

# Wiring Test System

## KT 630, KT 631, KT 632

### Compact High Voltage Test Systems

for use in cable manufacturing for medical technology, telecommunication, aviation and automotive industry.

A test system consists of an integrated control PC, measurement electronics and reliable, mature relay test electronics.

The integrated PC system eliminates the need for an external PC to control the measurement electronics.

The measurement electronics consists of a programmable constant-current source for continuity testing and a high-speed high voltage measuring generator with a programmable test voltage.



Two types of test point electronics are available to adapt the systems to the testing application: the MPX (Multiplex) technology or the SP (Single Point) technology.

Connecting the system to existing networks as well as CAD download is easily done.

### The adaptronic Quality

The excellent reliability of adaptronic test systems, our responsive service and the experience of two decades render a convincing contribution to the quality assurance of your products. Our certification under **DIN EN ISO 9001** and **VDA 6.1** is evidence of this claim.

### Full Range of test options

Apart from the standard continuity and insulation tests, resistors, capacitors, diodes and other discrete components can also be tested. Functionality even includes the testing of switches in all switch positions and the optional four wire (Kelvin) measurement.

### Operator Interface

The comfortable operation and a clearly arranged display makes the handling of the system easy and uncomplicated. The operation language can easily be switched between German, English, French, Italian Spanish, Danish, Czech, Polish, Hungarian and Japanese (other languages on request). The integrated PC system allows to connect a PC keyboard and optional a VGA screen.

### Test Management with TMS

The user-friendly Windows® based software package makes it an easy job to create and process test programs.

### Function Extensions

Individual test flows can be programmed with the Test Flow Control option in TMS. Test results can be recorded with the option RDF (Result Data Format) and processed for use in standard software tools such as Excel® or Access®.

# Technical Data KT 630, KT 631, KT 632

## Test points

MPX or SP test electronics

- MPX: Multiplex technology for high testpoint density
- SP: Single Pointtechnology for optimum test speed

Maximum number of testpoints:

Test System	MPX	SP
KT 630	1042	512
KT 631	2048	1024
KT 632	4096	2048

## Testpoint interface

DIN 41612, female connectors

## Low voltage test

- Test voltage: 0.2 - 40 VDC in steps of 0.1 V
- Threshold for continuity test: 1  $\Omega$  - 1 k $\Omega$ ,  $\pm$  2 %, min. 1  $\Omega$
- Threshold for short circuit test: 20 k $\Omega$  - 10 M $\Omega$ ,  $\pm$  2 %  
Option 10 M $\Omega$  - 100 M $\Omega$ ,  $\pm$  10 %

## Component test

- Resistors: 1  $\Omega$  - 10 M $\Omega$ ,  $\pm$  2 %, min. 1  $\Omega$   
Option 10  $\Omega$  - 100 M $\Omega$ ,  $\pm$  10 %
- Capacitors: 10 nF - 20 mF,  $\pm$  5 %  
Option 10 pF - 10 nF,  $\pm$  10 %, min. 5 pF
- Diodes: forward voltage: < 1.0 V  
reverse voltage: max. 40 V
- Zener diodes: forward voltage: < 3.0 V  
zener voltage: max. 35 V
- LEDs: forward voltage: < 4.0 V  
reverse voltage: max. 40 V
- Varistors: varistor voltage: 50 - 500 V  
current: 1 mA

## High current continuity test

- Test voltage: max. 12 VDC
- Test current: 50 mA - 2 A in steps of 10 mA
- Threshold for continuity test: 0.5  $\Omega$  - 1 k $\Omega$ ,  $\pm$  5 %, min. 0.5  $\Omega$
- Four wire measurement (Option):  
5 m $\Omega$  - 5  $\Omega$ ,  $\pm$  5 %, min. 1 m $\Omega$  at  $I \geq 1$  A  
50 m $\Omega$  - 5  $\Omega$ ,  $\pm$  5 %, at  $I \geq 100$  mA

## Insulation test and dielectric strength test DC

- Test voltage: 50 - 1500 VDC in steps of 10 V
- Insulation test: threshold 500 k $\Omega$  - 1000 M $\Omega$ ,  $\pm$  5 %
- Dielectric strength  
Testing times:  
Rise time 0 - 10s in steps of 0,1 s  
Dwell time 0 - 60s in steps of 0,1 s
- Test current: Maximum 2 mA  
(limited by VDE 0411, EN61010)

Fast identification of voltage drops (arc detection).

## Dielectric strength test AC (Option)

- Test voltage: 100 - 1000 VAC, 50/60 Hz
- Testing times:  
Rise time 0,02 - 65 s in steps of 0,02 s  
Dwell time 20 - 65 s in steps of 0,02 s  
Fall time 0 - 65 s in steps of 0,02 s
- Test current: max. 3 mA (limited acc. to VDE 0104)

## Programming

- Self-learning of "golden template" patterns
- Programming with adaptronic test program editor (TMS)
- Prepared for CAD data download

## Operating environment

Operating unit consisting of a high-contrast LC display with 4 x 20 characters and 11 keys

## Special features

- Test point identification via test probe
- Self-diagnosis of measuring and test electronics
- Test point naming, two additional connector formats
- Statistical evaluation of the test results (eg. identification of fault accumulations)
- Storage of test results for subsequent statistical evaluations and for use with repair stations
- Visual inspection of LEDs
- Division of the test sequence into individual stages (segments) also enables switch position tests or segment-specific test parameters

## Interfaces

- 1 parallel interface (Centronics)
- 2 serial interfaces (RS232)
- Keyboard interface
- External Interface
- Ethernet 10BaseT (Option)
- VGA Interface (Option)

## Data storage

- Floppy disk drive 3.5" with 1.44 MB
- FLASH memory disk > 16 MB

## Printing

- Prepared for the connection of a log printer for test results and statistics
- Label printing (Option)

## Environmental conditions

- Temperature range: Operation: + 10° C to + 40° C  
Storage: + 10° C to + 60° C
- Relative humidity: Operation: 30 % - 70 %, non-condensing

## Power supply

90-130 VAC, 180-260 VAC, 50/60 Hz auto-ranging

## Dimensions

KT 630: 505 x 320 x 520 mm (W x H x D)  
KT 631: 505 x 453 x 520 mm (W x H x D)  
KT 632: 505 x 720 x 520 mm (W x H x D)

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Quality Management System  
VDA 6.1  
DIN EN ISO 9001  
Reg.-Nr. 55422