Overview of Monitoring & SNMP values - **Digital matrix systems ControlCenter-Compact**

The following tables provides information about monitoring and SNMP/syslog supported by the digital matrix systems. Marked with ✓ or ✗, the first four columns show, which device variants are affected by the listed monitoring or SNMP value.
The description in the column 'Name Monitoring' is displayed during the monitoring process and can also assume the values from the column 'Monitoring values'. The description in the column 'Name SNMP' is displayed during the monitoring process and can also assume the values from the column 'SNMP values'. Translations for the monitoring integrated in G&D devices are not considered in the list.
The value from the column 'Nominal value' represents the nominal value. If the nominal value is reached and does not fall below or exceed the defined value, the value is shown in green during monitoring.

If the nominal value is not reached or falls below or exceeds the defined value, the value is shown in red during monitoring.

Values are sent via SNMP/syslog if a nominal value is reached or deviates from the given value. If the nominal value is not defined, the monitoring value is neutral and is displayed in black during monitoring. In this case, each change of values is sent via SNMP/syslog.

The SNMP manager ZABBIX provides templates to import elements for all supported G&D devices. The templates not only include SNMP names and values but also pre-defined triggers and update intervals. These values are listed in the columns. Zabbix template Trigger and Zabbix template Update interval (in sec).

ControlCenter-Compact

CCC	Name Monitoring	Name SNMP	Values Monitoring	Values SNMP	Nominal value	Zabbix template trigger	Zabbix template Update interval (in sec)	Description
✓	-	sysDescr	-	Variable value	-	-	3600	A textual description of the entity. This value includes the full name and version identification of the system's hardware type, software operating-system, and networking software.
✓	-	sysObjectID	-	Variable value	-	-	-	The vendor's authoritative identification of the network management subsystem contained in the entity. This value is allocated within the SMI enterprises subtree (1.3.6.1.4.1) and provides an easy and unambiguous means for determining 'what kind of box' is being managed.
✓	-	sysUpTime	-	Variable value	-	-	30	The time (in hundredths of a second) since the network management portion of the system was last re-initialized.
✓	-	sysContact	-	Variable value	-	-	3600	The textual identification of the contact person for this managed node, together with information on how to contact this person.
✓	-	sysName	-	Variable value	-	-	3600	An administratively-assigned name for this managed node. By convention, this is the node's fully-qualified domain name.
✓	-	sysLocation	-	Variable value	-	-	3600	The physical location of this node (e.g., 'telephone closet, 3rd floor')
✓	-	generalErrorCode	-	Variable value	0 = No error	"<> 0 (Desaster)"	3600	SNMP Write Error Code
✓	-	generalErrorMessage	-	Variable value	No error	-	3600	Description of the SNMP Write Error Code
✓	-	deviceId	-	Variable value	-	-	3600	Device ID (variable value)
✓	-	deviceCl	-	Variable value	-	-	3600	Device class (variable value)

Overview of Monitoring & SNMP values - **ControlCenter-Compact**

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CCC	Name Monitoring	Name SNMP	Values Monitoring	Values SNMP	Nominal value	Zabbix template trigger	Zabbix template Update interval (in sec)	Description
✓	-	deviceType	-	Variable value	-	-	3600	Device type (variable value)
✓	-	serialNumber	-	Variable value	-	-	3600	Serial number (variable value)
✓	-	etherAddress0	-	Variable value	-	-	3600	MAC address of first ethernet port (variable value)
✓	-	etherAddress1	-	Variable value	-	-	3600	MAC address of second ethernet port (variable value)
✓	-	firmwareVersion	-	Variable value	-	-	3600	Firmware version (variable value)
✓	-	snmpEngineID	-	Variable value	-	-	3600	"Unique identifier of SNMP engine Id (variable value) Elective the value is generated individually with every re-boot of the device by using a random number plus the current time in seconds, or by using a fixed value based on the MAC address, or by using a user defined value."
✓	-	snmpEngineBoots	-	Variable value	-	-	3600	Number of reboots of SNMP engine, since SNMP engine Id was last configured (variable value)
✓	-	snmpEngineTime	-	Variable value	-	-	3600	Number of seconds since the last reboot of SNMP engine (variable value)
✓	-	snmpEngineMaxMessage-Size	-	Variable value	-	-	3600	Maximum length of a SNMP message which the SNMP engine can send or receive
✓	Status	-	"0 = Offline 1 = Online "	-	1 = Online	-	-	"Device status (Online/Offline) ---------- Online = Device online Offline = Device offline"
✓	Main power	mainPower	"0 = Off 1 = On"	"0 = off 1 = on"	1 = On	"<> 1 (High)"	30	"Status of main power supply (On/Off) ---------- 0 = Main power supply is not supplied with power 1 = Main power supply is supplied with power"
✓	Redundant power	redundantPower	"0 = Off 1 = On"	"0 = off 1 = on"	1 = On	"<> 1 (Warning)"	30	"Status of redundant power supply (On/Off) ---------- 0 = Redundant power supply is not supplied with power 1 = Redundant power supply is supplied with power"
✓	Temperature	temperature1	°C	°C	0 - 65°C	"> 65 (Desaster)"	30	Device temperature (variable value / ° Celsius)

Overview of Monitoring & SNMP values - **ControlCenter-Compact**

CCC	Name Monitoring	Name SNMP	Values Monitoring	Values SNMP	Nominal value	Zabbix template trigger	Zabbix template Update interval (in sec)	Description
✓	Network A	networkInterface0	"0 = Down 1 = Up"	"0 = down 1 = up"	neutral	"<> 1 (Information)"	30	"Status of network interface A (Up/Down) ---------- 0 = Inactive network interface 1 = Active network interface"
✓	Network B	networkInterface1	"0 = Down 1 = Up"	"0 = down 1 = up"	neutral	"<> 1 (Information)"	30	"Status of network interface B (Up/Down) ---------- 0 = Inactive network interface 1 = Active network interface"
✓	Fan speed N	-	RPM	-	neutral	-	-	"Fan speed (variable value / rotations per minute) <<< N = number of fan >>>"
✓	-	fan1	-	RPM	-	-	30	Fan speed fan 1 (Variable value / rotations per minute)
✓	-	fan2	-	RPM	-	-	30	Fan speed fan 2 (Variable value / rotations per minute)
✓	-	fan3	-	RPM	-	-	30	Fan speed fan 3 (Variable value / rotations per minute)
✓	Current	powerCurrent	Ampere	Ampere	"~ 0.8 - 6.2A <see table2>"	"< 1,8 ... > 6,2 resp. < 0,8 ... > 3,2 resp. < 0,8 ... > 2,2 resp. (High) <see table2>"	30	Current of power supply (variable value / Ampere - nominal values depending on device type - see table2)
✓	Voltage	powerVoltage	Volt	Volt	10.5 - 13.0V	"< 10,5 ... > 13,0 (High)"	30	Voltage of power supply (variable value / Volt - nominal values depending on device type)
✓	Stackbus	stackbusStatus	"0 = Down 1 = Up"	"0 = down 1 = up"	neutral	"<> 1 (Information)"	30	"Status of stack bus interface (Up/Down) ---------- 0 = Inactive stack bus interface 1 = Active stack bus interface"
✓	-	catPortStatus.N	-	"0 = down 1 = up"	neutral	-	30	"Port status (Down/Up) <<< N = port number >>> ---------- 0 = Port down 1 = Port up"

Overview of Monitoring & SNMP values - **ControlCenter-Compact CON devices**

CAT	Fiber	Name Monitoring	Name SNMP	Values Monitoring	Values SNMP	Nominal value	Zabbix template trigger	Zabbix template Update interval (in sec) (in sec)	Description
✓	✓	Status	-	"0 = Offline 1 = Online "	-	1 = Online	-	-	"Device status (Online/Offline) ---------- 0 = Device not available 1 = Device available"
✓	✓	Main power	-	"0 = Off 1 = On"	-	1 = On	-	-	"Status of main power supply (On/Off) ---------- 0 = Main power supply is not supplied with power 1 = Main power supply is supplied with power"
✓	✓	Redundant power	-	"0 = Off 1 = On"	-	1 = On	-	-	"Status of redundant power supply (On/Off) ---------- 0 = Redundant power supply is not supplied with power 1 = Redundant power supply is supplied with power"
✓	✓	Temperature	-	°C	-	0 - 65°C	-	-	Device temperature (variable value / ° Celsius)
✓	✓	Display type	-	Variable value	-	neutral	-	-	Information about screen type (variable value)
✓	✓	PS/2	-	"0 = None 1 = Keyboard 2 = Mouse 3 = K/M"	-	neutral	-	-	"Status of PS/2 interface of console or local console (No device/Keyboard/Mouse/Keyboard and Mouse) ---------- 0 = No device connected 1 = Keyboard connected 2 = Mouse connected 3 = Keyboard and mouse connected"
✓	✓	USB	-	"0 = None 1 = Keyboard 2 = Mouse 3 = K/M"	-	neutral	-	-	"Status of USB-HID interface of console or local console (No device/Keyboard/Mouse/Keyboard and Mouse) ---------- 0 = No device connected 1 = Keyboard connected 2 = Mouse connected 3 = Keyboard and mouse connected"
✗	✓	SFP module*	-	"0 = No module 1 = Module deactivated 2 = Down 3 = Up"	-	neutral	-	-	"Port status of fibre optics transceiver (No module/Module deactivated/Active/Inactive) ---------- 0 = No SFP module 1 = SFP module deactivated (e.g. SFP module in use is not released for device) 2 = Inactive transfer port 3 = Active transfer port"

Overview of Monitoring & SNMP values - **ControlCenter-Compact CON devices**

CAT	Fiber	Name Monitoring	Name SNMP	Values Monitoring	Values SNMP	Nominal value	Zabbix template trigger	Zabbix template Update interval (in sec) (in sec)	Description
✗	✓	SFP TX power	-	µW	-	neutral	-	-	Transmitting power of fibre optics transceiver (variable value / µW
✗	✓	SFP RX power	-	µW	-	neutral	-	-	Receiving power of fibre optics transceiver (variable value / µW
✗	✓	SFP type	-	Variable value	-	neutral	-	-	Information about fibre optics transceiver type (variable value)
✗	✓	SFP module port N**	-	"0 = No module 1 = Module deactivated 2 = Down 3 = Up"	-	neutral	-	-	"Port status of I/O card Fiber (No module/Deactivated/Up/Down) <<< N = channel number of the transmission channel >>> ---------- 0 = No SFP module in use 1 = SFP module is deactivated (e.g. SFP module is not released for the device) 2 = Transfer port is down 3 = Transfer port is up"
✗	✓	SFP TX power port N**	-	µW	-	neutral	-	-	"Transmitting power of fibre optics transceiver (variable value / µW <<< N = channel number of the transmission channel >>>"
✗	✓	SFP RX power port N**	-	µW	-	neutral	-	-	"Receiving power of fibre optics transceiver (variable value / µW <<< N = channel number of the transmission channel >>>"
✗	✓	SFP type port N**	-	Variable value	-	neutral	-	-	"Information about fibre optics transceiver type (variable value) <<< N = channel number of the transmission channel >>>"
✓	✓	Active transmission port ***	-	Variable value	-	neutral	-	-	Number of the active transmission channel

* Valid for devices with one (1) transmission channel
** Valid for devices with two (2) transmission channels
*** Valid for devices with redundant transmission channels (e.g. DVI-CON-2)

Overview of Monitoring & SNMP values - **ControlCenter-Compact CPU devices**

CAT	Fiber	Name Monitoring	Name SNMP	Values Monitoring	Values SNMP	Nominal value	Zabbix template trigger	Zabbix template Update interval (in sec)	Description
✓	✓	Statusw	-	"0 = Offline 1 = Online 2 = Ready"	-	"1 = Online or 2 = Ready "	-	-	"Device status (Online/Offline) ---------- 0 = CPU device NOT available 1 = CPU device available and PC available 2 = CPU device available and PC NOT available"
✓	✓	Temperature	-	°C	-	"0 - 72°C <see table4>"	-	-	Device temperature (variable value / ° Celsius - nominal values depending on device type - see table4)
✓	✓	CPU USB K/M	-	"0 = Disconnected 1 = Connected 2 = Initialized"	-	neutral	-	-	"Status of USB-HID interface to target (Disconnected/Connected/Initialized) ---------- 0 = USB-HID interface not connected to target 1 = USB-HID interface connected to target 2 = Communication between USB-HID interface and computer established"
✓	✓	CPU PS/2	-	"0 = None 1 = Keyboard 2 = Mouse 3 = K/M"	-	neutral	-	-	"Status of PS/2 interface to target (No connection/Keyboard/Mouse/Keyboard and Mouse) ---------- 0 = Both PS/2 interfaces are not connected to target 1 = Keyboard interface is connected to target 2 = Mouse interface is connected to target 3 = Keyboard and mouse interfaces are connected to target"
✓	✓	Video cable	-	"0 = Disconnected 1 = Connected"	-	neutral	-	-	"Status of video cable connection to target (Disconnected/Connected) ---------- 0 = Video interface not connected to target 1 = Video interface connected to target"
✓	✓	Video signal	-	"0 = None 1 = VGA 2 = SL-DVI 3 = DL-DVI (future terminals) 4 = DM-DP 5 = DP 6 = HDMI"	-	neutral	-	-	"Status of video signal from target (no signal/VGA/single-link DVI/dual-link DVI/DualMode DisplayPort/DisplayPort) ---------- 0 = No video input signal from target 1 = Target provides VGA signal 2 = Target provides DVI single-link signal 3 = Target provides DVI dual-link signal 4 = Target provides DisplayPort dual mode signal 5 = Target provides DisplayPort signal 6 = Target provides HDMI signal"

Overview of Monitoring & SNMP values - **Tables**

Table 2: Current limit values

Device/Type	Imin	Imax
ControlCenter Compact 16C	0.8A	4.1A
ControlCenter Compact 32C	0.9A	4.6A
ControlCenter Compact 48C	1.0A	5.5A
ControlCenter Compact 64C	1.1A	6.2A
ControlCenter Compact 80C	1.2A	6.8A

Table 4: Limit temperature values

Device/Type	maxThreshold
General (0x0000)	60
DP-CPU (0x0007)	70
DP-CPU-UC (0x0008)	70
DP-CPU-MC2 (0x0009)	70
DP-CPU-MC2-UC (0x000A)	70
DVI-CPU 2.0 (0x000B)	72
DVI-CPU-UC 2.0 (0x000C)	72
DVI-CPU-MC2 (0x000D)	72
DVI-CPU-MC2-UC (0x000E)	72
VGA-CPU-UC (0x0013)	68
DVI-CPU-Fiber (0x0014)	68
DVI-CPU-Fiber-UC (0x0015)	68
DP-HR-CPU (0x0016)	68
DP-HR-CPU-UC (0x0017)	68
DP-HR-CPU-MC2 (0x0018)	68
DP-HR-CPU-MC2-UC (0x0019)	68
DP-HR-CPU-Fiber (0x001A)	70
DP-HR-CPU-Fiber-UC (0x001B)	70
DP-HR-CPU-Fiber-MC2 (0x0022)	70
DP-HR-CPU-Fiber-MC2-UC (0x0023)	70
DP-HR-CPU-additional channel (0x0024)	68
DP-HR-CPU-UC-additional channel (0x0025)	68
DP-HR-CPU-Fiber-additional channel (0x0026)	70
DP-HR-CPU-Fiber-UC-additional channel (0x0027)	70

Device/Type	maxThreshold
DP-HR-CPU-DH (0x002E)	70
DP-HR-CPU-DH-UC (0x002F)	70
DP-HR-CPU-DH-Fiber (0x0032)	72
DP-HR-CPU-DH-UC-Fiber (0x0033)	72
DP-U-CPU (0x0107)	70
DP-U-CPU-UC (0x0108)	70
DP-U-CPU-MC2 (0x0109)	70
DP-U-CPU-MC2-UC (0x010A)	70
DVI-U-CPU 2.0 (0x010B)	72
DVI-U-CPU-UC 2.0 (0x010C)	72
DVI-U-CPU-MC2 (0x010D)	72
DVI-U-CPU-MC2-UC (0x010E)	72
VGA-U-CPU-UC (0x0113)	68
DVI-U-CPU-Fiber (0x0114)	68
DVI-U-CPU-Fiber-UC (0x0115)	68
DP-HR-U-CPU (0x0116)	68
DP-HR-U-CPU-UC (0x0117)	68
DP-HR-U-CPU-MC2 (0x0118)	68
DP-HR-U-CPU-MC2-UC (0x0119)	68
DP-HR-U-CPU-Fiber (0x011A)	70
DP-HR-U-CPU-Fiber-UC (0x011B)	70
DP-HR-U-CPU-Fiber-MC2 (0x0122)	70
DP-HR-U-CPU-Fiber-MC2-UC (0x0123)	70
DP-HR-U-CPU-DH (0x012E)	72
DP-HR-U-CPU-DH-UC (0x012F)	72
DP-HR-U-CPU-DH-Fiber (0x0132)	74