



# FIXED-MOUNTED ID READERS ID-600

LICENSING MODEL  
QUICK START GUIDE

 **di-soric**

# OUR VERSATILE CAMERA-BASED ID-600 FIXED-MOUNTED

## SMART PRODUCTION READY

The ID-600 impresses with its powerful, upgradeable software, clever and robust illumination concept, its M12 interchangeable lenses, and extensive optics accessories.

Thanks to high-performance code-reading tools and the quickly configurable nVision-i software, optimal performance with smooth startup and changing conditions is guaranteed.

### Comprehensive focal lengths through M12 interchangeable lenses

for satisfying all common application requirements in industrial code reading

### Integrated high power LED illumination in red and white

Illumination can be switched in the software for optimal startup at a high speed and at a large working distance.

### User-friendly, intuitive software and high-performance ID code reader tools

ensure simple and seamless integration

### Image correction and calibration

for improving the image quality

### Reliable and fast

The ID reader for all common 1D and 2D code types and easily recognizable, directly marked DPM codes

### Upgrade function

License upgrade ID-Pro for the recognition of hard-to-read directly marked DPM codes and code grading, based on ISO15415 for 2D codes

### Customizing

The software can be customized as needed

### Supports industry protocols

Digital I/O, TCP/IP, Profinet, Ethernet/IP, HTTP, FTP/SFTP and ReST-API

### Robust, compact housing with IP67

for use in factory environments with active washing without attaching additional protective equipment



EtherNet/IP



POWERED BY  
CORTEX  
DECODER

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# LICENSE MODELS FOR ID-600

I License for nVision-i Parameterization software	II Upgrade License Function Extension	III CD-60 Variants Licensed off the shelf
<ul style="list-style-type: none"> <li>■ Article 213438 nVision-i</li> <li>■ Creation of offline jobs</li> <li>■ Parameterization of sensor</li> <li>■ Reference to Online Shop, Customer Service</li> <li>■ Free</li> </ul> <p>* With each sensor supplied, the licence key for the nVision-i parameterisation software is included on the delivery note.</p>	<ul style="list-style-type: none"> <li>■ Article 213771 ID600-UP-ID-PRO-LIZENZ</li> <li>■ The license is used to release functions on the ID-Reader.</li> <li>■ Fee-based</li> </ul>	<ul style="list-style-type: none"> <li>■ Article 213764 ID600-BM28-EP15/300</li> <li>■ Article 213765 ID600-BM28-EP15/300PRO</li> <li>■ Article 213766 ID600-BM38-EP15/300</li> <li>■ Article 213767 ID600-BM38-EP15/300PRO</li> </ul>

# PROCESSES FOR LICENSE MODELS

I License for nVision-i Parameterization software	II Upgrade License Function Extension	III CD-60 Variants Licensed off the shelf
<ol style="list-style-type: none"> <li>1. The nVision-i software can be downloaded via the Online Shop.</li> <li>2. The license is activated automatically when the software is started for the first time.</li> <li>3. If there is no Internet connection, di-soric Customer Service can activate the license manually.</li> </ol>	<ol style="list-style-type: none"> <li>1. A ID-600 is already present.</li> <li>2. To complete a new task, an expanded functional scope is required.</li> <li>3. The upgrade can be acquired via the Online Shop or via di-soric Customer Service. The sensor serial number is required for this.</li> </ol>	<ol style="list-style-type: none"> <li>1. The ID-600 is acquired via the Online Shop or Customer Service.</li> <li>2. Off the shelf, the sensor has the license setup uploaded to it and has the ordered status upon delivery.</li> </ol>



# FIRST STEPS

## Unboxing



With each sensor supplied, the licence key for the nVision-i parameterisation software is included on the delivery note.

1. Unpack the ID-600, mechanically assemble it and complete electrical wiring according to instructions.
2. Connect the M12 plug end (8-pin) of the Ethernet connection cable to the M12-X socket on the sensor.
3. Connect the RJ45 end of the Ethernet connection cable to the RJ45 interface of the Client PC (PC is only required for setup) or the PLC.
4. Connect the sensor to the power supply. To do this, PWR, GND, Trigger and I/O must be properly connected. The power supply must be between 18 and 30 V DC. Caution: It must be ensured that both ends of the cable are firmly and correctly attached to establish a physical connection.
5. Connect the M12 plug (12-pin) of the IO-PWR cable to the free M12 socket (12-pin) of the sensor.

### Note:

- Each ID-600 is delivered with a standard, fixed IP address IP: 192.168.3.15 / subnet mask: 255.255.255.0 and the device name "ID-600." To avoid network interference, it must be ensured in advance that each IP address is unique within the network!
- The sensor and PC must be in the same IP address range for them to be able to be connected.
- Preferably, use static IP addresses in the network in order to ensure a stable connection.
- If several ID-600 Fixmount ID-Reader are to be used simultaneously, the IP addresses must be adjusted in order to prevent network conflicts.

## Installing the nVision-i software:

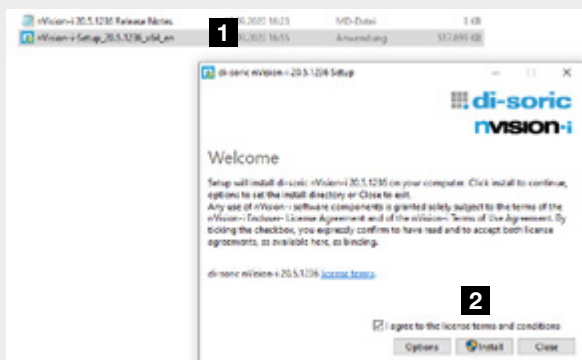
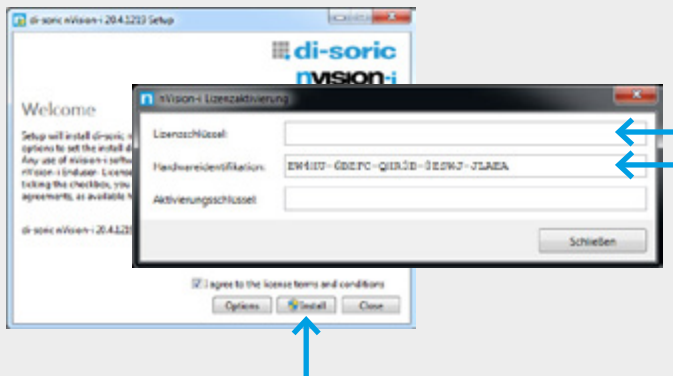


Fig. 01

- The most current software version is available for download on the di-soric homepage at <https://www.di-soric.com/213438>. To ensure that the nVision-i software is installed properly, full administrative rights are required!
- Start installation by clicking on "Install." Perform the installation steps on the screen according to the instructions on the screen. At the end of a successful installation, a confirmation notice is displayed. The computer may have to be restarted.

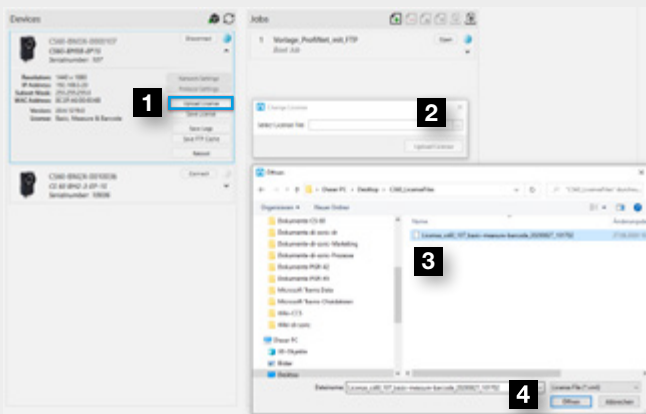
## Licensing



The license is activated the first time nVision-i is started. If licensing is successful, nVision-i can be started.

If the computer being used does not have an Internet connection, the software can also be activated by phone. Using hardware identification, Customer Service can generate the activation key.

## Upgrade



- 1 Start nVision-i and open up the Parameter menu of the sensor.
- 2 Open file explorer by way of the "Upload license" entry.
- 3 Select the license file in the file explorer.
- 4 Upload the file with "Open."

## FAQs

**Even with a functioning Internet connection, retrieval of the license file is not possible.**

**Cause:** All app access to the Internet is blocked by Customer IT as a rule.

**Solution:** Simply perform the installation as described above without Internet access.

**After the installation, the connected sensors are not recognized.**

**Cause:** The app is blocked in the firewall structure of the Customer IT.

**Solution:** Customer IT must release the app.

## Adjusting the settings of the ID-600

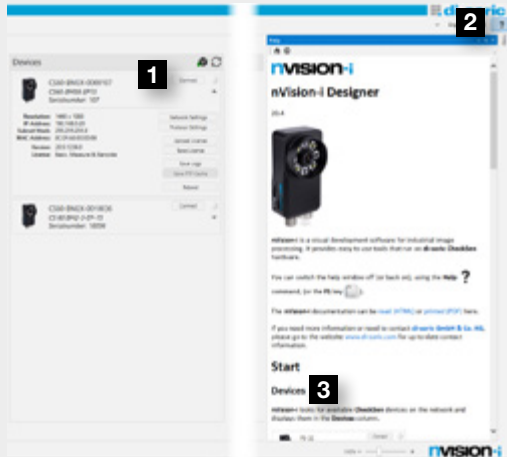


Fig. 02

After starting the nVision-i software, the following image appears: (Fig. 02)

- 1** Connect to Sensor
- 2** Help for selected action
- 3** Help with connection to sensor



Fig. 03

**Note:**

In this window, adjustments to network settings, such as the assignment of the IP address or the activation of the industry protocols, can be performed. Click on “Apply” to save all changes. (Fig. 03)

- 1** Select Change IP
- 2** Set IP address to network

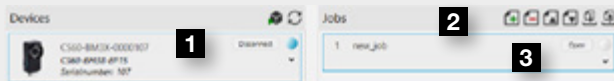


Fig. 04

In the Devices area, a sensor or the emulator can be selected to establish a connection. A new job can then be created using “+” in the Jobs area. By clicking on “Open,” verifications can be set up in the main menu. (Fig. 04)

- 1** Establish connection to sensor
- 2** Create new job
- 3** Open job

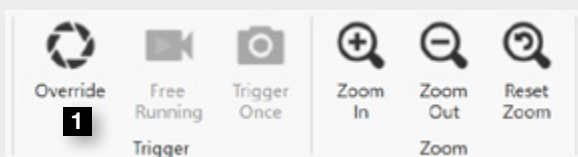


Fig. 05

First select “Override” to put the sensor in editing mode. Click “Trigger Once” to record the first image. Next, you can begin with the image setup and focusing of the lens. (Fig. 05)

- 1** Adopt sensor control

## Focusing the lens

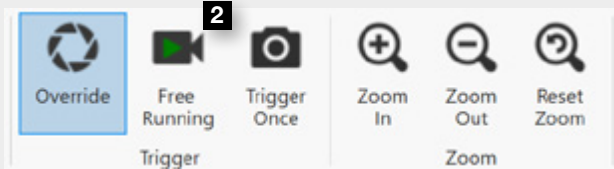


Fig. 06

To do this, continuous recording must be started via “Free Running.” (Fig. 06)

**2** Select Image Trigger

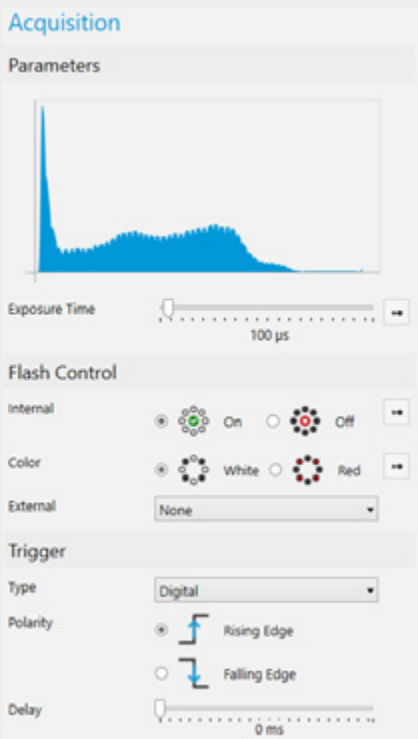


Fig. 07

By turning the lens, the image can then be focused. If needed, the exposure time, the flash mode (flash, color) and the trigger settings can also be chosen in the Acquisition area. (Fig. 07)

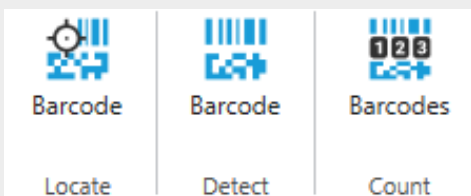




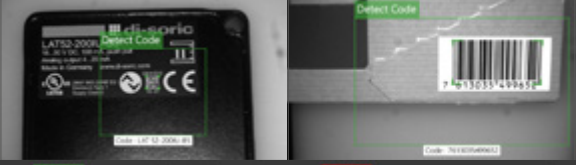



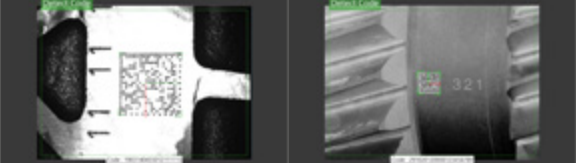

Fig. 08

After a new job has been created, the appropriate verification tool for the task can be selected in the Menu area. To do this, click on the corresponding tool to add it in the Tool list area. It is also possible to add several tools to a job. (Fig. 08)

All configured jobs are saved locally on the ID-600. The Fixmount ID-Reader thus works with or changes between jobs which are stored in its memory. But it is also possible to export these jobs to the computer or vice versa.

# THE IMAGE PROCESSING TOOLS

## SIMPLE AND FAST

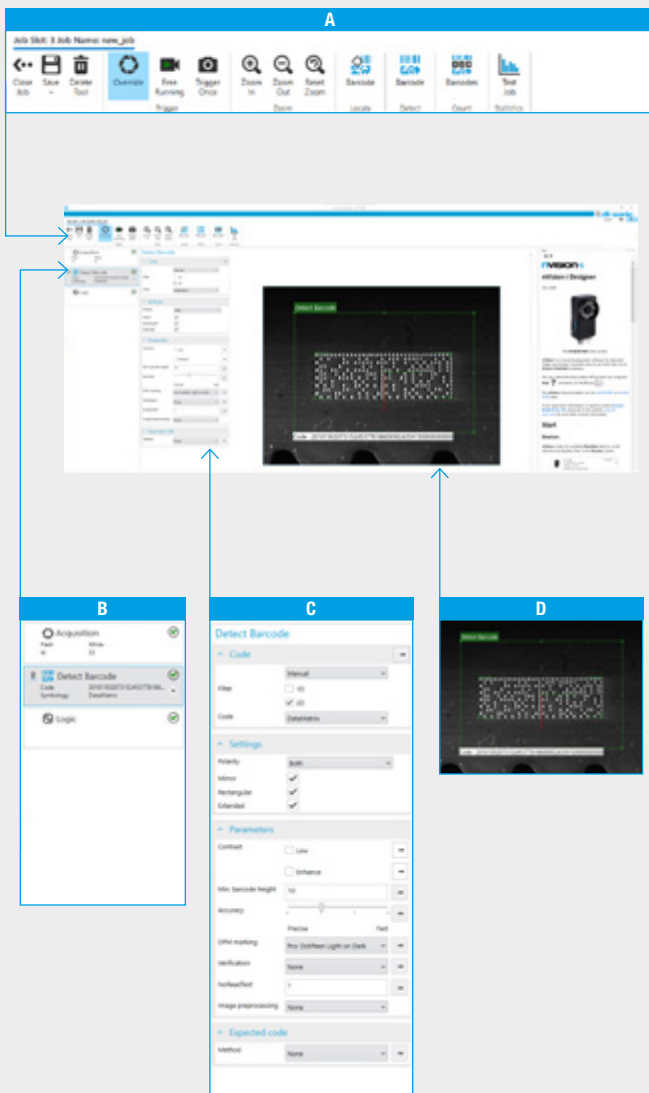
UPDATE ID: Localize, read and count 1D, 2D and DPM codes			+
<b>LOCALIZATION</b>	Finds a code within the defined search field and serves as a guide for subsequent tools. Efficient for label fit check		
<b>READING</b>	Decodes all codes and can evaluate the content using different criteria (regular expressions)		
<b>COUNTING</b>	Enables multiple recognition of different codes		
UPDATE ID PRO: Read hard-to-read DPM codes on difficult surfaces			+
<b>READ DPM CODES</b>	The upgrade enables high-performance reading of hard-to-read directly marked codes on difficult surfaces and code grading		



# USER INTERFACE

## Structure of the user interface

The ID-600 user interface is made up of 4 areas. The navigation bar in the upper area is for instructions and setup. The verification tools contained here are divided into 4 groups. Double-click on one of these tools to insert it in the area on the left, the so-called Pipeline. Configuration and parameterization of the selected tools can be performed in the area in the middle. Finally, on the right side there is an even larger field in which the image and the drawing tools are displayed.



### A Navigation bar & verification tools:

- Intuitive and user-friendly navigation menu.
- Contextual help can be displayed as needed.
- Menu guidance available in 4 languages.

### B Pipeline & status checks:

- Verification tools can be inserted here via drag & drop. Measured values and test results/status are shown here.

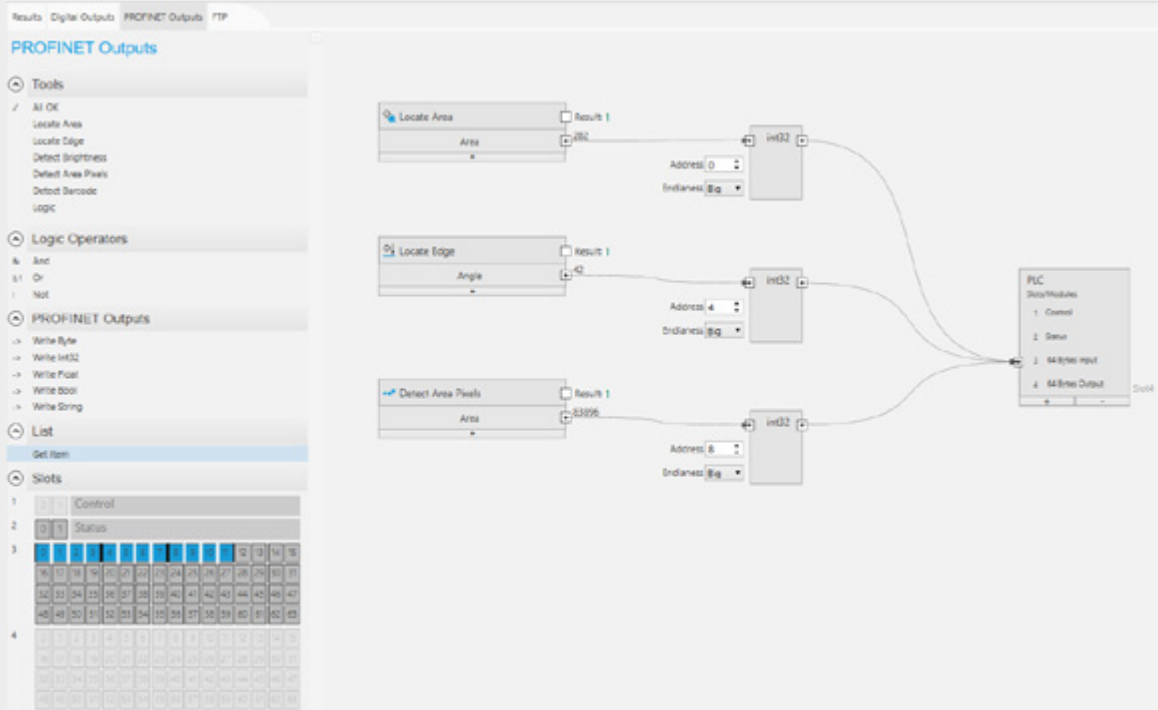
### C Configuration:

- Parameters for search criteria can be adjusted simply and directly.
- Limit values for the evaluation criteria can be entered easily.

### D Display & Drawing tools:

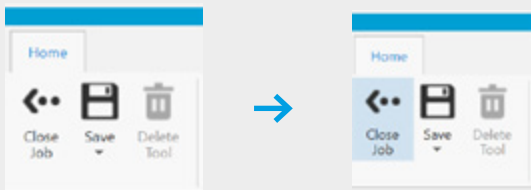
- Image viewing for checking and analysis during operation.

## Communication with higher-level control systems



At the end of editing, the results can be summarized and transmitted to the higher-level control system using the options in the Logic area.

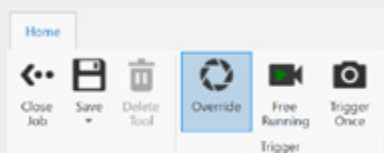
## Saving the job



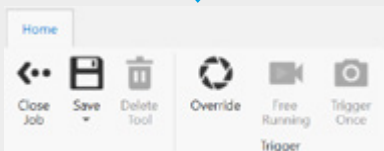
Save the job in the flash memory of the sensor by clicking “Save job.” Return to the starting view with “Close job.”

## Executing the job

Editing state



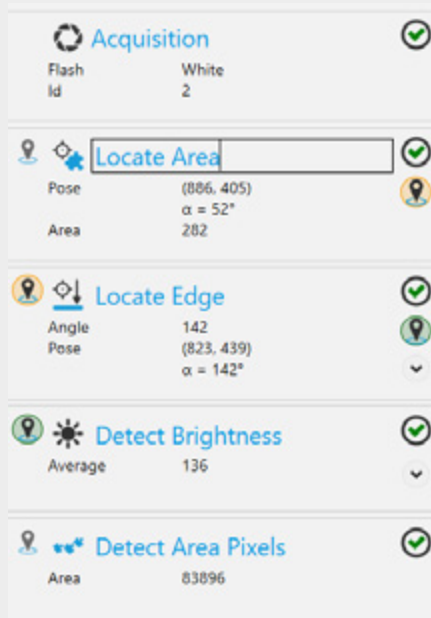
Online state



Select “Override” to execute a job. Now the sensor is active and ready to communicate with the higher-level control.

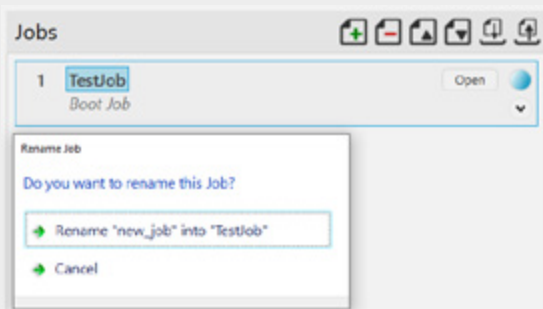
# APPENDICES

## Renaming verification tools



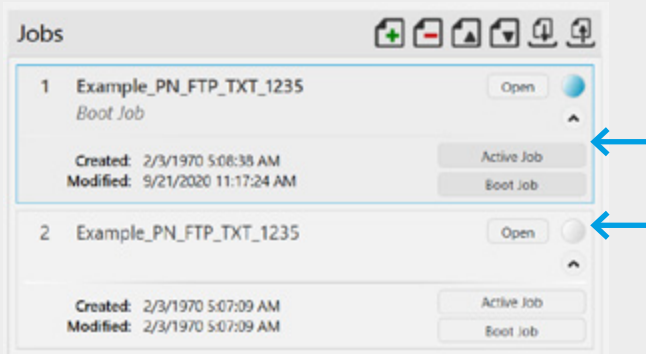
Click on the name field to select and rename it.

## Renaming a job name



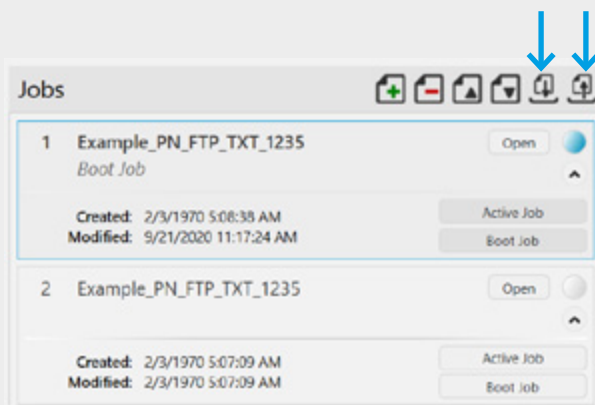
To do this, click on the corresponding name field and rename it.

## Setting a boot job



First click on the arrow and then on “Boot job.”

## Importing and exporting the job



Click on the corresponding arrow.

# ID-600 FIXMOUNT ID-READER

## TECHNICAL DATA



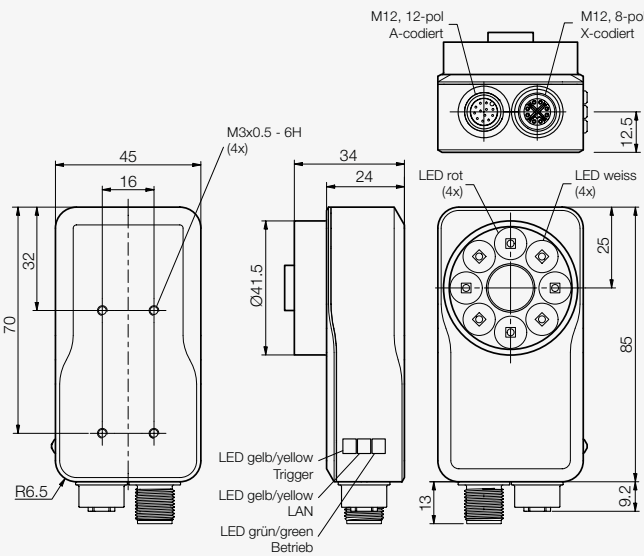
- Compact and high-performance
- High power LED illumination in red and white
- Flexible and high-performance software
- Parameter changes during production
- Easy & intuitive
- Flexible working distances of 50 - 1,500 mm by changing lenses.
- Upgrade option: Measure & read 1D and 2D codes.
- Customization option



Enclosure Type 1 Supply Class 2

NFPA79 Applications only.  
For Adapters providing field wiring means refer to product information or customer support.

### Design / connection information



12-pol A-codiert		
	1 SPS_IN0	7 +UB
	2 SPS_IN1	8 GND
	3 SPS_OUT_2	9 NC
	4 SPS_OUT_3	10 Trigger IN
	5 RESET / READY	11 SPS_OUT_0
	6 COMMON INTERFACE	12 SPS_OUT_1

8-pol X-codiert		
	1 LAN A+	5 LAN D+
	2 LAN A-	6 LAN D-
	3 LAN B+	7 LAN C-
	4 LAN B-	8 LAN C+



**WARNING!** Not a safety component pursuant to 2006/42/EG and EN 61496-1/-2! May not be used for personal protection! Non-compliance can lead to death or serious injuries! Only use as directed!

### Software requirements

The nVision-i software can be run on the following operating systems:

- -Microsoft Windows 7 (64-bit), SP1
- -Microsoft Windows 10 (64-bit)

**Minimum computer requirements:**

- Intel® Core™ i3 Processor @1.6GHz
- 2GB RAM (Windows 7 SP1 / Windows 7 Embedded Standard SP1)
- 3GB hard drive space
- 32-bit color display, 1366x768 or 1280x960
- 4.0 Windows Experience Index (particularly for graphics)
- 1 USB 2.0 port and 1 network port

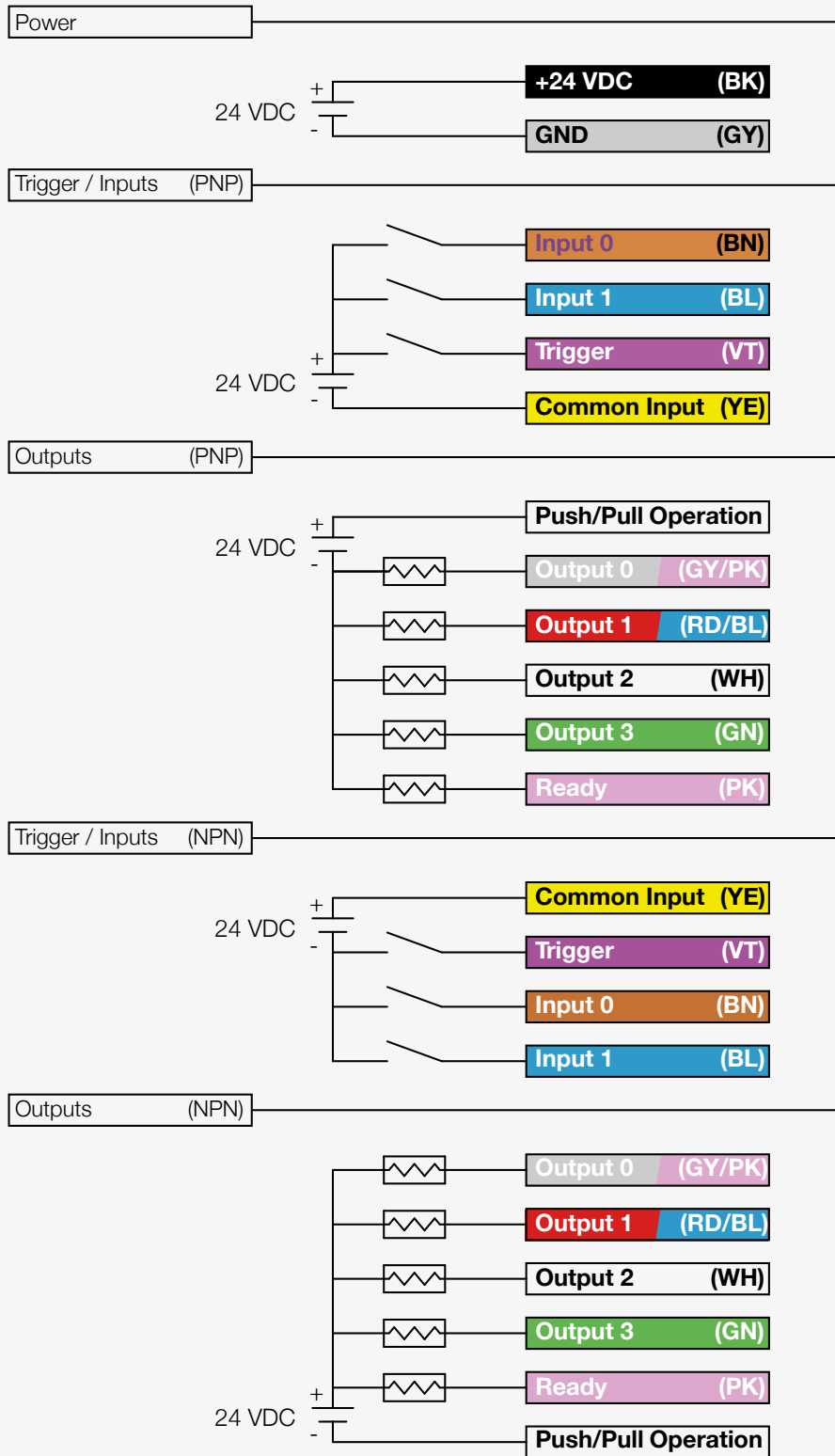
**Recommended computer requirements:**

- Intel® Core™ i7 Processor @ 2.0GHz
- Internet Explorer 11 / Google Chrome
- 8GB RAM (Windows 7 SP1)
- 10GB of hard drive space
- 32-bit color display, 1920 x 1080
- 5.0 or greater Windows Experience Index
- 1 USB 2.0 port and 1 Gigabit Network port (Intel Chipset recommended)



	ID600-BM28 -EP15/300	ID600-BM28 -EP15/300PRO	ID600-BM38 -EP15/300	ID600-BM38 -EP15/300PRO
<b>Tools:</b>				
■ Reading 1D code	■	■	■	■
■ Reading 2D code	■	■	■	■
■ Reading stacked codes	■	■	■	■
■ Reading DPM code	■	■	■	■
■ Read hard-to-recognize DPM codes		■		■
■ Code grading based on ISO 15415		■		■
<b>Upgrade options:</b>				
■ ID-Pro:				
■ Read hard-to-recognize DPM codes	■		■	
■ Code grading based on ISO 15415				
■ Customization:				
■ Customization of the software to requirements / corporate design	■	■	■	■
<b>Resolution</b>				
	736 (H) x 480 (V)		1456 (H) x 1088 (V)	
<b>Pixel size (µm)</b>				
	3,45 x 3,45		3,45 x 3,45	
<b>Shutter</b>				
	global		global	
<b>Max. image frequency (fps)</b>				
	30		30	
<b>Scope of delivery</b>				
	ID-600 fixed-mounted ID reader, O-S1-S-080-40 lens, CS60-Window lens cover			
<b>Housing dimensions H/W/D</b>				
	85 / 45 / 34 mm			
<b>Service voltage</b>				
	18...30 VDC			
<b>Working distance</b>				
	1 ID reader with S-mount – 4 lenses: 50 – 1500 mm			
<b>Focal length</b>				
	Variable – S-Mount: 3.6, 8, 16, 25 mm			
<b>Internal lighting</b>				
	Switchable integrated illumination: High Power red, High Power white			
<b>Storage / number of jobs</b>				
	16 GB / to 255			
<b>Focusing</b>				
	Variable focus with aperture 4 and 8			
<b>Interfaces &amp; protocols</b>				
	Digital I/O, TCP/IP, Profinet, Ethernet/IP (from nVision-i Release 24.1)			
<b>Digital inputs / outputs</b>				
	2 + 1 external trigger / 4 + 1 ready signal			
<b>Image storage</b>				
	Via FTP/SFTP / manually in the software			
<b>Supported codes</b>				
<b>1D codes (barcodes)</b>	Code 39	GS1 Databar RSS 14	UPC A	Code 2of5 Interleaved
	Code 93	GS1 Databar Limited	UPC E	Code 2of5 Matrix
	Code 128	GS1 Databar Expanded	EAN 8	Code 2of5 Straight
	Codebar	Pharmacode	EAN 13	Code 2of5 HongKong
				Code 2of5 NEC
			Code 2of5 IATA	
<b>2D codes</b>	Aztec Code		QR 2005	
	Data Matrix		QR Micro	
	Dot Code		QR Model 1	
<b>Stacked codes</b>	GS1 Databar RSS 14 Stacked		PDF 417	
	GS1 Databar Expanded Stacked		PDF 417 Micro	

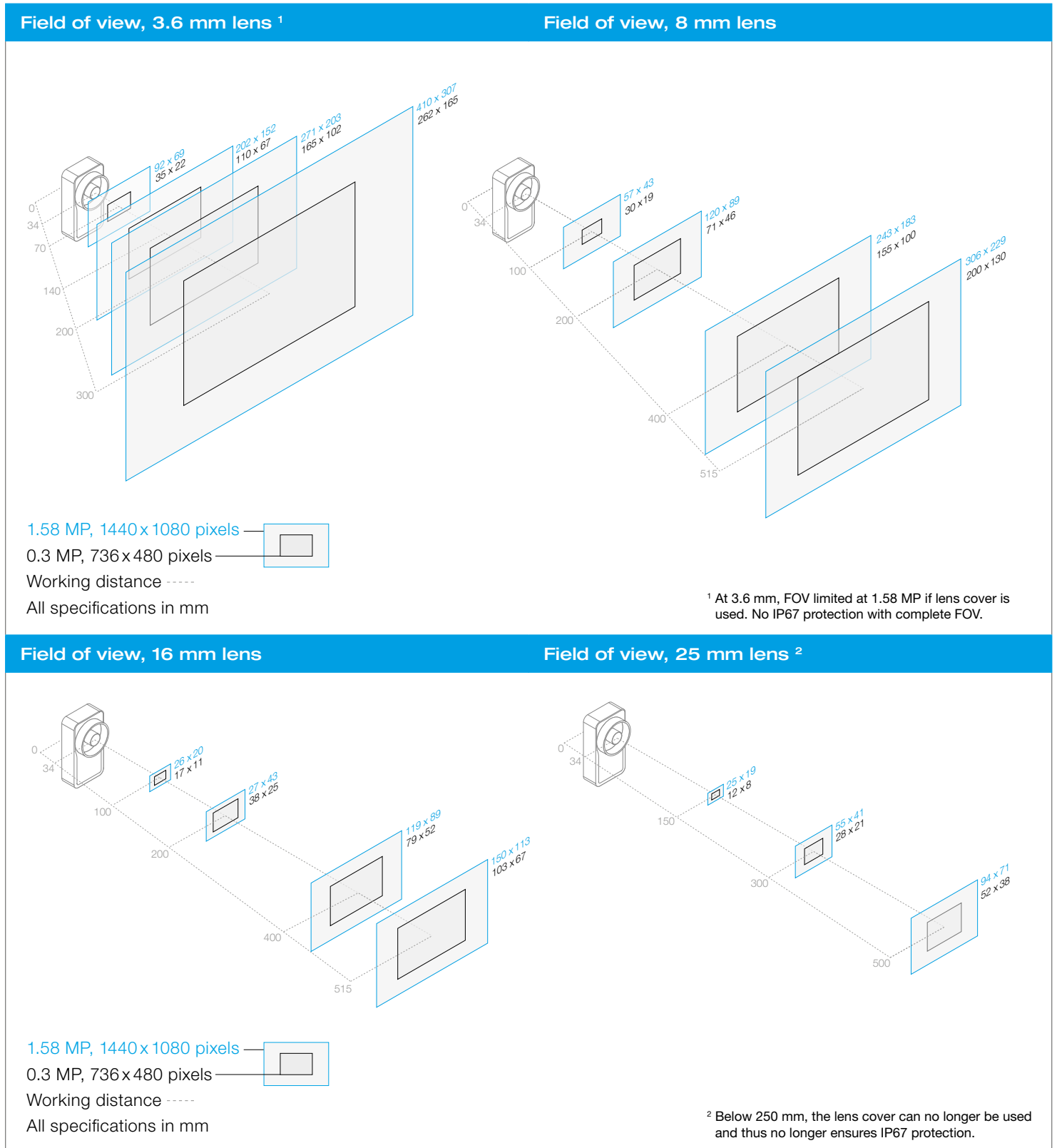
## DIO connection



# FIELDS OF VIEW

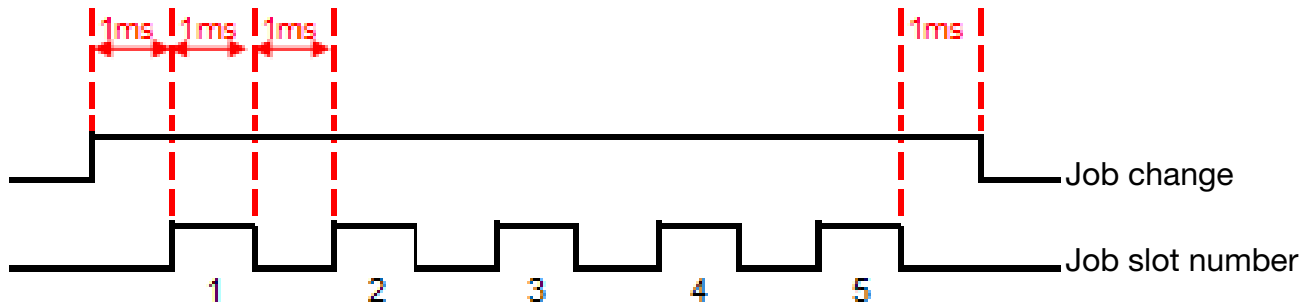
## ID-600

The following table shows the representation of fields of view with the available lenses at various working distances for the ID-600 with 736 x 480 pixels (0.3 MP) and 440 x 1080 pixels (1.58 MP). Working distance: Back edge sensor to worktop. Depth of sensor: 34 mm.





## Change job when using the inputs



To do this, use the inputs 0 and 1. The PLC sets a high signal to the line 0 “Change job” and then sends a series of impulses (1 ms hold time) to line 1 “Job selection.” The number of impulses then corresponds to the job number, e.g. 5 impulses = job number 5. After the 5th impulse and a wait time (Low side) of 2 ms, the signal to line 0 is then canceled (Low side).

## HMI recommendation

The nVision-i software comes pre-installed on the following Windows-based panels upon delivery. This enables a complete set-up of the ID-600 family as well as visualization via commonly used browsers such as Google Chrome, Firefox or Edge.

ARCHMI-912ARH74600-DIC	(12 inch, resistive display)
ARCHMI-912APH74600-DIC	(12 inch, capacitive display)
ARCHMI-915ARH74600-DIC	(15 inch, resistive display)
ARCHMI-915APH74600-DIC	(12 inch, capacitive display)

The following panels can only be used for visualization purposes via an automation browser. Android 10 is used as the operating system. The following types are available for selection:

JWS101-A210-3288432KY-A	(10 inch, capacitive display, automation browser, Android 10.0)
JWS121-A210-3288432KY-A	(12 inch, capacitive display, automation browser, Android 10.0)
JWS121-A210-3288432KY-A	(15 inch, capacitive display, automation browser, Android 10.0)

For information about prices and delivery times, please contact the company Wachendorff directly via the following contact info:

Andreas Weible, Head of D-South-West sales region

Mobile: +49 (0) 1 51 / 180 118 45

Tel.: +49 (0) 71 25 / 9698 847

E-mail: awe@wachendorff.de

**SOLUTIONS. CLEVER. PRACTICAL.**

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