



**OR INTEGRATION**

## *core.system* COMPONENTS

1

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*core.browser*

2

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*core.control compact*

3

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*core.connect*

4

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*core.portal*

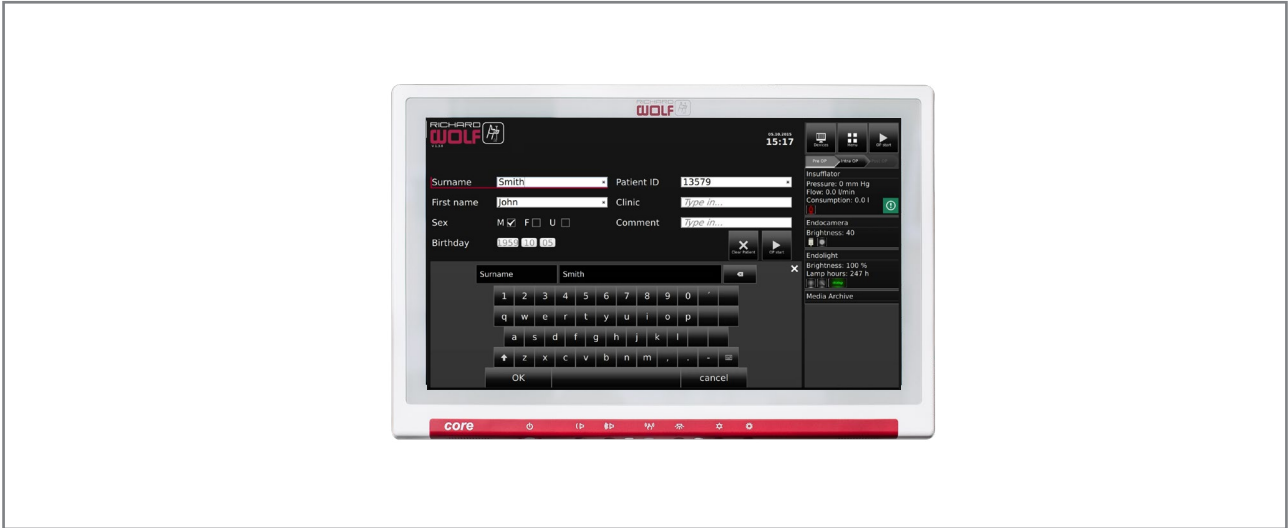
5

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**ACCESSORIES**

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# core.browser CONTROL SOFTWARE



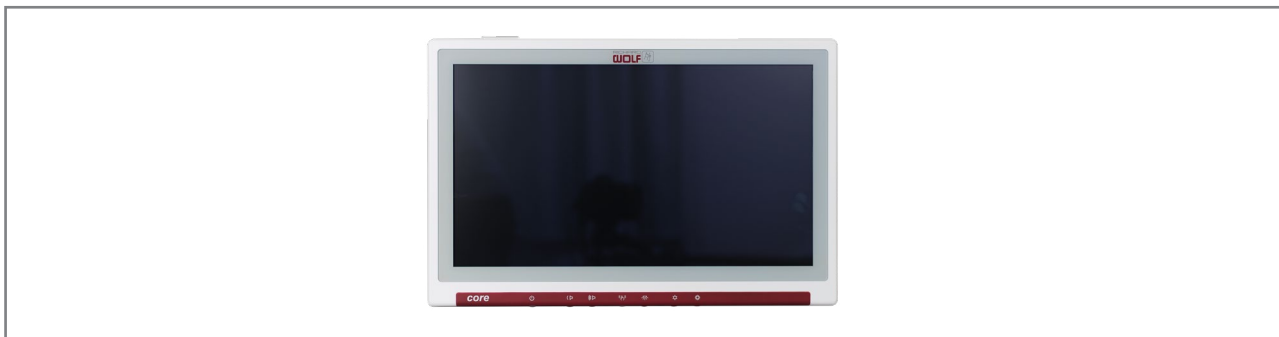
**core.browser** is the central operating software for the **core** nova system and is always delivered together with a control terminal. It facilitates the display and operation of functions, device control, apps, etc.. A keyboard or a mouse is not necessary for control, since the system is operated entirely using a touchscreen.

- Clear presentation of device functions
- Display of device status
- Display of error and information messages
- Control of third-party devices like OR tables or OR lights
- Various languages available
- Presets für endoskopische Geräte
- Beginning with **core.browser** version 1.6 in stand-alone mode:
  - Receiving patient lists via DICOM WORKLIST
  - Sends images via DICOM STORE
  - Commits DICOM data storage via DICOM STORAGE COMMITMENT
  - Supports the fileshare module

**core.browser** ..... 5592201

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# core.control compact CONTROL TERMINAL



core.control compact can be integrated at the nursing station or mounted directly on a cart. Together with the installed core.browser it operates the core nova system.

- Workstation for controlling the core nova system
- Connection to the intraoperative network via LAN connector
- Computer has touch screen to operate

**Computer** ..... POC-W2131710-T

Technical data		Computer POC-W2131710-T
<b>Panel characteristics</b>		
Monitor size	21.5 inch (54.5 cm)	
Resolution / Aspect ratio	1920 x 1080 / 16:9	
Max. brightness	250 cd/m <sup>2</sup>	
Contrast ratio	1000 : 1 (typ)	
Angle of view	178° H / 178° V	
<b>Equipment</b>		
Touchscreen	Analog resistive	
IP protection	Front side IP65, rear side IPX1	
Equipotential bonding	ZPA	
Enclosure mount	VESA 75/100	
<b>Power supply</b>		
Input voltage	90 - 260 Vac, 47-63 Hz, 1.35 - 0.5 A	
Output voltage	AC/DC adapter / +18 VDC, max. 5.55 A	
Power consumption	100 W	
<b>Regulatory Compliance</b>		
Certifications	UL60601-1/EN60601-1 Edition 3.1, CE & FCC Edition 4.0 Class B, and CCC certified	
<b>PC module</b>		
CPU	Intel® Core™ i7-6600U Processor	
RAM	8 GB (only for internal use)	
HDD	128 GB SSD (only for internal use)	
Inputs	2x RJ45 Gigabit Ethernet	
<b>Dimensions and weight</b>		
Weight	6.9 kg	
Dimensions (w x h x d)	550 x 360 x 65 mm	

## core.connect THIRD-PARTY DEVICE CONTROL INTERFACE



**core.connect** is a universal converter interface for controlling thirdparty devices.

This may relate to OR tables, surgical lights (incl. camera) or other devices.

**core.connect** Interface ..... **5592501**

- Connection of third-party devices via CAN bus, serial or infrared communication possible
- Power supply via Power over Ethernet (PoE) or alternatively via an external power supply unit
- A range of drivers is available

Technical data		core.connect Interface 5592501
<b>Equipment</b>		
IP protection	IP 20	
Operating mode	Continuous operation	
<b>Power supply</b>		
Input voltage	100 - 240 Vac, ± 10 % (50/60 Hz)	
Power supply	AC/DC Adapter (optional) 5 VDC, 2.0 A, 10 W	
Power supply via LAN (Ethernet)	+ 48V DC Power via Ethernet (PoE)	
Max. power consumption	max. 5W	
Power rating	max. 1A	
<b>Regulatory Compliance</b>		
Certifications	IEC 60601-1, Class I Medical Device, UL 60601-1 / CSA c22.2 No. 601.1 - low voltage	
<b>Interfaces</b>		
LAN (Ethernet) network connector	RJ45 (10/100/1000 Mbit/s)	
CAN-BUS	Sub-D socket, 9-pin	
Infrared	Sub-D socket, 9-pin	
Serial	Sub-D plug, 9-pin	
<b>Dimensions and weight</b>		
Weight	0.22 kg	
Dimensions (w x h x d)	150 x 83 x 30 mm	

## core.connect

### THIRD-PARTY DEVICES INTEGRATING INTERFACE

#### SALES SETS (HW INCL. SW)

#### **core.connect OR-Table Maquet ..... 5592705**

Supported models from Maquet:

Alphamaquet 1150, Alphastar 1132, Alphamaxx 1133, Betastar 1131,  
Magnus 1180, Meera 7200, Otesus 1160, Yuno Otn 1433

also:

**Power-supply unit 6600435 ..... FW8001M/12**

#### **core.connect lighting bndl Trumpf ..... 55926071**

Supported models from Trumpf:

iLED 3/5 and TruLight 5000/3000, TruLight 5000C, TruVidia SD/HD

**Content:**

1x **core.connect** interface ..... 5592501  
1x Driver operating lamp Trumpf ..... 5592607  
1x Serial data cable 1m ST/BU 9POL SUB-D ..... 72325380

#### **core.connect OR-light KLS Martin bundle ..... 55926111**

Supported models from KLS Martin:

marLED V16/V10, marLED E15/E9/E9i,  
surgiCam SD/HD (integrated into the lamp)

**Content:**

1x **core.connect** interface ..... 5592501  
1x Driver surgical light KLS Martin ..... 5592611  
1x Serial data cable 1m St/Bu 9pol sub-D ..... 72325380

#### **core.connect HF unit bndl KLS Martin ..... 55926061**

Supported models from KLS Martin:

Maxium ME402

**Content:**

1x **core.connect** interface ..... 5592501  
1x Driver surgical light KLS Martin ..... 5592606  
1x RS-232 connection cable ..... 5052912

## core.connect

### THIRD-PARTY DEVICES CONTROL INTERFACE

#### SALES SETS (HW INCL. SW)

#### **core.connect HF unit bndl ERBE ..... 55926141**

Supported models from Erbe: VIO300D

**Content:**

1x **core.connect** interface ..... 5592501  
1x Driver HF unit Erbe ..... 5592614  
1x Connection cable ECB 1m ..... 643211489

#### **core.connect OR-Table opt bndl ..... 55927011**

Supported models from OPT: ASSO and VANTO.

Driver for OR Tables from OPT is already installed on the **core.connect** interface.

**Content:**

1x **core.connect** OR Table opt ..... 5592701  
1x Emergency stop-cable serial - A ..... 643211560  
1x Emergency stop-cable serial - B ..... 643211561  
1x Emergency Stop Module ..... 5590.830

**core.connect**  
ACCESSORIES FOR OR TABLES



**Emergency Stop Module** ..... **5590.830**  
Emergency Stop Module for interrupting the communication connection between **core.connect** and the third party device.

Device dimensions (w x h x d): 80 x 90 x 73 mm  
Weight: approx. 0.15 kg

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# core.portal VIRTUELLER SERVER

core.portal is the server-based central unit of the core nova system. It establishes the connection between the OR network and the hospital-wide IT systems.

core.portal is a server application, which is installed as a preconfigured image in a virtual environment.

- Provides various services centrally in all operating rooms
- Receiving and forwarding of patient lists via DICOM WORKLIST
- Receiving and forwarding of images and videos via DICOM STORE
- Beginning with core.portal version 4.7.14 DICOM STORAGE COMMITMENT: Commits DICOM data storage
- HL7 compatible
- Management of recorded images and videos via Media Archive App
- Allows streaming by using the conference room app

**Requirements:**

- A server providing a virtual environment with the ESXi operating system is required for the installation
- The server hardware is not included in the Richard Wolf offer, it has to be provided by the customer
- Hardware requirements for the server are available on request

**core.portal** ..... **5597101**

Basic software (license valid for max. 25 OR rooms)

**core.portal OP connector** ..... **5597151**

Establishes a connection between a specific OR and the core.portal. One connector is required for each OR.



## core.portal SOFTWARE APPLICATIONS

## core.portal APPLICATIONS

### Workflow

#### Checklist app ..... 5597706

The surgical safety checklist aims on the one hand to decrease errors and adverse events and on the other to enhance teamwork and communication during an operation.

- WHO Checklist is assigned as standard
- Customer specific checklists can be generated by RW Service during app installation
- The app generates a PDF report, which is stored in the media archive

**Requirements:**

- core.portal is required

### Communication

#### Conference room app ..... 5597703

Transmits media streams (Audio & Video) from an OR room to max. 5 receivers in the hospital network.

**Requirements:**

- core.portal is required
- core.consult must be installed at each receiver PC
- The app is required for each OR room which needs to use the streaming function

#### core.consult ..... 5593201

Desktop communication software for connecting to an OR theater.

- core.consult is a windows PC application
- Allows bidirectional audio communication between core.media and core.consult
- Allows unidirectional image transmission

**Requirements:**

- core.portal is required
- Conference room app is required
- core.consult must be installed on each receiver PC

### Output modules

#### Media archive fileshare ..... 5597203

It allows the storage of intraoperative data to an enabled directory in the hospital's IT infrastructure. The module is required for each fileshare folder.

**Requirements:**

- Beginning with core.browser version 1.6 core.portal is not necessarily required

#### Media archiv ELO ..... 5597206

It connects to the ELO (electronic Leitz folder) office software for the transmission of recorded images.

The module must be licensed for each operating room, from which data are to be transmitted to ELO.

**Requirements:**

- core.portal is required

### Input module

#### core.portal Scheduling HL7 ..... 5597303

It is used for transmitting demographic patient data or surgery scheduling data from a hospital information system via HL7 messages to core.portal. One module is required for each message type.

**Requirements:**

- core.portal is required

# core.portal AUDIO INTEGRATION

**Standard Audio Integration** supports audio communication and playing music

**Audio bndl loudspeaker ..... 55932011**

**Content:**

- 1x Mini Digital Amplifier ..... PA2B
- 1x 2-way in-ceiling speakers ..... EXCITE IC5
- 1x Speaker cable, 50 m ..... 415-0051F
- 1x External power supply ..... AFM60US24
- 1x Power cable ..... 2440.03

**Cable bndl audio small ..... 55931031**

**Content:**

- 1x USB adapter A/DC hollow connector ..... 70265
- 1x Adapter cable CEHS-MB 01  
(for DW10 Headset, 3.5 mm jack plug) ..... 506033
- 1x Adapter for PC headset ..... 35508
- 1x Y adapter audio cable ..... PC1Z-0010-SW
- 2x Cable, mini jack to mini jack, 0,5m ..... GOCU-0050-SW
- 1x Mini jack to RCA cable 10m ..... ON2A-1000-SW
- 1x Cable minijack/minijack (10m) ..... GOCU-1000-SW



**core.connect audio bndl amplifier ..... 55926161**

Supported models: Mini Digital Amplifier PA2B

**Content:**

- core.connect interface ..... 5592501
- Driver audio PTN ..... 5592616

**Headset DW 10 EU ..... 504300**

Headset with base station for audio streaming and telephony.

USB rechargeable.

DECT CAT-iq EU (1,880 to 1,900MHz)

**Headset DW 10 UK ..... 504301**

Headset with base station for audio streaming and telephony.

USB rechargeable.

DECT CAT-iq EU (1,880 to 1,900MHz)

**Mini digital amplifier ..... PA2B**

Small, digital amplifier (Class D) with two inputs, one of which is used in conjunction with **core.media**, the other is available for an external device, e.g. an MP3 player.

It has an EQ control and mixer functions for a microphone input.

- 2 x 20 watts @ 4 ohms rated power
- Bridgeable to 1 x 40 watts @ 8 ohms
- Dual-mono function

Device dimensions (w x h x d): 123 x 38 x 87 mm

Weight: 0.5 kg

**Headset DW 10 EU ..... 504300**

**Headset DW 10 UK ..... 504301**

For making phone calls using the **core nova** system. The DW Office is a monoaural DECT Headset with different wearing styles. The rechargeable battery is integrated in the ear clip, a separate battery pack is not necessary.

- Enhanced carrying comfort – Selection between an ear clip and headset
- Intuitive handling – microphone mute switch and volume control
- Up to 8 hours talk time in wideband mode
- Up to 12 hours talk time in narrowband mode
- Intelligent fast load – 50 % of battery performance in just 20 minutes gives 4 hours of talk time

Weight: 22 g with ear clip / 50 g with headset



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## core.portal AUDIO INTEGRATION



### 2-way in-ceiling speakers ..... EXCITE IC5

The 2-way ceiling-mounting loudspeakers are supplied in a dual set, white finish, option of painting individually.

- Music power rating: 60 watts
- Impedance: 8 ohms

# core.portal ROOM CAMERA



**Network camera** ..... **VB-H45**

IP network camera for installation in OR rooms.

**Indoor dome housing** ..... **DR41-C-VB**

For indoor ceiling mounting. To be used exclusively in conjunction with network camera VB-H43.

**Room camera app** ..... **5597702**

Allows intraoperative control of up to 4 compatible IP room cameras installed in the same operating room. Previews are supported.

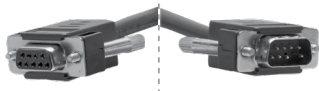

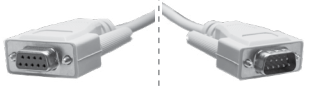
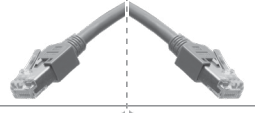

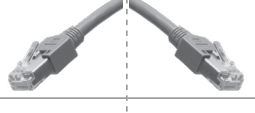
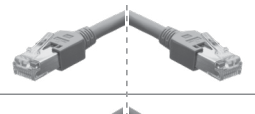
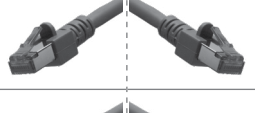
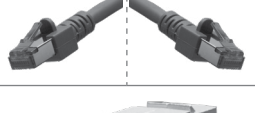
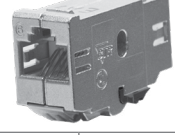
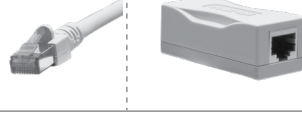


**Requirements:**

- **core.portal** is required
- This app is required in each operating room where an IP room camera needs to be controlled
- Only network cameras VB-H43 and VB-H45 are supported.
- Network camera must be installed and configured by an authorized system integrator
- Power supply via power over ethernet



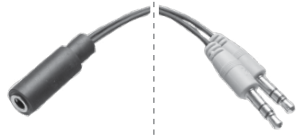
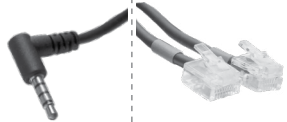

Technical data Network camera VB-H45	
<b>Image sensor</b>	
Type	1/3 inch type CMOS (primary color filter)
Resolution	Approx. 2.1 million pixels
Scan system	Full-image method (progressive)
<b>Telescope</b>	
Zoom range and adjustment	Objective lens with 20-fold optical zoom (20-fold digital) and autofocus
Focal length	4.7 (wide angle) - 94 mm (Tele)
Horizontal image angle	60.4° (wide angle) - 3.2° (Tele)
Vertical image angle	35.1° (wide angle) - 1.8° (Tele)
<b>Power supply</b>	
Power supply	Power over Ethernet
Max. power consumption	9,2 W
<b>Dimension and weight</b>	
Weight	1,2 kg
Dimensions (w x h)	132 x 155 mm

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## ACCESSORIES

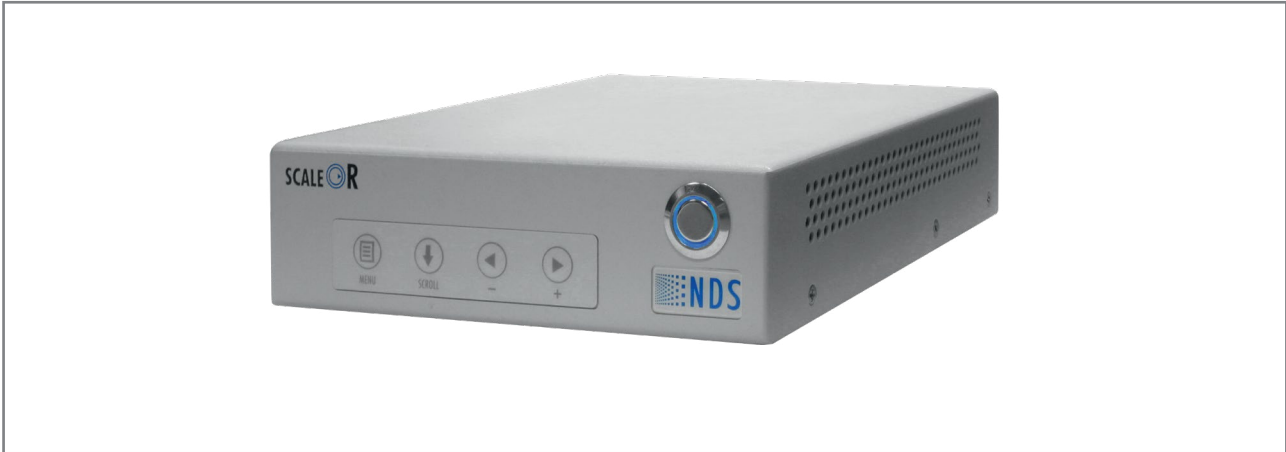
Serial connection cables		Length	Product no.
	<b>Serial data cable</b> 1m, ST/BU 9pol SUB-D	1 m	<b>72325380</b>
	<b>Serial data cable</b> 10m, SUB-D 9pol ST/BU	10 m	<b>72325.361</b>
	<b>RS 232 connection cable</b>		<b>5052.912</b>
Network connection cables and connectors		Length	Product no.
	<b>Ethernet-cable</b>	2 m	<b>103.03</b>
	<b>Ethernet-cable</b>	5 m	<b>72325.328</b>
	<b>Patch cable, RJ45 SFTP, 0,5m</b>	0,5 m	<b>72325378</b>
	<b>Patch cable, RJ45 HRS TM11, 1,0m</b>	1 m	<b>72325429</b>
	<b>Patch cable, RJ45 S/FTP CAT.6 10m</b>	10 m	<b>72325434</b>
	<b>Patch cable, RJ45 S/FTP CAT.6 20m</b>	20 m	<b>72325435</b>
	<b>E-DAT modul coupler 180° CAT.6</b> Fully shielded 180° coupler made of refined zinc die-casting. 2 mounting versions in a coupler, fits in module or keystone applications.		<b>1309A0-I</b>
	<b>Medical isolator</b> Network isolator for medical devices Data speed: 10/100/1000 Mbit/s Electrical strength, signal and shielding: 5000V		<b>MI 1005</b>
	<b>Crimping pliers</b> for BNC cable assembly, compatible with connector NBNC75BWU13		<b>723231329</b>
	<b>Crimping insert</b>		<b>723231330</b>

# ACCESSORIES

Video connection cables and connectors		Length	Product no.
	<b>Vektor plus coax cable 50,00m PUR</b> flexible, non-terminated video patch cable	50 m	<b>600-0211</b>
	<b>Coaxial cable Vektor Plus 1,00m</b>	1 m	<b>DZGR-0100-SW-GN</b>
	<b>Coaxial cable Vektor Plus 2,00m</b>	2 m	<b>DZGR-0200-SW-GN</b>
	<b>Coaxial cable Vektor Plus 3,00m</b>	3 m	<b>DZGR-0300-SW-GN</b>
	<b>Coaxial cable Vektor Plus 15,00m</b>	15 m	<b>DZGR-1500-SW-GN</b>
	<b>Coaxial cable Vektor Plus 25,00m</b>	25 m	<b>DZGR-2500-SW-GN</b>
Flexible, prefabricated video patch cable with BNC video plug connectors.			
	<b>BNC-HDTV rear twist</b>		<b>NBNC75BWU13</b>
	<b>Adapter for PC headset</b> For connecting the headset 504300/504301 to <b>core.media</b> or to a connecting panel. 3.5 mm jack socket (4-pin) to 2x 3.5 mm jack plug	0,6 m	<b>35508</b>
	<b>USB adapter A/DC hollow connector</b> For power supply to headset 504300/504301 for <b>core.media</b>	1,5 m	<b>70265</b>
	<b>Adapter cable CEHS-MB 01</b> Adapter cable for DW headset with 3.5 mm jack plug	0,7 m	<b>506033</b>
	<b>Y adapter audio cable, jack</b> For connection to <b>core.media</b> if a simultaneous output on the headset and speakers is required	0,1 m	<b>PC1Z-0010-SW</b>
Other		Length	Product no.
	<b>Power cable</b>	3 m	<b>2440.03</b>
	<b>Mini GBIC module</b> Optical transceiver for network switch SFP (Mini GBIC) transceiver module IEEE802.3z, CSMA/CD, TCP/IP Wavelength: 1310nm, Cable: Single mode fiber Maximum length of cable: 10km, Data rate: 1.25Gbps, Port type: LC		<b>TL-SM311LS</b>

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# Single Signal Converter



- SCALEOR DVI input without glass fiber ..... 559109911**
- SCALEOR SDI input without glass fiber ..... 559109922**
- SCALEOR VGA input without glass fiber..... 559109933**
- SCALEOR S-Video input without glass fiber ..... 559109944**

**SCALE OR**

Single signal converter for integration of mobile devices in the **core** nova system

- External devices without SDI output can be connected to **core.media**
- Connected input signals are converted into 3G-SDI

Technical data		559109911 / 559109922 / 559109933 / 559109944
<b>Power supply</b>		
Power supply	Integrated power supply	
Max. power consumption	12 VDC	
<b>Regulatory Compliance</b>		
Certifications	UL60601-1, EN60601-1-2, UL60601-1, CAN/CSA C22.2 No. 60601-1 FCC Part 15, Class I Medical Device	
<b>Interface</b>		
Input video	DVI SDI / HD-SDI / 3G-SDI VGA S-Video	
Output Video	DVI (DVI-D) SDI / HD-SDI / 3G-SDI (BNC)	
<b>Dimensions and weight</b>		
Weight	0,6 kg	
Dimensions (w x h x d)	147,3 x 190,5 x 42,4 mm	

## BASIC VIDEO CABLE *core.media*

### Basic video cable bndl ..... 55931011

For video and network signals in *core* nova installations

**Content:**

1x Vektor plus coax cable 50,00m PUR .....	600-0211
4x Coaxial cable Vektor Plus 15,00m .....	DZGR-1500-SW-GN
2x Coaxial cable Vektor Plus 25,00m .....	DZGR-2500-SW-GN
20x BNC-HDTV rear twist .....	NBNC75BWU13
3x Patch cable, RJ45 S/FTP CAT.6 10m .....	72325434
1x Patch cable, RJ45 S/FTP CAT.6 20m .....	72325435

### Basic connection plate bndl ..... 55931021

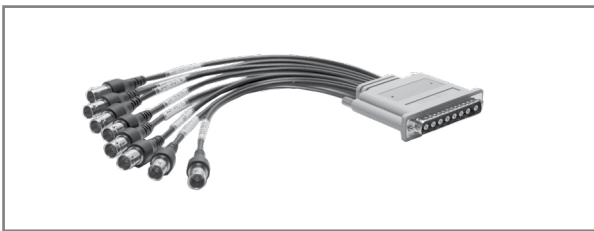
For wiring during a *core* nova installation

**Content:**

10x Hollow wall switch socket D68X47 .....	74008100
1x Mounting shank for socket drill D68 .....	74008102
1x Doses drill D68 .....	74008101
6x E-DAT modul coupler 180° Cat.6 .....	1309A0-I
7x Concealed frame for connection plate .....	72326169
7x Frame simple .....	72326168
3x Connection plate LAN .....	64127201
4x Connecting plate SDI .....	64127202
16x BNC HDTV patch panel mounting socket .....	BNC-FP-HD

### Video I/O breakout cable ..... 643211608

Connecting cable *core.media*





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