



# Product Catalog

On the following pages you will find an extensive selection of our product range (further articles on request).

This product catalog is valid as of June 2017.

All previous editions of the product catalog cease to be valid.

Errors and omissions excepted. Technical specifications are subject to change without notice.

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Item No.	Description
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## NeuroCheck Software



### NeuroCheck Version 6.1

NC-2101/U

**NeuroCheck V 6.1 Premium Edition English (USB)**  
Developer Edition for interactive development and operation of applications including programming interface.

The universal application software for industrial vision systems with an interactive environment for developing visual inspection systems for all areas of manufacturing and a runtime environment.

- + Interactive check routine development.
- + Integrated device manager for cameras and communication.
- + Graphical tools for automatic mode screen design.
- + Automatic shop-floor operation with process communication.
- + Powerful and fast image processing algorithms.
- + Programming interface to develop and integrate plug-in functions.

Please note that the hardware key (dongle) constitutes the value of the purchased program.



Item No.	Description
NC-2102/U	<p><b>NeuroCheck V 6.1 Professional Edition English (USB)</b> Professional Edition for interactive development and operation of applications.</p> <p>The universal application software for industrial vision systems with an interactive environment for developing visual inspection systems for all areas of manufacturing and a runtime environment.</p> <ul style="list-style-type: none"><li>+ Interactive check routine development.</li><li>+ Integrated device manager for cameras and communication.</li><li>+ Graphical tools for automatic mode screen design.</li><li>+ Automatic shop-floor operation with process communication.</li><li>+ Powerful and fast image processing algorithms.</li></ul> <p>Please note that the hardware key (dongle) constitutes the value of the purchased program.</p>
NC-2103/U	<p><b>NeuroCheck V 6.1 Runtime Edition English (USB)</b> Runtime Edition for a completely configured application.</p> <p>The universal application software for industrial vision systems. The Runtime Edition comprises the entire image processing functionality of the Professional or Premium Edition excluding manual mode for configuration applications.</p> <ul style="list-style-type: none"><li>+ Automatic shop-floor operation with process communication.</li><li>+ Powerful and fast image processing algorithms.</li></ul> <p>Please note that the hardware key (dongle) constitutes the value of the purchased program.</p>



Item No.	Description
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## Multi license levels



**Please note:**

- When using these software license levels, you can operate up to four parallel NeuroCheck software instances on one computer with each instance processing one NeuroCheck project. Thus you can run several, completely independent and non-synchronized image processing systems on a single computer.
- Software license levels listed in this section were introduced with NeuroCheck version 6.1.

**NC-2104/U**

**NeuroCheck V 6.1 Premium Multi Edition English (USB)  
Developer Edition for interactive development and parallel  
operation of multiple applications on one computer, including  
programming interface.**

The universal application software for industrial vision systems  
with an interactive environment for developing visual inspection  
systems for all areas of manufacturing and a runtime  
environment.

- + Interactive check routine development.
- + Integrated device manager for cameras and communication.
- + Graphical tools for automatic mode screen design.
- + Automatic shop-floor operation with process communication.
- + Powerful and fast image processing algorithms.
- + Programming interface to develop and integrate plug-in functions.
- + Parallel operation of up to four independent applications on one computer.

Please note that the hardware key (dongle) constitutes the value  
of the purchased program.

**NC-2105/U**

**NeuroCheck V 6.1 Runtime Multi Edition English (USB)  
Runtime Edition for multiple completely configured applications  
on one computer.**

The universal application software for industrial vision systems.  
The Runtime Edition comprises the entire image processing  
functionality of the Professional or Premium Edition excluding  
manual mode for configuration applications.

- + Automatic shop-floor operation with process communication.
- + Powerful and fast image processing algorithms.
- + Parallel operation of up to four independent applications on one computer.

Please note that the hardware key (dongle) constitutes the value  
of the purchased program.



Item No.	Description
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### Upgrades

Please note that after applying a NeuroCheck 6.1 license upgrade there is no compatibility with older NeuroCheck 5.1 installations.

The 6.1 dongle will not be accepted by a NeuroCheck installation of version 5.1 older than service pack 11, it will only run in Demo mode!

NC-2011	Upgrade NeuroCheck V6.0 Premium to V6.1 Premium
NC-2012	Upgrade NeuroCheck V6.0 Professional to V6.1 Professional
NC-2013	Upgrade NeuroCheck V6.0 Runtime to V6.1 Runtime
NC-2015	Upgrade NeuroCheck V6.1 Runtime to Professional
NC-2016	Upgrade NeuroCheck V6.1 Runtime to Premium
NC-2017	Upgrade NeuroCheck V6.1 Professional to Premium
NC-2019	Upgrade NeuroCheck V6.1 Premium to 6.1 Premium <b>Multi-Edition</b>



Item No.	Description
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## Plug-in extensions (extra licensing)

**Please note:**

- Plug-in software extensions listed in this section are licensed for single use on one computer only and therefore are bound to a specific NeuroCheck license.
- Please note that for creation of a check routine containing plug-in check functions a NeuroCheck 6.1 Premium Edition is required.

NC-2420/U-F

PI\_ContourMatch.NET.dll

This NeuroCheck 6.1 plug-in contains a contour based search algorithm to find patterns (models) within an image using the external library MIL 10.0. For details please refer to help file PI\_ContourMatch.NET.chm.

NC-2430/U-F

PI\_CodeReader.NET.dll

This NeuroCheck 6.1 plug-in is used to read several 2D codes and 1D bar codes using the external library MIL 10.0. For details please refer to help file PI\_CodeReader.NET.chm.

NC-2450-F

PI\_LensFocusControl.NET.dll

This NeuroCheck 6.1 plug-in allows to change the focus value of a Optotune's electrically tunable lense dynamically. For details please refer to help file PI\_LensFocusControl.NET.chm.





Item No.	Description
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## Driver and data format converter extensions (extra licensing)

**Please note:**

- Software extensions listed in this section are licensed for single use on one computer only and therefore are bound to a specific NeuroCheck license.
- Please note that for configuration of hardware drivers and data format converters a NeuroCheck 6.1 Professional Edition is required.

NC-2461-F	<b>Nc3D.NeuroCheck.EN.dll:</b>  This NeuroCheck 6.1 hardware driver integrates selected models of the "N" series stereo 3D cameras of manufacturer Ensenso as a 3D camera device in NeuroCheck software.
NC-2462-F	<b>Nc3D.NeuroCheck.Generic.dll:</b>  This NeuroCheck 6.1 hardware driver integrates various 3D cameras of selected manufacturers as a 3D camera device in NeuroCheck software.
NC-2443-F	<b>NcFmtCnv.NeuroCheck. DatabaseStandard.NET.dll</b>  This NeuroCheck 6.1 Data Format Converter is used to connect and exchange data from and to a local database using SQL statements.
NC-2444-F	<b>NcFmtCnv.NeuroCheck. FieldbusFlowControl.NET.dll</b>  This NeuroCheck 6.1 Data Format Converter contains a special sequence control system that allows starting a sequence of check routine executions including type changes by a single start signal from field bus.
NC-2445-F	<b>NcFmtCnv.NeuroCheck. SerialFlowControl.NET.dll</b>  This NeuroCheck 6.1 Data Format Converter contains a special sequence control system that allows starting a sequence of check routine executions including type changes by a single start signal from a serial device (RS232, TCP/IP).
NC-2442-F	<b>NcFmtCnv.NeuroCheck. CustomFile.NET.dll for 6.1</b>  This NeuroCheck 6.1 Data Format Converter writes data into a readable text file (TXT, XML or HTML files for instance) in a custom file format. The file format is defined as template file using place holders.



Item No.	Description
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## Plug-in extensions (products)

**Please note:**

- Plug-in software extensions listed in this section may be used several times in different projects.
- Please note that for creation of a check routine containing plug-in check functions a NeuroCheck 6.1 Premium Edition is required.

NC-2494	<p><b>PI_Distortion.NET.dll</b></p> <p>This NeuroCheck 6.1 plug-in contains functions to determine the geometric distortion in an image and minimizes the distortion like radial lens distortion or perspective by transforming the image. For details please refer to help file PI_Distortion.NET.chm.</p>
NC-2488	<p><b>PI_CoordinateTransformation.NET.dll</b></p> <p>This NeuroCheck 6.1 plug-in allows to perform a two-dimensional coordinate transformation for the center points of objects found in the current image. For details please refer to help file PI_CoordinateTransformation.NET.chm.</p>
NC-2482	<p><b>PI_RoiTools.NET.dll</b></p> <p>This NeuroCheck 6.1 plug-in contains different plug-in check functions for creation or modification of list of ROIs. For details please refer to help file PI_RoiTools.NET.chm.</p>
NC-2480	<p><b>PI_ImageTools.NET.dll</b></p> <p>This NeuroCheck 6.1 plug-in contains different plug-in check functions for creation or modification of images. For details please refer to help file PI_ImageTools.NET.chm.</p>
NC-2481	<p><b>PI_MeasTools.NET.dll</b></p> <p>This NeuroCheck 6.1 plug-in contains different plug-in check functions for creation or modification of measurement lists. For details please refer to help file PI_MeasTools.NET.chm.</p>



Item No.	Description
NC-2471	<b>PI_Gauge.NET.dll</b>  This NeuroCheck 6.1 plug-in is used to gauge a part of an object contour with a special calliper rule. For details please refer to help file PI_Gauge.NET.chm.
NC-2473	<b>PI_ManualInput.NET.dll</b>  This NeuroCheck 6.1 plug-in contains plug-in check functions which allow a synchronous user input of data in automatic mode. For details please refer to help file PI_ManualInput.NET.chm.
NC-2496	<b>PI_DataRegister.NET.dll</b>  This NeuroCheck 6.1 plug-in contains different plug-in check functions for modification or special use cases of data register cells. For details please refer to help file PI_DataRegister.NET.chm.
NC-2475	<b>PI_FileManagement.NET.dll:</b>  This NeuroCheck 6.1 plug-in contains functions to manage files on hard disc and network storages, for instance copy, move, zip and delete operations. For details please refer to help file PI_FileManagement.NET.chm.

Item No.	Description
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## NeuroCheck Compact II



NC-C2-13

### NeuroCheck Compact II monochrome

#### Smart Vision System

1280 x 1024 pixels, monochrome  
 1/1,8" CMOS-Chip, Global shutter  
 5,3µm x 5,3µm pixelsize

#### C-Mount

Intel Atom E680 1,6 GHz  
 RAM 2 GB 533 MHz DDR2  
 8 GB SSD (Solid State Disc)  
 Interfaces SXGA, USB 2.0, RS232, POE+, 4 digital I/O, WLAN  
 Software NeuroCheck 6.1 Professional compact  
 Operating system Windows Embedded Standard 7  
 Power requirement 12 - 24 VDC max. 12W  
 Protection IP67 (with lens sheath tube)  
 Dimensions (without lens) 65 x 109,3 x 57 mm<sup>3</sup>  
 Dimensions (with lens sheath tube) 65 x 109,3 x 112,5 mm<sup>3</sup>

Also available as color version

Item No.	Description
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## NeuroCheck PowerBox



NC-2600

**NeuroCheck PowerBox**

INTEL Celeron 2,7GHz  
 (optional Intel Core i7-4770 3,4 GHz)  
 4 GB RAM, 1 TB Harddisk  
 DVD-RW drive  
 2 x PCI-Express slot  
 GigE-Board with 2 Ports  
 Digital-I/O-board DS DIG 8/8 PCI  
 Dimensions (l x w x h): 33,2 x 21,6 x 19,8 cm<sup>3</sup>

Area-Scan Camera digital  
 658 x 494 pixels  
 90 frames/sec.  
 Incl. Cable 5m

**NeuroCheck V 6.1 Professional**



Item No. Description

## NeuroCheck Smart-Panel Vision-System



NC-SP-17

### NeuroCheck SmartPanel Vision System

- **17" Industrial Panel-PC (IP65 protected)**

17"-TFT 1280 x 1024 Pixel, Resistive Touch  
CPU Core i3-2330M 2,2 GHz  
RAM 4 GB DDR3  
128 GB SSD (Solid State Disc)  
DVI, 3 x USB 2.0, 2x USB 3.0,  
1x RS232, 1x GigE (camera), 1x GigE (Network)  
Communication ProfiBus or ProfiNet  
Windows 7 Ultimate 64 Bit  
Power 24 VDC, 70W  
Dimensions: 426 x 368 x 63 mm<sup>3</sup>  
Temperature range fanless 0°C to + 40°C  
Protection IP65

- **Software NeuroCheck 6.1 Professional**

- **GigE-Camera NCG-312M.I (IP65/67)**

1/3" CCD-Chip monochrome  
1288 x 960 Pixel  
3.75 µm x 3.75 µm Pixel size  
42 frames/Sec.

- **GigE-cable, Length 10m**

Item No.	Description
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## Gigabit-Ethernet Area-Scan Cameras (monochrome/color)

NCCG-13M



GigE Area Scan Camera NCCG-13M

**NEW!**

C-Mount  
 1/2" CMOS sensor, progressive scan, monochrome  
 Resolution: 1280 × 1024 pixels  
 Pixel size: 4.8 μm x 4.8 μm  
 Frame rate: max. 94 fps  
 GigE output: standard RJ45 female connector  
 Electrical data:  
 • external: U: 24 V DC, I: 108 mA, P: 2,6 W  
 • PoE: U: 48 V DC, I: 87 mA, P: 4.2 W  
 Dimensions: 29 mm x 29 mm x 56 mm

NCCG-13C



GigE Area Scan Camera NCCG-13C

**NEW!**

C-Mount  
 1/2" CMOS sensor, progressive scan, color  
 Resolution: 1280 × 1024 pixels  
 Pixel size: 4.8 μm x 4.8 μm  
 Frame rate: max. 94 fps  
 GigE output: standard RJ45 female connector  
 Electrical data:  
 • external: U: 24 V DC, I: 108 mA, P: 2,6 W  
 • PoE: U: 48 V DC, I: 87 mA, P: 4.2 W  
 Dimensions: 29 mm x 29 mm x 56 mm

NCCG-53M



GigE Area Scan Camera NCCG-53M

**NEW!**

C-Mount  
 1" CMOS sensor, progressive scan, monochrome  
 Resolution: 2592 × 2048 pixels  
 Pixel size: 4.8 μm x 4.8 μm  
 Frame rate: max. 23 fps  
 GigE output: standard RJ45 female connector  
 Electrical data:  
 • external: U: 24 V DC, I: 282 mA, P: 6.8 W  
 • PoE: U: 48 V DC, I: 87 mA, P: 4.2 W  
 Dimensions: 29 mm x 29 mm x 56 mm

NCCG-53c



GigE Area Scan Camera NCCG-53C

**NEW!**

C-Mount  
 1" CMOS sensor, progressive scan, color  
 Resolution: 2592 × 2048 pixels  
 Pixel size: 4.8 μm x 4.8 μm  
 Frame rate: max. 23 fps  
 GigE output: standard RJ45 female connector  
 Electrical data:  
 • external: U: 24 V DC, I: 282 mA, P: 6.8 W  
 • PoE: U: 48 V DC, I: 87 mA, P: 4.2 W  
 Dimensions: 29 mm x 29 mm x 56 mm



Item No.	Description
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**BAU-0203**



**GigE Area-Scan Camera NCG203 monochrome**

**C-Mount**  
1/3" CCD sensor monochrome  
656 x 494 pixels  
7,4 µm x 7,4 µm pixel area  
Progressive scan  
Asynchronous reset  
90 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>

**BAU-0204**



**GigE Area-Scan Camera NCG203c color**

**C-Mount**  
1/3" CCD sensor color  
656 x 494 pixels  
7,4 µm x 7,4 µm pixel area  
Progressive scan  
Asynchronous reset  
90 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>

**BAU-0206**



**GigE Area-Scan Camera NCG206 monochrome**

**C-Mount**  
1/2" CCD-Chip monochrome  
776 x 582 pixels  
8.3 µm x 8.3 µm pixel area  
Progressive scan  
Asynchronous reset  
64 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>

**BAU-0207**



**GigE Area-Scan Camera NCG206c color**

**C-Mount**  
1/2" CCD-Chip color  
776 x 582 pixels  
8.3 µm x 8.3 µm pixel area  
Progressive scan  
Asynchronous reset  
64 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>





Item No.	Description
BAU-0208	<p><b>GigE Area-Scan Camera NCG208 monochrome</b></p> <p><b>C-Mount</b> 1/3" CCD sensor monochrome 1032 x 776 pixels 4.65 <math>\mu\text{m}</math> x 4.65 <math>\mu\text{m}</math> pixel area Progressive scan Asynchronous reset 28 frames/sec. GigE output, 8/12 bit Power requirements: 8 - 30 V DC Dimensions: 36 x 36 x 48 mm<sup>3</sup></p>
BAU-0209	<p><b>GigE Area-Scan Camera NCG208c color</b></p> <p><b>C-Mount</b> 1/3" CCD sensor color 1032 x 776 pixels 4.65 <math>\mu\text{m}</math> x 4.65 <math>\mu\text{m}</math> pixel area Progressive scan Asynchronous reset 28 frames/sec. GigE output, 8/12 bit Power requirements: 8 - 30 V DC Dimensions: 36 x 36 x 48 mm<sup>3</sup></p>
BAU-0210	<p><b>GigE Area-Scan Camera NCG212 monochrome</b></p> <p><b>C-Mount</b> 1/3" CCD sensor monochrome 1296 x 966 pixels 3.75 <math>\mu\text{m}</math> x 3.75 <math>\mu\text{m}</math> pixel area Progressive scan Asynchronous reset 32 frames/sec. GigE output, 8/12 bit Power requirements: 8 - 30 V DC Dimensions: 36 x 36 x 48 mm<sup>3</sup></p>
BAU-0211	<p><b>GigE Area-Scan Camera NCG212c color</b></p> <p><b>C-Mount</b> 1/3" CCD sensor color 1296 x 966 pixels 3.75 <math>\mu\text{m}</math> x 3.75 <math>\mu\text{m}</math> pixel area Progressive scan Asynchronous reset 32 frames/sec. GigE output, 8/12 bit Power requirements: 8 - 30 V DC Dimensions: 36 x 36 x 48 mm<sup>3</sup></p>



Item No.	Description
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BAU-0213



GigE Area-Scan Camera NCG213 monochrome

C-Mount  
1/2" CCD sensor monochrome  
1392 x 1040 pixels  
4.65  $\mu\text{m}$  x 4.65  $\mu\text{m}$  pixel area  
Progressive scan  
Asynchronous reset  
20 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>

BAU-0212



GigE Area-Scan Camera NCG213c color

C-Mount  
1/2" CCD sensor color  
1392 x 1040 pixels  
4.65  $\mu\text{m}$  x 4.65  $\mu\text{m}$  pixel area  
Progressive scan  
Asynchronous reset  
20 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>

BAU-0216



GigE Area-Scan Camera NCG214f monochrome

C-Mount  
2/3" CCD sensor monochrome  
1392 x 1040 pixels  
6.45  $\mu\text{m}$  x 6.45  $\mu\text{m}$  pixel area  
Progressive scan  
Asynchronous reset  
30 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>

BAU-0220



GigE Area-Scan Camera NCG220 monochrome

C mount  
1/1.8" CCD sensor monochrome  
1624 x 1236 pixels  
4.4  $\mu\text{m}$  x 4.4  $\mu\text{m}$  pixel area  
Progressive scan  
Asynchronous reset  
16 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>



Item No.	Description
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BAU-0221



GigE Area-Scan Camera NCG220c color

C mount  
1/1.8" CCD sensor color  
1624 x 1236 pixels  
4.4  $\mu\text{m}$  x 4.4  $\mu\text{m}$  pixel area  
Progressive scan  
Asynchronous reset  
16 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>

BAU-0250



GigE Area-Scan Camera NCG250 monochrome

C-Mount  
2/3" CCD sensor monochrome  
2448 x 2050 pixels  
3.45  $\mu\text{m}$  x 3.45  $\mu\text{m}$  pixel area  
Progressive scan  
Asynchronous reset  
15 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>





BAU-0251



GigE Area-Scan Camera NCG250c color

C-Mount  
2/3" CCD sensor color  
2448 x 2050 pixels  
3.45  $\mu\text{m}$  x 3.45  $\mu\text{m}$  pixel area  
Progressive scan  
Asynchronous reset  
15 frames/sec.  
GigE output, 8/12 bit  
Power requirements: 8 - 30 V DC  
Dimensions: 36 x 36 x 48 mm<sup>3</sup>



Item No.	Description
<b>BAU-0230</b>	<b>GigE Area-Scan Camera NCHG220 monochrome</b>  C-Mount 2/3" CMOS-Chip monochrome 2048 × 1088 pixels 5,5 µm x 5,5 µm pixel area 105 frames/sec. Dual GigE output, 8/12 Bit Power requirements - M8/3 pol. plug: 20 - 30 VDC or - Power over Ethernet: 48 VDC (38 - 30 VDC) Power consumption: 7,7 W Dimensions: 52 mm x 52 mm x 55 mm <sup>3</sup>
	
<b>BAU-0231</b>	<b>GigE Area-Scan Camera NCHG220c color</b>  C-Mount 2/3" CMOS-Chip color 2048 × 1088 pixels 5,5 µm x 5,5 µm pixel area 105 frames/sec. Dual GigE output, 8/12 Bit Power requirements - M8/3 pol. plug: 20 - 30 VDC or - Power over Ethernet: 48 VDC (38 - 30 VDC) Power consumption: 7,7 W Dimensions: 52 mm x 52 mm x 55 mm <sup>3</sup>
	
<b>BAU-0240</b>	<b>GigE Area-Scan Camera NCHG240 monochrome</b>  C-Mount 1" CMOS-Chip monochrome 2048 × 2048 pixels 5,5 µm x 5,5 µm pixel area 56 frames/sec. Dual GigE output, 8/12 Bit Power requirements - M8/3 pol. plug: 20 - 30 VDC or - Power over Ethernet: 48 VDC (38 - 30 VDC) Power consumption: 8,4 W Dimensions: 52 mm x 52 mm x 55 mm <sup>3</sup>
	
<b>BAU-0241</b>	<b>GigE Area-Scan Camera NCHG240c color</b>  C-Mount 1" CMOS-Chip color 2048 × 2048 pixels 5,5 µm x 5,5 µm pixel area 56 frames/sec. Dual GigE output, 8/12 Bit Power requirements - M8/3 pol. plug: 20 - 30 VDC or - Power over Ethernet: 48 VDC (38 - 30 VDC) Power consumption: 8,4 W Dimensions: 52 mm x 52 mm x 55 mm <sup>3</sup>
	



Item No.	Description
<b>NEURO CHECK</b>  <b>NCG-312M.I</b>	<b>GigE Area-Scan Camera NCG-312M.I (IP65/67)</b>  <b>C-Mount</b> 1/3" CCD sensor, progressive scan, monochrome Resolution: 1288 x 960 pixels Pixel size: 3.75 µm x 3.75 µm Frame rate: max. 42 fps GigE output: M12 female connector, X-coded incl. 44 mm lens tube (IP65/67) Electrical data: • external: U: 24 V DC, I: 150 mA, P: 3.6 W • PoE: U: 48 V DC, I: 80 mA, P: 3.8 W Dimensions: 49.5 mm x 49.5 mm x 98.7 mm
 <b>NCG-312C.I</b>	<b>GigE Area-Scan Camera NCG-312C.I (IP65/67)</b>  <b>C-Mount</b> 1/3" CCD sensor, progressive scan, color Resolution: 1288 x 960 pixels Pixel size: 3.75 µm x 3.75 µm Frame rate: max. 42 fps GigE output: M12 female connector, X-coded incl. 44 mm lens tube (IP65/67) Electrical data: • external: U: 24 V DC, I: 150 mA, P: 3.6 W • PoE: U: 48 V DC, I: 80 mA, P: 3.8 W Dimensions: 49.5 mm x 49.5 mm x 98.7 mm
 <b>NCG-320M.I</b>	<b>GigE Area-Scan Camera NCG-320M.I (IP65/67)</b>  <b>C-Mount</b> 1/1.8" CCD sensor, progressive scan, monochrome Resolution: 1624 x 1228 pixels Pixel size: 4.4 µm x 4.4 µm Frame rate: max. 27 fps GigE output: M12 female connector, X-coded incl. 44 mm lens tube (IP65/67) Electrical data: • external: U: 24 V DC, I: 179 mA, P: 4.3 W • PoE: U: 48 V DC, I: 98 mA, P: 4.7 W Dimensions: 49.5 mm x 49.5 mm x 98.7 mm
 <b>NCG-320C.I</b>	<b>GigE Area-Scan Camera NCG-320C.I (IP65/67)</b>  <b>C-Mount</b> 1/1.8" CCD sensor, progressive scan, color Resolution: 1624 x 1228 pixels Pixel size: 4.4 µm x 4.4 µm Frame rate: max. 27 fps GigE output: M12 female connector, X-coded incl. 44 mm lens tube (IP65/67) Electrical data: • external: U: 24 V DC, I: 179 mA, P: 4.3 W • PoE: U: 48 V DC, I: 98 mA, P: 4.7 W Dimensions: 49.5 mm x 49.5 mm x 98.7 mm



Item No.	Description
<b>NCG-323M.I</b>	<b>GigE Area Scan Camera NCG-323M.I (IP65/67)</b>  <b>C-Mount</b> 1/1.2" CMOS sensor, progressive scan, monochrome Resolution: 1920 x 1200 pixels Pixel size: 5.86 µm x 5.86 µm Frame rate: max. 53 fps GigE output: M12 female connector, X-coded incl. 44 mm lens tube (IP65/67) Electrical data: <ul style="list-style-type: none"><li>• external: U: 24 V DC, I: 146 mA, P: 3.5 W</li><li>• PoE: U: 48 V DC, I: 79 mA, P: 3.8 W</li></ul> Dimensions: 49.5 mm x 49.5 mm x 98.7 mm
	
<b>NCG-323C.I</b>	<b>GigE Area Scan Camera NCG-323C.I (IP65/67)</b>  <b>C-Mount</b> 1/1.2" CMOS sensor, progressive scan, color Resolution: 1920 x 1200 pixels Pixel size: 5.86 µm x 5.86 µm Frame rate: max. 53 fps GigE output: M12 female connector, X-coded incl. 44 mm lens tube (IP65/67) Electrical data: <ul style="list-style-type: none"><li>• external: U: 24 V DC, I: 146 mA, P: 3.5 W</li><li>• PoE: U: 48 V DC, I: 79 mA, P: 3.8 W</li></ul> Dimensions: 49.5 mm x 49.5 mm x 98.7 mm
	
<b>NCG-340M.I</b>	<b>GigE Area-Scan Camera NCG-340M.I (IP65/67)</b>  <b>C-Mount</b> 1" CMOS sensor, progressive scan, monochrome Resolution: 2040 x 2044 pixels Pixel size: 5.5 µm x 5.5 µm Frame rate: max. 29 fps GigE output: M12 female connector, X-coded incl. 44 mm lens tube (IP65/67) Electrical data: <ul style="list-style-type: none"><li>• external: U: 24 V DC, I: 150 mA, P: 3.6 W</li><li>• PoE: U: 48 V DC, I: 80 mA, P: 3.8 W</li></ul> Dimensions: 49.5 mm x 49.5 mm x 98.7 mm
	
<b>NCG-340C.I</b>	<b>GigE Area-Scan Camera NCG-340C.I (IP65/67)</b>  <b>C-Mount</b> 1" CMOS sensor, progressive scan, color Resolution: 2040 x 2044 pixels Pixel size: 5.5 µm x 5.5 µm Frame rate: max. 29 fps GigE output: M12 female connector, X-coded incl. 44 mm lens tube (IP65/67) Electrical data: <ul style="list-style-type: none"><li>• external: U: 24 V DC, I: 150 mA, P: 3.6 W</li><li>• PoE: U: 48 V DC, I: 80 mA, P: 3.8 W</li></ul> Dimensions: 49.5 mm x 49.5 mm x 98.7 mm
	



Item No.	Description
<b>NCLG-120M</b>	<b>GigE Area Scan Camera NCLG-120M</b>  M58-Mount (C-, F-, M42-Mount via adapter) APS-C CMOS sensor, progressive scan, monochrome Resolution: 4096 x 3072 pixels Pixel size: 5.5 µm x 5.5 µm Frame rate: max. 19 fps GigE output: 2x standard RJ45 female connector Dual Gigabit Ethernet (Static Link Aggregation) Electrical data: • external: U: 24 V DC, I: 255 mA, P: 6.1 W • PoE: U: 48 V DC, I: 154 mA, P: 7.4 W Dimensions: 60 mm x 60 mm x 52,4 mm
	
<b>NCLG-120C</b>	<b>GigE Area Scan Camera NCLG-120C</b>  M58-Mount (C-, F-, M42-Mount via adapter) APS-C CMOS sensor, progressive scan, color Resolution: 4096 x 3072 pixels Pixel size: 5.5 µm x 5.5 µm Frame rate: max. 19 fps GigE output: 2x standard RJ45 female connector Dual Gigabit Ethernet (Static Link Aggregation) Electrical data: • external: U: 24 V DC, I: 255 mA, P: 6.1 W • PoE: U: 48 V DC, I: 154 mA, P: 7.4 W Dimensions: 60 mm x 60 mm x 52,4 mm
	
<b>NCLG-200M</b>	<b>GigE Area Scan Camera NCLG-200M</b>  M58-Mount (C-, F-, M42-Mount via adapter) 35 mm CMOS sensor, progressive scan, monochrome Resolution: 5120 x 3840 pixels Pixel size: 6.4 µm x 6.4 µm Frame rate: max. 12 fps GigE output: 2x standard RJ45 female connector Dual Gigabit Ethernet (Static Link Aggregation) Electrical data: • external: U: 24 V DC, I: 247 mA, P: 5.9 W • PoE: U: 48 V DC, I: 150 mA, P: 7.2 W Dimensions: 60 mm x 60 mm x 52,4 mm
	
<b>NCLG-200C</b>	<b>GigE Area Scan Camera NCLG-200C</b>  M58-Mount (C-, F-, M42-Mount via adapter) 35 mm CMOS sensor, progressive scan, color Resolution: 5120 x 3840 pixels Pixel size: 6.4 µm x 6.4 µm Frame rate: max. 12 fps GigE output: 2x standard RJ45 female connector Dual Gigabit Ethernet (Static Link Aggregation) Electrical data: • external: U: 24 V DC, I: 247 mA, P: 5.9 W • PoE: U: 48 V DC, I: 150 mA, P: 7.2 W Dimensions: 60 mm x 60 mm x 52,4 mm
	



Item No.	Description
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## Line-Scan Cameras

**DAL-S2-2k40**



**Monochrome line-scan camera Spyder2 CameraLink**

**M42x1 mount  
2048 pixel CCD sensor  
14µm x 14µm pixel area  
18 kHz line scan rate  
Pixel Clock 1 x 40 MHz  
Digital output 8/10 Bit CameraLink Standard Base  
Power requirements: 12V DC / 5 W  
Dimensions: 50 x 85 x 50mm<sup>3</sup> (excl. lens adapter)  
F-mount adapter is contained in the scope of supply**

**DAL-LIN-2k80**



**Monochrome line-scan camera LINEA CameraLink**

**mount M42x1 (optional C-mount adapter)  
CMOS-Sensor 2048 pixel  
7,04µm x 7,04µm Pixel size  
Sensor size 14,4 mm  
line scan rate 80 kHz  
Pixel Clock 77 MHz  
Power requirements: 12 bis 24 VDC, 4 W  
Connector: 2xSDR26, 6-Pol Hirose (Mini-CL)  
Digital output 8 or 12 Bit via CameraLink Standard  
Dimensions 62 x 62 x 31 (B x H x T in mm)**

**DAL-P4-2k10D**



**Monochrome line-scan camera Piranha4 CameraLink**

**M42x1 mount  
2048 pixel CMOS sensor  
10,56µm x 10,56µm pixel area  
100 kHz line scan rate  
Pixel Clock 2 x 85 MHz  
Digital output 8, 10 or 12 Bit  
Base, Medium, Full CameraLink configuration possible  
Power requirements: 12 - 24 VDC, 8,3 W  
Dimensions: 62 x 62 x 48mm<sup>3</sup>**





Item No.	Description
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## Light Sources

CIS-0001/M12



Homogeneous top light for 24 VDC

Maximum object area: 25 x 25 mm  
Light source: red LED  
Power requirements: 24V DC

CIS-0002/M12



Homogeneous top light for 24 VDC

Maximum object area: 50 x 50 mm  
Light source: red LED  
Power requirements: 24V DC

CC-FL027x027/W



Area light LED 27 x 27 mm

Lighted area: 27 x 27 mm<sup>2</sup>  
Light source: LED white (6600 K)  
Power requirements: 24 VDC / 2,2 W  
Dimension: 29 x 39 x 15 mm<sup>3</sup>

CC-FL043x035/W



Area light LED 43 x 35 mm

Lighted area: 43 x 35 mm<sup>2</sup>  
Light source: LED white (6600 K)  
Power requirements: 24 VDC / 3 W  
Dimension: 45 x 47 x 15 mm<sup>3</sup>

CC-FL051x051/W



Area light LED 51 x 51 mm

Lighted area: 51 x 51 mm<sup>2</sup>  
Light source: LED white (6600 K)  
Power requirements: 24 VDC / 5,2 W  
Dimension: 53 x 63 x 15 mm<sup>3</sup>

PLA-0021-M8



Area light LED 100 x 100 mm

Lighted area: 100 x 100 mm<sup>2</sup>  
Light source: LED white  
Power requirements: 24 VDC  
Dimension: 140mm x 135mm x 20mm






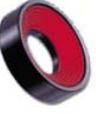
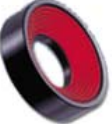
PLA-0030/W



Area light LED 300 x 200 mm

Lighted area: 300 x 200 mm<sup>2</sup>  
Light source: LED white  
Power requirements: 24 VDC / 19,2 W  
Dimension: 250mm x 340mm x 20mmDC



Item No.	Description
<b>CC-BL041x016/W</b> 	<b>High-Power LED-Light</b>  Lighted area: 41 x 16 mm <sup>2</sup> Light source: LED white Power requirements: 24 VDC / 1,9 W Dimension: 53 x 20 x 20 mm <sup>3</sup>
<b>CC-BL080x016/W</b> 	<b>High-Power LED-Light</b>  Lighted area: 80 x 16 mm <sup>2</sup> Light source: LED white Power requirements: 24 VDC / 3,8 W Dimension: 92 x 20 x 20 mm <sup>3</sup>
<b>CC-BL074x030/W</b> 	<b>High-Power LED-Light</b>  Lighted area: 74 x 30 mm <sup>2</sup> Light source: LED white Power requirements: 24 VDC / 5,7 W Dimension: 86 x 34 x 20 mm <sup>3</sup>
<b>TIS-0011 R-24V</b> 	<b>Diffuse ring light LED D 130</b>  External dimensions: 125 mm Light color: red Depth: 12mm 24 VDC
<b>TIS-0012 R-24V</b> 	<b>Diffuse ring light LED D 100</b>  External dimensions: 102 mm Light color: red Depth: 12mm 24 VDC
<b>TIS-0021 R-24V</b> 	<b>Ring light LED D 50</b>  External dimensions: 50 mm Light color: red Depth: 16mm 24 VDC
<b>TIS-0022 R-24V</b> 	<b>Ring light LED D 70</b>  External dimensions: 70 mm Light color: red Depth: 22mm 24 VDC



Item No.	Description
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## Gigabit-Ethernet Boards

**NET-0010**

**GigE-board with 1 Port for PCI-Express x1**



**NET-0002**

**GigE-board with 2 Ports for PCI-Express x4**



**NET-0004**

**GigE-board with 4 Ports for PCI-Express x4**



**NET-0022/V02**

**GigE-Board with 2 Ports for PCI-Express x4  
with PoE (Power over Ethernet)**



**NET-0024/V02**

**GigE-Board with 4 Ports for PCI-Express x4  
with PoE (Power over Ethernet)**





Item No.	Description
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## Frame Grabber

**MAT-0014**



**Frame grabber board Hyperion-CLb (PCI-Express x1)  
Connects 1 x BASE  
Max. Data rate 200Mbyte/sec.  
External trigger input (opto isolated)  
PCI-Express x1**

**(Please note, only usable with NeuroCheck 6.x)**



Item No.	Description
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## Lenses



RIC-OBJ-9M1220	9 Megapixel lens 12 mm lockable C mount , 1" , f = 12 mm , F 2,0	<b>NEW!</b>
RIC-OBJ-9M1618	9 Megapixel lens 16 mm lockable C mount , 1" , f = 16 mm , F 1,8	<b>NEW!</b>
RIC-OBJ-9M2518	9 Megapixel lens 25 mm lockable C mount , 1" , f = 25 mm , F 1,8	<b>NEW!</b>
RIC-OBJ-9M3518	9 Megapixel lens 35 mm lockable C mount , 1" , f = 35 mm , F 1,8	<b>NEW!</b>
RIC-OBJ-9M5024	9 Megapixel lens 50 mm lockable C mount , 1" , f = 50 mm , F 2,4	<b>NEW!</b>
RIC-OBJ-9M7528	9 Megapixel lens 75 mm lockable C mount , 1" , f = 75 mm , F 2,8	<b>NEW!</b>



<b>Item No.</b>	<b>Description</b>
FUJ-0001	Highresolution Compact lens 6 mm lockable C mount , 1/2" , f = 6 mm , F 1,2
FUJ-0002	Highresolution Compact lens 9 mm lockable C mount , 2/3" , f = 9 mm , F 1,4
FUJ-0003	Highresolution Compact lens 12,5 mm lockable C mount , 2/3" , f = 12,5 mm , F 1,4
FUJ-0004	Highresolution Compact lens 16 mm lockable C mount , 2/3" , f = 16 mm , F 1,4
FUJ-0005	Highresolution Compact lens 25 mm lockable C mount , 2/3" , f = 25 mm , F 1,4
FUJ-0006	Highresolution Compact lens 35 mm lockable C mount , 2/3" , f = 35 mm , F 1,6
FUJ-0007	Highresolution Compact lens 50 mm lockable C mount , 2/3" , f = 50 mm , F 2,3
FUJ-0008	Highresolution Compact lens 75 mm lockable C mount , 2/3" , f = 75 mm , F 2,8



Item No.	Description
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## Communication

HIL-0003/2.2



PROFIBus slave board, DS50-DPS-PCI

PROFIBus DP slave  
based on SPC3 ASIC,  
max. data rate 12Mbaud, 368 byte process map ,  
RS232C diagnostic link

HIL-0006



PROFIBus slave board, CIFX 50-DP  
PROFIBus DP slave  
for PCI

HIL-0008



PROFIBus slave board, CIFX 50E-DP  
PROFIBus DP slave  
for PCI Express

HIL-0206



Real-Time-Ethernet board, CIFX 50-RE

PCI Communication Interface netX  
for Real-Time-Ethernet - 2x RJ45  
for PCI

Only for NeuroCheck 6.0/6.1!

HIL-0208



Real-Time-Ethernet board, CIFX 50E-RE

PCI Communication Interface netX  
for Real-Time-Ethernet - 2x RJ45  
for PCI Express

Only for NeuroCheck 6.0/6.1!



Item No.	Description
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**ICP-0001/V02**



**Digital-I/O board PCI-P16POR16U**

PCI-board with 16 digital input channels and 16 digital output channels, opto-decoupled, 2 x 37-pin D-sub connectors on two slot covers. Special feature: with 1 x 37-pin D-sub connector 8 input and 8 outputs channels are available.

**ICP-0002**



**Digital-I/O board PEX-P16POR16i (PCI-Express)**

PCI-Express board with 16 digital input channels and 16 digital output channels, opto-decoupled, 2 x 37-pin D-sub connectors on two slot covers. Special feature: with 1 x 37-pin D-sub connector 8 input and 8 outputs channels are available.

Please note - pin assignment is not compatible with ICP-0001!

**ME-0101**



**Digital I/O board 16/16 PCI-Express**

PCI-Express bus board with 16 digital input channels and 16 digital output channels, opto-decoupled 78-pin D-sub connector.

Only for NeuroCheck 6.0/6.1 usable!

**ME-0102**



**Digital I/O board 32/32 PCI-Express**

PCI-Express bus board with 32 digital input channels and 32 digital output channels, opto-decoupled 78-pin D-sub connector.

Only for NeuroCheck 6.0/6.1 usable!





Item No.	Description
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## Cables



<b>NWK-0005</b>	<b>GigE- Cable Cat.7, Length 5m</b>
<b>NWK-0010</b>	<b>GigE- Cable Cat.7, Length 10m</b>
<b>NWK-0020</b>	<b>GigE- Cable Cat.7, Length 20m</b>
<b>NWK-0105</b>	<b>GigE- Cable, dragchain resistant screw lock on one side Length 5m</b>
<b>NWK-0110</b>	<b>GigE- Cable, dragchain resistant screw lock on one side Length 10m</b>
<b>NWK-0120</b>	<b>GigE- Cable, dragchain resistant screw lock on one side Length 20m</b>
<b>KAB-M12-RJ45_NCG/05</b>	<b>Gigabit Ethernet cable RJ45 to M12 for NCG IP-Series IP67 protected length 5m</b>
<b>KAB-M12-RJ45_NCG/10</b>	<b>Gigabit Ethernet cable RJ45 to M12 for NCG IP-Series IP67 protected length 10m</b>
<b>KAB-M12-RJ45_NCG/15</b>	<b>Gigabit Ethernet cable RJ45 to M12 for NCG IP-Series IP67 protected length 15m</b>
<b>KAB-M12-RJ45_NCG/20</b>	<b>Gigabit Ethernet cable RJ45 to M12 for NCG IP-Series IP67 protected length 20m</b>



<b>Item No.</b>	<b>Description</b>
<b>KAB-CL2xMini/05</b>	<b>CameraLink-Cable Mini CL / Mini CL-plug (male) Length 5m</b>
<b>KAB-CL2xMini/10</b>	<b>CameraLink-Cable Mini CL / Mini CL-plug (male) Length 10m</b>
<b>KAB-CLMini/05</b>	<b>CameraLink-Cable MDR26 / Mini CL-plug (male) Länge 5m</b>
<b>KAB-CLMini/10</b>	<b>CameraLink-Cable MDR26 / Mini CL-plug (male) Länge 10m</b>