MONACOR® INTERNATIONAL

ELECTRONICS FOR SPECIALISTS

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JAHRE YEARS ANS ANNI AÑOS LAT

NEWS

2015

SPRING

WAP-200
Order No. 38.7030

`482 mm 19"` `MP3` `WLAN` `LAN`

Internet radio, FM RDS and DAB+ tuner, MP3 player

- Network connection via LAN jack or WLAN
- Access to more than 20,000 radio stations world-wide
- Station scan by genre, station name, location
- Media streaming allows you to share media files within the network (UPnP server)
- FM RDS reception function
- Reception of interference-free digital radio (DAB+)
- USB host input for directly playing MP3, AAC, AAC+, WMA, WAVE and FLAC files
- Easy operation via jog dial
- Large illuminated matrix display
- Eqalizer with factory presets and user presets
- Shuffle play and repeat folder via USB
- Summer time/winter time selection
- Sleep timer and alarm function with snooze
- Aux input at the front panel (3.5 mm stereo jack)
- Headphone output (3.5 mm stereo jack)
- 75 Ω FM antenna input, coaxial
- SMA RP antenna connection
- Supplied with infrared remote control, rod antenna and FM wire antenna
- 482 mm (19") rack installation, 1 RS, removable mounting brackets

Model	WAP-200
Power supply	230 V~/50 Hz/20 VA
	15 V⎓/300 mA
Admiss. ambient temp.	0-40 °C
Dimensions	482x44x245 mm
Weight	2.7 kg
Connections	1 x 3.5 mm stereo jack (input)
	1 x RCA L/R (output)
	1 x RJ45 (LAN)

CDP-800NT
Order No. 21.0020

`COMPACT DISC DIGITAL AUDIO` `MP3` `LAN` **TEAC** `NEW`

Network/CD player, (DLNA, Internet radio, USB, CD).

- Reproduction of DSD (2.8/5.6 MHz) via LAN and USB flashdrive
- Reproduction of WAV/FLAC (24 bits/192 kHz) via LAN and USB flashdrive
- Streaming music via LAN (DLNA 1.5)
- Reproduction of PCM files (32-bit/192 kHz)
- Supports music streaming services and vTuner Internet radio
- Free app for remote control of devices with iOS and Android
- Direct digial connection for iPod/iPhone with charging facility
- Reproduction of various music formats from USB flashdrive
- Efficient DA converters (Burr-Brown PCM1795)
- USB port on the front panel and rear panel
- 100Base-T Ethernet connection
- Coaxial and optical digital output
- Analogue audio output (RCA)
- Headphone jack with volume control
- Power supply: 230 V~/50 Hz/30 W
- Dimensions: 435x101x301 mm
- Weight: 4.9 kg

CD-230USB
Order No. 21.2990

| 482 mm 19" | COMPACT DISC DIGITAL AUDIO | ANTI SHOCK | MP3 |

DJ dual CD and MP3 player, with USB 2.0 interface and SD/MMC card slot.
- USB flash drives can be connected directly
- For SD/MMC cards up to 32 GB (FAT16/FAT32), available at option
- Anti-shock system
- Seamless loop
- Supports ID3 tags (track display)
- Safe operation due to illuminated rubber buttons
- Pitch control: ±4/±8/±16 %
- Pitch bending
- Search for file/track
- Search function via jog dial
- Scratch function
- Repeat function (repeat 1, repeat all)
- 20 tracks can be programmed
- Smallest search step: 1 frame
- Switchable display of the running time of one track as well as the remaining running time of one or all tracks
- Bar graph display
- Quick start (automatic cue)
- 482 mm (19") rack installation
- Audio CD/CD-R/MP3 CD

Model	CD-230USB
General information	
Frequency range	20-20,000 Hz
THD	< 0.1 %
Channel separation	> 80 dB
Dynamic range	> 90 dB
S/N ratio	> 80 dB
Output, analogue	2 V
Power supply	230 V~/50 Hz/30 VA
Admiss. ambient temp.	0-40 °C
Dim., player mech.	482x90x270 mm, 2 RS
Dim., control panel	482x90x100 mm, 2 RS
Weight	6.1 kg
Connections	
Analogue output	2 x RCA L/R
Control connection	2 x cable, 13-pole mini DIN,
	length: 1 m

SA-160BT
Order No. 25.6010

Mini stereo amplifier, 2 x 30 W$_{RMS}$, with Bluetooth interface, NFC and remote control.
- Integrated hi-fi audio amplifier
- For speakers with an impedance of 8 Ω
- Volume control with integrate source selector function, LED display
- Near Field Communication (NFC)
- Gold-plated speaker terminals
- 1 stereo input via RCA jacks L/R
- 1 line output via 3.5 mm stereo jack
- Fixed antenna
- Metal housing
- Power supply via supplied PSU

Model	SA-160BT
RMS output power	2 x 30 W$_{RMS}$/8 Ω
Music output power	-
THD	< 1 %
Output impedance	8 Ω
Frequency range	20-20,000 Hz
Input impedance	10 kΩ
Input voltage	660 mV
S/N ratio	> 99 dBA
Standby current	100 mA
Power supply	suppl. PSU
Req. panel cutout	-
Dimensions	150x49x122 mm
Weight	610 g
Inputs	line, RCA L/R
Outputs	speaker terminal L/R
	line, 3.5 mm stereo jack
Integrated limiter	-
Level control	X
2-way tone control	-
Mains switch	X

SOUND-4BT/WS
Order No. 25.7060

PAAR PAIR | **2 x 30 W MAX** | **2 Wege Ways** | Bluetooth

Active 2-way stereo speaker system, with Bluetooth receiver, 2 x 30 W_{MAX}, 2 x 15 W_{RMS}.

- Set consists of one active and one passive bass-reflex speaker system. Connection of the passive system to the active system via spring-loaded speaker terminals
- Bluetooth receiver V4.0 with APTX
- Active speaker system with integrated 2-channel class D amplifier
- Stereo RCA and 3.5 mm jack input, optical digital input (Toslink), mono sub out via RCA jack
- Supplied with remote control
- 10 cm (4") bass speaker and 25 mm (1") dome tweeter
- Excellent sound characteristics with linear adjustment
- High-gloss lacquered MDF wooden cabinet of high quality

Model	SOUND-4BT/WS
Frequency range	45-20,000 Hz
Amplifier power	2 x 30 W_{MAX}/2 x 15 W_{RMS}
Inputs	Bluetooth
SPL (1 W/1 m)	95 dB(each sp. system)
Max. rated SPL	100 dB (each sp. system)
Admiss. ambient temp.	0-40 °C
Power supply	230 V~/50 Hz/80 VA
Dimensions (WxHxD)	140x215x170 mm
Weight	5.2 kg (pair)
Connections	1 x RCA L/R
	1 x 3.5 mm stereo jack
	1 x Toslink, optical digial input
	spring-load. speaker term. for passive sp. syst.
Other features	Bluetooth 4.0, APTX,
	remote control

AIR-BEATS
Order No. 25.8510

WLAN **TERRATEC®**

Wireless (WLAN) audio transmission adapter, wireless music reproduction from your smartphone, tablet PC or stationary PC or Mac. The device receives the audio signals via the network and transmits them to a stereo system or an active speaker via cable.

- Audio streaming directly from any device which supports WLAN or is connected via LAN
- To be configured either as a WLAN address point (AP) or as a client in an existing network (as a player)
- With this function, it can also be used as a WLAN access point or WLAN repeater
- Browser-based network configuration
- WLAN standard: IEEE 802.11b/g/n

- Supports Apple AirPlay and DLNA
- Suitable for operating systems: Windows, Mac OS, iOS and Android
- Digital optical S/PDIF output
- Analogue 3.5 mm stereo output
- Scope of delivery: transmission adapter, USB PSU, cable, quick start guide
- Dimensions: 85x30x79 mm
- Weight: 110 g

AKB-90WIFI
Order No. 32.0090

WLAN hi-fi multi-room amplifier, 2 x 45 W_{RMS}

- WLAN standard 802.11 B/G/N, 2.4 GHz
- System is set up via integrated webserver
- Multi-room function
- Integrated digital hi-fi audio amplifier (class D), suitable for speakers with an impedance of 4-8 Ω
- Network streaming via DLNA

- Supported audio formats: MP3, WMA, AAC/AAC+, ALAC, FLAC, APE, WAV
- Network protocols: TCP/IP, RDP, HTTP, UPNP
- Gold-plated speaker terminals
- Antenna with SMA antenna connection
- Aluminium housing with mounting flange
- Power supply via supplied PSU

NEWS

H-4NSP
Order No. 20.0020

`MP3` `USB` `SD`

Portable high-end digital audio recorder, with USB port and SD card slot.
- Stereo mode or 4-channel mode
- Recording formats: WAV (44.1/48/96 kHz, 16/24 bits) or MP3 (44.1 kHz, 48-320 kbps or variable bit rate), selectable
- 2 built-in high-quality electret microphones of cardioid characteristic, 90° or 120° can be selected
- Integrated chromatic tuner for guitar and bass, supports open tunings
- Integrated metronome

- Power supply: 2 x 1.5 V battery AA size (not supplied), operating time: 6 h (11 h in energy-saving mode)
- Dimensions: 73x156x35 mm
- Weight: 280 g

Accessory pack APH-4NSP is available at option.

APH-4NSP
Order No. 20.0010

Accessory pack for H-4NSP
Consists of:
- Windshield
- USB connection cable
- Cable with 3.5 mm stereo plug
- Adapter cable: 3.5 mm stereo plug to 2 x 3.5 mm mono inline jack
- Plug-in PSU: 5 V⎓/1 A

RF-GENERATOR1
Order No. 25.6000

`USB`

RF signal generator, 23.4-6,000 MHz
- Fully programmable RF generator
- Generates carrier and wobble signals from 23.4 MHz to 6 GHz
- Convenient operation
- In combination with RF-EXPLORER/3 and the windows software for RF-EXPLORER, it results in a high-performance tracking generator which allows a scalar, i.e. amplitude-based, RF network analysis (SNA) of filters, amplifiers or other 2-port RF components
- Extension slot for additional modules
- Frequency resolution: 1 kHz
- Frequency stability: 0.5 ppm
- Amplitude range: -10 dBm to 0 dBm or with integrated attenutator (30 dB): -40 dBm to -30 dBm
- Step size of amplitude: 3 dB

- Amplitude accuracy: ±0.5 dB standard or ±3 dB absolute
- 50 Ω SMA connection
- Mini USB 2.0 interface for connecting a PC or laptop as well as for charging the built-in rechargeable lithium polymer battery (860 mAh)
- Dimensions: 71x122x25 mm
- Weight: 185 g

RF-COVER/BL
Order No. 25.7000

Protective cover, for the RF spectrum analyser RF-EXPLORER/3 and the RF signal generator RF-GENERATOR1. Rubber, blue.

Supplied without unit.

RF-COVER/GE
Order No. 25.7010

Protective cover, for the RF spectrum analyser RF-EXPLORER/3 and the RF signal generator RF-GENERATOR1. Rubber, yellow.

Supplied without unit.

PAK-400 Series

The PAK-400 series is suitable for general applications, features modern technologies and individual sound tuning to meet various requirements. The amplifier system is a combination of class D for the bass and class A/B for the tweeter. With the practice-oriented presets, the perfect sound can easily be found and with the high-pass filter at 75 Hz which can be switched on additionally, this series can be matched to subwoofer systems like the PSUB-418AK without any problems.

PAK-415
Order No. 25.6050

15/2 **700 W MAX**

Active power PA speaker system with 2-channel amplifier, 700 W$_{MAX}$, 450 W$_{RMS}$

- Compact 15/2 full range system with robust plastic cabinet
- Modern amplifier system (bass: class D, tweeter: class A/B)
- Sound pressure at nominal power: 124 dB
- 4 selectable presets: normal, hi-fi, DJ and voice, switchable high-pass filter: 75 Hz
- MIC/LINE input, switchable

Model	PAK-415
Frequency range	40-20,000 Hz
Amplifier power	450 (350+100) W$_{RMS}$
Inputs	1 x comb. XLR/6.3 mm
SPL (1 W/1 m)	98 dB
Max. rated SPL	124 dB
Admiss. ambient temp.	0-40 °C
Power supply	230 V~/50 Hz/550 VA
Dimensions (WxHxD)	455x740x390 mm
Weight	18.7 kg
Connections	1 x comb. XLR/6.3 mm (line/mic)
	1 x XLR, par. out
Other features	4 selectable presets
	switchable high-pass filter 75 Hz

PAK-412
Order No. 25.6040

12/2 **700 W MAX**

Active power PA speaker system with 2-channel amplifier, 700 W$_{MAX}$, 450 W$_{RMS}$

- Compact 12/2 full range system with robust plastic cabinet
- Modern amplifier system (bass: class D, tweeter: class A/B)
- Sound pressure at nominal power: 124 dB
- 4 selectable presets: normal, hi-fi, DJ and voice, switchable high-pass filter: 75 Hz
- MIC/LINE input, switchable

Model	PAK-412
Frequency range	40-20,000 Hz
Amplifier power	450 (350+100) W$_{RMS}$
Inputs	1 x comb. XLR/6.3 mm
SPL (1 W/1 m)	98 dB
Max. rated SPL	124 dB
Admiss. ambient temp.	0-40 °C
Power supply	230 V~/50 Hz/500 VA
Dimensions (WxHxD)	405x670x340 mm
Weight	17.3 kg
Connections	1 x comb. XLR/6.3 mm (line/mic)
	1 x XLR, par. out
Other features	4 selectable presets
	switchable high-pass filter 75 Hz

PAK-410
Order No. 25.6030

Active power PA speaker system with 2-channel amplifier, 500 W$_{MAX}$, 300 W$_{RMS}$

- Compact 10/2 full range system with robust plastic cabinet
- Modern amplifier system (bass: class D, tweeter: class A/B)
- Sound pressure at nominal power: 121 dB
- 4 selectable presets: normal, hi-fi, DJ and voice, switchable high-pass filter: 75 Hz
- MIC/LINE input, switchable

Model	PAK-410
Frequency range	55-20,000 Hz
Amplifier power	300 (250+50) W$_{RMS}$
Inputs	1 x comb. XLR/6.3 mm
SPL (1 W/1 m)	97 dB
Max. rated SPL	121 dB
Admiss. ambient temp.	0-40 °C
Power supply	230 V~/50 Hz/400 VA
Dimensions (WxHxD)	340x560x290 mm
Weight	12.9 kg
Connections	1 x comb. XLR/6.3 mm (line/mic)
	1 x XLR, par. out
Other features	4 selectable presets
	switchable high-pass filter 75 Hz

PSUB-418AK
Order No. 25.6060

Active power PA subwoofer, 1,000 W$_{MAX}$, 600 W$_{RMS}$

- Compact and lightweight 46 cm (18″) subwoofer with class D amplifier
- Cabinet made of birch plywood with stand sleeve, carrying handles and castors
- Bass-reflex system with sound pressure at nominal power: 127 dB
- Adjustable crossover frequency: 60-150 Hz, gain control, phase reversal switch
- Balanced inputs: comb. XLR/6.3 mm and parallel XLR outputs

Model	PSUB-418AK
Frequency range	35-150 Hz
Amplifier power	600 W$_{RMS}$
Inputs	comb. XLR/6.3 mm,
	bal. line, L/R
SPL (1 W/1 m)	97 dB
Max. rated SPL	127 dB
Admiss. ambient temp.	0-40 °C
Power supply	230 V~/50 Hz/840 VA
Dimensions (WxHxD)	560x660x600 mm
	(w/o castors)
Weight	38.5 kg
Connections	comb. XLR/6.3 mm input (L/R)
	XLR: par. out (L/R)
Other features	

PAK-15DMP
Order No. 25.5840

Active DJ and power speaker system, 200 W$_{MAX}$
- 15/2 full range bass-reflex system with plastic cabinet
- 38 cm (15") bass speaker and 25 mm (1") horn tweeter
- Integrated MP3 player with USB/SD slot and FM radio
- Bluetooth receiver
- Infrared remote control
- Stand sleeve

Model	PAK-15DMP
Frequency range	45-20,000 Hz
Amplifier power	120 W$_{RMS}$, 200 W$_{MAX}$
Inputs	1 x line (bal., 600 mV),
	1 x RCA RCA/jack, stereo
	(unbal., 500 mV),
	1 x mic (bal., 30 mV)
SPL (1 W/1 m)	96 dB
Max. rated SPL	117 dB
Admiss. ambient temp.	0-40 °C
Power supply	230 V~/50 Hz/220 VA
Dimensions (WxHxD)	445x700x360 mm
Weight	16 kg
Connections	XLR, RCA L/R or 3.5 mm jack
	(line),
	XLR or 6.3 mm jack (mic)
Other features	mix out (XLR, bal.)

PAK-12DMP
Order No. 25.5830

Active DJ and power speaker system, 180 W$_{MAX}$
- Compact 12/2 full range bass-reflex system with plastic cabinet
- 30 cm (12") bass speaker and 25 mm (1") horn tweeter
- Integrated MP3 player with USB/SD slot and FM radio
- Bluetooth receiver
- Infrared remote control
- Stand sleeve

Model	PAK-12DMP
Frequency range	50-20,000 Hz
Amplifier power	90 W$_{RMS}$, 180 W$_{MAX}$
Inputs	1 x line (bal., 460 mV),
	1 x RCA/jack, stereo
	(unbal., 500 mV),
	1 x mic (bal., 12 mV)
SPL (1 W/1 m)	94 dB
Max. rated SPL	115 dB
Admiss. ambient temp.	0-40 °C
Power supply	230 V~/50 Hz/200 VA
Dimensions (WxHxD)	370x590x290 mm
Weight	11.2 kg
Connections	XLR, RCA L/R or 3.5 mm jack
	(line),
	XLR or 6.3 mm jack (mic)
Other features	mix out (XLR, bal.)

PAK-10DMP
Order No. 25.5820

10/2 | 150 W_{MAX} | Bluetooth | MP3 | USB | SD

Active DJ and power speaker system, 150 W$_{MAX}$
- Compact 10/2 full range bass-reflex system with plastic cabinet
- 25 cm (10") bass speaker and 25 mm (1") horn tweeter
- Integrated MP3 player with USB/SD slot and FM radio
- Bluetooth receiver
- Infrared remote control
- Line input via RCA or 3.5 mm jack
- Stand sleeve

Model	PAK-10DMP
Frequency range	55-20,000 Hz
Amplifier power	80 W$_{RMS}$, 150 W$_{MAX}$
Inputs	1 x line (bal., 1,000 mV),
	1 x RCA/jack, stereo
	(unbal., 500 mV),
	1 x mic (bal., 65 mV)
SPL (1 W/1 m)	93 dB
Max. rated SPL	113 dB
Admiss. ambient temp.	0-40 °C
Power supply	230 V~/50 Hz/170 VA
Dimensions (WxHxD)	320x490x250 mm
Weight	8 kg
Connections	XLR or 6.3 mm jack (line)
	RCA L/R or 3.5 mm jack (line)
	XLR or 6.3 mm jack (mic)
Other features	mix out (XLR, bal.)

PAK-8DMP
Order No. 25.5850

8/2 | 120 W_{MAX} | Bluetooth | MP3 | USB | SD

Active DJ and power speaker system, 120 W$_{MAX}$
- Compact 8/2 full range bass-reflex system with plastic cabinet
- 20 cm (8") bass speaker and 25 mm (1") horn tweeter
- Integrated MP3 player with USB/SD slot and FM radio
- Bluetooth receiver
- Infrared remote control
- Line input via RCA or 3.5 mm jack
- Stand sleeve

Model	PAK-8DMP
Frequency range	60-20,000 Hz
Amplifier power	60 W$_{RMS}$, 120 W$_{MAX}$
Inputs	1 x line (bal., 730 mV),
	1 x RCA/jack, stereo
	(unbal., 450 mV),
	1 x mic (bal., 50 mV)
SPL (1 W/1 m)	93 dB
Max. rated SPL	117 dB
Admiss. ambient temp.	0-40 °C
Power supply	230 V~/50 Hz/140 VA
Dimensions (WxHxD)	240x390x200 mm
Weight	5.8 kg
Connections	XLR or 6.3 mm jack (line)
	RCA L/R or 3.5 mm jack (line)
	XLR or 6.3 mm jack (mic)
Other features	mix out (XLR, bal.)

Pure Entertainment!

The PA speaker systems of the PAB-...DMP series impress with a great sound and an attractive price. They are suitable for smaller to medium-sized function rooms and are the perfect starting equipment for entry-level DJs. The plastic cabinets of contemporary design are also lightweight and easy to use. Thus, they are ideally suited for mobile applications.

PAB-15DMP
Order No. 25.7050

Full range speaker system, 350 W_{MAX}, 8 Ω

- Full range bass-reflex system
- Robust plastic cabinet
- 38 cm (15") bass speaker with steel basket
- 25 mm (1") horn tweeter
- M8 threaded inserts at the top and bottom
- 2 x speaker terminal, in/out
- Stand sleeve

Model	PAB-15DMP
Bass-midrange speaker	38 cm (15")
Power capabilities	
Music power	350 W_{MAX}
Power rating	180 W_{RMS}
General information	
Impedance	8 Ω
Frequency range	45-20,000 Hz
SPL (1 W/1 m)	96 dB
Max. rated SPL	119 dB
Admiss. ambient temp.	0-40 °C
Dimensions (WxHxD)	445x700x360 mm
Weight	13.8 kg
Connections	2 x SPEAKER par. in/out

IMG Stage Line
überzeugt!
is convincing!

„Ich brauche Equipment,
"I need equipment

auf das ich mich zu 100 %
which is 100 %

verlassen kann."
reliable."

Tim, 28,
Veranstaltungstechniker
Event technician

img
Stage Line®

INTELLIGENT SOLUTIONS
FOR LIGHT & SOUND

PAB-12DMP
Order No. 25.7040

12/2 280 W MAX

Full range speaker system, 280 W MAX, 8 Ω
- Full range bass-reflex system
- Robust plastic cabinet
- 30 cm (12") bass speaker with steel basket
- 25 mm (1") horn tweeter
- M8 threaded inserts at the top and bottom
- 2 x speaker terminal, in/out
- Stand sleeve

Model	PAB-12DMP
Bass-midrange speaker	30 cm (12")
Power capabilities	
Music power	280 W MAX
Power rating	140 W RMS
General information	
Impedance	8 Ω
Frequency range	50-20,000 Hz
SPL (1 W/1 m)	94 dB
Max. rated SPL	116 dB
Admiss. ambient temp.	0-40 °C
Dimensions (WxHxD)	370x590x290 mm
Weight	9.2 kg
Connections	2 x SPEAKER par. in/out

PAB-10DMP
Order No. 25.7030

10/2 240 W MAX

Full range speaker system, 240 W MAX, 8 Ω
- Full range bass-reflex system
- Robust plastic cabinet
- 25 cm (10") bass speaker with steel basket
- 25 mm (1") horn tweeter
- M8 threaded inserts at the top and bottom
- 2 x speaker terminal, in/out
- Stand sleeve

Model	PAB-10DMP
Bass-midrange speaker	25 cm (10")
Power capabilities	
Music power	240 W MAX
Power rating	120 W RMS
General information	
Impedance	8 Ω
Frequency range	58-20,000 Hz
SPL (1 W/1 m)	94 dB
Max. rated SPL	116 dB
Admiss. ambient temp.	0-40 °C
Dimensions (WxHxD)	320x490x250 mm
Weight	6.1 kg
Connections	2 x SPEAKER par. in/out

PAB-8DMP
Order No. 25.7020

8/2 180 W MAX

Full range speaker system, 180 W MAX, 8 Ω
- Full range bass-reflex system
- Robust plastic cabinet
- 20 cm (8") bass speaker with steel basket
- 25 mm (1") horn tweeter
- M8 threaded inserts at the top and bottom
- 2 x speaker terminal, in/out
- Stand sleeve

Model	PAB-8DMP
Bass-midrange speaker	20 cm (8")
Power capabilities	
Music power	180 W MAX
Power rating	90 W RMS
General information	
Impedance	8 Ω
Frequency range	60-20,000 Hz
SPL (1 W/1 m)	93 dB
Max. rated SPL	111 dB
Admiss. ambient temp.	0-40 °C
Dimensions (WxHxD)	240x390x200 mm
Weight	4.1 kg
Connections	2 x SPEAKER par. in/out

MD-390

Order No. 22.0100

Stereo headphones
- For general applications
- Closed system
- Padded ear cushions and headband
- 1.5 m cable with single-sided cable inlet
- Gold-plated 3.5 mm plug with 6.3 mm adapter

Model	MD-390
Driver	neodymium
System	ø 40 mm, dynamic
Frequency range	20-20,000 Hz
Impedance	32 Ω
Max. input power	100 mW
Sensitivity	110 dB/1 mW
Cable	1.5 m, single-sided cable inlet
Plug	3.5 mm plug, gold-plated
Adapter	6.3 mm plug, gold-plated
Weight w/o cable	160 g

MD-360

Order No. 22.0090

Stereo headphones, red version.
- Very comfortable to wear
- Neodymium driver
- Padded ear cushions
- 1.5 m cable with 3.5 mm stereo plug

Model	MD-360
Driver	neodymium
System	ø 40 mm, dynamic
Frequency range	20-20,000 Hz
Impedance	32 Ω
Max. input power	100 mW
Sensitivity	110 dB/1 mW
Cable	1.5 m
Plug	3.5 mm plug
Weight w/o cable	125 g

BH-009

Order No. 22.1280

Professional stereo headphones with dynamic headband microphone
- Perfectly closed system for ambient noise suppression
- Excellent sound characteristics, very comfortable to wear
- Flexible microphone boom, folding, continuously adjustable
- Padded ear cushions and headband
- 2 m cable with single-sided cable inlet and 3.5 mm plugs, supplied with two 6.3 mm adapters

Model	BH-009
Headphones	
Driver	neodymium
System	ø 40 mm, dynamic
Frequency range	20-20,000 Hz
Impedance	250 Ω
Max. input power	100 mW
Sensitivity	117 dB/1 mW
Cable	2 m, single-sided cable inlet
Plug	3.5 mm plug
Adapter	6.3 mm plug
Weight w/o cable	375 g
Microphone	
System	dynamic, cardioid
Frequency range	120-6,000 Hz
Impedance	600 Ω
Sensitivity	1.8 mV/Pa/1 kHz
Connections	3.5 mm plug, adapter: 6.3 mm plug

BH-009S

Order No. 22.1290

Professional mono headphone with dynamic headband microphone
- Closed system
- Excellent sound characteristics, very comfortable to wear
- Flexible microphone boom, folding, continuously adjustable
- Padded ear cushion and headband
- 2 m cable with single-sided cable inlet and 3.5 mm plugs, supplied with two 6.3 mm adapters

Model	BH-009S
Headphones	
Driver	neodymium
System	ø 40 mm, dynamic
Frequency range	20-20,000 Hz
Impedance	250 Ω
Max. input power	100 mW
Sensitivity	117 dB/1 mW
Cable	2 m, single-sided cable inlet
Plug	3.5 mm plug
Adapter	6.3 mm plug
Weight w/o cable	277 g
Microphone	
System	dynamic, cardioid
Frequency range	120-6,000 Hz
Impedance	600 Ω
Sensitivity	1.8 mV/Pa/1 kHz
Connections	3.5 mm plug, adapter: 6.3 mm plug

BH-002
Order No. 22.0040

VOLUME CONTROL

Stereo headphones with electret headband microphone
• Padded ear cushions
• Volume control
• 2 m cable with single-sided cable inlet and 3.5 mm plugs

Model	BH-002
Headphones	
Driver	
System	ø 40 mm, dynamic
Frequency range	20-20,000 Hz
Impedance	32 Ω
Max. input power	100 mW
Sensitivity	105 dB/1 mW
Cable	2 m, single-sided cable inlet
Plug	3.5 mm plug
Weight w/o cable	118 g
Microphone	
System	electret
Frequency range	100-10,000 Hz
Impedance	1.5 kΩ
Sensitivity	1.3 mV/Pa/1 kHz
Power supply	1.5-5 V⎓, e.g. via EMA-20
Connections	3.5 mm plug

SE-52
Order No. 22.0060

Stereo earphones
• Optimised for mobile music players
• Well-balanced sound
• 3.5 mm stereo plug

Model	SE-52
Driver	ø 10 mm
System	dynamic
Frequency range	20-20,000 Hz
Impedance	32 Ω
Max. input power	30 mW
Sensitivity	108 dB/1 mW
Cable	1.2 m
Plug	3.5 mm stereo plug
Weight w/o cable	6 g

SE-30
Order No. 22.0110

Stereo earphones
• Univeral monitoring earphones
• Silicone sleeves, comfortable to wear
• 3.5 mm stereo plug

Model	SE-30
Driver	ø 10 mm
System	dynamic
Frequency range	100-18,000 Hz
Impedance	32 Ω
Max. input power	50 mW
Sensitivity	90 dB/1 mW
Cable	1.2 m
Plug	3.5 mm stereo plug
Weight w/o cable	4 g

BAG-360
Order No. 23.0430

Universal bag, for transporting and storing, e.g. technical documents (A4), microphones, cables and adapters.
• Zip fastener
• Outer material: 1680D nylon, black

• Inner lining: polyurethane, black
• Inside dimensions: 320x280 mm
• Outside dimensions: 360x290 mm

BAG-280
Order No. 23.0420

Universal bag, for transporting and storing, e.g. technical documents, microphones, cables and adapters.
• Zip fastener
• Outer material: 1680D nylon, black
• Inner lining: polyurethane, black

• Inside dimensions: 240x170 mm
• Outside dimensions: 280x180 mm

BAG-230
Order No. 23.0410

Universal bag, for transporting and storing, e.g. technical documents, microphones, cables and adapters.
• Zip fastener
• Outer material: 1680D nylon, black
• Inner lining: polyurethane, black

• Inside dimensions: 190x120 mm
• Outside dimensions: 230x130 mm

KM-12180
Order No. 25.5930

K&M KÖNIG & MEYER Stands For Music

Desktop stand
• For accepting laptops, DJ systems and multimedia devices
• Tilting with 5 locking positions (0-33°)
• Robust steel version
• Dimensions: 300x300x350 mm
• Weight: 2.1 kg

KM-19740
Order No. 25.5910

K&M KÖNIG & MEYER Stands For Music

Holder for tablet PCs, with mounting clamp for stands.
• For accepting devices with a height of 120-220 mm
• Tension spring for easy insertion and removal
• Adjustable retaining clamp
• Can be rotated for portrait or landscape format, tiltable
• To be secured with clamp for mounting onto microphone stands (tube diameter: up to 30 mm)

Supplied without tablet PC and stand.

KM-19742
Order No. 25.5920

K&M KÖNIG & MEYER
Stands For Music

Holder for tablet PCs, with threaded bolt for stands.
• For accepting devices with a height of 120-220 mm
• Tension spring for easy insertion and removal
• Adjustable retaining clamp
• Can be rotated for portrait or landscape format, tiltable
• 9 mm (⅜") threaded bolt for mounting onto microphone stands

Supplied without tablet PC and stand.

KM-21311
Order No. 25.0090

K&M KÖNIG & MEYER
Stands For Music

Nylon bag for stands, for 2 stands, e.g. KM-21435 or KM-214/6.
• Tear-resistant nylon fabric with 2 inside compartments
• Two parallel zippers
• Dimensions: 1,200x250x250 mm

PAST-122/SW
Order No. 11.8700

Speaker stand, stable steel tube version, height can be adjusted in 5 steps, with locking pin.
• Steel, black

PAST-122SET
Order No. 11.8710

Speaker stand set, consisting of two steel stands PAST-122/SW and a nylon bag for stands.
Specifications PAST-122/SW:
Robust black steel version, height can be adjusted in 5 steps, with locking pin, max. load with central weight concentration: 30 kg, adjustable height: 130-205 cm, weight: 4.1 kg.

Model	PAST-122/SW
Max. load capacity at centr. weight concentr.	30 kg
Adjustable height	130-205 cm
Storage dimensions	107x13 cm
Weight	4.1 kg

Fluorescent Gaffer Tapes

- Width: 19 mm, length: 25 m
- High signalling effect
- Glows under UV light/black light
- High adhesive strength
- High resistance to abrasion

- Can be removed without any residues
- Can be written on

Model	Order No.	Colour
GB-19/NGE	11.2380	neon yellow
GB-19/NGN	11.2390	neon green
GB-19/NOR	11.2400	neon orange
GB-19/NPK	11.2410	neon pink

Fluorescent Gaffer Tapes

- Width: 50 mm, length: 25 m
- High signalling effect
- Glows under UV light/black light
- High adhesive strength
- High resistance to abrasion

- Can be removed without any residues
- Can be written on

Model	Order No.	Colour
GB-50/NGE	11.2420	neon yellow
GB-50/NGN	11.2430	neon green
GB-50/NOR	11.2440	neon orange
GB-50/NPK	11.2450	neon pink

MMX-22RM
Order No. 25.5870

482 mm mounting bracket set, for rack installation of audio mixer MMX-22.
- Black lacquered metal version

MMX-22UFXRM
Order No. 25.5940

482 mm mounting bracket set, for rack installation of audio mixer MMX-22UFX.
- Black lacquered metal version

MMX-24RM
Order No. 25.5880

482 mm mounting bracket set, for rack installation of audio mixer MMX-24USB.
- Black lacquered metal version

MMX-44RM
Order No. 25.5890

482 mm rack mounting set, for rack installation of audio mixer MMX-44.
- Black lacquered metal version

MMX-44UFXRM
Order No. 25.5950

482 mm mounting bracket set, for rack installation of audio mixer MMX-44UFX.
- Black lacquered metal version

MMX-82RM
Order No. 25.5900

482 mm mounting bracket set, for rack installation of audio mixer MMX-82UFX.
- Black lacquered metal version

RWM-1D
Order No. 25.6070

482 mm 19"
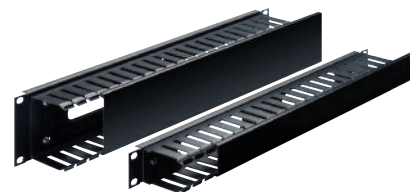
RWM-2D
Order No. 25.6080

482 mm 19"

Rack-mount cable ducts, for horizontal cable management in 482 mm (19") racks.
• Metal rack panel, black powder-coated (standard RAL 9005)

• Panels with oval apertures for cable routing from the front to the back
• Black plastic cable duct with vertical apertures for cable diameters up to 8 mm

RWM-1D: 1 RS, 482x44x70 mm
RWM-2D: 2 RS, 482x88x70 mm

RWM-2H
Order No. 25.6090

482 mm 19"

Rack-mount patch cable mangement panel, for 482 mm (19") racks.
• Metal rack panel, black powder-coated (standard RAL 9005)
• Panels with oval apertures for cable routing from the front to the back

• 5 black plastic brackets
• 482x88x90 mm, 2 RS

TXA-802PS
Order No. 25.5860

PWM quick-charge station, for simultaneously charging the rechargeable batteries (NC, NiMH) of one multifrequency pocket transmitter TXA-800HSE or the receiver TXA-800R and one hand-held microphone with multifrequency transmitter TXA-800HT.

• Average charging time, depending on capacity and condition of the rechargeable batteries used: approx. 4-5 hours, e.g. for 1,600 mAh rech. batteries
• Each slot with LED for indicating battery charging status
• Supplied with plug-in PSU

Efficient equipment from IMG Stage Line

"Thanks to impressive PA and lighting equipment, I can offer my guests great entertainment. Most interesting products."
Lennard, 38, club owner

TWIST-95ZOOM

Order No. 38.0250

LED moving head, with motor zoom function.

- 90 W high-performance LED of extra high luminous intensity (corresponds to the luminous efficiency of a 400 W discharge lamp)
- Beam angle: 10°-17°
- Motor zoom to be adjusted via DMX
- Electronic focus adjustment via DMX
- Controllable via 15 or 9 DMX channels, selectable
- Music-controlled via integrated microphone
- Master/slave mode with automatic run of programs
- Horizontal resolution and vertical resolution: 65,535 steps each (16 bits)
- Rotation angle: 540° horizontal, 270° vertical
- Adjustable limitation of rotation angle for PAN (540°, 360°, 180°) and TILT (270°, 180°, 90°)
- Colour wheel with 8 dichroic colours plus white, rotating colour wheel (rainbow effect)
- Gobo wheel with 7 gobos plus spot, variable adjustment of rotational speed, shaking effects with variable speed
- Gobo size: outside: 24 mm, image: 20 mm, maximum thickness: 1.1 mm
- Strobe effects with variable speed (1-20 flashes/second)
- Electronic dimmer function (0-100 %)
- Prism effect, electronic adjustment of prism rotation speed via DMX
- 8 automatic and sound-controlled programs each can be activated via DMX
- Blackout-while-moving function to be adjusted via DMX
- Control panel with LCD for addressing and preadjustments
- Power supply: 230 V~/50 Hz/280 VA
- Dimensions: 34x425x46 cm
- Weight: 12.4 kg

With English instruction manual.

Lighting effects with several units.

BEAM-40/WS
Order No. 38.7050

Mini LED beam moving head
Small but highly effective beam with small dimensions
and a low weight. Ideally suited for use at parties.
• Very bright white LED, 10 W (beam angle: 5°)
• Easy to use
• Controllable via 9 or 7 DMX channels
• Operating modes: DMX, music-controlled and
  automatic
• Rotation angle: 540° pan, 270° tilt
• Pan/tilt resolution: 16/8 bit
• Control panel with LED display for addressing and
  preadjustments
• Fan cooling
• Power supply: 230 V~/50 Hz/40 VA
• Dimensions: 13x20x13 cm
• Weight: 2.8 kg

BEAM-40/RGBW
Order No. 38.7040

Mini LED beam moving head
Small but highly effective beam with small dimensions
and a low weight. Ideally suited for use at parties.
• High-performance 4-in-1 CREE RGBW LED, 10 W
  (beam angle: 5°)
• Easy to use
• Controllable via 13 or 11 DMX channels
• Operating modes: DMX, music-controlled and
  automatic
• Rotation angle: 540° pan, 270° tilt
• Pan/tilt resolution: 16/8 bit
• Control panel with LED display for addressing and
  preadjustments
• Fan cooling
• Power supply: 230 V~/50 Hz/40 VA
• Dimensions: 13x20x13 cm
• Weight: 2.8 kg

CENTER-4/RGBW
Order No. 38.0240

LED moving bar, RGBW
- 4 independently adjustable heads, each with one high-performance 4-in-1 RGBW LED, 12 W
- Inclination angle PAN: endless (∞), TILT: 200°
- Beam angle: 5°
- Controllable via 33 or 17 DMX channels, selectable
- 3-pole XLR connection
- Operating modes: DMX, music-controlled, automatic and master/slave
- Music-controlled via integrated microphone
- Control panel with LCD
- Black metal housing, supplied with mounting brackets
- POWERCON mains connection and POWERCON parallel output
- Power supply: 230 V~/50 Hz/180 VA
- Dimensions: 559x189x297 mm
- Weight: 8.8 kg

BEAM-4/RGBW
Order No. 38.0230

LED beam moving bar, RGBW
- 4 high-performance 4-in-1 RGBW LEDs, 10 W each
- Inclination angle PAN: endless (∞), TILT: 200°
- Beam angle: 2°
- Controllable via 26, 22 or 1 DMX channels, selectable
- 3-pole and 5-pole XLR connections
- Operating modes: DMX, music-controlled, automatic and master/slave
- Music-controlled via integrated microphone
- Control panel with LCD
- Black metal housing, supplied with mounting brackets
- POWERCON mains connection and POWERCON parallel output
- Power supply: 230 V~/50 Hz/70 VA
- Dimensions: 555x95x210 mm
- Weight: 6.8 kg

PARC-100/CTW
Order No. 38.7110

`LED` `COB` `100W LED`

COB LED spotlight for indoor applications
- High-performance 2-in-1 COB LED for highest luminous efficiency, 100 W, beam angle: 60°
- Fanless cooling concept
- Adjustable colour temperature: 2,700-5,600 K
- Controllable via 4 DMX channels
- Operating modes: DMX, stand-alone and master/slave
- Control panel with LED display
- Black lacquered aluminium housing
- Supplied with mains cable
- POWERCON connection
- Barn doors PARC-100B available at option
- Also suitable as a standing spotlight due to 2 movable mounting brackets
- Power supply: 230 V~/50 Hz/120 VA
- Dimensions: 32x25x25 cm
- Weight: 6.5 kg

PARC-100/RGB
Order No. 38.7120

`LED` `COB` `100W LED`

COB LED spotlight for indoor applications
- High-performance RGB COB LED for highest luminous efficiency, 100 W, beam angle: 60°
- Fanless cooling concept
- Controllable via 10, 6, 4 or 3 DMX channels
- Operating modes: DMX, automatic, music-controlled and master/slave
- 10 automatic programs, 2 music-controlled programs and 10 programmable sequences
- Control panel with LED display
- Black lacquered aluminium housing
- Supplied with mains cable
- POWERCON connection
- Barn doors PARC-100B available at option
- Also suitable as a standing spotlight due to 2 movable mounting brackets
- Power supply: 230 V~/50 Hz/120 VA
- Dimensions: 32x25x25 cm
- Weight: 6.5 kg

PARC-100/WS
Order No. 38.7130

`LED` `COB` `100W LED`

COB LED spotlight for indoor applications
- High-performance white COB LED for highest luminous efficiency, 100 W, beam angle: 60°
- Fanless cooling concept
- Colour temperature: 5,600 K
- Controllable via 3 DMX channels
- Operating modes: DMX, stand-alone and master/slave
- Control panel with LED display
- Black lacquered aluminium housing
- Supplied with mains cable
- POWERCON connection
- Barn doors PARC-100B available at option
- Also suitable as a standing spotlight due to 2 movable mounting brackets
- Power supply: 230 V~/50 Hz/120 VA
- Dimensions: 32x25x25 cm
- Weight: 6.5 kg

PARC-100B
Order No. 38.7140

Barn doors
- Matching the LED spotlights PARC-100/CTW, PARC-100/RGB , PARC-100/WS and ODC-100/CTW, ODC-100/RGB, ODC-100/WS
- 4 adjustable flaps for limiting the light cone
- Black lacquered metal version
- Not corrosion-resistant
- Weight: 675 g

ODC-100/CTW
Order No. 38.7080

IP66 **LED** **COB** **100W LED**

COB LED spotlight for outdoor applications, IP66
- High-performance 2-in-1 COB LED for highest luminous efficiency, 100 W, beam angle: 60°
- Adjustable colour temperature: 2,700-5,600 K
- Controllable via 4 DMX channels
- Operating modes: DMX, stand-alone and master/slave
- Control panel with LED display
- Fanless cooling concept
- Black lacquered aluminium housing
- Supplied with DMX cable and mains cable
- Also suitable as a standing spotlight due to 2 movable mounting brackets
- Matching 2 m extension cables for DMX output (ODP-34DMX) and for mains connection (ODP-34AC) are available at option
- Power supply: 230 V~/50 Hz/120 VA

- Dimensions: 32x25x25 cm
- Weight: 6.5 kg

ODC-100/RGB
Order No. 38.7090

IP66 **LED** **COB** **100W LED**

COB LED spotlight for outdoor applications, IP66
- High-performance COB RGB LED for highest luminous efficiency, 100 W, beam angle: 60°
- Controllable via 10, 6, 4 or 3 DMX channels
- Operating modes: DMX, automatic, music-controlled and master/slave
- 10 automatic programs, 2 music-controlled programs and 10 programmable sequences
- Control panel with LED display
- Fanless cooling concept
- Black lacquered aluminium housing
- Supplied with DMX cable and mains cable
- Also suitable as a standing spotlight due to 2 movable mounting brackets
- Matching 2 m extension cables for DMX output (ODP-34DMX) and for mains connection (ODP-34AC) are available at option

- Power supply: 230 V~/50 Hz/120 VA
- Dimensions: 32x25x25 cm
- Weight: 6.5 kg

ODC-100/WS
Order No. 38.7100

IP66 **LED** **COB** **100W LED**

COB LED spotlight for outdoor applications, IP66
- High-performance white COB LED for highest luminous efficiency, 100 W, beam angle: 60°
- Colour temperature: 5,600 K
- Controllable via 3 DMX channels
- Operating modes: DMX, stand-alone and master/slave
- Control panel with LED display
- Fanless cooling concept
- Black lacquered aluminium housing
- Supplied with DMX cable and mains cable
- Also suitable as a standing spotlight due to 2 movable mounting brackets
- Matching 2 m extension cables for DMX output (ODP-34DMX) and for mains connection (ODP-34AC) are available at option
- Power supply: 230 V~/50 Hz/120 VA

- Dimensions: 32x25x25 cm
- Weight: 6.5 kg

ODB-1212RGBW
Order No. 38.7060

IP65 **LED** **15 W LED**

LED light bar for outdoor applications, IP65, RGBW

- 12 super-bright 4-in-1 OSRAM RGBW LEDs, 15 W each (beam angle: 10°), for highest luminous efficiency
- Controllable via 59, 11, 8, 5, 4 or 3 DMX channels, selectable
- Operating modes: DMX, automatic and master/slave
- Electronic dimmer function (0-100 %)
- Strobe function (1-25 s)
- High-quality lenses
- Control panel with LED display for addressing and preadjustments
- Temperature protection function
- Fanless cooling concept
- Aluminium housing
- With fitted DMX input and output cables as well as mains and feed-through cables
- Matching extension cables for DMX output ODP-34DMX (2 m), ODP-34DMX/10 (10 m) and for mains connection ODP-34AC (2 m), ODP-34AC/10 (10 m) are available at option
- Power supply: 230 V~/50 Hz/185 VA
- Dimensions: 1,020x94x80 mm
- Weight: 10 kg

LSX-300TEXT
Order No. 38.7020

AUTO **MUSIC – | +** **300 mW** **10 kpps**

Laser effect unit, with text function.

- 3 laser diodes: red (150 mW), green (50 mW) and blue (100 mW)
- Scanner speed: 10 kpps
- Text input and control via supplied keyboard
- Various text effects can be selected, e.g. colour, zoom, rotation
- Integrated date and time function
- Operating modes: music-controlled and automatic
- 9 automatic show programs and 9 music-controlled programs
- Key-operated switch for a safe operation
- Supplied with infrared remote control and 5 m extension cable for the keyboard
- Power supply via supplied plug-in PSU
- Dimensions: 185x75x185 mm
- Weight: 1.2 kg
- Class 3B laser

Model	LSX-300TEXT
Laser diodes	RGB
Colours	RGB
Power rating (mW)	150/50/100
Wavelength (nm)	650/532/450
Laser class	3B
Motor	scanner
kpps	10
Effects	-
Graphics	X
Automatic show program/ stand-alone	X
Music show programs	X
Zoom	X
X/Y reflection	X
Strobe	X
Effect disks	-
Rear panel	
Lock	X
Suspension device	X
Accessories	keyboard, infrared remote control
Dimensions	185x75x185 mm
Weight	1.2 kg
Power supply	via suppl. plug-in PSU
Housing	metal

LC-8PRO
Order No. 38.0010

Professional RGB LED DMX controller, for controlling all standard LED spotlights.
- User-friendly and simple operation
- 8 RGB LED spotlights or LED light effect units can be controlled
- 8 DMX channels (e.g. red/green/blue/master or effect) can be controlled for each unit
- 2 aux channels, e.g. for fog machines or stroboscopes
- Sequence of RGB function and master function can be selected as desired for each unit, for 8 DMX channels (channels can be patched), reserves 66 DMX channels
- Editable channel labels
- 16 scenes can be programmed
- 16 chases (sequences) with a total of 1,740 steps max., 1,740 steps max. per chase
- Fade and speed of the chases can be adjusted separately
- Music-controlled via audio input with adjustable sensitivity

- 2 aux buttons for DMX control functions (e.g. fog machines)
- MIDI control
- Switchable DMX polarity
- Illuminated LCDs
- Robust metal housing
- Connections: 1 x 3-pole XLR (DMX out), 3 x 5-pole DIN (MIDI in/MIDI out/ MIDI thru), 1 x RCA (audio in), 1 x USB type A jack for optional LED gooseneck light, 1 x low-voltage jack
- Power supply via supplied plug-in PSU
- Dimensions: 482x156x75 mm
- Weight: 3.1 kg

Flexible LED Strips, 24 V⎓, Humidity-proof Version with 1,200 SMD LEDs

Easy installation due to perfect flexibility and self-adhesive rear side which adheres to almost any kind of surface, suitable for indoor and outdoor applications. Suitable for decorative lighting. Due to small dimensions, an application is also possible at locations where standard lamps cannot be used. Feature bare cable ends for the direct connection to a PSU or alternatively to a DMX interface, available at option.
• Densely fitted with SMD LEDs
• Very high brightness
• Beam angle of each LED: 120°

`IP65` `LED` `5 m`

• Can be cut into segments of variable size (groups of 6 LEDs)
• Humidity-proof PU sleeving for outdoor applications, IP65
• Self-adhesive rear side
• Supplied with 10 retaining clips
• Supplied on a plastic reel

Model	Order No.	Colour	LEDs	Beam angle	Colour temp.	Luminous flux	Length	Width	Power supply
LEDS-5MPB/WS	38.0210	white	1,200; SMD 3528	120°	5,500 K	1,680 lm	5 m	10 mm	24 V⎓/3.6 A (0.8 A/m)
LEDS-5MPB/WWS	38.0220	warm white	1,200; SMD 3528	120°	3,300 K	1,680 lm	5 m	10 mm	24 V⎓/3.6 A (0.8 A/m)

Flexible LED Rope Lights, 12 V⎓, Waterproof Version

`IP68` `LED` `5 m`

• Neon lighting effect (BL, GN, RT) or warm white (WWS)
• Easy installation for decorative and background lighting
• Fitted with 180 SMD LEDs per metre
• Beam angle: 300°
• Waterproof silicone sleeving for outdoor applications, IP68
• Bare cable ends for the direct connection to a PSU or alternatively to DMX interface CU-4DMX, CU-6DMX or LED controller CU-10T or LC-10T, available at option
• Supplied with 5 retaining clips, 5 end caps, 5 connection caps and 2 connection cables
• Supplied on a plastic reel

Model	Order No.	Colour	LEDs	Beam angle	Length	Width	Height	Power supply
NEON-5/BL	38.7220	neon blue	900, SMD 3528	300°	5 m	13 mm	13 mm	12 V⎓/3.7 A
NEON-5/GN	38.7230	neon green	900, SMD 3528	300°	5 m	13 mm	13 mm	12 V⎓/3.7 A
NEON-5/RT	38.7240	neon red	900, SMD 3528	300°	5 m	13 mm	13 mm	12 V⎓/3.7 A
NEON-5/WWS	38.7250	warm white	900, SMD 3528	300°	5 m	13 mm	13 mm	12 V⎓/3.7 A

LEDT-060T/WS
Order No. 38.7160

LED

LEDT-060T/NWS
Order No. 38.7150

LED

LEDT-060T/WWS
Order No. 38.7170

LED

LED tubes, T8, 10 W, 60 cm

As a replacement for standard fluorescent tubes operated in single circuit, double circuit or tandem circuit.
• Long life with low power consumption and low heat generation

• Instant start tube
• Eco-friendly and health-friendly (energy-saving, mercury-free, no UV radiation or infrared radiation, no flickering)
• Available in daylight (WS), neutral white (NWS) and warm white (WWS)
• Matt-finished tube housing
• Rotating end caps
• Supplied with starter bridge

Not suitable for lights with electronic ballast without starter.

LEDT-120T/WS
Order No. 38.7190

LED

LEDT-120T/NWS
Order No. 38.7180

LED

LED tubes, T8, 20 W, 120 cm

As a replacement for standard fluorescent tubes operated in single circuit.
• Long life with low power consumption and low heat generation
• Instant start tube

• Eco-friendly and health-friendly (energy-saving, mercury-free, no UV radiation or infrared radiation, no flickering)
• Available in daylight (WS) and neutral white (NWS)
• Matt-finished tube housing
• Rotating end caps
• Supplied with starter bridge

Not suitable for lights with electronic ballast without starter.

LEDT-150T/WS
Order No. 38.7210

LED

LEDT-150T/NWS
Order No. 38.7200

LED

LED tubes, T8, 25 W, 150 cm

As a replacement for standard fluorescent tubes operated in single circuit.
• Long life with low power consumption and low heat generation
• Instant start tube

• Eco-friendly and health-friendly (energy-saving, mercury-free, no UV radiation or infrared radiation, no flickering)
• Available in daylight (WS) and neutral white (NWS)
• Matt-finished tube housing
• Rotating end caps
• Supplied with starter bridge

Not suitable for lights with electronic ballast without starter.

Model	LEDT-060T/WS	LEDT-060T/NWS	LEDT-060T/WWS	LEDT-120T/WS	LEDT-120T/NWS	LEDT-150T/WS	LEDT-150T/NWS
Energy efficiency class	A+	A+	A+	A+	A+	A+	A+
Luminous flux	900 lm	850 lm	800 lm	1,800 lm	1,700 lm	2,300 lm	2,200 lm
Rated life	30,000 h	30,000 h	30,000 h	30,000 h	30,000 h	30,000 h	30,000 h
Colour temperature	6,500 K	4,000 K	3,000 K	6,500 K	4,000 K	6,500 K	4,000 K
Switching cycles	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Response time	≤ 0.5 s	≤ 0.5 s	≤ 0.5 s	≤ 0.5 s	≤ 0.5 s	≤ 0.5 s	≤ 0.5 s
Dimmable	no	no	no	no	no	no	no
Dimensions	ø 28 mm x 600 mm	ø 28 mm x 600 mm	ø 28 mm x 600 mm	ø 28 mm x 1,200 mm	ø 28 mm x 1,200 mm	ø 28 mm x 1,500 mm	ø 28 mm x 1,500 mm
Beam angle	270°	270°	270°	270°	270°	270°	270°
Equivalent to	18 W	18 W	18 W	36 W	36 W	58 W	58 W
Base	G13	G13	G13	G13	G13	G13	G13
Power capability	10 W	10 W	10 W	20 W	20 W	25 W	25 W
Voltage	230 V~	230 V~	230 V~	230 V~	230 V~	230 V~	230 V~
Energy consumption/1,000 h	10 kWh/1,000 h	10 kWh/1,000 h	10 kWh/1,000 h	20 kWh/1,000 h	20 kWh/1,000 h	25 kWh/1,000 h	25 kWh/1,000 h
Luminous efficiency	90 lm/W	85 lm/W	80 lm/W	85 lm/W	90 lm/W	95 lm/W	95 lm/W
Mercury content	0.0 mg	0.0 mg	0.0 mg	0.0 mg	0.0 mg	0.0 mg	0.0 mg
Luminous intensity	-	-	-	-	-	-	-
Colour consistency	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Measured value of power consumption	10 W	10 W	10 W	20 W	20 W	25 W	25 W
Colour rendering index (Ra)	> 80	> 80	> 80	> 80	> 80	> 80	> 80
Measured life	30,000 h	30,000 h	30,000 h	30,000 h	30,000 h	30,000 h	30,000 h
Measured luminous flux	900 lm	850 lm	800 lm	1,800 lm	1,700 lm	2,300 lm	2,200 lm
Spectral power distribution	-	-	-	-	-	-	-
Lum. flux at the end of serv. life	70 %	70 %	70 %	70 %	70 %	70 %	70 %
Power factor	0.79	0.79	0.79	0.79	> 0.79	0.79	0.79
Current consumption	54 mA	54 mA	54 mA	54 mA	54 mA	54 mA	54 mA

LED panels, for the installation into suspended ceilings or for suspended installation.

- High energy-saving potential compared to standard fluorescent tubes
- Long life with low power consumption and low heat generation
- Eco-friendly and health-friendly (energy-saving, mercury-free, no UV radiation or infrared radiation, no flickering)
- Homogeneous light distribution, glare-free
- SMD LEDs (type 4014)
- Super slimline housing (10 mm) with white aluminium frame
- Power supply via dimmable PSU PSCC-1050D or PSCC-500D (for LEDP2-300/NWS), available at option
- Safety rope set LEDP2-6HOLD for suspended installation is available at option

Not suitable for use in damp locations.

LEDP2-600/NWS
Order No. 05.0203

LED panel
- 42 W; 3,400 lm
- 216 LEDs
- 595x10x595 mm

LEDP2-625/NWS
Order No. 05.0204

LED panel
- 42 W; 3,400 lm
- 240 LEDs
- 620x10x620 mm

LEDP2-300/NWS
Order No. 05.0201

LED panel
- 20 W; 1,550 lm
- 96 LEDs
- 295x10x295 mm

LEDP2-312/NWS
Order No. 05.0202

LED panel
- 42 W; 3,400 lm
- 240 LEDs
- 295x10x1,195 mm

LEDP2-6HOLD
Order No. 05.0206

Suspension set
- For wall mounting and ceiling installation of the LED panels LEDP2-600/NWS, LEDP2-625/NWS, LEDP2-312/NWS and LEDP2-300/NWS
- 4 mounting supports, 2 ropes
- Adjustable angle and length

Supplied without LED panel.

Model	LEDP2-600/NWS	LEDP2-625/NWS	LEDP2-300/NWS	LEDP2-312/NWS
Energy efficiency class	A	A	A	A
Luminous flux	3,400 lm	3,400 lm	1,550 lm	3,400 lm
Rated life	30,000 h	30,000 h	30,000 h	30,000 h
Colour temperature	4,100 K ±100 K	4,000 K ±100 K	4,100 K ±100 K	4,100 K ±100 K
Switching cycles	15,000	15,000	15,000	15,000
Response time	≤ 0.7 s	≤ 0.8 s	≤ 0.7 s	≤ 0.7 s
Dimmable	no	no	no	no
Dimensions	595x10x595 mm	620x10x620 mm	295x10x295 mm	295x10x1,195 mm
Beam angle	120°	120°	120°	120°
Power capability	42 W	42 W	20 W	42 W
Voltage	95-265 V~/50 Hz	95-265 V~/50 Hz	95-265 V~/50 Hz	90-265 V~/50 Hz
Energy consumption/1,000 h	42 kWh/1,000 h	42 kWh/1,000 h	42 kWh/1,000 h	42 kWh/1,000 h
Luminous efficiency	81 lm/W	81 lm/W	80 lm/W	81 lm/W
Mercury content	0.0 mg	0.0 mg	0.0 mg	0.0 mg
Luminous intensity	1,080 cd	1,200 cd	1,080 cd	1,080 cd
Colour consistency	< 0.6	< 0.6	< 0.6	< 0.6
Measured value of power consumption	42 W	42 W	20 W	42 W
Colour rendering index (Ra)	80	80	> 80	> 80
Measured life	30,000 h	30,000 h	30,000 h	30,000 h
Measured luminous flux	3,400 lm	3,400 lm	3,400 lm	3,400 lm
Luminous flux at the end of service life	> 2,380 lm	> 2,380 lm	1,085 lm	2,380 lm
Power factor	0.96	0.97	0.96	0.96
Current consumption	1,050 mA	1,050 mA	500 mA	1,050 mA

PSCC-1050D
Order No. 27.0280

LED constant current PSU, for indoor applications.
- Especially for LED installations
- 60 W, 1,050 mA
- Dimmable
- Suitable e.g. for LED panel LEDP2-312/NWS, LEDP2-600/NWS and LEDP2-625/NWS
- Low-noise acc. to EMC standard EN 61000-3-2 class C
- Active Power Factor Correction (PFC) for a higher efficiency
- Protected against short circuit, overload, overheating and overvoltage
- Connection via bare cable ends
- Robust plastic housing with mounting flange

Model	PSCC-1050D
Input voltage	110-295 V~
Output voltage	34-57 V⎓
Charging/output current	1.05 A
Admiss. ambient temp.	-30 °C to +45 °C
Dimensions	145x32x60 mm
Weight	308 g

PSCC-500D
Order No. 27.0290

LED constant current PSU, for indoor applications.
- Especially for LED installations
- 25 W, 500 mA
- Suitable e.g. for LED panel LEDP2-300/NWS
- Low-noise according to EMC standard EN 61000-3-2 class C
- Active Power Factor Correction (PFC) for a higher efficiency
- Protected against short circuit, overload, overheating and overvoltage
- Connection via connecting terminals
- Robust plastic housing with mounting flange

Model	PSCC-500D
Input voltage	110-295 V~
Output voltage	30-50 V⎓
Charging/output current	0.5 A
Admiss. ambient temp.	-30 °C to +45 °C
Dimensions	145x22x38 mm
Weight	122 g

LDSR-656D/WWS
Order No. 05.0125

LED

Flush-mounted LED spotlight, round and flat,
6 W, with the latest chip-on-board (COB) technology.
• Beam angle: 38°
• Supplied with 1 black, white and chrome-coloured
  interchangeable ring each
• For installations in ceiling cutouts: ø 65 mm
• For a ceiling thickness from 5 to 15 mm
• Quick mounting facility
• Built-in switch-mode PSU
• Dimmable

Model	LDSR-656D/WWS
Energy efficiency class	A+
Luminous flux	345 lm
Rated life	50,000 h
Colour temperature	3,000 K
Switching cycles	15,000
Response time	< 0.6 s
Dimmable	yes
Dimensions	ø 86 mm x 60 mm
Beam angle	38°
Power capability	6 W
Voltage	230 V~/50 Hz
Energy consumption/1,000 h	6 kWh/1,000 h
Luminous efficiency	60 lm/W
Mercury content	0.0 mg
Measured value of power consumption	6 W
Colour rendering index (Ra)	> 80
Measured life	50,000 h
Measured luminous flux	345 lm
Current consumption	300 mA

Ø65
57
LDSR-656D/WWS
5-15
3
Ø86
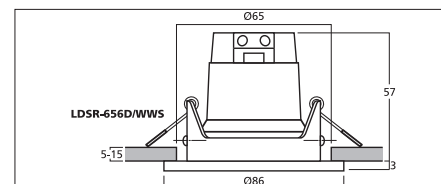
LDR3-106/WS
Order No. 02.1240

LED 5,5 W ≙ 50 W

LDR3-106/WWS
Order No. 02.1250

LED 5,5 W ≙ 50 W

SMD LED reflector lamps, GU10, 230 V~/5.5 W
• Available in white (WS) or warm white (WWS)
• Beam angle: 38°
• High luminous efficiency, thus perfectly suitable as a
  replacement for standard halogen reflector lamps,
  MR16
• For downlight applications
• Plastic housing
• Not dimmable

Model	LDR3-106/WS	LDR3-106/WWS
Energy efficiency class	A+	A+
Luminous flux	365 lm	345 lm
Rated life	30,000 h	30,000 h
Colour temperature	6,000 K	3,000 K
Switching cycles	> 15,000	> 15,000
Response time	60 % in ≤ 0.0 s, 100 % in ≤ 0.5 s	60 % in ≤ 0.0 s, 100 % in ≤ 0.5 s
Dimmable	no	no
Dimensions	ø 50 mm x 54.5 mm	ø 50 mm x 54.5 mm
Beam angle	38°	38°
Equivalent to	50 W	50 W
Base	GU10	GU10
Power capability	5.5 W	5.5 W
Voltage	230 V~	230 V~
Energy consumpt./1,000 h	5.5 kWh/1,000 h	5.5 kWh/1,000 h
Luminous efficiency	70 lm/W	65 lm/W
Mercury content	0.0 mg	0.0 mg
Measured value of power consumption	5.5 W	5.5 W
Colour rendering index (Ra)	> 80	> 80
Measured life	30,000 h	30,000 h
Measured luminous flux	345 lm	315 lm
Lum. flux at end of serv. life	80 %	80 %
Power factor	0.5	0.5
Current consumption	39 mA	39 mA

LDR3-106D/WS
Order No. 02.1260

LED 5,5 W ≙ 50 W

LDR3-106D/WWS
Order No. 02.1270

LED 5,5 W ≙ 50 W

SMD LED reflector lamps, GU10, 230 V~/5.5 W
• Available in white (WS) or warm white (WWS)
• Beam angle: 38°
• High luminous efficiency, thus perfectly suitable as a
  replacement for standard halogen reflector lamps,
  MR16
• For downlight applications
• Plastic housing
• Dimmable

Model	LDR3-106D/WS	LDR3-106D/WWS
Energy efficiency class	A+	A+
Luminous flux	365 lm	345 lm
Rated life	30,000 h	30,000 h
Colour temperature	6,000 K	3,000 K
Switching cycles	> 15,000	> 15,000
Response time	60 % in ≤ 0.0 s, 100 % in ≤ 0.5 s	60 % in ≤ 0.0 s, 100 % in ≤ 0.5 s
Dimmable	no	no
Dimensions	ø 50 mm x 54.5 mm	ø 50 mm x 54.5 mm
Beam angle	38°	38°
Equivalent to	50 W	50 W
Base	GU10	GU10
Power capability	5.5 W	5.5 W
Voltage	230 V~	230 V~
Energy consumpt./1,000 h	5.5 kWh/1,000 h	5.5 kWh/1,000 h
Luminous efficiency	70 lm/W	65 lm/W
Mercury content	0.0 mg	0.0 mg
Measured value of power consumption	5.5 W	5.5 W
Colour rendering index (Ra)	> 80	> 80
Measured life	30,000 h	30,000 h
Measured luminous flux	345 lm	315 lm
Lum. flux at end of serv. life	80 %	80 %
Power factor	0.5	0.5
Current consumption	39 mA	39 mA

LDR3-166/WS
Order No. 02.1280

LED 5.5 W ≙ 35 W

LDR3-166/WWS
Order No. 02.1290

LED 5.5 W ≙ 35 W

SMD LED reflector lamps, GU5.3, 12 V⎓/5.5 W

• Available in white (WS) or warm white (WWS)
• Beam angle: 38°
• High luminous efficiency, thus perfectly suitable as a replacement for standard halogen reflector lamps, MR16
• For downlight applications
• Plastic housing
• Not dimmable

Matching PSU is available at option, e.g. PSL-18/12, PSIP-60/12, PSCS-60/12.

Not suitable for the operation with an electronic halogen transformer requiring a higher minimum load.

Model	LDR3-166/WS	LDR3-166/WWS
Energy efficiency class	A+	A+
Luminous flux	370 lm	345 lm
Rated life	30,000 h	30,000 h
Colour temperature	6,500 K	2,700 K
Switching cycles	15,000	15,000
Response time	60 % in ≤ 0.5 s,	60 % in ≤ 0.5 s,
	100 % in ≤ 1.0 s	100 % in ≤ 1.0 s
Dimmable	no	no
Dimensions	ø 50 mm x 49 mm	ø 50 mm x 49 mm
Beam angle	38°	38°
Equivalent to	35 W	35 W
Base	GU5.3	GU5.3
Power capability	5 W	5 W
Voltage	12 V⎓	12 V⎓
Energy consumpt./1,000 h	5.5 kWh/1,000 h	5.5 kWh1,000 h
Luminous efficiency	70 lm/W	70 lm/W
Mercury content	0.0 mg	0.0 mg
Colour consistency	< 0.6	< 0.6
Measured value of power consumption	5.5 W	5.5 W
Colour rendering index (Ra)	> 80	> 80
Measured life	30,000 h	30,000 h
Measured luminous flux	345 lm	320 lm
Lum. flux at end of serv. life	80 %	80 %
Power factor	0.7	0.7
Current consumption	480 mA	480 mA

LEP-41/WWS
Order No. 05.0121

LED 1,2 W ≙ 12 W

LED pin base lamp, G4, 12 V⎓/1.2 W

• As a replacement for low-voltage halogen lamps with pin base
• For accentuated lighting and general lighting
• Suitable for DC and AC voltage
• Not dimmable

Model	LEP-41/WWS
Energy efficiency class	A+
Luminous flux	80 lm
Rated life	30,000 h
Colour temperature	3,000 K
Switching cycles	15,000
Response time	60 % in ≤ 0.5 s,
	100 % in ≤ 1.0 s
Dimmable	no
Dimensions	ø 10 mm x 23 mm
Beam angle	120°
Equivalent to	12 W
Base	G4
Power capability	1.2 W
Voltage	12 V⎓/~
Energy consumpt./1,000 h	1.2 kWh/1,000 h
Luminous efficiency	70 lm/W
Mercury content	0.0 mg
Luminous intensity	12 cd
Colour consistency	< 0.6
Measured value of power consumption	1.2 W
Colour rendering index (Ra)	> 80
Measured life	30,000 h
Measured luminous flux	80 lm
Lum. flux at the end of serv. life	70 %
Power factor	0.5
Current consumption	100 mA

PA-312DMP
Order No. 17.2980

`482 mm 19"` `USB` `MP3` `100V` `4Ω` `8Ω`

5-zone mono PA mixing amplifier, with integrated MP3 player.
• 1 x 120 W$_{RMS}$
• Adjustable MP3 player with USB interface, illuminated display, supplied with remote control
• Autostart function (after switching on the amplifier, the MP3 player starts with the last played song)
• 5 zones, can be switched individually
• 1 unbalanced microphone input
• 2 balanced microphone inputs, can optionally also be used as line inputs
• 2 aux inputs
• 1 emergency input with adjustable automatic talkover
• Speaker outputs via screw terminals
• 1 line output
• Input and output level controls
• 2-way tone control for the output
• 48 V phantom power supply for channels 2 and 3, can be switched on additionally
• 482 mm (19″) rack installation
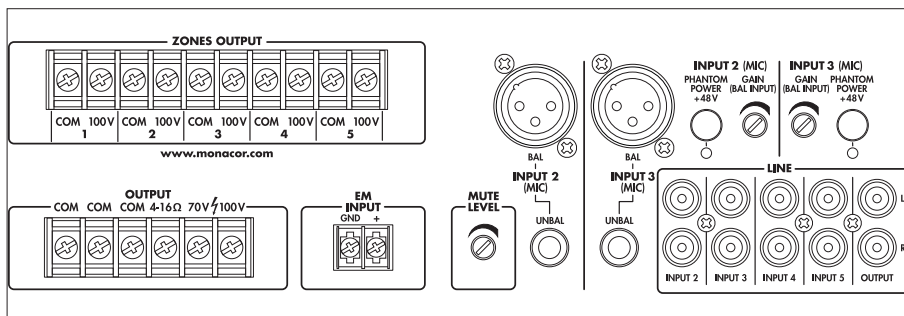
PA-803USB
Order No. 17.4650

`USB` `SD` `MP3` `100V` `4Ω`

Mono PA mixing amplifier, with integrated MP3 player.
• 1 x 30 W$_{RMS}$
• Adjustable MP3 player with USB interface and SD card slot, illuminated display
• Silent operation due to fanless cooling concept
• 2 microphone inputs
• Mic 1 with automatic talkover
• 1 aux input, 1 phono input, switchable
• Insert facility, e.g. for effect units, equalizers, feedback controllers
• 2-way tone control for the output
• Mains operation or 12 V battery operation
• Supplied with mounting brackets

PA-24FMM
Order No. 17.4660

Insertion module for emergency announcements, with integrated voice memory.
• For PA mixing amplifiers with insertion compartment
• Hand-held microphone with operational monitoring
• Alarm input for activation

• Integrated digital voice memory (60 seconds max.) with microphone input or line input for recording messages
• Automatic reproduction possible of a previously recorded voice message
• Siren emits an acoustic signal for 10 seconds when alarm is triggered
• Adjustable headphone connection

NETSPEAK
Order No. 17.4700

Audio over IP system for receiving and playing audio contents from the LAN/WAN network which have been provided e.g. by a PC, music server, internet radio or the NETSTREAM. The NETSPEAK features a built-in audio power amplifier (2 x 4 W via PoE or 2 x 7 W via external PSU) which allows a direct connection of the speakers. For a reproduction, simply connect a standard speaker or amplifier to the NETSPEAK. An easy-to-use server software allows for the reproduction of various audio contents and the administration with a clearly arranged display and indication of the selected zone with information on the audio streams currently played. The basic version of the software is available free of charge and contains 5 licences.
• Audio over IP system for setting up IP-based PA systems using the existing LAN/WAN network
• To be used as an announcement system or PA system

• LAN connection, Ethernet RJ45, 10/100 Mbps
• Spring-loaded speaker terminals (stereo/mono) with automatic detection
• Impedance of the connected speakers: 4-16 Ω
• Audio output: 1 x 3.5 mm jack
• Relay output: 24 V~/⎓/1 A
• Digital input: 5-24 V⎓
• Micro SD card slot for storage media up to 32 GB, for the reproduction of background music in case of network failure
• Power supply via PoE (IEEE 802.3af) or external PSU (12 V⎓/2 A)
• Matching PSU PSS-1230DC is available at option

NETSPEAK-LT
Order No. 17.4730

Audio over IP system, for receiving and playing audio contents from the LAN/WAN network which have been provided e.g. by a PC, music server, internet radio or the NETSTREAM. For a reproduction, simply connect a standard amplifier to the NETSPEAK-LT. An easy-to-use server software allows for the reproduction of various audio contents and the administration with a clearly arranged display and indication of the selected zone with information on the audio streams currently played. The basic version of the software is available free of charge and contains 5 licences.
• Audio over IP system for setting up IP-based PA systems using the existing LAN/WAN network
• To be used as an announcement system or PA system
• LAN connection, Ethernet RJ45, 10/100 Mbps
• Audio output: 3.5 mm jack
• Relay output: 24 V~/⎓/1 A

• Digital input: 5-24 V⎓
• Micro SD card slot for storage media up to 32 GB, for the reproduction of background music in case of network failure
• Power supply via external PSU (12 V⎓/2 A)
• Matching PSU PSS-1230DC is available at option

NETSTREAM
Order No. 17.4740

Audio signal converter, for converting analogue and digital audio data, e.g. from FM radio, CD player or microphone, into network-enabled data streams. It allows you to integrate conventional audio sources into an audio over IP system. For this purpose, the respective audio source is to be connected to the NETSTREAM. The encoder of the NETSTREAM then transmits the data to the various zones via the LAN network.
• Allows you to use and integrate analogue audio sources (especially from PA components) into audio IP systems
• LAN connection, Ethernet RJ45, 10/100 Mbps
• 2 logical inputs for contact or voltage of 5-48 V
• Contact-controlled start of audio streaming
• Relay output NO/NC, 48 V/1 A max.

• Audio output: 3.5 mm jack
• Main microphone input, balanced, XLR, integrated 24 V phantom power
• Microphone input: 3.5 mm jack
• Line input: 3.5 mm jack
• Power supply via PoE (IEEE 802.3af) or external PSU (12-32 V⎓/1 A)
• Matching PSU PSS-1230DC is available at option

NETMIC
Order No. 17.4690

Network microphone station, with 14 buttons, 12 of which are freely programmable, for transmitting live audio announcements or pre-recorded messages to different zones. Thanks to the IP solution, the microphone station can be connected anywhere to the existing LAN/WAN network.

• Connection facility for external microphone, CD/MP3 player or headphones
• 12 programmable buttons
• LAN connection, Ethernet RJ45, 10/100 Mbps
• 2 speakers (2 x 1 W)

• 2 logical inputs for contact or voltage of 5-48 V
• Relay output NO/NC, 48 V/1 A max.
• Audio output, 3.5 mm jack
• Main microphone input, balanced, XLR, integrated 24 V phantom power
• Microphone input, 3.5 mm jack
• Line input, 3.5 mm jack
• Power supply via PoE (IEEE 802.3af) or external PSU (12-32 V/1 A)
• Matching PSU PSS-1230DC is available at option

NETSPEAK-1NSP
Order No. 17.4710

Software licence, for extending the scope of the basic server software. Allows the connection of an additional NETSPEAK or NETSPEAK-LT.

NETSPEAK-1RTP
Order No. 17.4720

Software licence, for extending the scope of the basic server software. Allows the connection of an additional external device.

NETKIT-1U
Order No. 17.4680

Pair of mounting brackets, 482 mm (19″, 1 RS) rack, for mounting the NETSTREAM into a 482 mmm (19″) rack.

AUDIO-GATEWAY
Order No. 17.4670

Audio gateway, based on mobile communications, for connecting to an existing announcement or amplifier system. Allows you to make live audio announcements via telephone/mobile phone (GSM network) from any desired location.

• Quick, efficient and location-independent information transmission
• Secure access due to authorised telephone numbers
• Easy installation via plug-and-play
• Relay output NC, max. 125 V~/500 mA, 110 V⎓/300 mA
• SMA antenna connection
• Audio output: 3.5 mm
• A SIM card is also required for operating the AUDIO-GATEWAY (not supplied). Minimum operating costs because it only receives calls

• Battery compartment for 4 x rech. NiMh backup batteries AA size (not supplied)
• Power supply via external PSU (10-16 V⎓/1 A)
• Matching PSU PSS-1230DC is available at option

TXA-1020
Order No. 17.4590

TXA-1020USB
Order No. 17.4600

TXA-1022CD
Order No. 17.4610
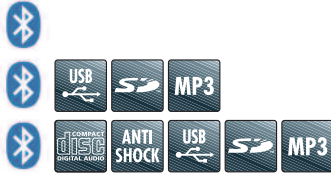
Portable high-power amplifier systems, with integrated adjustable 2-channel multifrequency receiver unit with UHF PLL technology and Bluetooth receiver.

- High-performance class D version 170 W_{MAX}, with optimum efficiency
- Operation via mains connection or built-in rechargeable lead gel battery 2 x 12 V/4.5 Ah (operating time: up to 4 hours), integrated automatic battery charging with charging status indication, deep discharge protection
- For mobile applications, e.g. at sales events, lectures
- 2 x 16 selectable UHF frequencies (863.1-864.9 MHz) with diversity system
- 2-way speaker system of high power capability with a 25 cm (10") bass speaker
- 1 microphone input via comb. jack (XLR/6.3 mm), 1 microphone input (6.3 mm jack), 1 stereo line input (RCA), 1 aux input (3.5 mm jack), each input can be adjusted
- Common master control, 2-way tone control
- 1 stereo line output (RCA), 1 aux output (3.5 mm jack)
- Switchable microphone priority circuit
- Due to the extractable telescopic handle and 2 castors, the amplifier system can easily be pulled like a trolley
- Stand sleeve

Licence-free in the EU.

TXA-1020:
- Amplifier system with 2-channel wireless receiver

TXA-1020USB:
- Amplifier system with 2-channel wireless receiver
- MP3 player with SD card reader and USB interface
- Supplied with remote control for the MP3 player

TXA-1022CD:
- Amplifier system with 2-channel wireless receiver
- CD player with anti-shock system, MP3 reproduction and slot-in mechanism, pitch control function
- SD card reader, USB interface
- 1 wireless transmitter for the wireless audio link operation of several TXA-1020 systems
- Supplied with remote control for the CD player
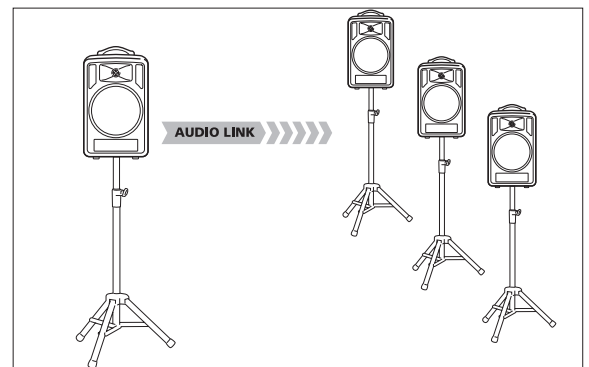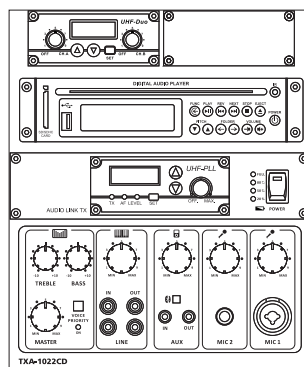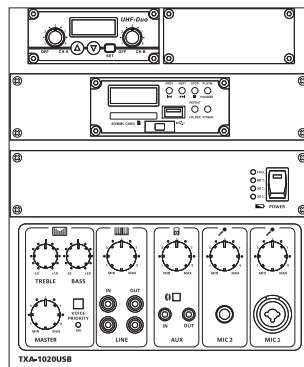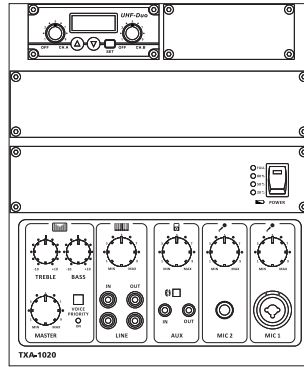
Matching microphone transmitters or pocket transmitters, e.g. TXA-800HSE, TXA-800HT or the multifrequency transmitter module TXA-1020MT are avaiable at option.

Model	TXA-1020	TXA-1020USB	TXA-1022CD
Output power	170 W_{MAX}/120 W_{RMS}	170 W_{MAX}/120 W_{RMS}	170 W_{MAX}/120 W_{RMS}
Frequency range	20-20,000 Hz	20-20,000 Hz	20-20,000 Hz
Carrier frequency	863.1-864.9 MHz	863.1-864.9 MHz	863.1-864.9 MHz
Operating range	approx. 30 m	approx. 30 m	approx. 30 m
Sensitivities			
Mic inputs	6 mV	6 mV	6 mV
Line inputs	300 mV (incl. aux)	300 mV (incl. aux)	300 mV (incl. aux)
Link	optional (TXA-1020MT)	optional (TXA-1020MT)	wireless
Equalizer, bass	±10 dB/100 Hz	±10 dB/100 Hz	±10 dB/100 Hz
Equalizer, treble	±10 dB/10 kHz	±10 dB/10 kHz	±10 dB/10 kHz
Power supply	230 V~/50 Hz/170 VA, rech. battery: 2 x 12 V/4.5 Ah	230 V~/50 Hz/170 VA, rech. battery: 2 x 12 V/4.5 Ah	230 V~/50 Hz/170 VA, rech. battery: 2 x 12 V/4.5 Ah
Admiss. ambient temp.	0-40 °C	0-40 °C	0-40 °C
Dimensions	360x580x320 mm	360x580x320 mm	360x580x320 mm
Weight	18.9 kg	19.1 kg	19.2 kg

AUDIO LINK

TXA-1020DMP
Order No. 17.4620

USB | SD | MP3

MP3 player insertion module, with USB interface and SD/MMC card slot. For retrofitting the amplifier systems of the TXA-1020 series.
• USB storage media can be connected directly
• For SD/MMC cards (FAT16/FAT32), available at option

• Fast forward and reverse
• Repeat function (repeat 1, repeat all)
• Green backlit LCD
• Supplied with infrared remote control
• Power supply: 12 V⎓/60 mA

TXA-1020MR
Order No. 17.4630

2-channel multifrequency receiver module, with UHF PLL technology.
For retrofitting amplifier systems of the TXA-800, TXA-1000 and TXA-1020 series or for setting up wireless audio transmission paths.
• 2 x 16 selectable UHF frequencies (863.1-864.9 MHz) with diversity system

• Scan function for free channel
• Volume control
• LCD for indicating selected channel
• LEDs for indicating carrier signal
• Power supply: 12 V⎓/150 mA

TXA-1020MT
Order No. 17.4640

Mulitfrequency transmitter module, with UHF PLL technology.
For retrofitting amplifier systems of the TXA-1020 series or for setting up wireless audio transmission paths.
• 16 selectable UHF frequencies (863.1-864.9 MHz)
• Volume control

• LCD for indicating selected channel/frequency
• LEDs for indicating carrier and audio signals
• Power supply: 12 V⎓/140 mA

Licence-free in the EU.

TXA-700USB
Order No. 17.4750

USB | SD | MP3 | Bluetooth

Portable amplifier system, with wireless microphone, integrated Bluetooth receiver and USB/SD card player.
• High-performance class D version 120 W$_{MAX}$, with optimum efficiency
• Operation via mains connection or built-in lead gel battery 2 x 12 V/5 Ah (operating time: up to 6 hours), integrated automatic battery charging
• For mobile applications, e.g. at sales events, lectures
• Wireless microphone with adjustable wireless UHF receiver
• Bluetooth receiver for the wireless connection of portable audio players
• Adjustable USB/SD card player with connection for external storage media
• Remote control
• 2-way speaker system
• 2 adjustable balanced microphone inputs via comb. jacks (XLR/6.3 mm jack), 1 aux input (3.5 mm jack, RCA)
• Adjustable reverb
• Common master control with 2-way tone control
• 1 line output (6.3 mm jack)
• Due to the integrated extractable telescopic handle and 2 castors, the amplifier system can easily be pulled like a trolley
• Stand sleeve

Model	TXA-700USB
Output power	120 W$_{MAX}$/80 W$_{RMS}$
Frequency range	55-20,000 Hz
Carrier frequency	863 MHz
Operating range	-
Sensitivities	
Mic inputs	10 mV
Line inputs	950 mV (line)
	1.4 V (aux)
Link	-
Equalizer, bass	±10 dB/55 Hz
Equalizer, midrange	-
Equalizer, treble	±10 dB/15 kHz
Power supply	230 V~/50 Hz/40 VA,
	rech. battery: 2 x 12 V/5 Ah
Admiss. ambient temp.	0-40 °C
Dimensions	360x560x325 mm
Weight	19 kg

This high-quality Bluetooth audio system

consists of an active ceiling speaker and a passive ceiling speaker with Bluetooth receiver and serves as a plug-and-play stereo pair for background PA applications.

A robust ABS housing with humidity-resistant bass speaker and coaxially mounted tweeter as well as the magnetically attached metal protective grille and the excellent workmanship all ensure an overall high-quality appearance and optimum handling.

Thanks to the quick-mount system, there is only minimum installation effort required. The frameless speaker grille allows for an unabtrusive appearance when mounted into the ceiling or wall.

A wireless connection between audio players like smartphones, tablets, PCs, Android devices or Apple devices, e.g. iPads or iPhones, can be established via Bluetooth 4.0 technology. The Bluetooth connection (linking) allows to recognise Bluetooth devices which have previously been linked. A new initialisation is not required. Depending on the room, the operating range can be up to 10 m.

The supplied PSU will be connected to the active speaker via plug-in connection. Active and passive speaker will be connected via gold-plated speaker terminals and together form the stereo pair.

To save power, the integrated amplifier switches to standby mode in case of inactivity.

SPE-230BT
Order No. 16.3320

| 2 Wege Ways | STEREO | Bluetooth | 10 m |

Bluetooth hi-fi flush-mount speaker stereo set,
consists of a 2-way active speaker with integrated amplifier, Bluetooth module and crossover network, a 2-way passive speaker with crossover network as well as a matching PSU.

- Pair of 2-way hi-fi speakers for wall mounting and ceiling suspension
- 13 cm (5¼") bass-midrange speaker, 2.54 cm (1") coaxial tweeter
- Master/slave operation (active speaker is connected to passive speaker to become a stereo pair)
- Active speaker with integrated class D amplifier module, 2 x 45 W$_{RMS}$
- Bluetooth 4.0, APTX
- Operating range: 10 m, class 1
- High-quality crossover network
- Frameless protective metal grille, magnetically attached
- Quick-mount system
- 4-digit PIN code for initial linking
- Recognition of devices which have previously been linked
- 230 V PSU with earthed plug and plug-in connector for active speaker

Model	SPE-230BT
Frequency range	50-20,000 Hz
Amplifier power	2 x 45 W$_{RMS}$
Inputs	Bluetooth
SPL (1 W/1 m)	89 dB
Max. rated SPL	105 dB
Admiss. ambient temp.	0-40 °C
Power supply	suppl. PSU
Dimensions (WxHxD)	ø 205 mm x 90 mm
Weight	1.26 kg (active speak.)
	1.18 kg (passive speak.)
Connections	
Other features	Bluetooth 4.0, class 1
	PIN: 0101

EDL-706/36
Order No. 16.0270 `100V`

PA ceiling speaker
- 100 V line technique via audio transformer with power taps
- For a ceiling thickness from 5 to 22 mm
- Full range speaker, type 130
- Good speech intelligibility
- Robust metal version (basket and protective grille)

Supplied in packing units (PU) of 36 pcs. only
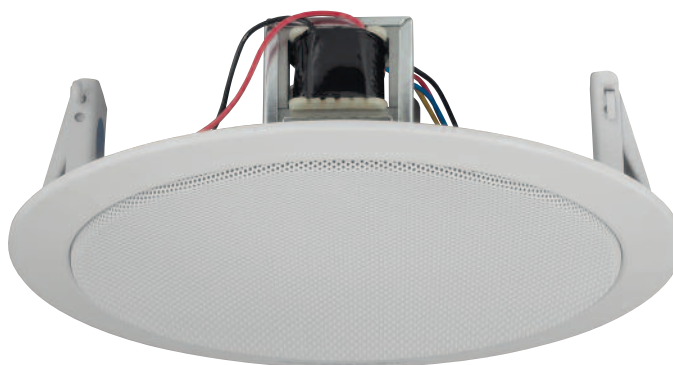
Model	EDL-706/36
Frequency range	120-17,000 Hz
Power capability, 100 V	6/3/1.5 W$_{RMS}$
SPL (1 W/m)	93 dB
Max. rated SPL	101 dB
Type of speaker	130
Mounting cutout	ø 170 mm
Mounting depth	60 mm
Admiss. ambient temp.	0-40 °C
Dimensions	ø 200 mm x 65 mm
Weight	0.6 kg
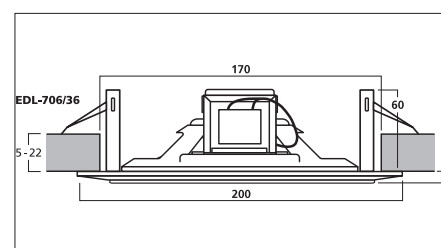
EDL-70/WS
Order No. 16.3310 `100V`

PA ceiling speaker, with special 2-step mounting.
- 100 V line technique
- Snap-in mounting
- For a ceiling thickness from 2 to 45 mm
- Full range speaker with a clear voice reproduction
- Wide frequency range
- Robust metal version (basket and protective grille)

Model	EDL-70/WS
Frequency range	90-20,000 Hz
Power capability, 100 V	6/3/1.5 W$_{RMS}$
SPL (1 W/m)	97 dB
Max. rated SPL	104 dB
Type of speaker	165
Mounting cutout	ø 195 mm
Mounting depth	100 mm
Admiss. ambient temp.	0-40 °C
Dimensions	ø 220 mm x 104 mm
Weight	1.13 kg
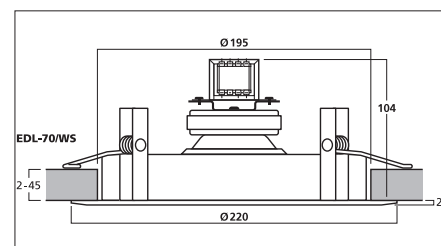
PTZ High-speed Colour Dome Cameras

- 960H technology
- Motor zoom lens (3.4-122.4 mm)
- 36-fold optical zoom, 16-fold digital zoom
- Privacy masking function, 8 zones
- 192 presets possible
- 360° pan (endless), 90° tilt
- Pan speed: 0.1-120°/s (manual), tilt speed: 0.1-60°/s (manual)
- Day/night function with automatic B/W switching if light is too low
- Autopan function
- On-screen menu control (OSD)
- Exposure control: automatic/manual
- 4 alarm inputs, 2 alarm outputs

- RS-485 interface for triggering the camera via control panel EKB-500 or recorder interface
- Integrated protocols: Pelco P, Pelco D, EverFocus, Samsung, Panasonic
- Please order matching mounting adapter (EPTZ-WMB, EPTZ-CLM or EPTZ-ICMB) and PSU (AP-24A3 or EPTZ-PBOX) separately
- Smoked glass dome EPTZ-001 is available at option

EPTZ-3602
Order No. 18.3980

`IP66` `WDR` `VARIO ZOOM` `D/N` `960H`

PTZ high-speed colour dome camera in an outdoor housing
- Camera in an outdoor housing with clear dome and heating/fan, for outdoor applications

Model	EPTZ-3602
Image sensor	6.35 mm (¼") CCD
Number of pixels	hor. 1020 x vert. 596
Resolution	700 lines
Lens	3.4-122.4 mm/1:1.6
Min. illumination	0.1 lx (colour)
	0.05 lx (B/W)
Admiss. ambient temp.	-40 °C to +40 °C
Power supply	24 V~/14 W
Dimensions	ø 210 mm x 250 mm
Weight	5.2 kg
Other features	IP66, ATW, AGC, BLC, FL, RS-485

EPTZ-3602I
Order No. 18.3990

`WDR` `VARIO ZOOM` `D/N` `960H`

PTZ high-speed colour dome camera in an indoor housing
- Camera, dome camera housing with clear dome and heating/fan, for indoor applications

Model	EPTZ-3602I
Image sensor	6.35 mm (¼") CCD
Number of pixels	hor. 1020 x vert. 596
Resolution	700 lines
Lens	3.4-122.4 mm/1:1.6
Min. illumination	0.1 lx (colour)
	0.05 lx (B/W)
Admiss. ambient temp.	0-40 °C
Power supply	24 V~/14 W
Dimensions	ø 160 mm x 220 mm
Weight	3 kg
Other features	ATW, AGC, BLC, FL, RS-485

TVCCD-97HCOL
Order No. 18.3950

High-resolution colour camera, in a smoke detector housing.

- Fixed-focus lens (3.6 mm)
- Automatic electronic shutter 1/50 to 1/100,000 second
- Suitable for an inconspicuous surveillance
- 20 cm connection cable for power supply and video (BNC)
- Matching PSU: PSS-1205DC

Model	TVCCD-97HCOL
Image sensor	8.5 mm (⅓") CCD
Number of pixels	hor. 976 x vert. 582
Resolution	700 lines
Lens	3.6 mm/1:2.0
Min. illumination	0.05 lx
Admiss. ambient temp.	0-40 °C
Power supply	12 V⎓/100 mA
Dimensions	ø 130 mm x 60 mm
Weight	125 g
Other features	AGC, ATW

Crystal Clear Images with Minimum Effort

"The new HD-SDi systems provide images of an exceptionally high quality. Full HD resolution while still using coaxial cables means that the installation effort can considerably be reduced which is highly cost-effective."

Jens Neumann, 43, electrician

The product range from MONACOR®
now includes: **HD-SDI**

More Choice ...

The brand MONACOR now provides an even greater selection of video surveillance systems fully meeting your requirements. Analogue High Definition (AHD) impresses with a resolution of 720p (HD ready) and an attractive price-performance ratio. This facilitates the decision to modify a pure analogue system. Beside the highly improved image quality, the possibility to transmit the signals over a distance of up to 300 m with standard coaxial cables is another compelling reason for choosing this technology. The range of modern AHD products from MONACOR allows you to extend an existing system and to integrate currently installed analogue cameras (960H) into the new technology.

AHR-40
Order No. 18.4160

4-channel AHD digital recorder
- Supports AHD cameras (resolution: 1280x720 pixels)
- Video compression: H.264
- Network connection, access via Internet Explorer
- HDMI™ video output (720p)
- VGA output
- 2 x USB 2.0 interface for exporting data onto a USB flash drive and for connecting a USB mouse
- Remote access possible via many smartphones. Please read the notes under SUPPORT/DOWNLOADS at www.monacor.com
- Pentaplex operation allows for simultaneous recording, reproduction, archiving, live view and remote access
- Supplied with infrared remote control and USB mouse
- Instruction manual: German, English

Supplied without hard disk.
Matching SATA hard disks are available at option, supports 1 x 4 TB.

AHR-80
Order No. 18.4170

8-channel AHD digital recorder
- Supports AHD cameras (resolution: 1280x720 pixels)
- Video compression: H.264
- Network connection, access via Internet Explorer
- HDMI™ video output (720p)
- VGA output
- 2 x USB 2.0 interface for exporting data onto a USB flash drive and for connecting a USB mouse
- Remote access possible via many smartphones. Please read the notes under SUPPORT/DOWNLOADS at www.monacor.com
- Pentaplex operation allows for simultaneous recording, reproduction, archiving, live view and remote access
- Supplied with infrared remote control and USB mouse
- Instruction manual: German, English

Supplied without hard disk.
Matching SATA hard disks are available at option, supports 1 x 4 TB.

AHR-160
Order No. 18.4180

16-channel AHD digital recorder
- Supports AHD cameras (resolution: 1280x720 pixels)
- Video compression: H.264
- Network connection, access via Internet Explorer
- HDMI™ video output (720p)
- VGA output
- 2 x USB 2.0 interface for exporting data onto a USB flash drive and for connecting a USB mouse
- Remote access possible via many smartphones. Please read the notes under SUPPORT/DOWNLOADS at www.monacor.com
- Pentaplex operation allows for simultaneous recording, reproduction, archiving, live view and remote access
- Supplied with infrared remote control and USB mouse
- Instruction manual: German, English

Supplied without hard disks.
Matching SATA hard disks are available at option, supports 2 x 4 TB.

Model	AHR-40	AHR-80	AHR-160
Video inputs	4 x BNC	8 x BNC	16 x BNC
Video outputs	1 x HDMI™	1 x HDMI™	1 x HDMI™
	1 x VGA	1 x VGA	1 x VGA
Audio inputs	4 x RCA	8 x RCA	16 x RCA
Audio outputs	1 x RCA	1 x RCA	1 x RCA
Resolution	1280x720 pixels	1280x720 pixels	1280x720 pixels
Video compression	H.264	H.264	H.264
Recording	25 images/s max. per camera	25 images/s max. per camera	25 images/s max. per camera
Menu adjustments	on-screen menu (OSD)	on-screen menu (OSD)	on-screen menu (OSD)
Recording mode	manual, timer, event	manual, timer, event	manual, timer, event
Search mode	date and time, event, smart search	date and time, event, smart search	date and time, event, smart search
Lettering	OSD	OSD	OSD
Security	password protection	password protection	password protection
Video loss detection	included	included	included
Alarm inputs	4	8	16
Alarm outputs	1	1	1
Signal device	integrated	integrated	integrated
Interfaces	RS485, USB 2.0, LAN (RJ45), HDMI™	RS485, USB 2.0, LAN (RJ45), HDMI™	RS485, USB 2.0, LAN (RJ45), HDMI™
Hard disks	optional, 1 x 4 TB max. (SATA)	optional, 1 x 4 TB max. (SATA)	optional, 2 x 4 TB max. (SATA)
Admiss. ambient temp.	0-40 °C	0-40 °C	0-40 °C
Dimensions	300x55x220 mm	300x55x227 mm	380x50x340 mm
Power supply	via suppl. PSU	via suppl. PSU	via suppl. PSU
Weight	500 g	950 g	2.5 kg

AHCAM-110BF
Order No. 18.4190

IP66 | D/N | HD 720p

AHD colour camera

- Weatherproof outdoor housing
- Fixed-focus lens (3.6 mm)
- Resolution: 1 megapixel
- Due to 30 infrared LEDs, suitable for application in the dark. For this purpose, the camera switches to B/W operation (IR operating range: 10 m, with optimum reflection)
- Matching PSU (PSS-1205DC) is available at option

Model	AHCAM-110BF
Image sensor	8.5 mm (⅓") CMOS
Number of pixels	1280x720 pixels
Resolution	720p
Lens	3.6 mm/1:1.2
Min. illumination	0.08 lx
	0 lx with IR illumination
Admiss. ambient temp.	-10 °C to +55 °C
Power supply	12 V⎓/400 mA
Dimensions	ø 70 mm x 128 mm
Weight	250 g
Other features	IP66, infrared LED

AHCAM-150BV
Order No. 18.4200

IP66 | D/N | HD 720p

AHD colour camera

- Weatherproof outdoor housing
- Zoom lens (2.8-12 mm)
- Resolution: 1 megapixel
- Due to 42 infrared LEDs, suitable for application in the dark. For this purpose, the camera switches to B/W operation (IR operating range: 15 m, with optimum reflection)
- Matching PSU (PSS-1205DC) is available at option

Model	AHCAM-150BV
Image sensor	8.5 mm (⅓") CMOS
Number of pixels	1280x720 pixels
Resolution	720p
Lens	2.8-12 mm/1:1.2
Min. illumination	0.08 lx
	0 lx with IR illumination
Admiss. ambient temp.	-10 °C to +55 °C
Power supply	12 V⎓/400 mA
Dimensions	ø 75 mm x 170 mm
Weight	350 g
Other features	IP66, infrared LED

AHCAM-310DF
Order No. 18.4210

IP66 | D/N | HD 720p

AHD mini colour dome camera

- Weatherproof outdoor housing
- Fixed-focus lens (3.6 mm)
- Resolution: 1 megapixel
- Due to 30 infrared LEDs, suitable for application in the dark. For this purpose, the camera switches to B/W operation (IR operating range: 10 m, with optimum reflection)
- Matching PSU (PSS-1205DC) is available at option

Model	AHCAM-310DF
Image sensor	8.5 mm (⅓") CMOS
Number of pixels	1280x720 pixels
Resolution	720p
Lens	3.6 mm/1:1.2
Min. illumination	0.08 lx
	0 lx with IR illumination
Admiss. ambient temp.	-10 °C to +55 °C
Power supply	12 V⎓/400 mA
Dimensions	ø 105 mm x 60 mm
Weight	350 g
Other features	IP66, infrared LED

AHCAM-350DV
Order No. 18.4220

IP66 | D/N | HD 720p

AHD colour dome camera

- Weatherproof outdoor housing
- Zoom lens (2.8-12 mm)
- Resolution: 1 megapixel
- Due to 30 infrared LEDs, suitable for application in the dark. For this purpose, the camera switches to B/W operation (IR operating range: 10 m, with optimum reflection)
- Matching PSU (PSS-1205DC) is available at option

Model	AHCAM-350DV
Image sensor	8.5 mm (⅓") CMOS
Number of pixels	1280x720 pixels
Resolution	720p
Lens	2.8-12 mm/1:1.2
Min. illumination	0.08 lx
	0 lx with IR illumination
Admiss. ambient temp.	-10 °C to +55 °C
Power supply	12 V⎓/400 mA
Dimensions	ø 140 mm x 110 mm
Weight	550 g
Other features	IP66, infrared LED

AHVB-240BNC
Order No. 18.7980

Surge protector, for AHD, TVI and CVI applications.
• For video coaxial cables
• Response time: < 1 ns
• Max. surge voltage: 4 kV
• Metal housing
• BNC connectors
• With 40 cm ground wire
• Dimensions: 25x25x75 mm

In order to allow for a perfect protection, one surge protector module must be fitted to each end of the cable.

Welcome to the matrix - modern multi-room PA applications from MONACOR

The ARM-880 system from MONACOR is an especially versatile PA solution for multi-room applications. It is ideally suited for the use in buildings where an application has to meet various requirements in different zones.

With the ARM-880, solutions can be provided for
• Hotels, restaurants and bars
• Office buildings and industrial buildings
• The public sector, e.g. schools, universities or government buildings
• Department stores and supermarkets
• Conference centres and exhibition centres
• Sports and fitness centres
• Hospitals
• Airports and train stations
More information on the ARM-880 system can be found on page 283.

TVR-40
Order No. 18.8860

4-channel TVI digital recorder
- Supports TVI cameras (resolution: 1920x1080 pixels)
- Video compression: H.264
- Network connection, access via Internet Explorer
- HDMI™ video output (Full HD 1080p)
- VGA output
- 2 x USB 2.0 interface for exporting data onto a USB flash drive and for connecting a USB mouse

- Remote access possible via many smartphones. Please read the notes under SUPPORT/DOWNLOADS at www.monacor.com
- Pentaplex operation allows for simultaneous recording, reproduction, archiving, live view and remote access
- Supplied with infrared remote control and USB mouse
- Instruction manual: German, English

Supplied without hard disk.
Matching SATA hard disks are available at option, supports 1 x 4 TB.

TVR-80
Order No. 18.8870

8-channel TVI digital recorder
- Supports TVI cameras (resolution: 1920x1080 pixels)
- Video compression: H.264
- Network connection, access via Internet Explorer
- HDMI™ video output (Full HD 1080p)
- VGA output
- 2 x USB 2.0 interface for exporting data onto a USB flash drive and for connecting a USB mouse

- Remote access possible via many smartphones. Please read the notes under SUPPORT/DOWNLOADS at www.monacor.com
- Pentaplex operation allows for simultaneous recording, reproduction, archiving, live view and remote access
- Supplied with infrared remote control and USB mouse
- Instruction manual: German, English

Supplied without hard disks.
Matching SATA hard disks are available at option, supports 2 x 4 TB.

TVR-160
Order No. 18.8850

16-channel TVI digital recorder
- Supports TVI cameras (resolution: 1920x1080 pixels)
- Video compression: H.264
- Network connection, access via Internet Explorer
- HDMI™ video output (Full HD 1080p)
- VGA output
- 2 x USB 2.0 interface for exporting data onto a USB flash drive and for connecting a USB mouse
- Remote access possible via many smartphones. Please read the notes under SUPPORT/DOWNLOADS at www.monacor.com

- Pentaplex operation allows for simultaneous recording, reproduction, archiving, live view and remote access
- Supplied with infrared remote control and USB mouse
- Instruction manual: German, English

Supplied without hard disks.
Matching SATA hard disks are available at option, supports 2 x 4 TB.

Model	TVR-40	TVR-80	TVR-160
Video inputs	4 x BNC	8 x BNC	16 x BNC
Video outputs	1 x HDMI™	1 x HDMI™	1 x HDMI™
	1 x VGA	1 x VGA	1 x VGA
Audio inputs	1 x RCA	1 x RCA	1 x RCA
Audio outputs	1 x RCA	1 x RCA	1 x RCA
Resolution	1920x1080 pixels	1920x1080 pixels	1920x1080 pixels
Video compression	H.264	H.264	H.264
Recording	25 images/s max. per camera	25 images/s max. per camera	25 images/s max. per camera
Menu adjustments	on-screen menu (OSD)	on-screen menu (OSD)	on-screen menu (OSD)
Recording mode	manual, timer, event	manual, timer, event	manual, timer, event
Search mode	date and time, event, smart search	date and time, event, smart search	date and time, event, smart search
Lettering	OSD	OSD	OSD
Security	password protection	password protection	password protection
Video loss detection	included	included	included
Alarm outputs	-	-	-
Signal device	integrated	integrated	integrated
Interfaces	RS485, USB 2.0, LAN (RJ45), HDMI™	RS485, USB 2.0, LAN (RJ45), HDMI™	RS485, USB 2.0, LAN (RJ45), HDMI™
Hard disks	optional, 1 x 4 TB max. (SATA)	optional, 2 x 4 TB max. (SATA)	optional, 2 x 4 TB max. (SATA)
Admiss. ambient temp.	0-40 °C	0-40 °C	0-40 °C
Dimensions	255x42x210 mm	430x55x300 mm	430x55x300 mm
Power supply	via suppl. PSU	via suppl. PSU	via suppl. PSU
Weight	0.9 kg	2.5 kg	3 kg

Remarkably Clear and Precise Images ...

HD-TVI stands for High Definition Transport Video Interface and is further evidence that pure analogue recordings are definitely a thing of the past with modern video surveillance technology. The TVI technology from MONACOR provides clear surveillance images with 2 megapixels and a resolution of 1080p (Full HD). This system, too, uses standard coaxial cables for transmitting the data. With minimum installation effort, analogue video signals can be transmitted over a distance of up to 300 m without any loss of quality. Thus, the HD-TVI technology from MONACOR is an up-to-date solution available at an attractive purchase price, even when upgrading a system. All these are reasons for considering such a system when securing your next property.

TVCAM-110BF
Order No. 18.8810

IP66 | D/N | HD 1080p

TVI colour camera
• Weatherproof outdoor housing
• Fixed-focus lens (3.6 mm)
• Resolution: 2 megapixels
• Due to 43 infrared LEDs, suitable for application in the dark. For this purpose, the camera switches to B/W operation (IR operating range: 20-30 m, with optimum reflection)
• Matching PSU (PSS-1205DC) is available at option

Model	TVCAM-110BF
Image sensor	8.5 mm (⅓") CMOS
Number of pixels	1920x1080 pixels max.
Resolution	1080p
Lens	3.6 mm/1:1.2
Min. illumination	0 lx with IR illumination
Admiss. ambient temp.	-10 °C to +50 °C
Power supply	12 V⎓/450 mA
Dimensions	ø 87 mm x 219 mm
Weight	250 g
Other features	IP66, IR LED, AGC, AWB, DNR

TVCAM-150BV
Order No. 18.8820

IP66 | D/N | HD 1080p

TVI colour camera
• Weatherproof outdoor housing
• Zoom lens (2.8-12 mm)
• Resolution: 2 megapixels
• Due to 50 infrared LEDs, suitable for application in the dark. For this purpose, the camera switches to B/W operation (IR operating range: 30-50 m, with optimum reflection)
• Matching PSU (PSS-1205DC) is available at option

Model	TVCAM-150BV
Image sensor	8.5 mm (⅓") CMOS
Number of pixels	1920x1080 pixels max.
Resolution	1080p
Lens	2.8-12 mm/1:1.2
Min. illumination	0 lx with IR illumination
Admiss. ambient temp.	-10 °C to +50 °C
Power supply	12 V⎓/480 mA
Dimensions	ø 109 mm x 284 mm
Weight	350 g
Other features	IP66, IR LED, AGC, AWB, DNR

TVCAM-310DF
Order No. 18.8830

IP66 | D/N | HD 1080p

TVI mini colour dome camera
• Weatherproof outdoor housing
• Fixed-focus lens (3.6 mm)
• Resolution: 2 megapixels
• Due to 24 infrared LEDs, suitable for application in the dark. For this purpose, the camera switches to B/W operation (IR operating range: 10-20 m, with optimum reflection)
• Matching PSU (PSS-1205DC) is available at option

Model	TVCAM-310DF
Image sensor	8.5 mm (⅓") CMOS
Number of pixels	1920x1080 pixels max.
Resolution	1080p
Lens	3.6 mm/1:1.2
Min. illumination	0 lx with IR illumination
Admiss. ambient temp.	-10 °C to +50 °C
Power supply	12 V⎓/350 mA
Dimensions	ø 116 mm x 91 mm
Weight	350 g
Other features	IP66, IR LED, AGC, AWB, DNR

TVCAM-350DV
Order No. 18.8840

IP66 | D/N | HD 1080p

TVI colour dome camera
• Weatherproof outdoor housing
• Zoom lens (2.8-12 mm)
• Resolution: 2 megapixels
• Due to 30 infrared LEDs, suitable for application in the dark. For this purpose, the camera switches to B/W operation (IR operating range: 20-30 m, with optimum reflection)
• Matching PSU (PSS-1205DC) is available at option

Model	TVCAM-350DV
Image sensor	8.5 mm (⅓") CMOS
Number of pixels	1920x1080 pixels max.
Resolution	1080p
Lens	2.8-12 mm/1:1.2
Min. illumination	0 lx with IR illumination
Admiss. ambient temp.	-10 °C to +50 °C
Power supply	12 V⎓/400 mA
Dimensions	ø 150 mm x 114 mm
Weight	550 g
Other features	IP68, IR LED, AGC, AWB, DNR

Full HD Video Surveillance with Minimum Installation Effort and Crystal-clear Images

HD-SDI means "High Definition Serial Digital Interface". The HD-SDI technology allows you to transmit and record crystal-clear images in full HD (1920x1080 pixels) while still using standard coaxial cables of up to 50 m. With the application of special low-loss coaxial cables, e.g. KHD-1 from MONACOR, cable lengths of up to 170 m can be realised. This option is a lot more cost-effective than setting up a network infrastructure for a comparable IP solution. The installer will also be pleased about the easy installation, because complex network connections are not required. Furthermore, there is no need for additional components, e.g. switches.

Furthermore, this type of system upgrade is also interesting for companies, authorities or other public facilities whose safety regulations prohibit the use of network cameras in order to prevent external access to the IP network.

• Support HD-SDI cameras (resolution: 1920x1080 pixels)

• Video compression: H.264

• Network connection, access via Internet Explorer

• HDMI™ video output (Full HD 1080p)

• VGA output

• 2 x USB 2.0 interface for exporting data onto a USB flash drive and for connecting a USB mouse

• Remote access possible via many smartphones. Please read the notes under SUPPORT/DOWNLOADS at www.monacor.com

• Pentaplex operation allows for simultaneous recording, reproduction, archiving, live view and remote access

• External backup via eSATA interface

• Supplied with infrared remote control and USB mouse

• Instruction manual: German, English

Supplied without hard disks.

Matching SATA hard disks are available at option, supports 2 x 3 TB.

HDVR-186
Order No. 18.3930

16-channel HD-SDI digital recorder
• 8 x alarm input, 1 x alarm output
• 8 x audio input, 1 x audio output
• Recording/reproduction: 1-200 images/s,
  12.5 images/s per channel
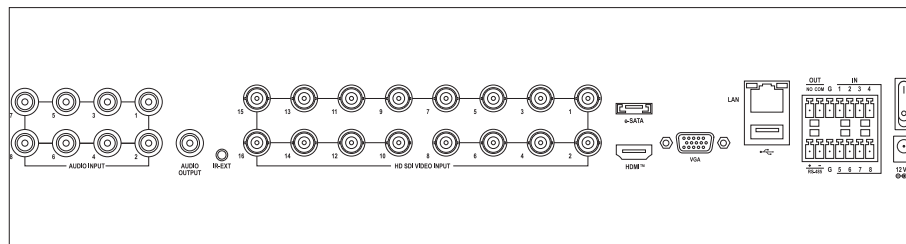
Model	HDVR-186
Video inputs	16 x HD-SDI (BNC)
Video outputs	1 x HDMI™, main monitor
	1 x VGA, main monitor
Audio inputs	8 x RCA
Audio outputs	1 x RCA
Resolution	1920x1080 pixels
Video compression	H.264
Recording	12.5 images/s max. per camera
Menu adjustments	on-screen menu (OSD)
Recording mode	manual, timer,
	event
Search mode	date and time, event
Lettering	OSD
Security	password protection
Video loss detection	included
Alarm inputs	8
Alarm outputs	1
Signal device	integrated
Interfaces	RS-485, USB 2.0, LAN (RJ45),
	HDMI™, eSATA
Hard disks	optional, 2 x 3 TB max. (SATA)
Admiss. ambient temp.	0-40 °C
Dimensions	380x50x340 mm
Power supply	12 V⎓/5 A via
	suppl. PSU
Weight	2.6 kg

Full HD Video Surveillance with Minimum Installation Effort and Crystal-clear Images

HD-SDI means "High Definition Serial Digital Interface". The HD-SDI technology allows you to transmit and record crystal-clear images in full HD (1920x1080 pixels) while still using standard coaxial cables of up to 50 m. With the application of special low-loss coaxial cables, e.g. KHD-1 from MONACOR, cable lengths of up to 170 m can be realised. This option is a lot more cost-effective than setting up a network infrastructure for a comparable IP solution. The installer will also be pleased about the easy installation, because complex network connections are not required. Furthermore, there is no need for additional components, e.g. switches.

Furthermore, this type of system upgrade is also interesting for companies, authorities or other public facilities whose safety regulations prohibit the use of network cameras in order to prevent external access to the IP network.

HDCAM-330
Order No. 18.4140

2 megapixel HD-SDI mini colour dome camera, with wide dynamic range function and professional day/night function.

- Progressive scan image sensor for images without field distortions
- Due to the extended dynamic range of the wide dynamic range function (WDR), an application is also possible in unfavourable backlighting conditions
- Digital noise suppression (DNR) for improving the image quality in unfavourable lighting conditions and also for saving hard disk capacities when recording with digital recorders
- With integrated IR suppression filter for perfect colour quality at daytime, automatic change of suppression filter at night for activating the IR light suitability and increasing the luminous sensitivity in B/W operation
- Fixed-focus lens (2.8 mm)
- Integrated video motion detector
- Privacy masking function, 32 zones
- Automatic electronic shutter
- On-screen menu control (OSD)

- 70 cm connection cable for power supply and video (BNC)
- Matching PSU (PSS-1205DC or PS-120WP) is available at option

Compatible with the HD-SDI digital recorders EPHD-4, EPHD-8, HDVR-184, HDVR-186 and HDVR-188.

Model	HDCAM-330
Image sensor	CMOS, 2 megapixels, progressive scan
Number of pixels	1944x1092 pixels max.
Resolution	-
Lens	2.8 mm/1:2.7
Min. illumination	1 lx (colour), 0.5 lx (B/W)
Admiss. ambient temp.	0-40 °C
Power supply	12 V⚊/150 mA
Dimensions	ø 113 mm x 58 mm
Weight	250 g
Other features	AGC, BLC, WDR, DNR

HDCAM-442
Order No. 18.4150

2 megapixel HD-SDI colour camera, with wide dynamic range function and professional day/night function.

- Progressive scan image sensor for images without field distortions
- Due to the extended dynamic range of the wide dynamic range function (WDR), an application is also possible in unfavourable backlighting conditions
- Digital noise suppression (DNR) for improving the image quality in unfavourable lighting conditions and also for saving hard disk capacities when recording with digital recorders
- With integrated IR suppression filter for perfect colour quality at daytime, automatic change of suppression filter at night for activating the IR light suitability and increasing the luminous sensitivity in B/W operation
- Integrated video motion detector
- Privacy masking function, 32 zones
- Mirror function
- Automatic electronic shutter
- On-screen menu control (OSD)
- C/CS mount thread

- Connection for DC-controlled and video signal controlled lenses
- Matching PSU (PSS-1210DC) is available at option
- Supplied without lens, matching lenses VGM-288ASIR and VGM-850ASIR are available at option

Compatible with the HD-SDI digital recorders EPHD-4, EPHD-8, HDVR-184, HDVR-186 and HDVR-188.

Model	HDCAM-442
Image sensor	CMOS, 2 megapixels, progressive scan
Number of pixels	1944x1092 pixels max.
Resolution	-
Lens	not supplied
Min. illumination	1.0 lx (colour), 0.5 lx (B/W)
Admiss. ambient temp.	0-50 °C
Power supply	12 V⚊/300 mA, 24 V∼/150 mA
Dimensions	71x64x152 mm
Weight	250 g
Other features	AGC, BLC, 3D DNR

HDCAM-652AF
Order No. 18.3920

IP66 | D/N | WDR | DNR | HD 1080p

2 megapixel HD-SDI autofocus colour camera, wide dynamic range function and professional day/night function.
- Motorised autofocus lens (6-50 mm) for automatic focus adjustment
- Weatherproof outdoor housing
- Due to 30 infrared LEDs (5 of which are super bright LEDs), suitable for application in the dark. For this purpose, the camera switches to B/W operation (IR operating range: 70 m, with optimum reflection)
- Progressive scan image sensor for images without field distortions
- Due to the extended dynamic range of the wide dynamic range function (WDR), an application is also possible in unfavourable backlighting conditions
- Digital noise suppression (DNR) for improving the image quality in unfavourable lighting conditions and also for saving hard disk capacities when recording with digital recorders
- With integrated IR suppression filter for perfect colour quality at daytime, automatic change of suppression filter at night for activating the IR light suitability and increasing the luminous sensitivity in B/W operation
- Integrated video motion detector
- Privacy masking function, 32 zones
- Mirror function

- Automatic electronic shutter
- On-screen menu control (OSD)
- Supplied with sunshield and wall bracket
- 40 cm connection cable for power supply and video (BNC)
- Matching PSU (PSS-1210DC or PS-120WP) is available at option

Compatible with the HD-SDI digital recorders EPHD-4, EPHD-8, EDRHD-4H4, HDVR-184, HDVR-186 and HDVR-188.

Model	HDCAM-652AF
Image sensor	CMOS, 2 megapixels, progressive scan
Number of pixels	1920x1080 pixels max.
Resolution	-
Lens	6-50 mm/1:1.4, autofocus
Min. illumination	1.0 lx (colour)
	0.5 lx (B/W)
Admiss. ambient temp.	-10 °C to +50 °C
Power supply	12 V⎓/1 A
Dimensions	ø 95 mm x 150 mm
Weight	1.2 kg
Other features	IP66, AGC, BLC, 3D DNR, suit. for IR

HDRCA-100CON
Order No. 18.3960

HDMI | HD 1080p

HDMI™/composite converter, for converting a digital HDMI™ signal into an analogue component AV signal.
- Input: 1 x 19-pole HDMI™ jack
- Outputs: 3 x RCA (video, audio L, audio R)
- PAL/NTSC selector switch

- Metal housing with mounting flange
- Supplied with mounting accessories
- Admissible ambient temperature: 0-40 °C
- Power supply via supplied plug-in PSU
- Dimensions: 67x27x110 mm
- Weight: 165 g

HDVB-240BNC
Order No. 18.3970

Surge protector, for HD-SDI applications.
- For video coaxial cables
- Response time: < 1 ns
- Max. surge voltage: 8 kV
- Metal housing

- BNC connectors
- With 40 cm ground wire
- Dimensions: 25x25x68 mm

VSC-100/WS
Order No. 15.0290

Combined video cable, 10 m, low-loss, with moulded plugs, especially for simultaneously connecting video signals and power supply to HD cameras.

- 1 x BNC plug on each end for video connection, cable material: 75 Ω RG-59/U
- 1 x low-voltage plug/low-voltage inline jack ø 5.5/2.1 mm each, for connecting a PSU

Simplified Recording of Network Cameras

The recording of network cameras has been a great challenge up to now. It was necessary to install a special software onto a PC. This software used to operate with one type of camera or one manufacturer only. The new network video recorders (NVR) now allow for a more simplified way of operating.

These products come almost ready to use. Only the required hard disks have to be installed in order for the NVRs to be able to record signals of several hundred different types of camera. After installation, many camera types will be recognised automatically, if they support UPnP. The perfect setting can individually be chosen for each camera type. The NVR recorders can conveniently be accessed from any PC workstation via a web interface. Thus, the advantages of the network technology can perfectly be utilised.

Supplied without hard disks. Matching SATA hard disks are available at option.

NVR-8065EU
Order No. 18.4120

6-channel network video recorder (NVR), can optionally be extended to up to 16 channels.
- Video compression: H.264, M-JPEG and MPEG-4
- Linux operating system for maximum operating reliability
- HDMI™ and VGA video output
- Supports 900 different IP cameras. In this case, cameras supporting the UPnP protocol will be identified automatically
- Supports PTZ cameras
- Synchronised audio and video recordings
- Remote access via browser, client software, mobile app via remote viewer software
- Mobile Client for iPhone, iPad, Android
- E-MAP for displaying the camera positions
- Dual streaming for bandwidth management
- Log system for logging the status of the system, camera and access
- Digital PTZ and multi-window display
- Intelligent search function, search for distant or foreign objects, general movements, loss of focus, concealed camera
- Data export possible as image file (BMP, PJG), video file (ASF, AVI) or backup file (DAT)

- Automatic backup via FTP
- OSD: German, English, French, Italian, Russian, Spanish and other languages
- Supplied with infrared remote control
- Instruction manual: German, English

Supplied without hard disk. Matching SATA hard disks are available at option.
2-channel upgrade licence NVR-UP02 for network video recorder NVR-8065EU is available at option. With software upgrade, an extension to up to 16 channels is possible (5 x NVR-UP02).

NVR-UP02
Order No. 18.4130

2-channel upgrade licence, for NVR-8065EU. With a software upgrade, an extension to up to 16 channels is possible (5 x NVR-UP02).

Model	NVR-8065EU
Video inputs	6 IP-based video channels
Video compression	H.264, M-JPEG, MPEG-4
Recording	200 images/s (720p)
	100 images/s (1080p)
Menu adjustments	on-screen menu (OSD)
Recording mode	alarm, motion detector,
	continuous recording,
	digital input, manual, timer
Alarm inputs	16
Alarm outputs	4
Interfaces	2 x RJ45 (10/100/1,000 Mbps)
	4 x USB 2.0
	1 x eSATA
	1 x HDMI™
	1 x VGA
	1 x RS-232
	1 x RCA (audio)
Hard disks	optional, up to 8 x SATA II, 24 TB max.
Admiss. ambient temp.	0-40 °C
Power supply	100-240 V~/50-60 Hz/250 W max.
Dimensions	435x88x442 mm
Weight	9 kg

NVR-1080EU
Order No. 18.4110

8-channel network video recorder (NVR)
- Video compression: H.264, M-JPEG and MPEG-4
- Linux operating system for maximum operating reliability
- HDMI™ and VGA video output
- Supports 900 different IP cameras. In this case, cameras supporting the UPnP protocol will be identified automatically
- Supports PTZ cameras
- Synchronised audio and video recordings
- Remote access via browser, client software, mobile app via remote viewer software
- Mobile Client for iPhone, iPad, Android
- E-MAP for displaying the camera positions
- Dual streaming for bandwidth management
- Log system for logging the status of the system, camera and access
- Digital PTZ and multi-window display
- Intelligent search function, search for distant or foreign objects, general movements, loss of focus, concealed camera

- Data export possible as image file (BMP, PJG), video file (ASF, AVI) or backup file (DAT)
- Automatic backup via FTP
- OSD: German, English, French, Italian, Russian, Spanish and other languages
- Supplied with infrared remote control
- Instruction manual: German, English

Supplied without hard disk. Matching SATA hard disks are available at option.

Model	NVR-1080EU
Video inputs	8 IP-based video channels
Video compression	H.264, M-JPEG, MPEG-4
Recording	200 images/s (720p)
	100 images/s (1080p)
Protocols	-
Menu adjustments	on-screen menu (OSD)
Recording mode	alarm, motion detector,
	continuous recording,
	digital input, manual, timer
Interfaces	2 x RJ45 (10/100/1,000 Mbps)
	5 x USB 2.0
	1 x eSATA
	1 x HDMI™
	1 x VGA
	1 x RS-232
	1 x RCA (audio)
Hard disks	optional, up to 1 x SATA II, 4 TB max.
Admiss. ambient temp.	0-40 °C
Power supply	via supplied PSU
Dimensions	185x140x220 mm
Weight	2.5 kg

P-6210
Order No. 18.3910

D/N · PoE · HD 1080p

2 megapixel network mini colour dome camera, with motorised pan and tilt function.
- Pan: 330°, tilt: 67°, to be operated via supplied software or via network recorder NVR-...
- Pan speed: 70°/s, tilt speed: 70°/s
- Integrated micro SD card recorder and webserver
- Fixed-focus lens: 3.6 mm/1:1.8
- Vandal-resistant housing
- Due to 12 infrared LEDs, suitable for application in the dark
- Maximum resolution: 1920x1080 pixels (30 fps max.)
- 10-fold digital zoom
- Image compression: H.264, MJPEG
- Integrated micro SD card slot (for media up to 64 GB, not supplied)
- Password-protected access
- Secure transmission possible via HTTPS protocol
- Event-controlled and time-controlled data transmission via e-mail or FTP
- Also supports Firefox, Safari and MAC OS
- Image transmission to mobile phones via 3GPP/ISMA RTSP
- Compatible with network recorders of the NVR series
- 10 users max. at the same time
- Video motion detector function
- Alarm input and alarm output
- 2-way full duplex audio transmission

- Power supply via Power over Ethernet (PoE)
- Supplied with 64-channel recording software

Model	P-6210
Image sensor	Sony Exmor, 2 megapixels
Camera inputs	-
Audio inputs	spring-loaded terminal
Audio outputs	spring-loaded terminal
Image size	1920x1080 pixels max.
	(2 megapixels)
Lens	3.6 mm/1:1.8
Min. illumination	0.05 lx
Compression method	H.264, MJPEG
Video streaming	-
Ethernet	RJ45, 10/100 Mbps
Protocols	Bonjour, TCP/IP, DHCP,
	PPPoE, ARP, ICMP, FTP,
	SMTP, NTP, UPnP, RTSP,
	RTP, HTTP, HTTPS, TCP,
	UDP, 3GPP/ISMA RTSP
Power supply	PoE or
	12 V⎓/500 mA
Admiss. ambient temp.	0-40 °C
Dimensions	ø 115 mm x 70 mm
Weight	295 g
Other features	1 x alarm input
	1 x alarm output

MOUSE-02
Order No. 04.5060

Dual infrared motion detector, with infrared detection and microwave detection.
- Higher detection reliability and prevention of false alarms due to dual detection (infrared and 10 GHz microwave technology)
- Tamper switch
- Walk test
- Adjustable sensitivity of the microwave detection
- 3 different configurations can be selected with the detector
- 4 selectable EOL resistors
- Matching wall bracket SN-1 is available at option

Model	MOUSE-02
Detection range	15 m
Detection angle	90°
Quiescent current	24 mA
Power supply	9-15 V⎓
Alarm switches	NC/0.1A/40 V⎓
Admiss. ambient temp.	-10 °C to +40 °C
Dimensions	60x110x46 mm
Weight	65 g

SMILE-19
Order No. 04.5070

DIGITAL

Infrared motion detector, microprocessor-controlled.
- Digital technology
- Pulse counter for preventing false alarms
- Tamper switch
- Walk test
- Operating range and response sensitivity can continuously be adjusted
- Matching wall bracket SN-1 is available at option

Model	SMILE-19
Detection range	15 m
Detection angle	90°
Quiescent current	18 mA
Power supply	9-15 V⎓
Alarm switches	NC/0.1 A/40 V⎓
Admiss. ambient temp.	-10 °C to +40 °C
Dimensions	60x110x46 mm
Weight	65 g

TF-1225CX
Order No. 10.5750

12/2 | **500 W_{MAX}** | CELESTION

Professional 2-way coaxial PA speaker, 500 W$_{MAX}$, 250 W$_{RMS}$, 8 Ω

- 30 cm (12″) PA bass speaker of high power capability and high efficiency
- Coaxially arranged tweeter horn with 25 mm (1″, voice coil = 44 mm) neodymium tweeter
- Excellent sound characteristics
- Heat-resistant 63 mm (2½″) voice coil on a Kapton voice coil former
- Excellent and consistent radiation pattern
- Ideally suited for stage monitors or very compact full range speaker systems
- Operation only allowed with crossover network (recommended crossover frequency: 2,200 Hz)
- Robust sheet steel basket

Model	TF-1225CX
Impedance (Z)	8 Ω (bass), 8 Ω (tweeter)
Resonant frequency (fs)	71 Hz (bass), 1,200 Hz (tweeter)
Max. frequency range	f3-4,000 Hz (bass)
	1,200-18,000 Hz (tweeter)
Music power	500 W$_{MAX}$ (bass) / 150 W$_{MAX}$ (tweeter)
Power rating (P)	250 W$_{RMS}$ (bass) / 75 W$_{RMS}$ (tweeter)
SPL (1 W/m)	97 dB (bass) / 110 dB (tweeter)
Suspension compl. (Cms)	0.10 mm/N
Moving mass (Mms)	49 g
Mech. Q factor (Qms)	3.82
Electr. Q factor (Qes)	0.48
Total Q factor (Qts)	0.426
Equivalent volume (Vas)	40 l
DC resistance (Re)	5.6 Ω
Force factor (BxL)	16.1 Tm
Voice coil induct. (Le)	0.23 mH
Voice coil diameter	ø 63 mm (bass) / ø 45 mm (tweeter)
Voice coil former	Kapton
Linear excursion (X$_{MAX}$)	±2.5 mm
Eff. cone area (Sd)	551 cm^2
Magnet weight	1.2 kg
Weight	4.6 kg

TF-1225CX   162
90°   ø309   ø154   ø286
7,9 (4x)   7,5
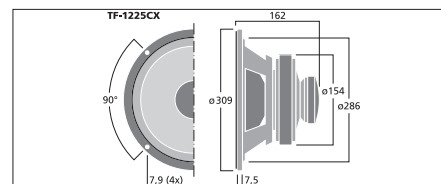
TF-0410MR
Order No. 10.5740

4 | **60 W_{MAX}** | CELESTION

PA midrange speaker, 60 W$_{MAX}$, 30 W$_{RMS}$, 8 Ω

- 10 cm (4″) compact PA midrange speaker with closed sheet steel basket
- High efficiency, extended frequency response
- Easy installation, no extra cabinet volume required
- High-quality Kevlar fibre reinforced cellulose cone
- Heat-resistant 25 mm (1″) voice coil on a Kapton voice coil former
- With impedance linearisation, can be used from approx. 500 Hz on, otherwise 800-4,000 Hz

Model	TF-0410MR
Impedance (Z)	8 Ω
Resonant frequency (fs)	400 Hz
Max. frequency range	400-5,000 Hz
Music power	100 W$_{MAX}$
Power rating (P)	50 W$_{RMS}$
SPL (1 W/m)	90 dB
Suspension compl. (Cms)	closed
Moving mass (Mms)	closed
Mech. Q factor (Qms)	closed
Electr. Q factor (Qes)	closed
Total Q factor (Qts)	closed
Equivalent volume (Vas)	closed
DC resistance (Re)	5.65 Ω
Force factor (BxL)	closed
Voice coil induct. (Le)	0.4 mH
Voice coil diameter	ø 25 mm
Voice coil former	Kapton
Linear excursion (X$_{MAX}$)	±1 mm
Eff. cone area (Sd)	58 cm^2
Magnet weight	480 g
Weight	1.2 kg

TF-0410MR   60
90°   108,5x108,5   ø84   ø109
4,3 (4x)   3
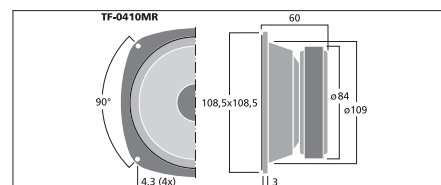
CDX1-1010
Order No. 10.5730

1 | **25 mm** | **50 W_{MAX}** | CELESTION

PA horn driver, 50 W$_{MAX}$, 15 W$_{RMS}$, 8 Ω

- 25 mm (1″) horn driver with ferrite magnets
- Computer-aided FEA for optimising magnet and acoustic system
- One-piece, deformation-resistant PETP cone of special design with 25 mm voice coil
- Linear and wide frequency response, high sound pressure level with low distortions
- 35 mm (1⅜″) standard thread
- Suitable for the horns MRH-83, MRH-80; with adapter MHA-25 also for others

Model	CDX1-1010
Impedance (Z)	8 Ω
Resonant frequency (fs)	1,900 Hz
Max. frequency range	fx-20,000 Hz
Rec. crossov. frequ. (fmax.) (12 dB/oct.)	2,200 Hz
Music power	50 W$_{MAX}$
Power rating (P)	15 W$_{RMS}$
SPL (1 W/1 m)	107 dB
Radiation angle (vert./hor.)	dep. on horn
Voice coil diameter	25 mm
Magnet diameter	90 mm
Mounting cutout	dep. on horn
Mounting depth	dep. on horn
Dimensions	ø 90 mm x 53 mm
Weight	830 g

CDX1-1010   52,5
ø90   37
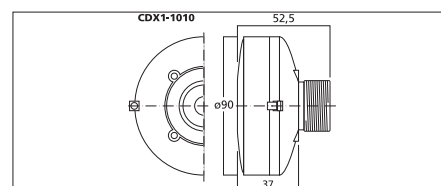
Cable Ties

Nylon, different versions.

100 x
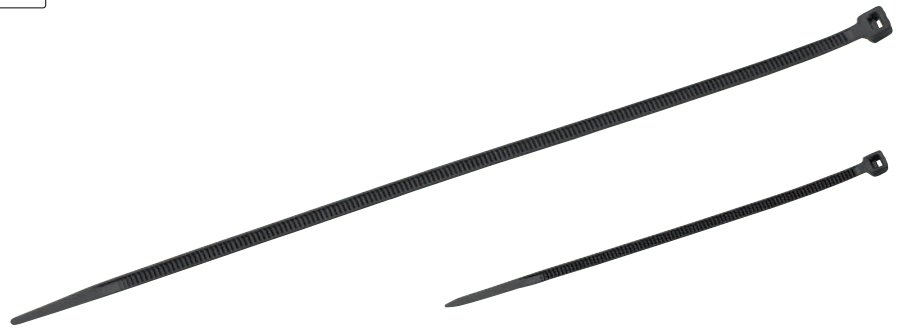
Model	Order No.	Quantity per order	Length	Width	Colour	Other features
CT-100/SW	03.1020	1 x CT-100/SW = 100 pcs.	100 mm	2.5 mm	black	
CT-200/SW	03.1030	1 x CT-200/SW = 100 pcs.	200 mm	3.2 mm	black	

CC-142
Order No. 34.2270

Connecting terminal from WAGO
- 2-conductor terminal with stop levers
- For any wire type and cross section from 0.14 to 4 mm²
- Power rating: 450 V/32 A
- Continuous operating temperature: up to 105 °C

- Correct position of the conductor and stripping length can be visually checked due to transparent housing
- Two test slots for any standard test prod
- Of very compact size, thus, ideally suited for the application in confined spaces

CC-143
Order No. 34.2360

Connecting terminal from WAGO
- 3-conductor terminal with stop levers
- For any wire type and cross section from 0.14 to 4 mm²
- Power rating: 450 V/32 A
- Continuous operating temperature: up to 105 °C

- Correct position of the conductor and stripping length can be visually checked due to transparent housing
- Two test slots for any standard test prod
- Of very compact size, thus, ideally suited for the application in confined spaces

CC-145
Order No. 34.2460

Connecting terminal from WAGO
- 5-conductor terminal with stop levers
- For any wire type and cross section from 0.14 to 4 mm²
- Power rating: 450 V/32 A
- Continuous operating temperature: up to 105 °C

- Correct position of the conductor and stripping length can be visually checked due to transparent housing
- Two test slots for any standard test prod
- Of very compact size, thus, ideally suited for the application in confined spaces

XLR-823/J/SW
Order No. 34.9040
XLR-823/P/SW
Order No. 34.9050

XLR connectors, 3 poles
• Nickel-plated contacts
• Cable bending protection and self-adjusting clamps as strain relief
• For cables: ø 5-7.5 mm

XLR-823/P/SW = plug
XLR-823/J/SW = inline jack

XLR-803/J
Order No. 34.8980
XLR-803/P
Order No. 34.8990

XLR connectors, 3 poles
• Nickel-plated contacts
• Cable bending protection and self-adjusting clamps as strain relief
• For cables: ø 6-9 mm

XLR-803/P = plug
XLR-803/J = inline jack

XLR-804/J
Order No. 34.9000
XLR-804/P
Order No. 34.9010

XLR connectors, 4 poles
• Nickel-plated contacts
• Cable bending protection and self-adjusting clamps as strain relief
• For cables: ø 6-9 mm

XLR-804/P = plug
XLR-804/J = inline jack

XLR-805/J
Order No. 34.9020
XLR-805/P
Order No. 34.9030

XLR connectors, 5 poles
• Nickel-plated contacts
• Cable bending protection and self-adjusting clamps as strain relief
• For cables: ø 6-9 mm

XLR-805/P = plug
XLR-805/J = inline jack

XLR-833D/J
Order No. 34.9060
XLR-833D/P
Order No. 34.9070

XLR panel connectors, 3 poles
• Nickel-plated contacts

XLR-833/P = panel plug
XLR-833/J = panel jack
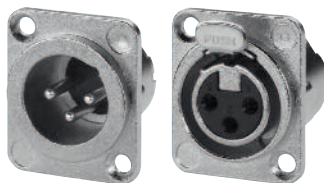
MZT-233
Order No. 34.8970

Stereo panel jack, ø 6.3 mm
• 3 switching contacts
• Extra long PCB connections

Important Notes - please read very carefully!

All products of MONACOR INTERNATIONAL are tested continuously to ensure a constant quality level and to maintain quality standards. All products which are subject to the CE guidelines as well as the electric and electronic subassemblies which are subject to the directive for motor vehicles are tested according to the respective standards and carry the CE mark. In consequence, these products can be sold in all EC countries without further tests or approvals.

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- We cannot be held responsible for printing errors, should they occur. We reserve the right to make technical changes without prior notice.
- The technical specifications stated are according to the information of the manufacturer.
- Due to production tolerances, technical data may vary slightly.
- Damage resulting from unauthorised servicing of the products thus causing changes as well as improper handling resulting in consequential damage are excluded from the warranty. We will not be liable for changes of the state of the products resulting from improper storage, other interventions or improper use.
- If the units are interfered with, the CE approval will no longer apply. All products are always suitable for indoor use only, unless stated otherwise. The products are not suitable for installations into aircrafts or surface mounting onto aircrafts.
- The products do not correspond to the medical products directive 2007/47/EC.
- If the products are to be put out of operation definitively, they must be taken to a local recycling plant for disposal which is not harmful to the environment.

Technical Information

- Before first use of the products, please read the instruction manual carefully!
- The products correspond to the directive for electromagnetic compatibility 2014/30/EU, the directive 2011/65/EU (RoHS) and where applicable to the low voltage directive 2014/35/EU with the directive 2009/125/EC (ErP).
- When operating with voltages of over 42 V, please always observe the respective safety measures.
- Before opening any products operated with 230 V mains voltage, disconnect the products from the mains!
- Make sure that the supply voltage is disconnected before working on components and modules. Existing capacitors must be discharged.
- Mains cables and test cables have to be examined for damage regularly. Never pull on the cable to disconnect the plug from the socket.
- Mains cables and fuses must only be replaced by skilled personnel.
- Unless otherwise stated:
  - protect the products from moisture and heat,
  - always observe the admissible ambient temperature of 0-40 °C.
- Do not use a very high volume level when using headphones. Permanent high volume may damage your hearing! Do not wear headphones while particular attention must be paid to your surroundings, e.g. in traffic.
- A soldering process which is too long and too hot may cause damage to the corresponding products. Choose a soldering temperature that is suitable for the material used. No liability can be assumed for damage to the product or consequential damage caused by improper handling.
- The plugs, jacks, switches, rotary switches and potentiometers shown in this catalogue are only suitable for connection to safety extra low voltage (SELV) or signal voltage unless the item is designed for a higher voltage (see text or table).
- If the fixing nuts of panel jacks or panel plugs are overtightened, this may cause damage to the whole component. In case of improper handling, no liability can be assumed for this or consequential damage.
- The heat must be eliminated by air circulation. Therefore, do not cover ventilation slots with anything. Do not put or drop anything through the ventilation slots. Otherwise, there will be danger of an electric shock.
- Only use a dry, soft cloth for cleaning the products. Chemicals must not be used in any case.

Information on the German Product Liability Act

According to the law dated 15 December 1989 governing product liability which was last amended by the law dated 19 July 2002, manufacturers, importers and retailers are obliged to compensate for damage caused by a faulty product under certain prerequisites.

A product can already be considered faulty if its presentation leaves a private, non-commercial end user with a wrong impression as to its safety in use or if it is to be expected that the private end user will not observe the required safety regulations when using the product or will apply an excessive operating voltage to it, except if this user has been informed as to the necessity to observe the safety regulations and specified voltages, etc.

In your own interest and for your customers' safety, therefore please draw your non-commercial customers' attention to the following:

The products listed in this catalogue may only be used for the stated purpose. If there are any doubts as to the purpose of the goods, questions must be clarified with an authorised expert or with the service department of MONACOR INTERNATIONAL. The following EN standards and VDE (Verband Deutscher Elektrotechniker = Association of German Electrical Engineers) regulations must be observed:

Electromagnetic compatibility:
EN300422, EN301489, EN55013, EN55103-1, EN55103-2, EN61000-3-2, EN61000-3-3, EN61000-6-1, EN61000-6-3

Low voltage directive:
DINVDE0100, DINVDE0532, EN60065, EN60335, EN60598, EN60950, EN61010, EN62471

Motor vehicles directive:
directive 2004/104/EC

In Germany, the above-mentioned regulations can be obtained from:

VDE-Verlag GmbH	VDE-Verlag GmbH	VDE-Verlag GmbH
Bismarckstraße 33	Postfach 120143	Goethering 58
10625 Berlin	10591 Berlin	63067 Offenbach
Germany Germany		
Phone: +49 30 348001-0		Phone: +49 69 840006-0
Fax: +49 30 348001-9088		Fax: +49 69 840006-1399

Notes Regarding the Approval of Wireless Systems

The wireless microphone systems in the frequency ranges 823 MHz to 832 MHz, 863 MHz to 865 MHz, 1,785 MHz to 1,805 MHz and 2,400 MHz to 2,483.5 MHz are generally approved and licence-free!
These systems are licence-free in the EU!

Every wireless system has been examined by a notified body and has been approved in the EU according to the R+TTE directive. However, a frequency assignment for the systems in the frequency range 506 MHz to 542 MHz, 518 MHz to 542 MHz, 672 MHz to 697 MHz and 740 MHz to 776 MHz for the corresponding area in which the unit is to be used must be applied for at the respective national authority.
These systems require a licence in the EU!

In Germany, the frequency assignment has to be applied for at the corresponding branch of the Federal Network Agency (BnetzA, Germany).
The declaration of conformity can be found on our website: www.imgstageline.de. The forms for the frequency assignment can be found on the website of the Federal Network Agency www.bundesnetzagentur.de. For countries outside of Europe, please consult the authorities of the corresponding country.

Please observe the notes in the operating instructions!

MONACOR INTERNATIONAL GmbH; November 2014

MONACOR INTERNATIONAL - Your reliable partner - worldwide.