

## Teleflex<sup>®</sup> VX

### System-reflectometer for fault location systems



- Automatic end and fault detection
- Easiest operation via intuitive menus + touch
- ARM technology
- ProRange for optimised display of distant details
- Automatic storage of all measurements
- Supports all existing prelocation technologies
- Screen keyboard

#### DESCRIPTION

As with all Teleflex reflectometers, the VX is specially designed for the rapid processes of power cable fault location. The new hardware offers significantly improved parameters including sampling rate, pulse width and pulse amplitude, resulting in a wider range, higher resolution and above all, improved measurement.

The  $\Delta U$  Trigger technology always provides the perfect trigger timing. The ARMSlide method records 15 traces in one shot and allows the selection of the best trace, especially for wet and long cables.

The ProRange function allows for range-based gain adjustments, displaying distant reflections with the same amplitude as from short distances.

Data can be easily transferred using the USB interface, either in MeggerBook Cable software format, a PDF or directly to a printer.

The Teleflex VX can also be integrated into a system via the Ethernet, which allows for simple remote control in offshore applications and ROVs.



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#### MEASUREMENT ON HIGH VOLTAGE CABLES:

##### Proper connection of the Teleflex VX to an air insulated High Voltage cable termination

TDR Measurements are still the best measurement methods for fault location common to high voltage cables. To avoid bad results it is necessary to use a proper connection to the cable termination.

To minimize the described impedance change and to establish a secure connection, we recommend a tested HV connection set. The connection set is available with two



#### Teleflex VX supports the following technologies:

- Three-phased reflection measurement (TDR)
- Optimised support of all arc reflection methods by  $\Delta U$  trigger or L $\hat{I}$ H edge trigger
- All ICE – impulse current methods
- IFL – intermittent fault location
- Voltage decay method
- ARM burning
- Integrated insulation and capacity measurement

The Teleflex VX can be integrated in any measuring system with 19" mounting, but is also available as portable stand-alone version. Older systems can be upgraded.

The Linux<sup>®</sup>-based operating system offers outstanding reliability.

#### FUNCTIONS

- Very easy operation by rotary encoder
- Three-phase reflectometer (TDR) for simultaneous colour display of all three phases
- Automatic trace analysis (cable end and fault position indication)
- Large, bright 15" colour display + touch
- High resolution by sampling rate of 400 MHz
- Internal compensation for better fault location at short range
- Large 8 GB memory for data storage
- More than 1.000 measurement records storable
- USB interface for flash drive and printer
- Report generation in \*.pdf format
- Many user languages available
- Easy data export/import in Winkisformat

# Teleflex® VX

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### TECHNICAL DATA\*

Range	20 m ... 1280 km @ v/2 = 80 m/μs
Pulse width	20 ns ... 10 μs
Pulse amplitude	30 ... 160 V
Resolution	0.1 m @ v/2 80 m/μs, 1 cm @ v/2 < 40 m/μs, 20 – 50 m
Accuracy of the distance measurement	± 0,2 % of the measuring range
Sample rate	Up to 400 MHz
Genauigkeit der Entfernungsmessung	± 0,2 % vom Messbereich
Abtastrate	Bis 400 MHz (echte Abtastrate)
Gain	-37 ... + 37 db
De-attenuation	0 ... + 22 dB for ProRange (adjustable 0 ... 100 %)
Propagation velocity v/2	10 ... 149.9 m/μs, ft/μs oder nvp
Dynamic range	>80 dB
Output impedance	50 Ω
Compensation	10 Ω ... 2 kΩ and ∞, adjustable
ARM-Trigger	Automatic adaptation by ΔU trigger or LfH trigger
ARMslide	15 measurements in one ARM shot
Dead zone	None
Voltage proof input	< 400 V (separation filter TF3 recommended) (CAT)
Modes	- Symmetrical/unsymmetrical - Difference/comparison - All ARM arc reflection methods - All ICE impulse current decoupling methods - DECAY travelling wave method - IFL intermittent fault location - Arc reflection burning - PD pinpointing (option)
Display	15" Colour TFT XGA with LED-backlight, 400 cd/m <sup>2</sup>
Data storage	8 GB each for program, 16 GB for data, 8 GB for recovery, 4GB RAM
Connectors	Ethernet, USB, measuring inputs
Supply	100 ... 240 V, 50/60 Hz, 50 VA
Dimensions (W x H x D)	483 x 295 x 200 mm (19", 6 HU)
Weight	5 kg (operation unit)
Operation temperature	-10 °C... +50 °C
Storage temperature	-20 °C... +60 °C

### TELEFLEX VX-P – PORTABLE VERSION

Insulation measurement	1 Ω ... 2 GΩ, max. 500 V, tolerance: ± 3 %
Capacity measurement	0,1 ... 19,9 μF, tolerance: ± 5 %
Connectors	3-ph. Lemosä, 3 x BNC, USB
Protection class	IP 54 open / IP 65 closed
Dimensions (W x H x D)	525 x 445 x 220 mm
Weight	18 kg

### OPTIONS

- Overhead measuring system
- LDE 800 long distance measuring system
- Separate control panel with rotary encoder
- PD pinpointing

ORDERING INFORMATION	
Product	Order no.
Teleflex VX-M (SD)	128313213
Teleflex VX-P Set	128313037
Teleflex VX-PT	1008274
HV connection set 5 m	2004385
HV connection set 12 m	2005067

\* We reserve the right to make technical changes.

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