

DCT TRACEABILITY GUIDE

Access to data of cleaning process.

Enables to connect, manage, monitor and operate DCT cleaning devices with help of intuitive user interface.

In various versions of DCT Traceability Option we provide access to cleaning device process data.

Different levels of Traceability offers correct solution for various customer's requirements, from basic one when cleaning data are stored on inserted SD card to various Online versions when is possible to connect DCT cleaning device to customer's network and get remote access to machine operation and cleaning process data.



DCT TRACEABILITY VERSION OVERVIEW

PART NO.	DESCRIPTION	FULFILL INDUSTRY 4.0 REQUIREMENTS	POSSIBLE TO SCAN BARCODES	AVAILABLE FOR:	PAGE:
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1. TRACEABILITY OFFLINE: SD — FILE

10118	Traceability Offline, save CSV file to touch screen SD card	×	×	Injet® 388 CRD/CRRD	<u>3</u>
10119	Traceability Offline + Barcode Reader, save CSV file to touch screen SD card	×	~	InJet® 888 CRD/CRRD InJet® / Sonix® 954 InJet® 3179 InJet® TWIN / TRIPLE InJet® DOUBLE TRIPLE	5

2. TRACEABILITY ONLINE: PC WIN — FILE

10122	Traceability Online + PC WIN, save CSV or XML file to PC HDD	×	×	ALL TYPES	7
10123	Traceability Online + PC WIN + Barcode Reader, save CSV or XML file to PC HDD	×	~		<u>9</u>

3. TRACEABILITY ONLINE: OPC SERVER — PC WIN — NO FILE

10127	Traceability Online + PC WIN + OPC Server software	~	×	ALL TYPES	12
10129	Traceability Online + PC WIN + Barcode Reader + OPC Server software	~	~		<u>14</u>

4. TRACEABILITY FOR ROSE

10131	Traceability for ROSE Offline, save CSV file to touch screen SD card	×	×		<u>16</u>
10132	Traceability for ROSE Online + PC WIN, save PDF file to PC HDD	×	×	ROSE 32 ROSE 54	17
10133	Traceability for ROSE Online + PC WIN + Barcode Reader, save PDF file to PC HDD	×	~		18

5. TECHNICAL PARAMETERS

<u>20</u>

1. TRACEABILITY OFFLINE: SD — FILE

10118 / Save CSV file to touch screen SD card

CLEANING DEVICE Touch panel File: CSV Kingstort 32 GB Communication between PLC and Touch panel system PLC Micro PLC IDEC FC6 A Plus



Basic version of traceability when general process data like set times, temperatures, conductivity levels, conductivity and cycle number are stored to CSV file in cleaning machine touch screen SD card.

SD card with CSV file is able to remove from cleaning machine and copy data to customer's PC or other device for other processing. Also is possible to download CSV file to customer's USB stick thru USB socket installed on cleaning machine main panel.

Cleaning machine is not possible to connect to customer's PC or intranet. This version of traceability not fulfill Industry 4.0 requirements.

P/N 10118 is always necessary to combine with some level of log file, due to requested type of data logged into CSV file.

1. TRACEABILITY OFFLINE: SD — FILE

10118 / Save CSV file to touch screen SD card

→ BASIC LEVEL

PART NUMBER:	NAME:
10118	TRACEABILITY OFFLINE, SAVE CSV FILE TO TOUCH SCREEN SD CARD
	Not fulfill Industry 4.0 requirements
	Output is CSV file stored on SD in touch screen
	Not posible to connect cleaning machine to intranet or PC
	CSV file is possible to copy from SD card ot USB flash disc
INCLUDE:	SD card, user manual
NOT INCLUDE:	SW for data processing and SW support



10118A	BASIC PROCESS DATA LOG
	Set of basic process data logged to CSV file
INCLUDE:	Program number, set process times, set temperatures, conductivity value, total cycle number
10118B	CLEANING PROCESS PRESSURE LOGGED TO CSV FILE
INCLUDE:	Average cleaning process pressure
10118C	RINSING PROCESS PRESSURE LOGGED TO CSV FILE
INCLUDE:	Average rinsing process pressure
10118D	NUMBER OF CYCLES TO EXCHANGE
INCLUDE:	Values of cycle counters to exchange process fluids and filters

TECHNICAL DATA SHEET

1. TRACEABILITY OFFLINE: SD — FILE

10119 / + Barcode Reader Save CSV file to touch screen SD card



HD - 2 Xenon Barcode Reader Customer Barcode Reader



Basic version of traceability when general process data like set times, temperatures, conductivity levels, conductivity and cycle number are stored to CSV file in cleaning machine touch screen SD card.

PLC is ready ready for connection of Barcode Reader. Customer can choose standard DCT barcode reader (P/N 10119A) or use own barcode reader when DCT need to setup its setting (P/N 10119C).

SD card with CSV file is able to remove from cleaning machine and copy data to customer's PC or other device for other processing. Also is possible to download CSV file to customer's USB stick thru USB socket installed on cleaning machine main panel.

Cleaning machine is not possible to connect to customer's PC or intranet. This version of traceability not fulfill Industry 4.0 requirements.

P/N 10119 is always necessary to combine with some type of barcode reader (P/N 10119A or 10119C) and some level of log file, due to requested type of data logged into CSV file:

1. TRACEABILITY OFFLINE: SD — FILE

10119 / + Barcode Reader Save CSV file to touch screen SD card

→ BASIC LEVEL

PART NUMBER:	NAME:
10119	TRACEABILITY OFFLINE + BARCODE READER, SAVE CSV FILE TO TOUCH SCREEN SD CARD
	Not fulfill Industry 4.0 requirements
	Output is CSV file stored on SD in touch screen
	Not posible to connect cleaning machine to intranet or PC
	CSV file is possible to copy from SD card ot USB flash disc
INCLUDE:	SD card, ready for connection of Barcode Reader, user manual
NOT INCLUDE:	Barcode Reader, SW for data processing and SW support

→ LOG FILE LEVELS

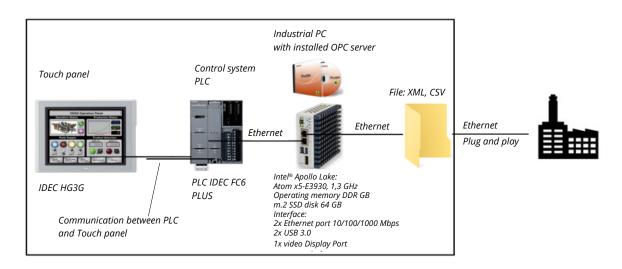
10119A	BARCODE READER HD-2 XENON
INCLUDE:	Barcode Reader, USB cable, holder, installation.
10119C	CONNECTION OF CUSTOMER'S BARCODE READER
INCLUDE:	connection and setting of customer's Barcode Reader
REQUIRE:	delivery of customer's Barcode Reader to DCT
10119D	BASIC PROCESS DATA LOG
	Set of basic process data logged to CSV file
INCLUDE:	Program number, set process times, set temperatures, conductivity value, total cycle number
10119E	CLEANING PROCESS PRESSURE LOGGED TO CSV FILE
INCLUDE:	Average cleaning process pressure logged to CSV file
10119F	RINSING PROCESS PRESSURE LOGGED TO CSV FILE
INCLUDE:	Average rinsing process pressure logged to CSV file
10119H	NUMBER OF CYCLES TO EXCHANGE
INCLUDE:	Values of cycle counters to exchange process fluids and filters logged to CSV file
101191	NUMBER OF CYCLES TO EXCHANGE
INCLUDE:	SW setup to be able to scan Barcodes after finish of cleaning cycle
10119J	SELECTION OF CLEANING PROGRAM BASED ON BARCODE
INCLUDE:	Automatic setting of cleaning programm due to scanned type of Barcode
LIMIT:	Maximum number of Barcodes in machine library is 10. For higher amount of Barcodes is necessary to multiply this unit in quote/PO.

2. TRACEABILITY ONLINE: PC WIN — FILE

10122 / + PC WIN, save CSV or XML file to PC HDD

CLEANING DEVICE

CUSTOMER





With this version of traceability is possible to stored process data on embadded industrial PC operated by Windows which is installed directly inside cleaning machine. Process data are recorder to CSV or XML file on PC HDD.

Is possible to set customer's IP address and copy stored data from PC HDD to any device connected to customer's network. This version of traceability not fulfill Industry 4.0 requirements.

P/N 10122 is always necessary to combine with some level of log file, due to requested type of data logged into CSV or XML file:

2. TRACEABILITY ONLINE: PC WIN — FILE

10122 / + PC WIN, save CSV or XML file to PC HDD

→ BASIC LEVEL

PART NUMBER:	NAME:
10122	TRACEABILITY ONLINE + PC WIN, SAVE CSV OR XML FILE TO PC HDD
	Not fulfill Industry 4.0 requirements
	Output is CSV or XML file stored on HDD of industrial PC installed in cleaning machine
	Is possible to set customer's IP address
INCLUDE:	Installation and setup of embedded PC with Windows
NOT INCLUDE:	PC screen and SW support

→ LOG FILE LEVELS

10122A	BASIC PROCESS DATA LOG
	Set of basic process data logged to CSV or XML file
INCLUDE:	Program number, set process times, set temperatures, conductivity value, total cycle number
10122B	CLEANING PROCESS PRESSURE LOGGED TO CSV OR XML FILE
INCLUDE:	Average cleaning process pressure logged to CSV file
10122C	RINSING PROCESS PRESSURE LOGGED TO CSV OR XML FILE
INCLUDE:	Average rinsing process pressure logged to CSV or XML file
10122D	NUMBER OF CYCLES TO EXCHANGE
INCLUDE:	Values of cycle counters to exchange process fluids and filters logged to CSV or XML file

2. TRACEABILITY ONLINE: PC WIN — FILE

10123 / + PC WIN + Barcode Reader, save CSV or XML file to PC HDD

CLEANING DEVICE CUSTOMER Industrial PC with installed OPC server Touch panel Control system PLC File: XML, CSV Ethernet Ethernet Ethernet Plug and play Intel® Apollo Lake: Atom x5-E3930, 1,3 GHz PLC IDEC FC6 IDEC HG3G Operating memory DDR GB m.2 SSD disk 64 GB **PLUS** Interface: 2x Ethernet port 10/100/1000 Mbps Communication between PLC 2x USB 3.0 and Touch panel 1x video Display Port USB HD - 2 Xenon Barcode Reader Customer Barcode Reader



With this version of traceability is possible to stored process data on embadded industrial PC operated by Windows which is installed directly inside cleaning machine. Process data are recorder to CSV or XML file on PC HDD.

PLC is ready ready for connection of Barcode Reader. Customer can choose standard DCT barcode reader (P/N 10123A) or use own barcode reader when DCT need to setup its setting (P/N 10123C).

Is possible to set customer's IP address and copy stored data from PC HDD to any device connected to customer's network. This version of traceability not fulfill Industry 4.0 requirements.

P/N 10123 is always necessary to combine with some level of log file, due to requested type of data logged into CSV or XML file:

2. TRACEABILITY ONLINE: PC WIN — FILE

10123 / + PC WIN + Barcode Reader, save CSV or XML file to PC HDD

\rightarrow
BASIC
LEVEL

PART NUMBER:	NAME:
10123	TRACEABILITY ONLINE + PC WIN + BARCODE READER, SAVE CSV OR XML FILE TO PC HDD
	Not fulfill Industry 4.0 requirements
	Output is CSV or XML file stored on HDD of industrial PC installed in cleaning machine
	Is possible to set customer's IP address
INCLUDE:	Installation and setup of embedded PC with Windows, ready for connection of Barcode Reader, user manual
NOT INCLUDE:	Barcode Reader, PC screen and SW support

→ LOG FILE LEVELS

10123A	BASIC PROCESS DATA LOG
	Barcode Reader HD-2 Xenon
INCLUDE:	Barcode Reader, USB cable, holder, installation.
10123C	CONNECTION OF CUSTOMER'S BARCODE READER
INCLUDE:	Connection and setting of customer's Barcode Reader
REQUIRE:	Delivery of customer's Barcode Reader to DCT
10123E	BASIC PROCESS DATA LOG
	Set of basic process data logged to CSV or XML file
INCLUDE:	Program number, set process times, set temperatures, conductivity value, total cycle number
10123J	BARCODE LOGGED BEFORE START OF CLEANING PROCESS
INCLUDE:	SW setup to be able to scan Barcodes before start of cleaning cycle (nutno vysvetlit vyhody/nyvyhody = proc si vybrat tuto moznost)
10123M	RINSING PROCESS PRESSURE LOGGED TO CSV OR XML FILE
INCLUDE:	Average rinsing process pressure logged to CSV or XML file
10123N	OPERATOR BARCODE SCANNING
INCLUDE:	SW setup to be able to choose if Operator Barcode scanning is mandatory to start cleaning cycle. Library with maximum 10 operator's barcodes.
	For higher amount of Barcodes is necessary to multiply this unit in quote/PO.

2. TRACEABILITY ONLINE: PC WIN — FILE

10123 / + PC WIN + Barcode Reader, save CSV or XML file to PC HDD

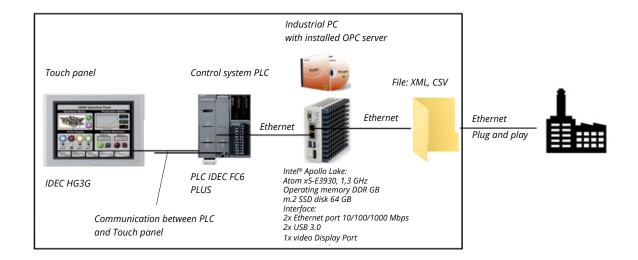
101230	SELECTION OF CLEANING PROGRAM BASED ON BARCODE
INCLUDE:	SW setup when cleaning program is automatically set due to scanned Barcode.
	Library with maximum 10 part's Barcodes.
	For higher amount of Barcodes is necessary to multiply this unit in quote/PO.
10124	1 SERVICE / PROGRAMMING HOUR OF DCT SOFTWARE ENGINEER
INCLUDE:	1 work hour of DCT SW engineer for adjustment or customazing of standard DCT traceability software.

3. TRACEABILITY ONLINE: OPC SERVER — PC WIN — NO FILE

10127 / + PC WIN + OPC Server software

CLEANING DEVICE

CUSTOMER





Highest level of DCT traceability option fulfilling Industry 4.0 requirements, using online connection of cleaning machine to customer's network thru KepServer software.

Output is not file but access to OPC client with online cleaning process data. Customer can use this data for all his own other tracaebility operations.

KEPServer software is installed on embedded industrial WIN PC.

Is possible to set customer's IP address and system is ready connect to Oracle MES system. OPC client installation and setup is on customers site and is not part of delivery from DCT Czech.

P/N 10127 is always necessary to combine with KEPServer sofware installation and setup to embedded WIN PC (P/N 10127A) and some level of log file, due to requested type of data access:

3. TRACEABILITY ONLINE: OPC SERVER — PC WIN — NO FILE

10127 / + PC WIN + OPC Server software

→ BASIC LEVEL

PART NUMBER:	NAME:
10127	TRACEABILITY ONLINE + PC WIN + OPC SERVER SOFTWARE
	Fulfill Industry 4.0 requirements
	Output is not file but access to OPC client with online cleaning process data.
	Is possible to set customer's IP address
	Ready connect to Oracle MES system
INCLUDE:	Manual for installation of OPC client.
NOT INCLUDE:	PC screen and KEPServer/OPC client installation support

→ LOG FILE LEVELS

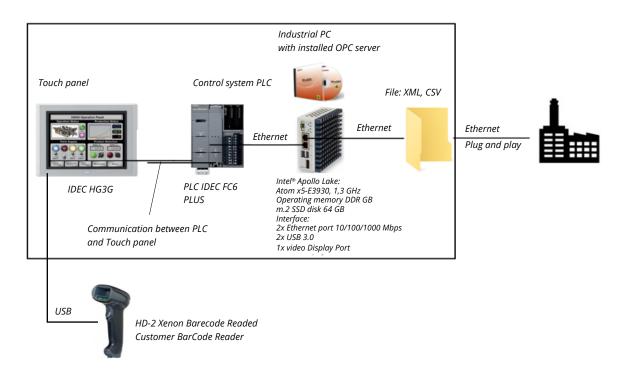
10127A	KEPSERVER SOFWARE INSTALLATION AND SETUP TO EMBEDDED WIN PC
INCLUDE:	Include: KEPServer software installation and setup of connection between PLC and WIN PC
10127В	BASIC PROCESS DATA ACESS (OUTPUT IS NOT FILE, ONLY ONLINE DATA ACCESS)
REQUIRE:	Configuration of KEPServer software
INCLUDE:	Program number, set process times, set temperatures, conductivity value, total cycle number, open/close door status, Total Stop status.
10127C	EXTENSION OF BASIC PROCESS DATA ACESS (OUTPUT IS NOT FILE, ONLY ONLINE DATA ACCESS)
	Configuration of KEPServer software
	Extension of next 10 addresses for online process data due to customer request.
10127D	INTERLOCKING - EXTENSION OF ADDRESSES FOR ONLINE DEVICE CONTROL
	Configuration of KEPServer software
	Adding addresses to control cleaning machine from superior system.
INCLUDE:	max. 5 new addresses due to customer request
	For example: exchange of cleaning program, switch ON/OFF of device, failure confirmation/delete, start/stop of cleaning process.

3. TRACEABILITY ONLINE: OPC SERVER — PC WIN — NO FILE

10129 / + PC WIN +Barcode Reader + OPC Server software

CLEANING DEVICE

CUSTOMER





Highest level of DCT traceability option fulfilling Industry 4.0 requirements, using online connection of cleaning machine to customer's network thru KepServer software.

Output is not file but access to OPC client with online cleaning process data. Customer can use this data for all his own other tracaebility operations.

PLC is ready ready for connection of Barcode Reader. Customer can choose standard DCT barcode reader (P/N 10129A) or use own barcode reader when DCT need to setup its setting (P/N 10129C).

KEPServer software is installed on embedded industrial WIN PC.

Is possible to set customer's IP address and system is ready connect to Oracle MES system.

OPC client installation and setup is on customers site and is not part of delivery from DCT Czech.

P/N 10129 is always necessary to combine with some type of barcode reader (P/N 10129A or 10129C) and KEPServer sofware installation and setup to embedded WIN PC (P/N 10129D).

Also customer need to choose one of available level of data access:

3. TRACEABILITY ONLINE: OPC SERVER — PC WIN — NO FILE

10129 / + PC WIN +Barcode Reader + OPC Server software

→ BASIC LEVEL

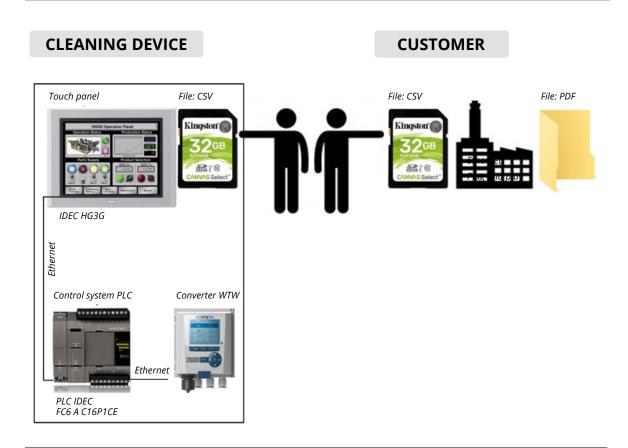
PART NUMBER:	NAME:
10129	TRACEABILITY ONLINE + PC WIN + OPC SERVER SOFTWARE
	Fulfill Industry 4.0 requirements
	Output is not file but access to OPC client with online cleaning process data.
	Is possible to set customer's IP address
	Ready connect to Oracle MES system
INCLUDE:	Ready for connection of Barcode Reader, manual for installation of OPC client.
NOT INCLUDE:	PC screen, KEPServer/OPC client and installation support, installation of Barcode Reader

→ LOG FILE LEVELS

10129A	BARCODE READER HD-2 XENON
INCLUDE:	Barcode Reader, USB cable, holder, installation.
10129C	CONNECTION OF CUSTOMER'S BARCODE READER
INCLUDE:	Connection and setting of customer's Barcode Reader
REQUIRE:	Delivery of customer's Barcode Reader to DCT
10129D	KEPSERVER SOFWARE INSTALLATION AND SETUP TO EMBEDDED WIN PC
	Include: KEPServer software installation and setup of connection between PLC and WIN PC
10129E	INTERLOCKING - EXTENSION OF ADDRESSES FOR ONLINE DEVICE CONTROL
	Configuration of KEPServer software
	Adding addresses to control cleaning machine from superior system.
INCLUDE:	Max. 5 new addresses due to customer request
FOR EXAMPLE:	Exchange of clenaing program, switch ON/OFF of device, failure confirmation/delete, start/ stop of cleaning process.
40400	DAGIG DDG GEGG DATA AGEGG (OUTDUT IS NOT FILE ONLY ON INF DATA AGGEGG)
10129F	BASIC PROCESS DATA ACESS (OUTPUT IS NOT FILE, ONLY ONLINE DATA ACCESS)
	Configuration of KEPServer software
INCLUDE:	Program number, set process times, set temperatures, conductivity value, total cycle number, open/close door status, failure status, Total Stop status.
10129G	EXTENSION OF BASIC PROCESS DATA ACESS (OUTPUT IS NOT FILE, ONLY ONLINE DATA ACCESS)
	Configuration of KEPServer software
	Extension of next 10 addresses for online process data due to customer request.

4. TRACEABILITY FOR ROSE

10131 / OFFLINE - save CSV file to touch screen SD card





Not fulfill Industry 4.0 requirements.

DCT ROSE tester is also possible to equip with different levels of traceability due to customer request and is possible to choose variety of options listed bellow to fulfill all different project requirements.



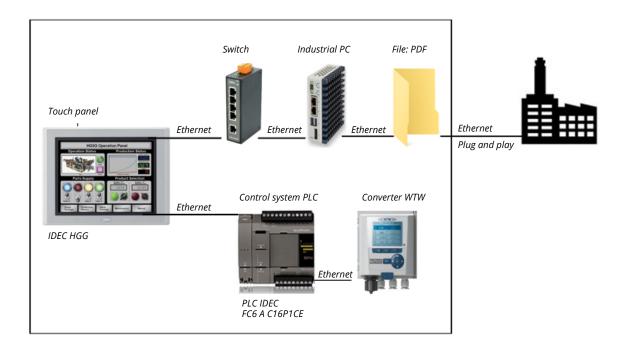
PART NUMBER:	NAME:
10131	TRACEABILITY FOR ROSE OFFLINE, SAVE CSV FILE TO TOUCH SCREEN SD CARD
	Not fulfill Industry 4.0 requirements
	Output is CSV file stored on SD in touch screen
	Not posible to connect cleaning machine to intranet or PC
	CSV file is possible to copy from SD card ot USB flash disc and create PDF report with ROSE VIEW software on customer's PC.
INCLUDE:	SD card, user manual, ROSE VIEW software for PC.
NOT INCLUDE:	PC WIN

4. TRACEABILITY FOR ROSE

10132 / Online + PC WIN, save PDF file to PC HDD

CLEANING DEVICE

CUSTOMER



→ BASIC LEVEL

PART NUMBER:	NAME:
10132	TRACEABILITY FOR ROSE ONLINE + PC WIN, SAVE PDF FILE TO PC HDD
	Not fulfill Industry 4.0 requirements
	Output is PDF file stored on HDD of industrial PC installed in ROSE tester.
	Is possible to set customer's IP address
INCLUDE:	Installation and setup of embedded PC with Windows, user manual.
NOT INCLUDE:	PC screen and SW support

4. TRACEABILITY FOR ROSE

10133 / Online + PC WIN + Barcode Reader, save PDF file to PC HDD

CUSTOMER **CLEANING DEVICE** Switch Industrial PC File: PDF Touch panel Ethernet Ethernet Ethernet Ethernet Plug and play Control system PLC Converter WTW Ethernet IDEC HG3G Ethernet PLC IDEC FC6 A C16P1CE USB

HD-2 Xenon Barecode Readed Customer BarCode Reader

TRACEABILITY FOR ROSE 4.

NAME:

10133 / Online + PC WIN + Barcode Reader, save PDF file to PC HDD

PART NUMBER:

→ BASIC LEVEL

10133	TRACEABILITY FOR ROSE ONLINE + PC WIN + BARCODE READER, SAVE PDF FILE TO PC HDD
	Not fulfill Industry 4.0 requirements
	Output is PDF file stored on HDD of industrial PC installed in ROSE tester.
	Is possible to set customer's IP address
INCLUDE:	Installation and setup of embedded PC with Windows, ready for connection of Barcode Reader, user manual.
NOT INCLUDE:	Barcode Reader, PC screen and SW support

→ LOG FILE LEVELS

BARCODE READER HD-2 XENON
Barcode Reader, USB cable, holder, installation.
CONNECTION OF CUSTOMER'S BARCODE READER

10133C	CONNECTION OF CUSTOMER'S BARCODE READER
INCLUDE:	Connection and setting of customer's Barcode Reader
REQUIRE:	Delivery of customer's Barcode Reader to DCT

10133E	BARCODE LOGGED BEFORE START OF CLEANING PROCESS	
INCLUDE:	SW setup to be able to scan Barcodes before start of cleaning cycle	
(nutno vysvetlit vyhody/nyvyhody = proc si vybrat tuto moznost)		

10133F	BARCODE LOGGED BEFORE START OF CLEANING PROCESS	
	SW setup to be able to choose if Operator Barcode scanning is mandatory to start cleaning cycle. Library with maximum 10 operator's barcodes. For higher amount of Barcodes is necessary to multiply this unit in quote/PO.	

5. TECHNICAL PARAMETRES



Type of PLC: For cleaning machines	PLC IDEC FC6A-D16P1CEE
Type of PLC: For ROSE	PLC IDEC FC6A-C16P1CE
Type of Barcode reader	Honeywell 1900GHD-2
Type of industrial PC WIN	Intel® Apollo Lake: Atom x5-E3930, 1,3 GHz
	Operating memory DDR, SSD disk 64 GB
	2x Ethernet port 10/100/1000 Mbps
	2x USB 3.0
	1x video Display Port
	Microsoft Windows 10 IoT Enterprise 2019 64bit
Type of OPC Server software	KepServerEX (free demo available on www.kepware.com)

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For more information you can contact DCT specialist in your country or the manufacturer directly.

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