONNECTION
COM	"XPAND COM" COMUNICACION BOARD
FAN	FAN - DISSIPATION FAN (OPTIONAL)
COOL	COOL - ALUMINUM HEATSINK (OPTIONAL)

	GND	GND - BORNE M8
	BAT1	BAT 1 - ENGINE BATTERY / BOOSTER - M8
	BAT2	BAT 2 - AUXILIARY BATTERY (HOME) - M8
	AUX	AUX - AUXILIARY CONSUMPTION TERMINAL - M8

5.3 CONNECTORS CHARACTERISTICS

BLOCK	USE	PIN	SIGNAL	COLOUR	SEC. (mm2)(1)	FUSE (A)
1	SOLAR CONTROLLER (INPUT)	1	+	RED	< 6	30
		2	-	BLACK		
2	BATTERY CHARGER (INPUT)	1	+	RED	< 6	30
		2	-	BLACK		
3	INVERTER (OUTPUT)	1	+	RED	< 6	30
		2	-	BLACK		
4	GREY WATERS 0-180 OHM	1	-		0.5	N.A.
		2	SIGN			
		3	+			
5	CLEAN WATERS 0-180 OHM / CBE + OTHERS	1	-		0.5	N.A.
		2	SIGN			
		3	+			
6	LIGHT 1	1	-	BLACK	< 2.5	20
		2	+	RED		
	LIGHT 2	3	-	BLACK		
		4	+	RED		
	LIGHT 3	5	-	BLACK		
		6	+	RED		
7	LIGHT 6	1	-	BLACK	< 2.5	20
		2	+	RED		
	LIGHT 5	3	-	BLACK		
		4	+	RED		
	LIGHT 4	5	-	BLACK		
		6	+	RED		
8	+ 12v LINBUS	1	+	RED	< 0.5	2
		2	-	BLACK	< 0.5	
9	CANBUS CHANNEL 1	1	SIGN	RJ45	CAT6	2
	CANBUS CHANNEL 2	2	SIGN	RJ45	CAT 6	2
10	INSIDE TEMPERATURE PROBE	1	-	BLACK	0.2	N.A.
		2	SIGN	YELLOW		
		3	+	RED		
11	OUTSIDE TEMPERATURE PROBE	1	-	BLACK	0.2	N.A.
		2	SIGN	YELLOW		
		3	+	RED		
12	FRRIDGE TEMPERATURE PROBE	1	-	BLACK	0.2	N.A.
		2	SIGN	YELLOW		
		3	+	BLACK		
13	INFRARED	1	--	--	--	--
		2	--	--	--	--

BLOCK	USE	PIN	SIGNAL	COLOUR	SEC. (mm2)(1)	FUSE (A)
		3	--	--	--	--
14	GRAY WATER PROBE "WITH SCREWS"	1	100%	--	1.5	2
		2	75%	--		
		3	50%	--		
		4	25%	--		
		5	COMUN 12V	--		
15	CLEAN WATER PROBE "WITH SCREWS"	1	100%	--	1.5	2
		2	75%	--		
		3	50%	--		
		4	25%	--		
		5	COMUN 12V	--		
16	SEWAGE PROBE "WITH SCREWS" (OPTIONAL)	1	COMUN 12V	--	1.5	2
		2	100%	--		
17	ENGINE MOTOR	1	IN	RED	1	N.A.
	D+ / +15	2	IN	RED	1.5	N.A.
18	RFU (RESERVED FOR FUTURE USE)	1	--	--	--	N.A.
		2	--	--	--	N.A.
19	SWITCH LIGHT 1	1	+	--	1.5	N.A.
	SWITCH LIGHT 2	2	+	--		
	SWITCH LIGHT 3	3	+	--		
	SWITCH LIGHT 4	4	+	--		
	SWITCH LIGHT 5	5	+	--		
	LIGHT SWITCH 6	6	+	--		
20	FUEL SYSTEM or UNIVERSAL ENGINE	1	+	RED	< 6	20
		2	-	BLACK		
		3	+	RED		
21	DRAIN VALVE N.C. (CLEAN WATER)	1	-	BLACK	< 2.5	10
		2	+	RED		
22	WATER PUMP	1	-	BLACK	< 4	15
		2	+	RED		
23	EMPTYING VALVE (GREY WATER)	1	APERTURA (+)	--	< 2.5	15
		2	COMUN GND	--		
		3	CIERRE (+)	--		
24	12V CONTINUOUS OR ELEVATING BED OR SIMILAR	1	+	RED	< 2.5	15
		2	-	BLACK		

BLOCK	USE	PIN	SIGNAL	COLOUR	SEC. (mm ²)(1)	FUSE (A)
		3	+	RED		
25	RFU (RESERVED FOR FUTURE USE)	1	--	--	< 1.5	N.A.
		2	--	--		
		3	--	--		
		4	--	--		
26	FRIDGE	1	-	BLACK	< 4	15
		2	+	RED		
27	BOILER	1	+	RED	> 1.5	15
		2	-	BLACK	< 2.5	
		3	SIGN	SEGÚN MODELO	Min 1 mm (2)	-
		4	SIGN			-
		5	SIGN			-
		6	SIGN			-
		7	SIGN			-
		8	SIGN			-
28	HEATING	1	SIGN	SEGÚN MODELO	Min 1 mm (2)	--
		2	SIGN			--
		3	SIGN			--
		4	SIGN			--
		5	-	BLACK	> 1.5	20
		6	+	RED	< 2.5	
ARVI	ARVIBUS CONNECTION	1	SIGN	--	--	--
ARVIVIEW	CIBUS CONNECTION	1	SIGN	--	--	--
CIBUS	USB ARVIVIEW	1	SIGN	--	--	--
+LIN	+12v LIN - POWER SUPPLY 12V LINBUS CIBUS LINES	1	+			< 1
GND	GND	1	-	RED	> 16	--
BAT1	ENGINE BATTERY / BOOSTER - M8	1	+	RED	> 16	--
BAT2	AUXILIARY BATTERY (HOUSING) - M8	1	+	RED	> 16	--
AUX	AUXILIARY CONSUMPTION TERMINAL - M8	1	+	RED	--	20

(1) Recommended values to be adapted according to the circumstances of the installation.

(2) depends on the installation. Can be 0.5 mm for short distances at the discretion of the installer.

6 USE AND CONFIGURATION OF EACH BLOCK

6.1 SOLAR CONTROLLER (BL. 01)

This device is **NOT** a solar regulator; a solar regulator from any manufacturer must be installed and the output that would go to the auxiliary battery must be connected to this connector.

BLOCK 1

- The fuse only protects the input to the ARVICORE device against short-circuit or overcurrent; you must protect the line that reaches the connector.

Please note that if you need to control current greater than 20A (up to 30A instantaneous), you must install the ARVISHUNT expansion.

6.2 BATTERY CHARGER (BL. 02)

This device is **NOT** a battery charger; a charger from any manufacturer must be installed and the output that would go to the auxiliary battery must be connected to this connector.

BLOCK 2

- The fuse only protects the input against short-circuit or overcurrent and must protect the line that reaches the connector.

Please note that if you need to control current greater than 20A (up to 30A instantaneous), you must install the ARVISHUNT expansion.

6.3 INVERTER (BL. 03)

BLOCK 3

- This connector provides direct power supply to the inverter
- This output is protected by fuse;

Please note that if you need to control current greater than 20A (up to 30A instantaneous), you must install the ARVISHUNT expansion.

6.4 LIGHTS (BL. 06, 07)

Chassis ground must **NOT** be used: both wires (12V and GND) must be taken directly from the lights to the ARVIKON control unit.

BLOCK 6 - 7

- A total of 6 light outputs on 2 blocks
- The lights are dimmable by PWM through negative.
- This fuse only protects the output

Each output is limited to 10A. In case you want to mount physical switches (recommended), follow the instructions in section 6.5. **DO NOT CUT THIS LINE TO INSERT A SWITCH!**

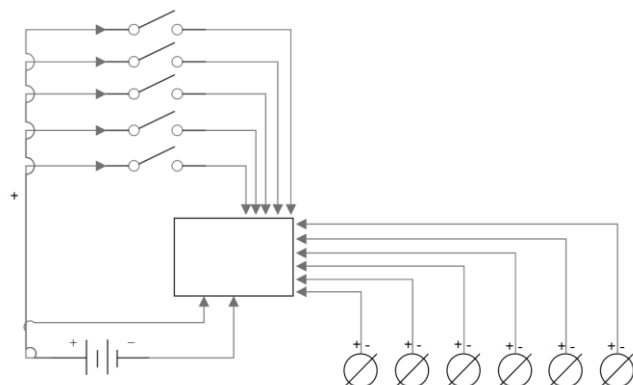
6.5 SWITCHES LIGHTING (BL. 19)

Using these inputs, we can maintain physical switches at the same time that the digital ones act as switches. To do this, a +12VDC must be brought to the switch and the return of the switch must go to BLOCK 19, to its corresponding pin according to the luminaire managed.

BLOCK 19

- This input interacts with the data shown on the display.

As shown in the diagram, the lights are connected directly to ARVICORE device, and so are the switches, each separately.



These inputs detect when the switch changes state from 12v to 0v. When such a change is detected, a change from ON to OFF is reflected on the display and the corresponding light line is acted upon, turning it on or off. **DO NOT CUT THIS LINE TO INSERT A SWITCH!**

6.6 TEMPERATURE PROBES

6.6.1 Indoor temperature probe (BL. 10)

This digital probe is included in the accessory kit.

BLOCK 10

- This input will display a data on the display.

6.6.2 Outdoor temperature probe (BL. 11)

This digital probe is included in the accessory kit.

BLOCK 11

- This input will show a data on the display.

6.6.3 Refrigerator temperature probe (BL. 12)

This digital probe is included in the accessory kit. This probe is optional and is configured in the professional settings menu.

BLOCK 12

- This input will show a data on the screen (Optional).



To install temperature probes, the refrigerator must be drilled, taking care not to drill into the evaporators. If you have doubts about how to do this, consult the manufacturer as they all have places provided for this purpose.

6.7 CLEAN WATER PROBES

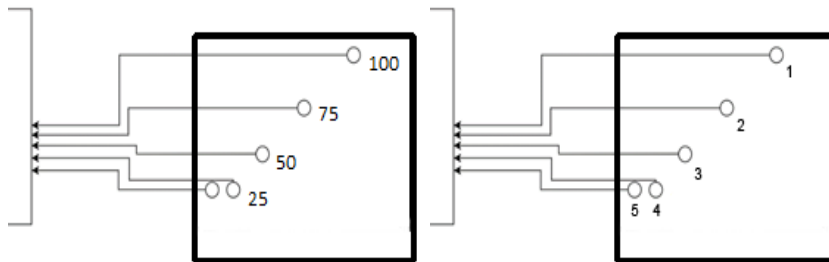
6.7.1 Clean water probe - analog type (BL. 15)

- Consists of:
 - 5 threaded rods hanging from the top of the tank using the included neoprene nuts.
 - 5 side screws using the included neoprene nuts.

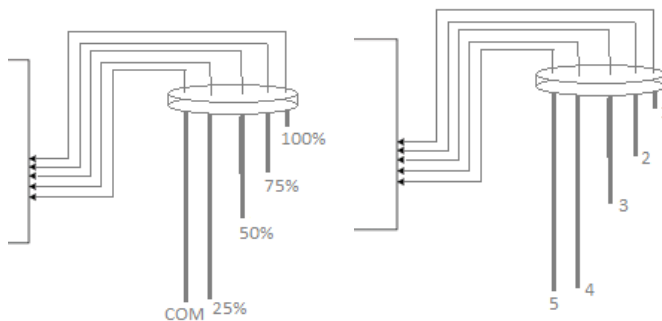
BLOCK 14 - 15

- This input will display a data on the ARVIVIEW screen

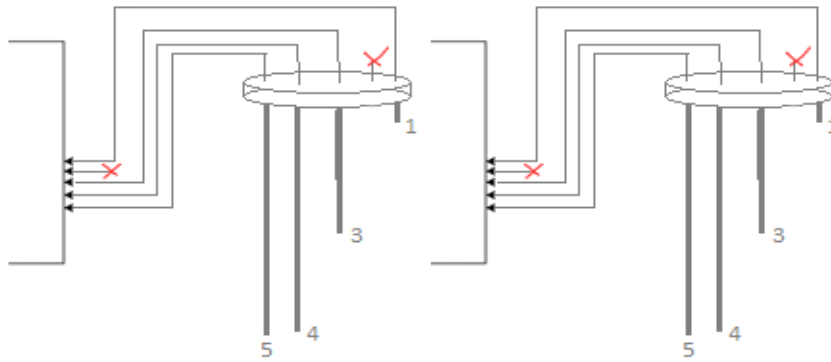
6.7.1.1 Screw reading



6.7.1.2 Reading by rods



If you already have a 4-rod probe and want to reuse it, leave output number 2 unconnected. You will therefore have the levels 0%, 25%, 50% and 100%, the 75% level being lost.



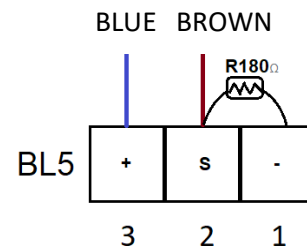
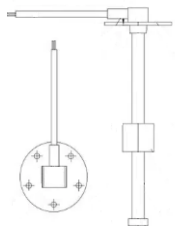
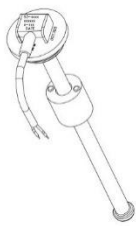
6.7.2 Clean water probe - digital type (BL 05)

This system uses digital measurement by float or resistance. **The probe's length is specified by the manufacturer and cannot be changed.** Check the available lengths in the probe's manufacturer catalogue.

BLOCK 5

- This input will show data on the display.

6.7.2.1 Float probe 0-180 ohm



BLOCK 5	1	-	RESISTANCE BETWEEN PIN 2 AND PIN 3	R 180Ω
	2	SIGN	SIGNAL	BROWN
	3	+	5V POWER SUPPLY	BLUE



After installing this model, you must select "0 - 180 ohm" as the clean water probe type in the professional settings menu.

6.7.2.2 Digital probe from the manufacturer CBE



BLOCK 5	1	-	GND	BROWN
	2	SIGN	SIGNAL	GREEN
	3	+	5V POWER SUPPLY	WHITE



After installing this model, you must select "CBE sensor" as the clean water probe type in the professional settings menu.

6.8 GRAY WATER PROBE

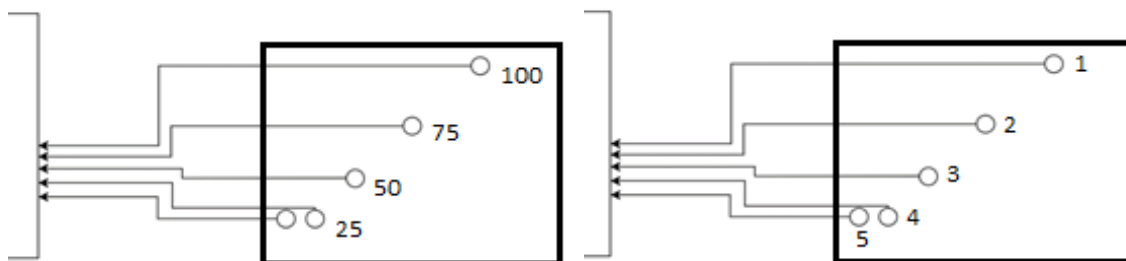
6.8.1 Gray water probe analog type (BL. 14)

- 5 side screws using the neoprene nuts included.

BLOCK 14 - 15

- This input will display a data on the ARVIVIEW screen

6.8.1.1 Screw reading



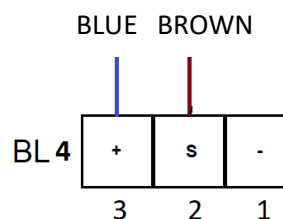
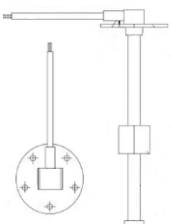
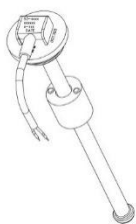
6.8.2 Gray water probe - digital type (BL. 04)

This system uses digital measurement by float or resistance. **The probe's length is specified by the manufacturer and cannot be changed.** Check the available lengths in the probe's manufacturer catalogue.

BLOCK 4

- This input will display a data on the screen
- This data will be used for some SMARTMODES and A.I. functions.

6.8.2.1 Float probe 0-180 ohm



BLOCK 4	1	-	WITHOUT USE	WITHOUT USE
	2	SIGN	SIGNAL	BROWN
	3	+	5V POWER SUPPLY	BLUE



After installing this model, you must select "0 - 180 ohm" as the gray water probe type in the professional settings menu.

6.9 SEWAGE PROBE (BL. 16)

This probe marks 100% of the tank. It does not have sections.

- 2 side screws with neoprene nuts (not included in the kit)

BLOCK 16

- This input will display a data on the screen

6.10 PERMANENT POWER SUPPLY MOTOR BATTERY (BL. 17)

It must be a DIRECT cable from the engine battery: it cannot pass through relays, boosters or other charging or power cut-off systems.

BLOCK 17

- Pin 1



This is a backup power supply. It is a mandatory cable: without it, the system will not work properly when the secondary battery is depleted, especially in installations with lithium batteries and/or boosters in which such equipment makes a total power cut.



Caution, this consumption, although very low, could drain the motor battery if the entire housing system is exhausted.

6.11 D+ / +15 - MOTOR STARTED SIGNAL (BL. 17)

This is a D+, +15 or Motor started signal .

BLOCK 17 - P2

- This entry will be displayed on the screen when the vehicle is started.
- Pin 2

6.12 FUEL SYSTEM OR UNIVERSAL ENGINE (BL. 20)

6.12.1 Option A: Control of fuel supply systems

This 12V output allows the activation or deactivation of all gas systems such as shut-off valves, piezoelectric valves, etc. As well as equipment that cannot be operated, such as oil-fired glass-ceramic hobs, taking into account the maximum consumption allowed by the output (15A).

BLOCK 20

- There are 2 positives and one common negative.



DO NOT USE TO POWER THE ARVIVIEW DISPLAY

6.12.2 Option B: Bi-directional motor management

This output will deliver 12V positive on pin 1 when one arrow is pressed and on pin 3 when the opposite is pressed. In addition, the negative (PIN 2) is common for both maneuvers.

BLOCK 20

- There are 2 positives and one common negative.



The appropriate option must be selected in the professional settings menu according to the block number.

6.12.3 Drain valve and frost control (BL. 21)

This output is provided with 12Vdc to open a drain solenoid valve that must be normally closed (N.C.) *(the drain valve itself is not included in the kit).*

BLOCK 21

- Output protected by fuse

This valve can be used manually to perform a pipes and tank drain, as well as - automatically by the A.I. - to protect the system from freezing and breakdowns.

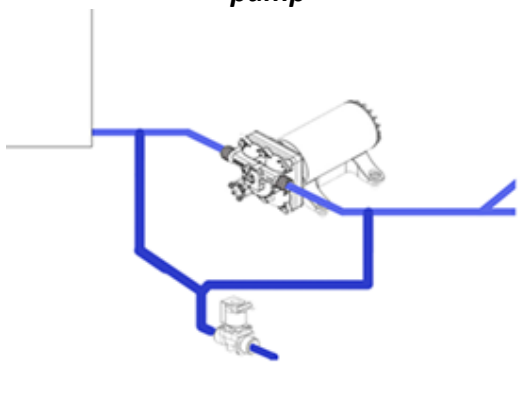
Type of valve required:

MODE OF OPERATION: NORMALLY CLOSED (N.C.)

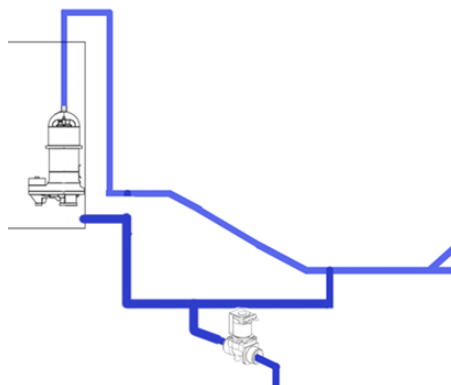
WORKING VOLTAGE: 12VDC



Example of installation with pressure pump



Example of installation in-line pump



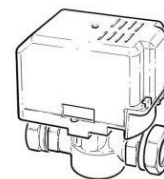
6.13 GREY WATER DRAIN VALVE (BL. 23)

This output is provided with 12Vdc on two terminals to open and close a 3-wires motorized valve.

BLOCK 23

- Output protected by fuse
- This output can be operated from the display

Wiring colors will depend on the valve manufacturer. In case of using a 2-wire drain valve, an H-bridge with relays must be mounted.



6.14 12 V PERMANENT O MOTOR CONTROL (BL. 24)

6.14.1 Option A: Output 12V Permanent

This 12V output is always active for services or consumables where you never want to lose voltage.

There are 2 positives and a common negative.

BLOCK 24

- Output protected by fuse

6.14.2 Option B: Electric elevating bed control (or similar)

This output will deliver 12V positive on pin 1 when the up arrow is pressed and on pin 3 when the reverse arrow is pressed. In addition, the negative (PIN 2) is common for both maneuvers.

This option B is predefined for electric elevating bed but can be adapted (for OEM a priori) for other uses such as an electric roof, a slide out, etc.).

BLOCK 24

- This control appears in the APP accessories menu.



The appropriate option must be selected in the professional settings menu according to the block number.

6.15 BOILER AND WATER HEATERS (BL. 27)

This connector allows the power supply and fuse protection of boilers of any type. It also allows full control of analog boilers.

6.15.1 Boiler generic

BLOCK 27

- this connector can handle generic water heating systems
- the output is protected by internal electronic fuse

You can use this output to handle the activation of any generic boiler on the market using the output signals of this BLOCK.

When the equipment is started up from the display, you will have 12V power supply on pins 1 and 7, you must respect the current limitation in the table below.

When the equipment is turned off from the display, the PIN 7 signal will be turned off instantly and the PIN1 signal will remain timed ON for a few seconds before shutting down.

BLOCK	USO	PIN	SIGNAL	COLOR	SEC. (mm2)(1)	FUSE (A)
27	BOILER	1	+	RED	> 1.5	15
		2	-	BLACK	< 2.5	
		3	SIGN	ACCORDING TO MODEL	Min 1 mm (2)	-
		4	SIGN			-
		5	SIGN			-
		6	SIGN			-
		7	SIGN			-
		8	SIGN			-

6.15.2 Other boiler models

Boiler models of different brands can be operated by analog, digital, CIBUS, etc. Please see **M02 - Compatible Equipment Installation Sheets**. Available at <http://www.arvikon.com/officialdocs>.

6.16 HEATERS (BL. 28)

This connector allows the power supply and fuse protection of heaters of any type.

It also allows complete control of analog heating systems. The wiring layout changes according to the model.

BLOCK 28	<ul style="list-style-type: none"> Output protected by fuse
-----------------	--

6.16.1 Generic heating

You can use this output to drive the activation of any generic heater on the market using the output signals of this BLOCK.

When the equipment is started up from the display, it will have 12V power supply on pins 6 and 4. You must respect the current limitation in the table below.

In addition, between pins 1 and 2, it has an adjustable resistance output that will vary according to the temperature set on the display.

When the equipment is turned off from the display, the PIN 4 signal will be turned off instantly and the PIN 6 signal will remain timed ON for a few seconds before shutting down.

BLOCK	USO	PIN	SIGNAL	COLOR	SEC. (mm ²)(1)	FUSE (A)
28	HEATING	1	SIGN	ACCORDING TO MODEL	Min 1 mm (2)	--
		2	SIGN			--
		3	SIGN			--
		4	SIGN			--
		5	-	BLACK	> 1.5 < 2.5	20
		6	+	RED		

6.16.2 Other heating models

Heating models of different brands can be operated by analog, digital, CIBUS, etc. Please see **M02 - Compatible Equipment Installation Sheets**. Available at <http://www.arvikon.com/officialdocs>.

6.17 AUXILIARY TERMINAL (AUX)

AUXILIARY direct battery power supply.

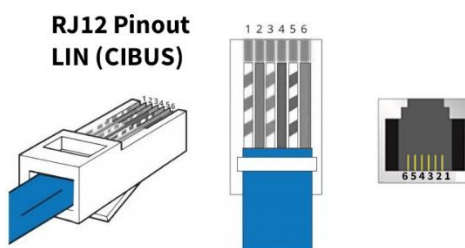
Install the required auxiliary consumptions here. **DO NOT USE TO POWER THE ARVIVIEW DISPLAY!**

6.18 CIBUS/LINBUS (BL 08)

This connector is designed to connect equipment with CIBUS communication protocol.

Please see **Compatible Devices Database** (at <http://www.arvikon.com/officialdocs>) for the list of all devices including the ones compatible with CIBUS.

In case of using CIBUS compatible devices/equipment, a 12V bridge must be made between block 40 and block 8.



1. NOT USED	4. 12 VDC
2. RESET 12V	5. GND
3. LIN	6. NOT USED

6.19 ARVIKON ARVIVIEW

This connector is used to connect the ARVICORE device to the ARVIVIEW display.

The cable is supplied with the equipment. If a shorter cable is desired, a PIGTAIL quality USB cable must be used.



NEVER COIL OR COIL THE USB CABLE.
IF THERE IS ANY CABLE LEFT OVER, IT SHOULD BE HIDDEN AS TIGHTLY AS POSSIBLE.



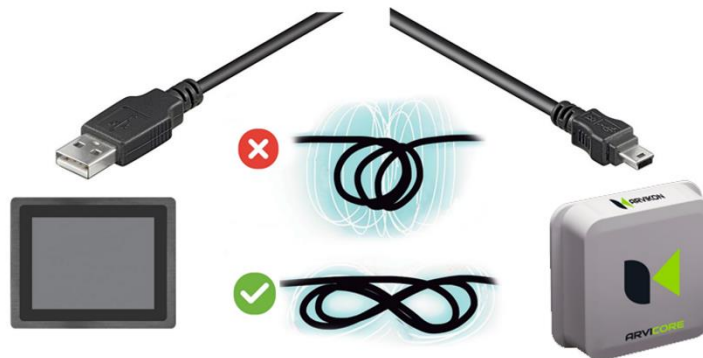
DO NOT ROUTE THE CABLE IN HARNESSSES WITH 220V AC POWER LINES OR ROUTE IT NEAR AC POWER EQUIPMENT SUCH AS CHARGERS OR INVERTERS.

To power the display, 12VDC and ground must be taken directly from the battery or from the fused BAT2 terminal. These must be taken directly from the battery or from the BAT2 terminal protected by a fuse.

We recommend the installation of a switch to turn off the display if desired or to reset it.

We recommend installing a USB extension cable to bring one of the USB sockets on the display itself to the front for some extra ARVIVIEW services.

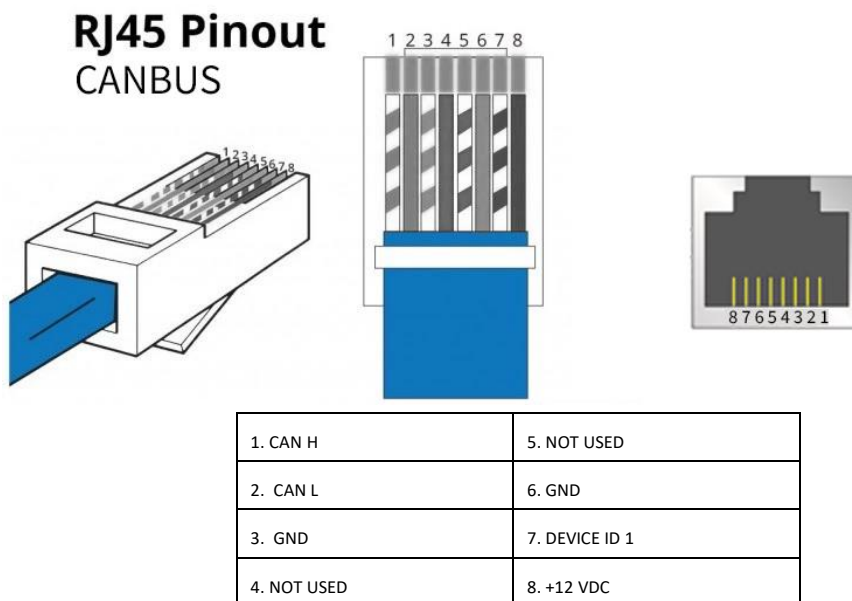
The MINI USB SIDE MUST BE CONNECTED TO THE ARVICORE ELECTROBLOCK AND THE NORMAL USB SIDE TO THE ARVIVIEW DISPLAY.



6.20 CANBUS (BL. 09)

This connector allows CANBUS connection to other ARVIKON and non-ARVIKON devices.

Please see **M02 – Compatible Devices Installation Sheets** for the list of devices compatible with this protocol. Available at <http://www.arvikon.com/officialdocs>.



6.21 WATER PUMP (BL. 22)

Valid to feed any water pump on the market.

BLOCK 22

- Output protected by fuse

Feed the water pump wires directly.

6.22 FRIDGE (BL. 26)

Valid for powering any refrigerator on the market.

BLOCK 26

- Output protected by fuse

Directly connect the cables of the refrigerator. If the temperature probe is installed, the refrigerator will stop when the target temperature is reached with a hysteresis of 2°C. and will start again below the target temperature.

6.23 MOTOR BATTERY (BAT 1)

Directly connect a cable from the engine battery when the current reading is internal.



If the SHUNT expansion is used, this cable **MUST NOT BE CONNECTED**.

6.24 AUXILIARY BATTERY / HOUSING (BAT 2)

Directly connect a cable from the auxiliary battery.

7 NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.