HELIX
GERMAN CAR HIFI

2019

AUDIOTEC
FISCHER
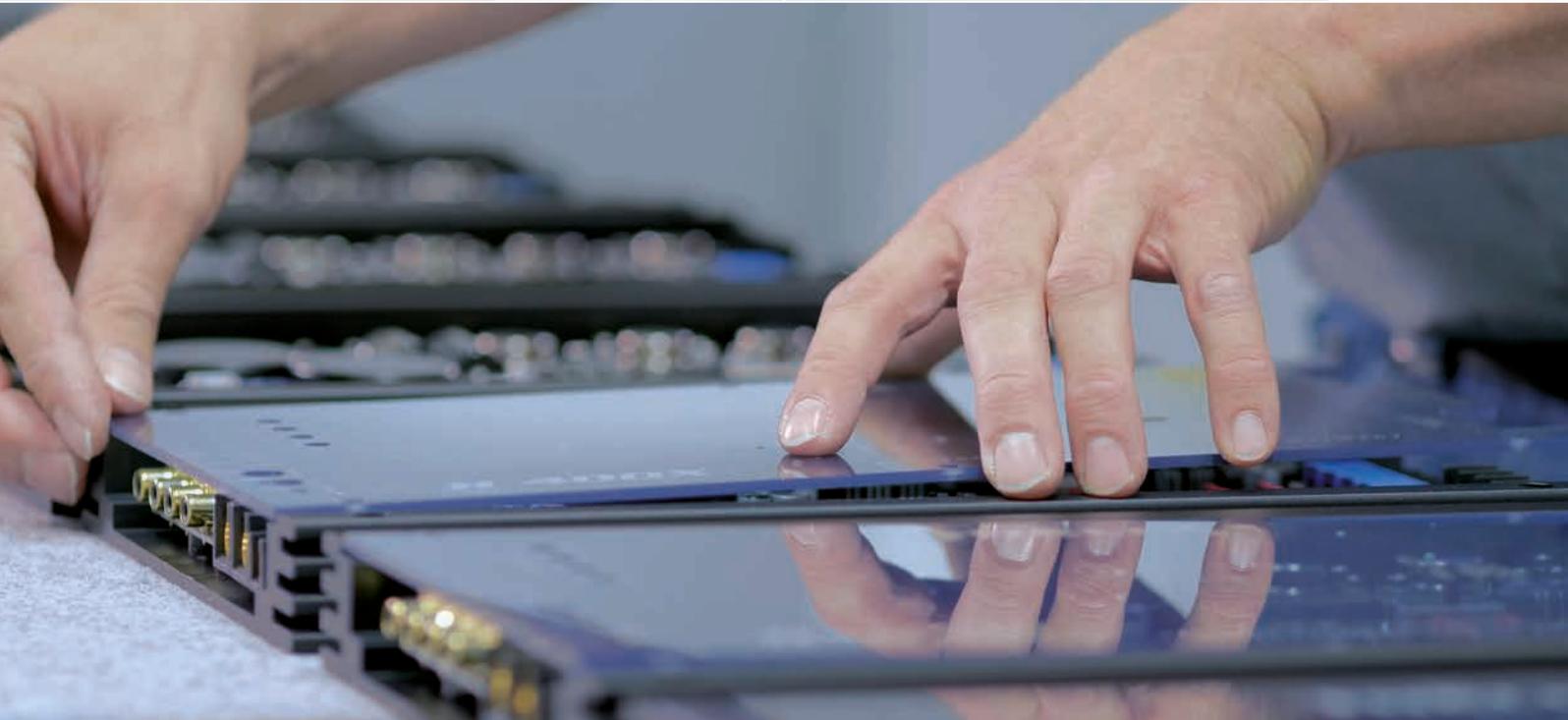
We are Audiotec Fischer

Since its founding in 1990, Audiotec Fischer has evolved from a niche supplier to a world leader in innovative audio products, which enjoys a high level of international recognition.

If you are a direct supplier to the automotive industry, you must set different standards for development as well as manufacturing, as is normally the case in the competition field. Therefore today all products of Audiotec Fischer are designed and produced according to the extremely demanding standards and guidelines of well-known automobile manufacturers.

For that reason, Audiotec Fischer has been certified according to DIN EN ISO 9001: 2015 and DIN EN ISO 14001: 2015 in order to assure outstanding quality and reliability.
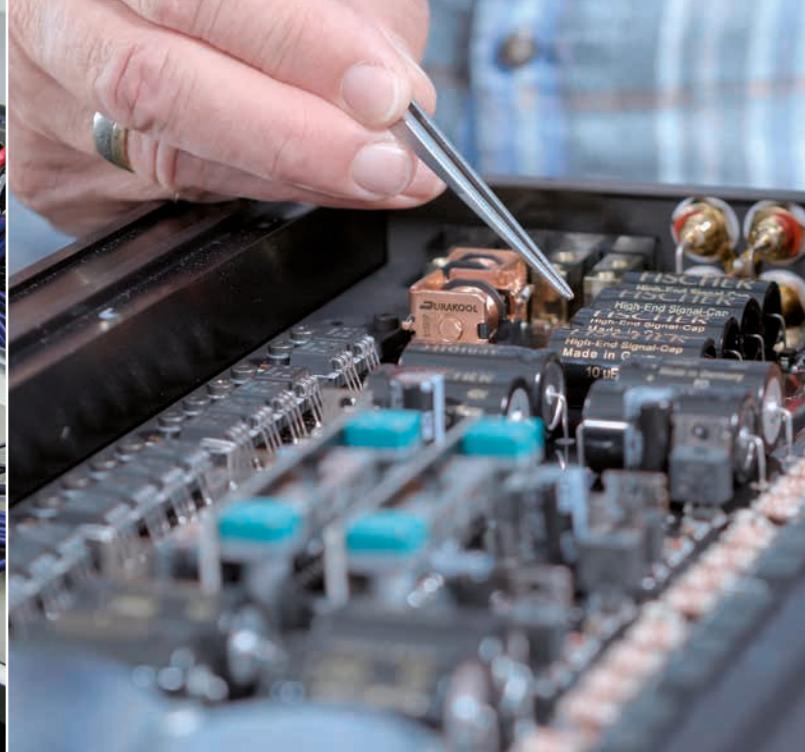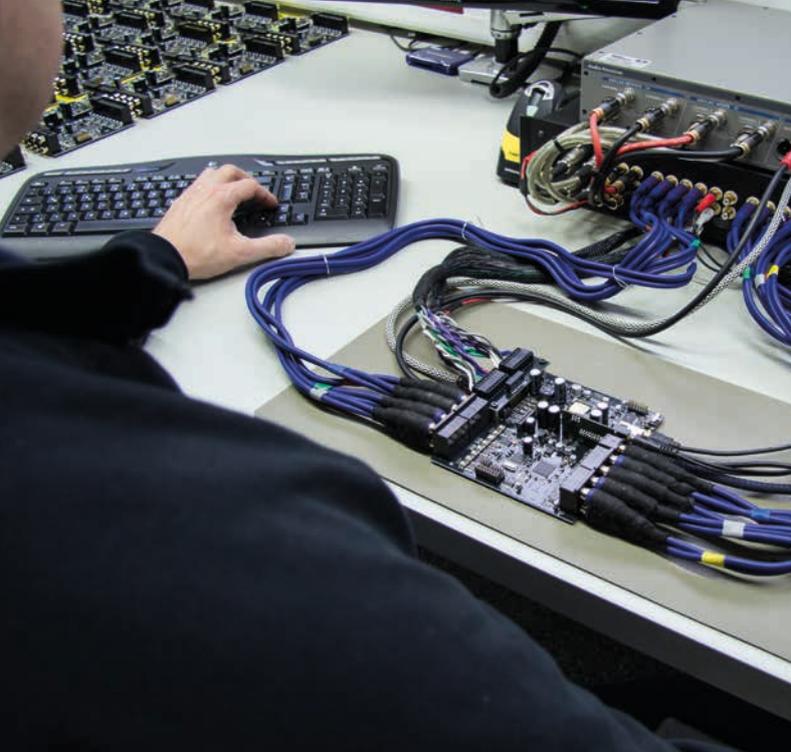
Audiotec Fischer stands for "Made in Germany" like no other car audio manufacturer. Every single product is developed in-house from the very first idea till its minutest detail - one of our key factors for cutting-edge technology and unparalleled flexibility. Besides that we predominantly rely on local suppliers to warrant an unsurpassed supply chain.

Our exceptional 100% quality control is another basic principle for our success and reflects the philosophy of the company. It is not surprising that Audiotec Fischer has received numerous awards from the international press and frenetic feedback from our worldwide customers over the years.

AUDIOTEC FISCHER

www.audiotec-fischer.com

DSP PRO MK2			
Inputs	8 x RCA / Cinch	Sampling rate	96 kHz
	8 x Highlevel speaker input	Signal converters	A/D: Asahi Kasei 32 Bit
	1 x Optical SPDIF (12 – 96 kHz)		D/A: Asahi Kasei 32 Bit
	1 x Coax SPDIF (12 - 192 kHz)	Signal-to-noise ratio digital input	116 dB (A-weighted)
	1 x Remote In	Signal-to-noise ratio analog input	110 dB (A-weighted)
Input sensitivity	RCA / Cinch 2 - 4 Volts	Distortion (THD+N)	< 0.0005 % (digital input)
	Highlevel 5 - 10 Volts or 10 - 20 Volts		< 0.001 % (analog input)
Outputs	10 x RCA / Cinch	Crosstalk	> 90 dB
	1 x Remote Out (max. 500 mA)	Operating voltage	9.6 - 18 Volts (5 sec. down to 6 Volts)
Output voltage	8 Volts	Current draw	510 mA
Frequency response	10 - 44,000 Hz	Additional features	HEC slot, Ground lift switch, Control Input,
DSP resolution	64 Bit		ADEP circuit, Auto Remote switch
DSP power	295 MHz (1.2 billion MAC operations/second)	Dimensions (H x W x D)	40 x 177 x 150 mm / 1.58 x 6.97 x 5.91"

DSP PRO MK2

Digital High-Res 10-channel signal
processor with 96 kHz / 32 Bit signal path

Features:

- Extremely powerful "fixed point" Audio DSP with 64 Bit resolution
  and 1.2 billion MAC operations per second
- AD and DA signal converters of the latest generation with
  a native resolution of 32 Bit
- High Resolution audio bandwidth up to more than 40 kHz for
  unrivalled sound quality
- HELIX Extension Card slot (HEC) for additional input / output
  modules like Bluetooth® Audio Streaming
- Smart highlevel input with ADEP circuit (Advanced Diagnostics
  Error Protection)
- Start-Stop capability down to 6V supply voltage
- Freely definable signal routing with separate matrices for line,
  SPDIF and HEC/AUX
- "Ground lift" switch to avoid ground loops
- Control input for connecting remote controls and accessories
- Time alignment with up to 20 ms delay time per channel, additionally
  reverse time alignment for in-phase summation of the inputs

DSP.3				
Inputs	6 x RCA / Cinch		Sampling rate	96 kHz
	6 x Highlevel speaker input		Signal converters	A/D: Asahi Kasei 32 Bit
	1 x Optical SPDIF (12 - 96 kHz)			D/A: Asahi Kasei 32 Bit
	1 x Remote In		Signal-to-noise ratio digital input	114 dB (A-weighted)
			Signal-to-noise ratio analog input	110 dB (A-weighted)
Input sensitivity	RCA / Cinch 2 - 4 Volts		Distortion (THD+N)	< 0.0006 % (digital input)
	Highlevel 5 - 11 Volts			< 0.0015 % (analog input)
Outputs	8 x RCA / Cinch		Crosstalk	> 90 dB
	1 x Remote Out (max. 500 mA)		Operating voltage	9.6 - 18 Volts (max. 5 sec. down to 6 Volts)
Output voltage	6 Volts		Current draw	< 450 mA
Frequency response	10 - 44,000 Hz		Additional features	HEC slot, Ground lift switch, ADEP.3 circuit,
DSP resolution	64 Bit			32 Bit CoProcessor, Auto Remote switch
DSP power	295 MHz (1.2 billion MAC operations/second)		Dimensions (H x W x D)	40 x 177 x 120 mm / 1.58 x 6.97 x 4.72"

DIN EN ISO 9001:2015
MADE IN GERMANY
ZERTIFIZIERTES UNTERNEHMEN

DSP.3

Digital High-Res 8-channel signal
processor with 96 kHz / 32 Bit signal path

Features:

- Extremely powerful "fixed point" Audio DSP with 64 Bit resolution and 1.2 billion MAC
  operations per second
- High Resolution audio bandwidth up to more than 40 kHz for unrivalled sound quality
- ACO – Advanced 32 Bit CoProcessor platform for numerous new system and DSP features
- HELIX Extension Card slot (HEC) for system add-ons
- Smart highlevel input with ADEP.3 circuit and Auto Turn-On function
- Start-Stop capability down to 6V supply voltage
- Unique DSP Sound Effects such as the "Augmented Bass Processing" which dynamically
  optimizes the bass response of the subwoofer, the "StageXpander" that significantly widens
  the stereo perspective, the "RealCenter" function which allows a perfectly focussed sound
  staging for both driver and co-driver and much more
- InputEQ and ISA (Input Signal Analyzer) for easy analysis and compensation of input signals
- Freely definable signal routing with separate matrices for line, SPDIF and HEC/AUX
- Optimal signal path and power supply for further improved sound quality
- "Ground lift" switch to avoid ground loops

HIGH-RES AUDIO | 64 BIT DSP INSIDE | 32 Bit MCU ACO Advanced CoProcessor | HIGHLEVEL INPUT | ADEP.3 Advanced Diagnostics Error Protection | RCA INPUT | OPTICAL INPUT | HEC SLOT | Remote Control

ON OFF AUTO REMOTE SWITCH | DSP PC-TOOL | SFX DSP Sound Effects | ISA Input Signal Analyzer | START STOP CAPABILITY | PSM Power Save Mode | SMD Surface Mounted Device | MADE IN GERMANY

DSP MINI				
Inputs	4 x RCA / Cinch		Sampling rate	96 kHz
	4 x Highlevel speaker input		Signal converters	A/D: Asahi Kasei
	1 x Optical SPDIF (12 - 96 kHz)			D/A: Asahi Kasei
	1 x Remote In		Signal-to-noise ratio digital input	106 dB (A-weighted)
			Signal-to-noise ratio analog input	103 dB (A-weighted)
Input sensitivity	RCA / Cinch 2 - 4 Volts		Distortion (THD+N)	< 0.001 % (digital input)
	Highlevel 5 - 11 Volts			< 0.002 % (analog input)
Outputs	6 x RCA / Cinch		Crosstalk	> 90 dB
	1 x Remote Out (max. 500 mA)		Operating voltage	9.6 - 18 Volts (max. 5 sec. down to 6 Volts)
Output voltage	4 Volts		Current draw	< 400 mA
Frequency response	10 - 44,000 Hz		Additional features	HEC slot, Ground lift switch, ADEP.3 circuit,
DSP resolution	64 Bit			32 Bit CoProcessor, Auto Remote switch
DSP power	295 MHz (1.2 billion MAC operations/second)		Dimensions (H x W x D)	40 x 177 x 104 mm / 1.58 x 6.97 x 4.09"

DSP MINI

Digital High-Res 6-channel signal processor

with 96 kHz / 24 Bit signal path

Features:

- Extremely powerful "fixed point" Audio DSP with 64 Bit resolution and 1.2 billion MAC operations per second
- High Resolution audio bandwidth up to more than 40 kHz for unrivalled sound quality
- ACO – Advanced 32 Bit CoProcessor for all control and communication tasks
  - 10 internal memory locations for sound setups
  - Setup switching within milliseconds
  - High-speed data transfer and improved usability
- HELIX Extension Card slot (HEC) for system add-ons
- Smart highlevel input with ADEP.3 circuit and Auto Turn-On function
- Start-Stop capability down to 6V supply voltage
- Unique DSP Sound Effects such as the "Augmented Bass Processing" which dynamically optimizes the bass response of the subwoofer, the "StageXpander" that significantly widens the stereo perspective, the "RealCenter" function which allows a perfectly focussed sound staging for both driver and co-driver and much more
- Freely definable signal routing with separate matrices for line, SPDIF and HEC/AUX
- Optimal signal path and power supply for further improved sound quality
- "Ground lift" switch to avoid ground loops
- Very compact dimensions for easy integration into the vehicle

	D FOUR	D ONE	
Output power RMS / max.		Normal operation (One amplifier)	Master / Slave Mode (Two amplifiers)
- @ 4 Ohms	4 x 65 / 130 Watts	1 x 200 / 400 Watts	1 x 645 / 1,290 Watts
- @ 2 Ohms	4 x 90 / 180 Watts	1 x 340 / 680 Watts	1 x 910 / 1,820 Watts
- @ 1 Ohm	-	1 x 530 / 1,060 Watts	-
- bridged @ 4 Ohms	2 x 180 / 360 Watts	-	
- bridged @ 2 Ohms	-	-	
Frequency response	10 - 50,000 Hz	10 - 250 Hz	
Bass boost	0 - 12 dB / 45 Hz	0 - 12 dB / 45 Hz	
Highpass	15 - 4,000 Hz adjustable	-	
Lowpass	40 - 4,000 Hz adjustable	50 - 250 Hz adjustable	
Bandpass	15 - 4,000 Hz adjustable	10 - 250 Hz adjustable	
Subsonic	-	10 - 50 Hz adjustable	
Phase	-	0 - 180° adjustable	
Distortion (THD)	0.02 %	0.25 %	
Signal-to-noise ratio	108 dB (A-weighted)	95 dB (A-weighted)	
Input sensitivity	1 - 14 Volts (Highlevel), 0.5 - 6 Volts (RCA / Cinch)	1 - 14 Volts (Highlevel), 0.5 - 6 Volts (RCA / Cinch)	
Dimensions (H x W x D)	53 x 320 x 230 mm / 2.09 x 12.60 x 9.06"	53 x 250 x 230 mm / 2.09 x 9.84 x 9.06"	

Helix D Four
Absolute Spitzenklasse
Spitzenklasse
Oberklasse
1,3
Preis/Leistung: sehr gut
CAR&HiFi Ausgabe 1/2018
„Einfache, gute Endstufe zum fairen Preis."

D FOUR

4-channel amplifier with integrated active crossover

Helix D One
Oberklasse
1,6
Preis/Leistung: sehr gut
CAR&HiFi Ausgabe 1/2018
„Super Ausstattung und 1-Ohm-Stabilität zum Freundschaftspreis."

D ONE

1-channel subwoofer amplifier with integrated active crossover and 1 Ohm stability

Features:

- High- and lowlevel input
- Smart highlevel input with ADEP circuit (Advanced Diagnostics Error Protection) and Auto Turn-On function
- Fully active crossover with highpass, lowpass, bandpass and bass boost (D ONE: additional phase control)
- Extremely stable MOSFET power supply
- Highlevel input sensitivity up to 14 Volts max.
- D FOUR: "Input mode" switch for flexible input signal routing
- D FOUR: Cable remote control for volume adjustment of the channels C & D optionally available
- D ONE: Bass remote control included and Master / Slave Mode for connecting two amplifiers in bridged mode
- Massive aluminum heatsink for best cooling conditionss

Only included in delivery of D ONE

CLASS **AB**
only D FOUR

CLASS **D**
only D ONE

HIGHLEVEL INPUT

ADEP *Advanced Diagnostics Error Protection*

RCA INPUT

Remote Control

ACTIVE CROSSOVER

SMD *Surface Mounted Device*

	G FIVE	G FOUR	G TWO	G ONE
Output power RMS / max.				
- @ 4 Ohms	4 x 80 / 160 + 1 x 360 / 720 Watts	4 x 80 / 160 Watts	2 x 125 / 250 Watts	1 x 390 / 780 Watts
- @ 2 Ohms	4 x 120 / 240 + 1 x 600 / 1,200 Watts	4 x 120 / 240 Watts	2 x 200 / 400 Watts	1 x 675 / 1,350 Watts
- @ 1 Ohm	-	-	2 x 300 / 600 Watts	1 x 920 / 1,840 Watts
- bridged @ 4 Ohms	2 x 240 / 480 + 1 x 360 / 720 Watts	2 x 240 / 480 Watts	1 x 400 / 800 Watts	-
- bridged @ 2 Ohms	-	-	1 x 600 / 1,200 Watts	-
Frequency response	10 - 40,000 Hz	10 - 40,000 Hz	10 - 40,000 Hz	10 - 250 Hz
Bass boost	0 - 12 dB / 45 Hz	0 - 12 dB / 45 Hz	0 - 12 dB / 45 Hz	0 - 12 dB / 25 - 50 Hz
Highpass	15 - 4,000 Hz adjustable	15 - 4,000 Hz adjustable	15 - 4,000 Hz adjustable	-
Lowpass	40 - 4,000 Hz adjustable	40 - 4,000 Hz adjustable	40 - 4,000 Hz adjustable	50 - 250 Hz adjustable
Bandpass	15 - 4,000 Hz adjustable	15 - 4,000 Hz adjustable	15 - 4,000 Hz adjustable	10 - 250 Hz adjustable
Subsonic	15 - 50 Hz adjustable	-	-	10 - 50 Hz adjustable
Distortion (THD)	0.02 %	0.02 %	0.02 %	0.05 %
Signal-to-noise ratio	105 dB (A-weighted)	108 dB (A-weighted)	106 dB (A-weighted)	95 dB (A-weighted)
Input sensitivity	2.5 - 14 Volts (Highlevel), 1 - 6 Volts (RCA / Cinch)	2.5 - 14 Volts (Highlevel), 1 - 6 Volts (RCA / Cinch)	2.5 - 14 Volts (Highlevel), 1 - 6 Volts (RCA / Cinch)	2.5 - 14 Volts (Highlevel), 1 - 6 Volts (RCA / Cinch)
Dimensions (H x W x D)	57 x 445 x 241 mm / 2.24 x 17.52 x 9.50"	57 x 334 x 241 mm / 2.24 x 13.15 x 9.50"	57 x 334 x 241 mm / 2.24 x 13.15 x 9.50"	57 x 334 x 241 mm / 2.24 x 13.15 x 9.50"

Helix G Four
Absolute Spitzenklasse
Spitzenklasse
Oberklasse
Mittelklasse
CAR.HiFi
1,3 Preis/Leistung: sehr gut
Ausgabe 1/2017
„Blitzsauber gemachte klassische Endstufenserie."

G FOUR
4-channel amplifier with integrated active crossover

Helix G Five
Spitzenklasse
Preis/Leistung: hervorragend
CAR.HiFi
1,2
Ausgabe 6/2016
„Ganz solide gemachter Verstärker mit Leistungs- und Klangpotential."

G FIVE
5-channel amplifier with integrated active crossover, suited for full-active mode

Helix G Two
Absolute Spitzenklasse
Spitzenklasse
CAR.HiFi
1,3 Preis/Leistung sehr gut
Ausgabe 1/2017
„Blitzsauber gemachte klassische Endstufenserie."

G TWO
2-channel amplifier with integrated active crossover and 1 Ohm stability

Helix G One
Absolute Spitzenklasse
Spitzenklasse
CAR.HiFi
1,3 Preis/Leistung sehr gut
Ausgabe 1/2017
„Super Preis-Leistungs-Verhältnis."

G ONE
1-channel subwoofer amplifier with integrated active crossover and 1 Ohm stability

Included in delivery

Features:

- Start-Stop capability down to 6V supply voltage
- Smart highlevel input with ADEP circuit (Advanced Diagnostics Error Protection)
- Fully active crossover with highpass, lowpass, bandpass and bass boost
- Extremely stable output stage with high-current power transistors - 1 Ohm stability (G TWO / G ONE)
- Cable remote control for volume adjustment included in delivery
- "Input mode" switch for flexible input signal routing
- Highlevel input sensitivity up to 14 Volts max.
- SMD (Surface Mounted Device) manufacturing technology combines minimum space requirement with maximum reliability
- Exclusive compact and clean design with illuminated HELIX-logo

CLASS AB
only G FIVE, G FOUR, G TWO

CLASS D
only G FIVE, G ONE

HIGHLEVEL INPUT

ADEP Advanced Diagnostics Error Protection

RCA INPUT

Remote Control

ACTIVE CROSSOVER

START STOP CAPABILITY

SMD Surface Mounted Device

	M SIX	M FOUR	M ONE
Output power RMS / max.			
- @ 4 Ohms	6 x 100 / 200 Watts	4 x 100 / 200 Watts	1 x 240 / 480 Watts
- @ 2 Ohms	6 x 100 / 200 Watts	4 x 100 / 200 Watts	1 x 410 / 820 Watts
- @ 1 Ohm	-	-	1 x 600 / 1,200 Watts
- bridged @ 4 Ohms	3 x 200 / 400 Watts	2 x 200 / 400 Watts	-
- bridged @ 2 Ohms	-	-	-
Frequency response	10 - 30,000 Hz	10 - 30,000 Hz	10 - 250 Hz
Bass boost	-	-	0 - 12 dB / 25 - 75 Hz
Highpass	15 - 4,000 Hz adjustable	15 - 4,000 Hz adjustable	-
Lowpass	40 - 4,000 Hz adjustable	40 - 4,000 Hz adjustable	50 - 250 Hz adjustable
Bandpass	15 - 4,000 Hz adjustable	15 - 4,000 Hz adjustable	10 - 250 Hz adjustable
Subsonic	15 - 4,000 Hz adjustable	-	10 - 50 Hz adjustable
Phase	-	-	0 - 180° adjustable
Distortion (THD)	0.05 %	0.05 %	0.20 %
Signal-to-noise ratio	98 dB (A-weighted)	98 dB (A-weighted)	95 dB (A-weighted)
Input sensitivity	0.5 - 6 Volts (RCA / Cinch)	1.3 - 13 Volts (Highlevel), 0.5 - 6 Volts (RCA / Cinch)	1.1 - 13 Volts (Highlevel), 0.5 - 6 Volts (RCA / Cinch)
Dimensions (H x W x D)	50 x 320 x 154 mm / 2.00 x 12.60 x 6.06"	50 x 230 x 154 mm / 2.00 x 9.06 x 6.06"	50 x 230 x 154 mm / 2.00 x 9.06 x 6.06"

M SIX

Small footprint 6-channel amplifier with integrated active crossover

M ONE

Small footprint 1-channel subwoofer amplifier with integrated active crossover and 1 Ohm stability

M FOUR

Small footprint 4-channel amplifier with integrated active crossover

Features:

- Small footprint Class D amplifier with high output power
- Start-Stop capability down to 6V supply voltage
- Smart highlevel input with ADEP circuit (Advanced Diagnostics Error Protection) and Auto Turn-On function (M FOUR / M ONE)
- Integrated, active crossover (M ONE: Lowpass, bass boost, subsonic and phase control / M FOUR: Highpass, lowpass and bandpass / M SIX: Highpass, lowpass, bandpass and subsonic)
- Extremely stable output stage with high-current power transistors - 1 Ohm stability (M ONE)
- M ONE: Bass remote control included in delivery
- SMD (Surface Mounted Device) manufacturing technology combines minimum space requirement with maximum reliability
- Exclusive, extremely compact and clean design with illuminated HELIX-logo and low heat dissipation thanks to extraordinary efficiency

Only included in delivery of M ONE

CLASS **D**

HIGHLEVEL INPUT
only M ONE, M FOUR

RCA INPUT

Remote Control
only M ONE

ADEP Advanced Diagnostics Error Protection
only M ONE, M FOUR

ACTIVE CROSSOVER

A START STOP CAPABILITY

SMD Surface Mounted Device

Ultra Compact Dimensions

	H 400X
Output power RMS / max.	
- @ 4 Ohms	4 x 70 / 140 Watts
- @ 2 Ohms	4 x 125 / 250 Watts
- bridged @ 4 Ohms	2 x 250 / 500 Watts
Frequency response	20 - 20,000 Hz
Highpass	15 - 4,000 Hz adjustable
Lowpass	15 - 4,000 Hz adjustable
Bandpass	15 - 4,000 Hz adjustable
Distortion (THD)	< 0.009 %
Signal-to-noise ratio	> 100 dB
Damping factor	> 300
Input sensitivity	0.7 - 8 Volts
Dimensions (H x W x D)	31.5 x 200 x 336 mm / 1.24 x 7.87 x 13.23"

Still successful

The first HELIX amplifier which was launched in 2001 still remains successful.
With its extremely fast MOSFET driver circuits in Class A operation combined with enormously load-stable, power-potent "afterburners" in bipolar technology it combines the best of both worlds.
Improved again and again over the years, this powerhouse with its natural sound characteristic, transparent plexi cover and extraordinary shallow heatsink has reached a sound level that is unrivalled.

H 400X
4-channel Class AB amplifier
with integrated active crossover

Features:

- Extremely stable amplifiers in an extraordinary shallow heatsink
- Unique Bipolar output transistor technology for unparalleled natural and warm sound experience
- Fastest drivers for lowest possible THD
- Processor-controlled technology for optimized operation
- Fully active crossover with highpass, lowpass and bandpass filter
- "Input mode" switch for flexible input signal routing
- RMI (Realmixed Input) for generating an optimised mono-summing signal from the left and right channels
- Smart protection circuits against overheating, over- and undervoltage, speaker short circuiting, low impedance and faulty connection
- 24 carat gold-plated solid connection terminals suitable for 25 mm² / gauge 4
- Completely made in Germany by using only selected components

CLASS AB | RCA INPUT | ACTIVE CROSSOVER | SMD Surface Mounted Device | MADE IN GERMANY

V EIGHT DSP

Output power RMS	
- @ 4 Ohms	75 Watts per channel (≤ 1% THD+N)
- @ 2 Ohms	120 Watts per channel (≤ 1% THD+N)
Inputs	6 x RCA / Cinch
	6 x Highlevel speaker input
	1 x Optical SPDIF (12 - 96 kHz)
	1 x Remote In
Input sensitivity	RCA / Cinch 2 - 4 Volts or 4 - 8 Volts
	Highlevel 5 - 10 Volts or 10 - 20 Volts
Outputs	8 x Speaker
	2 x RCA / Cinch
	2 x Remote Out
Output voltage RCA / Cinch	3 Volts RMS
Frequency response	20 - 22,000 Hz

DSP resolution	64 Bit
DSP power	295 MHz (1.2 billion MAC operations/second)
Sampling rate	48 kHz
Signal converters	A/D: BurrBrown
	D/A: BurrBrown
Signal-to-noise ratio digital input	105 dB (A-weighted)
Signal-to-noise ratio analog input	100 dB (A-weighted)
Distortion (THD)	< 0.015 %
Damping factor	> 70
Input impedance RCA / Cinch	10 kOhms
Input impedance highlevel	13 Ohms or 13 kOhms
Operating voltage	10.5 - 16 Volts (max. 5 sec. down to 6 Volts)
Additional features	Control Input, USB, HEC slot
Dimensions (H x W x D)	44 x 220 x 180 mm / 1.73 x 8.66 x 7.09"

V EIGHT DSP

8-channel Pure Class GD amplifier
with integrated 10-channel DSP

Features:

- New "Pure Class GD" concept for outstanding sound quality combined with best possible efficiency
- Cutting-edge, extremely powerful "fixed point" Audio DSP with 64 Bit resolution and 1.2 billion MAC operations per second
- Eight speaker outputs with up to 120 Watts RMS into 2 Ohms
- Two processed RCA outputs
- Inputs: 6 x RCA, 6 x Highlevel with up to 20V RMS input sensitivity, optical SPDIF input
- Smart highlevel input with ADEP circuit (Advanced Diagnostics Error Protection)
- HELIX Extension Card slot (HEC) for additional input / output modules like Bluetooth® Audio Streaming
- Automatic Remote switch
- Compact design with low heat dissipation thanks to extraordinary efficiency

P SIX DSP MK2

Output power RMS	
- Channel A - F @ 4 Ohms	120 Watts per channel (≤ 1% THD+N)
- Channel C - F @ 2 Ohms	230 Watts per channel (≤ 1% THD+N)
Inputs	6 x RCA / Cinch
	6 x Highlevel speaker input
	1 x Optical SPDIF (12 - 96 kHz)
	1 x Remote In
Input sensitivity	RCA / Cinch 2 - 4 Volts or 4 - 8 Volts
	Highlevel 5 - 10 Volts or 10 - 20 Volts
Outputs	6 x Speaker
	2 x RCA / Cinch
	2 x Remote Out
Output voltage RCA / Cinch	3 Volts RMS
Frequency response	20 - 44,000 Hz

|	
DSP resolution	64 Bit
DSP power	295 MHz (1.2 billion MAC operations/second)
Sampling rate	96 kHz
Signal converters	A/D: BurrBrown
	D/A: BurrBrown
Signal-to-noise ratio digital input	105 dB (A-weighted)
Signal-to-noise ratio analog input	100 dB (A-weighted)
Distortion (THD)	< 0.008 %
Damping factor	> 100
Input impedance RCA / Cinch	64 kOhms
Input impedance highlevel	13 Ohms or 64 kOhms
Operating voltage	10.5 - 32 Volts (max. 5 sec. down to 6 Volts)
Additional features	Control Input, USB, HEC slot
Dimensions (H x W x D)	50 x 260 x 190 mm / 1.97 x 10.24 x 7.48"

P SIX DSP MK2

6-channel High-Res amplifier with
integrated high-end 8-channel DSP

Features:

- "Ultra HD Class D" concept which combines the high-end sound
  quality of Class AB technology with the benefits of Class D amplifiers
- Full audio bandwidth up to more than 40 kHz thanks to 96 kHz
  sampling rate
- Cutting-edge, extremely powerful "fixed point" Audio DSP with 64 Bit
  resolution and 1.2 billion MAC operations per second
- Six speaker outputs with up to 230 Watts RMS into 2 Ohms
- Two processed RCA outputs
- Inputs: 6 x RCA, 6 x Highlevel with up to 20V RMS input sensitivity,
  optical SPDIF input
- HELIX Extension Card slot (HEC) for additional input / output modules
  like Bluetooth® Audio Streaming
- 24 Volts compatible without making any changes to the unit
- Compact design with low heat dissipation thanks to extraordinary
  efficiency
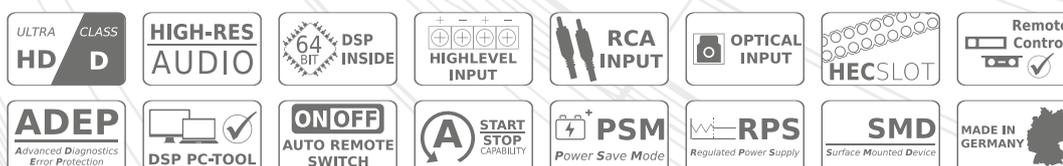
	P TWO
Output power RMS / max.	
- @ 4 Ohms	2 x 280 / 560 Watts
- @ 2 Ohms	2 x 490 / 980 Watts
Frequency response	10 - 40,000 Hz
Bass boost	0 - 9 dB / 40 - 120 Hz
Highpass	15 - 4,000 Hz adjustable
Lowpass	15 - 4,000 Hz adjustable
Bandpass	15 - 4,000 Hz adjustable
Distortion (THD)	< 0.005 %
Signal-to-noise ratio	105 dB (A-weighted)
Signal converter digital input	BurrBrown 32 Bit DA converter
Input sensitivity	5 - 20 Volts (Highlevel),
	2 - 8 Volts (RCA / Cinch)
Dimensions (H x W x D)	50 x 260 x 190 mm /
	1.97 x 10.24 x 7.48"

P TWO

2-channel High-Res amplifier
with integrated, active crossover
and digital signal input

Included in delivery

Features:

• "Ultra HD Class D" concept which combines the high-end sound
quality of Class AB technology with the benefits of Class D amplifiers
• Two speaker outputs with 490 Watts RMS each at 2 Ohms
• Digital, optical signal input in SPDIF format including SPDIF Direct
In switch for routing the digital input signal directly to the power stage
• BurrBrown DA signal converter of the latest generation with a
resolution of 32 Bit
• Integrated, active crossover with highpass, lowpass, bandpass and
configurable bass boost
• Smart highlevel input with ADEP circuit
• Cable remote control for volume adjustment
• Compact design with low heat dissipation thanks to extraordinary
efficiency

	C FOUR
Output power RMS / max.	
- @ 4 Ohms	4 x 150 / 300 Watts
- @ 2 Ohms	4 x 220 / 440 Watts
- @ 1 Ohm	-
- bridged @ 4 Ohms	2 x 440 / 880 Watts
Frequency response	10 - 80,000 Hz
Bass boost	-
Highpass	15 - 4,000 Hz adjustable
Lowpass	15 - 4,000 Hz adjustable
Bandpass	15 - 4,000 Hz adjustable
Phase	-
Distortion (THD)	< 0.007 %
Signal-to-noise ratio	112 dB (A-weighted)
Input sensitivity	1 - 8 Volts (RCA / Cinch)
Dimensions (H x W x D)	37.1 x 430 x 240 mm / 1.46 x 16.93 x 9.45"

Optional: HDM 2 optical inputs

C FOUR
4-channel high-end amplifier
with integrated, active crossover

Features:

- Extremely broadband Class AB amplifier with eight selected MOSFET transistors per channel for exceptional sound quality - ideal for High-Resolution audio
- Ultra low-noise and distortion-free power amp drivers in Class A technology
- Enormous damping factor of 1,000 @ 4 Ohms for perfect speaker control
- Optionally available HELIX Digital Input Module (HDM) to extend the amplifier with two optical digital inputs in SPDIF format
- Integrated, active crossover with highpass, lowpass and bandpass
- Regulated DC / DC switching power supply with Start-Stop capability down to 6V supply voltage
- Microprocessor-based monitoring of amplifier status including temperature-dependent fan control
- Integrated active crossover with highpass, lowpass and bandpass filters
- Input Mode switch for flexible routing of the input signals
- Cutting-edge BurrBrown D/A converters with 32 Bit resolution in combination with the optional HDM 2 module
- Massive 24-carat gold-plated power and speaker terminals
- Quad-layer PCB with extra-solid 70μ copper traces for lowest possible losses and SMD (Surface Mounted Device) manufacturing technology

CLASS AB | HIGH-RES AUDIO | RCA INPUT | ACTIVE CROSSOVER | HDM HELIX Digital Module | A START STOP CAPABILITY | RPS Regulated Power Supply

SMD Surface Mounted Device | MADE IN GERMANY

C ONE		
Output power RMS / max.	Normal operation (One amplifier)	TwinPower Link (Two amplifiers)
- @ 4 Ohms	1 x 525 / 1,050 Watts	1 x 1,660 / 3,320 Watts
- @ 2 Ohms	1 x 830 / 1,660 Watts	1 x 2,200 / 4,400 Watts
- @ 1 Ohm	1 x 1,100 / 2,200 Watts	-
Frequency response	10 - 80,000 Hz	
Bass boost	0 - 9 dB / 40 - 120 Hz	
Highpass	15 - 4,000 Hz adjustable	
Lowpass	15 - 4,000 Hz adjustable	
Bandpass	15 - 4,000 Hz adjustable	
Phase	0 - 180° adjustable	
Distortion (THD)	< 0.006 %	
Signal-to-noise ratio	120 dB (A-weighted)	
Input sensitivity	0.5 - 8 Volts (RCA / Cinch)	
Dimensions (H x W x D)	37.1 x 430 x 240 mm / 1.46 x 16.93 x 9.45"	

Optional: HDM 1 optical input

C ONE

1-channel high-end amplifier
with integrated, active crossover
and 1 Ohm stability

Features:

- Extremely broadband Class AB amplifier for exceptional sound quality - ideal for High Resolution audio
- Incredibly stable down to 1 Ohms impedance thanks to 32 selected MOSFET power stage transistors
- Ultra low-noise and distortion-free power stage drivers in Class A technology
- Enormous damping factor of > 1,000 @ 4 Ohms for perfect speaker control
- Optionally available HELIX Digital Input Module (HDM) to extend the amplifier with an optical digital input in SPDIF format
- Regulated DC / DC switching power supply with Start-Stop capability down to 6V supply voltage
- Microprocessor-based monitoring of amplifier status including temperature-dependent fan control
- Integrated, active crossover with highpass, lowpass, bandpass, bass boost and phase control
- TwinPower Link for connecting two amplifiers in bridged mode
- Cutting-edge BurrBrown D/A converters with 32 Bit resolution in combination with the optional HDM 1 module
- Massive 24-carat gold-plated power and speaker terminals
- Quad-layer PCB with extra-solid 70µ copper traces for lowest possible losses and SMD (Surface Mounted Device) manufacturing technology

CLASS AB | HIGH-RES AUDIO | RCA INPUT | Remote Control | TPL TwinPower Link | ACTIVE CROSSOVER | HDM HELIX Digital Module

(A) START STOP CAPABILITY | RPS Regulated Power Supply | SMD Surface Mounted Device | MADE IN GERMANY

	F 62C	F 42C
Power handling RMS / max.	60 / 120 Watts	40 / 80 Watts
Frequency response	55 Hz - 22,000 Hz	100 Hz - 22,000 Hz
Efficiency 1 W / 1 m	91 dB	89 dB
Impedance	3 Ohms	3 Ohms
Installation depth W / T	61 mm / 17.3 mm; 2.40" / 0.68"	45 mm / 17.3 mm; 1.77" / 0.68"

PREISTIPP
Oberklasse
CAR&HiFi 2/2018

Helix F 62C
Absolute Spitzenklasse
Spitzenklasse
Oberklasse
CAR,HiFi
„Günstige Lautsprecher mit guter Verbau-
barkeit in allen Fahrzeugen."
1,3
Preis/Leistung:
hervorragend
Ausgabe 2/2018

USG 6
Protection grille for 6.5"
speakers optionally available

F 62C
2-way component system with 6.5" / 165 mm woofer, 0.75" / 20 mm tweeter and two-part "Flex-Crossover"

F 42C
2-way component system with 4" / 100 mm woofer, 0.75" / 20 mm tweeter and two-part "Flex-Crossover"

Features:

- Stylish & elegant HELIX design with black matt cone finish and black shiny HELIX-logo
- Woofer with novel, low resonant cone made of injected polypropylene with embedded carbon fibers
- 0.75" / 20 mm silk dome tweeter with neodymium magnet for crispy and clear treble response
- Individual HELIX basket with additional ventilation holes for better voice coil cooling and high power handling
- Solid rubber magnet protection ring with HELIX-logo
- Separate, two-part "Flex-Crossover" with 12/12 dB (F 42C: 6/12 dB) slope and integrated tweeter protection for versatile connection options - well suited for the installation in vehicles with separate mounting positions of the tweeter and woofer

	F 6X	F 4X
Power handling RMS / max.	60 / 120 Watts	40 / 80 Watts
Frequency response	60 Hz - 22,000 Hz	100 Hz - 22,000 Hz
Efficiency 1 W / 1 m	91 dB	89 dB
Impedance	3 Ohms	3 Ohms
Installation depth	58 mm; 2.30"	43 mm; 1.70"

F 6X

2-way coaxial system with 6.5" / 165 mm woofer, 0.52" / 13 mm tweeter and integrated crossover

F 4X

2-way coaxial system with 4" / 100 mm woofer, 0.52" / 13 mm tweeter and integrated crossover

Features:

- Stylish & elegant HELIX design with black matt cone finish and black shiny HELIX-logo
- Woofer with novel, low resonant cone made of injected polypropylene with embedded carbon fibers
- 0.52" / 13 mm mylar tweeter with neodymium magnet for crispy and clear treble response
- Individual HELIX basket with additional ventilation holes for better voice coil cooling and high power handling
- Solid rubber magnet protection ring with HELIX-logo
- Integrated crossover with 6 dB slope

	S 62C	S 42C
Power handling RMS / max.	100 / 200 Watts	70 / 140 Watts
Frequency response	45 Hz - 25,000 Hz	75 Hz - 25,000 Hz
Efficiency 1 W / 1 m	90 dB	89 dB
Impedance	4 Ohms	4 Ohms
Installation depth W / T	65 mm / 14 mm; 2.56" / 0.55"	46.5 mm / 14 mm; 1.83" / 0.55"

USG 6

Protection grille for 6.5"
speakers optionally available

S 62C

2-way component system with 6.5" / 165 mm woofer,
1" / 25 mm tweeter and two-part "Flex-Crossover"

S 42C

2-way component system
with 4" / 100 mm woofer,
1" / 25 mm tweeter and
two-part "Flex-Crossover"

Features:

• Woofer with novel basalt-fiber-paper compound cone – a perfect
  combination of lowest weight, high stiffness and inner damping
• 1" / 25 mm silk dome tweeter in a noble aluminum housing for balanced,
  natural sound reproduction and lowest compression effects
• Individual HELIX basket with additional ventilation holes for better voice
  coil cooling and high power handling
• Separate, two-part "Flex-Crossover" with 6/12 dB slope (S 42C:
  12/12 dB), bandstop filter and three-stage tweeter level adjustment – well
  suited for the installation in vehicles with separate mounting positions of
  the tweeter and woofer
• Crossovers solely equipped with high grade components e.g.
  low-distortion air-core coils and minimum-loss Audiotec-foil capacitors
  for tweeter crossover

	S 6X	S 4X
Power handling RMS / max.	80 / 160 Watts	60 / 120 Watts
Frequency response	50 Hz - 25,000 Hz	80 Hz - 25,000 Hz
Efficiency 1 W / 1 m	90 dB	89 dB
Impedance	4 Ohms	4 Ohms
Installation depth W / T	65 mm; 2.56"	46.5 mm; 1.83"

S 6X

2-way coaxial system with 6.5" / 165 mm woofer,
1" / 25 mm tweeter and separate crossover

S 4X

2-way coaxial system
with 4" / 100 mm woofer,
0.75" / 19 mm tweeter
and separate crossover

Features:

• Woofer with novel basalt-fiber-paper compound cone –
  a perfect combination of lowest weight, high stiffness and
  inner damping
• Specially shaped rubber surround for larger effective cone
  area and increased maximum excursion
• 1" / 25 mm tweeter with coated silk dome for balanced,
  natural sound reproduction and lowest compression effects
  (S 4X: 0.75" / 19 mm)
• Individual HELIX basket with additional ventilation holes for
  better voice coil cooling and high power handling
• Separate inline crossover with 6/12 dB slope (S 4X: 6/6 dB) and
  integrated tweeter protection

	S 6B	S 4B	S 1T
Power handling RMS / max.	100 / 200 Watts	70 / 140 Watts	100 / 200 Watts
Frequency response	45 Hz - 4,000 Hz	75 Hz - 6,000 Hz	2,500 Hz - 25,000 Hz
Efficiency 1 W / 1 m	90 dB	89 dB	91 dB
Impedance	4 Ohms	4 Ohms	4 Ohms
Installation depth	65 mm / 2.56"	46.5 mm / 1.83"	14 mm / 0.55"

S 4B
4" / 100 mm mid-woofer

S 6B
6.5" / 165 mm mid-woofer

S 1T
1" / 25 mm silk dome tweeter

Removable housing

Features:

- Mid-woofer with novel basalt-fiber-paper compound cone – a perfect combination of lowest weight, high stiffness and inner damping
- Specially shaped rubber surround for larger effective cone area and increased maximum excursion
- Individual HELIX basket with additional ventilation holes for better voice coil cooling and high power handling
- Rugged rubber magnet boot with HELIX-logo
- Gold-plated terminals

Features:

- 1" / 25 mm tweeter with high efficient neodymium magnet and coated silk dome for balanced, natural sound reproduction and lowest compression effects
- Mounting cup made from anodized aluminum with removable protection grille in exclusive HELIX design
- Lowest possible production tolerances and solely use of best materials
- Including installation material

	P 63C	P 62C	P 52C
Power handling RMS / max.	125 / 250 Watts	100 / 200 Watts	80 / 160 Watts
Frequency response	40 Hz - 25,000 Hz	40 Hz - 25,000 Hz	60 Hz - 25,000 Hz
Sensitivity	90 dB 1W / 1m	90 dB 1W / 1m	89 dB 1W / 1m
Impedance	4 Ohms	4 Ohms	4 Ohms
Installation depth W / M / T	67 mm / 30 mm / 15 mm; 2.65" / 1.19" / 0.6"	67 mm / - / 15 mm; 2.65" / - / 0.6"	62.5 mm / - / 15 mm; 2.46" / - / 0.6"

KLANGTIPP
Absolute Spitzenklasse
CAR&HiFi 5/2017

Helix P 63C
Absolute Spitzenklasse
Spitzenklasse
Oberklasse
Mittelklasse
1,2
Preis/Leistung: sehr gut
CAR&HiFi
Ausgabe 5/2017
„Top-Klang für Dreiwege-Fans."

P 62C
2-way component system with 6.5" / 165 mm woofer, 1" / 25 mm tweeter and separate crossover

P 63C
3-way component system with 6.5" / 165 mm woofer, 2" / 50 mm midrange, 1" / 25 mm tweeter and separate crossover

Features:

- Woofer with novel glassfiber-paper compound cone for maximum stiffness combined with lowest moving mass and perfect inner damping
- 2" / 50 mm midrange with lightweight, hand-coated silk dome for perfect impulse response (only P 63C)
- 1" / 25 mm tweeter with hand-coated silk dome for balanced, natural sound reproduction and lowest compression effects
- Complex 12 dB crossover network with three-stage tweeter level adjustment; solely equipped with highgrade components:
  - Low-distortion inductors with minimum DC resistance
  - Low-induction metal film resistors
  - Minimum-loss foil capacitors for midrange and tweeter crossover
- Gold-plated terminals
- Grille included

P 52C
2-way component system with 5.25" / 130 mm woofer, 1" / 25 mm tweeter and separate crossover

23

	P 6B	P 5B
Power handling RMS / max.	100 / 200 Watts	80 / 160 Watts
Frequency response	40 Hz - 4,000 Hz	60 Hz - 5,500 Hz
Sensitivity	90 dB 1W / 1m	89 dB 1W / 1m
Impedance	4 Ohms	4 Ohms
Installation depth	67 mm / 2.64"	62.5 mm / 2.46"

P 6B

6.5" / 165 mm mid-woofer

Features:

- Novel glassfiber-paper compound cone for maximum stiffness combined with lowest moving mass and perfect inner damping
- Special shaped rubber surround for long linear cone excursion
- Gold-plated terminals
- Individual HELIX design basket
- Solid rubber magnet protection ring with HELIX logo
- Grille included

	P 3M	P 1T
Power handling RMS / max.	75 / 150 Watts	100 / 200 Watts
Frequency response	400 Hz - 5,000 Hz	2,500 Hz - 25,000 Hz
Sensitivity	86 dB 1W / 1m	91 dB 1W / 1m
Impedance	4 Ohms	4 Ohms
Installation depth	37 mm / 1.5"	15 mm / 0.6"

P 3M
3" / 75 mm cone midrange speaker

Features:

- Novel glassfiber-paper compound cone for maximum stiffness combined with lowest moving mass and perfect inner damping
- Special shaped rubber surround for long linear cone excursion
- Gold-plated terminals
- Individual HELIX design basket
- Solid rubber magnet protection ring with HELIX logo
- Grille included

P 1T
1" / 25 mm silk dome tweeter

Features:

- 1" / 25 mm tweeter with high efficient neodymium magnet and hand-coated silk dome for balanced, natural sound reproduction and lowest compression effects
- Including installation and mounting equipment
- Lowest possible production tolerances and solely use of best materials

	C 63C	C 62C
Power handling RMS / max.	190 / 380 Watts	150 / 300 Watts
Frequency response	47 Hz - 25,000 Hz	47 Hz - 25,000 Hz
Sensitivity	91 dB 1W / 1m	91 dB 1W / 1m
Impedance	4 Ohms	4 Ohms
Installation depth W / M / T	67 mm / 29 mm / 21 mm;	67 mm / - / 21 mm;
	2.64" / 1.14" / 0.83"	2.64" / - / 0.83"

C 63C

3-way component system with 6.5" / 165 mm mid-woofer,
2.1" / 54 mm midrange, 1" / 25 mm tweeter and separate crossover

Features:

• Mid-woofer with sturdy aluminum diecast basket
• Large coupling volumes for tweeter and midrange allow
  exceptionally low crossover frequency
• Mid-woofer cone with scooped, long-fibered sisal
  with additional elastomer structural damping
• Virtually compression-free conversion of the amplifier power
  into sound pressure
• Lowest manufacturing tolerances and exclusive use
  of selected materials
• Frequency crossover with tweeter level adjustment and
  double woofer mode
• Manufactured in Germany
• Grille included

C 62C

2-way component system
with 6.5" / 165 mm mid-woofer,
1" / 25 mm tweeter
and separate crossover

	C 6B	C 2M	C 1T
Power handling RMS / max.	150 / 300 Watts	40 / 80 Watts	100 / 150 Watts
Frequency response	47 Hz - 5,000 Hz	550 Hz - 7,000 Hz	820 Hz - 25,000 Hz
Sensitivity	91 dB 1W / 1m	93 dB 1W / 1m	90 dB 1W / 1m
Impedance	4 Ohms	4 Ohms	4 Ohms
Installation depth	67 mm / 2.64"	31 mm / 1.22"	21 mm / 0.83"

C 2M

2.1" / 54 mm high-end midrange speaker

Features:

- Ultra lightweight silk dome for a distinguished and natural midrange response
- Sturdy protection grille for protecting the dome from damages
- 10 x drilled neodymium magnet for highest magnetic flux linearity
- Integrated, dampened coupling volume for very low resonance frequency

C 6B

6.5" / 165 mm high-end mid-woofer

Features:

- High-end mid-woofer with sturdy aluminum diecast basket
- Mid-woofer cone with scooped, long-fibered sisal with additional elastomer structural damping
- Virtually compression-free conversion of the amplifier power into sound pressure
- Lowest manufacturing tolerances and exclusive use of selected materials
- Grille included

C 1T

1 " / 25 mm high-end silk dome tweeter

Features:

- Ultra lightweight silk dome for a distinguished and natural treble response
- Sturdy protection grille for protecting the dome from damages
- 12 x drilled neodymium magnet for highest magnetic flux linearity
- Integrated, dampened coupling volume for very low resonance frequency

DIN EN ISO 9001:2015 MADE IN GERMANY ZERTIFIZIERTES UNTERNEHMEN

	K 12W	K 10W
Power handling RMS / max.	300 / 600 Watts	300 / 600 Watts
Sensitivity	90 dB 1W / 1m	88 dB 1W / 1m
Impedance	2 x 2 Ohms	2 x 2 Ohms
Resonance frequency	32 Hz	36 Hz
Qms	3.70	4.50
Qes	0.46	0.43
Qts	0.41	0.39
VAS	66 L	34 L
Max. linear excursion	+/- 8 mm	+/- 8 mm
Installation depth	144 mm / 5.67"	128.5 mm / 5.06"

K 12W

12" / 300 mm subwoofer with 2 x 2 Ohms dual voice coil for compact vented enclosures

Features:

• Extremely stiff, hand-scooped paper cone
• Double ventilated voice coil for minimum compression effects and high power handling
• Long-excursion rubber surround for highest mechanical rating
• Very long linear excursion
• 2 x 2 Ohms dual voice coil for flexible system configuration
• Solid push terminals
• Powerful magnet system for compact vented enclosures
• Rugged butyl magnet cover with HELIX lettering for perfect magnet protection

K 10W

10" / 250 mm subwoofer with 2 x 2 Ohms dual voice coil for compact vented enclosures

Grille and gasket included in delivery

	Q 15W	Q 12W	Q 10W
Power handling RMS / max.	1,000 / 2,000 Watts	1,000 / 2,000 Watts	750 / 1,500 Watts
Sensitivity	90 dB 1W / 1m	87 dB 1W / 1m	85 dB 1W / 1m
Impedance	2 x 2 Ohms	2 x 2 Ohms	2 x 2 Ohms
Resonance frequency	33 Hz	35 Hz	35 Hz
Qms	4.62	4.61	4.17
Qes	0.44	0.41	0.42
Qts	0.41	0.37	0.38
VAS	65.2 L	24.7 L	13.8 L
Max. linear excursion	+/- 14 mm	+/- 14 mm	+/- 14 mm
Installation depth	205 mm / 8.1"	185 mm / 7.3"	165 mm / 6.5"

Q 12W

12" / 300 mm subwoofer with 2 x 2 Ohms
dual voice coil

Q 15W

15" / 380 mm subwoofer with
2 x 2 Ohms dual voice coil

Q 10W

10" / 250 mm subwoofer with
2 x 2 Ohms dual voice coil

Features:

- Extremely rigid non-pressed paper cone for maximum stiffness
- Wide low-loss foam surround for maximum cone excursions
- Concave PP dustcap with embossed HELIX logo
- 2 x 2 Ohms impedance allows most flexible configuration
- High-temperature dual voice coil with enormous winding height for outstanding linear excursion
- Rock-solid diecast basket with diamond cut
- Removable rubber gasket
- Rugged butyl magnet cover with HELIX lettering for perfect magnet protection
- Solid push terminals for large wire gauge
- Extremely powerful, 9 x ventilated triple ferrite magnet system for highest magnetic flux linearity

QE12 / QE10

Vented subwoofer enclosures
for Q 12W & Q 10W optionally
available

29

	K 12E	K 10E
Power handling RMS / max.	300 / 600 Watts	300 / 600 Watts
Sensitivity	90 dB 1W / 1m	89 dB 1W / 1m
Impedance	2 x 2 Ohms / 1 x 4 Ohms	2 x 2 Ohms / 1 x 4 Ohms
Max. linear excursion	+/- 8 mm	+/- 8 mm
Dimensions (H x W x D)	400 x 400 x 345 mm /	365 x 350 x 290 mm /
	15.8 x 15.8 x 13.6"	14.4 x 13.8 x 11.4"

Helix K 12E
Absolute Spitzenklasse
Spitzenklasse
Oberklasse
1,4
Preis/Leistung: sehr gut
CAR & HiFi Ausgabe 1/2018
„Toll gemacht, für Ein- und Aufsteiger."

Helix K 10E
Absolute Spitzenklasse
Spitzenklasse
Oberklasse
1,3
Preis/Leistung: sehr gut
CAR & HiFi Ausgabe 1/2018
„Toll gemacht, für Ein- und Aufsteiger."

K 12E

Compact vented subwoofer with 12" / 300 mm chassis and a variable impedance of 2 x 2 Ohms or 1 x 4 Ohms

Features:

- Compact, space-saving enclosure design
- Long-excursion woofer with extremely stiff, hand-scooped paper cone
- Double ventilated voice coil for minimum compression effects and high power handling
- Voice coil impedance configurable via connection terminal – 2 x 2 Ohms or 1 x 4 Ohms
- Solid metal grille for perfect woofer protection
- Lead wires woven into spider
- Exponentially shaped port minimizes air flow noise

K 10E

Compact vented subwoofer with 10" / 250 mm chassis and a variable impedance of 2 x 2 Ohms or 1 x 4 Ohms

	U 10A	U 8A
Power handling RMS / max.	180 / 360 Watts	180 / 360 Watts
Woofer diameter	10" / 250 mm	8" / 200 mm
Frequency response	40 - 150 Hz	45 - 150 Hz
Input sensitivity	1.2 - 20 Volts (Highlevel), 0.3 - 4 Volts (RCA / Cinch)	1.2 - 20 Volts (Highlevel), 0.3 - 4 Volts (RCA / Cinch)
Lowpass	50 - 150 Hz adjustable	50 - 150 Hz adjustable
Subsonic	16 Hz / 12dB/Oct.	16 Hz / 12dB/Oct.
Phase switch	0° / 180° switchable	0° / 180° switchable
Phase shift	0 - 180° adjustable	0 - 180° adjustable
Distortion	< 0.4 %	< 0.4 %
Dimensions (H x W x D)	78 x 245 x 345 mm / 3.07 x 9.65 x 13.58"	78 x 245 x 345 mm / 3.07 x 9.65 x 13.58"

U 10A

Ultra-compact 10" / 250 mm active subwoofer

U 8A

Ultra-compact 8" / 200 mm active subwoofer

Features:

- Powerful, integrated Class AB amplifier with 180 W RMS power for punchy bass
- Solid and low-resonance diecast aluminium housing for precise bass reproduction and optimum heat dissipation
- Heavy-duty 10" / 250 mm chassis with extremely stable aluminum cone for compression-free transformation of the amplifier power into sound pressure (U 8A: 8" / 200 mm)
- 2-channel highlevel input with Auto Turn-on function as well as 2-channel lowlevel input
- Continuously adjustable, steep-flanked lowpass filter
- Particularly sensitive adjustment of the phase
- Cable remote control for volume adjustment included in delivery
- Especially flat housing design - ideal for space-saving under-seat mounting

Included in delivery

The HEC modules are delivered with the device specific side panel and available for HELIX DSP PRO MK2, HELIX DSP PRO, HELIX DSP.3, HELIX DSP.2 HELIX DSP MINI, HELIX V EIGHT DSP, HELIX P SIX DSP MK2, HELIX P SIX DSP.
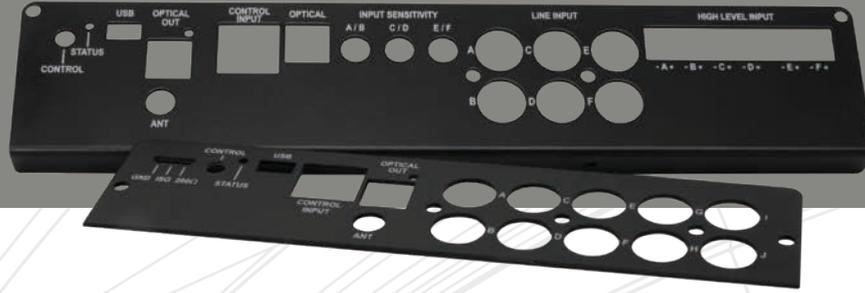
HELIX EXTENSION CARDS

HEC BT

Features:

Bluetooth® input module
- Bluetooth® audio streaming featuring Qualcomm® aptX™ audio
- Compatible with all devices featuring Bluetooth® wireless technology
- Direct digital signal transmission to DSP for lossless audio processing
- Additional digital optical output

HEC HD-AUDIO USB-INTERFACE

Features:

USB Interface for Windows, macOS, iOS and Android devices
- Lossless HD-audio transmission up to 192 kHz / 32 Bit
- Asynchronous USB connection with own clock generators for highest jitter immunity
- Direct digital signal transmission to DSP for lossless audio processing
- Automatic signal detection

HEC OPTICAL IN

Features:

Optical input module
- Accepts all digital sources with SPDIF format (stereo PCM only)
- Input sampling rate from 28 kHz to 96 kHz
- High jitter immunity
- Automatic signal detection

HEC AUX IN

Features:

Optical input module
- Accepts all digital sources with SPDIF format (stereo PCM only)
- Input sampling rate from 28 kHz to 96 kHz
- High jitter immunity
- Automatic signal detection

SDMI25	
Input	1 x MOST25
Output	1 x Optical SPDIF (48 kHz / 24 Bit)
Frequency response	10 - 22,000 Hz
Operating voltage	9.6 - 18 Volts (5 sec. down to 6 Volts)
Dimensions (H x W x D)	34,60 x 62 x 102 mm; 1.36 x 2.44 x 4.02"

AAC.3	
Max. speaker input level	16 Volts (= 65 Watts / 4 Ohms)
Input impedance	13 Ohms
Max. output level	4.0 Volts
Frequency response	18 Hz - 80,000 Hz
Max. current for remote output	200 mA
Operating voltage	7 - 18 Volts
Dimensions (H x W x D)	77 x 37 x 20 mm / 3.03 x 1.46 x 0.79"

SDMI25

Intelligent MOST25 interface for easy integration of a DSP product into modern vehicles with premium sound system

Features:

- Interface for generating a digital stereo signal in optical SPDIF format from the MOST data stream
- Allows an easy integration of a DSP product into modern vehicles with premium sound system
- Fits in vehicles from Audi, BMW, Land Rover, Lamborghini, Mercedes, Porsche, Volvo and VW. An up-to-date list of vehicle compatibility can be found at www.audiotec-fischer.com
- Easy vehicle-specific configuration due to jumpers – thus no additional software is required
- Remote output for switching on and off external components
- Transmission of all vehicle signals (e.g. parktronic signals)
- Volume and sound control by original head unit
- Start-Stop capability down to 6 Volts supply voltage
- Very compact design for easy integration into the vehicle

AAC.3

Smart active high-low converter with integrated speaker load simulation circuit

Features:

- Allows a simple connection of additional amplifiers to your factory sound system
- Suitable for all car radios – even those with factory-installed amps
- "ADEP.3 circuit" for bypassing radio diagnostic systems
- Microcontroller-controlled monitoring of the music signal and generation of the remote signal
- "Power Save Mode" – significantly reduces the power consumption of connected amplifiers when no input signal is present (after 2 min.)
- "Double Activation Circuit" – generates a +12 V remote signal in two different ways to turn on connected amplifiers
- Excellent sound quality thanks to very wide frequency response (18 Hz - 80 kHz)
- High-quality, sealed and gold plated RCA / Cinch connectors for lossless signal transmission

REMOTE CONTROLS

DIRECTOR
Remote control with Touchscreen

Features:

- 2.8" / 7 cm touchscreen display and powerful ARM processor
- Easy handling of the main functions
  - Volume control of all sources
  - Volume control of the subwoofer
  - Source selection
  - Control of the HEC BT module (Bluetooth® Connect functions: pairing, reconnect, disconnect / Bluetooth® Control functions: track forward/back, play/pause)
  - Switching between sound setups
- Memory locations for 20 additional sound setups
- Automatic dimming function of the display
- Display rotation adjustable to 180°
- USB Paththrough - to connect your computer to the DSP
- Compatible with all DSP products which are supported by DSP PC-Tool Version 3 and higher
- Exclusive solid aluminum housing
- 17' / 5.2 m connection cable included
- Dimensions (H x W x D): 53.50 x 135 x 18 mm / 2.07 x 5.32 x 0.71"

DIRECTOR graphical user interface

Fig. 1: Volume menu
Fig. 2: Bluetooth® Control menu

DIRECTOR CREATE
DIRECTOR construction set without housing

DIN EN ISO 9001:2015
MADE IN GERMANY
ZERTIFIZIERTES UNTERNEHMEN

WIFI CONTROL
Universal WiFi control for DSP products

Features:

• WiFi interface for wireless configuration and control of BRAX, HELIX and MATCH DSP products
• The HELIX WIFI CONTROL establishes a wireless communication between your PC and DSP device
• The integrated web server offers for all DSP products with the new ACO platform the option to control additional features remotely such as:
     • Volume control of all sources
     • Volume control of the subwoofer
     • Source selection
     • Switching between sound setups
• The web server is compatible with several operating systems e.g. Apple iOS, Android, Microsoft Windows, Linux etc.
• Software > DSP PC-Tool 4.50 or higher

DMP
DIRECTOR mounting panel made of ABS with black soft touch finish for a safe, recessed and easy installation of the remote control DIRECTOR into the vehicle

Features:

• Material: ABS with black soft touch finish
• Fastening screws for fixing the DIRECTOR to the mounting panel are included in delivery

URC.3
Cable remote control for DSP products

Features:

• Functionality of rotary knobs / switch can be defined in the DSP PC-Tool software
• Cable length 17" / 5.2 m
• An up-to-date list of device compatibility can be found at www.audiotec-fischer.com
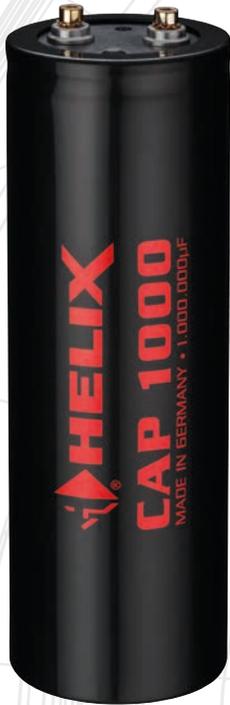
CAP 1000

Power cap with a capacity of 1.000.000 µF

- Diameter: 3" / 75 mm
- Length: 11.1" / 282 mm

CAP 33

Alternator noise suppression cap with a capacity of 33.000 µF

- Diameter: 1.38" / 35 mm
- Length: 4" / 100 mm

MTK 1

Measurement Tool Kit for analysing the acoustical frequency response in the car

Features:

- High-grade measurement microphone
- External USB sound card with phantom powering
- Microphone cable 2.5 m
- USB stick including test signals and software

USG 6

Universal speaker protection grille for all 6.5" HELIX speakers with DIN-basket

CAP HOLDER SET

Holder set for mounting HELIX CAP 1000

CLASS AB
The most common and traditional analog amplifier concept. This technology is still unbeatable when uncompromising sound quality is a must. Though Class AB amps generate more heat compared to digital amplifier concepts and therefore require larger heat sinks and higher supply currents they will be audiophile's preferred choice.

CLASS D
This digital (switching) amplifier concept offers significantly better efficiency than Class AB amplifiers. Besides lower heat dissipation, Class D amplifiers require lower currents from the power supply means less stress for the car's battery / alternator system as well. Nevertheless, conventional Class D amps still do not achieve the excellent figures of the best Class AB designs in terms of THD, bandwidth and damping factor.

CLASS GD
Audiotec Fischer´s proprietary Class GD concept takes the efficiency of conventional Class D amps to the next level. By varying the internal supply voltage in several steps depending on the amplifier's input signals, idle losses are significantly reduced and overall efficiency is close to maximum at any time. So heat dissipation is almost negligible, thus allowing smallest heat sinks and most compact form factors.

CLASS HD
The unique Class HD concept combines the advantages of a Class H technology with the principle of a class D amplifier. The result is an unsurpassed efficiency which easily outperforms any conventional Class D amplifier. By continuously varying the internal supply voltage depending on the amplifier's amplitude of the input signals, idle losses are significantly reduced and overall efficiency is close to maximum at any time.

ULTRA HD / CLASS D
Compared to conventional Class D amps, this concept achieves an extended frequency response to more than 40 kHz in combination with reduced distortion thanks to an advanced integrated feedback design. Ultra HD Class D achieves outstanding, "Class AB-like" sound quality combined with the efficiency of a Class D amplifier.

HIGH-RES AUDIO
Supports a lossless audio reproduction of High Resolution audio content.

64 BIT DSP INSIDE
Audio DSP with 64 Bit resolution inside. Complex filter settings may require more than 32 Bit word length in order to reliably avoid quantization distortion and noise. That's why our DSP's perform all calculations with the enormous resolution of 64 Bit, means acoustical artifacts will have no chance at all.

ACO Advanced CoProcessor
Advanced 32 Bit CoProcessor platform (ACO) for a bunch of new system and DSP features. For example the unique DSP sound effects (Augmented Bass Processing, StageXpander, RealCenter etc.), the speed advantages in data communication or the opportunity of software upgrades of all components of the DSP.

ADEP.2 Advanced Diagnostics Error Protection
Smart highlevel input ADEP.2 – The latest generation of OE car radios incorporates sophisticated possibilities of diagnosing the connected speakers. If a common amplifier or signal processor will be hooked up, failure messages and loss of specific features (e.g. fader function) quite often appear.
Additionally, new power stage concepts in some radios may cause asymmetrical output signals which lead to distortion in the AD converters.
The ADEP.2 circuit avoids all these problems without loading the speaker outputs of the OE radio during high volumes unnecessarily.

ADEP.3 Advanced Diagnostics Error Protection
Smart highlevel input ADEP.3 – Our latest version of our "Advanced Diagnostics Error Protection" circuit which can even handle the requirements of the latest generation of OEM car radios.
For the first time the circuit is also controlled by our integrated CoProcessor which allows to further interact with the diagnostic systems of modern radios.
Therefore the ADEP.3 ensures the best compatibility to most of all OE radios without loading the speaker outputs during high volumes unnecessarily.

DSP PC-TOOL
Individual DSP configuration with the professional and very user-friendly Audiotec Fischer DSP PC-Tool software.
The DSP PC-Tool software with its numerous adjustment options allows an extremely precise sound tuning even under most demanding acoustical conditions.

ISA Input Signal Analyzer
The Input Signal Analyzer allows to measure the audio signal which comes from the car radio and to compensate this if necessary. By doing so it is possible to de-equalize any ex-factory sound settings which makes further manual adjustments of the DSP easier.

SFX DSP Sound Effects
This device supports Audiotec Fischers unique DSP sound algorithms like the "Augmented Bass Processing", "StageXpander", "RealCenter" etc.

ON OFF AUTO REMOTE SWITCH
The Auto Remote switch allows to activate or deactivate the amplifier´s / signal processor´s automatic turn-on feature via the highlevel input.

HIGHLEVEL INPUT
Highlevel speaker inputs for connecting factory radios / amplifiers or aftermarket radios without lowlevel line outputs.

RCA INPUT
RCA / Cinch inputs for connecting pre-amplifier signals.

OPTICAL INPUT
Optical, digital stereo signal input in SPDIF format for connecting signal sources with a digital audio output.

OPTICAL OUTPUT
Optical, digital stereo signal output in SPDIF format for connecting devices with digital input e.g. amplifiers or another DSP.

COAX INPUT
Electrical, digital stereo signal input in SPDIF format for connecting signal sources with a digital audio output.

HEC SLOT
The HELIX Extension Card slot (HEC slot) allows adding further interfaces, such as a Bluetooth® Audio Streaming module or a High Resolution Audio USB soundcard.

HDM HELIX Digital Module
The HELIX Digital Input Module (HDM) slot allows extending amplifiers (depending on the amplifier model) with one or two optical digital inputs in SPDIF format including SPDIF Direct In function.

TPL TwinPower Link
The TwinPower Link allows to run two amplifiers of the same model in series which more than doubles the output power (depending on the speaker configuration).

START STOP CAPABILITY
This device is designed for use in cars with start / stop feature. Even during short voltage drops down to 6 Volts (e.g. while engine start) the functionality of the device remains stable and unaffected.

PSM Power Save Mode
The Power Save Mode allows to significantly reduce the power consumption of the amplifier and / or signal processor in modern OEM integration installations. The integrated and / or connected amplifiers will be shut off when no music signal is detected for a specific time.

RPS Regulated Power Supply
The Regulated power supply assures a 100 % stable internal supply voltage independent of the battery voltage and output load which provides stable output power under all conceivable operating conditions.

SMD Surface Mounted Device
The SMD manufacturing technology (Surface Mounted Device) combines minimum space requirement with maximum reliability.

ACTIVE CROSSOVER
The device provides an integrated, active crossover with various filter configuration options.

Remote Control
The connection of a remote control is possible which allows to adjust several features of the device e.g. the subwoofer volume. In some cases, the remote control is already included in delivery. Otherwise an appropriate remote control can be purchased optionally.

Ultra Compact Dimensions
Very compact design for smooth integration into the vehicle.

MADE IN GERMANY
Quality Made in Germany. All products with the "Made in Germany" button are developed, manufactured and tested at our headquarters in Schmallenberg, Germany.

EVERYTHING UNDER CONTROL

The DSP PC-Tool is the software to configure all DSP products from Audiotec Fischer. This professional and user-friendly software with its numerous adjustment options allows an extremely precise sound tuning even under most demanding acoustical conditions.

SMART GRAPHICAL USER INTERFACE

The key strength of the DSP PC-Tool is its simple but very intuitive, scalable graphical user interface.
It consists out of five sub-menus only which give you a direct access to all important DSP and hardware adjustments.

The MAIN page provides direct access to all channel specific sound tuning options at once – you can easily set up highpass & lowpass filters, phase, polarity, time alignment and output level adjustments as well as the powerful equalizer which can be used as a graphical EQ, parametric EQ, shelf EQ or even as an allpass filter.
And the best is that all these adjustments are instantly applied and simultaneously shown in the frequency chart which always gives you a comprehensive overview of all tunings.

The DCM page allows to easily set up all device specific configurations like remote control, extension card and amplifier adjustments.
It contains also a signal management tab which allows to further set up all additional signal inputs.
In addition this menu contains also general options about the DSP PC-Tool itself.
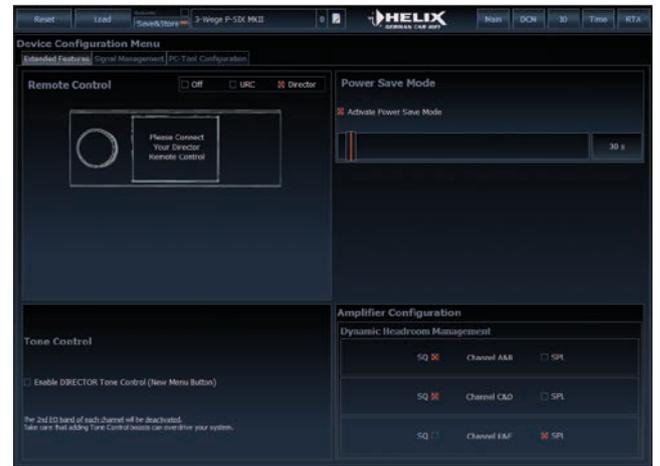
The IO page offers a very intuitive way of organizing all inputs and outputs. It allows assigning names to all channels, summing up input signals as well as routing any input signal to any output. You can create the setup you want to have – there are no restrictions or limitations. In addition the IO menu provides a powerful input EQ which ensures the perfect integration of several signal sources into one DSP.
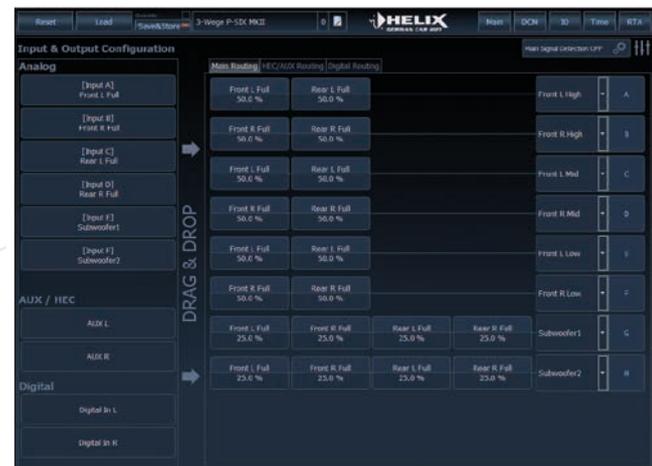
Sound Tuning Magazine

Loads of hints and tricks how to use our DSP PC-Tool software versions plus several advice for a proper calibration of a sound equipment can be found in our Sound Tuning Magazines "DSP Special Vol.1" and "DSP Special Vol.2". They can be downloaded for free at the Audiotec Fischer website www.audiotec-fischer.com
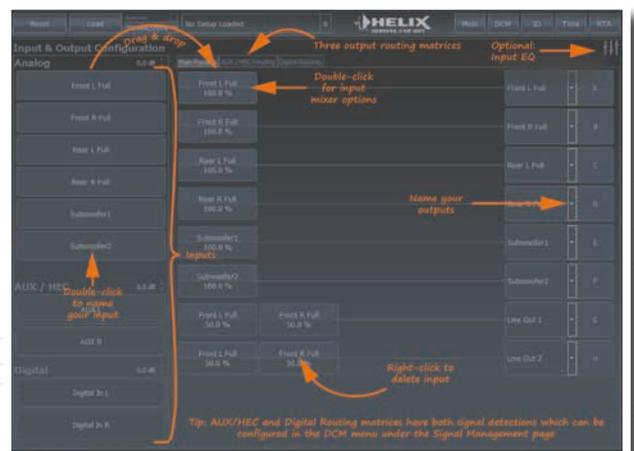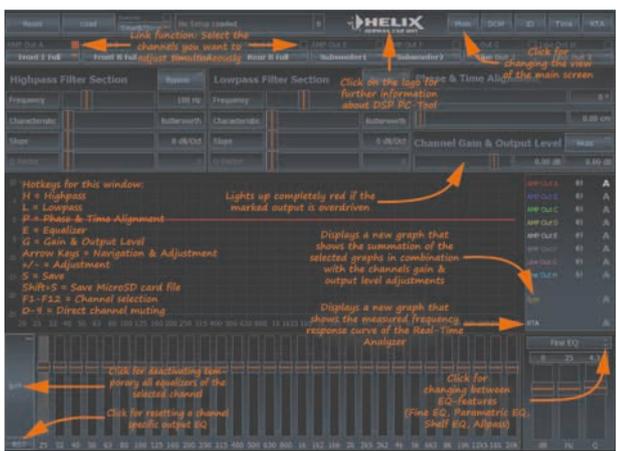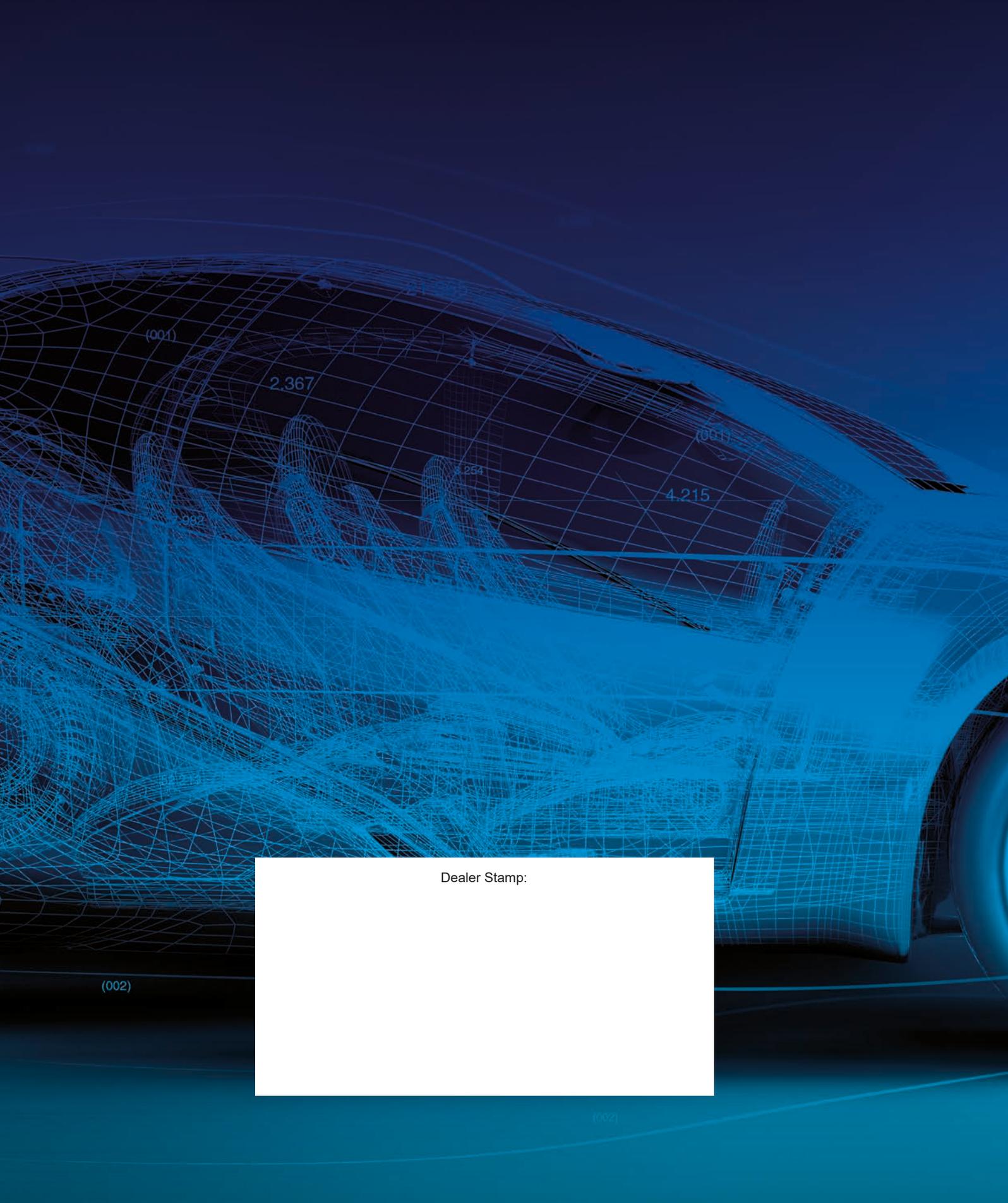

The TIME page gives a very simple overview of all time alignment and phase adjustments of every channel at a glance. It offers two adjustment modes; the delay mode allows entering direct delay values whereas the distance mode enables inserting the measured distances to each speaker and the DSP PC-Tool automatically calculates the necessary time delay for each channel.

The RTA function opens a new window which provides a user-friendly and comprehensive Real Time Analyzer that makes the DSP adjustment even more easy and comfortable. Our integrated RTA is fully optimized for in-car measurements. It provides a target curve and even offers the possibilities to set up your EQ semi-automatically.
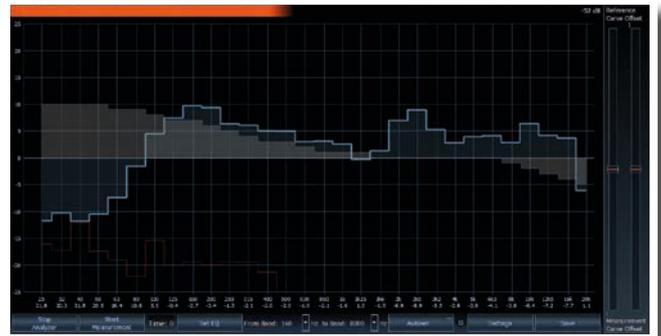
And to ensure that the DSP PC-Tool provides always the best functionality and user-experience the software is constantly optimized and updated – for all new and even older products. New updates can always be found for free at www.audiotec-fischer.com

Dealer Stamp:

AUDIOTEC
FISCHER

www.audiotec-fischer.com