Functional Objects Overview

Applicable Viessmann Controls:
Vitotronic 100, GC1
Vitotronic 300, GW2
Vitotronic 333, MW1/MW1S (Vitocontrol-S/C VD2/CT3)
Vitotronic 050, HK1M
Vitotronic 050, HK1W and HK1S
Vitotronic 050, HK3W and HK3S

Cautionary Statement:

The information presented in this overview is intended only to be used by those familiar with its application and use. This document is to be considered as a support document to the Viessmann LON Handbook.

Layout:

The tables within are arranged by control model. Each table represents input and output information in relation to the Node Object functionality.

Overview of Functional Objects

Vitotronic 100, GC1

Input	Point	Object Name	Variable	→	Output	Point	Object Name	Variable
Node Object				→	**Node Object**			
Object demand	Node Request	nviNodeRequest	SNVT_obj_request		Object status	Node Status	nvoNodeStatus	SNVT_obj_status
Time input	Node Time Setup	nviNodeTimeSet	SNVT_time_stamp		Fault message	Node Alarm	nvoNodeAlarm	SNVT_alarm
Input fault message	Node Alarm	nviNodeAlarm	SNVT_alarm		Status controller outputs	Node Relay State	nvoNodeRlyState	SNVT_state
DHW Objects				→	**DHW Objects**			
DHW operating mode	DHW Controller Application Mode	nviDHWCApplicMd	SNVT_hvac_mode		DHW actual temperature	DHW Controller Actual Temperature	nvoDHWCActTemp	SNVT_temp_p
DHW set-point temperature	DHW Controller Set-point	nviDHWCSetpt	SNVT_temp_p		Effective DHW set-point temperature	DHW Controller Effective Set-point	nvoDHWCEffSetpt	SNVT_temp_p
Central Flow Demand Manager (CFDM) Objects				→	**Central Flow Demand Manager (CFDM) Objects**			
System output set-point	CFDM Production Command	nviCFDMProdCmd	SNVT_switch		Actual system output	CFDM Power State	nvoCFDMPwrState	SNVT_switch
Operating mode	CFDM Application Mode	nviCFDMApplicMd	SNVT_hvac_mode		Actual system temperature	CFDM Supply Temperature	nvoCFDMSupplyT	SNVT_temp_p
System set-point temperature	CFDM Set-point	nviCFDMSetpoint	SNVT_temp_p		Effective system set-point temperature	CFDM Effective Set-point	nvoCFDMEffSetpt	SNVT_temp_p
Heating circuit demand	CFDM Constant Demand	nviCFDMConsDmd	UNVT_Demand		System status	CFDM Production State	nvoCFDMProdState	UNVT_ProdState
Boiler Controller (BoC) Objects				→	**Boiler Controller (BoC) Objects**			
Boiler output set-point	BoC Boiler Command	nviBoCBoilerCmd	SNVT_switch		Actual boiler output	BoC Boiler State	nvoBoCBlrState	SNVT_switch
Operating mode	BoC Application Mode	nviBoCApplicMd	SNVT_hvac_mode		Actual boiler temperature	BoC Effective Set-point	nvoBoCEffSetpt	SNVT_temp_p
Boiler temperature set-point	BOC Set-point	nviBoCSetpoint	SNVT_temp_p		Effective boiler temperature set-point	BOC Supply Temperature	nvoBoCSupplyT	SNVT_temp_p
N/A	N/A	N/A	N/A		Boiler status	BoC Boiler Controller State	nvoBoCBoCState	UNVT_BoCState

Overview of Functional Objects

Vitotronic 300, GW2

Input	Point	Object Name	Variable	→	Output	Point	Object Name	Variable
Node Object				→	**Node Object**			
Object demand	Node Request	nviNodeRequest	SNVT_obj_request		Object status	Node Status	nvoNodeStatus	SNVT_obj_status
Time input	Node Time Setup	nviNodeTimeSet	SNVT_time_stamp		Fault message	Node Alarm	nvoNodeAlarm	SNVT_alarm
Input fault message	Node Alarm	nviNodeAlarm	SNVT_alarm		Time output	Node Time Setup	nvoNodeTimeSet	SNVT_time_stamp
Input outdoor temperature	Node Outdoor Actual Temperature	nviNodeOATemp	SNVT_temp_p		Outdoor temperature output	Node Outdoor Actual Temperature	nvoNodeOATemp	SNVT_temp_p
N/A	N/A	N/A	N/A		Status controller outputs	Node Relay State	nvoNodeRlyState	SNVT_state
DHW Objects				→	**DHW Objects**			
DHW operating mode	DHW Controller Application Mode	nviDHWCApplicMd	SNVT_hvac_mode		DHW actual temperature	DHW Controller Actual Temperature	nvoDHWCActTemp	SNVT_temp_p
DHW set-point temperature	DHW Controller Set-point	nviDHWCSetpt	SNVT_temp_p		Effective DHW set-point temperature	DHW Controller Effective Set-point	nvoDHWCEffSetpt	SNVT_temp_p
Central Flow Demand Manager (CFDM) Objects				→	**Central Flow Demand Manager (CFDM) Objects**			
System output set-point	CFDM Production Command	nviCFDMProdCmd	SNVT_switch		Actual system output	CFDM Power State	nvoCFDMPwrState	SNVT_switch
Operating mode	CFDM Application Mode	nviCFDMApplicMd	SNVT_hvac_mode		Actual system temperature	CFDM Supply Temperature	nvoCFDMSupplyT	SNVT_temp_p
System set-point temperature	CFDM Set-point	nviCFDMSetpoint	SNVT_temp_p		Effective system set-point temperature	CFDM Effective Set-point	nvoCFDMEffSetpt	SNVT_temp_p
Heating circuit demand	CFDM Constant Demand	nviCFDMConsDmd	UNVT_Demand		System Status	CFDM Production State	nvoCFDMProdState	UNVT_ProdState

Notes:

Functional Objects Overview V1.0 09/2006 Technical information subject to change without notice

Overview of Functional Objects

Vitotronic 300, GW2 Continued

Input	Point	Object Name	Variable	➡	Output	Point	Object Name	Variable
Heating Circuit Controller (HCC1) Objects				➡	**Heating Circuit Controller (HCC1) Objects**			
Heating circuit operating mode	HCC1 Application Mode	nviHCC1ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC1 Unit State	nvoHCC1UnitState	SNVT_hvac_mode
Room set-point temperature	HCC1 Space Set-point	nviHCC1SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC1 Effective Set-point	nvoHCC1EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC1 Flow Temperature Set-point	nviHCC1FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A
Heating Circuit Controller (HCC2) Objects				➡	**Heating Circuit Controller (HCC2) Objects**			
Heating circuit operating mode	HCC2 Application Mode	nviHCC2ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC2 Unit State	nvoHCC2UnitState	SNVT_hvac_mode
Room set-point temperature	HCC2 Space Set-point	nviHCC2SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC2 Effective Set-point	nvoHCC2EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC2 Flow Temperature Set-point	nviHCC1FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A
Heating Circuit Controller (HCC3) Objects				➡	**Heating Circuit Controller (HCC3) Objects**			
Heating circuit operating mode	HCC3 Application Mode	nviHCC3ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC3 Unit State	nvoHCC3UnitState	SNVT_hvac_mode
Room set-point temperature	HCC3 Space Set-point	nviHCC3SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC3 Effective Set-point	nvoHCC3EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC3 Flow Temperature Set-point	nviHCC3FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A

Notes:

Functional Objects Overview V1.0 09/2006 Technical information subject to change without notice

Overview of Functional Objects

Vitotronic 333, MW1 and MW1S (Vitocontrol-S VD2/CT3)

Input	Point	Object Name	Variable	→	Output	Point	Object Name	Variable
Node Object				→	**Node Object**			
Object demand	Node Request	nviNodeRequest	SNVT_obj_request		Object status	Node Status	nvoNodeStatus	SNVT_obj_status
Time input	Node Time Setup	nviNodeTimeSet	SNVT_time_stamp		Fault message	Node Alarm	nvoNodeAlarm	SNVT_alarm
Input fault message	Node Alarm	nviNodeAlarm	SNVT_alarm		Time output	Node Time Setup	nvoNodeTimeSet	SNVT_time_stamp
Indoor output temperature	Node Outdoor Actual Temperature	nviNodeOATemp	SNVT_temp_p		Outdoor temperature output	Node Outdoor Actual Temperature	nvoNodeOATemp	SNVT_temp_p
N/A	N/A	N/A	N/A		Status controller outputs	Node Relay State	nvoNodeRlyState	SNVT_state
DHW Objects				→	**DHW Objects**			
DHW operating mode	DHW Controller Application Mode	nviDHWCApplicMd	SNVT_hvac_mode		DHW actual temperature	DHW Controller Actual Temperature	nvoDHWCActTemp	SNVT_temp_p
DHW set-point temperature	DHW Controller Set-point	nviDHWCSetpt	SNVT_temp_p		Effective DHW set-point temperature	DHW Controller Effective Set-point	nvoDHWCEffSetpt	SNVT_temp_p
Central Flow Demand Manager (CFDM) Objects				→	**Central Flow Demand Manager (CFDM) Objects**			
System output set-point	CFDM Production Command	nviCFDMProdCmd	SNVT_switch		Actual system output	CFDM Power State	nvoCFDMPwrState	SNVT_switch
Operating mode	CFDM Application Mode	nviCFDMApplicMd	SNVT_hvac_mode		Actual system temperature	CFDM Supply Temperature	nvoCFDMSupplyT	SNVT_temp_p
System set-point temperature	CFDM Set-point	nviCFDMSetpoint	SNVT_temp_p		Effective system set-point temperature	CFDM Effective Set-point	nvoCFDMEffSetpt	SNVT_temp_p
Heating circuit demand	CFDM Constant Demand	nviCFDMConsDmd	UNVT_Demand		System Status	CFDM Production State	nvoCFDMProdState	UNVT_ProdState
Production Manager (PM1 through PM4) Objects				→	**Production Manager (PM1 through PM4) Objects**			
Actual boiler output 1	PM1 Boiler State	nviPM1BlrState	SNVT_switch		Boiler output set-point 1	PM1 Boiler Command	nvoPM1BlrCmd	SNVT_switch
Actual boiler temperature 1	PM1 Supply Temperature	nviPM1SupplyT	SNVT_temp_p		Operating mode 1	PM1 Application Mode	nvoPM1ApplicMd	SNVT_hvac_mode
Boiler status 1	PM1 Boiler Controller State	nviPM1BoCState	UNVT_BoCState		Boiler temperature set-point 1	PM1 Set-point	nvoPM1Setpoint	SNVT_temp_p

Overview of Functional Objects

Vitotronic 333, MW1 and MW1S (Vitocontrol-S VD2/CT3) Continued

Input	Point	Object Name	Variable	→	Output	Point	Object Name	Variable
Heating Circuit Controller (HCC1) Objects				→	**Heating Circuit Controller (HCC1) Objects**			
Heating circuit operating mode	HCC1 Application Mode	nviHCC1ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC1 Unit State	nvoHCC1UnitState	SNVT_hvac_mode
Room set-point temperature	HCC1 Space Set-point	nviHCC1SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC1 Effective Set-point	nvoHCC1EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC1 Flow Temperature Set-point	nviHCC1FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A
Heating Circuit Controller (HCC2) Objects				→	**Heating Circuit Controller (HCC2) Objects**			
Heating circuit operating mode	HCC2 Application Mode	nviHCC2ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC2 Unit State	nvoHCC2UnitState	SNVT_hvac_mode
Room set-point temperature	HCC2 Space Set-point	nviHCC2SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC2 Effective Set-point	nvoHCC2EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC2 Flow Temperature Set-point	nviHCC2FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A
Heating Circuit Controller (HCC3) Objects				→	**Heating Circuit Controller (HCC3) Objects**			
Heating circuit operating mode	HCC3 Application Mode	nviHCC3ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC3 Unit State	nvoHCC3UnitState	SNVT_hvac_mode
Room set-point temperature	HCC3 Space Set-point	nviHCC3SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC3 Effective Set-point	nvoHCC3EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC3 Flow Temperature Set-point	nviHCC3FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A

Notes:

Overview of Functional Objects

Vitotronic 050, HK1M

Input	Point	Object Name	Variable	➡	Output	Point	Object Name	Variable
Node Object				➡	**Node Object**			
Object demand	Node Request	nviNodeRequest	SNVT_obj_request		Object status	Node Status	nvoNodeStatus	SNVT_obj_status
Time input	Node Time Setup	nviNodeTimeSet	SNVT_time_stamp		Fault message	Node Alarm	nvoNodeAlarm	SNVT_alarm
Indoor output temperature	Node Outdoor Actual Temperature	nviNodeOATemp	SNVT_temp_p		Time output	Node Time Setup	nvoNodeTimeSet	SNVT_time_stamp
N/A	N/A	N/A	N/A		Outdoor temperature output	Node Outdoor Actual Temperature	nvoNodeOATemp	SNVT_temp_p
N/A	N/A	N/A	N/A		Status controller outputs	Node Relay State	nvoNodeRlyState	SNVT_state
Local Flow Demand Manager (LFDM) Objects				➡	**Local Flow Demand Manager (LFDM) Objects**			
System status	LFDM Production State	nviLFDMProdState	UNVT_ProdState		Temperature demand	LFDM Constant Demand	nvoLFDMConsDmd	UNVT_Demand
Heating Circuit Controller (HCC1) Objects				➡	**Heating Circuit Controller (HCC1) Objects**			
Heating circuit operating mode	HCC1 Application Mode	nviHCC1ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC1 Unit State	nvoHCC1UnitState	SNVT_hvac_mode
Room set-point temperature	HCC1 Space Set-point	nviHCC1SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC1 Effective Set-point	nvoHCC1EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC1 Flow Temperature Set-point	nviHCC1FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A

Notes:

Overview of Functional Objects

Vitotronic 050, HK1W and HK1S

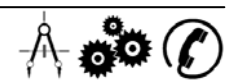| Input	Point	Object Name	Variable	➡	Output	Point	Object Name	Variable
Node Object				➡	**Node Object**			
Object demand	Node Request	nviNodeRequest	SNVT_obj_request		Object status	Node Status	nvoNodeStatus	SNVT_obj_status
Time input	Node Time Setup	nviNodeTimeSet	SNVT_time_stamp		Fault message	Node Alarm	nvoNodeAlarm	SNVT_alarm
Input fault message	Node Alarm	nviNodeAlarm	SNVT_alarm		Time output	Node Time Setup	nvoNodeTimeSet	SNVT_time_stamp
Indoor output temperature	Node Outdoor Actual Temperature	nviNodeOATemp	SNVT_temp_p		Outdoor temperature output	Node Outdoor Actual Temperature	nvoNodeOATemp	SNVT_temp_p
N/A	N/A	N/A	N/A		Status controller outputs	Node Relay State	nvoNodeRlyState	SNVT_state
DHW Objects				➡	**DHW Objects**			
DHW operating mode	DHW Controller Application Mode	nviDHWCApplicMd	SNVT_hvac_mode		DHW actual temperature	DHW Controller Actual Temperature	nvoDHWCActTemp	SNVT_temp_p
DHW set-point temperature	DHW Controller Set-point	nviDHWCSetpt	SNVT_temp_p		Effective DHW set-point temperature	DHW Controller Effective Set-point	nvoDHWCEffSetpt	SNVT_temp_p
Local Flow Demand Manager (LFDM) Objects				➡	**Local Flow Demand Manager (LFDM) Objects**			
System status	LFDM Production State	nviLFDMProdState	UNVT_ProdState		Temperature demand	LFDM Constant Demand	nvoLFDMConsDmd	UNVT_Demand
Heating Circuit Controller (HCC1) Objects				➡	**Heating Circuit Controller (HCC1) Objects**			
Heating circuit operating mode	HCC1 Application Mode	nviHCC1ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC1 Unit State	nvoHCC1UnitState	SNVT_hvac_mode
Room set-point temperature	HCC1 Space Set-point	nviHCC1SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC1 Effective Set-point	nvoHCC1EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC1 Flow Temperature Set-point	nviHCC1FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A

Notes:

Overview of Functional Objects

Vitotronic 050, HK3W and HK3S

Input	Point	Object Name	Variable	➡	Output	Point	Object Name	Variable
Node Object				➡	**Node Object**			
Object demand	Node Request	nviNodeRequest	SNVT_obj_request		Object status	Node Status	nvoNodeStatus	SNVT_obj_status
Time input	Node Time Setup	nviNodeTimeSet	SNVT_time_stamp		Fault message	Node Alarm	nvoNodeAlarm	SNVT_alarm
Input fault message	Node Alarm	nviNodeAlarm	SNVT_alarm		Time output	Node Time Setup	nvoNodeTimeSet	SNVT_time_stamp
Indoor output temperature	Node Outdoor Actual Temperature	nviNodeOATemp	SNVT_temp_p		Outdoor temperature output	Node Outdoor Actual Temperature	nvoNodeOATemp	SNVT_temp_p
N/A	N/A	N/A	N/A		Status controller outputs	Node Relay State	nvoNodeRlyState	SNVT_state
DHW Objects				➡	**DHW Objects**			
DHW operating mode	DHW Controller Application Mode	nviDHWCApplicMd	SNVT_hvac_mode		DHW actual temperature	DHW Controller Actual Temperature	nvoDHWCActTemp	SNVT_temp_p
DHW set-point temperature	DHW Controller Set-point	nviDHWCSetpt	SNVT_temp_p		Effective DHW set-point temperature	DHW Controller Effective Set-point	nvoDHWCEffSetpt	SNVT_temp_p
Local Flow Demand Manager (LFDM) Objects				➡	**Local Flow Demand Manager (LFDM) Objects**			
System status	LFDM Production State	nviLFDMProdState	UNVT_ProdState		Temperature demand	LFDM Constant Demand	nvoLFDMConsDmd	UNVT_Demand

Notes:

Overview of Functional Objects

Vitotronic 050, HK3W and HK3S Continued

Input	Point	Object Name	Variable	➡	Output	Point	Object Name	Variable
Heating Circuit Controller (HCC1) Objects				➡	**Heating Circuit Controller (HCC1) Objects**			
Heating circuit operating mode	HCC1 Application Mode	nviHCC1ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC1 Unit State	nvoHCC1UnitState	SNVT_hvac_mode
Room set-point temperature	HCC1 Space Set-point	nviHCC1SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC1 Effective Set-point	nvoHCC1EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC1 Flow Temperature Set-point	nviHCC1FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A
Heating Circuit Controller (HCC2) Objects				➡	**Heating Circuit Controller (HCC2) Objects**			
Heating circuit operating mode	HCC2 Application Mode	NviHCC2ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC2 Unit State	nvoHCC2UnitState	SNVT_hvac_mode
Room set-point temperature	HCC2 Space Set-point	NviHCC2SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC2 Effective Set-point	nvoHCC2EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC2 Flow Temperature Set-point	NviHCC2FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A
Heating Circuit Controller (HCC3) Objects				➡	**Heating Circuit Controller (HCC3) Objects**			
Heating circuit operating mode	HCC3 Application Mode	NviHCC3ApplicMd	SNVT_hvac_mode		Actual operating mode	HCC3 Unit State	nvoHCC3UnitState	SNVT_hvac_mode
Room set-point temperature	HCC3 Space Set-point	NviHCC3SpaceSet	SNVT_temp_p		Effective room set-point temperature	HCC3 Effective Set-point	nNvoHCC3EffSetpt	SNVT_temp_p
Supply temperature set-point	HCC3 Flow Temperature Set-point	NviHCC3FlowTSet	SNVT_temp_p		N/A	N/A	N/A	N/A

Notes:

Error Information

Content of data structure SNVT_alarm for controls

Byte	Name	Content for Viessmann Control Units		
0…5	location	Sending location (6 digits ASCII), factory default setting: "VI " (VI + 4 blank)		
6…7	object_id	Object identification of node object		
8	alarm_type	Alarm type:		
9	priority_type	Priority type: 0 = lowest priority (in case of no fault) 1 = HVAC alarms (in case of fault)		
10…11	index_to_SNVT	Always contains the nvoNodeAlarm index		
12…13	Value[0…1]	Recognition of Viessmann devices: always 0x1917		
14	Value[2]	Bit 2^7	Free	
		Bit 2^6		
		Bit 2^5	0 = Participant is not the central fault manager 1 = Participant is the central fault manager	
		Bit 2^4	Warning that content changed (content of fault buffer has changed since last return receipt by Vitocom 300)	
		Bit 2^3	System Number	
		Bit 2^2		
		Bit 2^1		
		Bit 2^0		
15	value[3]	Participant number		
16…17	year	Time of fault		
18	month			
19	day			
20	hour			
21	minute			
22	second			
23…24	millisecond	Always 0		
25…26	alarm_limit[0…1]	Always 0		
27	alarm_limit[2]	Fault code (high byte), in case of participant failure the central fault manager inputs the participant number of participant with a failure, otherwise 0.		
28	alarm_limit[3]	Fault code (low byte), see Fault Codes		

Fault Code Information

Fault Code (hex)	Cause	Description	Fault Code (hex)	Cause	Description
00		System without fault	50	Short circuit	DHW tank temperature sensor
0F		Perform maintenance check up	51	Short circuit	DHW tank temperature sensor 2
10	Short circuit	Outdoor temperature sensor	58	Open circuit	DHW tank temperature sensor
18	Open circuit	Outdoor temperature sensor	59	Open circuit	DHW tank temperature sensor 2
20	Short circuit	Supply temperature sensor HC1/system	60	Short circuit	Return temperature sensor 17
28	Open circuit	Supply temperature sensor HC1/system	68	Open circuit	Return temperature sensor 17
30	Short circuit	Boiler temperature sensor	70	Short circuit	Supply/return temperature sensor 17B
38	Open circuit	Boiler temperature sensor	78	Open circuit	Supply/return temperature sensor 17B
40	Short circuit	Supply temperature sensor HC2	b0	Short circuit	Flue gas temperature sensor
41	Short circuit	Return temperature sensor HC2	b1	Comm. fault	Programming unit (internal)
44	Short circuit	Supply temperature sensor HC3	b4	Internal fault	Internal fault
45	Short circuit	Return temperature sensor HC3	b5	Internal fault	Internal fault
48	Open circuit	Supply temperature sensor HC2	b6	Internal fault	Invalid hardware detection
49	Open circuit	Return temperature sensor HC2	b7	Internal fault	Boiler protection coding card
4C	Open circuit	Supply temperature sensor HC3	b8	Open circuit	Flue gas temperature sensor
4d	Open circuit	Return temperature sensor HC3	bA	Fault	Mixing valve module KM-BUS

Notes:

Fault Code Information

Fault Code (hex)	Cause	Description
bC	Fault	Vitotrol remote HC1 KM-BUS
bd	Fault	Vitotrol remote HC2 KM-BUS
bE	Fault	Vitotrol remote HC3 KM-BUS
bF	Comm. fault	Wrong LON module
C1	Fault	External fault indication boiler
C5	Fault	Speed controlled pump HC1
C6	Fault	Speed controlled pump HC2
C7	Fault	Speed controlled pump HC3
C8	Fault	Plug in Module LWCO
C9	Fault	Plug in module maximum pressure
CA	Fault	Plug in module min pres/max. pres 2
Cb	Fault	Plug in module maximum pressure 2
CC		Reserved external periphery
Cd	Comm. fault	Vitocom 300 KM-BUS
CE	Comm. fault	Fault indication module KM-BUS

Fault Code (hex)	Cause	Description
CF	Comm. fault	LON module—controller
d1	Burner fault	Boiler
d4	Limit	Fixed high limit on boiler
d5	Comm. fault	Boiler is not responding
d6	External fault	Fault 1 plug in adapter
d7	External fault	Fault 2 plug in adapter
d8	External fault	Fault 3 plug in adapter
dA	Short circuit	Room temperature sensor HC1
db	Short circuit	Room temperature sensor HC2
dC	Short circuit	Room temperature sensor HC3
dd	Open circuit	Room temperature sensor HC1
dE	Open circuit	Room temperature sensor HC2
dF	Open circuit	Room temperature sensor HC3
E0	Fault	External participant

Notes:

K-W Technologies Group
750 McMurray Road
Waterloo, Ontario, Canada
N2V 2G5
Tel: (519) 747-5042
Fax: (519) 747-4448
www.kwelectronicservice.com
info@kwelectronicservice.com