



Weld your way.

C-Gate data points

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1 Introduction

This document provides an overview of all data points provided by C-Gate over different interfaces. Please refer to the relevant documentation for interface-specific information. Different device classes can be connected to C-Gate. Every device class is explained separately in the following sections. The data types differ depending on the technological basis of the interface.

2 QIROX

In order for all data points to have a value, prerequisites may have to be fulfilled in the robot. The table shows which module contains the data points.

2.1 Special data types

2.1.1 ErrorStructure

number	INT64
message	STRING

2.1.2 QtiParameterStructure

ParameterId	INT64
ParameterName	STRING
ParameterLocalizedName	STRING
ParameterValue	FLOAT64
ParameterMinValue	FLOAT64
ParameterMaxValue	FLOAT64
ParameterDefaultValue	FLOAT64
ParameterDecodedValue	STRING
ParameterUnit	STRING
SemanticCode	INT64
GroupId	INT64
GroupName	STRING
GroupLocalizedName	STRING
LogRobDeviceNumber	INT64

2.1.3 QtiDeviceStructure

DeviceId	INT64
DeviceName	STRING
DeviceLocalizedName	STRING
ProcessId	INT64
ProcessName	STRING
ProcessLocalizedName	STRING
LogRobDeviceNumber	INT64

2.1.4 QtiDataStructure

QtiActive	BOOLEAN
ListName	STRING
ListTypeId	INT64
ListTypeName	STRING
ListTypeLocalizedName	STRING
ProcessType	STRING
ProcessId	INT64
ProcessName	STRING
ProcessLocalizedName	STRING
DeviceCount	INT64
NumberOfDataSets	INT64
QTIParameters	QtiParameterStructure[0]
QTIDevices	QtiDeviceStructure[0]

2.1.5 ReadvarStructure

name	STRING
dataType	INT64
stringValue	STRING
intValue	INT64
floatValue	FLOAT64

2.1.6 WritevarStructure

name	STRING
dataType	INT64
stringValue	STRING
intValue	INT64
floatValue	FLOAT64

2.1.7 CSOAStructure

SearchDistance	FLOAT64
SearchDistanceComplete	FLOAT64
SearchTime	FLOAT64
SearchTimeComplete	FLOAT64
SearchSpeed	INT64
SearchType	INT64
SearchSuccess	BOOLEAN

2.2 Data points

2.2.1 ArcOn

Data point	ArcOn	
Data type	BOOLEAN	
Description	Actual value of arc. True means that the arc has ignited.	
	true	Ignited
	false	Off
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.BS	
	C-Gate.PR: STATS, AVERAGE, AVERAGE_SHIFT	

2.2.2 ArcSwitchOn

Data point	ArcSwitchOn	
Data type	BOOLEAN	
Description	Arc switch ON. Arc ignition is not indicated by this value.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.3 ComponentDelayTime

Data point	ComponentDelayTime	
Data type	INT64	
Description	Component delay so far since the start of the component.	
Unit	sec	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

2.2.4 ComponentInProgress

Data point	ComponentInProgress	
Data type	BOOLEAN	
Description	Indicates whether a production step of a component is currently pending.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.5 ComponentProgress

Data point	ComponentProgress	
Data type	FLOAT64	
Description	Progress of component. The value is calculated from the actual time and the target time. The value can not exceed 1.0 or 100%.	
Unit	%	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

2.2.6 ComponentQuality

Data point	ComponentQuality	
Data type	STRING	
Description	Quality information of the component that is present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.7 ComponentRemainingTime

Data point	ComponentRemainingTime	
Data type	INT64	
Description	Expected remaining time of the component compared to start time and target time. The value can only be calculated when a target time is defined.	
Unit	sec	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

2.2.8 ComponentSeamName

Data point	ComponentSeamName	
Data type	STRING	
Description	Name of current seam of the component that is present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.9 ComponentSerialNumber

Data point	ComponentSerialNumber	
Data type	STRING	
Description	Current serial number of the component that is present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.10 ComponentStepName

Data point	ComponentStepName	
Data type	STRING	
Description	Current step name of the component that is present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.11 ComponentStatus

Data point	ComponentStatus	
Data type	STRING	
Description	Current status of the component that is present in component counting.	
	START	Component started
	END	Component finished
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.12 ComponentType

Data point	ComponentType	
Data type	STRING	
Description	Current type present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.13 ComponentVariant

Data point	ComponentVariant	
Data type	STRING	
Description	Current variant present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.14 CSOA

Data point	CSOA	
Data type	CSOAStructure	
Description	Result of the last seam search.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.15 Current

Data point	Current	
Data type	FLOAT64[0]	
Description	Actual current value. The number of values depends on the welding process.	
Unit	A	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.16 CustomerName

Data point	CustomerName	
Data type	STRING	
Description	Customer name	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.17 DrivesActive

Data point	DrivesActive	
Data type	BOOLEAN	
Description	The value is <code>TRUE</code> when the drives are active.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.18 Editor

Data point	Editor	
Data type	BOOLEAN	
Description	The value is <code>TRUE</code> when the editor is active on the teach pendant.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.19 Error

Data point	Error	
Data type	ErrorStructure	
Description	Error number (see data point ErrorNumber) and error message	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.BS	

2.2.20 ErrorMessage

Data point	ErrorMessage	
Data type	STRING	
Description	Error message. The value is empty if there is no fault.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.21 ErrorNumber

Data point	ErrorNumber	
Data type	INT64	
Description	Number of the fault currently active in the robot controller. The value is 0 if there is no fault.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.22 ErrorPointNumber

Data point	ErrorPointNumber	
Data type	INT64	
Description	If a fault is active (ErrorNumber > 0), this data point contains the point number of the current program. The value is 0 if there is no fault.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.23 ErrorProgramLine

Data point	ErrorProgramLine	
Data type	INT64	
Description	If a fault is active (ErrorNumber > 0), this variable contains the row number of the current program. The value is 0 if there is no fault.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.24 GasFlow

Data point	GasFlow	
Data type	FLOAT64[0]	
Description	Actual value of gas flow. The number of values depends on the welding process.	
Unit	l/min	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.25 HardwareVersion

Data point	HardwareVersion	
Data type	INT64	
Description	Hardware version	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.26 HeatInput

Data point	HeatInput	
Data type	FLOAT64	
Description	Heat input	
Unit	KJ/cm	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.27 InterpreterActive

Data point	InterpreterActive	
Data type	BOOLEAN	
Description	The value is TRUE when the interpreter is in program execution mode.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.28 ListNumber

Data point	ListNumber	
Data type	INT64	
Description	Number of welding parameter list currently selected. (Valid when no QTI is active).	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.29 Maintenance

Data point	Maintenance	
Data type	BOOLEAN	
Description	Maintenance status. Specifies whether, according to C-Gate, the robot is currently being serviced.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

2.2.30 MotorCurrentCDD

Data point	MotorCurrentCDD	
Data type	FLOAT64[0]	
Description	Is the motor current CDD. The number of values depends on the welding process. The value is only set correctly when welding with QTI.	
Unit	A	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.31 MotorCurrentQWD

Data point	MotorCurrentQWD	
Data type	FLOAT64[0]	
Description	Actual value of the motor current QWD. The number of values depends on the welding process. The value is only set correctly when welding with QTI.	
Unit	A	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.32 Movement

Data point	Movement	
Data type	INT64	
Description	Type of movement (independent of operating mode).	
	0	No movement
	1	GP
	2	GC
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.BS	
	C-Gate.PR: STATS, AVERAGE, AVERAGE_SHIFT	

2.2.33 Oee

Data point	Oee	
Data type	ABSTRACT	
Description	OEE (overall equipment effectiveness) of the device. This metric is calculated ad hoc over the time period specified. It is based on the availability and performance of the device.	
Access modes	CALCULATE	Particular calculation over a time period
Module	C-Gate.PR	

2.2.34 OperatingHours

Data point	OperatingHours	
Data type	INT64	
Description	Operating hours	
Unit	h	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.35 OperatingMode

Data point	OperatingMode	
Data type	INT64	
Description	Operating mode	
	0	OFF
	1	T1
	2	T2
	3	AUTO
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.BS	
	C-Gate.PR: STATS, AVERAGE, AVERAGE_SHIFT	

2.2.36 PointEditor

Data point	PointEditor	
Data type	BOOLEAN	
Description	The value is TRUE when the point editor is active on the teach pendant.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.37 PowerFail

Data point	PowerFail	
Data type	BOOLEAN	
Description	Indicates whether the signal is present and the robot is about to switch off.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.38 Process

Data point	Process	
Data type	STRING	
Description	Current process state of the robot. This value is made up of a series of other data points.	
	Offline	When the robot is switched off.
	Error	When an error number (ErrorNumber) is active.
	Producing	When the robot is in AUTO mode (OperatingMode), no error is active (ErrorNumber), the robot has not been stopped (Stop), a component is being made or there is an arc (ArcOn) and the robot is moving (Movement).
	Programming	When the robot is in operating mode T1 or T2 and one of the programming interfaces is active.
	BusyWaiting	In all other cases.
	Maintenance	When the robot is being serviced (Maintenance).
Access modes	CURRENT	Current value
	STATS	Statistical evaluation of historical values with metadata.
	HISTORY	List of previous values
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.BS	
	C-Gate.PR: STATS, AVERAGE, AVERAGE_SHIFT	

2.2.39 ProgrammingMode

Data point	ProgrammingMode	
Data type	INT64	
Description	Programming mode. The variable specifies whether the controller is in programming mode PROG or TEACH .	
	0	FALSE
	1	PROG
	2	TEACH
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.40 ProgramName

Data point	ProgramName	
Data type	STRING	
Description	Name of current program.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.41 ProgramRunTime

Data point	ProgramRunTime	
Data type	INT64	
Description	Program run time in Automatic mode.	
Unit	sec	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.42 Qti

Data point	Qti	
Data type	QtiDataStructure	
Description	Current process data of the robot.	
Access modes	CURRENT	Current value
Module	C-Gate.QM	

2.2.43 QtiProcessName

Data point	QtiProcessName	
Data type	STRING	
Description	Name of the current welding process. The value is only set correctly when welding with QTI.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.BS	
	C-Gate.PR: STATS, AVERAGE, AVERAGE_SHIFT	

2.2.44 ReadVar

Data point	ReadVar	
Data type	ReadvarStructure[100]	
Description	This data structure is written to from the Carola program. Readvar is used in Mode 0 in combination with command OPCUAVAR . ReadVar is an array with 100 fields. When dataType is 0, an integer was written in the Carola program and the value is available in intValue. When 1, a floating point number was written and the value is available in floatValue. When 2, a string was written and it is in stringValue.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.BS	

2.2.45 ReleaseKey

Data point	ReleaseKey	
Data type	BOOLEAN	
Description	Status of release button on teach pendant. This value specifies whether the release button on the teach pendant is pressed or not.	
	false	Release button not pressed
	true	Release button pressed
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.46 Running

Data point	Running	
Data type	BOOLEAN	
Description	Message whether the robots produce.	
	true	When the robot is in AUTO mode (Operating mode), no error is active (ErrorNumber), the robot has not been stopped (Stop) and the interpreter is active (InterpreterActive).
	false	In all other cases.
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.47 SensorSearchActive

Data point	SensorSearchActive	
Data type	BOOLEAN	
Description	Search active. The value is TRUE whilst the contact sensor search or weld start search using laser sensor is active.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.48 SerialNumber

Data point	SerialNumber	
Data type	STRING	
Description	Controller number	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.49 SoftwareVersion

Data point	SoftwareVersion	
Data type	STRING	
Description	Software version	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.50 Speed

Data point	Speed	
Data type	FLOAT64	
Description	Set value of path speed [cm/min].	
Unit	cm/min	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.51 Status

Data point	Status	
Data type	STRING	
Description	Status of robot.	
	Off	Robot is off.
	Idle	Robot doing nothing. When the robot is not running (Running) and there is no error (ErrorNumber).
	Running	Robot is running. When the robot is running free of errors (Running) and there is no error (ErrorNumber).
	Error	Robot in a fault state. When an error is active (ErrorNumber).
	Unknown	Robot in an unknown state.
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.52 Stop

Data point	Stop	
Data type	BOOLEAN	
Description	Stop is active. The value is TRUE when the system is waiting for Start.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.53 Timestamp

Data point	Timestamp	
Data type	INT64	
Description	Timestamp for when the data was changed in the system (ticks [ms]).	
Unit	ms	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.54 Up

Data point	Up	
Data type	BOOLEAN	
Description	Message whether the robot is available.	
	true	Robot is on and ready for operation
	false	Robot is not ready for operation
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.BS	
	C-Gate.PR: STATS, AVERAGE, AVERAGE_SHIFT	

2.2.55 UserDescription

Data point	UserDescription	
Data type	STRING	
Description	Description of the currently logged in user.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.56 UserLevel

Data point	UserLevel	
Data type	STRING	
Description	User level of the currently logged-in user. The level corresponds to the level assigned in the user administration UMS. The level of a user defines the access rights of the user.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.57 UserName

Data point	UserName	
Data type	STRING	
Description	User name of the currently logged in user.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.58 UserPakId

Data point	UserPakId	
Data type	STRING	
Description	The identification of the PAK key (Personal Access Keys).	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.59 UserPauseCode

Data point	UserPauseCode	
Data type	INT64	
Description	If the user has the status break, this field contains the numerical value for the reason for the break. The value 0 means that no break is selected.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.60 UserPauseReason

Data point	UserPauseReason	
Data type	STRING	
Description	If the user has the status Break, then this field contains the description for the reason for the break.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.61 UserState

Data point	UserState	
Data type	STRING	
Description	Status of the current user.	
	Disconnection	The user is not active (not selected on the control unit).
	Active	The user is selected and active on the control unit.
	Pause	The user is selected at the control, but not active (pause).
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

2.2.62 Voltage

Data point	Voltage	
Data type	FLOAT64[0]	
Description	Actual value of voltage. The number of values depends on the welding process.	
Unit	V	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.63 WaitingActive

Data point	WaitingActive	
Data type	BOOLEAN	
Description	Wait active. The value is TRUE when program execution of the interpreter has been stopped (Carola commands WAITM , WAITS).	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.64 WeldTime

Data point	WeldTime	
Data type	INT64	
Description	Welding time in Automatic mode.	
Unit	sec	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.65 WireSpeed

Data point	WireSpeed	
Data type	FLOAT64[0]	
Description	Actual value of wire feed speed. The number of values depends on the welding process.	
Unit	m/min	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

2.2.66 WP_SeamNumber

Data point	WP_SeamNumber	
Data type	INT64	
Description	Current seam number of the component that is present in component counting. This value is set by command PDM_SEAM .	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.BS	

2.2.67 WP_SerialNumber

Data point	WP_SerialNumber	
Data type	INT64	
Description	Current serial number of the component that is present in component counting. This value is set by command <code>PDM_SET</code> .	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.BS	

2.2.68 WP_Type

Data point	WP_Type	
Data type	STRING	
Description	Current type of the component that is present in component counting. This value is set by command <code>PDM_SET</code> .	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.BS	

2.2.69 WriteVar

Data point	WriteVar	
Data type	WritevarStructure[100]	
Description	This data structure can be written to externally and the values are available in the Carola program. WriteVar is used in Mode 1 in combination with command <code>OPCUAVAR</code> . WriteVar is an array with 100 fields. When dataType is 0, intValue is read in the Carola program. When it is 1, floatValue is read, and when 2, stringValue is read.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.BS	

3 QIROX Legacy

In order for all data points to have a value, prerequisites may have to be fulfilled in the robot. The table shows which module contains the data points.

3.1 Special data types

3.1.1 ErrorStructure

number	INT64
message	STRING

3.2 Data points

3.2.1 ArcOn

Data point	ArcOn	
Data type	BOOLEAN	
Description	Actual value of arc. True means that the arc has ignited.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.PR	

3.2.2 ComponentDelayTime

Data point	ComponentDelayTime	
Data type	INT64	
Description	Component delay so far since the start of the component.	
Unit	sec	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.3 ComponentInProgress

Data point	ComponentInProgress	
Data type	BOOLEAN	
Description	Indicates whether a production step of a component is currently pending.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.4 ComponentProgress

Data point	ComponentProgress	
Data type	FLOAT64	
Description	Progress of component. The value is calculated from the actual time and the target time. The value can not exceed 1.0 or 100%.	
Unit	%	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.5 ComponentQuality

Data point	ComponentQuality	
Data type	STRING	
Description	Quality information of the component that is present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.6 ComponentRemainingTime

Data point	ComponentRemainingTime	
Data type	INT64	
Description	Expected remaining time of the component compared to start time and target time. The value can only be calculated when a target time is defined.	
Unit	sec	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.7 ComponentSeamName

Data point	ComponentSeamName	
Data type	STRING	
Description	Name of current seam of the component that is present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.8 ComponentSerialNumber

Data point	ComponentSerialNumber	
Data type	STRING	
Description	Current serial number of the component that is present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.9 ComponentStepName

Data point	ComponentStepName	
Data type	STRING	
Description	Current step name of the component that is present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.10 ComponentStatus

Data point	ComponentStatus	
Data type	STRING	
Description	Current status of the component that is present in component counting.	
	START	Component started
	END	Component finished
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.11 ComponentType

Data point	ComponentType	
Data type	STRING	
Description	Current type present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.12 ComponentVariant

Data point	ComponentVariant	
Data type	STRING	
Description	Current variant present in component counting.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.13 Current

Data point	Current	
Data type	FLOAT64[0]	
Description	Actual current value. The number of values depends on the welding process.	
Unit	A	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.14 DrivesActive

Data point	DrivesActive	
Data type	BOOLEAN	
Description	The value is TRUE when the drives are active.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.PR	

3.2.15 Editor

Data point	Editor	
Data type	BOOLEAN	
Description	The value is TRUE when the editor is active on the teach pendant.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.16 EndOfProgram

Data point	EndOfProgram	
Data type	BOOLEAN[2]	
Description	Indicates whether the programme has ended.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.17 Error

Data point	Error	
Data type	ErrorStructure	
Description	Error number (see data point ErrorNumber) and error message. For legacy QIROX robots, C-Gate does not receive any messages from the robot and only represents the error code in text form as an error message.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.BS	

3.2.18 ErrorCommon

Data point	ErrorCommon	
Data type	BOOLEAN[2]	
Description	Indicates whether a weld data monitoring error is present but monitoring is not activated in the welding power source.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.19 ErrorCommunication

Data point	ErrorCommunication	
Data type	BOOLEAN[2]	
Description	Indicates whether communication to the power source is disturbed.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.20 ErrorCurrent

Data point	ErrorCurrent	
Data type	BOOLEAN[2]	
Description	Indicates whether there is a fault in the power.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.21 ErrorGas

Data point	ErrorGas	
Data type	BOOLEAN[2]	
Description	Indicates whether there is a fault with the gas.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.22 ErrorMessage

Data point	ErrorMessage	
Data type	STRING	
Description	Error message. If there is no error, the value is empty. For legacy QIROX robots, C-Gate does not receive any messages from the robot and only represents the error code in text form at this point.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.23 ErrorNumber

Data point	ErrorNumber	
Data type	INT64	
Description	Number of the fault currently active in the robot controller. The value is 0 if there is no fault.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.PR	

3.2.24 ErrorPointNumber

Data point	ErrorPointNumber	
Data type	INT64	
Description	If a fault is active (ErrorNumber > 0), this data point contains the point number of the current program. The value is 0 if there is no fault.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.25 ErrorProgramLine

Data point	ErrorProgramLine	
Data type	INT64	
Description	If a fault is active (ErrorNumber > 0), this variable contains the row number of the current program. The value is 0 if there is no fault.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.26 ErrorRangeOverflow

Data point	ErrorRangeOverflow	
Data type	BOOLEAN[2]	
Description	Indicates whether there is an overrange in the SD monitoring.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.27 ErrorTemperaturePumpExhausts

Data point	ErrorTemperaturePumpExhausts	
Data type	BOOLEAN[2]	
Description	Indicates whether one of the temperature monitors for the coolant pump or the fan has responded in the welding power source.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.28 ErrorTemperatureTransRectCasc

Data point	ErrorTemperatureTransRectCasc	
Data type	BOOLEAN[2]	
Description	Indicates whether one of the temperature monitors for the transformer, rectifier or cascade has responded in the welding power source.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.29 ErrorVoltageOverflow

Data point	ErrorVoltageOverflow	
Data type	BOOLEAN[2]	
Description	Indicates whether the DC link voltage in the welding power source has risen above the permissible upper limit.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.30 ErrorVoltageUnderflow

Data point	ErrorVoltageUnderflow	
Data type	BOOLEAN[2]	
Description	Indicates whether the DC link voltage in the welding power source has dropped below the permissible lower limit value.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.31 ErrorWaterShortage

Data point	ErrorWaterShortage	
Data type	BOOLEAN[2]	
Description	Indicates whether there is too little cooling water.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.32 ErrorWire

Data point	ErrorWire	
Data type	BOOLEAN[2]	
Description	Indicates whether there is a fault with the wire.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.33 GasFlow

Data point	GasFlow	
Data type	FLOAT64[0]	
Description	Actual value of gas flow. The number of values depends on the welding process.	
Unit	l/min	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.34 HeatInput

Data point	HeatInput	
Data type	FLOAT64	
Description	Heat input	
Unit	KJ/cm	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.35 InterpreterActive

Data point	InterpreterActive	
Data type	BOOLEAN	
Description	The value is TRUE when the interpreter is in program execution mode.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.36 ListNumber

Data point	ListNumber	
Data type	INT64	
Description	Number of welding parameter list currently selected. (Valid when no QTI is active).	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.37 Maintenance

Data point	Maintenance	
Data type	BOOLEAN	
Description	Maintenance status. Specifies whether, according to C-Gate, the robot is currently being serviced.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.38 MotorCurrentCDD

Data point	MotorCurrentCDD	
Data type	FLOAT64[0]	
Description	Is the motor current CDD. The number of values depends on the welding process. The value is only set correctly when welding with QTI.	
Unit	A	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.39 MotorCurrentQWD

Data point	MotorCurrentQWD	
Data type	FLOAT64[0]	
Description	Actual value of the motor current QWD. The number of values depends on the welding process. The value is only set correctly when welding with QTI.	
Unit	A	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.40 Movement

Data point	Movement	
Data type	INT64	
Description	Type of movement (independent of operating mode).	
	0	No movement
	1	GP
	2	GC
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.PR	

3.2.41 NumberOfPowerSources

Data point	NumberOfPowerSources	
Data type	INT64	
Description	Number of connected power sources.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.42 Oee

Data point	Oee	
Data type	ABSTRACT	
Description	OEE (overall equipment effectiveness) of the device. This metric is calculated ad hoc over the time period specified. It is based on the availability and performance of the device.	
Access modes	CALCULATE	Particular calculation over a time period
Module	C-Gate.PR	

3.2.43 OperatingMode

Data point	OperatingMode	
Data type	INT64	
Description	Operating mode	
	0	OFF
	1	T1
	2	T2
	3	AUTO
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.PR	

3.2.44 PointEditor

Data point	PointEditor	
Data type	BOOLEAN	
Description	The value is TRUE when the point editor is active on the teach pendant.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.45 PowerSourceCode

Data point	PowerSourceCode	
Data type	INT64[2]	
Description	Numerical type designations of the connected power sources.	
	21	GLC 603 PA-TS
	30	QINEO PULSE
	31	QINEO PULSE CAN
	32	QINEO PULSE SQ32
	33	QINEO CHAMP CW
	35	CHAMP PARAMETER
	36	CHAMP CW PARAMETER
	37	QINEO TANDEM CAN
	42	MC-3
	43	MC-3 DD
	51	QUINTO <= V1.59
	52	QUINTO
	53	QUINTO-TANDEM
	54	QUINTO SD
	56	QUINTO 2
	57	QUINTO2-TANDEM
	62	LaserKaltdraht
	66	Laser Hybrid
	67	Laser Hybrid Fokus
	76	I-H
	77	I-H
	78	I-H-P-R
82	SYNERGIE	
83	SYNERGIE-TANDEM	
91	PPAW 250	
92	PPAW 300	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.46 Process

Data point	Process	
Data type	STRING	
Description	Current process state of the robot. This value is made up of a series of other data points.	
	Offline	When the robot is switched off.
	Error	When an error number (ErrorNumber) is active.
	Producing	When the robot is in AUTO mode (OperatingMode), no error is active (ErrorNumber), the robot has not been stopped (Stop), a component is being made or there is an arc (ArcOn) and the robot is moving (Movement).
	Programming	When the robot is in operating mode T1 or T2 and one of the programming interfaces is active.
	BusyWaiting	In all other cases.
	Maintenance	When the robot is being serviced (Maintenance).
Access modes	CURRENT	Current value
	STATS	Statistical evaluation of historical values with metadata.
	HISTORY	List of previous values
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.BS	
	C-Gate.PR: STATS, AVERAGE, AVERAGE_SHIFT	

3.2.47 ProgrammingMode

Data point	ProgrammingMode	
Data type	INT64	
Description	Programming mode. The variable specifies whether the controller is in programming mode PROG or TEACH .	
	0	FALSE
	1	PROG
	2	TEACH
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.48 ProgramName

Data point	ProgramName	
Data type	STRING	
Description	Name of current program.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.PR	

3.2.49 ReleaseKey

Data point	ReleaseKey	
Data type	BOOLEAN	
Description	Status of release button on teach pendant. This value specifies whether the release button on the teach pendant is pressed or not.	
	false	Release button not pressed
	true	Release button pressed
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.50 Running

Data point	Running	
Data type	BOOLEAN	
Description	Message whether the robots produce.	
	true	When the robot is in AUTO mode (Operating mode), no error is active (ErrorNumber), the robot has not been stopped (Stop) and the interpreter is active (InterpreterActive).
	false	In all other cases.
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

3.2.51 SdCancel

Data point	SdCancel	
Data type	BOOLEAN[2]	
Description	Indicates whether the welding data monitoring in the welding power source is programmed to abort in the event of an error.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.52 SdErrorArcInterruption

Data point	SdErrorArcInterruption	
Data type	BOOLEAN[2]	
Description	Indicates whether there is an arc break.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.53 SdErrorCurrent

Data point	SdErrorCurrent	
Data type	BOOLEAN[2]	
Description	Indicates whether the current value is out of tolerance according to the welding data monitoring.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.54 SdErrorGasFlow

Data point	SdErrorGasFlow	
Data type	BOOLEAN[2]	
Description	Indicates whether the gas flow value is out of tolerance according to the welding data monitoring.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.55 SdErrorPorosity

Data point	SdErrorPorosity	
Data type	BOOLEAN[2]	
Description	Indicates whether the stability of the arc is no longer present.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.56 SdErrorUser

Data point	SdErrorUser	
Data type	BOOLEAN[2]	
Description	Indicates whether a user-defined error is present.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.57 SdErrorVoltage

Data point	SdErrorVoltage	
Data type	BOOLEAN[2]	
Description	Indicates whether the voltage value is out of tolerance according to the welding data monitoring.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.58 SdErrorWeldtime

Data point	SdErrorWeldtime	
Data type	BOOLEAN[2]	
Description	Indicates whether the welding time programmed in the welding power source has not been observed.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.59 SdErrorWireLow

Data point	SdErrorWireLow	
Data type	BOOLEAN[2]	
Description	Indicates whether there is insufficient supply in the welding current source on the wire coil.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.60 SdErrorWireSpeed

Data point	SdErrorWireSpeed	
Data type	BOOLEAN[2]	
Description	Indicates whether the wire feed value is out of tolerance according to the welding data monitoring.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.61 SensorSearchActive

Data point	SensorSearchActive	
Data type	BOOLEAN	
Description	Search active. The value is <code><ph disp="TRUE" id="value" /></code> whilst the contact sensor search or weld start search using laser sensor is active.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.62 Speed

Data point	Speed	
Data type	FLOAT64	
Description	Set value of path speed [cm/min].	
Unit	cm/min	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.63 Status

Data point	Status	
Data type	STRING	
Description	Status of robot.	
	Off	Robot is off.
	Idle	Robot doing nothing. When the robot is not running (Running) and there is no error (ErrorNumber).
	Running	Robot is running. When the robot is running free of errors (Running) and there is no error (ErrorNumber).
	Error	Robot in a fault state. When an error is active (ErrorNumber).
	Unknown	Robot in an unknown state.
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.64 Stop

Data point	Stop	
Data type	BOOLEAN	
Description	Stop is active. The value is <code>TRUE</code> when the system is waiting for Start.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.PR	

3.2.65 Up

Data point	Up	
Data type	BOOLEAN	
Description	Message whether the robot is available.	
	true	Robot is on and ready for operation
	false	Robot is not ready for operation
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.BS	
	C-Gate.PR: STATS, AVERAGE, AVERAGE_SHIFT	

3.2.66 UserDescription

Data point	UserDescription	
Data type	STRING	
Description	Description of the currently logged in user.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.67 UserLevel

Data point	UserLevel	
Data type	STRING	
Description	User level of the currently logged-in user. The level corresponds to the level assigned in the user administration UMS. The level of a user defines the access rights of the user.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

3.2.68 UserName

Data point	UserName	
Data type	STRING	
Description	User name of the currently logged in user.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

3.2.69 UserPakId

Data point	UserPakId	
Data type	STRING	
Description	The identification of the PAK key (Personal Access Keys).	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.70 UserPauseCode

Data point	UserPauseCode	
Data type	INT64	
Description	If the user has the status break, this field contains the numerical value for the reason for the break. The value 0 means that no break is selected.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.71 UserPauseReason

Data point	UserPauseReason	
Data type	STRING	
Description	If the user has the status Break, then this field contains the description for the reason for the break.	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

3.2.72 UserState

Data point	UserState	
Data type	STRING	
Description	Status of the current user.	
	Disconnection	The user is not active (not selected on the control unit).
	Active	The user is selected and active on the control unit.
	Pause	The user is selected at the control, but not active (pause).
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

3.2.73 Voltage

Data point	Voltage	
Data type	FLOAT64[0]	
Description	Actual value of voltage. The number of values depends on the welding process.	
Unit	V	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.74 WaitingActive

Data point	WaitingActive	
Data type	BOOLEAN	
Description	Wait active. The value is TRUE when program execution of the interpreter has been stopped (Carola commands WAITM , WAITS).	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.75 WireSpeed

Data point	WireSpeed	
Data type	FLOAT64[0]	
Description	Actual value of wire feed speed. The number of values depends on the welding process.	
Unit	m/min	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

3.2.76 WP_SeamNumber

Data point	WP_SeamNumber	
Data type	INT64	
Description	Current seam number of the component that is present in component counting. This value is set by command <code>PDM_SEAM</code> .	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.PR	

3.2.77 WP_SeamPosition

Data point	WP_SeamPosition	
Data type	INT64	
Description	Last error position in a seam that caused the robot to stop.	
Unit	mm	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

3.2.78 WP_SerialNumber

Data point	WP_SerialNumber	
Data type	INT64	
Description	Current serial number of the component that is present in component counting. This value is set by command <code><ph disp="PDM_SET" id="cmd1" /></code> .	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.PR	

3.2.79 WP_Type

Data point	WP_Type	
Data type	STRING	
Description	Current type of the component that is present in component counting. This value is set by command <code>PDM_SET</code> .	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
Module	C-Gate.PR	

4 QINEO

In order for all data points to have a value, prerequisites may have to be fulfilled in the current source. The table shows which module contains the data points.

4.1 Data points

4.1.1 ArcOn

Data point	ArcOn	
Data type	BOOLEAN	
Description	Arc existing	
	true	On
	false	Off
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

4.1.2 ComponentInProgress

Data point	ComponentInProgress	
Data type	BOOLEAN	
Description	Indicates whether a production step of a component is currently pending.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.3 Current

Data point	Current	
Data type	INT64	
Description	Actual current value	
Unit	A	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.4 CurrentJobName

Data point	CurrentJobName	
Data type	STRING	
Description	Name of active job	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

4.1.5 EnergyConsumption

Data point	EnergyConsumption	
Data type	FLOAT64	
Description	Power consumption meter	
Unit	kWh	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	SUM	Sum over a time period
Module	C-Gate.PR	

4.1.6 ErrorNumbers

Data point	ErrorNumbers	
Data type	INT64[0]	
Description	Fault numbers currently active.	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.7 GasConsumption

Data point	GasConsumption	
Data type	FLOAT64	
Description	Gas consumption meter	
Unit	l	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	SUM	Sum over a time period
Module	C-Gate.PR	

4.1.8 JobMaterial

Data point	JobMaterial	
Data type	STRING	
Description	Material in active job	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

4.1.9 JobProcess

Data point	JobProcess	
Data type	STRING	
Description	Process in active job	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

4.1.10 MachineType

Data point	MachineType	
Data type	INT64	
Description	QINEO machine type	
	1	Qineo Pulse
	2	Qineo Tronic Pulse
	3	Qineo Tronic
	5	Qineo Champ
	6	Qineo Next DC
	7	Qineo Next AC
	10	Qineo StarT
	11	Qineo Quest DC
	12	Qineo Quest AC
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.11 Maintenance

Data point	Maintenance	
Data type	BOOLEAN	
Description	Maintenance status. Specifies whether, according to C-Gate, the welding machine is currently being serviced.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	

4.1.12 MetalSheetThickness

Data point	MetalSheetThickness	
Data type	FLOAT64	
Description	Thickness of sheet metal Advance notice	
Unit	mm	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.13 MotorCurrentQWD

Data point	MotorCurrentQWD	
Data type	FLOAT64	
Description	Motor current of the Qineo Wire Drive	
Unit	A	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.14 NumberOfJobInUse

Data point	NumberOfJobInUse	
Data type	INT64	
Description	Number of active job	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

4.1.15 OperatingTime

Data point	OperatingTime	
Data type	INT64	
Description	Operating time	
Unit	sec	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.16 Power

Data point	Power	
Data type	FLOAT64	
Description	Current power value	
Unit	kW	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.17 PowerClass

Data point	PowerClass	
Data type	INT64	
Description	Power class	
Unit	A	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.18 Process

Data point	Process	
Data type	STRING	
Description	Current process state of the welding machine. This value is made up of a series of other data points.	
	Offline	When the welding machine is switched off (Up).
	Error	When an error (ErrorNumbers) is active.
	Producing	When there is no error (ErrorNumbers), a component is being made or there is an arc (ArcOn).
	BusyWaiting	In all other cases.
	Maintenance	When the welding machine is being serviced (Maintenance).
Access modes	CURRENT	Current value
	STATS	Statistical evaluation of historical values with metadata.
	HISTORY	List of previous values
	AVERAGE	Average value of the data point over the given time period.
	AVERAGE_SHIFT	Average value of the data point over a stratum in the given time period.
Module	C-Gate.BS	
	C-Gate.PR: STATS, AVERAGE, AVERAGE_SHIFT	

4.1.19 Productivity

Data point	Productivity	
Data type	ABSTRACT	
Access modes	CALCULATE	Particular calculation over a time period
Module	C-Gate.PR	

4.1.20 Running

Data point	Running	
Data type	BOOLEAN	
Description	Message whether the welding machine is running.	
	true	When the data point Up is active.
	false	In all other cases.
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

4.1.21 SynergieMode

Data point	SynergieMode	
Data type	INT64	
Description	Synergy mode	
	0	Synergy mode
	1	Test welding mode
	2	Extended test welding mode
	129	Test welding mode without arc length regulator
	255	Invalid mode
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.22 Up

Data point	Up	
Data type	BOOLEAN	
Description	Online status of welding machine	
	false	Offline
	true	Online
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	STATS	Statistical evaluation of historical values with metadata.
Module	C-Gate.BS	
	C-Gate.PR: STATS	

4.1.23 UserLevel

Data point	UserLevel	
Data type	INT64	
Description	Level of the user logged into QINEO	
	0	Automatic
	1	Programmer
	2	Configurator
	3	Service
Access modes	9	Invalid Level
	CURRENT	Current value
	HISTORY	List of previous values
Module	STATS	Statistical evaluation of historical values with metadata.
	C-Gate.BS	
	C-Gate.PR: STATS	

4.1.24 Voltage

Data point	Voltage	
Data type	FLOAT64	
Description	Current voltage value	
Unit	V	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.25 WCMValue

Data point	WCMValue	
Data type	FLOAT64	
Description	Value of Weld Condition Monitoring	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.26 WeldingTime

Data point	WeldingTime	
Data type	FLOAT64	
Description	Welding time meter	
Unit	sec	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	SUM	Sum over a time period
Module	C-Gate.PR	

4.1.27 WeldingTimeCurrentSeam

Data point	WeldingTimeCurrentSeam	
Data type	FLOAT64	
Description	Time required for welding the current weld seam.	
Unit	sec	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.28 WeldingTimeTotal

Data point	WeldingTimeTotal	
Data type	INT64	
Description	Total welding time	
Unit	sec	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

4.1.29 WireConsumption

Data point	WireConsumption	
Data type	FLOAT64	
Description	Wire usage meter	
Unit	m	
Access modes	CURRENT	Current value
	HISTORY	List of previous values
	SUM	Sum over a time period
Module	C-Gate.PR	

4.1.30 WireSpeed

Data point	WireSpeed	
Data type	FLOAT64	
Description	documentation.datapoints.qineo.wirespeed	
Unit	m/min	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

5 PLC

In order for the data points to have a value, prerequisites must be fulfilled in the PLC. The table shows which module contains the data points.

5.1 Special data types

5.1.1 CGateStation

ActiveProcess	STRING
Alias	STRING
Name	STRING
ErrorMessage	STRING
ErrorNumber	INT64
Running	BOOLEAN
Component	CGateComponent

5.1.2 CGateComponent

LastStation	BOOLEAN
Quality	INT64
SerialNumber	STRING
Type	STRING
Variant	STRING
VirtualSerialNumber	STRING

5.2 Data points

5.2.1 CommunicationError

Data point	CommunicationError	
Data type	BOOLEAN	
Description	Indicates whether there is an error in communication between C-Gate and PLC.	
	false	Communication is fine.
	true	Communication is disturbed.
Access modes	CURRENT	Current value
Module	C-Gate.BS	

5.2.2 OperatingMode

Data point	OperatingMode	
Data type	INT64	
Description	Operating mode	
	0	Not Supported
	1	Stop Fw Update
	3	Stop Self Initialization
	4	Stop
	6	Startup
	8	Run
	9	Run Redundant
	10	Halt
	11	Run Sync Up
	12	Sync Up
	13	Defective
	14	Error Search
	15	No Power
	16	CiR
	17	STOPwithoutODIS
	18	RunODIS
19	PgmTest	
Access modes	CURRENT	Current value
Module	C-Gate.BS	

6 PLC station

In order for the data points to have a value, prerequisites must be fulfilled in the PLC. These data points are available for each station connected to the PLC and configured. The table shows which module contains the data points.

6.1 Data points

6.1.1 ActiveProcess

Data point	ActiveProcess	
Data type	STRING	
Description	Current process status of the ward.	
Access modes	CURRENT	Current value
	STATS	Statistical evaluation of historical values with metadata.
	HISTORY	List of previous values
Module	C-Gate.PR	

6.1.2 ErrorMessage

Data point	ErrorMessage	
Data type	STRING	
Description	Current error message of the station. If there is no error, the value is empty.	
Access modes	CURRENT	Current value
	STATS	Statistical evaluation of historical values with metadata.
	HISTORY	List of previous values
Module	C-Gate.PR	

6.1.3 ErrorNumber

Data point	ErrorNumber	
Data type	INT64	
Description	Current error number of the station. If no error is present, the value is 0.	
Access modes	CURRENT	Current value
	STATS	Statistical evaluation of historical values with metadata.
	HISTORY	List of previous values
Module	C-Gate.PR	

6.1.4 Running

Data point	Running	
Data type	BOOLEAN	
Description	Indicates whether the station is producing.	
Access modes	CURRENT	Current value
	STATS	Statistical evaluation of historical values with metadata.
	HISTORY	List of previous values
Module	C-Gate.PR	

6.1.5 Component

Data point	Component	
Data type	CGateComponent	
Description	This data structure describes the component currently being processed in the station.	
Access modes	CURRENT	Current value
Module	C-Gate.PR	