



# CONTROL PANELS

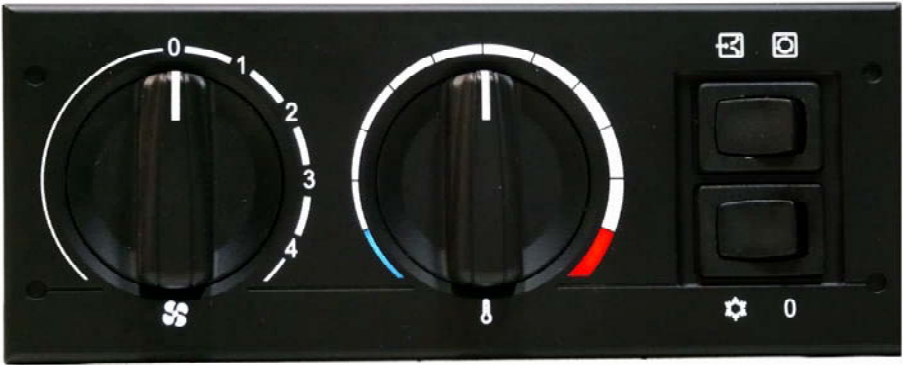
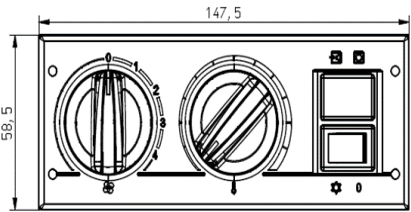
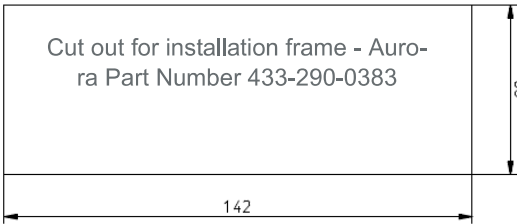
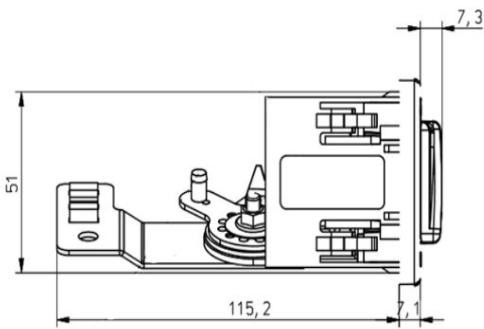
Intelligent-Responsiveness, Dynamic, User-Friendly

# Control Panels Economy – CCM K

Aurora’s line of Economy Control Panels is designed for the rough and tough operator. For this line, we’ve stripped out all the extra bells and whistles to give customers exactly what they need: simplicity and functionality. The *CCM-K* can have up to two rotary actuators and two rocker switches, all of which are mechanically manipulated (electronic versions available - see CCE Controls). Knob and switch functions can be defined by the Customer for specific operator requirements

Blower Control	Switch
Set Temperature	Bowden Controls
Integrated Climate Control	No
Display	No
A/C	Yes
Defrost	No
Fresh Air / Circulating Air	Yes
Outside Temperature	No
Air Distribution Flap	No
2nd Air Distribution Flap	No
Automatic Climate Control	No

Infinitely Variable Blower	No (if applicable, by means of separate electronic blower control module)
Auxiliary Heating	No
Failure Code Readout	No
Diagnostics	No
Digital Inputs	-
Digital Outputs	-
Analog Inputs	-
Analog Outputs	-
Illuminated Symbols	Yes
Illuminated Rotary Actors	No
CAN-Bus	No

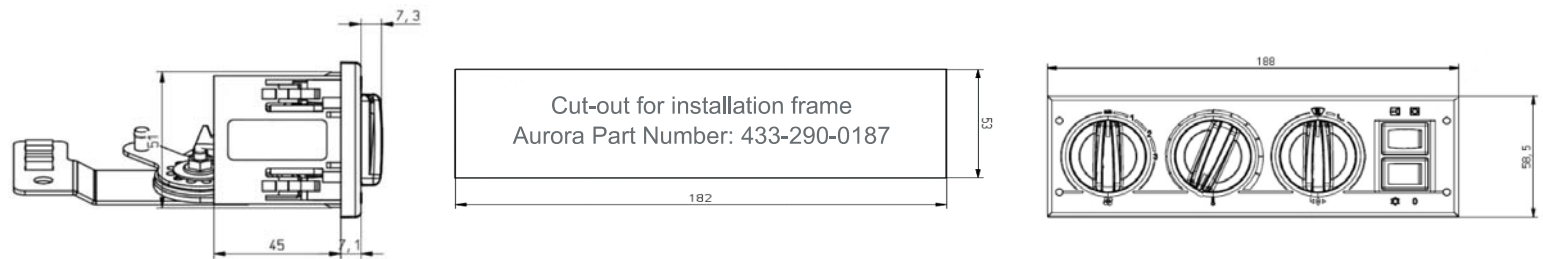


# Control Panels Economy - CCM L

Aurora’s line of Economy Control Panels is designed for the rough and tough operator. For this line, we’ve stripped out all the extra bells and whistles to give customers exactly what they need: simplicity and functionality. *CCM-L* can have up to three rotary actuators and two rocker switches, all of which are mechanically manipulated (electronic versions available - see CCE Controls). Knob and switch functions can be defined by the Customer for specific operator requirements.

Blower Control	Switch
Set Temperature	Bowden Controls
Integrated Climate Con-	No
Display	No
A/C	Yes
Defrost	No
Fresh Air / Circulating	Yes
Outside Temperature	No
Air Distribution Flap	Yes, Bowden Con-
2nd Air Distribution Flap	No
Automatic Climate Con-	No

Infinitely Variable Blow- er	No (if applicable, by means of separate
Auxiliary Heating	No
Failure Code Readout	No
Diagnostics	No
Digital Inputs	-
Digital Outputs	-
Analog Inputs	-
Analog Outputs	-
Illuminated Symbols	Yes
Illuminated Rotary Ac-	No
CAN-Bus	No

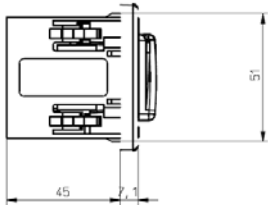
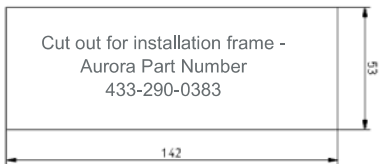
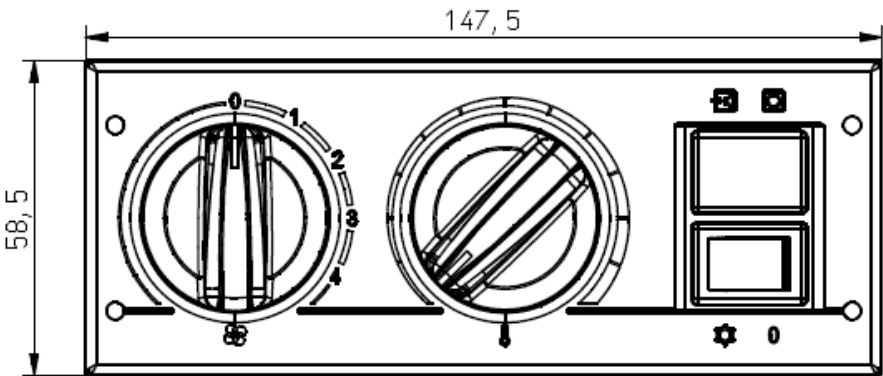


# Control Panels Economy - CCE K

Aurora’s line of Economy Control Panels is designed for the rough and tough operator. For this line, we’ve stripped out all the extra bells and whistles to give customers exactly what they need: simplicity and functionality. The CCE -K can have up to two rotary actuators and two rocker switches, all of which are electronically manipulated (for mechanical options - see CCM). The functions of these knobs and switches can be defined by the customer for specific operator requirements. Climate Control options are feasible with the addition of either an HCC control module or a 6-pol AMA actuator.

Blower Control	Switch / Potentiometer
Set Temperature	Potentiometer
Integrated Climate Control	No
Display	No
A/C	Yes
Defrost	No
Fresh Air / Circulating Air	Yes
Outside Temperature	No
Air Distribution Flap	No
2nd Air Distribution Flap	No
Automatic Climate Control	No

Infinitely Variable Blower	No (if applicable, by means of separate electronic blower control module)
Auxiliary Heating	No
Failure Code Readout	No
Diagnostics	No
Digital Inputs	-
Digital Outputs	-
Analog Inputs	-
Analog Outputs	-
Illuminated Symbols	Yes
Illuminated Rotary Actors	No
CAN-Bus	No
Special Feature	Climate control feasible by means of HCC or 6-pol AMA
Technical Information	912-100-1059



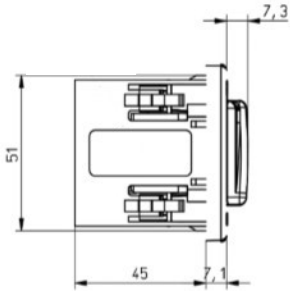
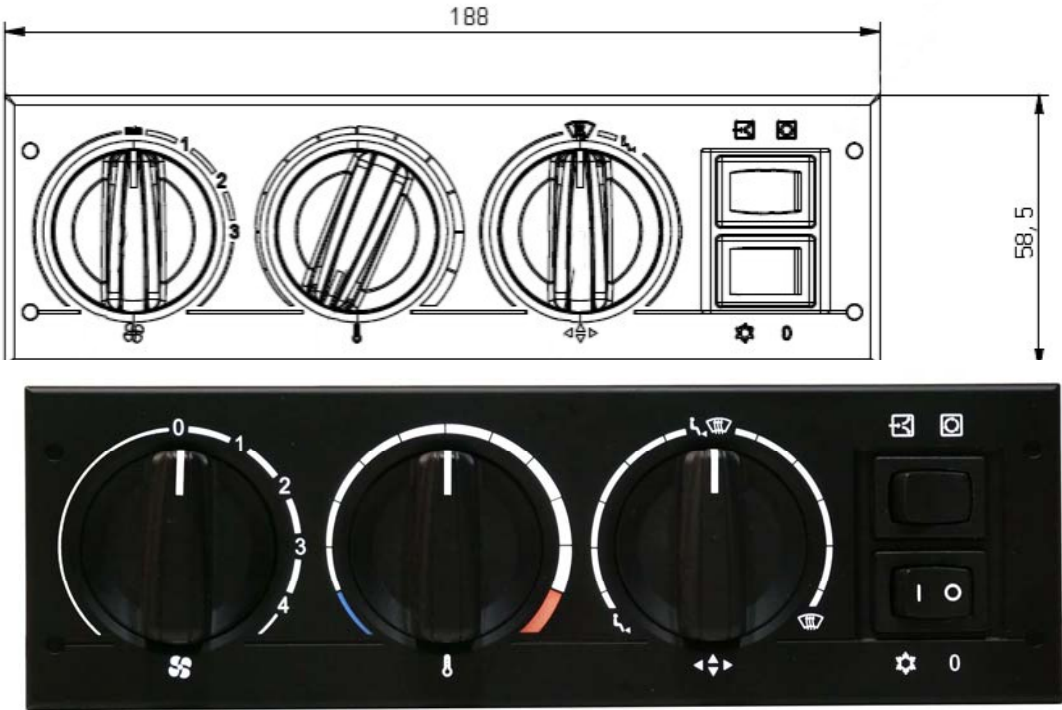


# Control Panels Economy - CCE L

Aurora’s line of Economy Control Panels is designed for the rough and tough operator. For this line, we’ve stripped out all the extra bells and whistles to give customers exactly what they need: simplicity and functionality. The CCE-L can have up to three rotary actuators and two rocker switches, all of which are electronically manipulated (for mechanical options - see CCM). The functions of these knobs and switches can be defined by the customer for specific operator requirements. Climate Control options are feasible with the addition of either an HCC control module or a 6-pol AMA actuator.

Blower Control	Switch / Potentiometer
Set Temperature	Potentiometer
Integrated Climate Control	No
Display	No
A/C	Yes
Defrost	No
Fresh Air / Circulating Air	Yes
Outside Temperature	No
Air Distribution Flap	Yes
2nd Air Distribution Flap	No
Automatic Climate Control	No

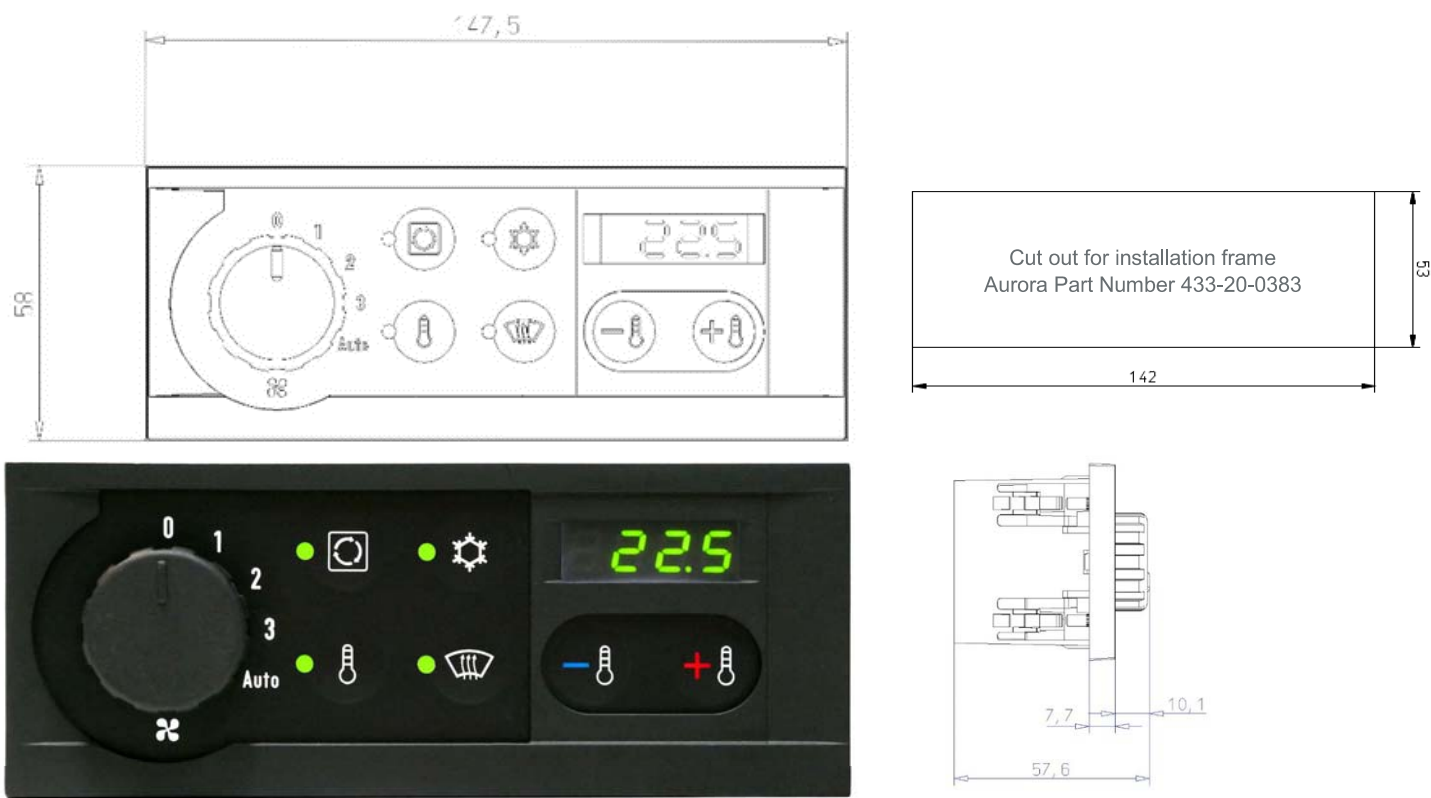
Infinitely Variable Blower	No (if applicable, by means of separate electronic blower control module)
Auxiliary Heating	No
Failure Code Readout	No
Diagnostics	No
Digital Inputs	-
Digital Outputs	-
Analogue Inputs	-
Analogue Outputs	-
Illuminated Symbols	Yes
Illuminated Rotary Actors	No
CAN-Bus	No
Special Feature	Climate control feasible by means of HCC or 6-pol AMA
Technical Information	912-100-1059



# Control Panels Comfort – ECR-K CAN

Aurora’s line of Comfort Control Panels takes the next step towards ultimate climate control in a cabin or vehicles. The short version *ECR-K* offers a single rotary knob for blower speed control with up to six key buttons. The LED display allows the operator to show setup temperature and receive instantaneous feedback with important information regarding the current state of the cabin.

Blower Control	Switch or Potentiometer	Infinitely Variable Blower	Yes
Set Temperature	Push Buttons	Auxiliary Heating	Yes
Integrated Climate Control	Yes	Failure Code Readout	Yes
Display	Yes	Diagnostics	Yes
A/C	Yes	Digital Inputs	2
Defrost	Yes	Digital Outputs	1
Fresh Air / Circulating Air	Yes	Sensor Inputs	4
Outside Temperature	Yes	Analog Outputs	2
Air Distribution Flap	No	Illuminated Symbols	Yes
2nd Air Distribution Flap	No	Illuminated Rotary Actors	optional
Automatic Climate Control	Yes	CAN-Bus	Yes

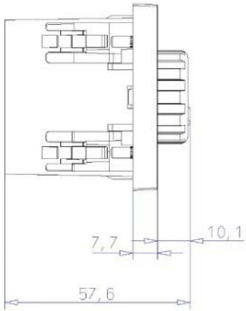
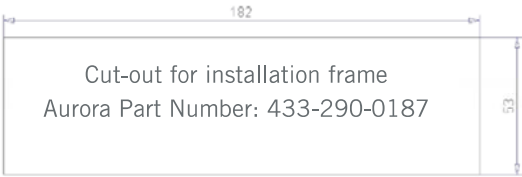
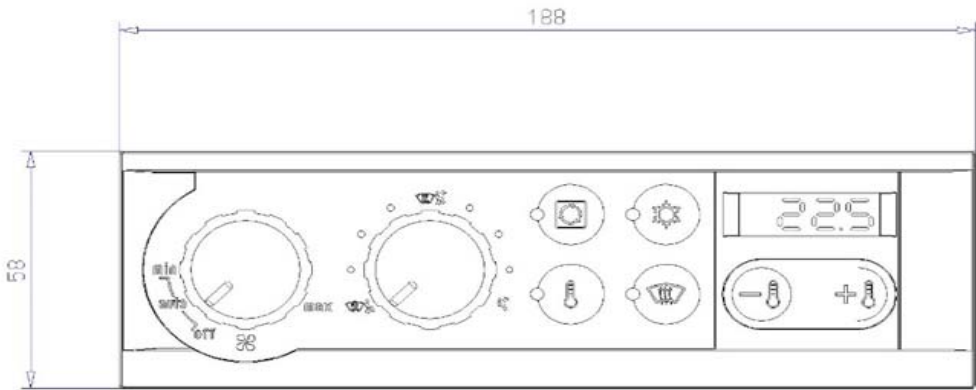


# Control Panels Comfort – ECR-L CAN

Aurora’s line of Comfort Control Panels takes the next step towards ultimate climate control in a cabin or vehicles. The long version *ECR-L* offers two rotary knobs for blower speed control and air distribution control with up to six key buttons. The LED display allows the operator to show setup temperature and receive instantaneous feedback with important information regarding the current state of the cabin.

Blower Control	Switch or Potentiometer
Set Temperature	Push Buttons
Integrated Climate Control	Yes
Display	Yes
A/C	Yes
Defrost	Yes
Fresh Air / Circulating Air	Yes
Outside Temperature	Yes
Air Distribution Flap	Yes
2nd Air Distribution Flap	No
Automatic Climate Control	Yes

Infinitely Variable Blower	Yes
Auxiliary Heating	Yes
Failure Code Readout	Yes
Diagnostics	Yes
Digital Inputs	2
Digital Outputs	1
Sensor Inputs	4
Analog Outputs	2
Illuminated Symbols	Yes
Illuminated Rotary Actors	optional
CAN-Bus	Yes

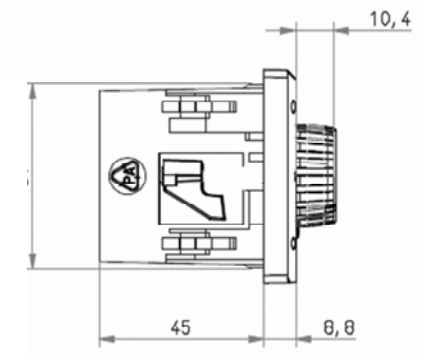
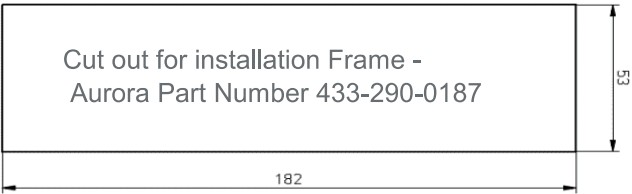
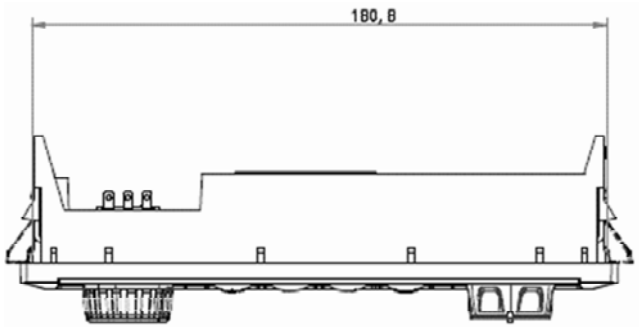


# Control Panels Comfort - ACD

Aurora’s line of Comfort Control Panels takes the next step towards ultimate climate control in a cabin or vehicle. In comparison to the Economy line, our Comfort Controls offers dual knobs coupled with up to six key buttons. The OLED Display allows the operator to receive instantaneous feedback with important information regarding the current state of the cabin including: blower speeds, current temperature, and air flow allocations. The ACD-L can also have a variable number of inputs and outputs depending on the system requirements.

Blower Control	Switch / Potentiometer
Set Temperature	Potentiometer or key buttons
Integrated Climate Control	Yes
Display	OLED display
A/C	Yes
Defrost	Yes
Fresh Air / Circulating Air	Yes
Outside Temperature	Yes
Air Distribution Flap	Yes
2nd Air Distribution Flap	Yes
Automatic Climate Control	Yes

Infinitely Variable Blower	Yes
Auxiliary Heating	Yes
Failure Code Readout	Yes (by means of numerical codes)
Diagnostics	Yes
Digital Inputs	3
Digital Outputs	2
Analog Inputs	2 (+1 reserve)
Temperature Sensors	4
Analog Outputs	2 (+1 reserve)
Illuminated Symbols	Yes
Illuminated Rotary Actors	Yes
CAN-Bus	Yes
Actuator 2 pol.	1
Actuator 5 pol.	2 (+1 optional)
Humidity Sensor	optional
Technical Information	912-100-1022



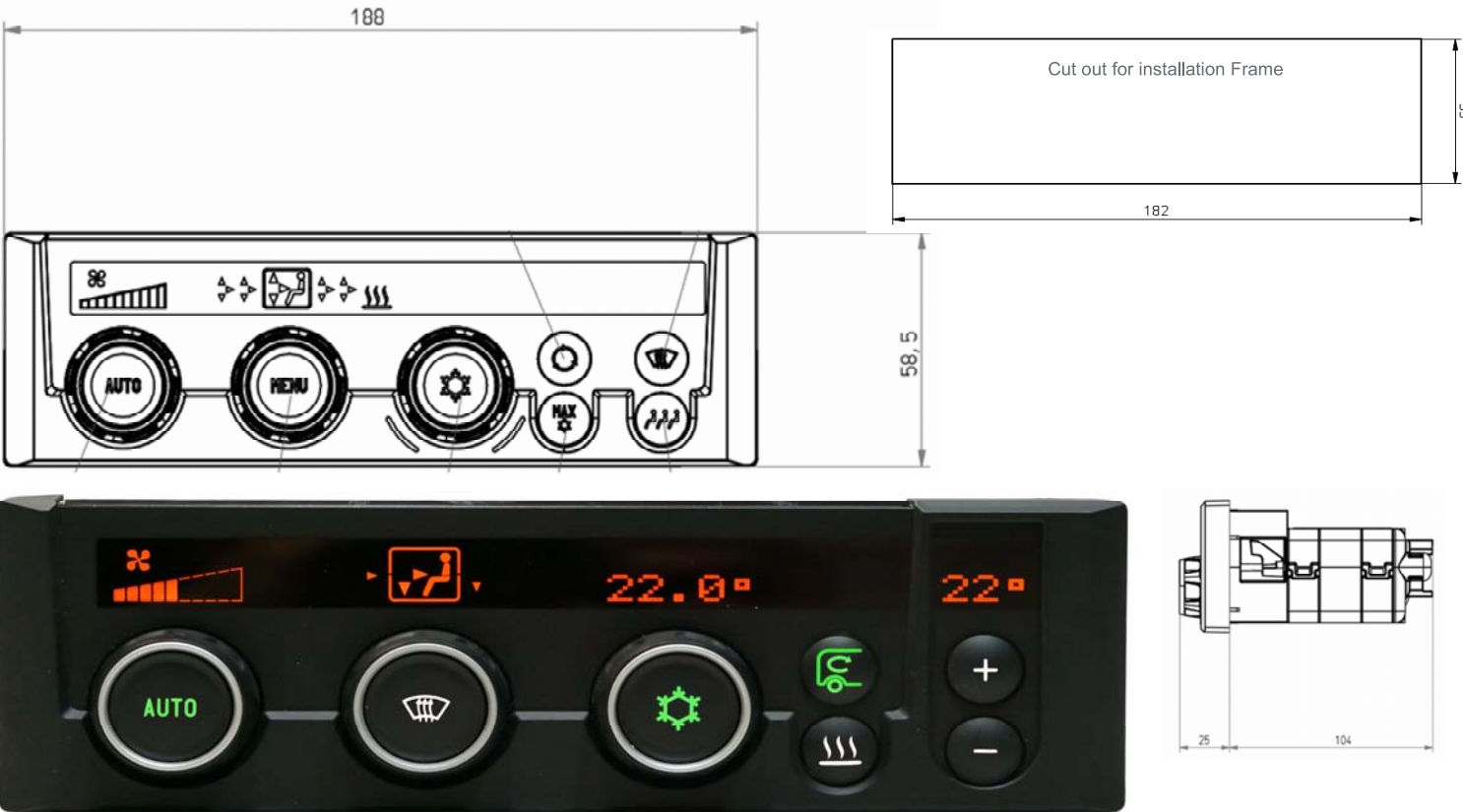


# Control Panels Premium – AraneA<sup>2</sup>

Aurora’s line of Premium Control Panels takes the industry to a whole new level. *AraneA<sup>2</sup>* was developed for bus and coach applications. It encompasses graphic display with 3 encoders and up to 7 key button options. The *AraneA<sup>2</sup>* is the ultimate control panel for higher end applications. Thanks to a modern design and one-touch Auto Function, *AraneA<sup>2</sup>* gives operators the cabin temperatures they desire with the single push of a button. The *AraneA<sup>2</sup>* reimagines operator comfort as we know it.

Blower Control	Encoder
Set Temperature	Encoder
Air Distribution	Encoder
Integrated Climate Control	Yes
Display	Yes
A/C	Yes
Defrost	Yes
Fresh Air / Circulating Air	Yes
Outside Temperature	Yes
Air Distribution Flap	Yes
2nd Air Distribution Flap	Yes
Automatic Climate Control	Yes

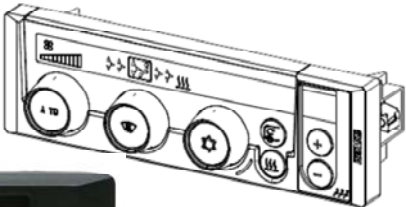
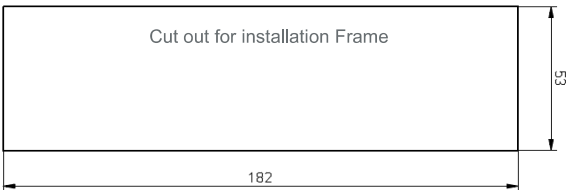
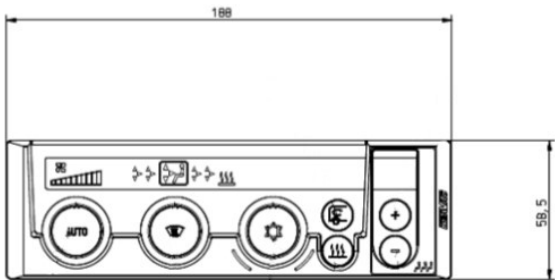
Infinitely Variable Blower	Yes
Auxiliary Heating	Yes
Failure Code Readout	Yes
Diagnostics	Yes
Digital Inputs	5
Digital Outputs	8 (2x2A, 6x0, 5A)
Analog Inputs	3
Temperature Sensor	4
Analog Outputs	3
Illuminated Symbols	Yes
Illuminated Rotary Actors	Yes
CAN-Bus	2-interfaces
Actuator 5 pol.	4
Humidity Sensor	Optional
Technical Specification	912-100-1015



# Control Panels Premium – AraneA<sup>2</sup> HMI

Aurora’s line of Premium Control Panels takes the industry to a whole new level. The *AraneA<sup>2</sup> HMI* was developed specifically for applications where the controls and A/C System are not installed within a close proximity to one another. With similar characteristics to those of the *AraneA<sup>2</sup> Kombi*, *HMI* encompasses graphic display with 3 encoders and up to 7 key button options. The *AraneA<sup>2</sup> HMI* is the ultimate control panel for higher end applications. With a modern design and one-touch Auto Function, *AraneA<sup>2</sup> HMI* gives operators the cabin temperatures they desire with the single push of a button. The *AraneA<sup>2</sup> Family* reinvents operator comfort.

Blower Control	Encoder	Illuminated Symbols	Yes
Set Temperature	Encoder	Illuminated Rotary Actors	Yes
Air Distribution	Encoder	CAN-Bus	1 interface
Display	Yes	Technical Information	912-100-1015

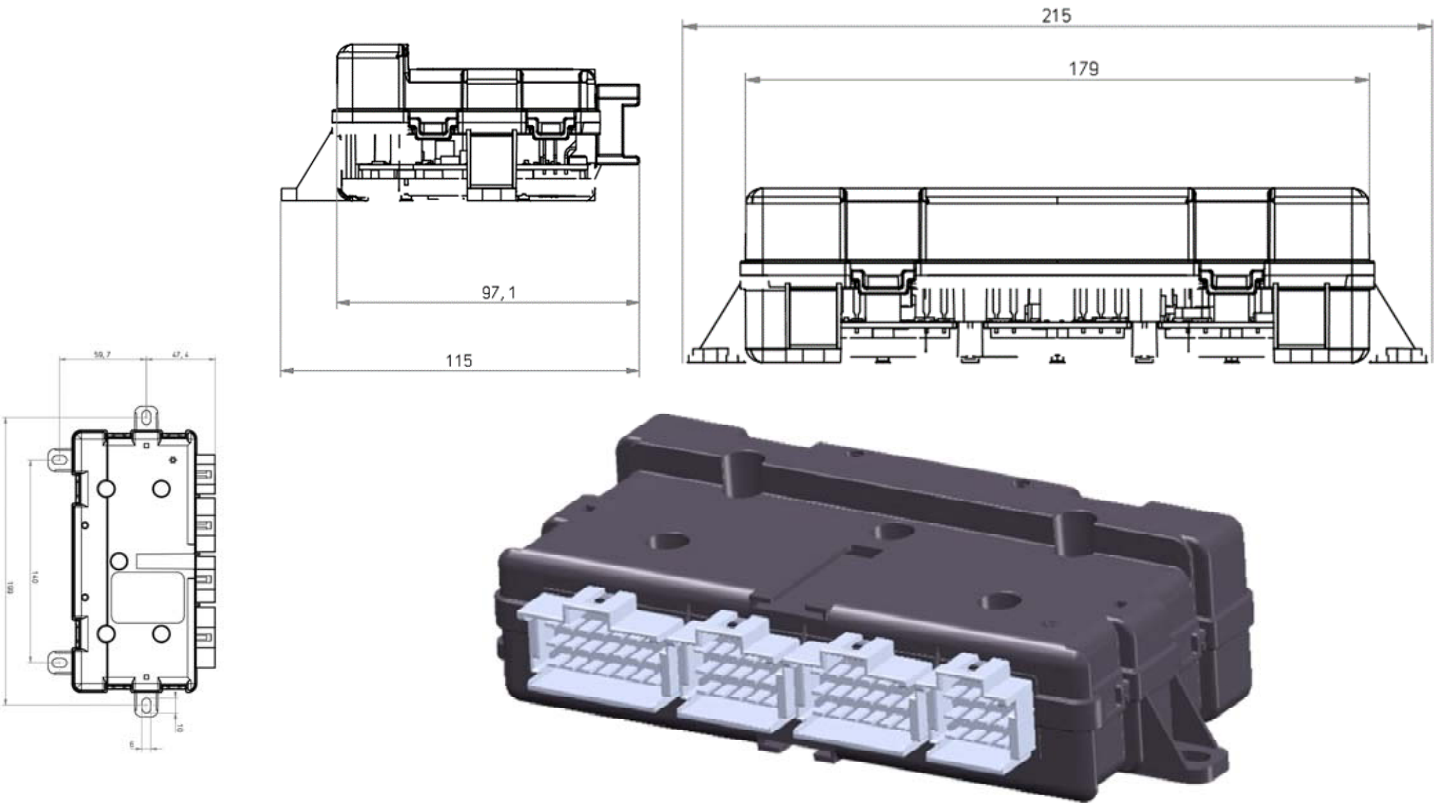


# CAN Controller Premium – AR HCP

Aurora’s line of Premium Control Panels takes the industry to a whole new level. The *AR-HCP* module works in combination with the *AraneA* family in order to facilitate communication between the system and the control panel. This module helps reduce installation costs by reducing the amount of wiring and cables inside the vehicle. These are especially popular in applications where the control panel and the air conditioning system are not located within proximity of one another, and eliminates lengthy wiring.

Stepped Blowers	Yes
Stepless Blowers	Yes
Digital Inputs	5
Digital Outputs	6 x 0.5 A, 2 x 2.0 A
Analog Inputs	2

Temperature Sensors	3
Analog Outputs	3
5-pole Actuators	4
CAN-Bus	2 interfaces
Technical Information	912-100-1060



# Control Panels Premium – AR HCP - Mini

The HCP-mini is a standalone CAN I/O module to connect various sensors and actuators of an air conditioning unit. The communication with the control unit (and possibly other I/O modules) takes places by a CAN-bus interface. The connection to a vehicle CAN bus can be realized by an optional CAN interface. The controller can be implemented in vehicles with 12V or 24V voltage and the installation is carried out via four screw points. By the potted PCB-board and the sealed connector, the controller achieves the protection class IP67.

Voltage	9-34 V
Temperature Range	-40°C — +80°C
Digital Inputs	2
Digital Outputs	6 x 0.5 A, 2 x 2.0 A
Analog Voltage Inputs	3
Analog Sensor Inputs	5

Frequency Input	1
Digital Outputs	8 at 0.5A (up to 3 actuators)
Analog- / PWM-Outputs	3
Analog Output 2A Power	1
CAN-BUS	1 (+ option for 1 additional)
LIN-BUS	1
Qualifications	Protection Class IP67 E1-Certification

