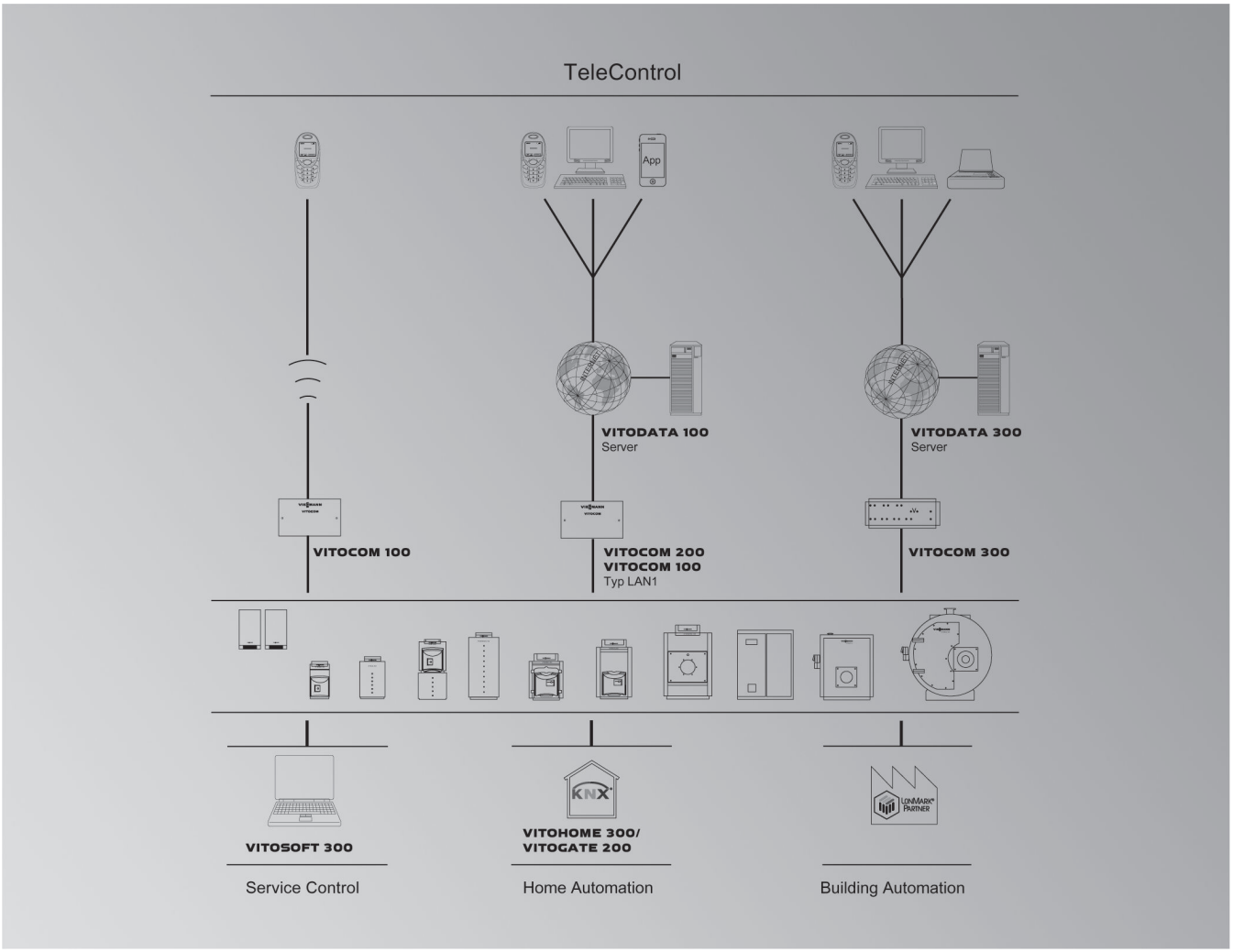
Technical guide



TeleControl

- The **Vitocom 100, type GSM** can be used for affordable remote monitoring of heating systems in detached and two-family houses as well as in holiday homes
- The **Vitocom 100, type LAN1** can be used for remote control of heating systems in private residential buildings, smaller utility buildings and in public facilities
- The **Vitocom 200** with the **Vitodata 100** can be used for remote control of heating systems in private residential buildings, smaller utility buildings and in public facilities. This enables an affordable improved service and higher security of supply
- The **Vitocom 300** with the **Vitodata 300** facilitates the professional remote control, monitoring and setup of heating systems in larger residential and utility buildings. This enables rapid and safe checking, maintenance and optimisation of heating systems

ServiceControl

- The **Vitosoft 300** is a software module for service, commissioning and diagnosis of heating systems with Optolink interface

Building automation

- The **Vitogate 200, type EIB** enables data exchange with external control and monitoring devices based on the KNX/EIB communication standard
- The **Vitohome 300** facilitates straightforward and convenient home automation by controlling a demand-dependent temperature curve for each room in a residential unit individually. This can result in reduced heating bills

Index

5414 671 GB

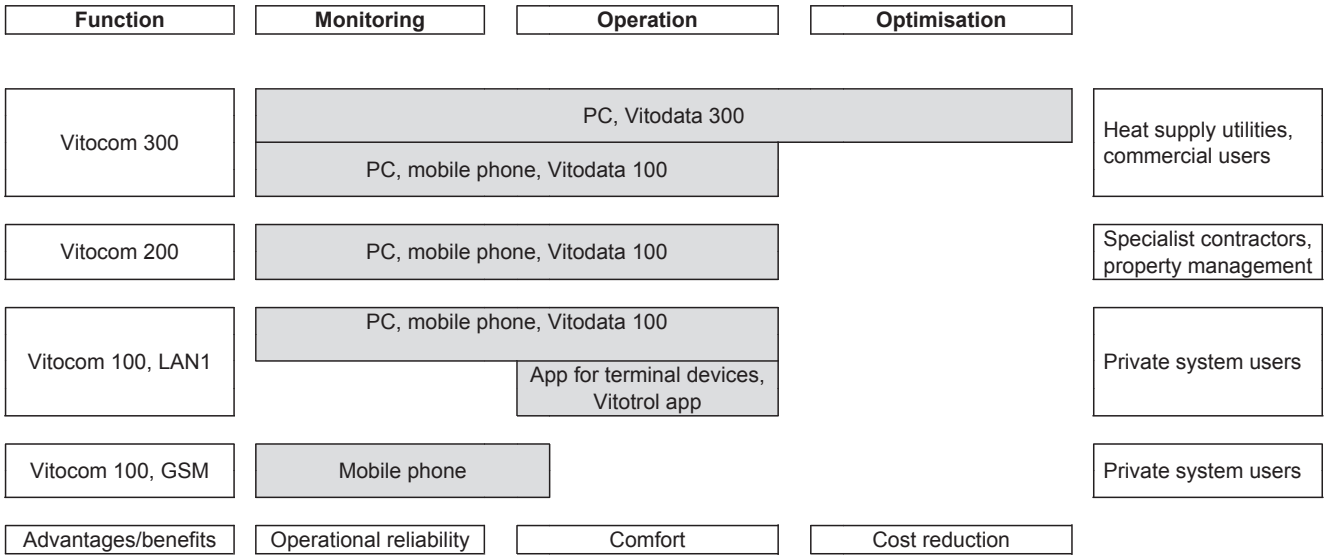
Index (cont.)

Index (cont.)

5414 671 GB

1.1 Appliance types, control functions and product benefits

The following overview provides guidance for the selection of a suitable Vitocom appliance, depending on the required functions for operating and monitoring the heating system, the primary use, and the intended user or operator.



1.2 Applications and users

The following table provides guidance for the selection of a suitable Vitocom appliance depending on the required application, the operation and monitoring of a heating system, and the intended user or operator. The TeleControl products offer solutions, particularly for the listed applications in energy, heating and fault management.

Control function	User	Required products	Information
Energy management			
Optimising, operating and monitoring Viessmann heating systems with Vitotronic control unit	Commercial operators – Heat supply utilities – Local authorities – Commercial enterprises – Public utility companies – Heating contractors	Vitocom 300 with Vitodata 300 user interface	Page 25
Heating management			
Operating and monitoring Viessmann heating systems with Vitotronic control unit	Specialist contractors, property management – Local authorities – Commercial enterprises – Hotels – Residential accommodation and homes for the elderly – Apartment buildings – Heating contractors	Vitocom 200 or Vitocom 100, type LAN1 with Vitodata 100 user interface	Page 21
	Private system users in detached houses, two-family homes and holiday houses	Vitocom 100, type GSM	Page 9
Operating Viessmann heating systems with the Vitotronic control unit	Private system users in detached houses, two-family homes and holiday houses	Vitocom 100, type LAN1 with Vitotrol app	Page 13
Fault management			
Monitoring up to 28 on-site components of a Viessmann heating system or third party system	– Clubs, sports facilities – Residential accommodation and homes for the elderly – Local authorities – Commercial enterprises – Detached and two-family houses – Apartment buildings – Hotels, clinics, churches – Public utility companies – Specialist contractors	Vitocom 300 with Vitodata 300 user interface	Page 25
Monitoring up to 2 on-site components of a Viessmann heating system or third party system		Vitocom 200 with Vitodata 100 user interface	Page 21
Monitoring on-site components of a Viessmann heating system or third party system		Vitocom 100, type GSM	Page 9

1.3 Appliance and control functions and general system requirements

TeleControl product	Vitocom 100			Vitocom 200		Vitocom 300			
	Type GSM	Type LAN1		Type GP1		Type FA5	Type FI2	Type GP2	
User interface	SMS	Vitotrol App*1	Vitodata 100	Vitodata 100	Vitodata 300*2	Vitodata 300*2	Vitodata 300*2	Vitodata 100	Vitodata 300*2
User									
– Heat supply utility	—	—	—	—	X	X	X	—	X
– Heating contractor	X	—	X	X	X	X	X	X	X
– System user	X	X	X	X	—	—	—	X	—
Integral interface	GSM modem	Ethernet LAN connection		GPRS modem		Analogue modem	ISDN modem	GPRS modem	
Communication									
– Analogue telephone network	—	—	—	—	—	X	—	—	—
– ISDN telephone network	—	—	—	—	—	—	X	—	—
– Mobile network	X	—	—	X	X	—	—	X	X
– Ethernet	—	X	X	—	—	—	—	—	—
Inputs and outputs									
– Digital inputs	1	—	—	2	2	8 | 28*3			
– Digital outputs	—	—	—	1	1	1 | 5*3			
– Analogue inputs	—	—	—	—	—	2 | 16*3			
– M BUS interface*4	—	—	—	—	—	1			
Control device									
– Smartphone/mobile phone	X	X*5	X	X	X	X	X	X	X
– PC	—	—	X	X	X	X	X	X	X
Interface for control device									
– SMS	X	—	—	—	—	—	—	—	—
– Internet browser	—	—	X	X	X	X	X	X	X
– App for terminal devices	—	X*5	—	—	—	—	—	—	—
Relaying messages									
– SMS	X	X*6	X*6	X*6	X	X	X	X*6	X
– Fax	X*7	X*6	X*6	X*6	X	X	X	X*6	X
– Email	—	X	X	X	X	X	X	X	X
Control function									
– Switching times, holiday program	—	X	X	X	X	X	X	X	X
– Operating program	X	X	X	X	X	X	X	X	X
– Set values, heating curve slope/level	—	X	X	X	X	X	X	X	X
– Scanning operating conditions and temperatures	—	X	X	X	X	X	X	X	X
– Codes	—	—	—	—	X	X	X	—	X
– Optimisation	—	—	—	—	X	X	X	—	X

Note

Simultaneous operation with the Vitodata 100 ***and*** *300 is not possible.*

Information on risks

The Vitocom radio signals (in case of communication via mobile networks) may cause interference, particularly with pacemakers, hearing aids and defibrillators.

The immediate vicinity of the operational Vitocom must be avoided if any such equipment is used.

Information on fault messages

The Vitocom only relays faults of connected control units and of the components connected to configured inputs of the Vitocom. For technical details, see the installation and service instructions of the devices.

Requirements for fault messages:

- The control units **and** the Vitocom must be configured correctly
- The Vitocom message paths must be set up
- The heating system and functionality of the message facilities must be checked at regular intervals
- **Vitocom 300:**
  So that messages can still be transferred during a power failure, we recommend using a UPS (uninterrupted power supply module)
- For further improvement of the operational reliability of the heating system, we recommend allowing for supplementary measures, e.g. frost protection or monitoring for water damage

Information on liability

Viessmann accepts no liability for loss of profit, unattained savings, or other direct or indirect consequential losses resulting from use of the Vitocom or the software, or for damage resulting from inappropriate use.

The Viessmann General Terms and Conditions apply, which are included in each current Viessmann pricelist.

**1 For heat pumps: Only with the Vitotronic 200, type WO1C.*

**2 For heat pumps: Only with the Vitotronic 200, type WO1B.*

**3 First value standard module | Second value in connection with 2 extension modules (accessories).*

**4 In conjunction with an extension module (accessory), up to 16 M BUS meters can be connected.*

**5 Currently, the following terminal devices are supported: iPhone 4 and 4S, iPad and iPad2, iPod with retina display under iOS 4.3 / 5.*

**6 The chargeable Vitodata 100 fault management service is required for the message recipients SMS and fax.*

**7 Only (D) when using the SIM card supplied.*

TeleControl — overview (cont.)

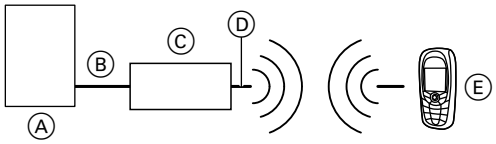
We accept no liability for SMS and email services provided by network operators. The terms and conditions of the relevant network operators therefore apply.

1

2.1 Vitocom 100, type GSM

Application

Remote monitoring and telecontrol for Viessmann heating systems with Vitotronic control units via mobile networks.
For remote monitoring of on-site components and third party systems via mobile networks.



Ⓐ Boiler with control unit (see table on page 63).
In addition, wall mounted boilers from 1999 onwards are supported
Ⓑ KM BUS cable (max. 50 m)
Ⓒ Vitocom 100
Ⓓ Aerial
Ⓔ Mobile phone

Remote control and scanning

A heating system can be switched on and off by the Vitocom 100 via GSM/mobile networks, and the operating program can be changed via SMS commands.

The following remote scanning options are available:
- Information regarding the heating system (e.g. operating condition) and digital input
- Two mobile phone numbers that can be notified in case of faults
- SIM card credit (prepaid)
- Current date and expiry date of SIM card (prepaid)
- Cost of an SMS
- Current language setting

Remote monitoring

With the Vitocom 100, the boiler control unit connected via the KM BUS and appliances connected to the KM BUS are monitored.
The heating circuit control units (e.g. Vitotronic 200-H) connected downstream via LON to the boiler circuit or heat pump control unit, are not monitored by the Vitocom 100.
Heating system faults are reported to up to two mobile phones (e.g. system user and heating/service contractor) via SMS.

Fault messages are displayed in plain text.

The following are automatically signalled by SMS via mobile phone:
- Heating system faults
- Expiry of SIM card (prepaid)
- Deletion of current date if power fails (information about a power failure when power is restored)

Languages

One of the following languages can be selected for the message:
- German
- Danish
- English
- Estonian
- Flemish
- French
- Italian
- Latvian
- Lithuanian
- Polish
- Russian
- Swedish
- Slovakian
- Slovenian
- Spanish
- Czech
- Hungarian

Hooking up on-site components

For hooking up on-site components, a digital input is available in the Vitocom 100.

Using this input, external signals can be hooked up with 230 V ~ as mains voltage signals (see chapter "TeleControl — Sample applications").

System requirements

Heating system:
- For **one** heating system
- The control unit is connected to the Vitocom 100 via the KM BUS (for an overview of connectable control units, see page 63)

Note
If KM BUS subscribers are already connected to the Vitotronic control unit, then the KM BUS distributor (part no. 7415 028, available as accessory) is required.

- Mains socket 230 V/50 Hz or optional connection in accordance with safety category II

Mobile network:
- Check for an adequately strong radio signal from the mobile network, using a mobile phone if necessary, at the Vitocom 100 installation location
- Activate the SIM card **prior to** commissioning

SIM card requirements:
– Able to send SMS
– Able to receive SMS

Note
SIM cards approved for use with the Vitocom 100:
- *T-Mobile (standard for Vitocom 100 with SIM card)*
- *Vodafone*
- *E-Plus*

Note
The SIM cards have been tested at a reference location. Perfect operation cannot be guaranteed in different regional areas.

Message path/message recipient:
- Mobile phone for receiving SMS.
  Up to 2 mobile phones can be specified as message recipients

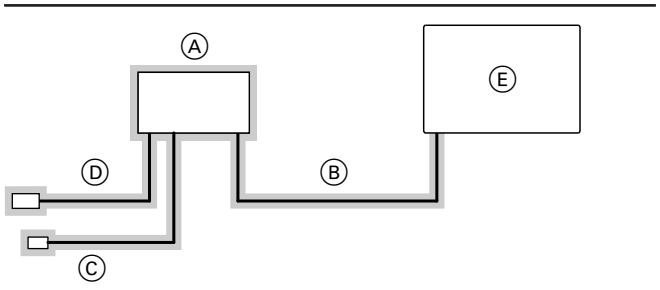
Configuration

The Vitocom 100 is configured with the mobile phone by sending an SMS.

Benefits

- Rapid transfer of fault messages by SMS via mobile network
- Convenient heating system control via mobile phone and SMS commands
- Low operating costs through the use of mobile phone SIM cards, e.g. prepaid, excluding data option
- Supported by a large number of mobile phone providers
- Additional connection at the digital input for monitoring function (see chapter "TeleControl — Sample applications")
- Maintenance and service become easier
- Quick configuration through a single SMS
- Easy retrofitting

2.2 Standard delivery and accessories



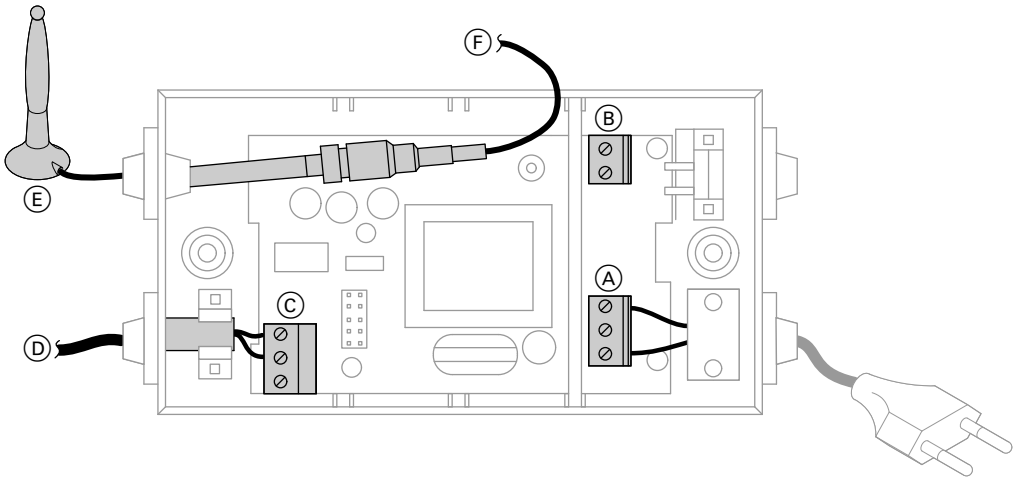
= standard delivery

Pos.	Description	Part no.
Ⓐ	**Vitocom 100** with integral GSM modem and wall mounting plate	
	– Without SIM card	Z004 594
	– With SIM card:	Z004 615
	– Only available in Ⓓ	
	– No standard charge	
	– No minimum usage	
	– No minimum contract period	
	– Single connection fee or service charge in accordance with current T-Mobile terms	
	Note	
	– The SIM card is not a Viessmann product. A contract for the SIM card is concluded on site directly with the mobile phone provider. For information regarding terms of contract, see www.viessmann.de/vitocom-100/	
	– The SIM card must be activated prior to commissioning	
Ⓑ	Connecting cable with Rast 5 system plugs for connection to the control unit KM BUS, 3 m long	
Ⓒ	Aerial with 3 m cable, magnetic foot and adhesive pad	
Ⓓ	Power cable with plug, 2 m long	
Ⓔ	Boiler and heating circuit control units supported (see table on page 63)	As per Viessmann pricelist

2.3 Specification

Specification

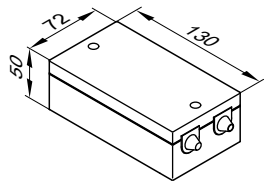
Rated voltage	230 V~
Rated frequency	50 Hz
Rated current	15 mA
Power consumption	4 W
Safety category	II to DIN EN 61140
IP rating	IP 41 to EN 60529; ensure through design/installation
Function	Type 1B To EN 60730-1
Permiss. ambient temperature	
– During operation	0 to 50 °C Installation in living spaces or boiler rooms (standard ambient conditions)
– During storage and transport	–20 to 85 °C
On-site connection	Digital input: 230 V~ (Ensure connection to the same phase as the appliance voltage)



Ⓐ Power supply 230 V/50 Hz
Ⓑ Digital input 230 V~
Ⓒ KM BUS connection
Ⓓ KM BUS cable with plug 145
Ⓔ Aerial
Ⓕ Aerial connection on the upper PCB

TeleControl — Vitocom 100 (cont.)

Dimensions



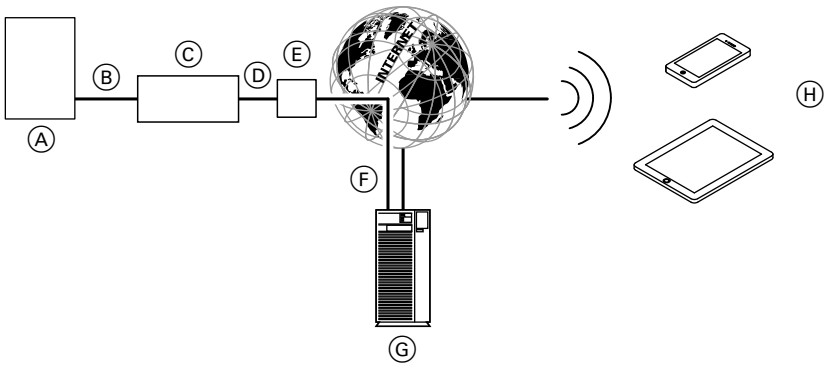
Note the maximum cable lengths when selecting the installation location as well as the quality of the mobile phone reception.

2

3.1 Vitocom 100, type LAN1

Applications: Operating with Vitotrol app

To remotely control Viessmann heating systems with Vitotronic control units via IP network.



Ⓐ Heat source with control unit
Ⓑ LON connecting cable
Ⓒ Vitocom 100
Ⓓ IP network (on-site)
Ⓔ DSL router (on site)
Ⓕ Secure internet connection to the Vitodata server
Ⓖ Vitodata server
Ⓗ Mobile terminal device with Vitotrol app:
- Remote control of the heating system
- Scanning messages

Remote control and scanning

The Vitotrol app enables access to the following control unit parameters:
- Selecting the set temperatures
- Setting the operating program and switching times
- Scanning operating conditions and temperatures

Note
The Vitotrol app enables users to access one system only in real time using a terminal device.

Messages
Any messages currently active at the heating system, e.g. sensor or burner faults, are transmitted to the Vitocom 100 via LON. The Vitocom 100 transmits these messages to the Vitodata server. Subject to the Vitotrol app being enabled on the mobile terminal device, it will regularly check the heating system status and display any messages. No scanning will take place in the delivered condition for as long as the mobile terminal device is being charged (for changeover, see the Vitotrol app).

System requirements

Heating system:
- For **one** single boiler system with Vitotronic control unit, with or without heating circuits downstream
- Mains socket 230 V/50 Hz

IP network:
- DSL router with available LAN socket (on-site)
- Internet connection with "Flat rate" (tariff **in**dependent of time and data volume) with high availability, i.e. the Vitocom 100 is permanently connected to the Vitodata server
- Dynamic IP addressing (DHCP) in the network (LAN); have this checked and set up, if required, on site by an IT expert **prior** to commissioning
- Determine the routing and security parameters in the IP network (LAN) so that Port 80 and Port 443 are enabled for direct outward connections; have this checked and set up, if required, on site by an IT expert **prior** to commissioning

Note
The Vitocom 100 builds a secure internet connection to the Vitodata server during operation. Connecting the Vitocom 100 with any other type of server is not possible.

User account on the Vitodata server:
A valid user account on the Vitodata server is required for the operation of the Vitocom 100, type LAN1; the same applies to the use of the Vitotrol app. The registration is implemented either via the Vitotrol app or via the Vitodata 100 user interface.

Recommended mobile terminal device:
- iPhone 4 and iPhone 4S
- iPad and iPad2
- iPod Touch with retina display

Mobile network:
- Adequate radio signal strength for the mobile network where the Vitotrol app is used
- For access via WLAN: Adequate signal strength where the Vitotrol app is used

Message recipients:
- Vitotrol app
- Terminal device (e.g. computer) for receiving emails
- Mobile phone for receiving SMS (requires chargeable "Vitodata 100 fault management internet service")
- Fax machine for receiving fax (requires chargeable "Vitodata 100 fault management internet service")

TeleControl — Vitocom 100 (cont.)

Configuration

In the case of dynamic IP addressing (DHCP) the Vitocom 100, type LAN1 will be configured automatically. The DSL router requires no separate settings.

Observe the network settings of the DSL router (see "IP network").

Benefits

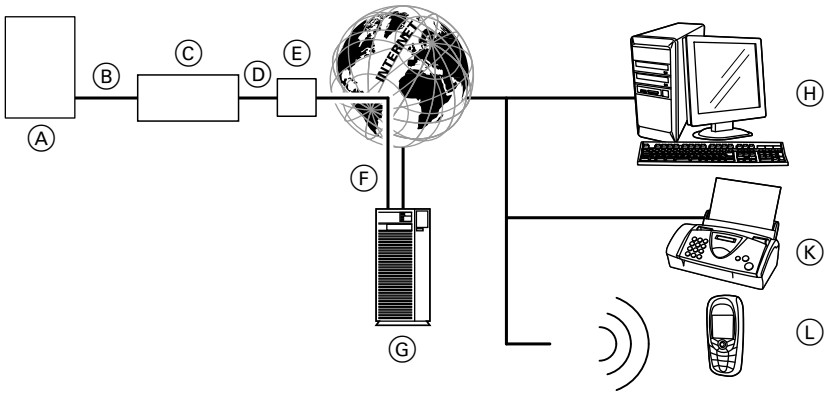
Mobile use with heating systems in domestic buildings and smaller utility buildings.

- Affordable
- Easy operation via iPhone, iPad or iPod Touch with retina display
- All messages to a PC or mobile phone
- Easy commissioning through automatic configuration

3.2 Vitocom 100, type LAN1

Applications: Operation with Vitodata 100 user interface

To remotely monitor and control Viessmann heating systems with Vitotronic control units via IP network.



Ⓐ Heat source with control unit
Ⓑ LON connecting cable
Ⓒ Vitocom 100
Ⓓ IP network (on-site)
Ⓔ DSL router (on site)
Ⓕ Secure internet connection to the Vitodata server
Ⓖ Vitodata server, registration and login at www.vitodata100.com
Ⓗ Computer:
- Remote control of the heating system via Vitodata 100 user interface
- Receiving messages via email

Ⓚ Fax machine for receiving message (requires chargeable "Vitodata 100 fault management internet service")
Ⓛ Mobile phone for receiving SMS (requires chargeable "Vitodata 100 fault management internet service")

Remote control and scanning

The Vitodata 100 user interface enables a wide range of heating management functions. Users can access the following control unit parameters:
- Adjusting the set temperatures, heating curve slope and level
- Setting of operating programs, holiday programs and switching times
- Setting of party and economy mode
- Scanning operating conditions and temperatures

Messages
Any messages currently active at the heating system, e.g. sensor or burner faults, are transmitted to the Vitocom 100 via LON. The Vitocom 100 transmits these messages to the Vitodata server. Messages can be displayed on the Vitodata 100 user interface. If message recipients have been stored on the Vitodata server (email, SMS, fax), messages are automatically transferred to these.

Note
Transferring messages by SMS or fax requires a chargeable "Vitodata 100 fault management internet service".

Message contents:
- Date and time
- System description
- Message text
- Fault code
- System status

System requirements

Heating system:
- For **one** single boiler system with Vitotronic control unit, with or without heating circuits downstream
- The max. number of devices (LON subscribers) comprising boiler and heating circuit control units is 30
- Mains socket 230 V/50 Hz

IP network:
- DSL router with available LAN socket (on-site)
- Internet connection with flat rate (tariff **in**dependent of time and data volume) with high availability, i.e. the Vitocom 100 is permanently connected to the Vitodata server
- Dynamic IP addressing (DHCP) in the network (LAN); have this checked and set up, if required, on site by an IT expert prior to commissioning
- Determine the routing and security parameters in the IP network (LAN) so that Port 80 and Port 443 are enabled for direct outward connections; have this checked and set up, if required, on site by an IT expert prior to commissioning

Note
The Vitocom 100 builds a secure internet connection to the Vitodata server during operation. Connecting the Vitocom 100 with any other type of server is not possible.

TeleControl — Vitocom 100 (cont.)

User account on the Vitodata server:
A valid user account on the Vitodata server is required for the operation of the Vitocom 100, type LAN1; the same applies to the use of the Vitotrol app. The registration is implemented either via the Vitotrol app or via the Vitodata 100 user interface.

Computer with the following equipment:
- Windows XP, Windows Vista, Windows 7 operating system
- Microsoft Internet Explorer, version 8.0 or Mozilla Firefox version 3.0 web browser
- Active internet connection

Message recipients:
- Terminal device (e.g. computer) for receiving emails
- Mobile phone for receiving SMS (requires chargeable Vitodata 100 fault management internet service)
- Fax machine for receiving fax (requires chargeable Vitodata 100 fault management internet service)

Configuration

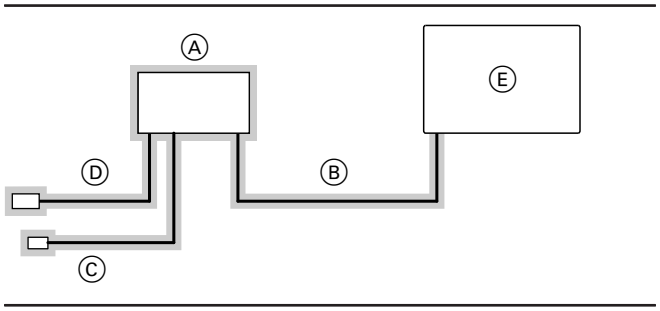
In the case of dynamic IP addressing (DHCP) the Vitocom 100, type LAN1 will be configured automatically. The DSL router requires no separate settings.

Observe the network settings of the DSL router (see "IP network"). For further details on terms of use, see www.vitodata.info.

Benefits

Use with heating systems in domestic buildings and smaller utility buildings.
- Remote monitoring device with integral Vitodata 100 user interface for heating contractors and system users (e.g. caretakers)
- Affordable
- Easy operation via PC and smartphone
- System monitoring
- All messages to a PC or mobile phone
- Easy commissioning through automatic configuration

3.3 Standard delivery and accessories



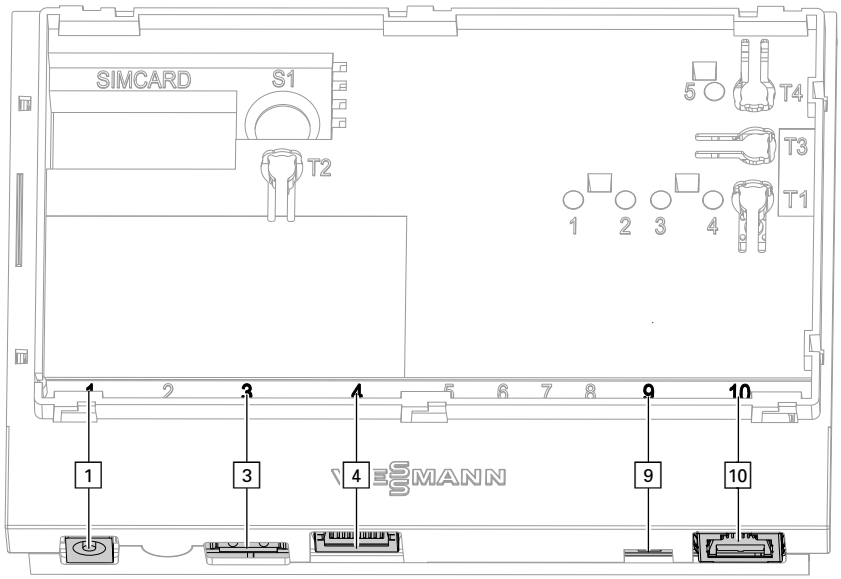
= standard delivery

Pos.	Description	Part no.
Ⓐ	**Vitocom 100, type LAN1**	
	– With communication module	Z011224
	– Without communication module	Z011389
Ⓑ	LON connecting cable, 7 m long	
Ⓒ	LAN connecting cable, 2 m long	
Ⓓ	Power cable with plug-in power supply unit, 1.9 m long	
Ⓔ	Boiler and heating circuit control units supported (see table on page 63). For a current list of supported heat sources, see online help for Vitodata 100 at www.vitodata100.com	As per Viessmann pricelist

3.4 Specification

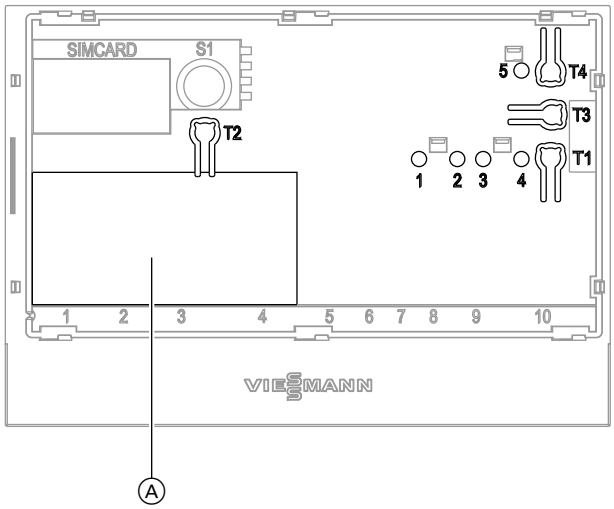
Specification

Rated voltage	5 V--
Rated current	1.6 A
Power consumption	8 W
Safety category	III
IP rating	IP 30 to EN 60529; ensure through design/installation
Permiss. ambient temperature	
– During operation	0 to 50 °C Installation in living spaces or boiler rooms (standard ambient conditions)
– During storage and transport	–20 to 85 °C



1 Plug-in power supply unit, 5 V–, internal +, external --, min. 1.6 A
3 Service interface: Make no on-site connections
4 RJ45 socket for LAN connecting cable to the DSL router
9 LON terminator, enabled in the delivered condition
10 RJ45 socket for LON connecting cable (red) to the Vitotronic control unit

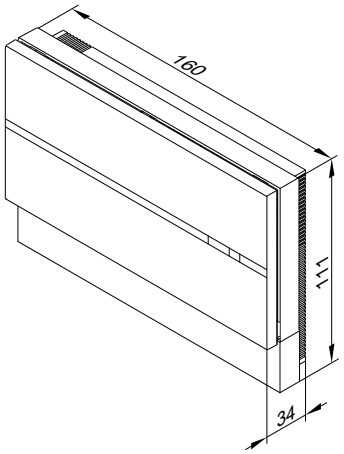
Display and operating elements



Ⓐ Type plate
"T1" Maintenance key
"T2" No function
"T3" LON key, only when linking the Vitocom 100 into BMS systems (send service PIN)
"T4" Reset key
"1" LON service indicator (green LED)
"2" No function
"3" IP connection status (green and yellow LED)
"4" Operating status indicator (green and red LED)
"5" Indicator, data transfer service interface (green LED)

TeleControl — Vitocom 100 (cont.)

Dimensions



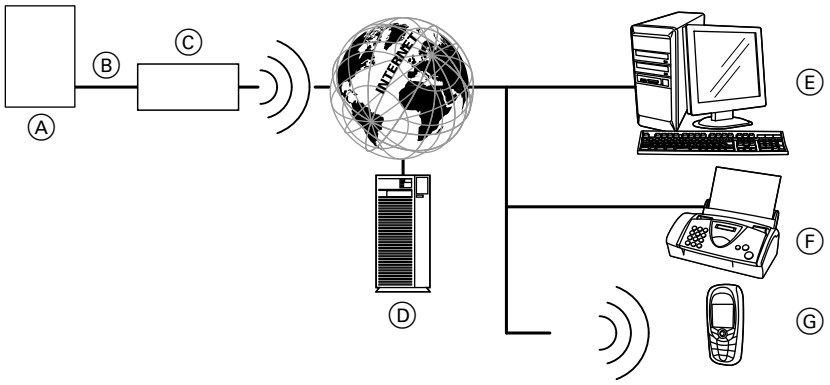
3

4.1 Vitocom 200, type GP1, with Vitodata 300 user interface

Application

For remote monitoring, telecontrol and remote setup of Viessmann heating systems with Vitotronic control units via mobile networks.

For remote monitoring of on-site components and third party systems via mobile networks.



Ⓐ Boiler with control unit (see table on page 63).
Ⓑ LON connecting cable
Ⓒ Vitocom 200
Ⓓ Internet/Vitodata 300 internet server, login at www.vitodata.com
Ⓔ Control device PC/laptop:
- Access via internet browser to the Vitodata 300 user interface
- Receiving messages via email

Ⓕ Fax machine for receiving messages
Ⓖ Mobile phone for receiving SMS

Remote monitoring, telecontrol and remote setup

The Vitodata 300 user interface provides access to all control unit parameters:
- Setting set values, heating curve slope and level
- Setting the operating program, holiday program and switching times
- Scanning operating conditions and temperatures
- Remote setup of the control parameters via coding addresses

If the heating system develops a fault, e.g. on sensors or the burner, this will be recognised by the control unit and transferred to the Vitocom 200 via LON. This transmits the message via the Vitodata 300 to the configured SMS, email or fax recipients.

Additional appliances can also be monitored (see chapter "TeleControl — Sample applications").

Message contents:
- System address
- Fault type, fault code
- Time
- Additional Information

Hooking up on-site components

The wiring chamber of Vitocom 200 provides the following connections for hooking up on-site components:
- 2 digital inputs DE1 and DE2
- 1 digital output DA1

Note
For detailed information see chapter "Specification" on page 24.

Digital inputs DE1 and DE2
Using these inputs, on-site fault messages can be hooked up via floating contacts. The inputs are monitored by the Vitocom 200. Input signals are relayed by the Vitocom 200 as messages.

Example:
Level control in oil tanks.

Digital output DA1
On-site components can be hooked up via this output. The output can also be configured as a central fault message output. In other words, external signal transducers can be switched via this output.

System requirements

Heating system:
- For **one** single or multi boiler system (incl. third party systems) with or without heating circuits downstream
- The max. number of devices (LON subscribers) comprising boiler circuit and heating circuit control units is 30
- All control units are connected to the Vitocom 200 via LON (for an overview of connectable control units, see page 63)

Mobile network:
- Check for an adequate GPRS radio signal from the D2 mobile network at the installation location for the Vitocom 200, using a mobile phone or demo case if necessary
- Apply to activate the SIM card **prior to** commissioning
- Only use the D2 SIM card supplied

TeleControl — Vitocom 200 (cont.)

Control device (PC or laptop):
- Installed internet browser (Microsoft Internet Explorer Version 5.5 or higher, alternatively Mozilla Firefox Version 1.5 or higher) with an existing internet connection
- Java Runtime Environment 1.4

Message path:
- PC/laptop for receiving email
- Mobile phone for receiving SMS
- Fax machine for receiving messages

Configuration

The Vitocom 200 is configured with the Vitodata 300.

The Vitocom 200 is connected to the control unit via LON. For the LON, the Vitocom 200 requires no configuration.

Benefits

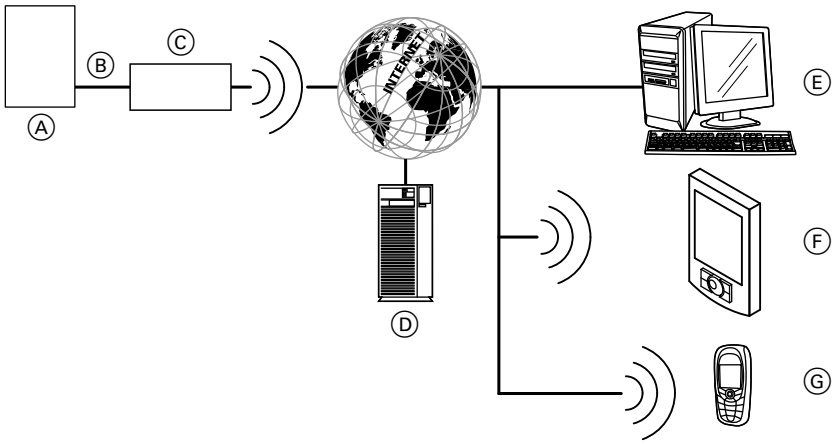
- Powerful communication system for commercial users
- Low operating costs through internet connection and packet mode operation via mobile network
- System monitoring
- Comprehensive access to all controller data reduces time and effort during service work
- All messages to a PC or a mobile phone
- Additional connections (2 digital inputs) for monitoring functions (see chapter "TeleControl — Sample applications") and 1 switching output (digital output)
- Easy commissioning with SIM card supplied

4.2 Vitocom 200, type GP1, with Vitodata 100 user interface

Application

Remote monitoring and telecontrol for Viessmann heating systems with Vitotronic control units via mobile networks.

For remote monitoring of on-site components and third party systems via mobile networks.



Ⓐ Boiler with control unit (see table on page 63).
Ⓑ LON connecting cable
Ⓒ Vitocom 200
Ⓓ Internet/Vitodata 100 internet server.
Login at www.vitodata100.com
Ⓔ Control device PC/laptop:
- Access via internet browser to the Vitodata 100 user interface
- Receiving messages via email

Ⓕ Control device smartphone/PDA with internet browser for receiving email and SMS
Ⓖ Mobile phone for receiving SMS

Remote monitoring and telecontrol

The Vitodata 100 user interface enables a wide range of heating management functions. Users can access the following parameters of the control units:
- Setting set values, heating curve slope and level
- Setting the heating program, holiday program and switching times
- Scanning operating conditions and temperatures

Should the heating system develop a fault, for example on a sensor or on the burner, this is recognised by the control unit and transmitted via the LON to the Vitocom. This in turn transmits the message to the Vitodata 100, which passes it on to the configured message targets as a SMS or an email.

In addition, further appliances can also be monitored (see chapter "TeleControl – sample applications").

Message contents
- System address
- Fault type, fault code
- Time
- Additional information

With the chargeable Vitodata 100 fault management, messages can also be passed on via SMS and FAX.

Hooking up on-site components

The wiring chamber of Vitocom 200 provides the following connections for hooking up on-site components:
- 2 digital inputs DE1 and DE2
- 1 digital output DA1

Note
For detailed information see chapter "Specification" on page 24.

Digital inputs DE1 and DE2
Using these inputs, on-site fault messages can be hooked up via floating contacts. The inputs are monitored by the Vitocom 200. Input signals are relayed by the Vitocom 200 as messages.

Example:
Level control in oil tanks.

Digital output DA1
On-site components can be hooked up via this output. The output can also be configured as a central fault message output. In other words, external signal transducers can be switched via this output.

System requirements

Heating system:
- For **one** single or multi boiler system (incl. third party systems) with or without heating circuits downstream
- The max. number of devices (LON subscribers) comprising boiler circuit and heating circuit control units is 30
- All control units are connected to the Vitocom 200 via LON (for an overview of connectable control units, see page 63)

Mobile network:
- Check for an adequate GPRS radio signal from the D2 mobile network at the installation location for the Vitocom 200, using a mobile phone or demo case if necessary
- Apply to activate the D2 SIM card **prior to** commissioning
- Only use the D2 SIM card supplied

Control device:

For operation with a PC or laptop:
- Installed internet browser (Microsoft Internet Explorer Version 7.0 or higher) with an existing internet connection
- Java Script

Message path:
- PC/laptop or smartphone for receiving email
- Mobile phone for receiving SMS

Configuration

The Vitocom 200 is configured with the Vitodata 100. The pages for the Vitodata 100 user interface are created automatically during commissioning.

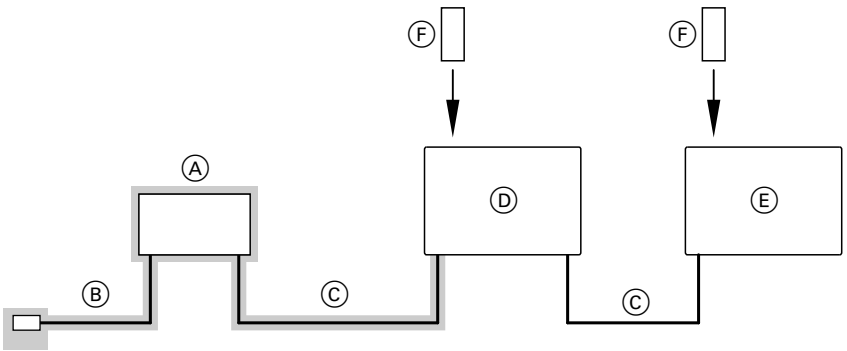
The Vitocom 200 is connected to the control unit via LON. For the LON, the Vitocom 200 requires no configuration.

Benefits

- Use in heating systems in domestic buildings and smaller utility buildings
- Affordable and easy operation via PC
- System monitoring
- All messages to a PC or mobile phone
- Additional connections (2 digital inputs) for monitoring functions (see chapter "TeleControl — Sample applications") and 1 switching output (digital output)
- Easy commissioning with SIM card supplied

4

4.3 Standard delivery and accessories



= standard delivery

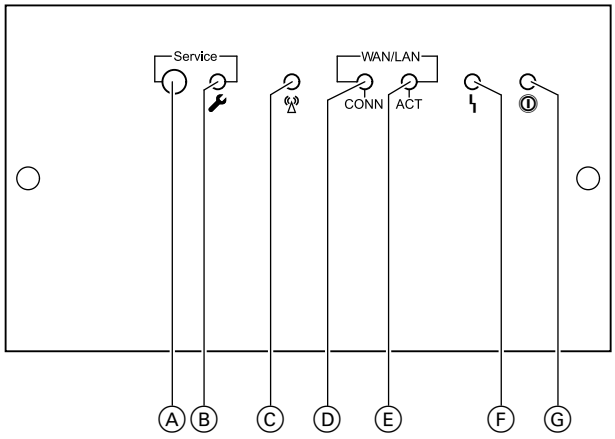
For pack with Vitocom 200 and its standard delivery, see pricelist.

Pos.	Description	Part no.
Ⓐ	**Vitocom 200, type GP1, for wall mounting:** – Integral GPRS modem – Integral Vitodata 100 user interface – SIM card – Power cable with plug, 2 m long ***Note*** *– The SIM card is not a Viessmann product. A contract for the SIM card is concluded on site directly with the mobile phone provider. For information regarding terms of contract, see www.viessmann.de/vitocom-200-GP/* *– The SIM card must be activated prior to commissioning*	Z005 390
Ⓑ	Aerial with 3 m cable, magnetic foot and adhesive pad	
Ⓒ	LON connecting cable, 7 m long	
	Control units supported	
Ⓓ	Boiler control units (see table on page 63)	As per Viessmann pricelist
Ⓔ	Heating circuit or cascade control units (see table on page 63)	As per Viessmann pricelist

Pos.	Description	Part no.
	Control unit accessories	
Ⓕ	LON communication module for: – Vitotronic 200-H – Vitotronic 100, type GC1B – Vitotronic 200, type GW1B, KO1B, KO2B, WO1B, FO1 – Vitotronic 300, type GW2B	7172 173
	LON communication module for the Vitotronic 200, type HO1B, KW6B	7179 113
	LON communication module for: – Vitotronic 200, type WO1B (for the lead heat pump in a cascade controlled via LON) – Vitotronic 300-K, type MW2B (for the Vitotronic 300-K, type MW1B, integrated)	7172 174
	LON connection accessories (e.g. connecting cables, couplings, sockets etc.), see page 64	

4.4 Specification

Display and operating elements

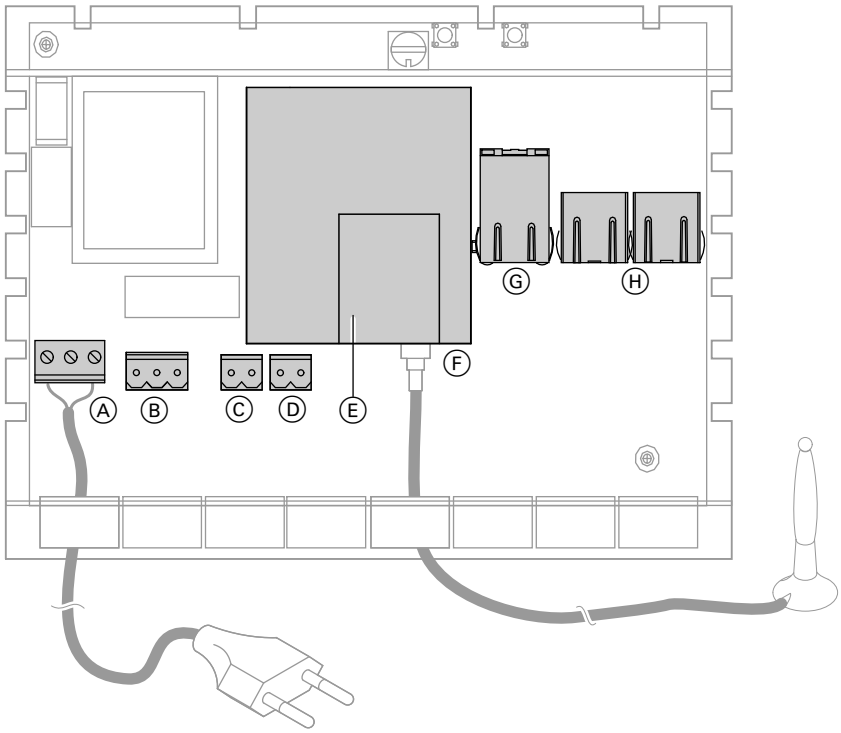


Ⓐ Service key
for maintenance work
Ⓑ Display "Service active"
Ⓒ Field strength status indicator
Ⓓ Modem status indicator, connection
Ⓔ Modem status indicator, communication
Ⓕ Fault display "ϟ"
Ⓖ ON indicator "⏻"

Specification

Rated voltage	230 V~
Rated frequency	50 Hz
Rated current	500 mA
Power consumption	5.5 W
Safety category	II to DIN EN 61140
IP rating	IP 20 to EN 60529; ensure through design/installation
Function	Type 1B To EN 60730-1
Permiss. ambient temperature	
– During operation	0 to 50 °C Installation in living spaces or boiler rooms (standard ambient conditions)
– During storage and transport	–20 to 85 °C

TeleControl — Vitocom 200 (cont.)



4

Ⓐ Power supply 230 V/50 Hz
Ⓑ Digital output DA1:
Floating relay contact,
3-pole, changeover contact, max. 2 A, 230 V~/30 V–

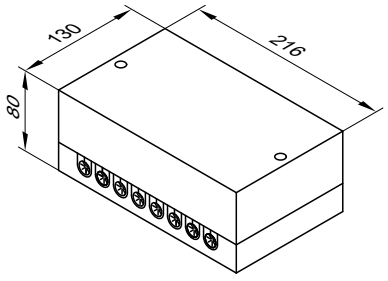
Contact allocation:
01 Contact open when idle (N/O)
02 Common contact (COM)
03 Contact closed when idle (N/C)

Ⓒ Digital input DE1:
For floating contact,
2-pole, max. breaking capacity of external contact 24 V–, 7 mA

Ⓓ Digital input DE2:
For floating contact,
2-pole, max. breaking capacity of external contact 24 V–, 7 mA
Ⓔ Tray for SIM card
Ⓕ Aerial connection
Ⓖ LAN.
Not available
Ⓗ ViLON (Viessmann LON).
LON connections FTT 10-A (2 x RJ45) for connection to the control unit

Note
The Viessmann LON is designed for the "Line" BUS topology with a terminator at both ends (accessories). For further information regarding free wiring with a central terminator (BUS terminator), see the "Viessmann LON manual" at ***www.viessmann.de/lon****.*

Dimensions



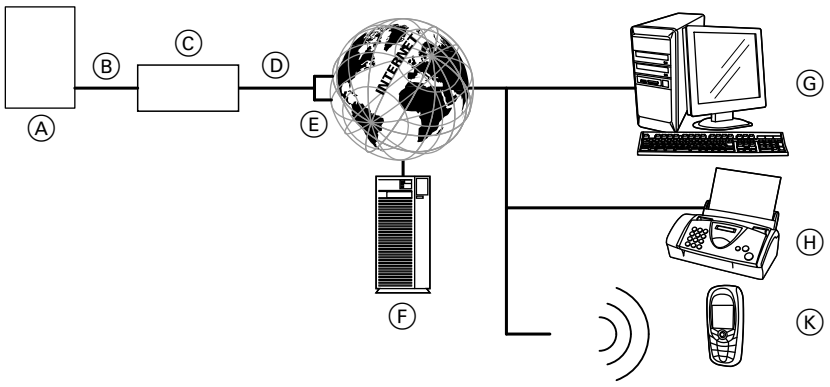
Note the maximum cable lengths when selecting the installation location as well as the quality of the mobile phone reception.

5.1 Vitocom 300, type FA5 and FI2, with Vitodata 300 user interface

Application

For remote monitoring, telecontrol and remote setup of Viessmann heating systems with Vitotronic control units via the following telephone networks:
Type FA5: Analogue telephone network.
Type FI2: Digital telephone network (ISDN).

For remote monitoring of on-site components and third party systems via telephone networks.



Ⓐ Boiler with control unit (see table on page 63).
Ⓑ LON connecting cable
Ⓒ Vitocom 300
Ⓓ Telephone network
Ⓔ Internet access via internet service provider
Ⓕ Internet/Vitodata 300 internet server, login at www.vitodata.com
Ⓖ Control device PC/laptop:
- Access to the Vitodata 300 user interface
- Receiving messages via email

Ⓗ Fax machine for receiving messages
Ⓚ Mobile phone for receiving SMS

Remote monitoring, telecontrol and remote setup

The Vitodata 300 user interface enables access to all control unit parameters:
- Adjusting the set values, and heating curve slope and level
- Setting the heating program, holiday program and switching times
- Scanning operating conditions and temperatures
- Remote setup of the control parameters via coding addresses
- An integral datalogger allows system data to be recorded, that can be evaluated and archived on the Vitodata 300 server

If the heating system develops a fault, e.g. on sensors or the burner, this will be recognised by the control unit and transferred to the Vitocom 300 via LON. This transmits the message via the Vitodata 300 to the configured SMS, email or fax recipients. Furthermore, additional appliances (see chapter "TeleControl – Sample applications") and third party systems (monitoring limits via inputs and outputs) can be monitored.

Message contents
- System address
- Fault type, fault code
- Timing
- Additional information

With extension module with M BUS interface:
Recording of energy consumption through integration of M BUS heat meters.

Information regarding the Vitocom 300, type FA5
It is possible to send emergency SMS and fax messages.

On-site components can be hooked up in conjunction with the standard module

The standard module of the Vitocom 300 provides the following connections for hooking up on-site components:
- 8 digital inputs DE1 to DE8
- 1 digital output DA1
- 2 analogue inputs AE1 and AE2

Note
For detailed information see chapter "Standard module specification".

Digital inputs DE1 to DE8
Using these inputs, on-site fault messages can be hooked up via floating contacts. The inputs are monitored by the Vitocom 300. Input signals are relayed by the Vitocom 300 as messages.

The inputs must be programmed via the Vitodata 300 user interface to "Switch closed" (alarm N/O) or "Switch open" (alarm N/C). It is possible to scan the status of inputs via the control device (PC/laptop with internet access).

Example:
Fault message from refrigeration, lifting and ventilation systems and central fault messages from a control panel.

Digital input DE1
With the Vitodata 300 user interface, this input can be configured as "Power failure detection" in conjunction with an uninterrupted power supply module (UPS, accessory). Should the power supply fail, the UPS places the message "Mains failure" on digital input DE1.

The Vitocom 300 transmits this message to the Vitodata 300, which in turn relays it to the configured message recipients or services.

Digital output DA1
On-site components can be hooked up via this output. The output can also be configured as a central fault message output. In other words, external signal transducers can be switched via this output.

Analogue inputs AE1 and AE2
Viessmann sensors of the type Ni500 can be connected to these inputs, subject to the required temperature measurement to be taken.

With the Vitodata 300 user interface, the analogue inputs can be configured and the values scanned. Limits can be monitored.

Example:
Hooking up temperature sensors, e.g. return temperature sensor, flow temperature sensor as contact or immersion temperature sensor.
Part no., see page 36.

RS485 interface
Not assigned.

On-site components can be hooked up in conjunction with the extension modules (accessories)

Each extension module of the Vitocom 300 provides the following connections for hooking up on-site components:
- 10 digital inputs DE1 to DE10
- 2 digital outputs DA1 and DA2
- 7 analogue inputs AE1 to AE7
- 1 M BUS interface for connecting heat meters

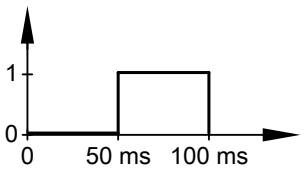
Note
For detailed information see chapter "Extension module".

Digital inputs DE1 to DE8
Using these inputs, on-site fault messages can be hooked up via floating contacts. The inputs are monitored by the Vitocom 300. Input signals are relayed by the Vitocom 300 as messages.
The message must be programmed via the Vitodata 300 user interface to "Switch closed" (alarm N/O) or "Switch open" (alarm N/C). It is possible to scan the status of inputs via the control device (PC/laptop with internet access).

Example:
Fault message from refrigeration, lifting and ventilation systems and central fault messages from a control panel.

Digital inputs DE1 and DE2
With the Vitodata 300, these inputs can be configured as pulse counter inputs. The Vitocom 300 adds up the pulses determined via the floating contact.
Up to 10 Hz (pulse width > 50 ms).

Example:
Heat meter and flow meter for oil consumption.



Digital inputs DE9 and DE10
To hook-up on-site fault messages with 230 V~ (see chapter "TeleControl — Sample applications").
We recommend the on-site reduction of the extremely high sensitivity of the inputs by means of a resistor of at least 100 kΩ/1 W switched in parallel.

Digital outputs DA1 and DA2
On-site components, which can be configured with the Vitodata 300, can be switched via these outputs.

Analogue inputs AE1 to AE7
With the Vitodata 300, these inputs can be configured and the values scanned. Limits can be monitored.
For appliances that can be connected, see from page 59 or the Viessmann pricelist.

Example:
Checking the heating system pressure via pressure transducers.

System requirements

Heating system:
- The Vitocom 300 can be used for **up to 5** single or multi boiler systems (incl. third party systems) with or without heating circuits downstream
- All control units are connected to the Vitocom 300 via LON (for an overview of connectable control units, see page 63)
- The max. number of devices (LON subscribers) comprising boiler circuit, heating circuit and cascade control units is 30

Telephone network with the Vitocom 300, type FA5:
- Activated analogue telephone connection or activated analogue extension system that can be dialled directly
- Where a telephone extension system is used, the following must be configured correctly:
  – Direct outward dialling
  – Extension service type

Telephone network for the Vitocom 300, type FI2:
- Activated ISDN telephone connection or activated ISDN extension system that can be dialled directly
- Where a telephone extension system is used, the following must be configured correctly:
  – Direct outward dialling
  – Extension service type
  – Assignment of the MSN (Multiple Subscriber Number) to this extension

Internet access:
- Activation of the telephone number of the internet service provider

Control device (PC or laptop):
- Installed internet browser
  (Microsoft Internet Explorer Version 5.5 or higher
  or
  Mozilla Firefox Version 1.5 or higher)
  with existing internet connection
- Java Runtime Environment 1.4

TeleControl — Vitocom 300 (cont.)

Message path:
- PC/laptop for receiving email
- Mobile phone for receiving SMS
- Fax machine for receiving messages

Configuration

The Vitocom 300 is configured with the Vitodata 300.
The Vitocom 300 is connected to the control unit via LON. For the LON, the Vitocom 300 requires no configuration.

Note
Programmed internet service provider in the delivered condition:
- *Name: MSN*
  Telephone number: 0192658
  User: MSN
  Password: MSN
- *Name: Arcor*
  Telephone number: 0192070
  User name: arcor
  Password: internet

Benefits

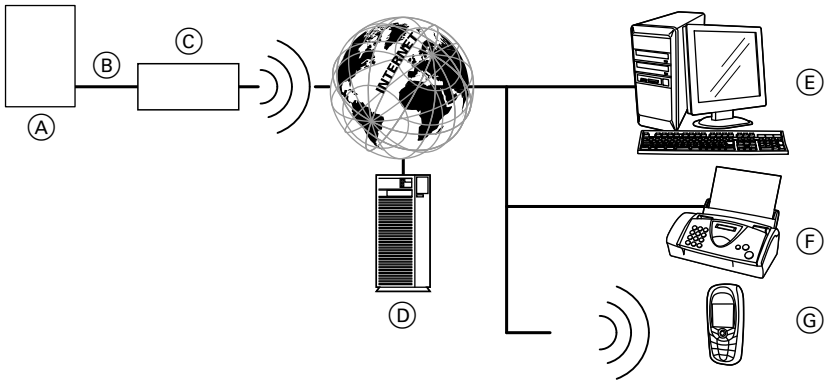
- Powerful communication system for commercial users
- Low operating costs through internet connection and packet mode operation via mobile network
- System monitoring
- Comprehensive access to all controller data reduces time and effort during service work
- All messages to a PC or a mobile phone
- Recording trends via datalogger
- Optimisation of the heating system
- Monitoring heating systems, even third party systems, via additional connections (see chapter "TeleControl — Sample applications")
- Additional connection of heat meters via M BUS interface in the extension module (accessory)

5.2 Vitocom 300, type GP2, with Vitodata 300 user interface

Application

For remote monitoring, telecontrol and remote setup of Viessmann heating systems with Vitotronic control units via mobile networks with packet mode operation.

For remote monitoring of on-site components and third party systems via mobile networks.



Ⓐ Boiler with control unit (see table on page 63).
Ⓑ LON connecting cable
Ⓒ Vitocom 300
Ⓓ Internet/Vitodata 300 internet server, login at www.vitodata.com
Ⓔ Control device PC/laptop:
- Access to the Vitodata 300 user interface via internet browser
- Receiving messages via email

Ⓕ Fax machine for receiving messages
Ⓖ Mobile phone for receiving SMS

Remote monitoring, telecontrol and remote setup

The Vitodata 300 user interface provides access to all control unit parameters:
- Setting set values, heating curve slope and level
- Setting the operating program, holiday program and switching times
- Scanning operating conditions and temperatures
- Remote setup of the control parameters via coding addresses
- An integral datalogger allows the recording of system data that can be evaluated and archived on the Vitodata 300 server

If the heating system develops a fault, e.g. on sensors or the burner, this will be recognised by the control unit and transferred to the Vitocom 300 via LON. This transmits the message via the Vitodata 300 to the configured SMS, email or fax recipients. Additional appliances (see chapter "TeleControl — Sample applications") and third party systems (monitoring limits via inputs and outputs) can also be monitored.

Message contents:
- System address
- Fault type, fault code
- Time
- Additional Information

With extension module with M BUS interface:
Recording of energy consumption through integration of M BUS heat meters.

Note
It is possible to send an emergency SMS.

Hooking up auxiliary functions in conjunction with the standard module

See page 25.

Hooking up auxiliary functions in conjunction with the extension modules (accessories)

See page 26.

System requirements

Heating system:
- The Vitocom 300 can be used for **up to 5** single or multi boiler systems (incl. third party systems) with or without heating circuits downstream
- All control units are connected to the Vitocom 300 via LON (for an overview of connectable control units, see page 63)
- The max. number of devices (LON subscribers) comprising boiler circuit, heating circuit and cascade control units is 30

Mobile network:
- Check for adequate radio signal strength from the D2 mobile network at the installation location for the Vitocom 300, using a mobile phone or demo case if necessary
- Apply to activate the D2 SIM card **prior to** commissioning

5414 671 GB

TeleControl — Vitocom 300 (cont.)

Control device (PC or laptop):
- Installed internet browser
  (Microsoft Internet Explorer Version 5.5 or higher
  or
  Mozilla Firefox Version 1.5 or higher)
  with existing internet connection
- Java Runtime Environment 1.4

Message path:
- PC/laptop for receiving email
- Mobile phone for receiving SMS
- Fax machine for receiving messages

Configuration

The Vitocom 300 is configured with the Vitodata 300.

The Vitocom 300 is connected to the control unit via LON. For the LON, the Vitocom 300 requires no configuration.

Benefits

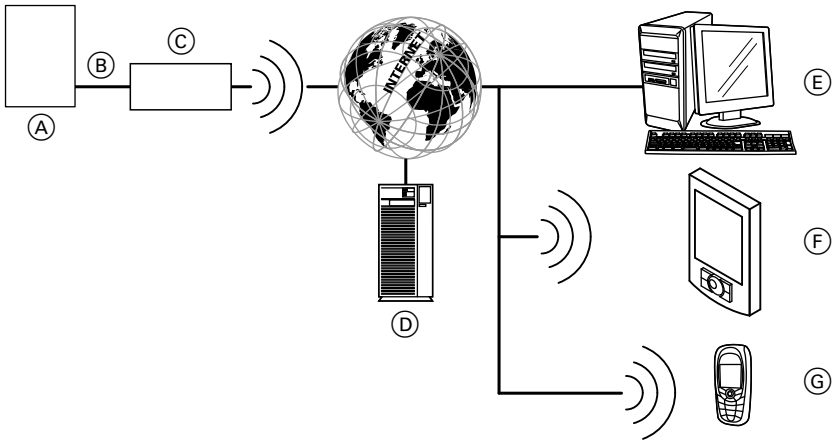
- Powerful communication system for commercial users
- Low operating costs through internet connection and packet mode operation via mobile network
- System monitoring
- Comprehensive access to all controller data reduces time and effort during service work
- All messages to a PC or a mobile phone
- Recording trends via datalogger
- Optimisation of the heating system
- Monitoring heating systems, even third party systems, via additional connections (see chapter "TeleControl — Sample applications")
- Additional connection of heat meters via M BUS interface in the extension module (accessory)

5.3 Vitocom 300, type GP2, with Vitodata 100 user interface

Application

For remote monitoring and telecontrol of Viessmann heating systems with Vitotronic control units via mobile phones with packet mode operation.

For remote monitoring of on-site components and third party systems via mobile networks.



Ⓐ Boiler with control unit (see table on page 63).
Ⓑ LON connecting cable
Ⓒ Vitocom 300
Ⓓ Internet/Vitodata 100 internet server, login at www.vitodata100.com
Ⓔ Control device PC/laptop:
- Access to the Vitodata 100 user interface via internet browser
- Receiving messages via email

Ⓕ Smartphone/PDA for receiving email and SMS
Ⓖ Mobile phone for receiving SMS

Remote monitoring and telecontrol

The Vitodata 100 user interface enables a wide range of heating management functions. Users can access the following parameters of the control units:
- Setting set values, heating curve slope and level
- Setting the heating program, holiday program and switching times
- Scanning operating conditions and temperatures

Should the heating system develop a fault, for example on a sensor or on the burner, this is recognised by the control unit and transmitted via the LON to the Vitocom. This in turn transmits the message to the Vitodata 100, which passes it on to the configured message targets as a SMS or an email.

Note
*The Vitodata 300 user interface is required in order to use **all** the Vitocom 300 functions (see chapter "Vitocom 300, type GP2, with Vitodata 300 user interface").*

In addition, further appliances can also be monitored (see chapter "TeleControl – sample applications").

Message contents
- System address
- Fault type, fault code
- Time
- Additional information

With the chargeable Vitodata 100 fault management, messages can also be passed on via SMS and FAX.

Hooking up on-site components

The standard module of the Vitocom 300 provides the following connections for hooking up on-site components:
- 2 digital inputs DE1 and DE2
- 1 digital output DA1

Note
For detailed information see chapter "Standard module specification".

Digital inputs DE1 and DE2
Using these inputs, on-site fault messages can be hooked up as low voltage signals. The inputs are monitored by the Vitocom 300. Input signals are relayed by the Vitocom 300 as messages.

Example:
Fault message from refrigeration, lifting and ventilation systems and central fault messages from a control panel.

Digital output DA1
On-site components can be hooked up via this output. The output can also be configured as a central fault message output. In other words, external signal transducers can be switched via this output.

System requirements

Heating system:
- The Vitocom 300 can be used for **up to 5** single or multi boiler systems (incl. third party systems) with or without heating circuits downstream
- All control units are connected to the Vitocom 300 via LON (for an overview of connectable control units, see page 63)
- The max. number of devices (LON subscribers) comprising boiler circuit, heating circuit and cascade control units is 30

Mobile network:
- Check for an adequate GPRS radio signal from the D2 mobile network at the installation location for the Vitocom 300, using a mobile phone or demo case if necessary
- Apply to activate the SIM card **prior to** commissioning

Control device:

For operation with a PC or laptop:
- Installed internet browser (Microsoft Internet Explorer Version 7.0 or higher) with existing internet connection
- Java Script

Message path:
- PC/laptop or smartphone for receiving email
- Mobile phone for receiving SMS

Configuration

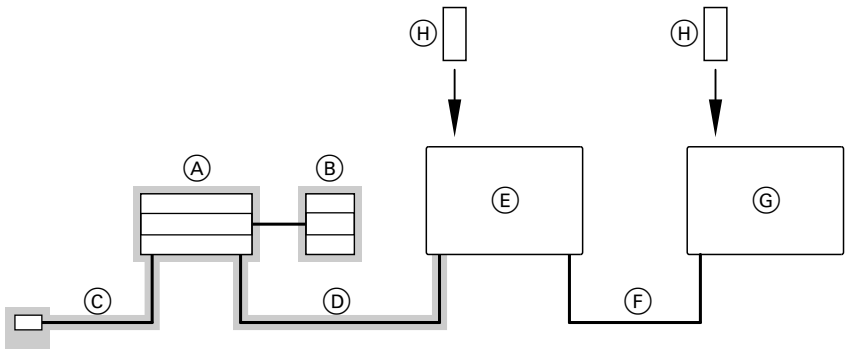
The Vitocom 300 is configured with the Vitodata 100. The pages for the Vitodata 100 user interface are created automatically during commissioning.

The Vitocom 300 is connected to the control unit via LON. For the LON, the Vitocom 300 requires no configuration.

Benefits

- For use in heating systems in commercial buildings
- Affordable and easy operation with a PC
- All messages to a PC or mobile phone
- Additional connections (2 digital inputs) for monitoring functions (see chapter "TeleControl — Sample applications") and 1 switching output (digital output)

5.4 Standard delivery and accessories



= standard delivery

For pack with Vitocom 300 and its standard delivery, see pricelist.

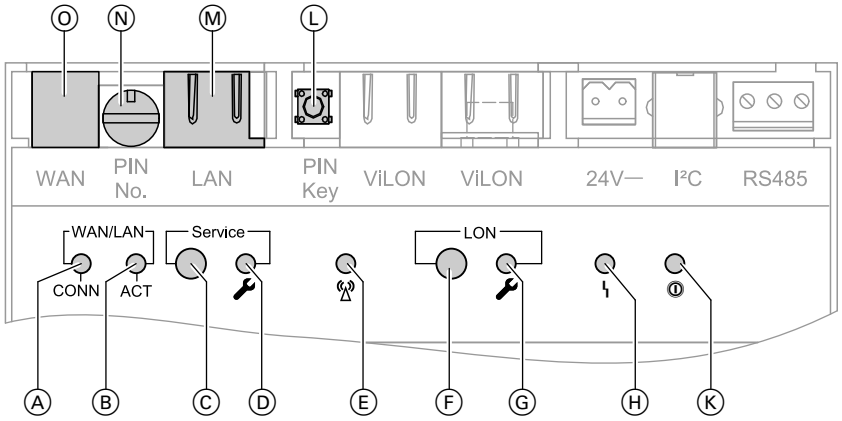
Pos.	Description	Part no.
	Vitocom 300, type FA5	Z005 391
Ⓐ	Standard module with integral analogue modem	
Ⓑ	Power supply unit	
Ⓒ	Connecting cable with plug for telephone socket (TAE 6 N), 2 m long	
Ⓓ	LON connecting cable, 7 m long	
	Vitocom 300, type FI2	Z005 392
Ⓐ	Standard module with integral ISDN modem	
Ⓑ	Power supply unit	
Ⓒ	ISDN connecting cable (RJ45), 3 m long	
Ⓓ	LON connecting cable, 7 m long	

TeleControl — Vitocom 300 (cont.)

Pos.	Description	Part no.
	Vitocom 300, type GP2	Z005 394
Ⓐ	Standard module with integral GPRS modem, integral Vitodata 100 user interface and SIM card ***Note*** – *The SIM card is not a Viessmann product. A contract for the SIM card is concluded on site directly with the mobile phone provider. For information on terms of contract, see www.viessmann.de/vitocom-300-GP/* – *The SIM card must be activated prior to commissioning*	
Ⓑ	Power supply unit	
Ⓒ	Aerial with 3 m cable, magnetic foot and adhesive pad	
Ⓓ	LON connecting cable, 7 m long	
	Control units supported	
Ⓔ	Boiler control unit (see table on page 63)	As per Viessmann pricelist
Ⓖ	Heating circuit or cascade control unit (see table on page 63)	
Ⓗ	For LON communication module see chapter "Accessories overview" on page 36	
	For **accessories** see chapter "Accessories overview" on page 36	
Ⓕ	LON connection accessories (e.g. connecting cables, couplings, sockets etc.), see page 64	

5.5 Standard module specification

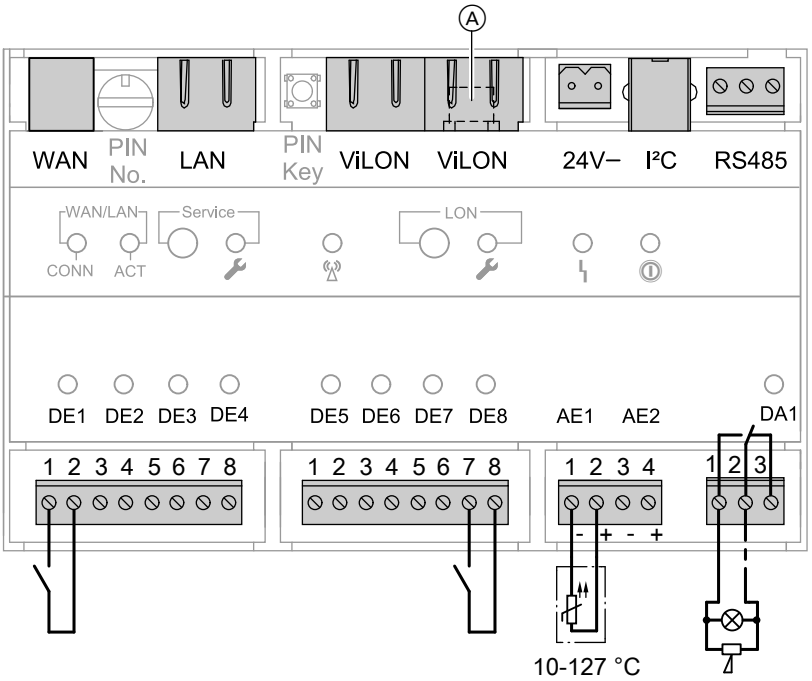
Display and operating elements



Ⓐ Connection status indicator
Ⓑ Communication status indicator
Ⓒ Service key.
For maintenance work
Ⓓ Display "Service active"
Ⓔ **Only for type GP2:**
Field strength signal indicator
Ⓕ LON key.
For connection to a higher control system (e.g. BMS integration)
Ⓖ LON service indicator
Ⓗ Fault display "ϟ"
Ⓚ ON indicator "⏻"
Ⓛ **Only for type GP2:**
"PIN key": Key for confirming the PIN code
Ⓜ Service interface
Ⓝ **Only for type GP2:**
"PIN no.": PIN code rotary selector to input the PIN code
Ⓞ **Only for type FA5, FI2:**
"WAN": Connection to a land line

Specification

Rated voltage	24 V–
Rated current	
– Type FA5	600 mA
– Type FI2	500 mA
– Type GP2	500 mA
Safety category	II to DIN EN 61140
IP rating	IP 20 to EN 60 529; ensure through design/installation
Function	Type 1B to EN 60 730-1
Permiss. ambient temperature	
– During operation	0 to 50 °C Installation in living spaces or boiler rooms (standard ambient conditions)
– During storage and transport	–20 to 85 °C

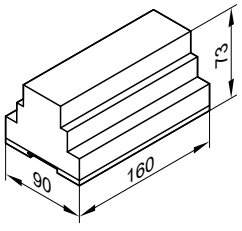


Ⓐ	**Only for type GP2:** FME aerial connector to connect the radio aerial
WAN	**Only for type FA5 and FI2:** ■ Type FA5 Analogue modem connection, TAE6N ■ Type FI2 ISDN modem connection RJ45
LAN	Service interface
ViLON	(Viessmann LON) LON connections FTT 10-A (2 x RJ45) for connection to the control unit
24 V–	Power supply
I²C	Communication and power supply extension module (RJ12)
RS485	Not assigned
DA1	1 digital output: Floating relay contact, 3-pole, changeover contact, max. 2 A, 230 V~/30 V–, with LED indicator
AE1, AE2	2 analogue inputs: To connect Viessmann Ni500 temperature sensors, temperature range from 10 to 127 °C±0.5 K
DE1 - DE8	8 digital inputs: For floating contacts, 2-pole, max. breaking capacity of external contact 24 V–, 7 mA, with LED indicator

Note

The Viessmann LON is designed for the "Line" BUS topology with a terminator at both ends (accessories). For further information regarding free wiring with a central terminator (BUS terminator), see the "Viessmann LON manual" at ***www.viessmann.de/lon****.*

Dimensions



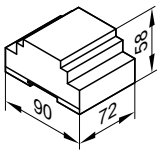
Mounting rail installation TS35 to DIN EN 50 022, 35 x 15 and 35 x 7.5.

5.6 Specification – power supply unit

Specification

Rated voltage	85 to 264 V~
Rated frequency	50/60 Hz
Rated current	0.55 A
Output voltage	24 V–
Output current	1.5 A
Safety category	II to DIN EN 61140
IP rating	IP 20 to EN 60 529; ensure through design/installation
Primary/secondary earth separation	SELV to EN 60 950
Electrical safety	EN 60 335
Permiss. ambient temperature	
– For operation with supply voltage U_E 187 to 264 V	–20 to 55 °C Installation in living spaces or boiler rooms (standard ambient conditions)
– For operation with a supply voltage of 100 to 264 V	–5 to 55 °C Installation in living spaces or boiler rooms (standard ambient conditions)
– During storage and transport	–25 to 85 °C

Dimensions



Mounting rail installation TS35 to DIN EN 50 022, 35 x 15 and 35 x 7.5.

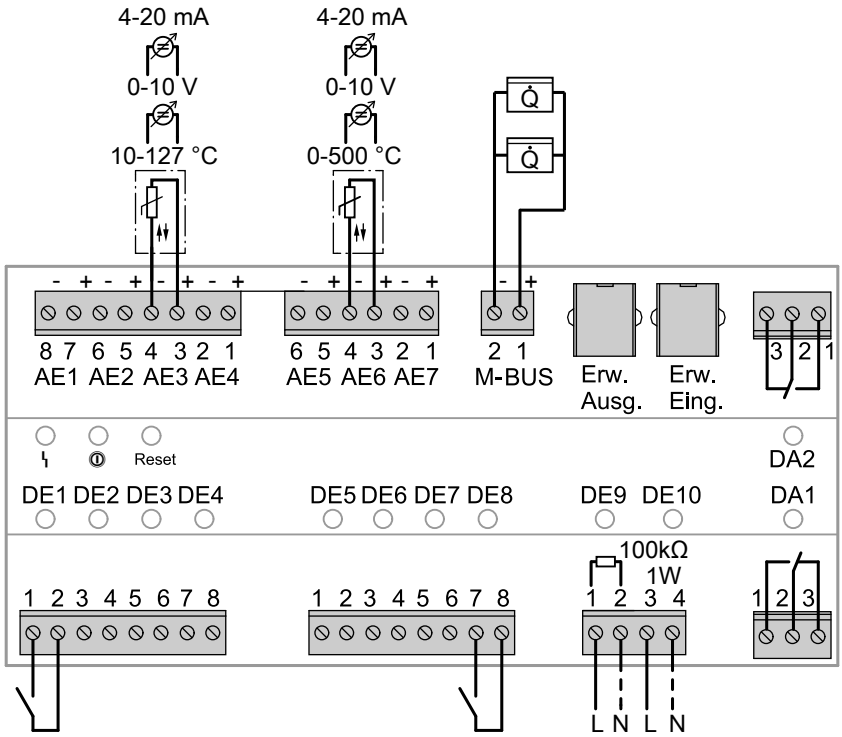
5.7 Accessories

Accessories overview

Vitocom accessories	Part no.	Page
Extension module		
– Without M BUS interface	7143 431	37
– With M BUS interface	7159 767	37
Uninterrupted power supply module (UPS)	7143 432	38
Additional rechargeable battery pack	7143 436	38
Wall mounted casing		
– 2 rows	7143 434	38
– 3 rows	7143 435	39
In conjunction with the Vitocom 300, type GP2		
– Extension cable for the aerial power cable	9567 103	—
– Aerial with high output (3 dB)	9567 102	—
Contact temperature sensor	7182 875	39
Immersion temperature sensor	7450 641	39
Flue gas temperature sensor	7450 630	39
Outside temperature sensor	7820 148	40
Cylinder temperature sensor	7450 633	40
Boiler water temperature sensor	Standard delivery, control unit	40
Room temperature sensor	7408 012	40
Control unit accessories		
LON communication module for: – Vitotronic 200-H – Vitotronic 100, type GC1B – Vitotronic 200, type GW1B, KO1B, KO2B and FO1 – Vitotronic 300, type GW2B – Vitotronic 200, type WO1B and WO1C	7172 173	—
LON communication module for Vitotronic 200, type HO1B, HO1C and KW6B	7179 113	—
LON communication module for: – Vitotronic 200, type WO1B (for the lead heat pump in a cascade via LON) – Vitotronic 300-K, type MW2B (for the Vitotronic 300-K, type MW1B, integrated)	7172 174	—
LON connection accessories (e.g. connecting cables, couplings, sockets etc.)	—	64

Extension module

- Without M BUS interface: **Part no. 7143 431**
- With M BUS interface: **Part no. 7159 767**



AE1 - AE7 7 analogue inputs:
- Viessmann temperature sensor Ni 500 or Pt 500.
  Temperature ranges:
  – AE1 to AE5: 10 to 127 °C±0.5 K
  – AE6 and AE7: 0 to 500 °C±2 K
- On-site DC signal:
  0 to 10 V–
  Internal resistance: 9.6 kΩ
- On-site current signal:
  4 to 20 mA–
  Internal resistance: 220 Ω

M BUS Only with extension module with part no. 7159 767.
For the connection of meters with M BUS communication interface to EN 1434-3

Ext. outp. Communication and power supply for a second extension module.
Use only the connecting cable (RJ12 – RJ12, standard 1:1, 0.5 m long) supplied with the extension module as part of the standard delivery

Ext. inp. Power supply via standard module (I^2C BUS interface).
Use only the connecting cable (RJ12 – RJ12, standard 1:1, 0.5 m long) supplied with the extension module as part of the standard delivery

DA1, DA2 2 digital outputs:
Floating relay contact,
3-pole, changeover contact, max. 2 A, 230 V~/30 V–,
with LED indicator

DE9, DE10 230 V~, with LED indicator

DE1 - DE8 8 digital inputs:
For floating contacts,
2-pole, max. 24 V, 7 mA,
with LED indicator

Information regarding the M BUS interface
Up to 16 heat meters can be hooked up per M BUS interface.
Only heat meters with M BUS slave interface to EN 1434-3.

The M BUS protocols of the various meters can deviate from each other. We only offer a warranty for the transferability of data via the M BUS master for the meters listed in chapter "General accessories" on page 62.

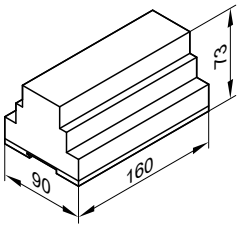
Cable recommendation for M BUS installations

Type	Max. cable length	Cable cross-section	Number of terminal devices	Transfer rate
	m	mm²		Baud
Domestic installation	350	0.5	250	9600
Small WAN installation	1000	0.5	60	2400
Standard	2000	0.8	60	2400
Large WAN installation	3000	1.5	60	2400
Network supplier installation	5000	1.5	16	300
Maximum (linear topology)	10000	1.5	1	300

Specification - extension module

Rated voltage	24 V–
Rated current	250 mA
Safety category	II to DIN EN 61140
IP rating	IP 20 to EN 60 529; ensure through design/installation
Function	Type 1B to EN 60 730-1
Permiss. ambient temperature	
– During operation	0 to 40 ºC Installation in living spaces or boiler rooms (standard ambient conditions)
– During storage and transport	–20 to 65 ºC

Dimensions



Mounting rail installation TS35 to DIN EN 50 022, 35 x 15 and 35 x 7.5.

Uninterrupted power supply module (UPS)

Part no. 7143 432

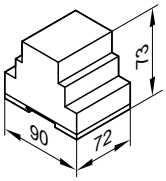
The UPS enables a heating system power failure to be reported. Only use the UPS in conjunction with the original Vitocom 300 power supply unit and the original additional rechargeable battery pack. When operating with the emergency power supply, a shutdown of the Vitocom 300 at the ON/OFF switch and the switching OFF of the mains isolator are also notified as faults.
A buffer time of three hours must be ensured to guarantee the safe relaying of information to all control devices.

Recommendation:
- Without extension module:
  Uninterrupted power supply module is sufficient
- With extension module for partial allocation of the inputs/outputs:
  Uninterrupted power supply module is sufficient

Specification - UPS

Supply voltage	24 V–
Output voltage	24 V–
Charging current	100 mA
Deep discharge protection	< 22 V–
Rechargeable battery pack capacity	700 mAh
Power failure notification	2 x floating changeover contacts
Max. contact breaking capacity	1 A
Permiss. ambient temperature	
– During operation	0 to 40 °C Installation in living spaces or boiler rooms (standard ambient conditions)
– During storage and transport	–20 to 65 °C
Service life	Approx. 3 years

Dimensions



Mounting rail installation TS35 to DIN EN 50 022, 35 x 15 and 35 x 7.5.

Additional rechargeable battery pack

Part no. 7143 436

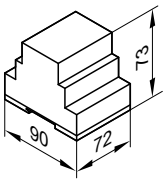
To increase the UPS capacity.

Recommendation:
- Incl. extension modules for complete allocation of the inputs/outputs:
  Uninterrupted power supply module **and** additional rechargeable battery pack

Specification - additional rechargeable battery pack

Rated voltage	24 V–
Rechargeable battery pack capacity	700 mAh
Permiss. ambient temperature	
– During operation	0 to 40 °C Installation in living spaces or boiler rooms (standard ambient conditions)
– During storage and transport	–20 to 65 °C
Service life	Approx. 3 years

Dimensions



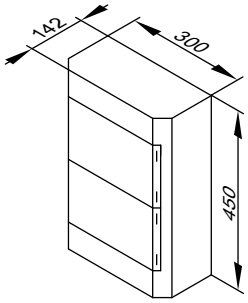
Mounting rail installation TS35 to DIN EN 50 022, 35 x 15 and 35 x 7.5.

Wall mounted casing

The wall mounted casing is designed for the installation of the Vitocom 300 modules if no control panel or distribution board is available.

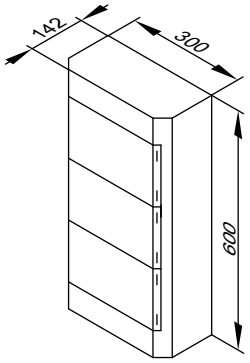
TeleControl — Vitocom 300 (cont.)

2 rows
Part no. 7143 434



- For power supply unit, standard module and 1 extension module
- 28 separate units
- U_i = 400 V
- PE/N terminal 2 x 17-pole, 6/16/25 mm²
- Rail spacing 150 mm
- Elastic entries at the top
- With cable shield, cover and marking strips, additional dual membrane connectors and additional accessories

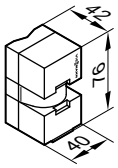
3 rows
Part no. 7143 435



- For power supply unit, standard module and 2 extension modules
- 42 separate units
- U_i = 400 V
- PE/N terminal 2 x 25-pole, 6/16/25 mm²
- Rail spacing 150 mm
- Elastic entries at the top
- With cable shield, cover and marking strips, additional dual membrane connectors and additional accessories

In conjunction with monitoring third party systems

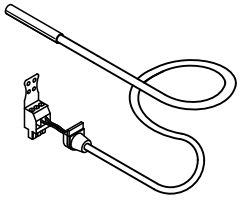
Contact temperature sensor
Part no. 7182 875
For capturing temperatures, e.g. the flow and return temperature.
For wiring on site.
Secured with a tie.



Specification - contact temperature sensor

IP rating	IP 32 to EN 60529; ensure through design/installation
Sensor type	Viessmann Ni 500
Permiss. ambient temperature	
– During operation	0 to 120 °C
– During storage and transport	−20 to 70 °C

Immersion temperature sensor
Part no. 7450 641
For capturing temperatures, e.g. the flow and return temperature.
With R½ x 100 mm sensor well.

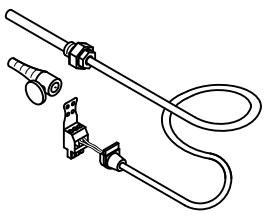


Specification - immersion temperature sensor

Lead length	3.8 m, fully wired
IP rating	IP 32 to EN 60529; ensure through design/installation
Sensor type	Viessmann Ni 500
Permiss. ambient temperature	
– During operation	0 to 90 °C
– During storage and transport	−20 to 70 °C

Flue gas temperature sensor
Part no. 7450 630
For flue gas temperature scanning, flue gas temperature monitoring and service display, if the set temperature has been exceeded.
With threaded cone.
Installation on the flue pipe. The distance from the boiler must be approx. 1.5 times the flue pipe diameter, measured from the boiler back edge to the chimney.

- Condensing boilers with Viessmann balanced flue system:
  Order the balanced flue pipe with connector for the flue gas temperature sensor separately
- For condensing boilers with on-site flue pipe:
  The aperture required for the flue pipe installation must be designed and approved on site. Install the flue gas temperature sensor into a stainless steel sensor well (on-site)



5

TeleControl — Vitocom 300 (cont.)

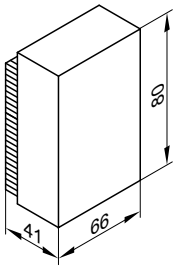
Specification - flue gas temperature sensor

Lead length	3.8 m, fully wired
IP rating	IP 60 to EN 60 529; ensure through design/installation
Sensor type	Viessmann Pt 500
Permissible ambient temperature	
– During operation	0 to 600 °C
– During storage and transport	–20 to 70 °C

Outside temperature sensor
Part no. 7820 148

Installation location:
- North or north-western wall of the building
- 2 to 2.5 m above the ground, for multi storey buildings in the upper half of the second floor

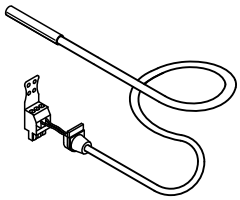
Connection:
- 2-core lead, length up to 35 m with a cross-section of 1.5 mm² copper
- Never route this lead immediately next to 230/400 V cables



Specification - outside temperature sensor

IP rating	IP 43 to EN 60529; ensure through design/installation
Sensor type	Viessmann Ni 500
Permissible ambient temperature during operation, storage and transport	–40 to 70 °C

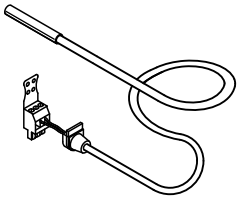
Cylinder temperature sensor
Part no. 7450 633



Specification - cylinder temperature sensor

Lead length	5.8 m, fully wired
IP rating	IP 32 to EN 60 529; ensure through design/installation
Sensor type	Viessmann Pt 500
Permiss. ambient temperature	
– During operation	0 to 90 °C
– During storage and transport	–20 to 70 °C

Boiler water temperature sensor
Standard delivery, control unit



Specification - boiler water temperature sensor

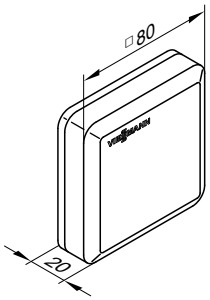
Lead length	1.6 m or 3.7 m, fully wired
IP rating	IP 32 to EN 60 529; ensure through design/installation
Sensor type	Viessmann Pt 500
Permiss. ambient temperature	
– During operation	0 to 130 °C
– During storage and transport	–20 to 70 °C

Standard delivery for boiler and heating circuit control unit or wall mounted boiler control unit.

Room temperature sensor
Part no. 7408 012

Installation in the main living room on an internal wall opposite radiators. Never install inside shelving units, in recesses, or immediately by a door or heat source (e.g. direct sunlight, fireplace, TV set, etc.).

Connection:
- 2-core lead, length max. 30 m with a cross-section of 1.5 mm² copper
- Never route this lead immediately next to 230/400 V cables



Specification - room temperature sensor

Safety category	III
IP rating	IP 30 to EN 60 529 ensure through appropriate design/installation
Sensor type	Viessmann Ni 500
Permiss. ambient temperature	
– During operation	0 to 40 °C
– During storage and transport	–20 to 65 °C

5

5414 671 GB

6.1 Vitotrol app

The Vitotrol app is an internet service for the remote control of up to 3 heating circuits in a heating system with Vitotronic control unit in conjunction with a Vitocom 100, type LAN1. The Vitotrol app accesses the heating system data via the Vitodata server. Data is utilised via mobile terminal devices with Apple iOS 4.3 or 5.0 operating system.

The Vitotrol app can be downloaded from the Apple App Store in the following versions:
- **Vitotrol Showcase app (free of charge):** Offers all control options of the Vitotrol app by way of a simulated heating system
- **Vitotrol app:** Complete operation of the heating system in conjunction with Vitocom 100, type LAN1

For further information on the Vitotrol app, see Apple App Store and www.vitotrol-app.info.

Remote control and scanning

The Vitotrol app enables access to the following control unit parameters:
- Selecting the set temperatures
- Setting the operating program and switching times
- Scanning operating conditions and temperatures

Note
The Vitotrol app enables users to access one system only in real time using a terminal device.

Messages
Any messages currently active at the heating system, e.g. sensor or burner faults, are transmitted to the Vitocom 100 via LON. The Vitocom 100 transmits these messages to the Vitodata server. Subject to the Vitotrol app being enabled on the mobile terminal device, it will regularly check the heating system status and display any messages. No scanning will take place in the delivered condition for as long as the mobile terminal device is being charged (adjustable).

Languages

- German
- English
- Flemish
- Italian
- Polish
- Hungarian

Note
Further languages are currently being prepared. For currently supported languages, see the Apple App Store.

System requirements

Heating system:
For **one** single boiler system with Vitotronic control unit (without downstream heating circuits) in conjunction with Vitocom 100, type LAN1.

Internet:

Vitocom 100 to the Vitodata server
- DSL router with available LAN socket (on-site)
- Internet connection with "Flat rate" (tariff **in**dependent of time and data volume) with high availability, i.e. the Vitocom 100 is permanently connected to the Vitodata server
- Dynamic IP addressing (DHCP) in the network (LAN); have this checked and set up, if required, on site by an IT expert **prior** to commissioning
- Determine the routing and security parameters in the IP network (LAN) so that Port 80 and Port 443 are enabled for direct outward connections; have this checked and set up, if required, on site by an IT expert prior to commissioning

Note
The Vitocom 100 builds a secure internet connection to the Vitodata server during operation. Connecting the Vitocom 100 with any other type of server is not possible.

Mobile terminal device to the Vitodata server
Internet access.

User account on the Vitodata server:
A valid user account on the Vitodata server is required for the operation of the Vitotrol app. The registration for this is made either via the Vitotrol app or via the Vitodata 100 user interface.

Recommended mobile terminal device:
- iPhone 4 and iPhone 4S
- iPad and iPad2
- iPod Touch with retina display

Mobile network:
- For access via mobile network: Adequate radio signal strength for the mobile network where the Vitotrol app is used
- For access via WLAN: Adequate signal strength where the Vitotrol app is used

Message recipients:
- Vitotrol app
- In conjunction with Vitodata 100 user interface:
  - Terminal device (e.g. computer) for receiving emails
  - Mobile phone for receiving SMS (requires chargeable "Vitodata 100 fault management internet service")
  - Fax machine for receiving fax messages (requires chargeable "Vitodata 100 fault management internet service")

Benefits

Mobile use with heating systems in domestic buildings and smaller utility buildings.

- Affordable
- Easy operation via iPhone, iPad or iPod Touch with retina display

TeleControl — Vitotrol app (cont.)

- Message display in plain text
- Communication with Vitocom 100, type LAN1

Standard delivery

Vitotrol app, internet service for the remote control of heating systems.

Sold via Apple App Store.

7.1 Vitodata 100 user interface

Vitodata 100 is a user interface for heating systems. For this, all data is provided by the Vitodata server. The data is accessible via a PC with internet connection.

For detailed information regarding login, terms of use and function, see www.vitodata100.com.

Remote monitoring and telecontrol

The Vitodata 100 user interface enables a wide range of heating management functions. Users can access the following parameters of the control units:
- Setting set values, heating curve slope and level
- Setting the heating program, holiday program and switching times
- Scanning operating conditions and temperatures

Should the heating system develop a fault, for example on a sensor or on the burner, this is recognised by the control unit and transmitted via the LON to the Vitocom. This in turn transmits the message to the Vitodata 100, which passes it on to the configured message targets as a SMS or an email.

In addition, further appliances can also be monitored (see chapter "TeleControl – sample applications").

Message contents
- System address
- Fault type, fault code
- Time
- Additional information

With the chargeable Vitodata 100 fault management, messages can also be passed on via SMS and FAX.

Languages

- German
- English
- French
- Italian
- Dutch
- Polish
- Russian
- Hungarian

System requirements

Control device (PC or laptop):
- CPU: Pentium 4, 530 MHz or higher **or**
  AMD Athlon 64, 3200 MHz
- Working memory (RAM): ≥ 512 MB
- Operating systems:
  Windows 7
  Windows XP
  Windows Vista
- Monitor:
  Minimum resolution 1024 × 768 pixel
- Software:
  Microsoft Internet Explorer Version 7.0 or higher
- Internet access (e.g DSL)

Access rights

To safeguard the individual user's access rights to the system, the system administrator will be entitled to manage users and their access rights. Every user receives a personal password.

Configuration

After online user registration, access details are made available to users.

Benefits

- Communication with the Vitocom 100, type LAN1, Vitocom 200, type GP1 and Vitocom 300, type GP2
- Remote heating system setup
- Message display in plain text
- Automatic transfer of messages to configured recipients
- Access rights for all hooked-up systems can be adjusted individually
- System and user administration

Standard delivery

Use of the Vitodata 100 internet services (Vitodata 100 user interface).

Logging in to heating systems at www.vitodata100.com.

Accessories

Vitodata 100 fault management:

Internet service for transferring messages via SMS and fax.

8.1 Vitodata 300 user interface

The Vitodata 300 is the connector between the heating systems and the user interface. All data is maintained and archived on the internet server Vitodata 300. The data is accessible via a PC with internet connection. If the remote control station has permanent access to the internet (flat rate) and therefore to the Vitodata 300 server, the remote control station can be used similarly to a control centre.
For detailed information regarding login, terms of use and functions, visit www.vitodata.com.

The central roster administration enables a specific transfer of messages via fax, email and SMS.
- Access expansion to several users simultaneously
- Graphic evaluation of the Vitocom 300, type FA5, FI2 and GP2 datalogger
- Graphic illustration of the system data with the aid of several customer-specific system diagrams (jpg, bmp, gif)

Remote monitoring, telecontrol and remote setup

The Vitodata 300 user interface enables access to all control unit parameters:
- Adjusting the set values, and heating curve slope and level
- Setting the heating program, holiday program and switching times
- Scanning operating conditions and temperatures
- Remote setup of the control parameters via coding addresses
- An integral datalogger allows system data to be recorded, that can be evaluated and archived on the Vitodata 300 server

If the heating system develops a fault, e.g. on sensors or the burner, this will be recognised by the control unit and transferred to the Vitocom 300 via LON. This transmits the message via the Vitodata 300 to the configured SMS, email or fax recipients. Furthermore, additional appliances (see chapter "TeleControl – Sample applications") and third party systems (monitoring limits via inputs and outputs) can be monitored.

Message contents
- System address
- Fault type, fault code
- Timing
- Additional information

With extension module with M BUS interface:
Recording of energy consumption through integration of M BUS heat meters.

Information regarding the Vitocom 300, type FA5
It is possible to send emergency SMS and fax messages.

System requirements

Control device (PC or laptop):
- CPU: Pentium 4, 530 MHz or higher **or**
  AMD Athlon 64, 3200 MHz
- Working memory (RAM): ≥ 512 MB
- Operating systems:
  Windows 7
  Windows XP
  Windows Vista
- Monitor:
  Minimum resolution 1024 × 768 pixel
- Software:
  Microsoft Internet Explorer from version 5.5 or Mozilla Firefox from version 1.5
  Java Runtime Environment 1.4
- Internet access: Analogue modem, ISDN or DSL

Access rights

Systems are allocated to an organisational unit (OU) to safeguard individual users' access rights to the systems. One user may be user for several OUs. Only the administrator of an OU is entitled to manage users and their access rights. Every user receives a personal password.

Configuration

Following the online login, users are sent access data via email. This provides access to the Vitodata 300 user interface via the internet browser.

Java Runtime Environment 1.4 is required for the graphic illustration of trend data.

Benefits

- Communication with the Vitocom 200/300
- Remote heating system setup
- Display of messages in plain text and administration of the operating log
- Automatic transfer (SMS, email, fax) of messages in accordance with the roster administration
- Automatic message processing through separate catalogue of measures for each heating system
- Access rights for all hooked-up systems can be adjusted individually
- Quick system overview through graphic system schemes
- System and user administration
- Service roster administration
- Operating time and calendar administration
- Graphic illustration of trend data for rapid system optimisation
- The Vitocom 300, type FA5, FI2 and GP2, enables the evaluation of dataloggers as line diagrams
- Selecting connected M BUS meters

5414 671 GB

TeleControl — Vitodata 300 (cont.)

Standard delivery

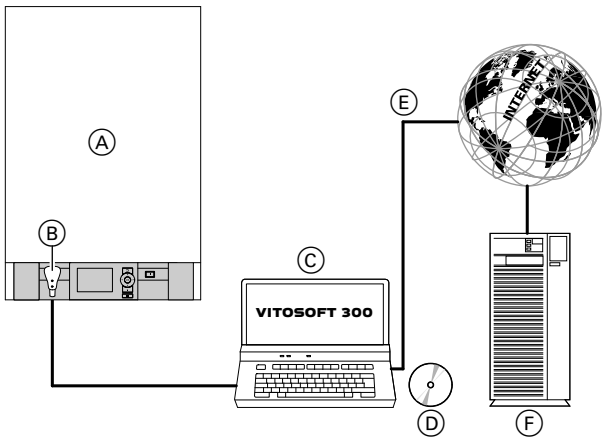
- Use of the Vitodata 300 internet services (Vitodata 300 user interface)

For more detailed information on usage rights and for billing, see www.viessmann.de/vitodata/.

9.1 Vitosoft 300, type SID1

Vitosoft 300, type SID1, is a software tool to support service, commissioning and diagnosis of heating systems. The tool can be used for single and multi boiler systems, with or without heating circuits downstream.

- Floorstanding gas or oil boilers with Vitotronic boiler and heating circuit control units
- Wall mounted and storage combi boilers with Vitotronic control units
- Heat pumps with Vitotronic 200, type WO1B and WO1C
- Solid fuel boilers with Vitotronic 200, type FO1 control units



Ⓐ Boiler with control unit (for an overview of connectable control units, see page 63)
Ⓑ Optolink/USB diagnostic adaptor
Ⓒ Laptop with Vitosoft 300 installation
Ⓓ Vitosoft 300 installation DVD
Ⓔ Internet connection (only for downloading updates)
Ⓕ Vitosoft 300 update server

Service, commissioning and diagnosis

The following tasks can be easily and efficiently carried out with the Vitosoft 300:

- Commissioning heating systems
- Optimising heating systems
- Diagnosing during service calls
- Supporting maintenance tasks
- Hydraulic balancing of a heating circuit without low loss header in conjunction with Vitodens 300-W, Vitodens 333-F and Vitodens 343-F with Vitotronic 200, type HO1C and service case for hydraulic balancing (accessory)

System requirements

Heating system

- Viessmann heat source with Vitotronic control unit
- Heating systems with heating circuit control unit Vitotronic 200-H, type HK1B or HK3B
- Heating systems with Vitocom 200/300 communication interface: Communication only via LON

Control device (PC or laptop) – hardware

- Processor: Intel Core 2 Duo or higher
- Working memory (RAM): > 2 GB
- Hard drive: > 10 GB
- Monitor: Minimum resolution 1024 × 768
- DVD drive for installing the Vitosoft 300 software from the data carrier
- USB interface to connect the Optolink/USB diagnostic adaptor (for connection to the control unit)

Control device (PC or laptop) – software

- Operating system: Windows XP (SP3), Windows Vista (SP2), Windows 7
- Software: Microsoft Internet Explorer Version 7.0 or higher

Update service

- Internet access (DSL or UMTS/HSDPA) for downloading software updates

Note

In order to install the Vitosoft 300 the control device (PC or laptop) must have a DVD drive.

Interface

Viessmann Optolink interface for communication with Viessmann control units.

ServiceControl — Vitosoft 300 (cont.)

Software registration

Before installing Vitosoft 300, it is necessary to register the software online in the Viessmann Portal.
- Login to the Viessmann Portal for trade partners (www.viessmann.com/portal ▸ "Login" ▸ "Start Login") with customer number and postcode or with the access details for the online ordering system (customer number-1/password)
- Open online registration form ("data communication"▸ Vitosoft 300 ▸ "Registering Vitosoft") and complete (keep the order/delivery note no. to hand)
- Download customer-specific licence data and save to the computer on which you wish to install the Vitosoft 300
- The Vitosoft 300 software maintenance contract is concluded via a separate process

For further information about registering Vitosoft 300 online, see www.vitosoft.info.

Installation

Vitosoft 300 is installed from the DVD supplied, which offers user prompts. Additionally required software components (e.g. SQL Server Express, .Net Framework) are automatically installed as well.

Note
Prior to installation ensure that the Microsoft Internet Explorer Version 7.0 or higher is installed on the PC; alternatively install it manually.

Configuration

Once the diagnostic adaptor has been plugged into the Optolink interface, the connection to the control unit is made automatically. After the program has started, the Vitosoft 300 calls up the data stored in the control unit and presents this in the Vitosoft "overview" menu.

Update service

With a valid Vitosoft 300 software maintenance contract, current program updates and new appliance data, such as electronic documentation for Viessmann boilers, can be downloaded via the internet from the Vitosoft 300 update server. For this, we recommend using a broadband internet connection (DSL or UMTS/HSDPA).

Software maintenance contract

Access to the Vitosoft 300 update server is only possible with a valid software maintenance contract. This permits you to download:
- Vitosoft 300 function extensions
- Support for additional appliances (control units and heat sources)
- Further electronic appliance documentation

The charges for the software maintenance contract are for one year with a Vitosoft 300 software pack installed.

Note
Upon purchase of the Vitosoft 300 software pack, the user automatically enters into a software maintenance contract that is free of charge for 2 years.
The annual usage charges become applicable if the contract is extended. The contract can be terminated at any time. For further information, see www.vitosoft.info.

Benefits

- Automatic recognition of the system configuration
- Parameters are compared for rapid recognition of any altered system settings
- System administration for structured archiving of system data
- Extensive diagnostic options with online trend function
- Setting parameters for the entire control unit configuration
- Electronic access to the appliance documentation
- Acceptance report
- Spare part search
- Update service via the internet

9.2 Standard delivery and accessories

See previous diagram.

Pos.	Description	Part no.
Ⓓ	**Vitosoft 300, type SID1** – DVD with Vitosoft 300 software and electronic appliance documentation – Program updates for Vitosoft 300 and for the electronic appliance documentation for a period of 2 years	Z008 373
Ⓑ	**Accessories** Optolink/USB diagnostic adaptor. Connecting cable between the USB connection on the PC/laptop and the Optolink connection on the heat source control unit, approx. 2 m long	7438 374
	Vitosoft 300 software maintenance contract. Use of the update service via Vitosoft 300 update server Ⓕ	See www.vitosoft.info
	Additional components	
Ⓐ	Viessmann heat source with control unit. Boiler and heating circuit control units supported (see table on page 63)	See Viessmann pricelist or installed on-site
Ⓒ	PC or laptop for controlling the Vitosoft 300	On-site
Ⓔ	Internet connection	On-site

10.1 Vitogate 200, type EIB

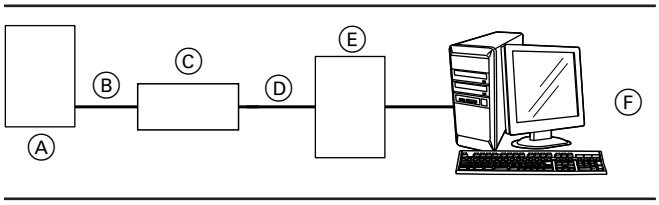
The Vitogate 200, type EIB gateway is designed to hook up Vitotronic control units with integral LON communication module (accessory) to KNX/EIB systems.

The Vitogate 200 is designed for the following heating systems with Vitotronic control unit:
- Single and multi boiler systems with floorstanding boilers
- Wall mounted and storage combi boilers from 2004
- Vitotronic heating circuit control units
- Heat pumps with Vitotronic 200, type WO1B and WO1C
- Pellet boiler with Vitotronic 200, type FO1

For an overview of supported boiler and heating circuit control units, see table on page 63.

The KNX/EIB product database for the Vitogate 200, type EIB, is available for downloading from www.vitogate.info.

Note
To set the parameters for the communication objects of the KNX/EIB system, the EIB product database must be downloaded and imported into the EIB software tool (ETS).



Ⓐ Boiler with a Vitotronic
Ⓑ LON connecting cable
Ⓒ Vitogate 200
Ⓓ EIB connecting cable (on site)
Ⓔ KNX/EIB system
Ⓕ Configuration and visualisation of the KNX/EIB system

The Vitogate 200 offers the following functions:
- Transferring a central fault message
- If an EIB individual room controller (EIB room temperature controller and EIB radiator valve servomotor, constant controller) is connected (on site):
  Optional set value default for standard mode in conjunction with the EIB function module (accessory)
- Remote control of heating systems via suitable visualisation facilities (e.g. switching, changing set values)
- Transmission of up to 34 data points that can be configured (incl. one fault bit and one fault byte).
  The data point list can be downloaded from www.vitogate.info
- Data transfer from the Vitotronic control unit to the Vitogate 200 via Viessmann LON
- Data transfer from the Vitogate 200 to the KNX/EIB system via the KNX/EIB BUS (on-site connecting cable)
- Remote monitoring of heating systems via the on-site KNX/EIB system (e.g. actual values, operating conditions)

Note
The Vitogate 200, type EIB must be connected to the on-site KNX/EIB system by a qualified contractor; this is not part of the standard Viessmann delivery.

System requirements

Heating system:
- For **one** single or multi boiler system, with or without heating circuits downstream
- For all Vitotronic control units that are connected to the Vitogate 200 via LON

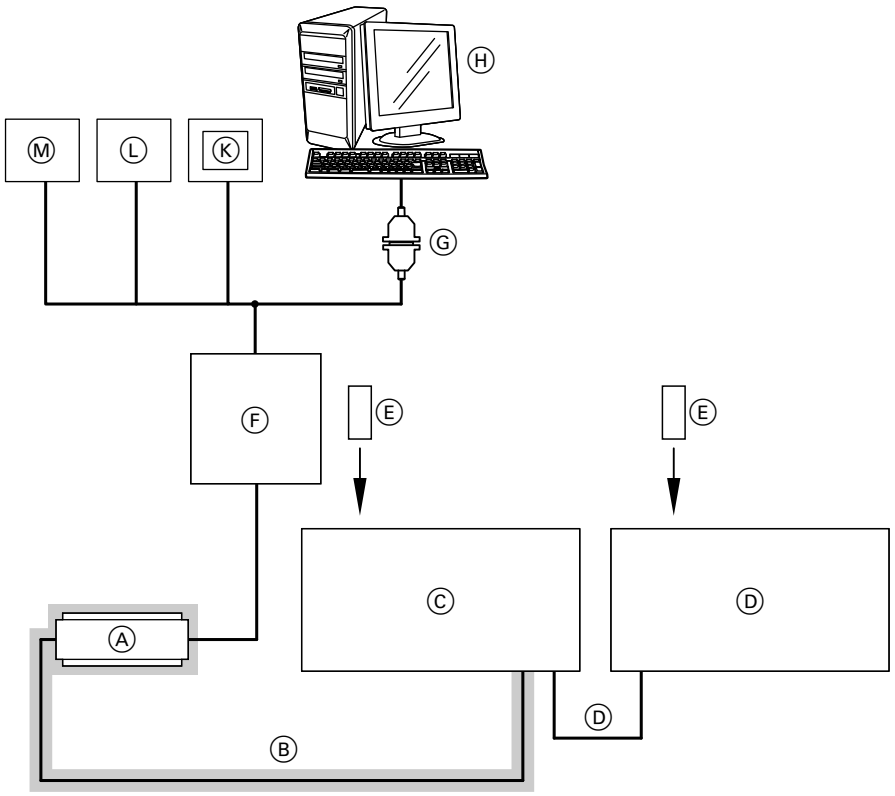
Configuration:
The configurations on the KNX/EIB side of the Vitogate 200 are made with parameter software ETS Version 2 or higher. For this, use the product database from www.vitogate.info.

KNX/EIB system:
The product database provided contains every data point that can be selected for the supported Vitotronic control units. The Vitogate 200, type EIB allows the selection of up to 32 data points. In addition, the Vitogate enables messages to be transmitted to the KNX/EIB system using one error bit and one error byte.

Benefits

- Heating systems and heating control units remain one stand-alone, matched system, the functions of which can be controlled by changing parameters
- Independent of the standard settings in the delivered condition, the available data points can be selectively modified by a contractor using the ETS parameter software (incl. EIB product database)
- Heat demand-dependent control of the flow temperature when using the EIB function module (accessory)

10.2 Standard delivery and accessories



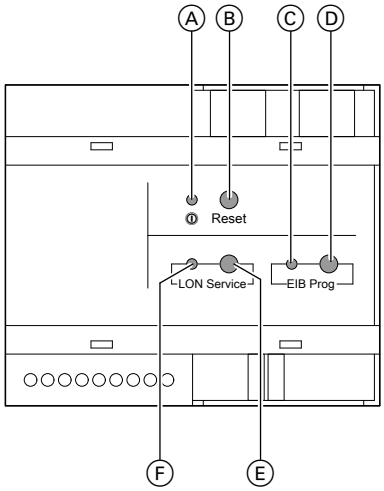
= standard delivery

Pos.	Description	Part no.
Ⓐ	Vitogate 200, type EIB For installation in control panels and commercially available distribution boards.	Z009 466
Ⓑ	LON connecting cable, 70 m long	
	Accessories	
	EIB product database (at www.vitogate.info).	Download
	Wall mounted casing. For installation of the Vitogate 200, if no control panel or standard distribution boards are commercially available	7143 434
Ⓜ	EIB function module. For heat demand-dependent control of the flow temperature ***Note*** *In heating systems with Vitodens, Vitopend and Vitoladens 300-W/333-F, and heating circuits with mixer, these heating circuits must be regulated by a Vitotronic 200-H, type HK1W.*	7450 565
Ⓒ	Vitotronic control unit (see table on page 63)	As per Viessmann pricelist
Ⓓ	LON connection accessories (e.g. connecting cables, couplings, sockets etc.), see page 64	
Ⓔ	LON communication module for: – Vitotronic 200-H – Vitotronic 100, type GC1B – Vitotronic 200, type GW1B, KO1B, KO2B and FO1 – Vitotronic 300, type GW2B – Heat pump control unit Vitotronic 200, type WO1B and WO1C	7172 173
	LON communication module for the Vitotronic 200, type HO1B, HO1C and KW6B	7179 113
	LON communication module for: – Vitotronic 200, type WO1B and WO1C (for the lead heat pump in a cascade via LON) – Vitotronic 300-K, type MW2B (for the Vitotronic 300-K, type MW1B, integrated)	7172 174

Pos.	Description	Part no.
	Additional accessories (on site)	
Ⓕ	EIB radiator valve servomotor, constant controller (on site)	On-site
Ⓖ	Data interface/USB	On-site
Ⓗ	PC with visualisation software	On-site
Ⓚ	EIB display unit	On-site
Ⓛ	EIB room temperature controller	On-site

10.3 Specification

Display and operating elements

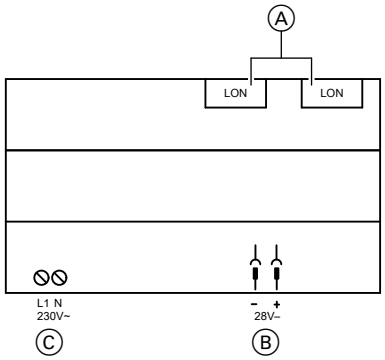


Ⓐ ON indicator "⏻"(green)
Ⓑ Reset key (configuration is retained)
Ⓒ Status indicator of the BUS coupler for EIB system (red)
Ⓓ EIB programming key.
For manually linking the Vitogate 200, type EIB into an existing EIB system
Ⓔ LON service key.
For manually linking the Vitogate 200, type EIB into an existing LON system
Ⓕ LON display during subscriber check (yellow-orange)

Specification

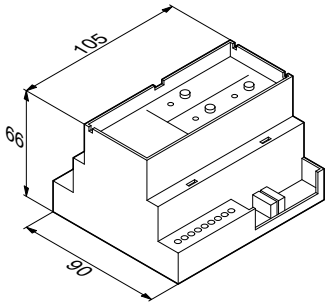
EIB BUS coupler (TP 1) interface

Mains voltage	230 V~
BUS voltage	29 V–
Power consumption	6 W
Safety category	II to DIN EN 61140
IP rating	IP 20 to EN 60529; ensure through design/installation
Function	Type 1B to EN 60730-1
Permiss. ambient temperature	
– During operation	0 to 70 °C Installation in living spaces or boiler rooms (standard ambient conditions)
– During storage and transport	–20 to 85 °C
Humidity	Humidity load to EN 60721 ≤ 75 % annual average 95 % 30 days continuous 85 % remaining days occasionally



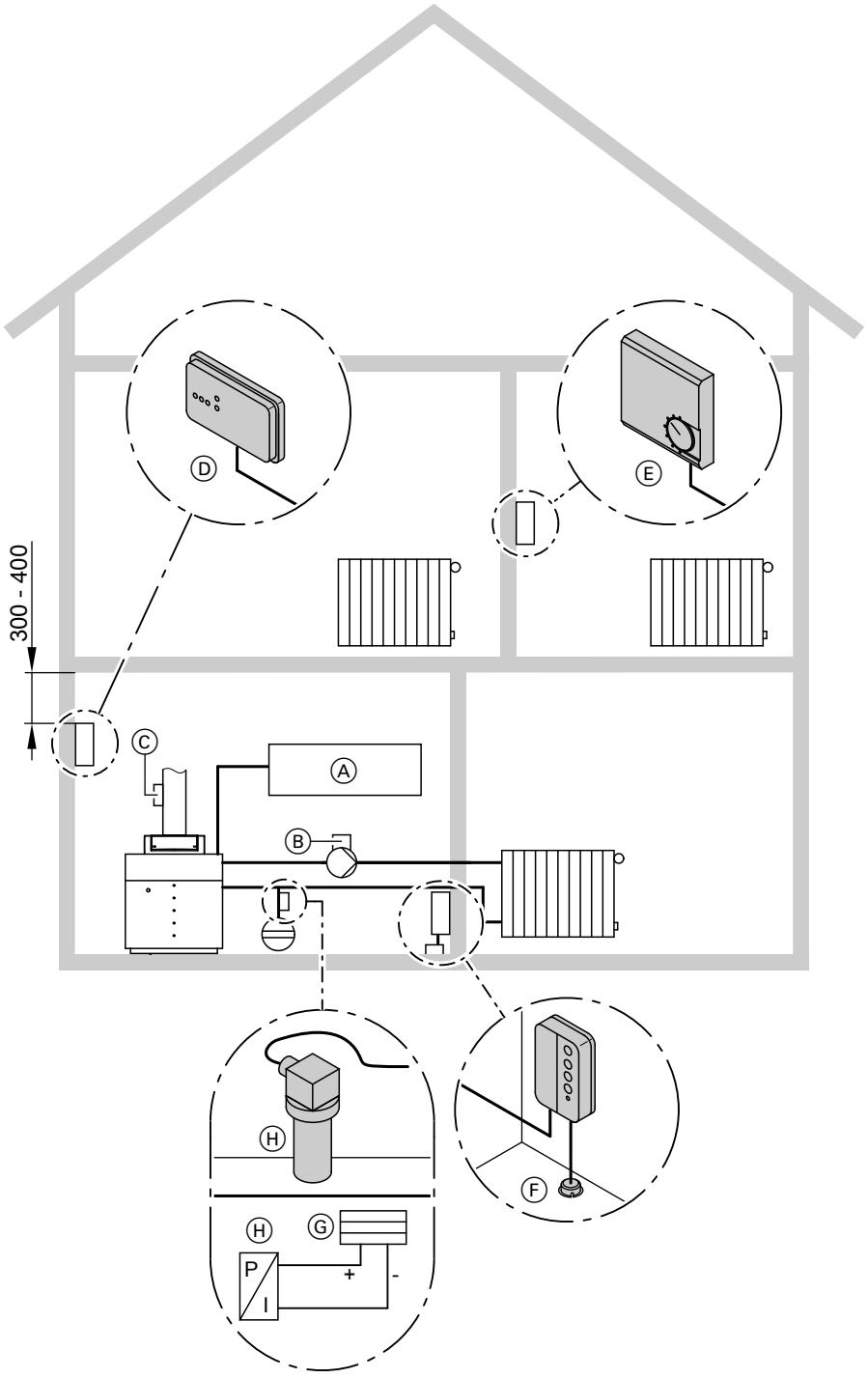
Ⓐ LON connection.
2 pce RJ45 sockets, screened
Ⓑ EIB 28 V– terminal.
2 Wago solder pins (part no. 243-131) for fitting the Wago EIB terminal
Ⓒ Power supply 230 V~.
2-pole terminal.
Type: Phoenix MKDSP3/2-5,08

Dimensions



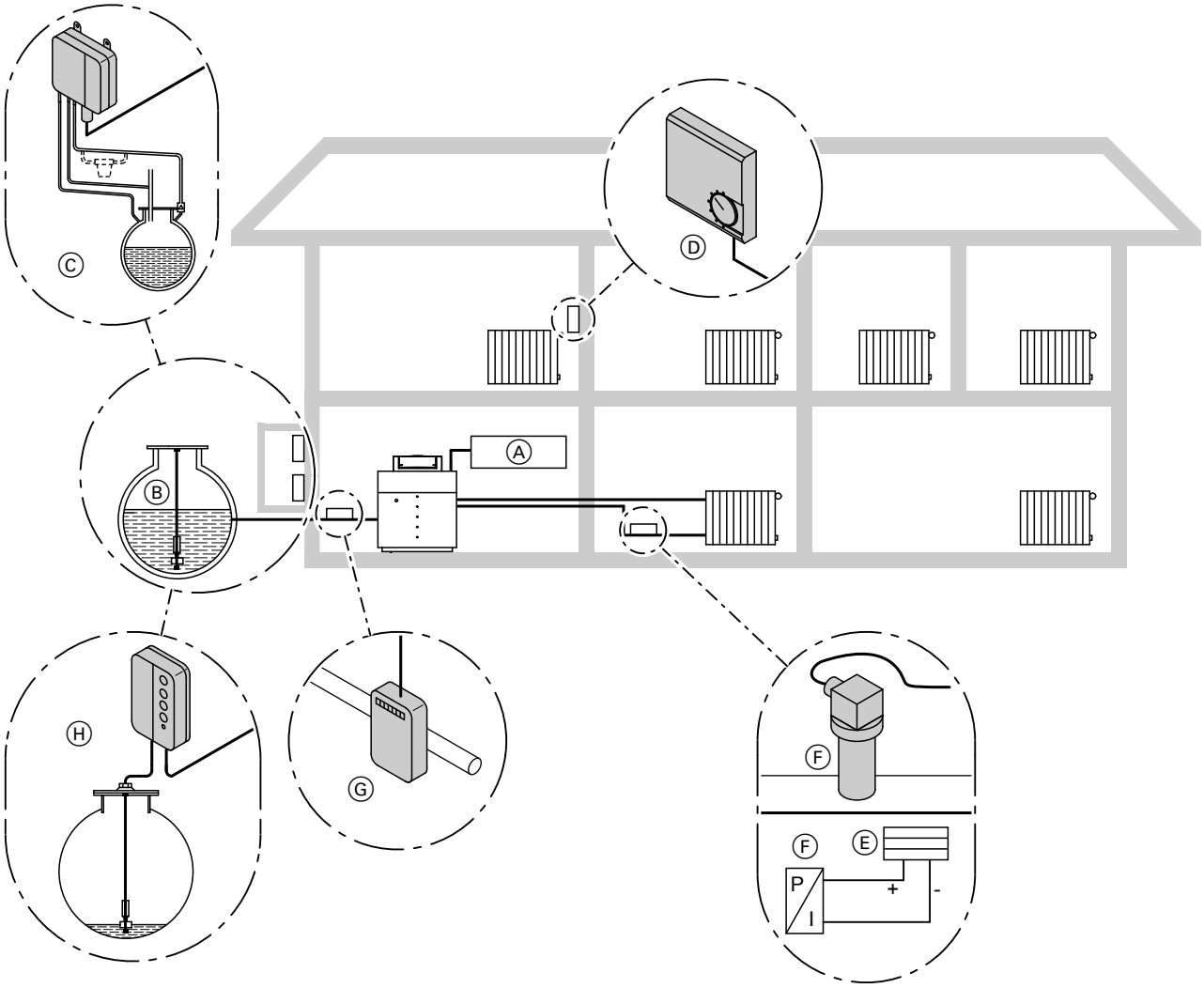
Mounting rail installation TS35 to DIN EN 50 022, 35 x 15 and 35 x 7.5.

11.1 Residential premises (e.g. detached house, two-family home, apartment building, holiday house)



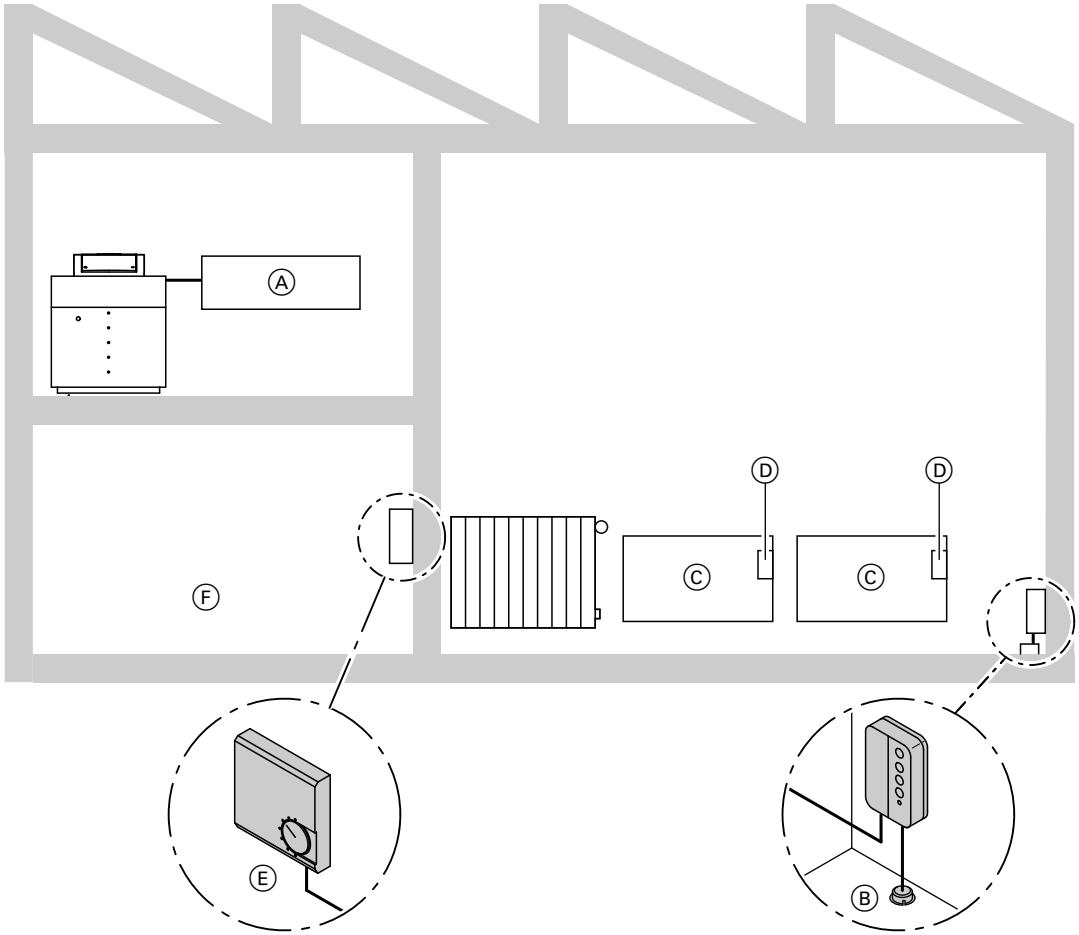
Ⓐ Vitocom 100, type GSM (for one monitoring device only)
or
Vitocom 200, type GP1 (for two monitoring devices only)
or
Vitocom 300, type FA5, FI2, GP2
Ⓑ Circulation pump fault
Ⓒ Flue gas temperature sensor
Ⓓ Gas alarm unit GS 2.1 for methane
Ⓔ Room thermostat
Ⓕ Water alarm unit WWG 1
Ⓖ Extension module Vitocom 300
Ⓗ Pressure transducer DMU 01.
Observe the information on page 61

11.2 Public buildings (e.g. schools, administration buildings)



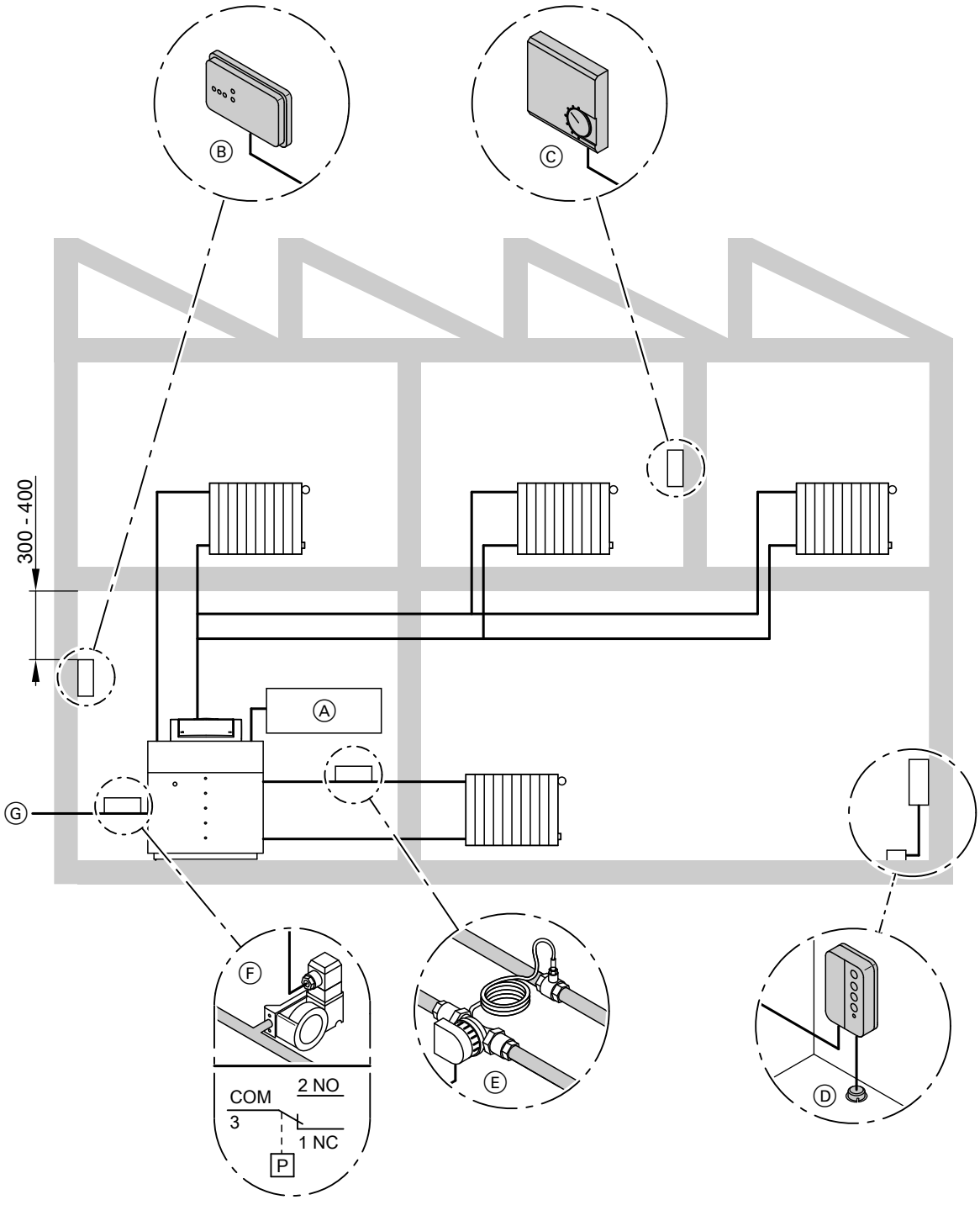
Ⓐ Vitocom 300
Ⓑ Oil or gas tank
Ⓒ Eurovac vacuum leak detector
Ⓓ Room thermostat
Ⓔ Extension module Vitocom 300
Ⓕ Pressure transducer DMU 01.
Observe the information on page 61
Ⓖ Fuel oil meter
Ⓗ Minimum level indicator

11.3 Supermarket



Ⓐ Vitocom 100, type GSM (for one monitoring device only)
or
Vitocom 200, type GP1 (for two monitoring devices only)
or
Vitocom 300, type FA5, FI2, GP2
Ⓑ Water alarm unit WWG 1
Ⓒ Freezer
Ⓓ Water alarm unit WWG 1
Ⓔ Room thermostat
Ⓕ Refrigeration cell

11.4 Commercial buildings (e.g. production facilities)

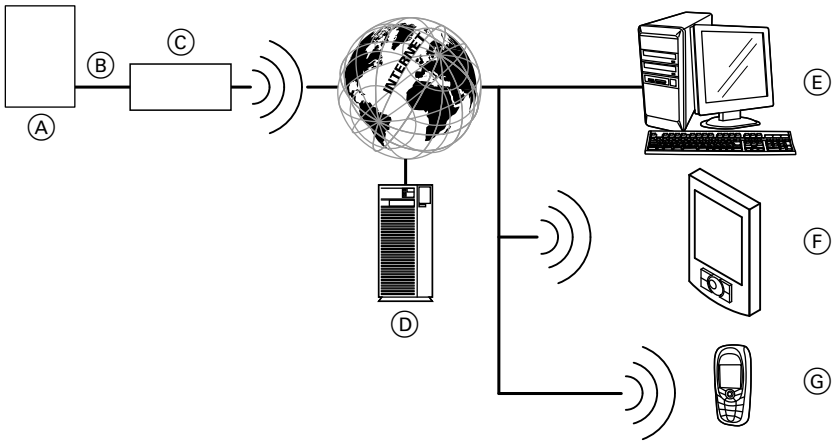


Ⓐ Vitocom 300
Ⓑ Gas alarm unit GS 2.1 for methane
Ⓒ Room thermostat
Ⓓ Water alarm unit WWG 1
Ⓔ Heat meter
Ⓕ Gas pressure switch
Ⓖ Gas connection

11.5 Remote monitoring of heating systems with Vitobloc (CHP module)

Application

For remote monitoring of Viessmann heating systems with Vitobloc Gateway via the mobile or IP network.



Ⓐ Vitobloc combined heat and power module with Vitobloc Gateway
Ⓑ LON connecting cable
Ⓒ Vitocom 100, type LAN1
or
Vitocom 200, type GP1
or
Vitocom 300, type GP2
Ⓓ Internet/Vitodata 100 server.
Login at www.vitodata100.com
Ⓔ Control device PC/laptop:
- Access via internet browser to the Vitodata 100 user interface
- Receiving messages via email

Ⓕ Smartphone for receiving email or SMS
Ⓖ Mobile phone for receiving SMS

Note
For further information on the Vitobloc Gateway see the Vitobloc Gateway installation and operating instructions.

Remote monitoring

The Vitodata 100 user interface gives users access to the following Vitobloc parameters:
- Scanning temperatures
- Scanning operating conditions (e.g. status of motor values)

Note
A dynamic system scheme can be created for selected temperatures and operating conditions.

Should the CHP module develop a fault, such as with one of its sensors, the control unit recognises this and transmits it to the Vitocom via the Vitobloc Gateway and the LON. This in turn transmits the messages to the Vitodata 100, which transmits them on to the configured message recipients as an SMS, fax or email.

Message contents
- System address
- Fault type, fault code
- Time
- Additional information

With the chargeable Vitodata 100 fault management option, messages can also be transferred via SMS and fax.

System requirements

Heating system:
- For **one** single or multi boiler system with CHP module, with or without heating circuits downstream
- The max. number of devices (LON subscribers) comprising boiler circuit and heating circuit control units and Vitobloc Gateway is 30
- All control units and the Vitobloc Gateway are connected to the Vitocom via LON (for an overview of connectable control units, see page 63)

Mobile network:
- Check for an adequate GPRS radio signal from the D2 mobile network at the installation location for the Vitocom 200, using a mobile phone if necessary
- Apply to activate the D2 SIM card **prior to** commissioning
- Only use the D2 SIM card supplied

TeleControl — sample applications (cont.)

IP network:
- DSL router with available LAN socket (on-site)
- Internet connection with "Flat rate" (tariff **in**dependent of time and data volume) with high availability, i.e. the Vitocom 100 is permanently connected to the Vitodata server
- Dynamic IP addressing (DHCP) in the network (LAN); have this checked and set up, if required, on site by an IT expert **prior** to commissioning
- Determine the routing and security parameters in the IP network (LAN) so that Port 80 and Port 443 are enabled for direct outward connections; have this checked and set up, if required, on site by an IT expert prior to commissioning

Control device:

PC or laptop:
- Installed internet browser (Microsoft Internet Explorer Version 7.0 or higher) with an existing internet connection
- Java Script

Message paths:
- PC/laptop or smartphone for receiving email
- Mobile phone for receiving SMS

Configuration

The Vitocom is configured with the Vitodata 100. The pages for the Vitodata 100 user interface are created automatically during commissioning.
The Vitocom is connected via LON with the Vitotronic control unit and the Vitobloc Gateway. The Vitocom requires no LON-specific configuration.

Note
For further information regarding configuration, see the Vitobloc Gateway operating instructions.

Benefits

- Use in heating systems in domestic buildings, in municipal and in smaller commercial buildings
- Use of the Vitodata 100 user interface for heating contractors and system users.
- Standard and joint remote monitoring of the Vitobloc CHP module and the Viessmann boilers
- Affordable
- Easy operation via PC
- System monitoring
- All messages to a PC or mobile phone

12.1 Allocation of TeleControl accessories

TeleControl	Vitocom 100		Vitocom 200		Vitocom 300			
	Type LAN1	Type GSM	Type GP1		Type FA5, FI2 and GP2			
Input/output		**Digital input (230 V~)**	**Digital input (floating contact)**	**Digital output (floating relay contact)**	**Digital input (230 V~)**	**Digital input (floating contact)**	**Analogue input**	**Digital output (floating relay contact)**
Number of existing inputs/outputs								
Standard module		1	2	1	—	8	2	1
Ext. module		—	—	—	2	8	7	2
Description of the inputs								
Standard module		DE1	DE1, DE2	DA1	—	DE1 to DE8	AE1, AE2*8	DA1
Ext. module		—	—	—	DE9, DE10	DE1 to DE8	AE1 to AE7*9	DA1, DA2
Building monitoring accessories for oil heating systems								
Minimum level indicator		x	x		x	x*10		
Fuel oil meter						x*11		
Building monitoring accessories for gas heating systems								
Gas pressure switch GW		x	x		x	x		
Gas alarm unit GS 2.1		x	x		x	x*10		
Building monitoring accessories for all heating systems								
Pressure transducer DMU 01							x*12	
Water alarm unit WWG 1		x	x		x	x*10		
Room thermostat		x	x		x	x*13		

12.2 Accessories for oil heating systems

Minimum level indicator, for adjustable minimum level in the tank

Part no. 9556 296

- For connection to the Vitocom 100, type GSM, Vitocom 200, type GP1 and Vitocom 300, type FA5, FI2 and GP2
- Connection to the digital input 230 V~or floating digital input
- For fuel oil, water or neutral liquid (not viscous or adhesive)
- With optical and acoustic alarm (may be switched off)
- With relay for additional alarm
- Threaded body G 1 with pipe fitting (for height adjustment)

Probe
- Dimensions (Ø × length): 24 × 85 mm
- Probe housing: Polypropylene
- Probe weight: Brass
- Resistant to: Water, oil
- Connecting cable: Ölflex 2 × 0.5 mm², 5 m long max. line length: 50 m (screened)
- Probe voltage: max. 17 V~
- Permissible ambient temperature: –5 to 50 °C
- IP rating: IP 68 to DIN 40 050

Signal part
- Dimensions: 163 × 97 × 62 mm
- Supply voltage: 230 V~ ±10 %, 50/60 Hz
- Rated output: 5 VA
- Mains fuse: M 32 mA
- Response delay: none
- Additional connections: 1 digital output (floating N/O contact)
- Breaking capacity, digital output: max. 250 V, 2 A, resistive load
- Relay contact fuse: M 2 A
- Permiss. ambient temperature: –5 to 55 °C
- Safety category: II to DIN 57 700
- IP rating: IP 30 to DIN 40 050
- Anti-interference: to EN 50 081-1
- Interference resistance: to EN 50 082-2

Note
Ensuring electrical safety in accordance with EN 60 335 requires a coupling relay.

8 Viessmann sensors Ni 500.

9 0 to 10 V and 4 to 20 mA and Viessmann sensors Ni500 and Pt500.

10 Connection only with coupling relay, part no. 9556 321.

11 Connection only possible at inputs DE1 and DE2 of the extension module.

12 Can only be connected to the analogue input of the extension module.

13 Only room thermostat, part no. 9572 360.

5414 671 GB

Accessories

Coupling relay
Part no. 9556 321
For connection to the Vitocom 200 and Vitocom 300.

- Supply voltage: 230 V~
- Input: floating contact
- Output: floating relay contact
- Changeover contact, max. 230 V~, 10 A

12.3 Accessories for gas heating systems

Gas pressure switch GW with cable entry box

- GW 50 A6
  Part no. 9556 329
  Setting range 5 to 50 mbar.

- For connection to the Vitocom 100, type GSM, Vitocom 200, type GP1 and Vitocom 300, type FA5, FI2 and GP2
- Connection to the digital input 230 V~ or floating digital input
- Suitable for gases from gas categories 1, 2 and 3 and other neutral gaseous media
- Power circuits are switched on, off or changed over when the actual value falls below or exceeds the set value
- Set value adjustment: Setting wheel
- Setting tolerance: ±15 % switching point deviation relative to the set value, adjusted with falling pressure, vertical diaphragm position
- Max. operating pressure 500 mbar
- Pressure connection: centre casing bottom G ¼ female thread
- Test connection: Ø 9 mm test nipple integrated into the metal casing
- Dimensions: 59 × 73 × 47 mm
- Casing: Cast aluminium
- No power supply required
- Electrical connection: Plug-in connector for cable entry boxes to DIN EN 175 301-803, 3-pole, safety insulated, without earth connection
- Permiss. ambient temperature: –15 to 70 °C
  Permiss. medium temperature: –15 to 70 °C
  Permiss. storage temperature: –30 to 80 °C
- Switching voltage: eff. 24 to 250 V~, 12 to 48 V–
- Rated current: eff. 5 mA~ to 10 A~
- Switching current:
  – Eff. max. 6 A~ at cos φ = 1
  – Eff. max. 3 A~ at cos φ = 0.6
  – Eff. min. 20 mA~, min. 5 mA–
  – Max. 1 A–
- IP rating: IP 54

Gas alarm unit GS 2.1 for domestic use, with integral sensor, alarm buzzer and relay output

- GS 2.1 for methane
  Part no. 9556 302

- For connection to the Vitocom 100, type GSM, Vitocom 200, type GP1 and Vitocom 300, type FA5, FI2 and GP2
- Connection to the digital input 230 V~or floating digital input
- The alarm is triggered at 20 % of the lower explosion risk level
- LED indicators for operation (green), alarm (red) and fault (yellow), test key and reset key
- The acoustic alarm can only be acknowledged via the reset key after the actual value has fallen below the alarm threshold
- Dimensions: 90 × 158 × 44 mm
- Supply voltage: 230 V~
- Rated output: 5 VA
- Floating changeover: 230 V~, 2 A
- Connections: Screw terminals
- Permissible ambient temperature: 0 to 50 °C
- IP rating: IP 20
- Connection options for external gas sensor GS 4.1 (see accessories), enabling the monitoring of two at-risk positions in different rooms.
  Optical alarm at both test points; acoustic alarm only at the gas alarm unit

Accessories

Gas sensor GS 4.1
- For methane
  Part no. 9556 304
- For monitoring a second at-risk position
- The alarm state is stored by the gas alarm unit
- Dimensions: 80 × 80 × 36 mm
- Casing: Plastic
- Air pressure: 900 to 1100 hPa
- Relative humidity: 5 to 90 %
- Max. resistance: 100 Ω supply and return conductor
- Connections: Screw terminals
- Permissible ambient temperature: 0 to 50 °C
- IP rating: IP 40

Note
Ensuring electrical safety in accordance with EN 60 335 requires a coupling relay.

Coupling relay
Part no. 9556 321
See page 60.

12.4 General accessories

Pressure transducer DMU 01, for electronic pressure testing in the range up to 10 bar

Part no. 9556 322

- For connection to the extension module of the Vitocom 300
- Connection to the analogue input 4 to 20 mA
- With piezo-resistive ceramic test cell
- Accuracy: < ±0.5 % FS
- Overpressure safety: min. 2 × FS
- Permiss. ambient temperature: –25 to 85 °C
- Permiss. test material temperature: –25 to 125 °C
- Permiss. storage and transport temperature: –40 to 125 °C
- Temperature fault range: within the compensated range 0 to 70 °C ≤ 2 % FS
- Response time: < 5 ms
- Process connection G ½ B to EN 837-1
- Casing and pressure connection: Stainless steel 1.4305
- Diaphragm: Ceramic Al_2O_3 96 %
- Gasket: FKM (Viton)
- IP rating: IP 65 to DIN 43 650-A
- Output signal (feed): 12 to 36 V–, 2-core
- Max. power consumption: 30 mA

Note

The appliance is preset to emit a current signal as a test signal. However, the Vitocom 300 is configured to receive a voltage signal. Observe the technical documents relating to the transducer when configuring the Vitocom 300 (e.g. via the Vitodata 300).

Water alarm unit WWG 1, with groundwater probe for detecting water

Part no. 9556 324

- For connection to the Vitocom 100, type GSM, Vitocom 200, type GP1 and Vitocom 300, type FA5, FI2 and GP2
- Connection to the digital input 230 V~or floating digital input

Signal part
- Dimensions: 163 × 97 × 62 mm
- Supply voltage: 230 V~ ±10 %, 50/60 Hz
- Rated output: 2.5 VA
- Mains fuse: M 32 mA (5 × 20 mm)
- Response delay: none
- Outputs:
  - 1 optical alarm
  - 1 acoustic alarm
  - 1 relay output changeover (floating)
  - 1 relay output N/O contact (floating, can be acknowledged)
- Breaking capacity, relay outputs: max. 250 V, 2 A, resistive load
- Additional connection: 1 external acknowledgement
- Wall mounted or control panel integration
- Permissible ambient temperature: –5 to 55 °C
- Safety category: II to EN 60 730
- IP rating: IP 30 to EN 60 529
- Anti-interference: to EN 50 081-1
- Interference resistance: to EN 50 082-2

Geothermal probe
- Dimensions (Ø × length): 75 ×35 mm
- Probe housing: Plastic PP
- Electrodes: Stainless steel V2A
- Function principle: Conductivity test
- Response height: 2 to 3 mm
- Connecting cable: H05 VVF 2 × 1.0 mm^2, 1.5 m long max. cable length: 50 m (screened)
- Permissible ambient temperature: –5 to 55 °C
- IP rating: IP 55 to EN 60 529

Note

Ensuring electrical safety in accordance with EN 60 335 requires a coupling relay.

Accessories

Coupling relay
Part no. 9556 321
See page 60.

TeleControl — accessories (cont.)

Tested M BUS meters supported as standard

Manufacturer	Manufacturer's description		Product designation	Type	Protocol details description	Identification/version
	MAN	Hex				
ABB Energiemesstechnik GmbH	ABB	0442	ABB F2	Heat	M BUS Flex for F2, [MBUSFLEX]	As of 12/05/1998
			ABB F4			
			ABB Picotherm 2			
			ABB F95 type US777		Ultrasound heat meter F95 series US770 communication description	Version 1.0
Allmess GmbH		824D	Allmess Megacontrol CF-50	Heat	Description of the CF-50 M BUS interface, [P0914.doc 20.01.00]	As of 12/1996
Aquametro Messtechnik GmbH	AMT	05B4	AMTRON X50	Heat	M BUS protocol AMTRON® X-50 Manufacturer: Aquametro AG device: AMTRON X-50 Medium: 04h, 0Ch [VI 13-240d 07.2006]	Firmware version 1.05.00 to 1.05.99 Device version C5
			Aquametro CALEC MB		M BUS protocol description Calec, AMTRON and AMBUS product families [VI 13-012 D 7.99]	Vol. 01 D
			Aquametro CALEC ST		M BUS protocol CALEC® ST Manufacturer: Aquametro AG Device: CALEC ST Medium: 04h, 0Ch [VI 13-181d 07.2006]	Firmware version 1.00.00 to 1.01.99 1.02.00 to 1.05.99 Device version C0, C1, C3, C4
Deltamess DWWF GmbH		4ECD	Deltamess split heat meter Flex F2	Heat	M BUS Flex for F2, [MBUSFLEX]	As of 12/05/1998
Engelmann Sensor GmbH	EFE	14C5	Sensostar	Heat	M BUS protocol [SENSOSTAR]	As of 31/05/2006
ista Deutschland GmbH	IST	2674	ista sensonic II	Heat	Protocol of the M BUS interface for the devices sensonic II mbus, sensonic II calculator mbus, istameter III mbus and pulsonic II mbus, [Li / protocol description sensonic II mbus.doc]	Version 1.2 As of 18/07/2003
Kamstrup A/S	KAM	2C2D	Kamstrup Multical 401	Heat	Technical description M BUS, [5511-711/05-2001/Rev. A1]	Revision A1
Landis & Gyr GmbH	LUG	32A7	Landis & Gyr ULTRA HEAT 2WR5	Heat	TKB 3417, description for M BUS module 2WR5	From firmware version 2.01 As of 10/06/2003
Nordwestdeutsche Zählerrevision Ing. Aug. Knemeyer GmbH&Co. KG		15A8	NZR M BUS pulse memory module IC-M2	Electronics	DHZ M BUS description	Firmware version 3.03 As of 03/04/2006
Sensus Metering Systems	PMG	41A7	PolluStat E, PolluTherm	Heat	PolluCom E, PolluStat E & PolluTherm: A description of the serial protocol	As of: 11/05/2007
Techem GmbH	TCH	5068	Techem classic	Heat	R-INSTRUCTION 087R2121 INFOCAL 5 Communication Protocol [i1020.001.256 087R2121]	Version 1.00 As of 03/11/2000
			Heat meter Compact IIIs			
			Heat meter M BUS S			

Room thermostat (heating) for installation on finished walls

Part no. 7247 852

RTR-E 6124 for 230 V

- For connection to the Vitocom 100, type GSM, Vitocom 200, type GP1 and Vitocom 300, type FA5, FI2 and GP2
- Bimetal technology with thermal feedback and high precision
- Adjustable temperature range: 5 to 30 °C
- Hysteresis ~0.5 K
- N/C contact
- Colour: White

Note

During connection, check that the digital inputs (230 V~) are connected to the same phase as the Vitocom power supply.

13.1 Combinations of Vitocom communication devices and Viessmann control units plus control options

Application information on the current product range

Communications products	User interface	Viessmann control unit interface			Small boilers		Biomass boilers	Wall mounted boilers			Medium and industrial/ commercial boilers			Heat pumps		ESS combined heat and power module	Heating circuit control unit
		①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯
TeleControl																	
Vitocom 100, type GSM	SMS	x	—	—	x	x	x	x	x	x	x	x	x	x	x	—	—
Vitocom 100, type LAN1	Vitotrol app	—	x	—	—	x	x	—	x	—	—	x	—	—	x	—	x
	Vitodata 100	—	x	—	x	x	x	x	x	x	x	x	x	x	x	x	x
Vitocom 200, type GP1	Vitodata 100	—	x	—	x	x	x	x	x	x	x	x	x	x	x	x	x
	Vitodata 300	—	x	—	—	—	—	—	x	x	x	x	x	x	—	—	x
Vitocom 300, type FA5, FI2	Vitodata 300	—	x	—	—	—	—	—	x	x	x	x	x	x	—	—	x
Vitocom 300, type GP2	Vitodata 100	—	x	—	—	x	x	—	x	x	x	x	x	x	x	x	x
	Vitodata 300	—	x	—	—	—	—	—	x	x	x	x	x	x	—	—	x
ServiceControl																	
Vitosoft 300, type SID1	PC/laptop	—	—	x	x	x	x	x	x	x	x	x	x	x	x	—	x
Building automation																	
Vitogate 200, type EIB	—	—	x	—	x	x	x	x	x	x	x	x	x	x	x	—	x
Vitohome 300	—	x	—	—	x	x	x	x	x	x	x	x	x	—	—	—	x
LON BMS interface	BMS	—	x	—	x	x	x	x	x	x	x	x	x	x	x	—	x

① KM BUS
② LON
③ Optolink
④ Vitotronic 100, type KC2B and KC4B
⑤ Vitotronic 200, type KO1B, KO2B and KW6B
⑥ Vitotronic 200, type FO1
⑦ Vitotronic 100, type HC1B
⑧ Vitotronic 200, type HO1B and HO1C
⑨ Vitotronic 300-K, type MW2B
⑩ Vitotronic 100, type GC1B
⑪ Vitotronic 200, type GW1B and GW2B
⑫ Vitotronic 300-K, type MW1B
⑬ Vitotronic 200, type WO1B
⑭ Vitotronic 200, type WO1C
⑮ Vitobloc Gateway
⑯ Vitotronic 200-H, type HK1B and HK3B

Application information on retrofitting existing heating systems

Communications products	User interface	Viessmann control unit interface			Small boilers			Biomass boilers		Wall mounted boilers				Medium and industrial/ commercial boilers			Heat pumps		Heating circuit control unit	
		①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲
TeleControl																				
Vitocom 100, type GSM	SMS	x	—	—	—	x	x	x	x	x	x	x	x	—	—	—	x	x	—	—
Vitocom 100, type LAN1	Vitotrol app	—	x	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Vitodata 100	—	x	—	—	—	—	x	—	—	x	x	x	x	x	x	x	x	x	x
Vitocom 200, type GP1	Vitodata 100	—	x	—	—	—	—	x	—	—	x	x	x	x	x	x	x	x	x	x
	Vitodata 300	—	x	—	—	—	—	x	—	—	x	x	x	x	x	x	x	x	x	x
Vitocom 300, type FA5, FI2	Vitodata 300	—	x	—	—	—	—	—	—	—	x	x	x	x	x	x	x	x	x	x
Vitocom 300, type GP2	Vitodata 100	—	x	—	—	—	—	x	—	—	x	x	x	x	x	x	x	x	x	x
	Vitodata 300	—	x	—	—	—	—	x	—	—	x	x	x	x	x	x	x	x	x	x
ServiceControl																				
Vitosoft 300, type SID1	PC/laptop	—	—	x	x	x	x	x	—	—	x	x	x	x	x	x	x	x	x	x
Building automation																				
Vitogate 200, type EIB	—	—	x	—	—	—	—	x	—	—	x	x	x	x	x	x	x	x	x	x
Vitohome 300	—	x	—	—	—	—	x	x	—	—	—	x	x	—	x	x	—	—	x	—
LON BMS interface	BMS	—	x	—	—	—	—	x	—	—	x	x	x	x	x	x	—	x	x	x

① KM BUS
② LON
③ Optolink
④ Vitotronic 100, type KC2 and KC4
⑤ Vitotronic 150, type KB1 and KB2

⑥ ■ Vitotronic 200, type KW1, KW2, KW4, KW5 and KW6
■ Vitotronic 300, type KW3
⑦ Vitotronic 200, type FO1
⑧ Vitotronic 300, type FW1
⑨ Wall mounted gas boilers with weather-compensated control, made between 1999 and 2004: Vitodens 200, Vitodens 300, Vitopend 200 and Vitoplus 300 with standard and Comfortrol programming unit
⑩ Vitotronic 100, type HC1 and HC1A
⑪ Vitotronic 200, type HO1
⑫ Vitotronic 200, type HO1A
⑬ Vitotronic 100, type GC1
⑭ ■ Vitotronic 200, type GW1
■ Vitotronic 300, type GW2
⑮ ■ Vitotronic 333, type MW1, MW1S, MW2 and MW2S
■ Vitotronic 300-K, type MW1, MW1S, MW2 and MW2S
⑯ Heat pump control unit WPR 300
⑰ Vitotronic 200, type WO1A
⑱ ■ Vitotronic 050, type HK1W, HK1S, HK3W and HK3S
■ Vitotronic 200, type HK1W, HK1S, HK3W and HK3S
⑲ ■ Vitotronic 050, type HK1M
■ Vitotronic 200, type HK1M

13.2 Connecting Viessmann appliances via LON

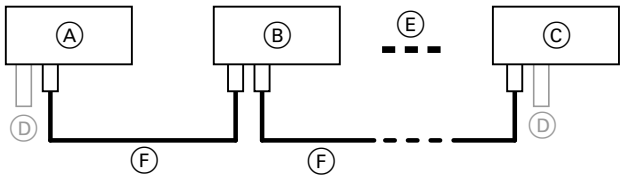
The Viessmann LON is designed for the "Line" BUS topology with a terminator at both ends (accessories). For further information, see the "Viessmann LON manual" at **www.viessmann.de/lon**.
The transfer distances for LON are subject to the electrical properties of the respective cable. For this reason, only use the stated cable types. Use only one cable type within one LON.
Cable types (on site):
■ 2-core cable, CAT 5 or higher, screened
■ JY(St)Y 2 x 2 x 0.8 mm (telephone cable)
Observe the cable requirements for the operation of the LON interface FTT 10-A (see www.echelon.com).

All Viessmann appliances equipped with a LON interface are connected via LON plugs. The Viessmann LON system always requires the cores "1" and "2" and the screen. The cores are interchangeable. The installation is therefore reverse polarity protected.

Note
When connecting appliances and routing cables, observe the requirements of safety category II, i.e. 8.0 mm air and creep path or 2.0 mm insulation thickness against live parts.
Ensure the safe electrical separation of all on-site components (incl. PC/laptops) conforms to EN 60 335 or IEC 65.

Sample connections

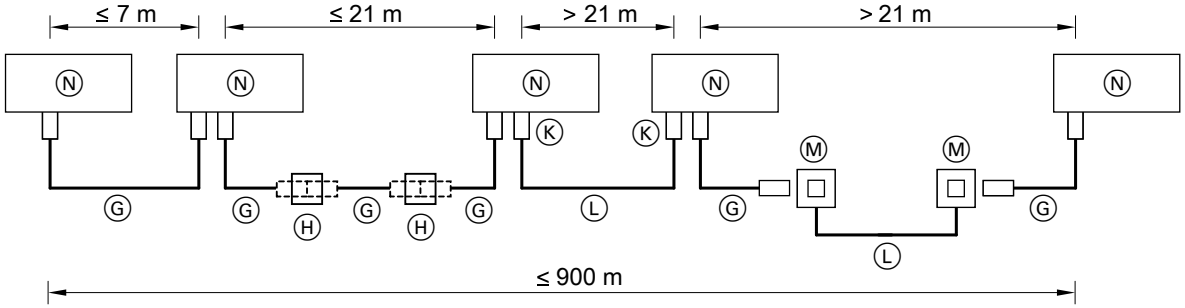
Viessmann LON system



Ⓔ Up to 99 subscribers
Ⓕ LON connection in accordance with the length of cable runs (see the following diagram)

■ Always place LON subscribers with only one LON interface at the start of the LON system (position Ⓐ)
■ Always place the Vitocom at the end of the LON system (position Ⓒ)

Cable runs



Ⓝ LON subscriber

Pos.	Description	Part no.
Ⓐ	Boiler and heating circuit control unit	In accordance with system version
Ⓑ	Heating circuit control unit	In accordance with system version

Pos.	Description	Part no.
Ⓒ	Vitocom	See the Viessmann pricelist
Ⓓ	Terminator (2 pce), Not required for appliances with only one LON interface: – Vitodens 300-W, type B3HA – Vitodens 333-F, type B3TA – Vitodens 343-F, type B3UA – Vitocom 100, type LAN1 – All control units equipped with the communication module that is part of the standard delivery of the Vitocom 100, type LAN1	7143 497
Ⓖ	LON connecting cable, 7 m long	7143 495
Ⓗ	LON coupling	7143 496
Ⓚ	LON plug-in connector (2 pce)	7199 251
Ⓛ	Connecting cable	On-site
Ⓜ	LON socket (2 pce)	7171 784

Connection to higher LON systems

To connect to higher LON systems, see the "Viessmann LON manual"
(www.viessmann.de/lon).

In addition, this link provides a plug-in for LNS tools. This plug-in automatically executes the necessary binding between the Vitotronic control units.

13.3 Glossary

Data transfer via analogue land lines
Data transfer via hardwired cables with fixed bandwidths for voice and data services. This is achieved via 2 terminal devices with telephone numbers. Billing via time tariff.

Data transfer via mobile networks
In these mobile networks, data can be transmitted via hardwired cables and packet-switching (GPRS). The packet-switching transfer is billed via volume tariff; the hardwired transfer via time tariff.

GSM (Global System for Mobile Communication)
Communication standard as mobile replacement for analogue land lines. Data transfer via hardwired cables with fixed bandwidths for voice and data services takes place between 2 terminal devices with telephone numbers. Billing via time tariff.

BMS (Building Management System)
The term Building Management System includes the entire technical automation facilities in building services. It is part of building automation which is split over field, automation and management levels. The Building Management System is part of the management level.

HSDPA (High Speed Downlink Packet Access)
HSDPA is a data transfer process based on the UMTS mobile wireless standard, which enables data transfer rates similar to DSL in a mobile network. Typical data transfer rates are between 3.6 Mbit/s and 7.2 Mbit/s.

Control centre
A control centre is designed to give optimum support to people in control rooms, for central management of process and safety functions.

KNX/EIB system
The European Installation BUS (EIB) is a BUS system used in small to medium-sized buildings.
The EIB protocol is supported by the Konex communication standard (KNX) and meets the Konex TP-I requirements for data transfer.
KNX/EIB devices are configured with EIB Tool Software (ETS).

LAN (Local Area Network)
A LAN is a computer network that extends over several rooms but rarely extends beyond a single property. The most common technical standard for network structures in LAN is Ethernet. The data transfer rates are between 10 and 1000 Mbits/s.

Important components of a LAN are switches, routers and, increasingly, internet gateway routers.

LON (Local Operating Network)
LON is a network used in larger or commercial buildings.
LON supports Standard Network Variables (SNVT) and device profiles.
Commercially available software can be used to connect the SNVT.

ISP (Internet Service Provider)
An ISP offers the content, services or technical input that are required for the utilisation or operation of contents and services on the internet.

IPsec (Internet Protocol Security)
IPsec is a security protocol that improves data security during communication across IP networks (confidentiality, authenticity and integrity) and that can be used to build virtual private networks (VPN).

SMS (Short Message Service)
Text service developed for GSM networks. Texts of limited length can be transmitted.

GPRS (General Packet Radio Service)
Communication standard as mobile replacement for analogue land lines. GPRS represents packet-oriented data transfer. Billing via volume tariff.

UMTS (Universal Mobile Telecommunications System)
UMTS is a mobile wireless standard with high transfer speeds. This standard makes it possible to use multimedia services via the mobile network.

WAN (Wide Area Network)
A WAN is a network that, unlike a LAN, extends over a wide geographic area. WANs are used to link up different networks. WANs can be extended by internet providers to enable internet access.

WLAN (Wireless Local Area Network)
WLAN is a LAN based on wireless communication (mostly IEEE-802.11 standard). In some countries "Wi-Fi" is also used to describe this system.

VPN (Virtual Private Network)
A virtual private network (VPN) is designed to link devices from their original network to a neighbouring network without need for these networks to be compatible with each other.

With a VPN, partners can communicate with manipulation security in an encrypted virtual network or from local networks in different locations via the public internet. A VPN also enables a direct connection from one device to a server (end-to-end connection) with secure access.

Keyword index

Keyword index

Keyword index

Subject to technical modifications.

Viessmann Werke GmbH&Co KG
D-35107 Allendorf
Telephone: +49 6452 70-0
Fax: +49 6452 70-2780
www.viessmann.com

Viessmann Limited
Hortonwood 30, Telford
Shropshire, TF1 7YP, GB
Telephone: +44 1952 675000
Fax: +44 1952 675040
E-mail: info-uk@viessmann.com

5414 671 GB