SIEMENS

MK8000 OPC Server Interface

Specification for CC60

Building Technologies
Fire Safety & Security Products

CC60

The CC60 gas detection system represents the current generation of the SIEMENS gas detection technology.

The control unit comprises up to 56 detectors that can be assigned to any of max. 56 zones. The max. 8 x 32 relays can be activated only via control zones. Like the detectors, the control zones also distinguish between the alarm types warning, pre-alarm, and gas alarm (subsequently referred to only as "alarm"). For an alarm to be triggered, a certain number of detectors affiliated with the zone must be in the corresponding alarm state.
There are also collective alarms and fault relays on the CC60.
The alarm type "alarm" is evaluated subject to the CAC (Cerberus Alarm Concept). That is, it triggers a general internal alarm or a remote alarm only after expiration of a safety delay V1 / V2 in accordance with the day/night organisation.

GRN - V1.02 - Added Gas Element virtual properties propagation on the Logical tree objects (Gas Zone, Gas Sector)

Cc60 Application - (GSNOAPMN)

The `CC60 Application` object represents the entire CC60 and the geographical area it covers.

Multistate		Commands											
		1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status
1000	Quiet												✓
1351	Anomaly Ack												✓
At least one part of the control unit has been disconnected.													
1369	Not Aligned												
The control unit is not aligned to the field.													
1370	Alignment In Progress												
The alignment phase is in progress.													
1998	Fault Unreset		✓										✓
At least one fault present in the system (unreset)													
1999	Fault Ack												
At least one fault present in the system (acknowledged)													
2000	Fault Unack	✓											✓
At least one fault present in the system (unacknowledged)													
2051	Vitality Fault												
The control unit transmits a presence telegram every 30s (or 60s) and these telegrams are supervised by the OPC-server. A Vitality Fault indicates that communication to the control unit has been lost.													

Physical tree - (UDUDOLMN)

The `Physical tree` object represents the collection of the objects related to the CC60 hardware components.

Multistate	Commands											
	1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status

1000 Quiet

No abnormal conditions present.

Logical tree - (UDUDOLMN)

The `Logical tree` object represents the collection of all objects supervised by the CC60

Multistate	Commands											
	1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status

1000 Quiet

No abnormal conditions present.

Control unit - (HWNOCCGE)

The `Control unit` object presents the possible faulty conditions related to the CC60 control unit and to the general health of the physical subsystem.

Multistate		Commands											
		1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status
1000	Quiet												
1999	Fault Ack												
Power source fault, for example, asymmetry of the batteries, battery voltage too low, defective fuse in main operation or power supply in battery mode. (Acknowledged)													
2000	Fault Unack	✓											
Power source fault, for example, asymmetry of the batteries, battery voltage too low, defective fuse in main operation or power supply in battery mode. (Unacknowledged)													

Alarm teletransmission - (GSNORDAL)

The C60 can be configured to automatically transmit an alarm to the fire brigade (or similar). This object indicates whether such a transmission has been activated or not.

Multistate		Commands											
		1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status
946	Active Unack	✓											
Outgoing alarm active (unacknowledged)													
947	Active Ack												
Outgoing alarm active (acknowledged)													
1000	Quiet												

Terminal - (HWNOCTGE)

This object represents the health of the terminals connected to the CC60

Multistate	Commands											
	1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status
1000 Quiet												
1999 Fault Ack												

Terminal fault (acknowledged)

Display VD60 - (HWDEDSGE)

This object represents the Vacuum fluorescent display (VFD). VFD is a 2 lines plain text display

Multistate	Commands											
	1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status

1000 Quiet

No abnormal conditions present.

Service port - (HWCMLIGE)

The CC60 allows you to connect a service PC. This object gives information whether such a PC is connected or not.

Multistate	Commands											
	1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status

950 Active

Service port has been activated.

1000 Quiet

Gas element - (GSDEDEEL)

This object represents the gas detection device (gas element)

Multistate		Commands											
		1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status
500	Alarm Unack	✓							✓				
Detector alarm active (unacknowledged)													
502	Alarm Unreset		✓						✓				
Detector alarm active (unreset)													
510	Alarm & Fault Unack	✓							✓				
Detector alarm active and contemporary also fault activated by detection device (unacknowledged)													
511	Alarm & Fault Ack								✓				
Detector alarm active and contemporary also fault activated by detection device (acknowledged)													
512	Alarm & Fault Unreset		✓						✓				
Detector alarm active and contemporary also fault activated by detection device (unreset)													
800	Prealarm Unack	✓							✓				
Detector pre-alarm or warning active (unacknowledged)													
802	Prealarm Unreset		✓						✓				
Detector pre-alarm or warning active (unreset)													
810	Prealarm & Fault Unack	✓							✓				
Detector pre-alarm or warning active and contemporary also fault activated by detection device (unacknowledged)													
811	Prealarm & Fault Ack								✓				
Detector pre-alarm or warning active and contemporary also fault activated by detection device (acknowledged)													

812	Prealarm & Fault Unreset	✓			✓	

Detector pre-alarm or warning active and contemporary also fault activated by detection device (unreset)

1000	Quiet		✓		✓	

1100	Test			✓	✓	

Test mode (valid for pre-alarm, warning & maintenance/revision)

1111	Test-Alarm Ack				✓	

Alarm in test mode initiated

1400	Disconnected					✓

Detection device is switched off

1999	Fault Ack				✓	

Fault activated by detection device (acknowledged)

2000	Fault Unack	✓			✓	

Fault activated by detection device (unacknowledged)

Output board - (BSCOOBGE)

The CC60 allows you to add up to 8 output boards. This object represents such a board.

Multistate	Commands											
	1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status

1000 Quiet

No abnormal conditions present.

Output - (BSCOOUGE)

Up to 16 outputs can be configured per output board. This object represents an output

Multistate		Commands											
		1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status
950	Active							✓					
Control contacts are activated													
1000	Quiet						✓						
1999	Fault Ack						✓						
Control contact fault (acknowledged)													
2000	Fault Unack	✓					✓						
Control contact fault (unacknowledged)													

Gas sector - (GSDESEGE)

The gas sector comprises all functions related to the measurement data acquisition and alarm processing.

Multistate		Commands											
		1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status
500	Alarm Unack	✓											
Outgoing alarm in day mode (unacknowledged)													
502	Alarm Unreset		✓		✓								
Outgoing alarm in day mode (unreset)													
510	Alarm & Fault Unack	✓			✓								
Outgoing alarm in day mode and contemporary occurrence of a fault in a device (unacknowledged)													
511	Alarm & Fault Ack				✓								
Outgoing alarm in day mode and contemporary occurrence of a fault in a device (acknowledged)													
512	Alarm & Fault Unreset		✓		✓								
Outgoing alarm in day mode and contemporary occurrence of a fault in a device (unreset)													
800	Prealarm Unack	✓			✓								
General internal alarm impending (Day) (unacknowledged)													
802	Prealarm Unreset		✓		✓								
General internal alarm impending (Day) (unreset)													
810	Prealarm & Fault Unack	✓			✓								
General internal alarm impending (Day) and contemporary occurrence of a fault in a device (unacknowledged)													
811	Prealarm & Fault Ack				✓								
General internal alarm impending (Day) and contemporary occurrence of a fault in a device (acknowledged)													

812	Prealarm & Fault Unreset	✓		✓

General internal alarm impending (Day) and contemporary occurrence of a fault in a device (unreset)

1000	Quiet			✓
1300	Disarmed		✓	

The Alarm organisation (Day/Night) of the Gas sector is in DAY mode

1351	Anomaly Ack		✓	✓

Detection devices are (partially) switched off or in test mode

1999	Fault Ack		✓	✓

Occurrence of a fault in a device (acknowledged)

2000	Fault Unack	✓	✓	✓

Occurrence of a fault in a device (unacknowledged)

Gas zone - (GSDEZOGE)

A `Gas zone` represents a supervised object, such as a room, office etc. Each zone contains one or more detectors, which are logically allocated to the zone.

Multistate		Commands											
		1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status
500	Alarm Unack	✓											
Zone alarm active (unacknowledged)													
502	Alarm Unreset		✓										
Zone alarm active (unreset)													
800	Prealarm Unack	✓											
Zone pre-alarm active (unacknowledged)													
802	Prealarm Unreset		✓										
Zone pre-alarm active (unreset)													
1000	Quiet												

Gas element link - (UDUDUDUD)

In an addressable system each element must be logically allocated to a `parent` zone. This is a static object and is not used to communicate any information during run-time.

Multistate	Commands											
	1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status

1000 Quiet

No abnormal conditions present.

Building services sector - (BSCOSEGE)

The `Building service section` is essentially limited to the signaling and monitoring of contacts.

Multistate		Commands											
		1-Ack	2-Reset	4-Arm	8-Disarm	16-Test	32-Active	64-Quiet	128-Disc	256-Conn	512-Block	1024-Man	2048-Status
1000	Quiet												
1999	Fault Ack												
General Fault (acknowledged)													
2000	Fault Unack	✓											
General Fault (unacknowledged)													

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