

Overview of Monitoring & SNMP values - Digital matrix systems (CCD + DVICenter)

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).



DVI-Center

CCD 288	CCD 160	CCD 80	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	Error Code
✔	✔	✔	-	generalErrorMessage	-	Variable value	No error	-	3600	Error Message
✔	✔	✔	-	deviceId	-	Variable value	-	-	3600	Device ID (variable value)
✔	✔	✔	-	deviceCl	-	Variable value	-	-	3600	Device class (variable value)



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CCD 288	CCD 160	CCD 80	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	-	-	3601	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)
✓	✓	✓	Status	-	0 = Offline 1 = Online	-	1 = Online	-	-	Device status (Online/Offline) ----- Online = Device online Offline = Device offline
✓	✓	✓	Current	powerCurrent	Ampere	Ampere	~ 0.8 - 68A <see table3>	-	60	Current of power supply (variable value / Ampere - nominal values depending on device type - see table3)
✓	✓	✓	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
✓	✓	✓	SSD N	-	0 = Failure 1 = Resync 2 = Recover 3 = Check 4 = Repair 5 = OK	-	1 = Resync 2 = Recover 3 = Check 4 = Repair 5 = Idle	-	-	Status of SSD card (Failure/Resync/Recover/Check/Repair/Idle) <<< N = number of SSD card (1 or 2) >>> ----- 0 = SSD card failure 1 = SSD card is resynced due to automatic processes 2 = SSD card hot spare is created 3 = SSD card is checked for synchronisation 4 = SSD card is synced due to manual user request 5 = SSD card is ready for operation

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CCD 288	CCD 160	CCD 80	Name Monitoring	Name SNMP	Values Monitoring	Values SNMP	Nominal value	Zabbix template Trigger	Zabbix template Update interval (in sec)	Description
✓	✓	✓	-	raidStatusDevice1	-	0 = failure 1 = resync 2 = recover 3 = check 4 = repair 5 = ok	-	= 0 (Desaster) = 3 (Information) = 1 or = 2 or = 4 (Warning)	30	Status of SSD card 1 (Failure/Resync/Recover/Check/Repair/Idle) ----- 0 = SSD card shows failure 1 = SSD card is resynced due to automatic processes 2 = SSD card hot spare is created 3 = SSD card is checked for synchronisation 4 = SSD card is synced due to manual user request 5 = SSD card is ready for operation
✓	✓	✓	-	raidStatusDevice2	-	0 = failure 1 = resync 2 = recover 3 = check 4 = repair 5 = ok	-	= 0 (Desaster) = 3 (Information) = 1 or = 2 or = 4 (Warning)	30	Status of SSD card 2 (Failure/Resync/Recover/Check/Repair/Idle) ----- 0 = SSD card failure 1 = SSD card is resynced due to automatic processes 2 = SSD card hot spare is created 3 = SSD card is checked for synchronisation 4 = SSD card is synced due to manual user request 5 = SSD card is ready for operation
✓	✓	✓	Stackbus	stackbusStatus	0 = Down 1 = Up	0 = down 1 = up	neutral	60	30	Status of Stackbus interface (Down/Up) ----- 0 = Stackbus interface is down 1 = Stackbus interface is up
✓	✓	✓	Function Switch	functionSwitch	0 = Failure 1 = Ok	0 = failure 1 = ok	1 = Ok	-	30	Status of switch card (Failure/OK) ----- 0 = Failure at switch card 1 = Switch card is ok
✓	✓	✓	Temperature switch	switchTemperature	°C	°C	5 - 120°C	> 120 (Desaster)	30	Temperature of switch card (variable value / ° Celcius)
✓	✓	✓	Temperature controller	controllerTemperature	°C	°C	5 - 55°C	> 55 (Desaster)	30	Temperature of controller card (variable value / ° Celcius)
✓	✓	✓	Fan speed SW N IN Fan speed IO M IN	-	RPM	-	>=100 RPM	-	-	Fan speed of IN card (variable value / rotations per minute) <<< N = number of SW-sided fan (1-4) >>> <<< M = number of IO-sided fan (1-6) >>>

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CCD 288	CCD 160	CCD 80	Name Monitoring	Name SNMP	Values Monitoring	Values SNMP	Nominal value	Zabbix template Trigger	Zabbix template Update interval (in sec)	Description
✓	✓	✓	Fan speed SW N OUT Fan speed IO M OUT	-	RPM	-	>=100 RPM	-	-	Fan speed of OUT card (variable value / rotations per minute) <<< N = number of SW-sided fan (1-4) >>> <<< M = number of IO-sided fan (1-6) >>>
✓	✓	✓	-	fanSpeed.N	-	RPM	-	< 100 (High)	30	Fan speed of IN/OUT card (variable value / rotations per minute) <<< N = number of fan (1-20) >>>
✓	✓	✓	-	fanName.N	-	Variable value	-	-	3600	Name of fan of IN/OUT card (variable value) <<< N = number of fan (1-20) >>>
✓	✓	✓	Power supply N power	powerSupplyStatus.N	0 = Off 1 = On 2 = Absent 3 = Failure	0 = off 1 = on 2 = absent 3 = failure	1 = On	<> 1 (High)	60	Power supply Status of power supply modules (Off/On/Absent/Failure) <<< N = number of power supply module (1-3) >>> ----- 0 = Power supply module is not supplied with power 1 = Power supply module is supplied with power 2 = Power supply module is absent 3 = Power supply module failure
✓	✓	✓	Power supply N temperature	powerSupplyTemperature.N	°C	°C	5 - 60°C	> 60 (Desaster)	60	Temperature of power supply module (variable value / ° Celcius) <<< N = number of power supply module (1-3) >>>
✓	✓	✓	Power supply N voltage	powerSupplyVoltage.N	Volt	Volt	10.5 - 13.0V	< 10,5 ... > 13,0 (High)	60	Voltage of power supply module (variable value / Volt) <<< N = number of power supply module (1-3) >>>
✓	✓	✓	Power supply N fan	powerSupplyFanFunction.N	0 = Failure 1 = Ok	0 = Failure 1 = Ok	1 = Ok	-	-	Status of power supply module fan (Failure/OK) <<< N =number of power supply module (1-3) >>> ----- 0 = Failure of power supply module fan 1 = Power supply module fan is ok

Overview of Monitoring & SNMP values - ControlCenter-Digital CAT-I/O cards

Note: The placeholder 'N' can assume the values 1-18. Any plugged-in CAT-I/O cards are continuously assigned with a number (starting with 1). The first plugged-in CAT-I/O card is assigned to placeholder 1 (e.g. ioCardCatId.1), the last one to placeholder 18, when all slots are filled (e.g. ioCardCatId.18). The name ioCardCATMatrixSlot.N' contains the slot

number of the CAT-I/O-card (1-18), which makes it easy to identify the CAT-I/O card within the matrix switch. If a CAT-I/O card is removed and its entry is deleted in the ConfigPanel, the remaining CAT-I/O cards are newly assigned starting with 1. The same assignment applies to other I/O card types (e.g. SFP-I/O cards).

Name Monitoring	Name SNMP	Monitoring values	SNMP values	Nominal value	Zabbix template Trigger	Zabbix template Update interval (in sec)	Description
-	ioCardCatId.N	-	Variable value	-	-	3600	Device ID I/O card CAT (variable value) <<< N = number of I/O card CAT (1-18) >>>
-	ioCardCatMatrixSlot.N	-	Variable value	-	-	3600	Number of matrix card slot that holds I/O card CAT (variable value <1-18>) <<< N = number of I/O card CAT (1-18) >>>
Status	ioCardCatStatus.N	0 = Offline 1 = Online	0 = offline 1 = online	1 = Online	<> 1 (High)	30	Status of I/O card CAT (Online/Offline) <<< N = number of I/O card CAT (1-18) >>> ----- 0 = I/O card CAT is offline 1 = I/O card CAT is online
Temperature	ioCardCatTemperature.N	°C	°C	5 - 55°C	> 55 (Desaster)	30	Temperature of I/O card CAT (variable value / ° Celcius) <<< N = number of I/O card CAT (1-18) >>>
Function	ioCardCatFunction.N	0 = Failure 1 = Ok	0 = failure 1 = ok	1 = Ok	<> 1 (High)	30	Functional status of I/O card CAT (Failure/OK) <<< N = number of I/O card CAT (1-18) >>> ----- 0 = Failure of I/O card CAT 1 = I/O card CAT is OK
Link port N	ioCardCatPortStatus.M.N	0 = Down 1 = Up	0 = down 1 = up	neutral	-	30	Port status of I/O card CAT (Down/Up) <<< M = number of I/O card CAT (1-18) >>> <<< N = port number on I/O card CAT (1-16) >>> ----- 0 = Port of I/O card CAT down 1 = Port of I/O card CAT up

Overview of Monitoring & SNMP values - ControlCenter-Digital Multi-I/O cards

Note: The placeholder 'N' can assume the values 1-18. Any plugged-in Multi-I/O cards are continuously assigned with a number (starting with 1). The first plugged-in Multi-I/O card is assigned to placeholder 1 (e.g. ioCardMultild.1), the last one to placeholder 18, when all slots

are filled (e.g. ioCardMultild.18). The name ,ioCardMultiMatrixSlot.N' contains the slot number of the Multi-I/O card (1-18), which makes it easy to identify the Multi-I/O card within the matrix switch.

If a Multi-I/O card is removed and its entry is deleted in the ConfigPanel, the remaining Multi-I/O cards are newly assigned starting with 1. The same assignment applies to other I/O card types (e.g. SFP-I/O cards).

Name Monitoring	Name SNMP	Monitoring values	SNMP values	Nominal value	Zabbix template Trigger	Zabbix template Update interval (in sec)	Description
-	ioCardMultild.N	-	Variable value	-	-	3600	Device ID of I/O card Multi (variable value) <<< N = number of I/O card Multi (1-18) >>>
-	ioCardMultiMatrixSlot.N	-	Variable value	-	-	3600	Number of matrix card slot that holds I/O card Multi (variable value <1-18>) <<< N = number of I/O card Multi (1-18) >>>
Status	ioCardMultiStatus.N	0 = Offline 1 = Online	0 = offline 1 = online	1 = Online	<> 1 (High)	30	Status of I/O card Multi (Online/Offline) <<< N = number of I/O card Multi (1-18) >>> 0 = I/O card Multi is offline 1 = I/O card Multi is online
Temperature	ioCardMultiTemperature.N	°C	°C	5 - 55°C	> 55 (Desaster)	30	Temperature of I/O card Multi (variable value / ° Celcius) <<< N = number of I/O card Multi (1-18) >>>
Function	ioCardMultiFunction.N	0 = Failure 1 = Ok	0 = failure 1 = ok	1 = Ok	<> 1 (High)	30	Functional status of I/O card Multi (Failure/OK) <<< N = number of I/O card Multi (1-18) >>> 0 = Failure of I/O card Multi 1 = I/O card Multi is OK
SFP module N	ioCardMultiPortStatus.M.N	0 = No module 1 = Module deactivated 2 = Down 3 = Up	0 = noModule 1 = deactivated 2 = down 3 = up	neutral	-	30	Port status of I/O card Multi (No module/Deactivated/Up/Down) <<< M = number of I/O card Multi (1-18) >>> <<< N = port number on I/O card Multi (1-16) >>> 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
TX power port N	ioCardMultiTxPower.M.N	µW	µW	neutral	-	30	Transmitting power of I/O card Multi port (variable value / µW) <<< M = number of I/O card Multi (1-18) >>> <<< N = port number on I/O card Multi (1-16) >>>
RX power port N	ioCardMultiRxPower.M.N	µW	µW	neutral	-	30	Receiving power of I/O card Multi port (variable value / µW) <<< M = number of I/O card Multi (1-18) >>> <<< N = port number on I/O card Multi (1-16) >>>
SFP type port N	ioCardMultiSfpType.M.N	Variable value	Variable value	neutral	-	3600	Information about fibre optics transceiver type (variable value)

Overview of Monitoring & SNMP values - ControlCenter-Digital SFP-I/O cards

Note: The placeholder 'N' can assume the values 1-18. Any plugged-in SFP-I/O cards are continuously assigned with a number (starting with 1). The first plugged-in CAT-I/O card is assigned to placeholder 1 (e.g. ioCardFiberId.1), the last one to placeholder 18, when all slots are filled

(e.g. ioCardFiberId.18). The name ,ioCardFiberMatrixSlot.N' contains the slot number of the CAT-I/O-card (1-18), which makes it easy to identify the SFP-I/O card within the matrix switch. If an SFP-I/O card is removed and its entry is deleted in the ConfigPanel, the remaining SFP-I/O cards

are reassigned starting with 1. The same assignment applies to other I/O card types (e.g. CAT-IO cards).

Name Monitoring	Name SNMP	Monitoring values	SNMP values	Nominal value	Zabbix template Trigger	Zabbix template Update interval (in sec)	Description
-	ioCardFiberId.N	-	Variable value	-	-	3600	Device ID of I/O card Fiber (variable value) <<< N = number of I/O card Fiber (1-18) >>>
-	ioCardFiberMatrixSlot.N	-	Variable value	-	-	3600	Number of matrix card slot that holds I/O card Fiber (variable value <1-18>) <<< N = number of I/O card Fiber (1-18) >>>
Status	ioCardFiberStatus.N	0 = Offline 1 = Online	0 = offline 1 = online	1 = Online	<> 1 (High)	30	Status of I/O card Fiber (Online/Offline) <<< N = number of I/O card Fiber (1-18) >>> 0 = I/O card Fiber is offline 1 = I/O card Fiber is online
Temperature	ioCardFiberTemperature.N	°C	°C	5 - 55°C	> 55 (Desaster)	30	Temperature of I/O card Fiber (variable value / ° Celcius) <<< N = number of I/O card Fiber (1-18) >>>
Function	ioCardFiberFunction.N	0 = Failure 1 = Ok	0 = failure 1 = ok	1 = Ok	<> 1 (High)	30	Functional status of I/O card Fiber (Failure/OK) <<< N = number of I/O card Fiber (1-18) >>> 0 = Failure of I/O card Fiber 1 = I/O card Fiber is OK
SFP module N	ioCardFiberPortStatus.M.N	0 = No module 1 = Module deactivated 2 = Down 3 = Up	0 = noModule 1 = deactivated 2 = down 3 = up	neutral	-	30	Port status of I/O card Fiber (No module/Deactivated/Up/Down) <<< M = number of I/O card Fiber (1-18) >>> <<< N = port number on I/O card Fiber (1-16) >>> 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
TX power port N	ioCardFiberTxPower.M.N	µW	µW	neutral	-	30	Transmitting power of I/O card Fiber port (variable value / µW) <<< M = number of I/O card Fiber (1-18) >>> <<< N = port number on I/O card Fiber (1-16) >>>
RX power port N	ioCardFiberRxPower.M.N	µW	µW	neutral	-	30	Receiving power of I/O card Fiber port (variable value / µW) <<< M = number of I/O card Fiber (1-18) >>> <<< N = port number on I/O card Fiber (1-16) >>>
SFP type port N	ioCardFiberSfpType.M.N	Variable value	Variable value	neutral	-	3600	Information about fibre optics transceiver type (variable value)

Overview of Monitoring & SNMP values - DVICenter

DP16	DP32	DP64	Name Monitoring	Name SNMP	Monitoring values	SNMP values	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	Error Code
✓	✓	✓	-	generalErrorMessage	-	Variable value	No error	-	3600	Error Message
✓	✓	✓	-	deviceId	-	Variable value	-	-	3600	Device ID (variable value)
✓	✓	✓	-	deviceCl	-	Variable value	-	-	3600	Device class (variable value)
✓	✓	✓	-	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)
✓	✓	✓	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



Overview of Monitoring & SNMP values - DVICenter

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DP16	DP32	DP64	Name Monitoring	Name SNMP	Monitoring values	SNMP values	Nominal value	Zabbix template Trigger	Zabbix template Update interval (in sec)	Description
✓	✓	✓	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)
✓	✓	✓	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 values / rotations per minute)
✗	✗	✓	-	fan2	-	RPM	-	-	30	Fan speed fan 2 (variable values / rotations per minute)
✗	✗	✓	-	fan3	-	RPM	-	-	30	Fan speed fan 3 (variable values / rotations per minute)
✓*	✓*	✓	Current	powerCurrent	Ampere	Ampere	~ 0.8 - 6.2A <see table2>	< 1,8 ... > 6,2 or < 0,8 ... > 3,2 or < 0,8 ... > 2,2 or (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 <see table2>	< 10,5 ... > 13,0 (High) <see table2>	30	Voltage of power supply (variable value / Volt - nominal values depending on device type - see table2)
✓	✓	✓	-	catPortStatus.N	-	0 = down 1 = up	neutral	-	30	Port status (Down/Up) <<< N = port number >>> ----- 0 = Port down 1 = Port up

* from HW 1.40

Overview of Monitoring & SNMP values - Digital matrix console devices

CAT	Fiber	Name Monitoring	Name SNMP	Monitoring values	SNMP values	Nominal value	Zabbix template Trigger	Zabbix template Update interval (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
✗		SFP TX power	-	µW	-	neutral	-	-	Transmitting power of fibre optics transceiver (variable value / µW)

Overview of Monitoring & SNMP values - Digital matrix console devices

CAT	Fiber	Name Monitoring	Name SNMP	Monitoring values	SNMP values	Nominal value	Zabbix template Trigger	Zabbix template Update interval (in sec)	Description
✗	✓	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

* available for devices with one (1) transmission channel

** available for devices with two (2) transmission channels

*** available for devices with redundant transmission channels (e.g. DVI-CON-2)

Overview of Monitoring & SNMP values - Digital matrix CPU devices

CAT	Fiber	Name Monitoring	Name SNMP	Monitoring values	SNMP values	Nominal value	Zabbix template Trigger	Zabbix template Update interval (in sec)	Description
✓	✓	Status	-	0 = Offline 1 = Online	-	1 = Online	-	-	Device status (Online/Offline) ----- 0 = Device not available 1 = Device 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 (künftige Endgeräte) 4 = DM-DP 5 = DP	-	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
✗	✓	SFP type	-	Variable value	-	neutral	-	-	Information about fibre optics transceiver type (variable value)



Overview of Monitoring & SNMP values - Tables

Table 2: Limit values of current and voltage

Device/Expansion level	Umin	Umax	Imin	Imax
DP16	10.5 V	13.0 V	0.8A	2.2A
DP32	10.5 V	13.0 V	0.8A	3.2A
DP64	10.5 V	13.0 V	1.8A	6.2A

Table 3: Limit values of current and voltage

Device/Expansion level	Imin	Imax
CCDM80	n.a.	n.a.
CCDM160	0.8A	43A
CCDM288	0.8A	68A

Table 4: Limit temperature value

Device/Type	maxThreshold
Allgemein (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

Device/Type	maxThreshold
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-Zusatzkanal (0x0024)	68
DP-HR-CPU-UC-Zusatzkanal (0x0025)	68
DP-HR-CPU-Fiber-Zusatzkanal (0x0026)	70
DP-HR-CPU-Fiber-UC-Zusatzkanal (0x0027)	70
DP-HR-CPU-DH (0x002E)	70
DP-HR-CPU-DH-UC (0x002F)	70

Device/Type	maxThreshold
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

Device/Type	maxThreshold
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
DP-HR-U-CPU-DH-UC-Fiber (0x0133)	74

Table 6: Number of blower

Device/Expansion level	Max SW IN	Max IO IN	Max SW OUT	Max IO OUT
CCDM80	2	2	2	2
CCDM160	2	4	2	4
CCDM288	4	6	4	6