

UP

Universal Plus Line



COMES
ELECTRONIC CLIMATE CONTROL

UP

Universal Plus Line

The automatic control units in this line feature a customised LCD and eight push buttons (two for temperature adjustment, two for regulating the air flow, one for air conditioning, one for full AUTO mode and two which can vary according to the selected version).

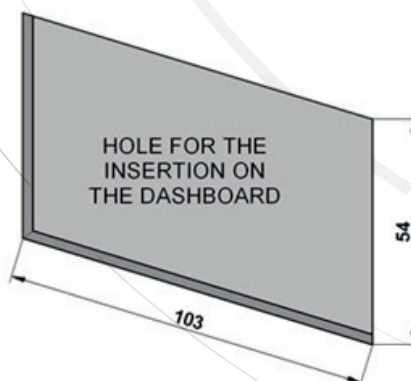
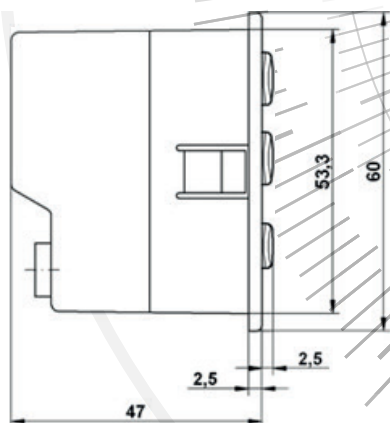
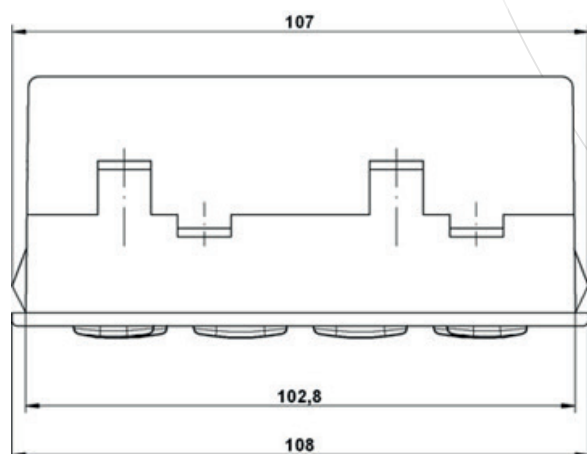
When activating a function, the relevant icon becomes visible on the LCD display.

COMES control units are developed to get the maximum flexibility. If you are interested in different functions or configurations, please contact our sales team for professional assistance.

GENERAL PERFORMANCE, ELECTRONICAL AND ENVIRONMENTAL TESTS

Operating Voltage Range:	10.5÷16V/18÷32V
Nominal Power Supply Voltage:	12V/24V
Output Rated Current, each pin:	max 400mA
Operating Temperature Range:	from -40°C to 85°C
Storage Temperature Range:	from -40°C to 90°C
Water/Duster Resistance on the Front Panel:	IP54
Over Voltage Protection	
Reverse Polarity Protection	
Short-Circuit Protection	
Electromagnetic Compatibility according to UNECE Regulation No.10	

MECHANICAL DIMENSIONS





FUNCTIONAL OVERVIEW

The control unit features eight push buttons and an LCD display, as below:

- Two push buttons for temperature adjustment
- Two push buttons for air flow
- A/C push button
- AUTO push button for fully automatic mode
- Recirculation or defroster push button
- External air temperature push button
- LCD: customised icons, TN, Transflective Positive, 12:00 or 6:00 o'clock viewing direction

When activating a function, the relevant icon becomes visible on the LCD display.

The control unit is fully backlit (all functions of the control unit are backlit to allow the user to easily find them in the hours of darkness) and available for both 12V and 24V systems.

The software mathematical model receives information from 3 different temperature sensors:

- Cabin air sensor (internal)
- Outside air sensor (external)
- Mixed air temperature sensor (or anti-icing temperature sensor for cooling versions)

On-board diagnosis with error code on display.

The control unit is supplied with temperature visualized in °C.

Available upon request:

- Different push buttons/function configurations
- Temperature visualized in °F



Climate Version DC Motor Water Valve Relay Blower Speed

PART NUMBER

	P/N 12V	P/N 24V
Control Unit	V02.17.150.V	V02.17.151.V
DC Motor Water Valve Kit	61.01.297	61.01.298
Wiring Harness	23.01.075	23.01.075
Relay Blower Speed Kit	61.01.047	61.01.051
Mixed Air Temperature Sensor	24.01.017	24.01.017
External Temperature Sensor	24.01.019	24.01.019
Internal Temperature Sensor	24.01.020	24.01.020
Connector and Pin Kit	61.01.248	61.01.248
Complete Kit	Z01.17.128.V	Z01.17.129.V



Climate Version Solenoid Water Valve Relay Blower Speed

PART NUMBER

	P/N 12V	P/N 24V
Control Unit	V02.17.168	V02.17.120
Solenoid Water Valve Kit	61.01.048	61.01.048
24V Adapter per Solenoid Water Valve Kit	-	23.01.019
Wiring Harness	23.01.075	23.01.075
Relay Blower Speed Kit	61.01.047	61.01.051
Mixed Air Temperature Sensor	24.01.017	24.01.017
External Temperature Sensor	24.01.019	24.01.019
Internal Temperature Sensor	24.01.020	24.01.020
Connector and Pin Kit	61.01.248	61.01.248
Complete Kit	Z01.17.135	Z01.17.136



Climate Version DC Motor Water Valve Electronic Blower Speed

PART NUMBER

	P/N 12V	P/N 24V
Control Unit	V02.17.145.V	V02.17.155.V
DC Motor Water Valve Kit	61.01.297	61.01.298
Wiring Harness	23.01.075	23.01.075
Electronic Blower Speed Regulator Kit	Z19.01.135	Z19.01.142
A/C Relay Kit	61.01.238	61.01.239
Mixed Air Temperature Sensor	24.01.017	24.01.017
External Temperature Sensor	24.01.019	24.01.019
Internal Temperature Sensor	24.01.020	24.01.020
Connector and Pin Kit	61.01.248	61.01.248
Complete Kit	Z01.17.125.V	Z01.17.131.V



Climate Version Solenoid Water Valve Electronic Blower Speed

PART NUMBER	P/N 12V	P/N 24V
Control Unit	V02.17.181	V02.17.182
Solenoid Water Valve Kit	61.01.048	61.01.048
24V Adapter per Solenoid Water Valve Kit	-	23.01.019
Wiring Harness	23.01.075	23.01.075
Electronic Blower Speed Regulator Kit	Z19.01.135	Z19.01.142
A/C Relay Kit	61.01.238	61.01.239
Mixed Air Temperature Sensor	24.01.017	24.01.017
External Temperature Sensor	24.01.019	24.01.019
Internal Temperature Sensor	24.01.020	24.01.020
Connector and Pin Kit	61.01.248	61.01.248
Complete Kit	Z01.17.142	Z01.17.143



Climate Version DC Motor Water Valve Relay Blower Speed Defroster

PART NUMBER	P/N 12V	P/N 24V
Control Unit	V02.17.187.V	V02.17.188.V
DC Motor Water Valve Kit	61.01.297	61.01.298
Wiring Harness	23.01.075	23.01.075
Relay Blower Speed Kit	61.01.047	61.01.051
Mixed Air Temperature Sensor	24.01.017	24.01.017
External Temperature Sensor	24.01.019	24.01.019
Internal Temperature Sensor	24.01.020	24.01.020
Connector and Pin Kit	61.01.248	61.01.248
Complete Kit	Z01.17.148.V	Z01.17.149.V



Climate Version DC Motor Water Valve Electronic Blower Speed Defroster

PART NUMBER	P/N 12V	P/N 24V
Control Unit	V02.17.189.V	V02.17.190.V
DC Motor Water Valve Kit	61.01.297	61.01.298
Wiring Harness	23.01.075	23.01.075
Electronic Blower Speed Regulator Kit	Z19.01.135	Z19.01.142
A/C Relay Kit	61.01.238	61.01.239
Mixed Air Temperature Sensor	24.01.017	24.01.017
External Temperature Sensor	24.01.019	24.01.019
Internal Temperature Sensor	24.01.020	24.01.020
Connector and Pin Kit	61.01.248	61.01.248
Complete Kit	Z01.17.185.V	Z01.17.186.V



Cooling Version Relay Blower Speed

PART NUMBER

	P/N 12V	P/N 24V
Control Unit	V02.17.191	V02.17.192
Wiring Harness	23.01.075	23.01.075
Relay Blower Speed Kit	61.01.047	61.01.051
Anti-icing Temperature Sensor Kit	61.01.279	61.01.279
External Temperature Sensor	24.01.019	24.01.019
Internal Temperature Sensor	24.01.020	24.01.020
Connector and Pin Kit	61.01.248	61.01.248
Complete Kit	Z01.17.187	Z01.17.188



Cooling Version Electronic Blower Speed

PART NUMBER

	P/N 12V	P/N 24V
Control Unit	V02.17.195	V02.17.196
Wiring Harness	23.01.075	23.01.075
Electronic Blower Speed Regulator Kit	Z19.01.135	Z19.01.142
A/C Relay Kit	61.01.238	61.01.239
Anti-icing Temperature Sensor Kit	61.01.279	61.01.279
External Temperature Sensor	24.01.019	24.01.019
Internal Temperature Sensor	24.01.020	24.01.020
Connector and Pin Kit	61.01.248	61.01.248
Complete Kit	Z01.17.191	Z01.17.192

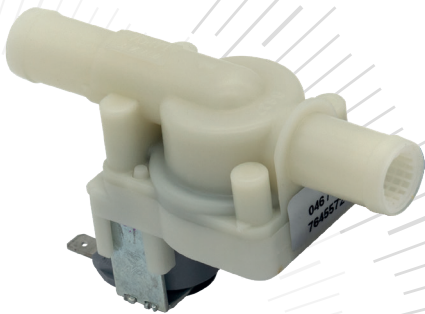
ACCESSORIES



Electronic Blower Speed Regulator



DC Motor Water Valve



Solenoid Water Valve



Internal Temperature Sensor



External Temperature Sensor



Anti-icing Sensor



Mixed Air Temperature Sensor



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