

# Surgeflex 16

## Portable cable test and fault location system for medium and low voltage power cables



- **Safe and fast fault location with latest Teleflex SX technology**
- **High surge energy for effective pinpoint locating**
- **Various fault location methods included**

### DESCRIPTION

The Surgeflex unit is a mobile system for testing and fault locating on low and medium voltage cables. The powerful ARM® (Arc Reflection Method) is used to prelocate high resistance faults. Conditioning faults – if necessary – is possible by short-term burning in all voltage levels.

The Teleflex SX is operated by the new touchscreen and the well-proven control knob functionality. The interface is shown on a bright, sharp 10.4" display. The Teleflex SX is specially adapted to deal with the rapidly unfolding events that occur during power cable fault location. The easyGO operation is reduced to the essential steps, most of which run automatically. The new hardware uses improved parameters including sampling frequency, pulse width and impulse amplitude to guarantee larger ranges and the highest resolution.

The high surge energy provides the necessary power to accurately pinpoint cable faults by using the acoustic method. Big wheels make the unit suitable for easy operation in the field. Connecting cables for earthing, mains, and HV are conveniently accessible at the rear of the unit.

### Modes

- Symmetrical / asymmetrical reflection measurement
- Difference measurement / comparison
- ARM® Arc Reflection Methods
- ICE impulse current decoupling methods
- DECAY Travelling wave method
- IFL Intermittent Fault Location

TECHNICAL DATA\*

Teleflex SX		HV module	
Range	20 m ... 160 km @ v/2 = 80 m/μs	Testing	SPG 16
Pulse width	20 ns ... 10 μs		0 ... 24 kV
Pulse amplitude	10 ... 50 V		0 ... 4 kV; 2000 J
Accuracy of the distance measurement	± 0,2 % of the measuring range	Surge	0 ... 8 kV; 2000 J
Resolution	0.1 m @ v/2 80 m/μs, 1.0 cm @ v/2 < 40 m/μs	Burning	0 ... 16 kV; 2000 J
Sample rate	Up to 400 MHz	Surge rate	0 ... 16 kV; 200 mA
Gain	- 37 ... + 37 db	Sheath fault locating	3 ... 10 sec, single pulse
De-attenuation	0 ... + 22 dB for ProRange (adjustable 0 ... 100 %)	IP-grade	0 ... 5 kV, 120 mA
Propagation velocity v/2	10 ... 149,9 m/μs, ft/μs or nvp	Operation temperature	IP 20
Dynamic range	> 80 dB	Weight	- 10 °C ... + 50 °C
Output impedance	50 Ω		approx. 135 kg
Compensation	10 Ω ... 500 Ω, adjustable	Connection cables and supply	
ARM trigger	Automatic adaptation by ΔU Trigger or L↑H edge trigger	Connection cable	6 m HV test leads
ARMslide	15 measurements in one ARM shot	Mains supply	230 V; 50 Hz / 2 kVA
Dead zone	None		Isolation transformer 2 kVA (ca. 26 kg)
Voltage proof input	< 400 V, operation only with separation filter	Dimensions (W x H x D)	(opt. 110 V step-up transformer)
Display	10.4" color TFT XGA 1024x768, touchscreen, 600 cd/m2, LED-Backlight, dimmable		800 x 1280 x 800 mm
Data storage	2 GB mSATA for program and data		
Connectors	Ethernet, USB, BNC, CAN (LON optional)		
Protection class	IP 65 closed, IP 54 open lid		
Supply	110 ... 240 V, 50/60 Hz, 30 VA		
	10 V ... 17 V DC, 3.8 A		
Dimensions (W x H x D)	362 x 195 x 306 mm (option 19", 6 HU)		
Weight	10 kg		
Operation temperature	- 10 °C ... + 50 °C		
Storage temperature	- 20 °C ... + 60 °C		

ORDERING INFORMATION	
Product	Order no.
Surgeflex 16-2000	SFX16P-2000-P-SX-N
consisting of: Surge Unit SPG 16, 4/8/16 kV, 2000 J with ARM & ICE 16 kV, test voltage up to 24kV, 230V AC input, set of cables, trolley, separation transformer 2000VA, TFX SX	
Options:	
digiPHONE+	1003316-S
digiPHONE+ NT Set	1003317-S
ESG NT Set	1004629-S

\* We reserve the right to make technical changes.

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