

# FXS501



- automatically performs the 8 most common line leakage tests with 1 single button
- Current measurement from 0.001 to 20 mA (60 mA option)
- power measurement up to 63 A single phase and three phases (option),  $\cos \varphi$  (option), and functional test (option)
- 8 available measurement circuits in order to comply with most of the international standards
- ETHERNET, RS232C, PLC or IEEE488-2 interfaces

The FXS501 line leakage tester (also called leakage current measurement tester) complies with the electrical safety testing requirements according to the VDE, UL, CSA standards and to the main EN European standards involved in the LOW VOLTAGE DIRECTIVE (LVD).

The FXS501 can be coupled to the XS series in order to cover the 4 tests required by the electrical safety testing standards. (dielectric strength test, insulation test and ground bond test). Those 4 electrical safety tests can automatically be performed with 1 single action : "one button check-up".

IEC1010-1, IEC335-1, IEC950, IEC598-1, IEC601-1, IEC204-1, IEC990 standards

## TECHNICAL CHARACTERISTICS

### LINE LEAKAGE TEST FUNCTION

#### External voltage

- 0 to 260V single phase
- 0 to 440V three phases

#### Maximum power (option)

- 63A, 14000 VA in single phase
- 63A, 14000 VA per phase in three phases

#### External frequency

- 50 – 60 Hz

#### Leakage current measurement

- Measured current from 0.005 mA, up to 120 mA depending on the standards
- Accuracy from +/- (2%+5 $\mu$ A) depending on the standards
- Resolution from 0,1  $\mu$ A depending on the standards

#### Voltage measurement

- Measured voltage from 10V to 300V
- Accuracy from +/- (2,5%+0.5V)
- Resolution : 4000 points digital display

#### Measurement circuit

- 2000 $\Omega$  for the most of standards except for EN61010-1 (1000 $\Omega$ )

### AUTOMATIC SWITCHING

- Phase/Neutral reversed
- Neutral open
- Earth/ ground equipment open
- Internal/external voltage

### OPERATING MODE

- With insulation transformer (compulsory according to the standards)

### PROTECTIONS

- Breaker

### OUTPUTS

- Customized single or three phases front plug, depending on the country

### SEQUENCE FUNCTION

- 8 test steps automatically sequenced among: Dielectric strength test, Insulation, Ground continuity, Leakage, Pause, Multiple continuity (when FXS connected to othr XS unit)
- Each test function is linked to a parameter memory number.
- 10 sequence setups storage
- Example of a sequence performing a Ground bond continuity test with parameters stored in memory number 1, followed by an insulation test with parameters stored in memory number 0, followed by a hipot test with parameters stored in memory number 2, followed by a line leakage test with parameters stored in memory number 6, followed by a power measurement test with parameters stored in memory number 3

L1: CONTINUITY 1

L2: MEGOHM 0

L3: HIPOT 2

L4: LEAKAGE 6

L6: POWER 3

SXSPRO software on a PC computer makes possible to perform as many tests as wished

**REMOTE CONTROL SOFTWARE**

**National Instruments Labview Drivers**

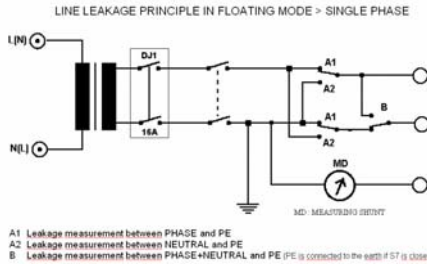
- Software drivers which can be used in a Labview application to remote control the XS series unit through RS232C or IEEE488-2 interface
- Remote control of all the unit functions
- CD-R including install and uninstall files
- Measurement results in Excel format

**Application software**

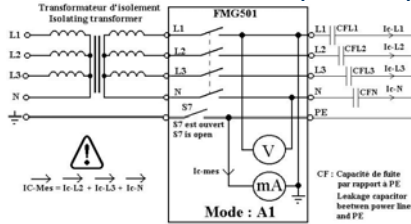
- SXSPRO: powerful software controlling the XS series according to your application (Access & Excel results, bar code management, customized test reports, customized user guidance through the test, user level management, production line oriented features, ...)
- Specific software on request

**DRAWING FOR LEAKAGE CURRENT MEASUREMENT TO GROUND**

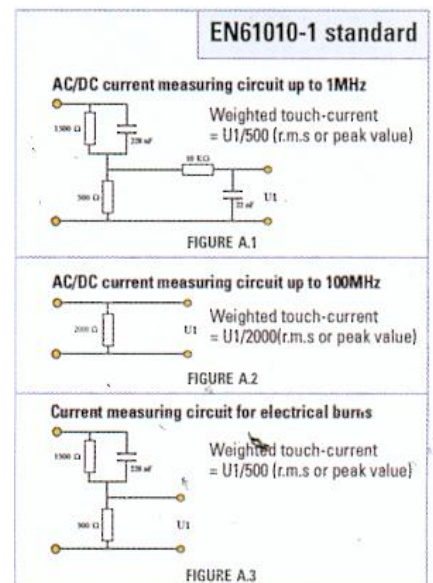
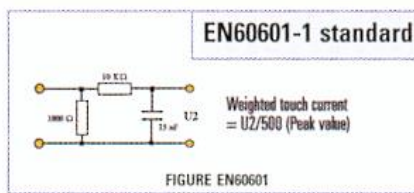
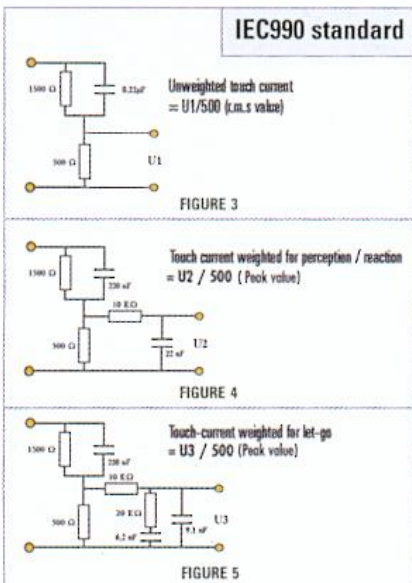
**ON SINGLE PHASE UNIT**



**ON THREE PHASES UNIT (A1 mode)**



STANDARD	APPLICATION FIELD	APPLIED VOLATGE	MEASUREMENT CIRCUIT
EN61010-1	Electrical equipment for measurement, control and laboratory use	Un x 1.10	Figure A.1, A.2, A.3
EN60335-1	Household and similar electrical appliances	Un, or Un x 1.06	Figure 4 of IEC990
EN60950	Information technology equipment	Unominal	Figure 4 of IEC990
EN60598-1	Lighting	Unominal	Figure 4 & 5 of IEC990
EN60065	Mains operated electronic and related apparatus for household and similar general use	Un, Un x 1.06, Un x 1.09	50 kΩ or 2 kΩ
EN60601-1	Medical electrical equipment	Un x 1.10	Figure EN60601-1
IEC990	Technical report (methods of measurement of touch-current and protective conductor earth)	-	IEC990 standard



## GENERAL CHARACTERISTICS

### Presentation

- Table top unit
- Metal case

### Dimensions

- Height: 131 mm
- Width: 440 mm
- Depth: 450 mm

### Weight

- depends on configuration

### Power

- 230V or 115V +/-15% single phase, 47-63 Hz
- Consumption: 70 to 600VA depending on test

### Operating temperature

0°C to +45°C

### Storage temperature

-10°C to +60°C

### Over-voltage category

CATII

### Pollution degree

2

### Safety class

Class I (earth connection)

## OPTIONS

### XS43, XS44, XS45, ...

single phase or three phases  
isolation transformer up to 7000  
VA



### XS42, XS48A, XS41, ...

manual or automatic single  
phase or three phases variac up  
to 7000 VA



### XS53, XS55, XS57, ...

single phase or three phases  
switching up to 7000 VA

### XS52-MONO16, XS52-TRI32, ...

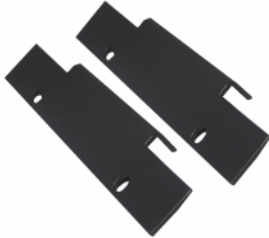
single phase or three phases  
power measurement /  $\cos \phi$  (P+I  
or P+U or P+ $\cos \phi$ ) up to 7000 VA



## OPTIONNAL ACCESSORIES

### KRMG4U

19" rack mount kit



### MG68-CH

Swiss front plug, for single phase leakage and power measurement



### MG68-GB

English front plug, for single phase leakage and power measurement



### MG68-EUR

Schuko european front plug, for single phase leakage and power measurement



### MG68-USA

USA front plug, for single phase leakage and power measurement



## CALIBRATION KITS & DUMMY BOXES

### XS91-LEAK

Calibration box for Leakage current Measurement



### SD1000

Dummy box for Leakage current Measurement



Specifications subject to change without notice

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