


QC version 6

FEATURES	
<ul style="list-style-type: none"> • Temperature / humidity sensor • Bar / QR code scanner • Manual Sweep Controller • 3rd party accessory <p>(For microphones see Spec A4)</p>	


The KLIPPEL QC SYSTEM provides a wide spectrum of accessories, which are optimal for use in manufacturing environments. This includes different microphone sets, I/O devices like a foot switch or a barcode reader, temperature/humidity sensors as well as 3rd party accessories.

All components are tested and selected according to robustness and endurance under daily production conditions.

Article Number: 2800-001, 2800-003, 2800-004, 2800-300

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Temperature and Humidity Sensor		Article Number: 2800-011
Supported from QC6		
Features	<ul style="list-style-type: none"> • Robust for testing at assembly line • USB Interface (USB powered) • No separate driver installation (included in QC installation) • Temperature and Humidity data will be recorded automatically with each measurement • Logged data can be analyzed regarding impact on driver behavior 	
General Data	Calibrated sensor, traceable to national standards Optional available certificate of calibration (DAkKS) Weight: 100g Cable length: 2m	
Data	<p>Temperature</p> <p>Measurement range: -40°C ... 120°C Accuracy typ.: ±0.3 °C at 25°C Resolution: < 0.01 °C Repeatability: ±0.1 °C</p> <hr/> <p>Relative Humidity</p> <p>Measurement range: 0% ... 100% Accuracy: ±3%RH (25% < %RH < 90%) Resolution: <0.03% %RH Nonlinearity: < 1% RH Hysteresis: ±1% full scale Repeatability: ±0.1% RH Long term stability: <1% RH/year</p>	

Bar Code Scanner		Article Number: 2800-004
Features	Robust for testing at assembly line Ergonomic handling Requires no driver installation Data will be automatically recorded with each measurement Logged data can be easily analyzed Comfortable test selection via QC Start	
Data	Decodes all common barcodes and QR codes (<i>"quick response"</i> - 2D barcodes) visible LED Interfaces USB, keyboard, RS-232(C) Dimensions 180 x 66 x 43 mm Weight 180g (without cable) Operation temperature 0°C ... 40°C (32°F ... 104°F) Allowed Humidity 0% ... 95% Please note that the exact specifications may vary. Please contact Klippel to get a manufacturer data sheet of a particular bar code scanner.	
Manual Sweep Controller		Article Number: 2800-005
Features	Intuitive control of the manual sweep Ergonomic handling Toggling between frequency and level control Change speed between very detailed and fast Driver available with QC installation.	
Data	Weight 479 g Height 55 mm	



3rd party Accessories

Please contact Klippel for details. Klippel sells all GRAS products in combination with Klippel products.

Mouth Simulators

- ITU-T recommendation P51
- Jigs available CCIT P51 and IEEE269
- Internal amplifier
- 100 dB at mouth reference point
- Frequency range 100 Hz ... 16 kHz



Artificial Ears

- Headsets and earphone testing
- IEC 60318-1,2 & 4
- ITU-T Rec. P57
- ISO Standards 4869-4 (60711)
- And other standards



Head & Torso Simulators

- KEMAR representing average human
- Meeting standards by ISO, IEC and ANSI
- Testing ear- & headphones
- Headset & Handset
- 100 % backwards compatibility




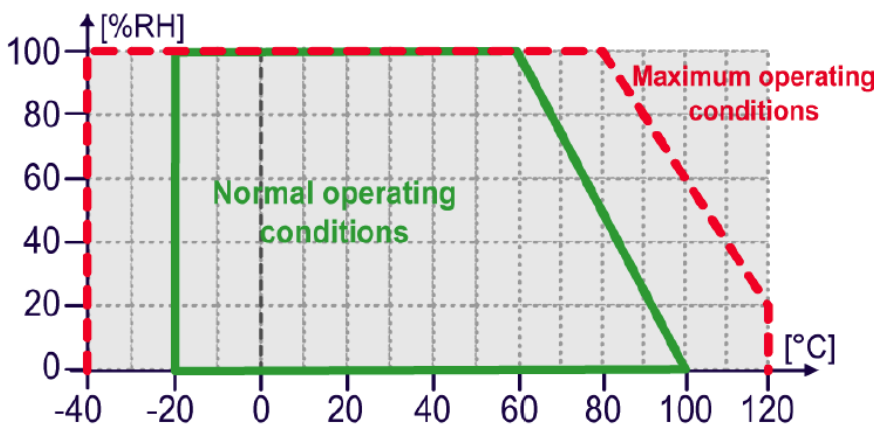
Headphone Test Fixture

- Applicable also to earphones, hearing aids
- Hearing-protection, ear plugs, ear muffs
- Optimizing acoustic isolation
- Minimum noise floor
- Fitted with microphones or ear simulator



Find explanations for symbols at <http://www.klippel.de/know-how/literature.html>

Deprecated Parts

Temperature and Humidity Sensor for PA only		Article Number: 2800-001
(deprecated)		
Features	Robust for testing at assembly line Requires no calibration Is connected directly to the Production Analyzer I/O port Requires no driver installation Temperature and Humidity data will be recorded automatically with each measurement Logged data can be analyzed regarding impact on driver behavior	
Data	Temperature Measurement range -40°C ... 123.8°C Accuracy $\pm 1\text{ }^\circ\text{C}$ (0 °C <math>< T < 40^\circ\text{C}</math>) Resolution <math>< 0.01\text{ }^\circ\text{C}</math>	
	Relative Humidity Measurement range 0% ... 100% Accuracy $\pm 3\%$ RH (20% <math>< \%RH < 80\%</math>) Resolution <math>< 0.5\%</math> RH Long term stability <math>< 0.5\%</math> RH/y	
	Normal and max. Operating Conditions 	

Foot Switch (deprecated)		Article Number: 2800-003
Features	<ul style="list-style-type: none"> Starts test operation Robust for testing at assembly line Secure stand Is connected directly to the Production Analyzer I/O port Requires no driver installation Approvals by BG, CSA, UL 	
Data	<ul style="list-style-type: none"> Voltage 500 VAC Current max. 10 A Mechanical life time 10⁷ switching actions Protection class IP 65 Cable entry 1 x M20 Weight 0.6 kg Size 220 x 70 x 60 mm 	
Comment	<p>The foot switch can be simply assembled using recommended parts. A list of required components from global distributors is available on request.</p>	

IO-Tester / Decoupler (for PA only)		Article Number: 2800-300
Features	<ul style="list-style-type: none"> Complete galvanic Decoupling of <u>all</u> GPIO in- and outputs. Starts test operation Ergonomically handling Checking of GPIO port operation Provides manual setting of all inputs Does not require driver installation 	
Data	<ul style="list-style-type: none"> Size 120 x 85 x 35 mm Weight 0.25 kg 	
Restrictions	<ul style="list-style-type: none"> Max. switching frequency of digital signals: 200Hz (TTL-Level) Voltage max 24 VDC Inputs for Pin 7 (Start) and Pin 19 (Sensor In) are logically inverted due to galvanically decoupling at the peripheral port 	
Comments	<p>A new version for PA and KA3 hardware is planned. Please contact our support for details.</p>	