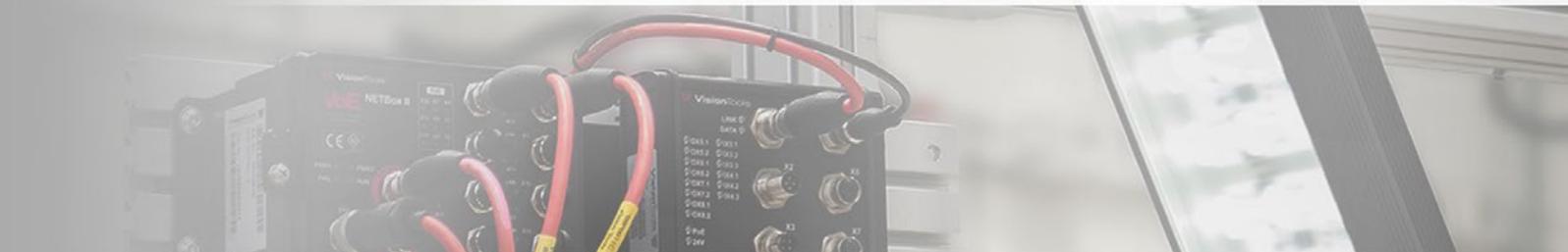




Vision over Ethernet

Decentralised hardware platform with PoE+



What's VoE



Vision over Ethernet is a new PC-based image processing concept from Vision Tools based on **decentralised hardware**. The system offers many advantages:

- The control cabinet can be omitted
 - Saving of floor space
 - Saving of air conditioning
- Fewer variety of components, therefore fewer spare parts
- Can be expanded at any time without retrofitting
- Pre-assembled cables in standard lengths

The new image processing concept includes hardware developed specifically for this purpose, which is perfectly matched to each other and offers the following connections:



- Power supply of the periphery via **PoE+ (Power over Ethernet)**
- Fast **Ethernet data transmission** via 10Gigabit Uplink Port
- **Profinet connection** to the control system (PLC)

VoE-Hardware

SlyBox

- 21,5" Touchscreen display full HD
- Intel Core i7, 4,1GHz, 16 GB RAM
- Windows 10 - 64 Bit operating system
- VisionTools V60 image analysis software
- Profinet fieldbus connection
- Power supply 24VDC
- 2x 10GBit & 1GBit Ethernet
- Device IP65 on all sides (with plug cover)
- Keyboard/Mouse with mounting optional



Power Supply

- Power supply 380-480VAC / 50-60Hz
- Output voltage: 24V / 500W
- 4 output channels 1 - 12A adjustable
- Output current in total max. 20A
- Electronic fuse protection in secondary circuit
- IP65
- Industrial round plugs M12
- LEDs for load indication



NETBox II



- PoE+ Gigabit switch
- 2 x 10 Gigabit Ethernet interface (uplink)
- 8 x 1 Gigabit Ethernet interface, 30W per port, max. 160W in total
- Jumbo frames up to 9720 bytes
- Power supply 24VDC redundant design
- Status LED display: Link, Act, PoE
- Industrial round plug M12
- Suitable for open mounting in industrial environments

Camera



GEN<i>CAM

- PoE - Camera in robust protective housing
- Ethernet 1000 MBit/s
- Sensor Sony Pregius
- Resolution 1,6 up to 12 mega pixels
- C-Mount lens attachment
- 4 digital inputs/outputs 24VDC opto-decoupled
- Industrial round plug M12 X-Cross

Module light



- Dimming 0 to 100% via TCP/IP command
- Integrated web server for configuration and diagnosis
- High light output, long life, robust aluminium housing
- Various lengths available

MDL 75	3,63 W	MDL 450	19,25 W
MDL 150	6,75 W	MDL 600	25,50 W
MDL 300	13,00 W		

Spot



- Dimming 0 to 100% via TCP/IP command
- Integrated web server for configuration and diagnosis
- High light output, long life
- Robust aluminium housing

AIBox



- Multi-core GPU workstation for AI-based evaluations
- 512 CUDA and 64 Tensor Cores
- NVIDIA Jetson AGX - 32GB
- Integrated web server for configuration
- Additional network port



VoE - Example configuration

- VoE SlyBox** the powerful evaluation computer for image analysis, connected to the machine control system
- VoE PowerSupply** the compact power supply unit
- VoE-NETBox II** the new switch with two 10Gb uplink ports and eight PoE+ 1Gb ports for cameras and lighting
- VoE-Cameras** GigE camera (up to 12 MP) in multi-part protective housing for image acquisition
- VoE-MDL** LED lighting with PoE and control via Ethernet. Configuration via web interface
- VoE-AIBox** Enables AI-based evaluations of the images

The connection of further NETBox II modules in line topology enables an almost unlimited expansion of the system.

