

# KLIPPEL Analyzer System Price-List



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**All prices net, EXW (tax, duty, transportation, support extra)**

Item No.	Product	Explanation	required HW	Spec	Price per Unit	QC-EOL
<b>Hardware</b>						
2000-300	KA3 - Klippel Analyzer 3	incl. Laser Card, Speaker Card, XLR Card, cable set, project management software (dB-Lab 210)		H3	6.170 EUR	
2000-310	KA3 - Klippel Analyzer 3 + internal Amp	incl. Amp Card, Laser Card, Speaker Card, XLR Card, cable set, project management software (dB-Lab 210)		H3	7.170 EUR	
4000-100	PA - Production Analyzer	QC hardware incl. cable set		H4	4.200 EUR	✓
2000-101	PM8 - Power Monitor 8	processor unit (8 DUTs) for power testing, incl. cable set		H2	4.500 EUR	
<b>QC - Software for end-of-line testing (EOL)*</b>						
4002-010	QC STANDARD Software	EOL-testing with SPL Task and Impedance Task, open for additional optional tasks	PA	C3	3.300 EUR	✓
4003-002	QC BASIC Software (incl. THD + R&B)	EOL-testing with SPL-Impedance task only	PA	C3	1.500 EUR	✓
4000-210	QC Remote Configuration Software	allows modification of limits and set up without hardware	Dongle	S14	1.300 EUR	✓
<b>Transducer Parameter Identification Modules*</b>						
2000-250	LSI3 Woofer - Large Signal Identification for KA3	identification of linear and nonlinear parameters of woofers in free air, sealed and vented enclosures	KA3	S52	5.600 EUR	
2000-260	LSI3 Micro-Speaker - Large Signal Identification for KA3	identification of linear and nonlinear parameters of micro-speakers, tweeters and compression drivers in free air, sealed and vented enclosures	KA3	S52	5.600 EUR	
4000-230	MSC - Motor + Suspension Check	QC-Task: fast measurement of voice coil offset and suspension asymmetry	KA3, PA	S13	4.950 EUR	✓
1000-212	LSI Woofer - Large Signal Identification Woofer	identification of linear, nonlinear and thermal parameters of woofer drivers in free air	DA2	S1	6.500 EUR	
1000-230	LSI Woofer + Box - Large Signal Identification Woofer + Box	identification of linear, nonlinear and thermal parameters of woofer drivers in free air, sealed and vented enclosures	DA2	S1	7.400 EUR	
1000-232	LSI Woofer + Box Upgrade	upgrade from LSI Woofer to LSI Woofer + Box	DA2	S1	900 EUR	
1000-220	LSI Tweeter - Large Signal Identification Tweeter	identification of linear, nonlinear and thermal parameters of tweeters, micro speakers, compression drivers in free air	DA2	S1	6.500 EUR	
1000-221	LSI Tweeter special	special price for LSI Woofer user	DA2	S1	2.900 EUR	
4000-260	BAC - Balanced Armature Check	QC-Task: measure of armature offset	KA3, PA	S39	5.200 EUR	✓
1000-400	LPM - Linear Parameter Measurement	identification of linear electrical and mechanical parameters	KA3, DA2	S2	950 EUR	
1000-402	MMT - Micro-Speaker Multipoint Tool	post-processing of the results of multiple LPM measurements (LPM required)	DA2, Dongle	AN50	2.800 EUR	
4000-262	IMP - Impedance Task	QC-Task: Linear Parameter Measurement (TS-Parameter)	KA3, PA		950 EUR	
<b>Frequency Response + Distortion Modules*</b>						
1000-900	TRF Standard - Transfer Function Measurement Standard	measurement of transfer function and harmonic distortion	KA3, DA2	S7	950 EUR	
1000-910	TRF Pro - Transfer Function Measurement Professional	measurement of transfer function, harmonic distortion and rub & buzz	KA3, DA2	S8	1.950 EUR	
1000-911	TRF Pro Upgrade	upgrade from TRF Standard to TRF Pro	KA3, DA2	S8	1.000 EUR	

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1000-800	DIS - 3D Distortion Measurement Standard	measurement of intermodulation distortion, harmonic distortion, DC displacement and compression (IEC 60268-5)	KA3, DA2	S4	3.300 EUR	
1000-810	DIS Pro - 3D Distortion Measurement Professional	DIS features + measurement of HI2 and amplitude intermodulation distortion	KA3, DA2	S4	4.300 EUR	
1000-811	DIS Pro Upgrade	upgrade from DIS to DIS Pro	KA3, DA2	S4	1.000 EUR	
1001-109	TBM - Tone Burst Measurement	peak SPL measurements using tone burst signals (CEA2010)	KA3, DA2	S44	1.900 EUR	
4000-240	ALD - Air Leak Detection	QC-Task: detect air leaks in transducers and audio systems	KA3, PA	S18	3.200 EUR	✓
4000-263	SPL - Sound pressure based acoustic tests	QC-Task: measurement of frequency response, THD and Rub&Buzz	KA3, PA		1.400 EUR	
<b>Simulation, Auralization Modules*</b>						
1000-310	SIM - Simulation	linear, nonlinear and thermal simulation	Dongle	S3	3.570 EUR	
1000-601	SIM-AUR - Simulation-Auralization	simulation and auralization of large signal speaker performance (music)	Dongle	S24	4.300 EUR	
1001-104	DIF-AUR - Difference-Auralization (beta-version)	auralization of defect symptoms based on signal differences	Dongle	S22	3.800 EUR	✓
4000-243	ALS - Air Leak Stethoscope	QC-Task: localization of air leaks in loudspeaker systems	KA3, PA	S30	2.800 EUR	✓
1002-100	ARES MAE300-AM-V100	3rd party software by MAE: Acoustical Modeling and Design Tool - Perpetual License			9.600 EUR	
1002-101	ARES MAE300-AM-V100-1YL	3rd party software by MAE: Acoustical Modeling and Design Tool - Annual License			3.400 EUR	
1002-102	ARES MAE300-AM-V100-MF	3rd party software by MAE: Acoustical Modeling and Design Tool - Annual Updates & Support Package			1.500 EUR	
<b>Scanning Vibrometer*</b>						
2510-001	SCN Vibrometer Set	3D scanner + motor control + SCN Analysis Software (2 licenses for DA + USB Dongle, or for 2 USB Dongle - for use with KA3)	KA3/DA2 + Dongle	C5	27.000 EUR	
2510-010	SCN Analysis Software	vibration and radiation analysis software (visualization, SPL, directivity, decomposition), for 1 USB Dongle without SCN Hardware	Dongle	C5	7.800 EUR	
2510-013	SCN Analysis Software Update	from Version 1 to Version 2	Dongle	C5	1.900 EUR	
2510-030	Radiation Area SD Module	SCN Module: calculation of effective radiation area SD	DA2, Dongle	C5	1.050 EUR	
2510-040	SCN Sound Power / Directivity Module	SCN Module: calculation of sound power and directivity index	DA2, Dongle	C5	1.050 EUR	
2510-020	Import/Export Interface	SCN Module: data import, export and geometry	DA2, Dongle	C5	1.900 EUR	
1001-108	RMA - Rocking Mode Analysis	detection of the root-cause (inhomogeneous stiffness, mass or B-field distribution)	Dongle	S49	3.900 EUR	
1001-111	HMA - Higher Order Modal Analysis (beta-version)	automatic extraction of modal parameters	Dongle	S51	2.500 EUR	
2510-043	Poly2SCN	merging 2D or 3D vibration-geometry data from Polytec scanning systems to the Klippel SCN Software (Import/Export Interface also required)	Dongle	S45	1.800 EUR	

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<b>Directivity + Room Correction*</b>						
2520-010	Near Field Scanner System	incl. NFS HW, NFS Robotics SW, NFS Visualisation SW, NFS Field Identification SW (2 licenses for KA3/DA + Dongle)	KA3/DA2 + Dongle	C8	39.000 EUR	
2520-020	Near Field Scanner extended System w/ 2m Z-axis	incl. NFS HW with 2m Z-axis, NFS Robotics SW, NFS Visualisation SW, NFS Field Identification SW (2 licenses for KA3/DA + Dongle)	KA3/DA2 + Dongle	C8	39.900 EUR	
2520-012	NFS Field Separation Module	measurement under non-anechoic conditions	KA3/DA2 + Dongle	C8	19.000 EUR	
2520-013	NFS Near Field Analysis Module	Near Field Analysis	KA3/DA2 + Dongle	C8	4.800 EUR	
2520-015	NFS Comparison Module	comfortable comparison of NFS measurements	KA3/DA2 + Dongle	C8	2.900 EUR	
2520-016	NFS Complex Data Export Module	amplitude and phase export (EASE)	KA3/DA2 + Dongle	C8	6.800 EUR	
2520-017	NFS Multi-Source Superposition Module	comfortable scanning of multiple transducers of a loudspeaker array (Multiplexer Speakon recommended)	KA3/DA2 + Dongle	C8	2.800 EUR	
2520-018	NFS Baffle Measurement Module (beta-version)	measurement of transducers mounted in a baffle (baffle frame and calibration helper required)	KA3/DA2 + Dongle	C8	4.900 EUR	
2520-019	NFS Holographic Parameter Export Module (beta-version)	export of comprehensive holographic coefficients describing the entire sound field	KA3/DA2 + Dongle	C8	6.800 EUR	
2520-030	CRC - Complex Room Compensation (beta-version)	correction filter for compensation of room influence	KA3/DA2 + Dongle		1.200 EUR	
1001-103	POL - Polar Far Field Measurement Ver. 2	anechoic directivity measurement (CEA 2034, TRF and turn table required)	KA3, DA2	S41	1.800 EUR	
2560-001	Turntable Outline ET250 -3D Set	precision turntable for polar measurement, incl. power cord, 3m RJ45 Cat6 cable	KA3, DA2		5.610 EUR	
<b>Transducer Part + Material Parameter Measurement*</b>						
2500-100	SPM Pro Bench Set	for linear + nonlinear testing incl. Ring Set and Cup & Cone Set (metal)	KA3 + Dongle, DA2	C2	7.860 EUR	
2500-101	SPM Pro Bench	Measurement Bench without clamping parts for SPM Pro/Lite, LST	KA3/PA + Dongel, DA2	C2, C6	5.520 EUR	✓
2500-300	LST Bench Set - for Internal Laser	for QC: LST testing of spiders, surrounds, cones, passive radiators, incl. internal laser mounting and adjustment slider	KA3/PA + Dongel, DA2	C6	950 EUR	✓
2500-310	LST Bench Set - for External Laser	for QC: LST testing for RnD: linear SPM & MPM measurements of spiders, surrounds, cones, passive radiators, incl. external laser mounting and adjustment bar	KA3/PA + Dongel, DA2	C6	1.400 EUR	✓
2500-142	LST - Internal Laser Fixture Set	2-dimensional internal Laser mounting and adjustment unit, incl. mounting brackets and screws, distance adjustment washer set		C6	300 EUR	✓
2500-141	LST - External Laser Fixture	2-dimensional external laser mounting and adjustment boom, incl. sensor slide rail, laser sensor rod		C6	740 EUR	✓
2500-302	Ring Set	clamping parts for SPM Bench + LST Bench		C2	1.310 EUR	✓
2500-111	Cup & Cone Set (metal)	clamping parts for SPM Bench		C2	1.150 EUR	
2500-301	Cone Set (plastic)	clamping parts for LST Bench (SPM Bench)		C6	470 EUR	✓
2500-103	SPM Lite - Suspension Part Measurement Lite	software for linear testing with LST Bench	KA3 + Dongle, DA2	C2	950 EUR	
2500-102	SPM Pro - Suspension Part Measurement Professional	software for linear and nonlinear testing	KA3 + Dongle, DA2	C2	2.400 EUR	

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4000-242	LST Lite - Linear Suspension Test Lite	QC-Task: compliance check of spiders, cones and surrounds	KA3/PA + Dongle	C6	1.050 EUR	✓
4000-244	LST Pro - Linear Suspension Test Professional	QC-Task: LST Lite features + monitoring mass and stiffness deviation for passive radiators	KA3/PA + Dongle	C6	2.000 EUR	✓
4000-248	LST Pro Upgrade	upgrade from LSI Lite to LSI Pro		C6	950 EUR	✓
2500-604	MSPM Bench Set, Rev. 1.1	Small measurement bench for linear + nonlinear testing of small suspension parts (micro-speakers, headphones), Rev. 1.1 incl. Extended Clamping Ring + Adapter, 70mm	KA3, DA2	A12	1.800 EUR	
2500-603	MSPM Lite - Micro Suspension Part Measurement Lite	software for linear testing of small suspension parts (micro-speakers, headphones)	KA3, DA2	C10	2.800 EUR	
2500-602	MSPM Pro - Micro Suspension Part Measurement Professional	software for linear and nonlinear testing of small suspension parts (micro-speakers, headphones)	KA3, DA2	C11	6.800 EUR	
2500-200	MPM Clamp for SPM Bench	MPM measurement clamping set as accessory for SPM Pro Bench		C4	740 EUR	
2500-220	MPM Clamp for LST Bench Set, incl. LST Fixing Grips	MPM measurement clamping set incl. LST Fixing Grips as accessory for LST Bench		C4	890 EUR	
2500-210	MPM - Material Parameter Measurement	software for parameter measurement: E modulus, loss factor	DA2, Dongle	C4	1.900 EUR	
2510-211	BFS-Sensor	sensor for B-field measurement, accessory for SCN or stand-alone with KA3/DA2	KA3, DA2	A11	735 EUR	
2510-210	BFS - B-Field Scanner Software	data acquisition & post processing (SCN Vibrometer Set required)	KA3, DA2	S47	3.400 EUR	
2510-212	Reference Magnet for B-Field Scanner	approximately B=140mT, -0.11%/°C, +/- 0.7%, 80x35mm		A11	620 EUR	
<b>Power Test Modules*</b>						
1000-710	PWT Lite - Power Test Lite	power testing with temperature measurement	DA2, PM8	S6	2.300 EUR	
1000-700	PWT Pro - Power Test Professional	power testing with temperature measurement and transducer identification	DA2, PM8	S6	6.600 EUR	
1000-711	PWT Pro Upgrade	upgrade from PWT Lite to PWT Pro	DA2, PM8	S6	4.300 EUR	
1000-401	LPM for PM8 - Linear Parameter Measurement for Power Monitor 8	LPM for intermittent testing (without laser measurement)	PM8	S2	500 EUR	
1001-101	PWT Intermittent Summary Tool Ver. 2	for summarizing results from PWT+LPM intermittent testing	DA2, PM8	AN29	1.500 EUR	
<b>Post-Processing Tools*</b>						
4000-222	CST - Curve Statistics (beta-version)	statistical analysis of curve data, get meaningful limits from mass production	Dongle	S48	1.260 EUR	✓
1001-106	ADC - Automatic Defect Classification (beta-version)	statistical analysis for classification and root cause analysis of test results	Dongle	S38	6.700 EUR	✓
4000-220	MSP - Match-Speaker-Tool	find best matching pairs from a pool of speakers	Dongle	S15	1.900 EUR	✓
1001-112	PPP - Programmable Post-Processing	user defined calculation and post-processing of measurement results in dB-Lab	Dongle	S53	490 EUR	
<b>Software Add-ons*</b>						
1001-107	SYN - External Synchronization	synchronizing digital audio (e.g. Bluetooth); option for QC-Task (QC-STANDARD or QC-Task required)	KA3, PA	S32	1.400 EUR	✓
4000-250	PNI - Production Noise Immunity	coping with noisy environment; option for SPL Task (QC-STANDARD or SPL Task required)	KA3, PA	S21	2.300 EUR	✓

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Item No.	Product	Explanation	required HW	Spec	Price per Unit	QC-EOL
4000-200	MHT - Meta Hearing Technology	defect detection beyond human hearing; option for SPL Task (QC STANDARD or SPL Task required)	KA3, PA	S20	1.370 EUR	✓
4000-241	EXD - External Devices	QC-Task: integration of external measurement equipment (GPIB)	Dongle	S31	1.000 EUR	✓
4000-245	EQA - Equalization & Alignment Standard	QC-Task: adjustment to user defined response (automatically or manually)	KA3, PA	S33	680 EUR	✓
4000-270	DCX - Dynamic DC Check (beta-version)	QC-Task: measurement of AC/DC displacement with laser; option for SPL Task (QC STANDARD or SPL Task required, DC input modification of Production Analyzer Hardware required)	KA3, PA		3.200 EUR	✓
<b>R&amp;D Software Updates</b>						
1000-006	Update dB-Lab 206 to 210 (per DA2)	project management software update to current version incl. existing modules			1.900 EUR	
1000-010	Update dB-Lab 206 to 210 (per PM8)	project management software update to current version incl. existing modules			900 EUR	
1000-007	Update dB-Lab 202 to 210 (per DA2)	project management software update to current version incl. existing modules			2.900 EUR	
1000-011	Update dB-Lab 202 to 210 (per PM8)	project management software update to current version incl. existing modules			900 EUR	
1000-008	Update dB-Lab 200 to 210 (per DA2)	project management software update to current version incl. existing modules			3.200 EUR	
1000-012	Update dB-Lab 200 to 210 (per PM8)	project management software update to current version incl. existing modules			990 EUR	
1000-009	Update dB-Lab 100 to 210 (per DA2)	project management software update to current version incl. existing modules			3.500 EUR	
1000-013	Update dB-Lab 100 to 210 (per PM8)	project management software update to current version incl. existing modules			1.100 EUR	
<b>QC Software Update</b>						
4002-013	QC Update STANDARD System (V2 to V5)	update from version 2 to version 5			2.300 EUR	✓
4002-014	QC Update STANDARD System (V3 to V5)	update from version 3 to version 5			1.900 EUR	✓
4002-015	QC Update STANDARD System (V4 to V5)	update from version 4 to version 5			1.400 EUR	✓
4002-016	QC Update BASIC System (V2 to V5)	update from version 2 to version 5			1.300 EUR	✓
4002-017	QC Update BASIC System (V3 to V5)	update from version 3 to version 5			1.100 EUR	✓
4002-018	QC Update BASIC System (V4 to V5)	update from version 4 to version 5			800 EUR	✓
4002-012	QC Upgrade BASIC to STANDARD	upgrade QC BASIC to QC STANDARD System			on request	✓
<b>Service</b>						
6001-102	KLIPPEL R&D Support Contract	1 year subscription, incl. software updates + email support by KLIPPEL staff (per unit)			2.100 EUR	
6001-200	KLIPPEL QC Support Contract	1 year subscription, incl. software updates + email support by KLIPPEL staff (per unit)			1.800 EUR	
6000-001	Manufacturer Calibration	KA3, DA, PM8 or PA calibration with formal certificate, recommended every 2 years			490 EUR	
6000-304	PA USBonly Hardware Modification + Calibration	PA modification to USBonly Version incl. Manufacturer Calibration		H4	740 EUR	
6000-301	Production Analyzer Modification - High Sensitivity + Calibration	both speaker channels = High Sensitivity and Manufacturer Calibration		H4	520 EUR	

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6000-302	Production Analyzer Modification - Very High Sensitivity & Calibration	both speaker channels = Very High Sensitivity and Manufacturer Calibration		H4	520 EUR	
6000-309	Production Analyzer Modification 0dB Mic Input Gain	both mic input channels adjusted to 0dB gain		H4	140 EUR	
	Individual Production Analyzer Modification	several configurations (individual channels) are available			on request	
6000-114	Modification PM8 - High Power Version + Calibration	modification of PM8 default to High Power Version and Manufacturer Calibration		H2	590 EUR	
6000-115	Modification PM8 - High Current Version + Calibration	modification of PM8 default to High Current Version and Manufacturer Calibration		H2	590 EUR	
6000-116	Modification PM8 - High Sensitivity Version + Calibration	modification of PM8 default to High Sensitivity Version and Manufacturer Calibration		H2	590 EUR	
6000-117	Modification PM8 - Very High Sensitivity Version + Calibration	modification of PM8 default to Very High Sensitivity Version and Manufacturer Calibration		H2	590 EUR	
	Multiplexer Modification	several configurations are available			on request	
<b>Accessories**</b>						
<b>Speaker Stands</b>						
2211-002	Pro Driver Stand	transducer fixture with laser and microphone positioning (incl. laser calibration spacer)		A5	2.660 EUR	
2211-003	Microspeaker Clamping	micro-speaker fixture with laser fixture and microphone positioning		A10	1.210 EUR	
2211-004	Vacuum Stand	micro-speaker fixture, used in vacuum chamber or on SCN turn table		A10	940 EUR	
<b>Laser</b>						
2103-100	Laser Set LK-H022 (all-purpose)	20mm +/- 3mm, for tweeter, headphones, micro-speaker (incl. Controller LK-G5001P rev.2.0, 5m cable CB-A5)	KA3	A2	7.600 EUR	
2103-200	Laser Set LK-H052 (all-purpose)	50mm +/- 10mm, for woofer, tweeter, micro-speaker (incl. Controller LK-G5001P rev.2.0, 5m cable CB-A5)	KA3	A2	7.600 EUR	
2103-210	Laser Set LK-H052 (for SCN only)	50mm +/- 10mm, dedicated to SCN hardware rev.>=2.0 (incl. Controller LK-G5001P rev.2.0)	KA3 + SCN	A2	7.100 EUR	
2103-300	Laser Set LK-H082 (all-purpose)	80mm +/- 18mm, for woofer, tweeter, compression driver (incl. Controller LK-G5001P rev.2.0, 5m cable CB-A5)	KA3	A2	7.600 EUR	
2103-250	Laser Set LK-H052 (for Production Analyzer), Rev. 2.0	50mm +/- 10mm, for LST (incl. Controller LK-G5001P rev.2.0, 2m cable CB-A2, LEMO-XLR adapter for PA connection)	PA	A2	7.500 EUR	
2130-002	Power Supply Set for DA and Laser Controller LK-G5001P Rev.>=2.0	24Vdc PSU and M8-M12 Laser supply cable for Laser Controllers rev.>=2.0 operated with DA	DA		250 EUR	
2300-001	Translation stage (incl. Micrometer)	incl. Micrometer, Laser Bracket Rev.108, required for laser positioning and calibration of LK-H and LK-G series		A2	720 EUR	
2102-060	Laser Set HL-G112 for DA	+/- 60mm, for large signal only, not for LPM and SPM, with build in Controller, incl. PSU for DA usage	DA	A2	1.370 EUR	
2103-060	Laser Set HL-G112 for KA3	+/- 60mm, for large signal only, not for LPM and SPM, with build in Controller	KA3	A2	1.320 EUR	
2102-041	Laser Set IL-030 for MPM/SPM-Lite for KA3/DA	+/- 12.5mm, for MPM + SPM-Lite only (incl. Controller IL-1000) for KA3/DA2 usage	KA3/DA	C6	1.430 EUR	
2102-042	Laser Set IL-065 for LST with PA	+/- 25mm, for LST only (incl. Controller IL-1000, PSU, LEMO-XLR adapter for PA connection)	PA	C6	1.580 EUR	

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2102-044	Laser Set IL-065 for LST with KA3	+/- 25mm, for LST only (incl. Controller IL-1000)	KA3	C6	1.430 EUR	
<b>Microphones</b>						
2400-009	Mic 255 IEPE 1/2" Set	low noise - high sensitivity RnD & QC standard mic, 50mV/Pa, max. 135dB mic, case, sensitivity chart, mic clip, 2m BNC cable included		A4	990 EUR	
2400-314	Mic 46AE IEPE 1/2" Set	low noise - high sensitivity mic, 50mV/Pa, max. 132dB mic, case, sensitivity chart, mic clip, 2m BNC cable included		A4	1.860 EUR	
2400-312	Mic 40PP IEPE 1/4" Set	QC test & ambient noise mic, 50mV/Pa, max. 129dB mic, case, sensitivity chart, mic clip, 2m BNC cable included		A4	680 EUR	
2400-313	Mic 255.S 48V 1/2" Set	low noise - high sensitivity phantom powered mic, 50mV/Pa, max. 135dB mic, case, sensitivity chart, mic clip, 2m XLR cable included		A4	1.470 EUR	
2400-011	Mic 221 48V 1/2" Set	low noise - high sensitivity phantom powered 200V mic, 50mV/Pa, max. 135dB mic, case, sensitivity chart, mic clip, 2m XLR cable included		A4	2.450 EUR	
2400-006	Mic 202E IEPE 1/2" Set	higher SPL - wider bandwidth RnD & QC mic, 14mV/Pa, max. 143dB mic, case, sensitivity chart, mic clip, 2m BNC cable included		A4	1.840 EUR	
2400-317	Mic 46AM IEPE 1/2" Set	higher SPL - wider bandwidth RnD & QC mic, 14.5mV/Pa, max. 143dB mic, case, sensitivity chart, mic clip, 2m BNC cable included		A4	1.850 EUR	
2400-007	Mic 40PP-S1 IEPE 1/4" Set	QC testing - higher SPL mic, 10mV/Pa, max. 142dB mic, case, sensitivity chart, mic clip, 2m BNC cable included		A4	690 EUR	
2400-005	Mic 40PL IEPE 1/4" Set	QC testing - higher SPL mic, 10mV/Pa, max. 142dB mic, case, sensitivity chart, mic clip, 2m SMB to BNC cable included		A4	770 EUR	
2400-321	Mic 202E.S 48V 1/2" Set	higher SPL - wider bandwidth RnD & QC mic, 14mV/Pa, max. 143dB mic, case, sensitivity chart, mic clip, 2m XLR cable included		A4	2.580 EUR	
2400-322	Mic 202 48V 1/2" Set	higher SPL - wider bandwidth RnD & QC mic, 14mV/Pa, max. 143dB mic, case, sensitivity chart, mic clip, 2m XLR cable included		A4	2.460 EUR	
2400-310	Mic 301E IEPE 1/4" Set	max. SPL - max. bandwidth mic, 5mV/Pa, max. 155dB mic, case, sensitivity chart, mic clip, 3m Microdot to BNC cable included		A4	1.970 EUR	
2400-300	Mic 46BE-S5 IEPE 1/4" Set	max. SPL - max. bandwidth mic, 4mV/Pa, max. 154dB, prepolarized mic, case, sensitivity chart, mic clip, 2m SMB to BNC cable included		A4	2.300 EUR	
2400-323	Mic 301E 48V 1/4" Set	max. SPL - max. bandwidth mic, 5mV/Pa, max. 155dB mic, case, sensitivity chart, mic clip, 2m XLR cable included		A4	2.280 EUR	
2400-324	Mic 301E.S 48V 1/4" Set	max. SPL - max. bandwidth mic, 5mV/Pa, max. 155dB mic, case, sensitivity chart, mic clip, 2m XLR cable included		A4	2.850 EUR	
2400-325	Mic 301 48V 1/4" Set	max. SPL - max. bandwidth mic, 5mV/Pa, max. 155dB mic, case, sensitivity chart, mic clip, 2m XLR cable included		A4	2.760 EUR	
2400-052	Mic Supply Unit; IEPE type, GRAS 12AL set	1-channel, BNC I/Os, battery or 4-6Vdc powered, switchable A-weighting filter, incl.1m BNC cable, BNC-XLR adapter, PSU		A4	780 EUR	
2400-301	Mic Supply Unit; IEPE type, IV11-S set	1-channel, BNC I/Os, 5Vdc powered, switchable gain = 0dB/10 dB, incl. 1m BNC cable, BNC-XLR adapter, PSU		A4	720 EUR	
2400-020	Mic Calibrator; 4000 CL.1, 114dB @ 1kHz Set	Sound Pressure Calibrator for 1", 1/2", 1/4" mics, 114dB at 1kHz, 9V battery supply, case, calibration certificate		A4	1.380 EUR	
2400-023	Mic Calibrator; GRAS 42AG Multifunction Sound Calibrator, Class 1, Set	Sound Pressure Calibrator for 1", 1/2", 1/4" mics, 94 or 114dB at 250Hz or 1kHz, AAA battery supply, case, calibration certificate Not for Mic Sets MI17/MI17HL and MI18/MI18HL		A4	1.590 EUR	
2400-024	Mic Calibrator Adapter 1/4" for GRAS 42AG	Supplement item for GRAS 42AG Multifunction Sound Calibrator, Class 1 Adapter for MI17/MI1HL and MI18/MI18HL			160 EUR	

## KLIPPEL Analyzer System Price-List

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**All prices net, EXW (tax, duty, transportation, support extra)**

Item No.	Product	Explanation	required HW	Spec	Price per Unit	QC-EOL
<b>Amplifier</b>						
2700-001	Amplifier QSC PLX 1802	2 channels 525 W at 4 ohm / bridged 1100 W at 8 ohm			1.300 EUR	
2700-002	Amplifier QSC PLX 2502	2 channels 675 W at 4 ohm / bridged 1400 W at 8 ohm			1.400 EUR	
2700-003	Amplifier QSC PLX 3602	2 channels 1100 W at 4 ohm / bridged 2600 W at 8 ohm			1.800 EUR	
2700-013	Amplifier QSC CX168 Set	8 channels 130 W at 4 ohm / bridged 4 channels 260 W at 8 ohm incl. cable for PM8 connection			2.690 EUR	
2700-008	Amplifier QSC GX 3 230V	2 channels 425 W at 4 ohm (only available as 230V version, not for US)			460 EUR	
2700-009	Amplifier QSC GX 5	2 channels 700 W at 4 ohm			570 EUR	
2700-010	Amplifier QSC GX 7	2 channels 1000 W at 4 ohm			900 EUR	
2700-011	Amplifier Lake People PHONE-AMP F388-S, Set	4-channel headphone amp, min. 16 ohm (490 mW), TRS-SPEAKON cable, XLR-female to 2x XLR-male adapter included			980 EUR	
2700-012	Amplifier Lake People PHONE-AMP F388-D, Set	8-channel headphone ampl, min. 16 ohm (490 mW), 4x TRS-SPEAKON cable, XLR-female to 2x XLR-male adapter included			1.590 EUR	
<b>Vacuum</b>						
2600-010	Vacuum Measurement Kit	recommended for testing micro-speakers, diameter: 28cm, with transparent plate for laser test, vacuum pump included		A7	2.800 EUR	
<b>Multiplexer</b>						
2800-101	Multiplexer BNC	MUX81-42 BNC (Mic version)		A8	1.580 EUR	
2800-102	Multiplexer XLR-IN	MUX81-42-XLR-IN (LINE-IN version, 8 x 1 or 4 x 2)		A8	1.470 EUR	
2800-103	Multiplexer XLR-OUT	MUX81-42-XLR-OUT (LINE-OUT version, 1 x 8 or 2 x 4)		A8	1.470 EUR	
2800-104	Multiplexer Speakon	MUX81-42-SPEAKON (Speaker version)		A8	1.950 EUR	
<b>Simulators</b>						
2400-073	GRAS 44AA Mouth Simulator, according to ITU-T Rec. P51 Set	with built-in power-amplifier, incl. CCITT P51 jig, IEEE 269 jig, 24Vdc power supply, 2m BNC cable, XLR-BNC adapter		A14	2.990 EUR	
2400-077	GRAS 44AB Mouth Simulator, according to ITU-T Rec. P51 Set	without built-in power-amplifier, incl. CCITT P51 jig, IEEE 269 jig, 24Vdc power supply		A14	2.450 EUR	
2400-079	GRAS 45CC-2 Headphone Test Fixture	Two channel (Stereo) Test Fixture for On-Ear (supra-aural) and Over-Ear (circum-aural) Headphones		A14	5.490 EUR	
2400-080	GRAS 45CC-6 Headset Test Fixture Set	Two channel (Stereo) Test Fixture for On-Ear (supra-aural) and Over-Ear (circum-aural) Headsets		A14	8.110 EUR	
2400-071	GRAS 43AC-S1 Ear Simulator Kit according to IEC 60318-4	Single channel (Mono) Ear Simulator Kit for In-Ear Headphones		A14	4.210 EUR	
2400-075	GRAS 43AA-S2 Ear Simulator Kit according to IEC 60318-1 & -2	Single channel (Mono) Ear Simulator Kit for On-Ear (supra-aural) and Over-Ear (circum-aural) Headphones		A14	4.400 EUR	
2400-076	GRAS 43AE-S1 Ear Simulator according to ITU-T Rec. P57 Type 3.2	Single channel (Mono) Ear Simulator Kit for On-Ear (supra-aural) Headphones		A14	4.470 EUR	
2400-078	GRAS 45CA-4 Ear Simulator Kit according to IEC 60318-1	Two channel (Stereo) Ear Simulator for On-Ear (supra-aural) and Over-Ear (circum-aural) Headphones		A14	11.820 EUR	
2400-081	GRAS 45CC-4 Ear Simulator Kit according to IEC 60318-1	Two channel (Stereo) Ear Simulator for On-Ear (supra-aural) and Over-Ear (circum-aural) Headphones		A14	8.250 EUR	
2400-082	GRAS 45CC-8 Ear & Mouth Simulator Kit according to IEC 60318-1 Set	Two channel (Stereo) Ear Simulator for On-Ear (supra-aural) and Over-Ear (circum-aural) Headsets		A14	10.990 EUR	



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Item No.	Product	Explanation	required HW	Spec	Price per Unit	QC-EOL
2400-072	GRAS 43AG-2 Ear & Cheek Simulator Kit with Pinna acc. to IEC 60711-4 & -7	Single channel (Mono) Ear & Cheek Simulator Kit for earphones of various types (1x Large Right Ear incl.)		A14	4.980 EUR	
2400-070	GRAS 45CA-6 Ear & Cheek Simulator Kit with Pinna acc. to IEC 60711-4	Two channel (Stereo) Ear & Cheek Simulator Kit for earphones of various types (1x Large Left Ear incl.)		A14	12.840 EUR	
2400-083	GRAS 45BB-10 KEMAR with Anthropometric Pinna for Ear- and Headphone Test	Two channel (Stereo) Head- & Torso Simulator Kit for earphones of various types		A14	23.820 EUR	
2400-084	GRAS 45BC-10 KEMAR with Mouth Simulator, Anthropometric Pinna for Headset Test, Set	Two channel (Stereo) Head- & Torso Simulator Kit with Mouth Simulator for headset of various types		A14	27.440 EUR	
<b>Various</b>						
2800-400	Prologix GPIB-USB Controller	GPIB-Controller for USB, required for External Devices Module	PA	S31	300 EUR	
2800-001	Temperature + Humidity Sensor (for use with Klippel Production Analyzer)	automatic recording of temperature + humidity	PA	A6	320 EUR	
2800-011	Temperature + Humidity Sensor (for use with Klippel Analyzer 3)	automatic recording of temperature + humidity	KA3	A6	390 EUR	
2800-004	Bar Code Scanner	quick data entry via Barcode/QR-Code		A6	300 EUR	
2800-005	Manual Sweep Controller	intuitive control of frequency and level for the manual sweep		A6	240 EUR	

\* Module price per 1 license, running on 1 hardware unit or 1 USB dongle.

\*\* Prices for accessories from other suppliers (microphones, lasers, amplifiers) are valid only in combination with KLIPPEL R&D or QC System.

Also available on request:

- Various types of microphones from Microtech Gefell and G.R.A.S.
- Several cables

This document is subject to change without notice. Errors and omissions excepted.