

### Description

#### Introduction

**UWE EasyTerm Quattro** is a control unit that houses buttons, knobs and control electronics - necessary to set and control the basic climate in a bus. The front panel of the EasyTerm Quattro is designed to be as user-friendly as possible to help the driver to a desired climate.

The control unit comes with car-stereo dimensions, which means that it can be mounted in a standard frame. The panel also has lighting and indication lamps for selected functions.

If the basic climate system is upgraded with an air conditioning system, there is a possibility to connect the EasyTerm Quattro to a Viper 2000 node to enable air condition operation.

#### Construction

UWE Climate control panel consists of a box with plastic cover that includes a variable number of potentiometers and switches. To control these there are an equivalent number of buttons and knobs.

The product contains light-emitting diodes which indicates selected function and works also as lighting. On the back there are outputs to components.



Figure: UWE EasyTerm Quattro

#### Further information

Installation Information

PRD0275

### Principal diagram

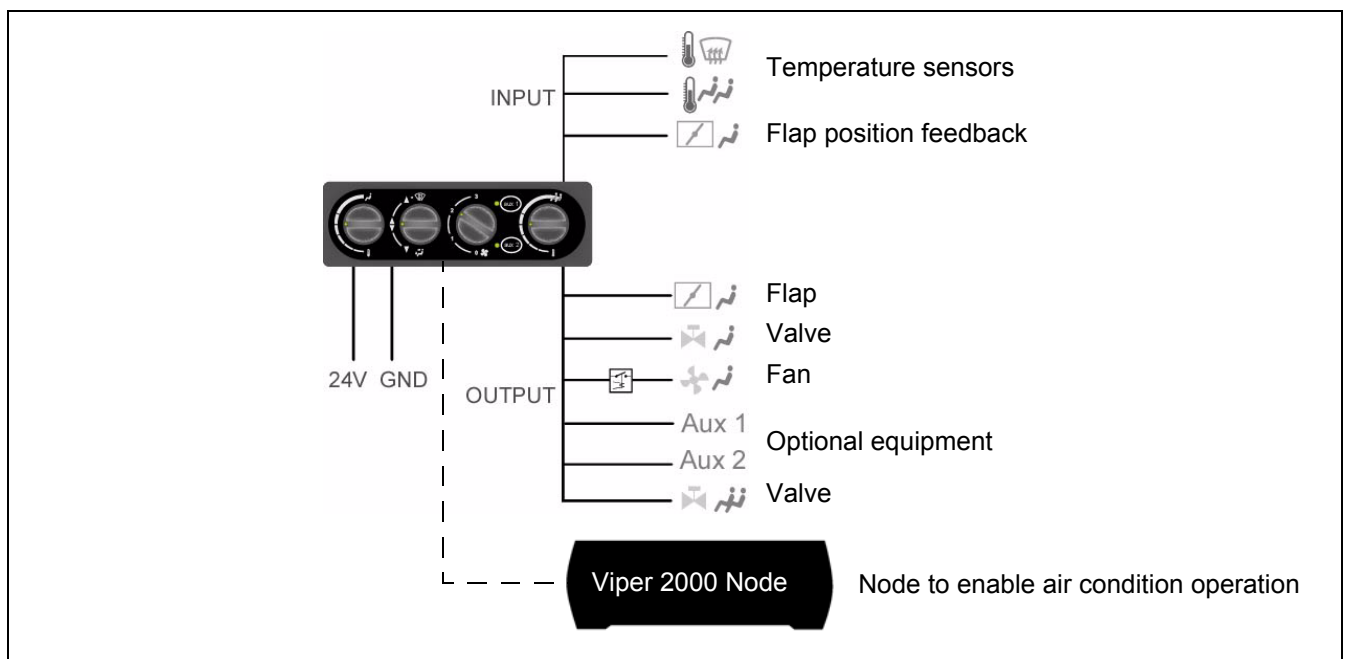
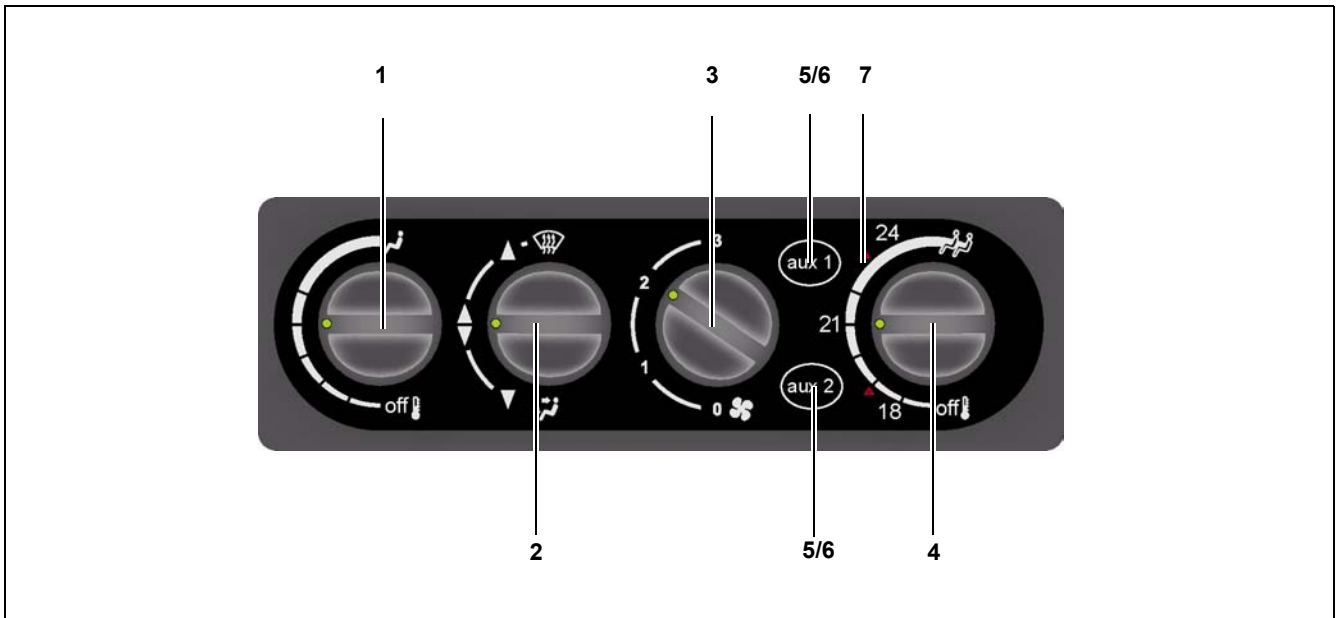


Figure: Simplified circuit diagram for EasyTerm Quattro

**Possible settings of the two climate control variants**

Nr	Function	Explanation	17442
1	Defroster temperature	With this knob you can set desired defroster temeparture from 16 to 80°C. By turning the knob anti-clockwise to its end you set regulation to OFF position.	•
2	Air distribution windscreen/floor	Used to select the air distribution for drivers place: Deicing mode* All windscreen Screen/Floor All floor  * deicing mode = full fan speed, highest possible temperature	•
3	Defroster fan speed	Used to select the defroster fan speed according to following: "0" fan is shut off "1-3" fan speed set manually from low (1) to high speed (3)	•
4	Passenger compartment temperature	With this knob you can set desired passenger compartment temperature from 18 to 26°C. By turning the knob anti-clockwise to its end you set regulation to OFF position.	•
5/6	Aux 1 & 2	By connecting optional equipment (for instance AC) to the EasyTerm you can activate/deactivate the components with the help of these buttons. (OPTION)	
7	Fault indication	See next page for explanation	•

The figure shows EasyTerm Quattro 17463



## Fault indication

### Upper indicator

The EasyTerm Quattro has a built-in function to show malfunctions regarding position feedback and sensors. Four error states are indicated by blink codes performed by the **upper** indicator triangles. The codes are:

#### 1 blink/sec - 2 sec pause

Positioning error. Either no position feedback signal is found or the positioning cannot reach its target position.

#### 2 blink/sec - 2 sec pause

Compartment sensor error. The sensor is either lost or shorted.

#### 3 blink/sec - 2 sec pause

Defroster sensor error. The sensor is either lost or shorted.

#### 4 blink/sec - 2 sec pause

Ventilation sensor error. The sensor is either lost or shorted.

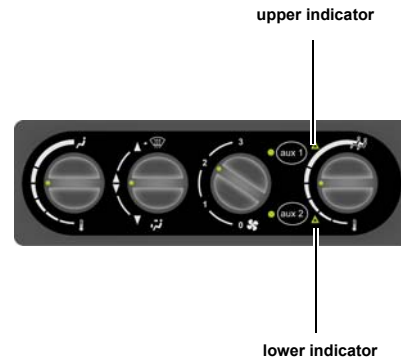
### Upper/lower indicator

#### Changing blink

In case ETQ is configured for CAN bus communication and the communication is disturbed, the upper and lower indicator will be turned on alternating with 1 sec period.

### Lower indicator

The **lower** warning indicator is at present used only in test mode. Should this indicator ever light up, the unit has for some reason entered test mode has to be replaced.



## Technical data

### Temperature range

Storage	-40°C till +65°C
Operating	-40°C till +50°C

### Connections

Socket housing on the unit:	9-poles AMP 966 140 - 4
Suitable socket housing:	9-poles AMP 1-967 621 - 1
Socket housing on the unit:	18-poles AMP 966 140-1
Suitable socket housing:	18-poles AMP 1-967 624 - 1

### Weight

EasyTerm Quattro	appr. 300 g
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### Material

Cover	ABS/PS Byblend T85
Front	ABS/PS Byblend T85
Knobs	ABS/PS Byblend T85
Knob light	PC Makrolon 2405
Foil carrier	PC Makrolon 2405
Spring for knob	POM

### Electrical characteristics

Nominal supply voltage: +22V - +29V.  
 Maximum Working supply range: +10V - +33V.  
 Max allowed supply voltage: 40V for 5min.  
 Load Dump protection: 65V.  
 False polarity protection: -30V

### Current consumption logic and outputs:

Standby: <40mA  
 Maximum: Sum of output current from the outputs

### Current consumption Backlight:

Backlight 12V normal current consumption: 66mA/14.4VDC  
 Backlight 12V maximum current consumption: 117mA/  
 21.0VDC (5min)  
 Backlight 24V normal current consumption: 60mA/28.8VDC  
 Backlight 24V maximum current consumption: 95mA/  
 42.0VDC (5min)  
 All outputs has continuous short-circuit protection within  
 Working supply range.

### Transient voltages

All digital IO + supply connections are designed to withstand  
 the following normative test pulses according to ISO7637/2  
 and 3.

Tp 1a: Vs -150V, Ri 10 Ohm, t1 5s

Tp 3a: Vs -150V

Tp 3b: Vs +100V

Tp 4: Vb +24V, Vs -16V, Va -12V, t6 50ms, t8 20s

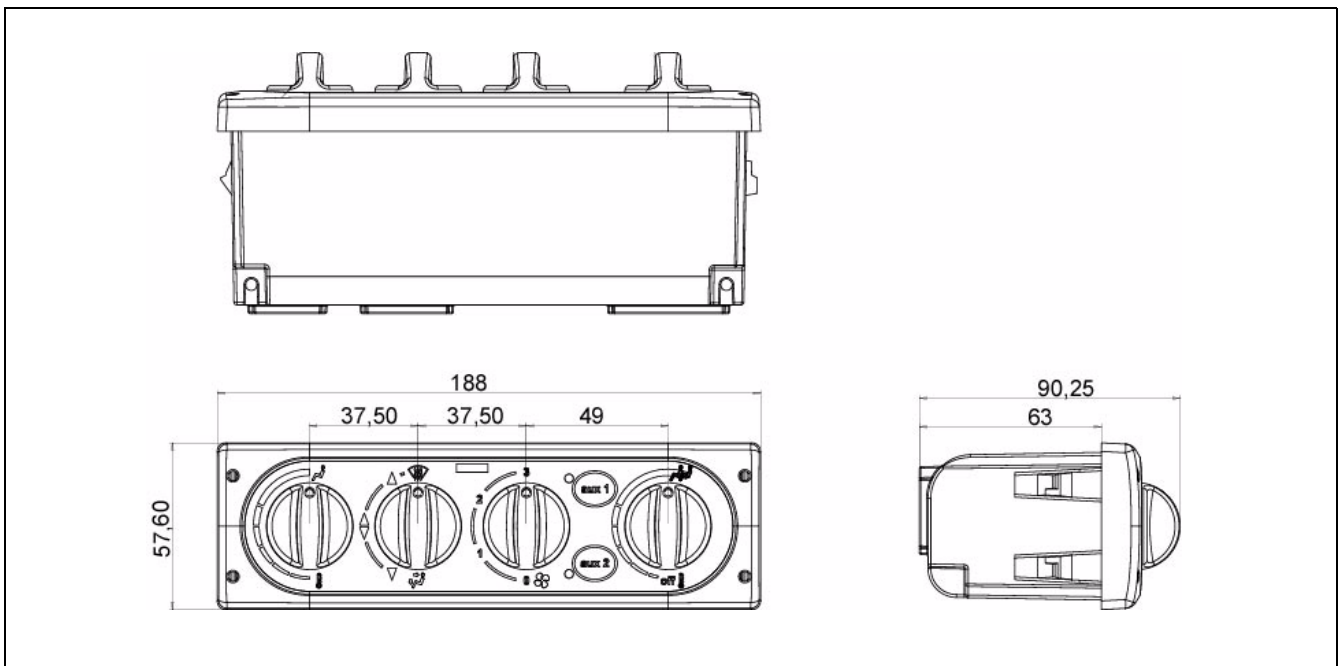
Tp 5b: Vs +65V, Ri 1.5 Ohm, td 600ms, tr 10ms.

ESD protection according to IEC 61000-4-2: 1995, level 4

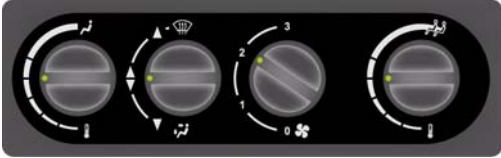
According to EMC directive 95/54/EC

50A/m @ 5Hz – 400kHz

## Dimensions (mm)



## Product range

Component	Functions	Part Nr.
ETQ CAN S7OFFMAX-FL6-F3OFF-S9OFF 	<b>4 knobs:</b> - defroster temp, 9 steps, OFF, 16°C to 80°C - MAX - air distribution 6 steps: All floor; 25-75; 50-50; 75-25, All screen; Deice - fan speed 4 steps: OFF-0-1-2-3 - compartment temp 10 steps: 18-26°C	17442
Remark: It is possible to customize the ETQ control panel to match your requirements. Contact UWE for further details.		

## Accessories

Component	Specification	UWE Part Nr.
Frame for climate control panel / Viper 2000 Display node		16690

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